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JOINT CHINOOK TECHNICAL COMMITTEE
2012 EXPLOITATION RATE ANALYSIS AND MODEL CALIBRATION

REPORT TCCHINOOK (12)-4

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## List of Acronyms with Definitions

| AABM | Aggregate Abundance Based Management | MSF | Mark-Selective Fishery <br> AC |
| :--- | :--- | :--- | :--- |
| Allowable Catch | MSH | Maximum sustainable harvest <br> Maximum Sustainable Yield for a stock, in <br> AI | Abundance Index |

## EXECUTIVE SUMMARY

This report contains the results of the annual exploitation rate assessment of CWT data through 2010 and the preseason Chinook model calibration for 2012 (CLB 1209). Results include the AIs for the AABM fisheries and ISBM indices for each country.

## AABM Abundance Indices and Associated Catches

The pre- and postseason AIs for the three AABM fisheries, SEAK, NBC, and WCVI are presented in Table 1. The Agreement specifies that the AABM fisheries are to be managed through the use of the AIs. Each calibration provides the postseason AIs for the previous year and the preseason AIs for the current year. Preseason AIs are used to set total allowable catch limits in the upcoming fishing season. Subsequently, AIs and associated allowable catches from the first postseason model calibration for a fishing year are used to track catch overages and underages, per PST subparagraph 11(a)(i).

Table 1 Abundance Indices for 1999 to 2012 for the SEAK, NBC, and WCVI AABM fisheries. Postseason values for each year are from the first postseason calibration following the fishing year.

|  | SEAK |  | NBC |  | WCVI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Preseason | Postseason | Preseason | Postseason | Preseason | Postseason |
| 1999 | 1.15 | 1.12 | 1.12 | 0.97 | 0.60 | 0.50 |
| 2000 | 1.14 | 1.10 | 1.00 | 0.95 | 0.54 | 0.47 |
| 2001 | 1.14 | 1.29 | 1.02 | 1.22 | 0.66 | 0.68 |
| 2002 | 1.74 | 1.82 | 1.45 | 1.63 | 0.95 | 0.92 |
| 2003 | 1.79 | 2.17 | 1.48 | 1.90 | 0.85 | 1.10 |
| 2004 | 1.88 | 2.06 | 1.67 | 1.83 | 0.90 | 0.98 |
| 2005 | 2.05 | 1.90 | 1.69 | 1.65 | 0.88 | 0.84 |
| 2006 | 1.69 | 1.73 | 1.53 | 1.50 | 0.75 | 0.68 |
| 2007 | 1.60 | 1.34 | 1.35 | 1.10 | 0.67 | 0.57 |
| 2008 | 1.07 | 1.01 | 0.96 | 0.93 | 0.76 | 0.64 |
| 2009 | 1.33 | 1.20 | 1.10 | 1.07 | 0.72 | 0.61 |
| 2010 | 1.35 | 1.31 | 1.17 | 1.23 | 0.96 | 0.95 |
| 2011 | 1.69 | 1.62 | 1.38 | 1.41 | 1.15 | 0.90 |
| 2012 | 1.52 |  | 1.32 |  | 0.89 |  |

The 2008 Agreement specifies an allowable catch for each AI for each fishery. The maximum allowable treaty catch (total catch minus any hatchery add-on and exclusion catch) by fishery and year and the observed treaty catches are shown in Table 2.

Table 2 Preseason allowable catches for 1999 to 2012, and postseason allowable catches and observed catches for 1999 to 2010, for AABM fisheries. Postseason values for each year are from the first postseason calibration following the fishing year.

PST Treaty Allowable and Observed Catches

| PST Treaty Allowable and Observed Catches |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SEAK (T, N, S) ${ }^{1}$ |  |  | NBC (T, S) |  |  | WCVI (T, S) |  |  |
| Year | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | Observed <br> Catch | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | Observed <br> Catch | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | Observed <br> Catch |
| 1999 | 192,800 | 184,200 | 198,842 | 145,600 | 126,100 | 86,726 | 128,300 | 107,000 | 36,413 |
| 2000 | 189,900 | 178,500 | 186,493 | 130,000 | 123,500 | 31,900 | 115,500 | 86,200 | 101,438 |
| 2001 | 189,900 | 250,300 | 186,919 | 132,600 | 158,900 | 43,500 | 141,200 | 145,500 | 117,670 |
| 2002 | 356,500 | 371,900 | 357,133 | 192,700 | 237,800 | 150,137 | 203,200 | 196,800 | 165,036 |
| 2003 | 366,100 | 439,600 | 379,519 | 197,100 | 277,200 | 191,657 | 181,800 | 268,900 | 175,821 |
| 2004 | 383,500 | 418,300 | $\begin{gathered} 417,019 \\ 421,666^{2} \end{gathered}$ | 243,600 | 267,000 | 241,508 | 192,500 | 209,600 | 216,624 |
| 2005 | 416,400 | 387,400 | 391,999 | 246,600 | 240,700 | 243,606 | 188,200 | 179,700 | 202,662 |
| 2006 | 346,800 | 354,500 | 362,948 | 223,200 | 200,000 | 215,985 | 160,400 | 145,500 | 146,883 |
| 2007 | 329,400 | 259,200 | 329,804 | 178,000 | 143,000 | 144,235 | 143,300 | 121,900 | 139,150 |
| 2008 | 170,000 | 152,900 | 173,382 | 124,800 | 120,900 | 95,647 | 162,600 | 136,900 | 145,726 |
| $2009{ }^{3}$ | 218,800 | 176,000 | 230,647 | 143,000 | 139,100 | 109,470 | 107,800 | 91,300 | 124,617 |
| 2010 | 221,800 | 215,800 | 231,591 | 152,100 | 160,400 | 136,613 | 143,700 | 142,300 | 139,047 |
| 2011 | 294,800 | 283,300 | 290,715 | 182,400 | 186,800 | 122,660 | 196,800 | 134,800 | 204,232 |
| 2012 | 266,800 |  |  | 173,600 |  |  | 133,300 |  |  |

${ }^{\prime}$ Nomenclature is T for troll, N for net, and S for sport.
${ }^{2}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
${ }^{3}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement.

Table 3 shows the differences between the postseason allowable catches and the observed treaty catches in AABM fisheries for 1999-2011, and the cumulative deviation for those years. In 2011, SEAK observed catch was $2.6 \%$ higher than the postseason allowable catch; the NBC observed catch was $34.3 \%$ lower than the postseason allowable catch; and WCVI observed catch was $51.5 \%$ higher than the postseason allowable catch. In SEAK, observed treaty catches have been below final allowable catches for four of the thirteen years; the cumulative deviation is a $1.8 \%$ overage. In NBC, observed catches have been below the final allowable catches in ten of the thirteen years; the cumulative deviation is a $23.8 \%$ underage. In WCVI, observed catches have been below allowable catches in five of the thirteen years; the cumulative deviation is a $2.6 \%$ underage.

Overages and underages in AABM catches, relative to the first postseason calibration for a fishing year (Table), can arise due to the in-season management system, errors in the preseason calibration process (e.g., forecast error), or a combination of the two. The relative influence of each was evaluated by inspecting differences in actual landed catch and allowable catches from both preseason and postseason calibrations (Table 4). In 2011, regarding the in-season management system, the actual landed catch was less than the preseason allowable catch by 4,085 Chinook salmon in SEAK and by 59,740 in NBC. For WCVI, the actual landed catch was 7,432 more than the preseason allowable catch. In terms of the postseason allowable catches for evaluation of the provisions of the PST (subparagraph 11(a)(i)), actual catches exceeded the postseason allowable catches by 7,415 Chinook salmon in SEAK and by 69,140 in WCVI. Actual landed catch in NBC was 64,140 fish less than the postseason allowable catch.

Table 3 Deviations in numbers of Chinook salmon caught and percentages from allowable catches derived from the postseason AI (Table 2) for Pacific Salmon Treaty AABM fisheries in 1999 to 2011. Postseason values for each year are from the first postseason calibration following the fishing year.

| Year | SEAK |  | NBC |  | WCVI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of <br> Fish | Percent <br> Difference | Number of <br> Fish | Percent <br> Difference | Number of <br> Fish | Percent <br> Difference |
| 1999 | 14,642 | $7.9 \%$ | $-39,374$ | $-31.2 \%$ | $-70,587$ | $-66.0 \%$ |
| 2000 | 7,993 | $4.5 \%$ | $-91,600$ | $-74.2 \%$ | 15,238 | $17.7 \%$ |
| 2001 | $-63,381$ | $-25.3 \%$ | $-115,400$ | $-72.6 \%$ | $-27,830$ | $-19.1 \%$ |
| 2002 | $-14,767$ | $-4.0 \%$ | $-87,663$ | $-36.9 \%$ | $-31,764$ | $-16.1 \%$ |
| 2003 | $-60,081$ | $-13.7 \%$ | $-85,543$ | $-30.9 \%$ | $-93,079$ | $-34.6 \%$ |
| 2004 | $-1,281$ | $-0.3 \%$ | $-25,492$ | $-9.5 \%$ | 7,024 | $3.4 \%$ |
| 2005 | 4,599 | $1.2 \%$ | 2,906 | $1.2 \%$ | 22,962 | $12.8 \%$ |
| 2006 | 8,448 | $2.4 \%$ | 15,985 | $8.0 \%$ | 1,383 | $1.0 \%$ |
| 2007 | 70,604 | $27.2 \%$ | 1,235 | $0.9 \%$ | 17,250 | $14.2 \%$ |
| 2008 | 20,482 | $13.4 \%$ | $-25,253$ | $-20.9 \%$ | 8,826 | $6.4 \%$ |
| $2009^{2}$ | 54,647 | $31.0 \%$ | $-29,630$ | $-21.3 \%$ | 33,317 | $36.5 \%$ |
| 2010 | 15,791 | $7.3 \%$ | $-23,787$ | $-14.8 \%$ | $-3,253$ | $-2.3 \%$ |
| 2011 | 7,415 | $2.6 \%$ | $-64,140$ | $-34.3 \%$ | 69,432 | $51.5 \%$ |
| Cum. | 65,110 | $1.8 \%$ | $-567,756$ | $-23.8 \%$ | $-51,081$ | $-2.6 \%$ |

${ }^{1}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
${ }^{2}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement; cumulative deviations span the entire record that is displayed.

Table 4
Deviations in actual landed catch (LC), allowable landed catch determined from preseason model calibration (PreALC), and allowable landed catch determined from postseason model calibration (PostALC) for AABM fisheries from 1999 to 2011. Postseason values for each year are from the first postseason calibration following the fishing year. The difference between LC and PreALC represents the consequences of the management system employed in the year. The difference between PreALC and PostALC represents consequences of the forecast procedures and data used in forecasting the PreALC by the PSC Chinook Model. The difference between LC and PostALC represents the combined effects of both processes.

|  | SEAK |  |  | NBC |  |  | WCVI |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALC- <br> PostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALC- <br> PostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALC- <br> PostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ |
| 1999 | 6,042 | 8,600 | 14,642 | -70,473 | 19,500 | -50,973 | -89,760 | 21,300 | -68,460 |
| 2000 | -3,407 | 11,400 | 7,993 | -97,952 | 6,500 | -91,452 | -26,883 | 29,300 | 2,417 |
| 2001 | -2,981 | -60,400 | -63,381 | -88,849 | -26,300 | -115,149 | -20,896 | -4,300 | -25,196 |
| 2002 | 633 | -15,400 | -14,767 | -42,579 | -45,100 | -87,679 | -45,314 | 6,400 | -38,914 |
| 2003 | 13,419 | -73,500 | -60,081 | -2,938 | -80,100 | -83,038 | -8,239 | -87,100 | -95,339 |
| 2004 | $\begin{aligned} & 33,519 \\ & 38,166 \end{aligned}$ | $\begin{aligned} & -34,800 \\ & -34,800 \end{aligned}$ | $\begin{aligned} & \hline-1,281 \\ & 3,366^{1} \end{aligned}$ | -294 | -23,400 | -23,694 | 22,752 | -17,100 | 5,652 |
| 2005 | -24,401 | 29,000 | 4,599 | -2,994 | 5,900 | 2,906 | 11,279 | 8,500 | 19,779 |
| 2006 | 16,148 | -7,700 | 8,448 | -7,215 | 23,200 | 15,985 | -14,915 | 14,900 | -15 |
| 2007 | 404 | 70,200 | 70,604 | -33,765 | 35,000 | 1,235 | -2,686 | 21,400 | 18,714 |
| $2008^{2}$ | 3,382 | 17,100 | 20,482 | -29,153 | 3,900 | -25,253 | -16,874 | 25,700 | 8,826 |
| 2009 | 11,847 | 42,800 | 54,647 | -34,330 | 4,700 | -29,630 | 16,817 | 16,500 | 33,317 |
| 2010 | 9,791 | 6,000 | 15,791 | -15,487 | -8,300 | -23,787 | -4,653 | 1,400 | -3,253 |
| 2011 | -4,085 | 11,500 | 7,415 | -59,740 | -4,400 | -64,140 | 7,432 | 62,000 | 69,432 |

${ }^{1}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
${ }^{2}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement.

## ISBM Indices

For ISBM fisheries, the 2008 Agreement specifies that Canada and the United States reduce base period exploitation rates on specified stocks by $36.5 \%$ and $40 \%$, equivalent to ISBM indices of $63.5 \%$ and $60 \%$, respectively. This requirement is contained in Chapter 3 section 8(c) of the Agreement and is referred to as the 'general obligation' and does not apply to stock groups that achieve their CTC agreed escapement goals. The Agreement specifies that the ISBM indices be forecasted preseason and evaluated postseason for each escapement indicator stock listed in Attachments I to V of the Chinook Chapter. Postseason ISBM indices were computed for 2010 using CWT data and preseason ISBM indices were computed for 2012 using the Chinook model.

## Postseason ISBM Indices for 2010

Canadian postseason ISBM indices indicated ISBM exploitation rates were reduced more than
required under the Agreement for the 7 stocks for which the indices were computed (Table 5).
Five of the 16 U.S. postseason ISBM indices computed were reduced more than required. The other 11 U.S. postseason ISBM indices exceeded 0.60 , but these stocks met or exceeded their CTC-accepted escapement goals, and thus are exempted from the general obligation (Table 6).

## Preseason ISBM Indices for 2012

Seven of the 19 Canadian preseason ISBM indices, based on outputs from calibration 1209, are predicted to exceed the allowable ISBM index of 0.635 in 2012 (Table 5). Five of these seven stocks are Puget Sound Natural Summer/Fall stocks that do not have CTC-accepted escapement goals.

Of the 23 U.S. ISBM indices calculated from calibration 1209, ten are predicted to exceed the allowable limit of 0.60 for U.S. ISBM fisheries in 2012 (Table 6). All but Grays Harbor, Green River, and Stillaguamish (which has exploitation rate objectives) have CTC agreed escapement goals: Quillayute, Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, all were above their goals in 2011.

Table 5 Canadian 2010 ISBM indices based on 2010 and 2012 PSC Chinook Model, 2012 CWT analysis and the 2012 indices predicted from the 2012 PSC Chinook Model. Footnotes appear on the following page.

| Stock Group | Escapement Indicator Stock | 2010 Model Indices for 2010 | 2012 Model Indices for 2010 | CWT <br> Indices for 2010 | 2012 Model Indices for 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lower Strait of Georgia | Cowichan | $0.203{ }^{8}$ | $0.258{ }^{6}$ | $0.261{ }^{4}$ | $0.443{ }^{6}$ |
|  | Nanaimo |  |  | NA ${ }^{1,5}$ |  |
| Fraser Late | Harrison River ${ }^{2}$ | 0.138 | 0.161 | $0.134{ }^{7}$ | 0.256 |
| North Puget Sound Natural Springs | Nooksack | 0.568 | 0.154 | 0.014 | 0.339 |
|  | Skagit | 0.568 | 0.154 | NA | 0.340 |
| Upper Strait of Georgia | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | 0.122 | 0.109 | 0.182 | 0.596 |
| Fraser Early (spring and summers) | Upper Fraser, Mid Fraser, Thompson | 0.121 | 0.109 | NA | 0.226 |
| West Coast Vancouver Island Falls | WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble) | 0.122 | 0.188 | $0.135^{8}$ | 0.636 |
| Puget Sound Natural Summer/Falls | Skagit | 0.709 | 0.114 | NA | 1.421 |
|  | Stillaguamish | 0.791 | 0.177 | 0.083 | 1.329 |
|  | Snohomish | 0.718 | 0.116 | NA | 1.359 |
|  | Lake Washington | 0.690 | 0.149 | NA | $0.991{ }^{9}$ |
|  | Green River | 0.670 | 0.149 | 0.151 | 1.000 |
| North / Central B. C. | Yakoun, Nass, Skeena, Area 8 | 0.177 | 0.126 | NA | 0.536 |
| Washington Coastal Fall Naturals ${ }^{3}$ | Hoko, Grays Harbor, Queets ${ }^{2}$, Hoh ${ }^{2}$, Quillayute ${ }^{2}$ | 0.134 | 0.101 | NA | 0.357 |
| Columbia River Falls 3 | Upriver Brights ${ }^{2}$ | 0.110 | 0.071 | NA | 0.572 |
|  | Deschutes | 0.110 | 0.071 | NA | 0.572 |
|  | Lewis ${ }^{2}$ | 0.920 | 0.016 | NA | 3.345 |
| Columbia R Summers ${ }^{3}$ | Mid-Columbia Summers ${ }^{2}$ | 0.084 | 0.051 | NA | 0.296 |
| Far North Migrating OR Coastal Falls ${ }^{3}$ | $\begin{aligned} & \text { Nehalem }^{2}, \text { Siletz }^{2}, \\ & \text { Siuslaw }^{2} \end{aligned}$ | NA | 0.021 | NA | 0.540 |

[^0]indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
${ }^{5}$ Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook. Until these problems are resolved, indices for this stock will not be reported.
${ }^{6}$ Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
${ }^{7}$ The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population. ${ }^{8}$ An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. A more extended review of the indices for WCVI Chinook will be carried out to determine whether they adequately represent impacts on the WCVI wild aggregate.
${ }^{9}$ For Canadian ISBM fisheries, Lake Washington and Green the same distribution and index value are assumed.

Table 6 U.S. 2010 ISBM indices based on 2010 and 2012 PSC Chinook Model, 2012 CWT analysis and the 2012 indices predicted from the 2012 PSC Chinook Model. Footnotes appear on the following page.

| Stock Group | Escapement Indicator Stock | 2010 Model Indices for 2010 | 2012 Model <br> Indices for $2010$ | CWT Indices for 2010 | 2012 Model <br> Indices for $2012$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Washington Coastal Fall Naturals | Hoko | 0.130 | 0.424 | NA ${ }^{1}$ | 0.378 |
|  | Grays Harbor | 0.382 | 0.579 | 0.69 | 0.604 |
|  | Queets ${ }^{4}$ | 0.285 | 0.186 | 0.67 | 0.179 |
|  | Hoh ${ }^{4}$ | 0.987 | 0.454 | 1.00 | 0.443 |
|  | Quillayute ${ }^{4}$ | 0.963 | 1.188 | 0.67 | 1.151 |
| Columbia River Falls | Upriver Brights ${ }^{4}$ | 0.801 | 0.782 | 1.75 | 0.894 |
|  | Deschutes ${ }^{4}$ | 1.004 | 0.58 | 0.79 | 0.684 |
|  | Lewis ${ }^{4}$ | 0.505 | 0.353 | 0.43 | 0.442 |
| Puget Sound Natural Summer / Falls | Skagit | 0.261 | 0.177 | NA | 0.327 |
|  | Stillaguamish | 0.117 | 0.056 | 0.38 | 1.054 |
|  | Snohomish | 0.125 | 0.069 | NA | 0.332 |
|  | Lake Washington | 0.517 | 0.295 | NA | 0.590 |
|  | Green R | 0.520 | 0.299 | 0.34 | 0.631 |
| Fraser Late | Harrison River ${ }^{4}$ | 0.209 | 0.587 | 0.47 | 0.448 |
| Columbia R Summers | Mid-Columbia Summers ${ }^{4}$ | 1.142 | 1.711 | 9.81 | 1.369 |
| Far North <br> Migrating OR <br> Coastal Falls | Nehalem ${ }^{4}$ | 0.916 | 1.939 | 1.21 | 1.696 |
|  | Siletz ${ }^{4}$ | 0.698 | 0.64 | 0.50 | 0.814 |
|  | Siuslaw ${ }^{4}$ | 2.028 | 1.304 | 0.77 | 1.646 |
| North Puget Sound Natural Springs | Nooksack | 0.181 | 0.059 | 0.70 | 0.171 |
|  | Skagit | 0.245 | 0.087 | NA | 0.147 |
| Lower Strait of Georgia ${ }^{3}$ | Cowichan, | 0.216 | 0.404 | 4.33 | 0.370 |
|  | Nanaimo |  | NA | NA | NA |
| Upper Strait of Georgia ${ }^{3}$ | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | NC | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ |
| Fraser Early (spring and summers) | Upper Fraser, Mid Fraser, Thompson | 0.111 | 0.268 | NA | 0.228 |
| West Coast Vancouver Island Falls ${ }^{3}$ | WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble) | 0.213 | 0.222 | NA | 0.420 |
| North / Central B. C. ${ }^{3}$ | Yakoun, Nass, Skeena, Area 8 | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ |

${ }^{1}$ Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
${ }^{2} \mathrm{NC}$ means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
${ }^{3}$ Stock group listed in Annex 4, Chapter 3, Attachment IV.
${ }^{4}$ Stock with a CTC agreed escapement goal.

## 1 InTRODUCTION

This report describes the methods and results of the cohort analysis, used to estimate exploitation rates from coded wire tag (CWT) data, and the Pacific Salmon Commission (PSC) Chinook model calibration. The results of the 2012 preseason calibration (CLB 1209) are based on the exploitation rate analysis (ERA) using CWT data through catch year 2009, coast-wide data on catch, spawning escapements and age structure through 2010, and forecasts of Chinook salmon returns expected in 2012. This chapter includes:

1. estimated postseason abundance indices for 1979 through 2010 and the preseason projection for 2012 for the aggregate abundance based management (AABM) fisheries,
2. estimated non-ceiling indices, referred to as the individual stock based management (ISBM) indices in this report, for 1999 to 2010 and modeled ISBM projections for the 2012 ISBM fisheries,
3. estimated stock composition for 1979 through 2011 and a projection for 2012 for the AABM and other fisheries, and
4. estimated fishery indices (harvest rates) for the AABM fisheries.

Appendix A shows the relationship between the exploitation rate indicator stocks, escapement indicator stocks, model stocks, and Pacific Salmon Treaty (PST) Annex stocks. Appendices B to I present additional output from the exploitation rate analysis and model calibration beyond the summaries presented in the main body of the report. Appendix B provides the time series of ISBM CWT indices and ISBM model indices from calibration 1209. Appendix C shows the percent distribution of landed catch and total mortality by catch year for exploitation rate indicator stocks. Appendix D shows CWT survival indices (completed brood years only) for exploitation rate indicator stocks and age 2 or 3 Chinook model (EV) survival indices for corresponding model stocks. Appendix E has the time series of brood year exploitation rates for the CWT indicator stocks. Appendix F shows the model estimates of stock composition in AABM and other sport and troll fisheries. Appendix G lists the incidental mortality rates used in the CTC model. Appendix H gives the time series of total abundance indices (AIs) for the AABM fisheries, and Appendix I provides the AIs for each model stock for each AABM fishery. Appendix J presents the time series of CWT-based fishery exploitation rate indices by stock, age, and fishery. CWT data quality issues and their resolution are detailed in Appendix K.

### 1.1 Methods

The exploitation rate assessment is performed through cohort analysis of CWT release and recovery data (CTC 1988). Cohort analysis is the reconstruction of the cohort at a given age accounting for the exploitation history of a given stock and brood year. This technique is used to produce a variety of statistics, including total exploitation rates, age and fishery specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices (Appendix D), and annual distribution of fishery-related mortalities. Estimates of age and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the CTC Model. The calibration procedure estimates pre-age 2 survival to recruitment for the stocks included in the model.

Results from the annual preseason calibration of the Chinook model are used to calculate: 1) AIs
for the three AABM fisheries; 2) postseason AIs for the previous year; and 3) preseason ISBM indices. Post season ISBM indices are computed through a separate process using the CWT data that comes out of the exploitation rate analysis. Projected AIs for 2012 are used to determine the allowable 2012 catch of Treaty Chinook salmon for AABM fisheries. Postseason AIs are used to appraise the previous (2011) season's allowable catches and to evaluate compliance for AABM fisheries. For the ISBM fisheries, the Agreement specifies that Canada and the United States will reduce the exploitation rate from the $1979-1982$ base period by $36.5 \%$ and $40.0 \%$, respectively, on stocks that do not achieve their Chinook Technical Committee (CTC) agreed escapement goals. The ISBM index is used to estimate annual exploitation rates relative to the base period. Postseason ISBM indices for 2010 are computed using results of the exploitation rate analysis (2011 will be available next year). Forecasts of the 2012 ISBM indices are computed using the PSC Chinook model. The Agreement specifies that the postseason ISBM indices estimated through exploitation rate analysis of CWT recoveries will be used to assess the ISBM index performance postseason, however the postseason indices are computed on a 2 year-lag because some data are reported two years later.

## 2 Exploitation Rate Assessment (Through Catch year 2011)

The exploitation rate assessment is performed through cohort analysis, a procedure that reconstructs the exploitation history of a given stock and brood year using CWT release and recovery data (CTC 1988). The procedure produces a variety of statistics, including total exploitation rates, age- and fishery-specific exploitation rates, maturation rates, pre-age 2 recruitment survival indices, and annual distribution of fishery-related mortalities. Estimates of age- and fishery-specific exploitation and maturation rates from the cohort analysis are combined with data on catches, escapements, non-retention, and enhancement to complete the annual calibration of the PSC Chinook model.

The CTC currently monitors 42 CWT-tagged exploitation rate indicator stocks (Table 2-1); tagging has been discontinued for some stocks while new stocks have been added. An exploitation rate indicator stock is not used in the ERA if: $i$ ) the number of CWT recoveries is limited (minimum of 10 estimated recoveries for a given stock and age combination), $i i$ ) there is no quantitative estimate of tags in the spawning escapement, or iii) less than 4 brood years with CWT recoveries (see footnotes in Table 2-2). The indicator stocks used for exploitation rate analysis and the type of analysis performed are shown in Table 2-2. The relationships between the exploitation rate indicator stocks, model stocks, and PST Annex stocks are shown in Appendix A. Extrapolation of results to similar stocks and/or generalizations about fishery impacts on those stocks will only be appropriate to the extent that an exploitation rate indicator stock accurately represents such stocks.

### 2.1 Brood Year Exploitation Rates (Appendix E)

Brood year exploitation rates provide the best measure of the cumulative impact of fisheries upon all age classes of a stock. The rates are computed as the ratio of adult equivalents (AEQ) total fishing mortality to AEQ total fishing mortality plus escapement. The AEQ factor represents the proportion of fish of a given age that would, in the absence of fishing, subsequently leave the ocean to return to the terminal area on the spawning migration. The numerator of the brood year exploitation rate may be partitioned into components for AEQ reported catch and AEQ incidental mortality, with each component occurring in either ocean fisheries or freshwater fisheries.

The exploitation rate on an indicator stock may differ from the exploitation rate on the wild stock it represents if the indicator stock is of hatchery origin and subject to terminal fisheries directed at harvesting surplus hatchery production. In the case of the brood year exploitation rate, this difference was addressed by computing a rate for ocean fisheries and a total for all fisheries. Ocean fisheries were defined to include marine sport and troll fisheries and CWT recoveries of ocean age 2 and age 3 fish in all non-terminal net fisheries. By partitioning the fisheries in way, a more appropriate measure of brood year exploitation rate on wild stocks was developed. The method selected for each exploitation rate indicator stock is given in
Table 2-2. If broods are incomplete, but have data through age 4 (age 5 for spring stocks), then average maturation rates are applied to predict the completed brood value.

Table 2-1. CWT exploitation rate indicator stocks, their location, run type, and smolt age.

| Stock/Area | Exploitation Rate Indicator Stocks | Hatchery | Run Type | Smolt Age |
| :--- | :--- | :--- | :--- | :--- |
| Southeast Alaska | Alaska Spring | Crystal Lake, Whitman <br> Lake, Little Port Walter, <br> Deer Mountain, Neets Bay | Spring | Age 1 |
| North/Central BC | Kitsumkalum <br> Atnarko | Deep Creek <br> Snootli | Summer <br> Summer | Age 1 |
| Age 0 |  |  |  |  |

${ }^{1}$ DIT tags associated with this stock; ${ }^{2}$ No longer adipose fin clipped; ${ }^{3}$ Model base period tag groups are fingerlings, ERA tag groups are a combination of fingerlings and yearlings; ${ }^{4}$ Subyearlings have been CWT-tagged since brood year 1986, except for brood years 1993 through 1997; *2012 is the first reporting for this indicator stock, see Appendix K for an associated narrative.

Table 2-2. The 42 CWT exploitation rate indicator stocks used in the exploitation rate analysis and the data derived from them: fishery, ISBM and survival indices, brood exploitation rates (BER), and stock catch distribution (Dist) with quantitative escapement estimates (Esc) and tagging during base years 1979-82.

| Exploitation Rate Indicator Stocks | Fishery Index | ISBM <br> Index | BER ${ }^{1}$ | Survival Index | Dist | Esc | Base <br> Tagging |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alaska Spring | Yes | - | Total | Yes | Yes | Yes | Yes |
| Kitsumkalum | - | - | Total | Yes | Yes | Yes | - |
| Atnarko* | Yes | No | Total | Yes | Yes | Yes | Yes |
| Robertson Creek | Yes | Yes | Ocean ${ }^{1}$ | Yes | Yes | Yes | Yes |
| Quinsam | Yes | Yes | Total | Yes | Yes | Yes | Yes |
| Puntledge | Yes | - | Total | Yes | Yes | Yes | Yes |
| Big Qualicum | Yes | Yes | Total | Yes | Yes | Yes | Yes |
| Nanaimo | - | Yes | Total | Yes | Yes | Yes | Yes |
| Dome | - | - | Total | Yes | Yes | Yes | - |
| Lower Shuswap | - | - | Total | Yes | Yes | Yes | Yes |
| Nicola | - | - | Total | Yes | Yes | Yes | - |
| Cowichan | Yes | Yes | Total | Yes | Yes | Yes | - |
| Chilliwack (Harrison Fall Stock) | - | Yes | Total | Yes | Yes | Yes | - |
| Harrison | - | - | Total | Yes | Yes | Yes | - |
| Nooksack Spring Fingerling | - | - | 4 | - | Yes | Yes | - |
| Nooksack Spring Yearling | - | Yes | 4 | Yes | Yes | Yes ${ }^{3}$ | - |
| Skagit Spring Fingerling | - | - | Ocean | - | Yes | Yes | - |
| Skagit Spring Yearling | - | - | Ocean | Yes | Yes | Yes ${ }^{3}$ | - |
| Samish Fall Fingerling | Yes | - | Ocean | Yes | Yes | Yes ${ }^{3}$ | Yes |
| Skagit Summer Fingerling | - | - | Ocean | - | Yes | Yes | - |
| Stillaguamish Summer Fingerling | - | Yes | 4 | - | Yes | - | - |
| Nisqually Fall Fingerling | - | - | 4 | - | Yes | - | Yes |
| University of Washington |  |  |  |  |  |  |  |
| Accelerated | Yes | 2 | 2 | - | Yes | Yes ${ }^{3}$ | Yes |
| George Adams Fall Fingerling | Yes | 2 | 2 | Yes | Yes | Yes ${ }^{3}$ | Yes |
| South Puget Sound Fall Fingerling | Yes | Yes | Ocean | Yes | Yes | Yes ${ }^{3}$ | Yes |
| South Puget Sound Fall Yearling | Yes | 2 | 2 | Yes | Yes | Yes ${ }^{3}$ | Yes |
| Squaxin Pens Fall Yearling | - | 2 | 2 | Yes | Yes | Yes ${ }^{3}$ | - |
| White River Spring Yearling | - | - | 4 | Yes | Yes | Yes ${ }^{3}$ | Yes |
| Elwha Fall Fingerling | - | - | 4 | Yes | Yes | - | - |
| Hoko Fall Fingerling | - | - | Ocean | Yes | Yes | Yes | - |
| Sooes Fall Fingerling | - | - | Ocean | Yes | Yes | Yes | - |
| Queets Fall Fingerling | - | Yes | 4 | Yes | Yes | - | Yes |
| Willamette Spring | Yes | - | Ocean | Yes | Yes | Yes | Yes |
| Columbia Summers | Yes | Yes | Total | Yes | Yes | Yes | - |
| Cowlitz Tule | Yes | - | Ocean | Yes | Yes | Yes | Yes |
| Spring Creek Tule | Yes | - | 2 | Yes | Yes | Yes | - |
| Columbia Lower River Hatchery | Yes | - | 2 | Yes | Yes | Yes | Yes |
| Upriver Bright | Yes | Yes | Total | Yes | Yes | Yes | Yes |
| Hanford Wild | - | - | Total | Yes | Yes | Yes | - |
| Lyons Ferry | - | - | Total | Yes | Yes | Yes | - |
| Lewis River Wild | Yes | Yes | Total | Yes | Yes | Yes | Yes |
| Salmon River | Yes | Yes | Ocean | Yes | Yes | Yes | Yes |

${ }^{1}$ For stocks of hatchery origin and subject to terminal fisheries directed at harvesting surplus hatchery production, ocean fisheries do not include terminal net fisheries. Otherwise, total fishery includes terminal net fisheries.
${ }^{2}$ Hatchery stock not used to represent naturally spawning stock. ${ }^{3}$ Only hatchery rack recoveries are included in escapement. ${ }^{4}$ Insufficient escapement data for exploitation rate analysis.
*This report is the first in which exploitation patterns for this new indicator stock are provided (see Appendix K).

The brood year exploitation rate (BYEXP) is calculated as:

$$
\text { BYEXP }_{B Y, F}=\frac{\sum_{a=\text { Minage }}^{\text {Maxage }}\left(\sum_{f \in\{F\}} \text { TotMorts }_{B Y, a, f} * A E Q_{B Y, a, f}\right)}{\sum_{a=\text { Minage }}^{\text {Maxage }}\left(\sum_{f=1}^{\text {Numfisheress }} \text { TotMorts }_{B Y, a, f} * A E Q_{B Y, a, f}+E s c_{B Y, a}\right)}
$$

Equation 2.1
The AEQ rate is calculated as:

$$
\begin{aligned}
& A E Q_{B Y, a-1, f}=\text { MatRte }_{a-1, B Y}+\left(1-\text { MatRte }_{a-1, B Y}\right) * \text { Surv }_{a} * A E Q_{B Y, a, f} \\
& A E Q_{B Y, M a x a g e, f} \equiv 1.0
\end{aligned}
$$

Equation 2.2
See Table 2-3 for a description of notation.

### 2.2 Brood Year Survival Rates and Indices (Appendix D)

The brood year survival of CWT-tagged smolts after release is calculated for most exploitation rate indicator stocks (Table 2-2). This survival rate is frequently referred to as the marine survival of the tag group but also includes any mortality occurring in freshwater following release. Interpretation of this survival rate is stock specific. Two measures of survival indices or patterns are computed: survival to the age 2 cohort based on CWT recoveries, and the "environmental variable" (EV) determined from the calibration of the PSC Chinook model (described in the following section). The CWT-based estimate is our most direct measure of a brood's survival, but this measure is finalized until the brood is complete (i.e., all ages have returned to spawn) and preliminary estimates are generated for incomplete brood using available CWT data and average maturation rates. The model EV parameter, however, provides a more current measure of the survival rates expected in brood years contributing to present and future fisheries.

For CWT data, the brood year survival rate for a subyearling stock is the estimated age 2 cohort (from the cohort analysis) divided by the number of CWT fish released, whereas for yearling stocks, the survival rate is calculated for the estimated age 3 cohort.

$$
{\text { Age } 2 \text { CohSurv }_{B Y}}=\frac{\text { Cohort }_{B Y, 2}}{\text { TotCWTRelease }_{B Y}}
$$

where CohortBY, 2 is calculated recursively from the oldest age down to age- 2 using:

$$
\text { Cohort }_{B Y, a}=\frac{\sum_{f=1}^{\text {Numpisheriss }_{\text {TotMorts }}^{B Y, a, f}}+E c_{B Y, a}+\text { Cohort }_{B Y, a+1}}{1-N M_{a}}
$$

Equation 2.4

Table 2-3. Parameter definitions for all equations except those used for the SPFI.

| Parameter | Description |
| :---: | :---: |
| $a=$ | age class |
| $A=$ | set of all ages that meet selection criteria |
| $A E Q_{B Y, a, f}=$ | adult equivalent factor in brood year $B Y$, age $a$, and fishery $f$ (for terminal fisheries, $\mathrm{AEQ}=$ 1.0 for all ages) |
| Age2CohSurv $_{B Y}=$ | cohort survival of CWT fish to age 2 (pre-fishery) for brood year BY |
| AvgMatRte ${ }_{\text {a }}=$ | average maturation rate for age $a$ |
| BPER = | base period years (1979 through 1982) |
| $B^{\text {PYEXP }}{ }_{B Y, f} F=$ | brood year exploitation rate in adult equivalent for brood year $B Y$ and fishery $F$ |
| BPISBMER $_{f, a}=$ | average base period ISBM exploitation rate for fishery $f$ and age $a$ |
| $B Y=$ | brood year |
| Cohort $_{B Y, a}=$ | cohort by brood year $B Y$ and age $a$ (where stock is implied from context) |
| Cohort $_{s, B Y, a}=$ | cohort by stock $s$, brood year $B Y$ and age $a$ (where stocks are defined explicitly in a summation) |
| $C Y=$ | calendar year |
| CYDist $_{C Y, F}=$ | proportion of total stock mortality (or escapement) in a calendar year $C Y$ attributable to a fishery or a set of fisheries $F$ |
| $C Y_{\text {end }}=$ | end year for average |
| $C Y_{\text {start }}=$ | start year for average |
| $d_{t, s, a}=$ | distribution parameter for timestep $t$, stock $s$, and age $a$ |
| $E s c_{Y, a}=$ | escapement past all fisheries for either brood year $B Y$ or calendar year $C Y$ and age a |
| $E R_{s, a, t, C Y}=$ | exploitation rate (based on total mortality) at age $a$ divided by cohort size at age $a$ for stock $s$ in fishery $f$ in year $C Y$ |
| $E V_{n, B Y}=$ | the stock productivity scalar for iteration $n$ and brood year $B Y$ |
| $f=$ | a single fishery |
| $f \in\{F\}=$ | a fishery $f$ within the set of fisheries of interest |
| $F=$ | ocean, terminal or other sets of fisheries or spawning escapements |
| $F I_{f, C Y}=$ | fishery exploitation rate index for fishery $f$ in year $C Y$ |
| $F P_{\text {a.s.CY, }}$ | ratio of $E R_{s, a, f, C Y}$ to BPISBMER |
| ISBMIdxCY = | ISBM index for calendar year $C Y$ |
| MatRte $_{\text {a-l,BY}}=$ | maturity rate at next younger age by brood year |
| Maxage = | maximum age of stock (generally age 6 for stream type stocks, age 5 for ocean type stocks) |
| Minage $=$ | minimum age of stock (generally age 3 for stream type stocks, age 2 for ocean type stocks) |
| Morts $_{C Y, a, f}=$ | landed or total fishing mortality in year $C Y$ and age $a$ in fishery $f$ |
| $N M a=$ | annual natural mortality prior to fishing on age $a$ cohort |
| Numfisheries $=$ | total number of fisheries |
| $R T_{C Y}=$ | ratio of the catch quota in the current year to the catch that would be predicted given current abundance, current size limits, and base period exploitation rates a particular stock |
| $S=$ | set of all stocks that meet selection criteria |
| $S C_{B Y}=$ | ratio of the estimated and model predicted terminal run for brood year $B Y$ |
| Surv $_{a}=$ | survival rate ( $1-N M_{a}$ ) by age |
| TotMorts ${ }_{B Y, a, f}=$ | total fishing related mortality for brood year $B Y$ or calendar year $C Y$ or during the base period BPER and age $a$ in fishery $f$ |
| TotCWTRelease ${ }_{B Y}=$ | number of CWT fish released in the indicator group in brood year $B Y$ |

If ocean age-5 tags are absent, the age-4 cohort size is estimated using the following formula:

$$
\text { Cohort }_{B Y, 4}=\frac{\sum_{f \in \text { Preceeminad } \text { TorMorts }_{B Y, 4, f}+}+\frac{\text { Esc }_{B Y, 4}+\sum_{f \in \text { ereminal }}^{\text {TotMorts }_{B Y, 4, f}}}{\text { AvgMatRte }_{4}}}{1-\mathrm{NM}_{4}}
$$

Equation 2.5
For each stock, equation 2.3 is then converted into a survival index for a given brood year by dividing the age 2 survival rate for the brood year by the average survival rate for all brood years.

### 2.3 Stock Distribution Patterns (Appendix C)

Brood year exploitation rates can indicate the fisheries that exploit a stock and the rates that occur on a specific brood, but they do not indicate the exploitation pattern on a stock during one catch year (across broods). To gain insight on impacts within a fishing year, stock mortality distributions (reported catch or total) are calculated over all ages in the fisheries in a catch year (if at least three brood years contribute to recoveries) as follows:

$$
\text { CYDist }_{C Y, F}=\frac{\sum_{a=\text { Minagef } \in\{F\}}^{\text {Maxage }} \operatorname{Morts}_{C Y, a, f} * A E Q_{B Y=C Y-a, a, f}}{\sum_{a=\text { Minaged }}^{\text {Maxage }}\left(\sum_{f=1}^{\text {Numptsheris }} \operatorname{Morts}_{C Y, a, f} * A E Q_{B Y=C Y-a, a, f}+E s c_{C Y, a}\right)}
$$

Equation 2.6
It should be noted that mortality distributions may not indicate the relative distribution of an indicator stock. For example, closure of a fishery would result in no reported catch but this would not necessarily indicate zero abundance of the stock in that fishing area.

### 2.4 Fishery Indices (Appendix J)

When the Pacific Salmon Treaty was negotiated in 1985, catch ceilings and increases in stock abundance were expected to reduce harvest rates in fisheries. The fishery index (FI) provided a means to assess performance against this expectation. Relative to the base period, an index less than 1.0 represents a decrease from base period harvest rates while an index greater than 1.0 represents an increase. While the determination of allowable catch for AABM fisheries in the 1999 Agreement is different from the original PST catch ceilings, these fishery indices continue to provide a useful index of change in harvest rates in these fisheries. Fishery indices are used to measure relative changes in fishery harvest rates because it is not possible to directly estimate the fishery harvest rates.

Fishery indices are computed in AEQs for both reported catch and total mortality (reported catch plus estimated incidental mortality). The total mortality index provides a consistent means of representing changes in reported catch and incidental mortality, including those associated with regulatory measures such as minimum size limits and CNR periods. The AEQ exploitation rate (ER) is estimated by:

$$
E R_{s, a, f, C Y}=\frac{\text { TotMorts }_{s, a, f, C Y} * A E Q_{s, B Y=C Y-a, a, f}}{\text { Cohort }_{s, B Y=C Y-a, a} *\left(1-N M_{a}\right)}
$$

and a ratio of means ( ROM ) estimator is used to calculate the fishery index ( FI ):

$$
F I_{f, C Y}=\frac{\sum_{s \in\{S\{, a \in\{A\}} E R_{s, a, f, C Y}}{\left(\frac{\sum_{B P E R=79}^{82} \sum_{s \in\{\{ \}} \sum_{a \in\{A\}} E R_{s, a, f, B P E R}}{4}\right)}
$$

Equation 2.8
For AABM fisheries, indices are presented for troll gear only, although the catch limitations also apply to recreational fisheries and net fisheries in SEAK and the recreational fisheries in NBC and WCVI. As in past years, recoveries from the troll fishery were used because the majority of the catch and the most reliable CWT sampling occur in these fisheries. In addition, there are data limitations in the base period for the sport fisheries (e.g., few observed recoveries in NBC due to small fishery size). Because the allocation of the catch among gear types has changed in some fisheries (e.g., the proportion of the catch harvested by the sport fishery has increased in all AABM fisheries), the indices may not represent the harvest impact of all gear types.

The CTC uses fishery indices to reflect changes in fishery impacts relative to the base period (fishery years 1979-1982). The ROM estimator of the fishery index limits inclusion of stocks to those with adequate tagging during the base period, but fishing patterns for some fisheries have changed substantially since then and the University of Washington Accelerated stock is no longer tagged. One example of a change in the fishing pattern is for the SEAK troll fishery where the catch during the winter season has increased, the spring fishery has been largely curtailed, and the summer season has become markedly shorter. Because stock complexes are dynamic throughout the year, stock specific impacts of the SEAK fishery have likely changed over time. To incorporate changes in stock composition and to include stocks without base period data, the CTC examined alternative derivations of fishery indices (CTC 1996).

The CTC determined that a useful fishery index should reflect both changes in harvest rates and stock distribution. Three general, desirable characteristics were identified:

1. the index should measure changes in fishery harvest rates if the distribution of stocks is unchanged from the base period;
2. the index should have an expected value of 1.0 for random variation around the base period fishery harvest rate, cohort size, and stock distributions; and
3. the index should weight changes in stock distribution by abundance.

After exploring several alternatives, the CTC concluded that the best estimate for a fishery index would consist of the product of a fishery harvest rate index and an index of stock abundance
weighted by average distribution (i.e., the proportion of a cohort vulnerable to the fishery). To that effect a report by the CTC (2009a) stated that for all AABM fisheries the stratified proportional harvest rate index (SPFI) was the most accurate and precise in estimating the harvest rate occurring in a fishery. This assessment supported the application of the SPFI adjusted for untagged stocks as presented by Alaska Department of Fish and Game (ADF\&G), and is also developed for WCVI and NBC AABM fisheries.

For computation of the SPFI, the CWT harvest rate $\left(h_{t, C Y}\right)$ must initially be set to an arbitrary value between 0 and 1. Then, the distribution parameter $\left(d_{t, s, a}\right)$ is calculated (Equation 2.9), and the result is substituted into Equation 2.10 below to recursively recalculate $h_{t, C Y}$ and subsequently $d_{t, s, a}$. The largest stock-age distribution parameter in a stratum is then set to 1 to create a unique solution. See Table 2-4 for notation description.

$$
\begin{gather*}
d_{t, s, a}=\sum_{C Y} r_{t, C Y, s, a} / \sum_{C Y}\left(h_{t, C Y} * n_{C Y, s, a}\right)  \tag{Equation 2.9}\\
h_{t, C Y}=\sum_{s} \sum_{a} r_{t, C Y, s, a} / \sum_{s} \sum_{a}\left(d_{t, s, a} * n_{C Y, s, a}\right)
\end{gather*}
$$

Equation 2.10
The resulting unique solution is inserted into the following equations to compute the yearly harvest rates for each strata and the overall fishery:

$$
\begin{gathered}
H_{t, C Y}=\left[\left(\frac{\sum_{s} \sum_{a} c_{t, C Y, s, a}}{\sum_{s} \sum_{a} r_{t, C Y, s, a}}\right) *\left(C_{t, C Y}-A_{t, C Y}\right)\right] /\left[\left(C_{t, C Y}-A_{t, C Y}\right) / h_{t, C Y}\right] \\
H_{. C Y}=\sum_{t}\left[\left(\frac{\sum_{s} \sum_{a} c_{t, C Y, s, a}}{\sum_{s} \sum_{a} r_{t, C Y, s, a}}\right) *\left(C_{t, C Y}-A_{t, C Y}\right)\right] / \sum_{t}\left[\left(C_{t, C Y}-A_{t, C Y}\right) / h_{t, C Y}\right] \\
S_{t, C Y}=H_{t, C Y} / \sum_{C Y=1979}^{1982} H_{t, C Y} \\
S_{. C Y}=H_{. C Y} / \sum_{C Y=1979}^{1982} H_{. C Y}
\end{gathered}
$$

Equation 2.11

Equation 2.12

Equation 2.13

Equation 2.14

Table 2-4. Parameter descriptions for equations used for the SPFI.

| Parameter | Description |
| :--- | :--- |
| $A_{t, C Y}=$ | Alaska hatchery origin catch by strata $t$, year $C Y$ |
| $c_{t, C Y, s}=$ | adult equivalent CWT catch by strata $t$, year $C Y$, stock $s$ and age $a$ |
| $C_{t, C Y}=$ | catch by strata $t$, year $C Y$ |
| $d_{t, s, a}=$ | distribution parameter by strata $t$, stock $s$ and age $a$ |
| $h_{t, C Y}=$ | CWT harvest rate by strata $t$, year $C Y$ |
| $H_{C Y}=$ | harvest rate by year $C Y$ |
| $H_{t, C Y}=$ | harvest rate by strata $t$, year $C Y$ |
| $n_{C Y, s, a}=$ | CWT cohort size by year $C Y$, stock $s$ and age $a$ |
| $r_{t, C Y, s, a}=$ | CWT recoveries by strata $t$, year $C Y$, stock $s$ and age $a$ |
| $S_{C Y}=$ | SPFI by year $C Y$ |
| $S_{t, C Y}=$ | SPFI by strata $t$, year $C Y$ |

### 2.5 ISBM Indices

The CTC (1996) proposed a non-ceiling fishery index as a measure of the pass-through provision in the 1985 PST. This index compares an 'expected' AEQ mortality (assuming base period exploitation rates and current stock abundance) with the observed AEQ mortality on a stock within a calendar year, over all non-AABM fisheries of a party (Table 2-5). Index values less than 1.0 indicate that the exploitation rates have decreased relative to the base period. Paragraph 8(d), Chapter 3 of the 2008 PSC Agreement directs the CTC to use these ISBM indices to measure the performance of ISBM fisheries:
"(d) unless otherwise recommended by the CTC and approved by the Commission, the nonceiling index defined in CTC (2005) where data are available for the required time periods, the average total annual adult equivalent mortality rate that occurred in 1991 to 1996, or an alternative metric recommended by the CTC and approved by the Commission will be used to monitor performance of ISBM fisheries relative to the obligations set forth in this paragraph;"

Table 2-5. Fisheries included in the ISBM index by nation.

| Fisheries Included in ISBM Index |  |
| :--- | :--- |
| United States | Canada |
| Washington/Oregon Ocean Troll | Central BC Troll |
| Puget Sound Northern Net | Strait of Georgia Troll |
| Puget Sound Southern Net | North BC Net |
| Washington Coastal Net | Central BC Net |
| Freshwater Terminal Net | West Coast Vancouver Island Net |
| Washington/Oregon Ocean Sport | Strait of Juan de Fuca Net |
| Puget Sound Northern Sport | Johnstone Strait Net |
| Puget Sound Southern Sport | Fraser Net |
| Freshwater Terminal Sport | Freshwater BC Net |
|  | Strait of Georgia Sport |
|  | Strait of Juan de Fuca Sport |
|  | Freshwater BC Sport |

The formula proposed by the CTC in 1991 and referred to in CTC (1996) for a stock/country combination is:

$$
\text { ISBMIdx } x_{C Y}=\frac{\sum_{f \in\{F\}} \sum_{a=\text { Minage }}^{\text {Maxage }}\left(\text { TotMorts }_{C Y, f, a} * A E Q_{B Y=C Y-a, a, f}\right)}{\sum_{f \in\{F\}} \sum_{a=\text { Minage }}^{\text {Maxage }}\left(B P I S B M E R_{f, a} * \operatorname{Cohort}_{B Y=C Y-a, a}\right)}
$$

Equation 2.15
Where:

$$
\text { BPISBMER }_{f, a}=\frac{\sum_{B P E R=79}^{82} \frac{\left(\text { TotMorts }_{B P E R, f, a} * A E Q_{B Y=B P E R-a, a, f}\right)}{\text { Cohort }_{B Y=B P E R-a, a}}}{4}
$$

Equation 2.16
Direct application of the PSC Chinook salmon model alone or CWT data alone was not possible in the computation of all ISBM indices because some fisheries required a finer resolution than the CTC model currently provides or because some terminal fisheries target only marked hatchery fish which makes the estimated CWT-based exploitation rate non-representative of the untagged stocks. In those instances the following methods were used:

For terminal fisheries with marked harvest rates that were not representative of the untagged stocks of interest, external estimates were used instead of model estimates. For preseason estimates, the Fisheries Resource Assessment Model (FRAM) and the Columbia River Harvest Model were used to generate external estimates for Puget Sound net and sport, and Columbia River net and sport fisheries, respectively. For postseason CWT-based estimates, base period exploitation rates for the model stock associated with the wild stock were used if the indicator stock did not have base period recoveries.

Many ISBM fisheries or stock/fishery combinations have no preseason predictions of harvest rates and some have no abundance forecasts. In those cases, the previous year's harvest rates were assumed.

### 2.6 Assumptions of the CWT ERA Analyses

Assumptions used in the cohort analysis and other procedures used in the ERA are summarized below. Detailed discussions of assumptions and parameter values have been reported previously (CTC 1988). The analysis is necessary to calculate the fishery indices for the AABM fisheries and the non-ceiling index for the ISBM fisheries. The primary assumptions of the cohort analysis are:

1. CWT recovery data are obtained in a consistent manner from year to year or can be adjusted to make them comparable. Many of the analyses rely upon indices that are computed as the ratio of a statistic in a particular year to the value associated with a base period. Use of ratios may reduce or eliminate the effect of data biases that are consistent from year to year.
2. For ocean age 2 and older fish, natural mortality varies by age but is constant across
years. Natural mortality rates applied by age are: age 2, 40\%; age 3, 30\%; age 4, 20\%; and age 5 and older $10 \%$ (i.e., after fishing mortality and maturation of the age 4 cohort, $10 \%$ of the remaining immature fish die due to natural sources before becoming age 5 fish and before the commencement of fishing the next year).
3. All stocks within a fishery have the same size distribution for each age and the size distribution at age is constant among years.
4. The spatial and temporal catch distribution of sublegal-size fish of a given age from a stock is the same as legal-size fish of a given age of that stock.
5. Incidental mortality rates per encounter are constant between years. The rates vary by fish size (legal or sublegal) and fishery and are those published by the CTC (1997) for troll and sport fisheries. The rates used in CLB 1209 are listed in Appendix G.
6. The procedures for estimating the mortality of CWT fish of legal size during periods of Chinook salmon non-retention (CNR) assume that the stock distribution in any year remains unchanged from the period of legal catch retention in the same year. However, gear and/or area restrictions during CNR fisheries are believed to reduce the number of encounters of legal-size fish. To account for this, the number of legal encounters during the CNR fishery was adjusted by a selectivity factor. A factor of 0.34 was used for the WCVI and Strait of Georgia (GS) troll fisheries. This value was the average selectivity factor calculated from 3 years of observer data in the Alaska troll fishery. A factor of 0.20 was used in the North Central British Columbia (NCBC) troll fishery. This factor corresponds to the proportion of fishing areas that remain open during non-retention periods. A selectivity factor was not required for the SEAK troll fishery since an independent estimate of legal and sublegal encounters has been provided annually.
7. Maturation rates for brood years in which all ages have not matured (incomplete broods) are equal to the average of completed brood years. Maturation rates are stock specific.
8. Recoveries of age 4 (age 5 for spring stocks) and older Chinook salmon in ocean net fisheries are assumed to be mature fish (ocean terminal catches).

In addition, when using the fishery indices as a measure of the change in fishery harvest rates between years, the temporal and spatial distribution of stocks in and among fisheries and years is assumed to be stable.

For AABM fisheries, the fishery indices are presented for both reported catch (same as landed catch) and total mortality; only total mortality indices are presented for the ISBM fisheries. The difference between reported catch and total mortality is incidental mortality, which includes the mortality of legal-size fish in CNR fisheries and the mortality of sublegal-size fish in both retention and CNR fisheries. Management strategies have changed considerably for fisheries of interest to the PSC since 1985. Regulatory changes have included size limit changes, extended periods of CNR in troll fisheries, and mandatory release of Chinook salmon caught in some net fisheries. Estimates of incidental mortality are crucial for assessment of total fishery impacts, yet they cannot be determined directly from CWT recovery data. There are four categories of incidental mortality that are estimated in the Chinook model and the CWT cohort analysis. Legal and sublegal fishery specific mortality rates are applied to the following types of Chinook salmon encounters:

1. Shakers: Chinook salmon below the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon retention fishery.
2. Sublegal CNR: Chinook salmon below the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon non-retention fishery. The mortality rate per encounter applied to sublegal CNR is the same applied to shakers.
3. Legal CNR: Chinook salmon above the legal size limit that are encountered, brought to the boat, and released during a Chinook salmon non-retention fishery.
4. Drop-off: Chinook salmon above or below the legal size limit that are encountered, but are lost from the gear before they reach the boat during either retention or non-retention fisheries. Drop-off mortality is assumed the same for legal and sublegal fish, but can vary by gear type.

There are several methods used to estimate the number of CNR mortalities in the model and the CWT cohort analysis. The 'season length' method uses the relative length of the Chinook salmon retention and non-retention periods. This is usually expressed in days or boat-days. In a related method, direct estimates of CNR encounters provided by the agencies are related to the size of the landed catch. The CWT cohort analysis can also use a method based on catchability coefficients where no associated Chinook salmon retention period exists for the fishery. The 'season length' method used in the exploitation rate assessment was described in CTC (1988). The Chinook model also can also use a method, known as the 'RT' method, based on the difference between the base period and the current year exploitation rates, and current cohort sizes. In both the season length and RT methods, the stock composition of the legal CNR encounters is assumed to be the same as the stock composition of the legal catch. The stock composition of the shakers and sublegal CNR encounters is estimated using the non-vulnerable portions of the cohorts for stocks that contribute to the landed catch. The procedures used to estimate incidental mortality in the Chinook model have been described by the CTC AWG (1991) and CTC (2004).

For some fisheries or years, CWT recoveries are either lacking or cannot be used in certain analyses of this exploitation rate assessment. In some of these situations the model can be used for $E R$ assessment.

### 2.7 Results of ERA (Appendix C, D and E)

The purpose of the Exploitation Rate Analysis (ERA) is to estimate postseason how stocks and fisheries perform across the various AABM and ISBM fisheries. To this effect, we report numerous statistics by region and stock that are assembled in Appendices C through E. Appendix C summarizes tag recovery distributions for each stock by year, region (specifically AABM and ISBM fisheries) and escapement. Appendix D summarizes survival indices by stock based on CWTs and the PSC Chinook model. Summaries of how these two types of indices relate are reported with a correlation coefficient in each of these graphs. Finally Appendix E summarizes the exploitation rate for complete broods for pre-terminal and terminal fisheries by stock.

## 3 Model Calibration and OUTPUT

### 3.1 Model Calibration

This section describes the calibration data and procedures. For reference, a list of stocks and fisheries in the model is provided in Appendix A. Estimation of the model base period parameters is described in the draft model documentation (CTC AWG 1991). For 2012, the model used was the same as used during the Pacific Salmon Treaty negotiations (CLB 9812), with the actual catches, escapements, and other data through 2011 added. In addition, CTCaccepted escapement goals were used where available and the form of the Ricker production function was adjusted for those stocks with newly accepted goals (e.g. Harrison River fall Chinook salmon).

### 3.1.1 Calibration Data

The first step in the annual calibration process is to gather new or revised data to update the model input files. For example, the file containing run size data is updated as preseason forecasts and postseason estimates become available since model predictions are sensitive to preseason forecasts and postseason estimates of terminal runs. Months in which forecasts are made for each stock, and the month the final return estimate becomes available, are presented in Table 3-1

The model is recalibrated annually to incorporate observed data from the previous year and available abundance forecasts for next year. In addition, recalibration may also occur when significant changes in one or more of the following model input files are made:

BSE (base). This file contains basic information describing the structure of the model, for example the number and names of stocks and fisheries, age classes, the base period, identification of terminal fisheries, and stock production parameters. This file may be modified annually to incorporate productivity parameters that correspond to new CTC agreed escapement goals.

CEI (ceiling). This file contains historical catch data for the 19 fisheries that are modeled as ceiling or catch quota fisheries (as opposed to fisheries modeled solely through control of exploitation rates) through the most recent fishing season.

CNR (Chinook salmon non-retention). Data used by the model to estimate mortalities during CNR periods are read from the CNR file. The data in the CNR file depends on which method is used to calculate CNR mortality. It may include direct estimates of encounters during the CNR period or indicators of fishing effort in the CNR period relative to the retention period.

Table 3-1. Months when agencies are able to provide final return estimates for the previous year and preseason forecasts of abundance for the next fishing year.

|  | Month Final <br> Return Estimate <br> Available | Month(s) Forecast <br> Available |
| :--- | :--- | :--- |
| Model Stock | January | None |
| Alaska South SE | November | None |
| North/Central BC | January | February |
| WCVI Natural | January | February |
| WCVI Hatchery | January | None |
| Upper Strait of Georgia | December | None |
| Lower Strait of Georgia Hatchery | December | None |
| Lower Strait of Georgia Natural | January | None |
| Fraser Early | February | February |
| Fraser Late | June | February |
| Nooksack Spring | June | February |
| Nooksack Fall (Samish) | June | February |
| Snohomish Wild | June | February |
| Skagit Wild | June | February |
| Puget Sound Natural Fingerling | June | February |
| Stillaguamish Wild | June | February |
| Puget Sound Hatchery Fingerling | June | February |
| Puget Sound Hatchery Yearling | June | March |
| Washington Coastal Wild | June | March ${ }^{1}$ |
| Washington Coastal Hatchery | June | December |
| Cowlitz Spring Hatchery | June | December |
| Willamette River Hatchery | September | February |
| Columbia River Summer | April | February, April ${ }^{2}$ |
| Fall Cowlitz Hatchery | April | February, April |
| Spring Creek Hatchery | April | February, April |
| Lower Bonneville Hatchery | April | February, April |
| Upriver Brights | April | April |
| Snake River Wild Fall | April | February, April |
| Mid-Columbia River Bright | April | February, April |
| Lewis River Wild | February | February |
| Oregon Coast |  |  |

${ }^{1}$ Normally forecasts are not available for the model calibration, but these were available in 2012.
${ }^{2}$ A preliminary ocean escapement forecast is released in February. An updated ocean escapement forecast reflecting the ocean fishery option adopted by PFMC is released in April.

ENH (enhancement file). For 13 hatchery stocks and one natural stock (Lower Georgia Strait Naturals) with supplementation, this file contains productivity parameters as well as the differences (positive or negative) in annual smolt production relative to the Base Period. Additional discussion of the productivity parameters may be found in the draft model documentation (CTC AWG 1991).

FCS (forecast). Agency supplied annual estimates of terminal run sizes or escapements as well as preseason forecasts are contained in the FCS file. Age-specific information is used for those stocks and years with age data (Table 3-2).

FP (fishery policy). This file contains scalars specific to year, fishery, stock, and age that are applied to base period fishery exploitation rates. The FPs are used to scale annujal fishery exploitation rates relative to the model base period and can be used for a variety of purposes. For example, for the ocean areas of the Washington and Oregon North of Cape Falcon (WA/OR) troll fishery, the FPs are used to model differential impacts on Columbia River and Puget Sound stocks as the proportion of the catch occurring in the Strait of Juan de Fuca varies. The source of the FPs is generally the reported catch fishery index computed from CWT data in the annual exploitation rate analysis or the ratios of harvest rates computed from terminal area run reconstructions.

IDL (interdam loss). The IDL file contains stock-specific conversion factors for the Columbia River Summer, Columbia Upriver Bright, Spring Creek Tule, and Snake River Fall stocks provided each year by Columbia River fishery managers. The factors represent the fraction of the stock that can be accounted for after main stem dam passage in the Columbia River; losses can be attributed to direct mortality at the various dams, mortality in the reservoirs between dams, fall-backs, tailrace spawning, and other factors. The interdam loss factor is equal to one minus the conversion factor.

IM (changes in incidental mortality rates). The IM file contains the incidental mortality rates by fishery for legal and sublegal fish that differ from those used in the base period due to alterations in gear, regulations, or fishery conduct.

MAT (maturity and adult equivalent factors). The MAT file has annual estimates of maturation rates and adult equivalent factors for 11 stocks (AKS, BON, CWF, FRL, GSH, LRW, ORC, RBH, RBT, SPR, URB, and WSH). These estimates replace the base period rates in the BSE file. The annual estimates are obtained from the annual exploitation rate analysis. Long-term average values are used for years beyond the last year for which estimates are available (due to incomplete broods and the one year lag for completion of the annual exploitation rate analysis).

PNV (proportion non-vulnerable). A PNV file is created for each fishery for which a size limit change has occurred since the model base period. Each file contains age-specific estimates of the proportion of fish not vulnerable to the fishing gear or smaller in length than the minimum size limit. The PNVs were estimated from empirical size distribution data; in some instances independent surveys of encounter rates were used to adjust the PNV for age 2 fish to account for the proportion of the cohort that was not vulnerable to the fishing gear.

STK (stock). This file contains the stock and age-specific starting (base period) cohort sizes, the base period exploitation rates on the vulnerable cohort for each model fishery, maturation schedules, and adult equivalent factors. This file is updated if new stocks or
fisheries are added, new CWT codes are used to represent distribution patterns of existing model stocks, or a re-estimation of base period data occurs. Modification of this file will result in a model different from that used in the negotiations (CLB 9812).

The calibration is controlled through a file designated with an OP7 extension.
Table 3-2. Methods used to forecast the abundance of stocks in the PSC Chinook Model. Externally provided forecast type codes are $\mathrm{S}=$ sibling; $\mathrm{R}=$ return rate; $\mathrm{C}=$ model internally estimated projection.

| Model Stock | Forecast Characteristics |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: |
|  | Forecast Type | Preseason Age-specific | Postseason Age-specific |  |
| Alaska South SE | C | - | Yes | Calibrated to escapement |
| North/Central BC | C | - | No | Calibrated to terminal run |
| WCVI Hatchery + Natural (RBH and RBT model stocks) | S | Yes | Yes | Robertson Creek Hatchery forecasts plus expansion for other WCVI stocks based on ratio of terminal run sizes |
| Upper Strait of Georgia | C | - | Partial | Calibrated to escapement |
| Lower Strait of Georgia Hatchery | C | - | Yes | Calibrated to escapement to GSH hatchery systems and Squamish River |
| Lower Strait of Georgia Natural | C | - | Yes | Calibrated to escapement to Cowichan and Nanaimo Rivers |
| Fraser Early | C | - | No | Calibrated to terminal run |
| Fraser Late | S | Yes | Yes | Combined forecasts of escapements for Harrison River and Chilliwack Hatchery |
| Nooksack Spring | R | No | No | Calibrated to escapement |
| Nooksack Fall (Samish) | R | No | No | Recent year average return rate |
| Snohomish Wild | R | No | No | Recruits per Spawner |
| Skagit Wild | R | Yes | Yes | Average cohort return rate |
| Puget Sound Natural Fingerling | R | No | No | Calibrated to terminal run |
| Stillaguamish Wild | R | No | No | Recruits per Spawner |
| Puget Sound Hatchery <br> Fingerling + Yearling | R | No | No | Age-specific forecasts not available for all components |
| Washington Coastal Wild | R | No | No | Average return rate |
| Washington Coastal Hatchery | R | No | No | Average return rate |
| Cowlitz Spring Hatchery | S | Yes | Yes | Prediction is to mouth of tributary streams |
| Willamette River Hatchery | S | Yes | Yes | Prediction is to mouth of Willamette River |
| Columbia River Summer | S | No | No | Run reconstruction used to estimate Columbia River mouth return |
| Spring Creek Hatchery | S | Yes | Yes | Run reconstruction used to estimate Columbia River mouth return |
| Lower Bonneville Hatchery | S | Yes | Yes | Run reconstruction used to estimate Columbia River mouth return |
| Upriver Brights | S | Yes | Yes | Run reconstruction used to estimate Columbia River mouth return |
| Lyons Ferry (Snake River Wild Fall) | R | No | No | Calibrated to escapement to Lower Granite. |
| Mid-Columbia River Bright | S | Yes | Yes | Run reconstruction used to estimate Columbia River mouth return |
| Lewis River Wild | S | Yes | Yes | Run reconstruction used to estimate Columbia River mouth return |
| Oregon Coast | S | Yes | Yes | Weighted average age composition from four index rivers |

### 3.1.2 Calibration Procedures

The objective of the calibration is to estimate stock and brood year specific environmental variant (EV) scalars. The calibration uses an iterative algorithm to estimate the EV scalars for each brood year and model stock to account for annual variability in natural mortality in the initial year of ocean residence. EV scalars are used to adjust age-1 abuncances that are estimated for each stock and brood year from escapements in combination with the base period spawnerrecruit functions. Fishing impacts and natural mortalities are then applied through model processes. EVs also adjust for biases resulting from errors in the data or assumptions used to estimate the base period parameters for the spawner-recruit function.

EVs are estimated through the following steps for stocks calibrated to age-specific terminal run sizes:

1. Predicted terminal runs are first computed for each year using the input files discussed above and the base period stock-recruitment function parameters (i.e.,EV stock productivity scalars set equal to 1 ).
2. The ratio $\left(\mathrm{SC}_{\mathrm{BY}}\right)$ of the observed terminal run and the model predicted terminal run from the previous step is computed for each brood year. For example, if the estimated and model predicted terminal runs for the 1979 brood were 900 and 1,500 age 3 fish in 1982, 4,000 and 4,500 age 4 fish in 1983, and 1,000 and 1,500 age 5 fish in 1983, the ratio would be computed as:

$$
S C_{B Y}=\frac{900+4000+1000}{1500+4500+1500}
$$

Equation 3.1

Equation 3.2

In the absence of age-specific estimates of the terminal run, the components are computed by multiplying the total terminal run by the model predictions of age composition.
3. The EV for iteration n and brood year BY is computed as:

$$
\begin{equation*}
E V_{n, B Y}=E V_{n-1, B Y} * S C_{B Y} \tag{Equation 3.3}
\end{equation*}
$$

4. Steps $1-3$ are repeated iteratively until the absolute change in the EVs for all stocks is less than a predetermined tolerance level ( 0.05 ). This tolerance level could be changed if required depending on the coarseness needed for resolution:

$$
\left|\frac{E V_{n, B Y}-E V_{n-1, B Y}}{E V_{n-1}}\right|<0.05
$$

Equation 3.4
Several options for the calibration are provided in the OP7 control file. The options include the ability to control the brood years for which the EVs are estimated in each iteration and also the type of convergence criteria. For the 2012 calibration, in each iteration EVs were estimated for all brood years. Convergence was defined to occur when the absolute value of the difference in EVs between successive iterations did not exceed 0.05.

Stock-specific calibration options are specified in the FCS file and discussed below:
Minimum Number of Age Classes. Data for all age classes will not be available when the EVs are estimated for recent broods. Since considerable uncertainty may exist in a single data point, application of the calibration algorithm can be restricted to cases in which a specific minimum number of age classes are present.

Minimum Age. Considerable uncertainty often exists in the estimates of terminal runs or escapements for younger age classes, particularly age 2 . The minimum age class to include in the calibration algorithm is specified in the FCS file.

Estimation of Age Composition. Age-specific estimates of the terminal run or escapement may not be available. An option is provided to estimate the age composition using base period maturation and exploitation rates.

The forecasts provided by the management agencies typically represent terminal runs or escapements without adjustments for changes in ocean fisheries. Therefore expansions of the forecasts to total cohort size are made using average exploitation rates for the period of years in the forecast database.

The 2012 calibration was completed in two stages to facilitate computation of the average exploitation rates and incorporation of the agency forecasts. The Stage 1 calibration provided initial estimates of exploitation rate scalars for fishing years 1979 through 2010 using updated catch and escapement data through 2010. Average exploitation rate scalars ( $\overline{F P}$ ) were then computed and used as input values for 2012 fisheries in the Stage 2 calibration, except that the forecasts for the WCVI and Fraser Late (FRL) stocks already accounted for changes in the ocean fisheries.

The $\overline{F P}$ for each model fishery were obtained from the Stage 1 calibration using the following formula:

$$
\overline{F P}_{a, s, C Y, f}=\frac{\sum_{C Y=C Y_{\text {star }}}^{C Y_{\text {end }}} R T_{C Y} * F P_{s, a, C Y, f}}{\left(C Y_{\text {end }}-C Y_{\text {start }}\right)}
$$

Equation 3.5

The range of years used to compute the average FP varied between stocks and was fishery and age-specific. The input files used in the Stage 2 calibration were identical to those used in Stage 1 with two exceptions: $(i)$ the average exploitation rate scale factors for each fishery were inserted into the FP file for 2012; and (ii) the Stage 1 EVs were used as starting values for the Stage 2 calibration.

To determine the acceptability of a calibration by the CTC (i.e., whether an annual calibration is deemed final by the CTC), several results are examined:

1. accuracy of the reconstructed catches in the fisheries (these values will consistently differ from the actual catches if the calibration is not able to exactly recreate the actual catches in the years 1979 through 1984, the model years used prior to implementation of the ceiling algorithm),
2. accuracy of model predicted terminal runs or escapements relative to the data used for calibration of each stock,
3. comparison of model predicted age structure in terminal runs or escapements with the data used for calibration (consistent biases in age structure are addressed by changing maturation rates),
4. patterns in the EVs compared with marine survival patterns generated by the annual exploitation rate analysis,
5. comparison of CWT-based and model estimates of fishery harvest rate indices,
6. comparison of model estimates of mortality distributions for individual stocks to those generated from the annual CWT-based exploitation rate analysis, and
7. comparison of model estimated AIs to the AIs previously estimated by model CLB 9812.

Calibration usually involves an iterative process until a judgment is made by the CTC that an acceptable fit to all the data was achieved. This decision usually involves an inspection and trial-and-error process. The determination of whether or not further calibrations are necessary is based principally on the significance of deviations from observed or estimated values for stocks and fisheries most relevant to the issues to be evaluated and on the time constraints established for completion of the calibration.

### 3.2 Model Calibration Evaluation

Previous reports included evaluations of model performance for the most current model year, including comparisons of model estimates of catch and escapement/terminal run sizes to actual estimates of catch and escapement/terminal run size. This year, the model catches and stock escapements or terminal run sizes estimated by CLB 1209 were evaluated along with other aspects of the calibration. The calibration was distributed to the CTC membership for review and subsequent approved. Correlations between model and CWT fishery indices were made as part of the normal calibration checking process, however the results are not presented in this report.

Fishery mortality indices generated by CLB 1209 can be compared to the CWT-based exploitation rate analysis. Model and CWT-based fishery mortality indices use the same equation, but the former are derived from model estimates of catch for all model stocks instead of CWT recovery data from specific exploitation rate indicator stocks. The CWT fishery mortality indices are considered the most accurate. Fishery indices based on reported catch and total mortality are constructed using two methods. The first method is a ratio of means (ROM) and the second is the stratified proportional fishery index (SPFI; CTC 2009a). In general, the model results are closely associated with the CWT-based indices of annual fishery exploitation rates.

The SEAK fishery mortality index from the model closely follows the trend of the CWT derived estimate from 1979 through 1989 for both landed catch and total mortality (Figure 3-1 and Figure 3-2). Between 1989 and 2000, the model estimates of both the landed catch and total mortality indices are less than the CWT-derived estimate for most years. Contrarily, since 2001, the model estimates have typically been higher. Since 1990, the model estimates also show less variability compared to the CWT-derived indices.


Figure 3-1. Estimated CWT based SPFI (through 2010) and model landed catch fishery indices (through 2010) for the SEAK troll fishery


Figure 3-2. Estimated CWT based SPFI (through 2010) and model total mortality fishery indices (through 2010) for the SEAK troll fishery.

### 3.2.1 SPFI developed for NBC and WCVI AABM Fisheries

Based on the results that came out of the Harvest Rate Index Analysis in 2009 (CTC 2009a), a recommendation was made to use the SPFI estimator for the fishery index in all AABM fisheries. As a result, the CTC created the SPFI for WCVI and NBC fisheries and compared them to the model and CWT based ROM estimator of the fishery index for each of the fisheries analyzed (Figure 3-3 through Figure 3-6). It should be noted that an assessment of how the SPFI affects results in the calibration procedures was originally intended to be included in this report. This analysis has been deferred until a new base calibration is completed.

The model-derived fishery mortality indices for NBC generally follow the same trend as CWTderived indices (Figure 3-3 and Figure 3-4Figure 3-4). However, since 1991, the model-based estimates have exceeded the CWT-derived estimates in all but three years for both landed catch and total mortality indices. Since 2001, this difference has been noticeably large.


Figure 3-3. Estimated CWT ROM (FI), SPFI (through 2010) and model landed catch fishery indices (through 2010) for the NBC troll fishery.


Figure 3-4. Estimated CWT ROM (FI), SPFI (through 2010) and model total mortality fishery indices (through 2010) for the NBC troll fishery.

Since the base period, the model-derived landed catch fishery index estimates and trends for the WCVI troll fishery have been similar to CWT based ROM FI estimates (Figure 3-5 and Figure 3-6). Starting in 2000, model and CWT based ROM estimates have diverged significantly for both landed catch and total mortality, with the CWT indices being consistently higher than model indices. To adjust for this the SPFI was developed that captures temporal and spatial changes in the fishery, and is now reported along with the ROM FI (Figure 3-5 and Figure 3-6).


Figure 3-5. Estimated CWT ROM (FI), SPFI (through 2010) and model landed catch fishery indices (through 2010) for the WCVI troll fishery.


Figure 3-6. Estimated CWT ROM (FI), SPFI (through 2010) and model total mortality fishery indices (through 2010) for the WCVI troll fishery.

### 3.3 AABM Abundance Indices and Associated Catches

Beginning with the 1999 fishing season, the PST specified that the AABM fisheries are to be managed through the use of the preseason AIs, where specific allowable harvest corresponds to a given AI for each fishery. The preseason AIs that were used to establish harvest management targets are listed in Table 3-3. The 2012 preseason AI for the SEAK troll fishery is 1.52 , for the NBC troll fishery it is 1.32 , and for the WCVI troll fishery is 0.89 . This is the fourth year of the 2008 Agreement that reduced catches and associated harvest rates in Southeast Alaska and West Coast of Vancouver Island AABM fisheries in response to coast-wide conservation concerns. The NBC AABM fishery remained at the same allowable catch and harvest rates as the previous annex. In-season predictors may also be used for in-season adjustments to the preseason AIs for the SEAK troll fishery. However, the in-season AI has not provided a reliable estimate of the postseason AI due to its reliance on the preseason AI in the calculations and has not been used for in-season management action since 2001.

The postseason AI is a more accurate estimate of the abundance index for the AABM fisheries, and is used to compute a final allowable catch for each fishery to evaluate overage or underage of the landed catch relative to the harvest rate objective. Postseason AIs for 1999-2011 are also listed in Table 3-3.

Table 3-3 Abundance indices (AI) for 1999 to 2012 for the SEAK, NBC, and WCVI troll fisheries (from CLB 1209).

|  | SEAK |  | NBC |  | WCVI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Preseason | Postseason | Preseason | Postseason | Preseason | Postseason |
| 1999 | 1.15 | 1.12 | 1.12 | 0.97 | 0.60 | 0.50 |
| 2000 | 1.14 | 1.10 | 1.00 | 0.95 | 0.54 | 0.47 |
| 2001 | 1.14 | 1.29 | 1.02 | 1.22 | 0.66 | 0.68 |
| 2002 | 1.74 | 1.82 | 1.45 | 1.63 | 0.95 | 0.92 |
| 2003 | 1.79 | 2.17 | 1.48 | 1.90 | 0.85 | 1.10 |
| 2004 | 1.88 | 2.06 | 1.67 | 1.83 | 0.90 | 0.98 |
| 2005 | 2.05 | 1.90 | 1.69 | 1.65 | 0.88 | 0.84 |
| 2006 | 1.69 | 1.73 | 1.53 | 1.50 | 0.75 | 0.68 |
| 2007 | 1.60 | 1.34 | 1.35 | 1.10 | 0.67 | 0.57 |
| 2008 | 1.07 | 1.01 | 0.96 | 0.93 | 0.76 | 0.64 |
| 2009 | 1.33 | 1.20 | 1.10 | 1.07 | 0.72 | 0.61 |
| 2010 | 1.35 | 1.31 | 1.17 | 1.23 | 0.96 | 0.95 |
| 2011 | 1.69 | 1.62 | 1.38 | 1.41 | 1.15 | 0.90 |
| 2012 | 1.52 |  | 1.32 |  | 0.89 |  |

The 2008 Agreement specifies the allowable catch for various values of the AI for each fishery. Allowable catches for 1999-2008 were from Table 1 in the Chinook Annex to the 1999 PSC Agreement. In the 2008 Agreement, the relationship between the AI and the allowable catch changed for SEAK and WCVI; thus the allowable catches since 2009 were derived from Table 1 of the Chinook Annex to the 2008 Agreement. The allowable treaty catch by fishery and year based on pre- and postseason AIs and the observed treaty catches are given in Table 3-4.

Table 3-4 Observed catches and postseason allowable catches for 1999 to 2010, and preseason allowable catches for 1999 to 2012, for AABM fisheries.

| PST Treaty Allowable and Observed Catches |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SEAK (T, N, S) ${ }^{1}$ |  |  | NBC (T, S) |  |  | WCVI (T, S) |  |  |
| Year | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | $\begin{gathered} \text { Observed } \\ \text { Catch } \end{gathered}$ | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | Observed | Pre- <br> season <br> Allowable <br> Catch | Post- <br> season <br> Allowable <br> Catch | Observed <br> Catch |
| 1999 | 192,800 | 184,200 | 198,842 | 145,600 | 126,100 | 86,726 | 128,300 | 107,000 | 36,413 |
| 2000 | 189,900 | 178,500 | 186,493 | 130,000 | 123,500 | 31,900 | 115,500 | 86,200 | 101,438 |
| 2001 | 189,900 | 250,300 | 186,919 | 132,600 | 158,900 | 43,500 | 141,200 | 145,500 | 117,670 |
| 2002 | 356,500 | 371,900 | 357,133 | 192,700 | 237,800 | 150,137 | 203,200 | 196,800 | 165,036 |
| 2003 | 366,100 | 439,600 | 379,519 | 197,100 | 277,200 | 191,657 | 181,800 | 268,900 | 175,821 |
| 2004 | 383,500 | 418,300 | $\begin{gathered} 417,019 \\ 421,666^{2} \end{gathered}$ | 243,600 | 267,000 | 241,508 | 192,500 | 209,600 | 216,624 |
| 2005 | 416,400 | 387,400 | 391,999 | 246,600 | 240,700 | 243,606 | 188,200 | 179,700 | 202,662 |
| 2006 | 346,800 | 354,500 | 362,948 | 223,200 | 200,000 | 215,985 | 160,400 | 145,500 | 146,883 |
| 2007 | 329,400 | 259,200 | 329,804 | 178,000 | 143,000 | 144,235 | 143,300 | 121,900 | 139,150 |
| 2008 | 170,000 | 152,900 | 173,382 | 124,800 | 120,900 | 95,647 | 162,600 | 136,900 | 145,726 |
| $2009^{3}$ | 218,800 | 176,000 | 230,647 | 143,000 | 139,100 | 109,470 | 107,800 | 91,300 | 124,617 |
| 2010 | 221,800 | 215,800 | 231,591 | 152,100 | 160,400 | 136,613 | 143,700 | 142,300 | 139,047 |
| 2011 | 294,800 | 283,300 | 290,715 | 182,400 | 186,800 | 122,660 | 196,800 | 134,800 | 204,232 |
| 2012 | 266,800 |  |  | 173,600 |  |  | 133,300 |  |  |

${ }^{1}$ Nomenclature is T for troll, N for net, and S for sport.
${ }^{2}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
${ }^{3}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement.

### 3.3.1 Evaluation of changes in pre- vs. postseason AIs

The preseason abundance indices in all three AABM fisheries have exceeded the postseason abundance indices from 2005 through 2011. There are only a couple of exceptions to this pattern -- the SEAK AABM fishery in 2006, and the NBC AABM fishery in 2010 and 2011. This consistent overestimation of the preseason AIs has been recognized for several years and a preliminary investigation into potential causes was initiated in 2010. Further work was done in 2011, but was not conclusive. The analysis was again expanded in 2012 and focused on the data inputs to the PSC Chinook Model.

It was suspected that substantial changes in the abundance of the major stocks contributing to the AABM fisheries could be a likely source of the problems. In order to identify which stocks and ages have been consistent contributors to the change in the overall AABM abundance values, the stock and age specific components of the overall abundance for each year in each fishery have been examined. Stocks contributing most to the AABM catches, only a few in each AABM fishery, were identified and singled out for further investigation.

The main hypothesis directing the investigation was that changes in the abundance of the major stocks from the preseason to postseason calibrations are caused by changes to inputs to the model. Changes to certain types of inputs are a normal part of the postseason calibration procedure and these include inclusion of new data from the preceding year and updates to historical data. Data in some input files, e.g., the BSE and STK files (containing the base period data including age specific survival rates, stock specific Ricker production parameters, stock-age specific cohort sizes, stock-age specific maturation rates, stock-age specific adult equivalent factors, and fishery-stock-age specific exploitation rates) remain constant for all calibrations. Data in one of the other input files, the ENH file (containing stock-specific enhancement data but only for a small number of model stocks), is updated annually but the values change little if at all. Due to lack of change between calibrations, the inputs in these files were not considered in the investigation.

Data in the CEI and CNR files containing the fishery catches and estimates of CNR mortality can and do contribute to changes in the model estimates of abundance from preseason to postseason to some degree. However, these files are not stock-specific and any changes would be spread out across all stocks encountered in each fishery. In addition, the fact that these files operate on a fishery basis as opposed to a stock basis complicates the investigation and interpretation of any effect that changes in these files have on the stock specific abundances. Therefore, although data in these files have an effect, this investigation focused on model inputs that are likely to have a more direct link to changes in the stock-specific abundances. Similar to the CEI and CNR files, the FPA files containing the fishery-stock-age Fishery Policy (FP) exploitation rate scalars can affect the stock specific abundances, and although these files have a stock-age component to them, it is difficult to isolate an effect of FPs alone. In addition, due to the fact that the last year of the ERA lags two years behind the preseason calibration and a year behind the postseason calibration, the FP scalars which are calculated from ERA output for most fisheries (with the exception of data that comes from terminal FP spreadsheets) are based on recent averages for both calibrations; it is therefore unlikely that the FP values would change drastically between the
two calibrations.

Two remaining input files that may influence AIs between pre- and postseason calibrations are the FCS file, which contains the preseason forecasts and postseason estimates of stock specific terminal runs or escapement (depending on the stock), and the MATAEQ file, which contains the stock-age specific estimates of maturation rates and adult equivalence factors for a select group of model stocks. These two files contain data that directly affect the stock-specific abundances and were deemed a suitable place to start an investigation of the changes between the preseason and postseason abundances of the driver stocks.

Changes in the preseason to postseason terminal run data and the change in the age-specific maturation rates have been examined and summarized for the "significant" model stock subset. It appears that changes to the forecast data are contributing to the changes in the preseason to postseason abundance for several of the stocks. The data also suggest that changes to maturation rates for a couple of stocks may contribute to the AI shift. Additional work is needed to determine how much of the preseason to postseason AI shift is due to changes in each of these inputs alone and in combination. Therefore, specific results from this initial screening process (e.g., stocks identified, degree of change in terminal runs, etc.) will not be reported here, but rather in full in the 2013 calibration and exploitation rate report.

Beyond the model input evaluation described above, the AWG has preliminarily investigated the potential of using the historical (2005-2011) relationships between long-term AABM AIs and an overall production index to correct the bias in the preseason and possibly the first postseason AI.

### 3.3.2 Stock composition of abundances available in AABM fisheries, 19792012

The majority of catches in each AABM fishery are often comprised of only a small subset of the 30 model stocks listed in Appendix A. Figure 3-7 through Figure 3-9 shows the relative abundance for each major stock (resulting from CLB 1209). In general, postseason AIs had a peak during the late 1980s (1987-1989) and another in 2003 and 2004.

The major model stocks contributing to the SEAK AIs are: Columbia River Upriver and MidColumbia Bright (URB-MCB), WCVI Natural and Hatchery, Oregon Coastal, North/Central BC, and Washington Coast Hatchery and Natural (Figure 3-7). The "other" category is mainly Fraser Early, Columbia River Summers, and Upper Georgia Strait.


Figure 3-7. Stock composition of the annual abundance indices for the SEAK troll fishery from CLB 1209.

The major model stock groups contributing to the NBC AABM fishery AIs are: Oregon Coastal, URB-MCB, WCVI Natural and Hatchery, North/Central BC, Washington Coastal Wild and Hatchery (Figure 3-8). The "other" category consists primarily of Fraser Early, Willamette Springs, and Upper Georgia Strait stocks.


Figure 3-8. Stock composition of the abundance indices for the Northern BC troll fishery from CLB 1209.

The major model stock groups in the AI for the WCVI fishery are: Columbia River (CR) Tules, Puget Sound, Fraser Lates, URB-MCB, and WCVI Natural and Hatchery (Figure 3-9). The "Other" category is comprised primarily of Oregon Coast, Columbia Summers, and Washington Coastal.


Figure 3-9. Stock composition of the abundance indices for the WCVI troll fishery from CLB 1209.

### 3.4 Overages and Underages

Until an approach for full implementation of overage/underage provisions has been developed and accepted by the PSC, the Commissioners have instructed the CTC to track and report overages and underages relative to agreed-upon harvest objectives.

### 3.4.1 AABM Fisheries

Per Treaty subparagraph 11(a)(i), AIs and associated allowable catches from the first postseason model calibration for a given fishing year are used to track catch overages and underages,. Table 3-5 shows the annual differences between the postseason allowable catches and the observed catches in AABM fisheries for 1999-2011, as well as the cumulative differences. In SEAK, the 2011 catch was $2.6 \%$ above the postseason allowable catch, and the cumulative differences were $1.8 \%$ above. In NBC, the 2011 catch was $34.3 \%$ below the preseason allowable catch and the cumulative differences were $23.8 \%$ below. In WCVI, the 2011 catch was $51.5 \%$ above and the cumulative differences were $2.6 \%$ below the postseason allowable catch. The SEAK, NBC, and WCVI AABM fisheries have been over the preseason allowable catch 9,3 , and 8 of the last 13 years, respectively.

Overages and underages in AABM catches, relative to the first postseason calibration for a fishing year (Table 3-5), can arise due to the in-season management system, errors in the
preseason calibration process (e.g., forecast error), or a combination of the two. The relative influence of each was evaluated by inspecting differences in actual landed catch and allowable catches from both preseason and postseason calibrations (Table 3-6). In 2011 regarding the inseason management system, the actual landed catch was less than the preseason allowable catch by 4,085 Chinook salmon in SEAK and by 59,740 in NBC. For WCVI, the actual landed catch was 7,432 more than the preseason allowable catch. In terms of the postseason allowable catches for evaluation of the provisions of the PST (subparagraph 11(a)(i)), actual catches exceeded the postseason allowable catches by 7,415 Chinook salmon in SEAK and by 69,140 in WCVI. Actual landed catch in NBC was 64,140 fish less than the postseason allowable catch.

Table 3-5 Deviations in numbers of Chinook salmon and pe rcentages from catch targets derived from the first postseason AI (Table 3-3) for Pacific Salmon Treaty AABM fisheries in 1999 to 2011.

| Year | SEAK |  | NBC |  | WCVI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of <br> Fish | Percent <br> Difference | Number of <br> Fish | Percent <br> Difference | Number of <br> Fish | Percent <br> Difference |
| 1999 | 14,642 | $7.9 \%$ | $-39,374$ | $-31.2 \%$ | $-70,587$ | $-66.0 \%$ |
| 2000 | 7,993 | $4.5 \%$ | $-91,600$ | $-74.2 \%$ | 15,238 | $17.7 \%$ |
| 2001 | $-63,381$ | $-25.3 \%$ | $-115,400$ | $-72.6 \%$ | $-27,830$ | $-19.1 \%$ |
| 2002 | $-14,767$ | $-4.0 \%$ | $-87,663$ | $-36.9 \%$ | $-31,764$ | $-16.1 \%$ |
| 2003 | $-60,081$ | $-13.7 \%$ | $-85,543$ | $-30.9 \%$ | $-93,079$ | $-34.6 \%$ |
| 2004 | $-1,281$ | $-0.3 \%$ | $-25,492$ | $-9.5 \%$ | 7,024 | $3.4 \%$ |
| 2005 | 4,599 | $1.2 \%$ | 2,906 | $1.2 \%$ | 22,962 | $12.8 \%$ |
| 2006 | 8,448 | $2.4 \%$ | 15,985 | $8.0 \%$ | 1,383 | $1.0 \%$ |
| 2007 | 70,604 | $27.2 \%$ | 1,235 | $0.9 \%$ | 17,250 | $14.2 \%$ |
| 2008 | 20,482 | $13.4 \%$ | $-25,253$ | $-20.9 \%$ | 8,826 | $6.4 \%$ |
| $2009^{3}$ | 54,647 | $31.0 \%$ | $-29,630$ | $-21.3 \%$ | 33,317 | $36.5 \%$ |
| 2010 | 15,791 | $7.3 \%$ | $-23,787$ | $-14.8 \%$ | $-3,253$ | $-2.3 \%$ |
| 2011 | 7,415 | $2.6 \%$ | $-64,140$ | $-34.3 \%$ | 69,432 | $51.5 \%$ |
| Cum. | 65,110 | $1.8 \%$ | $-567,756$ | $-23.8 \%$ | $-51,081$ | $-2.6 \%$ |

[^1]Table 3-6 Deviations in actual landed catch (LC), allowable landed catch determined from preseason model calibration (PreALC), and allowable landed catch determined from postseason model calibration (PostALC) for AABM fisheries from 1999 to 2011. The difference between LC and PreALC represents the consequences of the management system employed in the year. The difference between PreALC and PostALC represents consequences of the forecast procedures and data used in forecasting the PreALC by the PSC Chinook Model. The difference between LC and PostALC represents the combined effects of both processes.

|  | SEAK |  |  | NBC |  |  | WCVI |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALC- <br> PostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALC- <br> PostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ | $\begin{gathered} \text { LC- } \\ \text { PreALC } \end{gathered}$ | PreALCPostALC | $\begin{gathered} \text { LC- } \\ \text { PostALC } \end{gathered}$ |
| 1999 | 6,042 | 8,600 | 14,642 | -70,473 | 19,500 | -50,973 | -89,760 | 21,300 | -68,460 |
| 2000 | -3,407 | 11,400 | 7,993 | -97,952 | 6,500 | -91,452 | -26,883 | 29,300 | 2,417 |
| 2001 | -2,981 | -60,400 | -63,381 | -88,849 | -26,300 | -115,149 | -20,896 | -4,300 | -25,196 |
| 2002 | 633 | -15,400 | -14,767 | -42,579 | -45,100 | -87,679 | -45,314 | 6,400 | -38,914 |
| 2003 | 13,419 | -73,500 | -60,081 | -2,938 | -80,100 | -83,038 | -8,239 | -87,100 | -95,339 |
| 2004 | $\begin{aligned} & 33,519 \\ & 38,166 \end{aligned}$ | $\begin{aligned} & -34,800 \\ & -34,800 \end{aligned}$ | $\begin{aligned} & \hline-1,281 \\ & 3,366^{1} \end{aligned}$ | -294 | -23,400 | -23,694 | 22,752 | -17,100 | 5,652 |
| 2005 | -24,401 | 29,000 | 4,599 | -2,994 | 5,900 | 2,906 | 11,279 | 8,500 | 19,779 |
| 2006 | 16,148 | -7,700 | 8,448 | -7,215 | 23,200 | 15,985 | -14,915 | 14,900 | -15 |
| 2007 | 404 | 70,200 | 70,604 | -33,765 | 35,000 | 1,235 | -2,686 | 21,400 | 18,714 |
| 2008 | 3,382 | 17,100 | 20,482 | -29,153 | 3,900 | -25,253 | -16,874 | 25,700 | 8,826 |
| $2009^{2}$ | 11,847 | 42,800 | 54,647 | -34,330 | 4,700 | -29,630 | 16,817 | 16,500 | 33,317 |
| 2010 | 9,791 | 6,000 | 15,791 | -15,487 | -8,300 | -23,787 | -4,653 | 1,400 | -3,253 |
| 2011 | -4,085 | 11,500 | 7,415 | -59,740 | -4,400 | -64,140 | 7,432 | 62,000 | 69,432 |

${ }^{1}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
${ }^{2}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement.

### 3.5 ISBM Indices by Stock

For ISBM fisheries, the 2008 PSC Agreement specifies that Canada and the United States will reduce base period exploitation rates on specified stocks by $36.5 \%$ and $40 \%$, equivalent to ISBM indices of $63.5 \%$ and $60 \%$ percent, respectively. This requirement is referred to as the 'general obligation' and does not apply to stocks that achieve their CTC agreed escapement goal.
Estimated ISBM fishery indices are shown in Table 3-7 for Canadian fisheries and Table 3-8 for U.S. fisheries. Both tables present CWT-based indices for 2010, and Chinook model-based predicted indices for 2012. The agreement specifies that the indices for postseason assessment be assessed using the CWT-based estimates; 2010 is the most recent analysis available for all stocks (see section 3.5.3 for an analysis for a subset of ISBM fisheries/stocks for 2011). CWT-based indices for 1999-2010 and model-based indices for 1999-2012 are presented in Appendix B.

Table 3-7 Canadian 2010 ISBM indices based on 2010 and 2012 PSC Chinook Model, 2012 CWT analysis and the 2012 indices predicted from the 2012 PSC Chinook Model. Footnotes appear on the following page.

| Stock Group | Escapement Indicator Stock | 2010 Model <br> Indices for <br> 2010 | 2012 Model <br> Indices for 2010 | CWT Indices for 2010 | 2012 Model <br> Indices for 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lower Strait of Georgia | Cowichan | $0.203{ }^{8}$ | $0.258{ }^{6}$ | $0.261{ }^{4}$ | $0.443{ }^{6}$ |
|  | Nanaimo |  |  | NA ${ }^{1,5}$ |  |
| Fraser Late | Harrison River ${ }^{2}$ | 0.138 | 0.161 | $0.134{ }^{7}$ | 0.256 |
| North Puget Sound Natural Springs | Nooksack | 0.568 | 0.154 | 0.014 | 0.339 |
|  | Skagit | 0.568 | 0.154 | NA | 0.340 |
| Upper Strait of Georgia | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | 0.122 | 0.109 | 0.182 | 0.596 |
| Fraser Early (spring and summers) | Upper Fraser, Mid Fraser, Thompson | 0.121 | 0.109 | NA | 0.226 |
| West Coast Vancouver Island Falls | WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble) | 0.122 | 0.188 | $0.135^{8}$ | 0.636 |
| Puget Sound Natural Summer/Falls | Skagit | 0.709 | 0.114 | NA | 1.421 |
|  | Stillaguamish | 0.791 | 0.177 | 0.083 | 1.329 |
|  | Snohomish | 0.718 | 0.116 | NA | 1.359 |
|  | Lake Washington | 0.690 | 0.149 | NA | $0.991{ }^{9}$ |
|  | Green River | 0.670 | 0.149 | 0.151 | 1.000 |
| North / Central B. C. | Yakoun, Nass, Skeena, Area 8 | 0.177 | 0.126 | NA | 0.536 |
| Washington Coastal Fall Naturals ${ }^{3}$ | Hoko, Grays Harbor, Queets ${ }^{2}$, Hoh ${ }^{2}$, Quillayute ${ }^{2}$ | 0.134 | 0.101 | NA | 0.357 |
| Columbia River Falls 3 | Upriver Brights ${ }^{2}$ | 0.110 | 0.071 | NA | 0.572 |
|  | Deschutes | 0.110 | 0.071 | NA | 0.572 |
|  | Lewis ${ }^{2}$ | 0.920 | 0.016 | NA | 3.345 |
| Columbia R Summers ${ }^{3}$ | Mid-Columbia Summers ${ }^{2}$ | 0.084 | 0.051 | NA | 0.296 |
| Far North Migrating OR Coastal Falls ${ }^{3}$ | $\begin{aligned} & \text { Nehalem }^{2}, \text { Siletz }^{2}, \\ & \text { Siuslaw }^{2} \end{aligned}$ | NA | 0.021 | NA | 0.540 |

${ }^{1}$ Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
${ }^{2}$ Stock or stock group with a CTC agreed escapement goal.
${ }^{3}$ Stock group listed in Annex 4, Chapter 3, Attachment V.
${ }^{4}$ An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
${ }^{5}$ Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook. Until these problems are resolved, indices for this stock will not be reported.
${ }^{6}$ Although model-based indices were previously calculated separately for Cowichan and Nanaimo, these did not adequately represent impacts on either LGS stock because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
${ }^{7}$ The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals because sport harvest has been essentially zero on the natural population.
${ }^{8}$ An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. A more extended review of the indices for WCVI Chinook will be carried out to determine whether they adequately represent impacts on the WCVI wild aggregate.
${ }^{9}$ For Canadian ISBM fisheries, Lake Washington and Green the same distribution and index value are assumed.

Table 3-8 US 2010 ISBM indices based on 2010 and 2012 PSC Chinook Model, 2012 CWT analysis and the 2012 indices predicted from the 2012 PSC Chinook Model. Footnotes appear on the following page.

| Stock Group | Escapement Indicator Stock | 2010 Model Indices for 2010 | 2012 Model <br> Indices for $2010$ | CWT Indices for 2010 | 2012 Model Indices for 2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Washington Coastal Fall Naturals | Hoko | 0.130 | 0.424 | NA ${ }^{1}$ | 0.378 |
|  | Grays Harbor | 0.382 | 0.579 | 0.69 | 0.604 |
|  | Queets ${ }^{4}$ | 0.285 | 0.186 | 0.67 | 0.179 |
|  | Hoh ${ }^{4}$ | 0.987 | 0.454 | 1.00 | 0.443 |
|  | Quillayute ${ }^{4}$ | 0.963 | 1.188 | 0.67 | 1.151 |
| Columbia River Falls | Upriver Brights ${ }^{4}$ | 0.801 | 0.782 | 1.75 | 0.894 |
|  | Deschutes ${ }^{4}$ | 1.004 | 0.58 | 0.79 | 0.684 |
|  | Lewis ${ }^{4}$ | 0.505 | 0.353 | 0.43 | 0.442 |
| Puget Sound Natural Summer / Falls | Skagit | 0.261 | 0.177 | NA | 0.327 |
|  | Stillaguamish | 0.117 | 0.056 | 0.38 | 1.054 |
|  | Snohomish | 0.125 | 0.069 | NA | 0.332 |
|  | Lake Washington | 0.517 | 0.295 | NA | 0.590 |
|  | Green R | 0.520 | 0.299 | 0.34 | 0.631 |
| Fraser Late | Harrison River ${ }^{4}$ | 0.209 | 0.587 | 0.47 | 0.448 |
| Columbia R <br> Summers | Mid-Columbia Summers ${ }^{4}$ | 1.142 | 1.711 | 9.81 | 1.369 |
| Far North <br> Migrating OR <br> Coastal Falls | Nehalem ${ }^{4}$ | 0.916 | 1.939 | 1.21 | 1.696 |
|  | Siletz ${ }^{4}$ | 0.698 | 0.64 | 0.50 | 0.814 |
|  | Siuslaw ${ }^{4}$ | 2.028 | 1.304 | 0.77 | 1.646 |
| North Puget Sound Natural Springs | Nooksack | 0.181 | 0.059 | 0.70 | 0.171 |
|  | Skagit | 0.245 | 0.087 | NA | 0.147 |
| Lower Strait of Georgia ${ }^{3}$ | Cowichan, | 0.216 | 0.404 | 4.33 | 0.370 |
|  | Nanaimo |  | NA | NA | NA |
| Upper Strait of Georgia ${ }^{3}$ | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | NC | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ |
| Fraser Early (spring and summers) | Upper Fraser, Mid Fraser, Thompson | 0.111 | 0.268 | NA | 0.228 |
| West Coast <br> Vancouver Island Falls ${ }^{3}$ | WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble) | 0.213 | 0.222 | NA | 0.420 |
| North / Central B. C. ${ }^{3}$ | Yakoun, Nass, Skeena, Area 8 | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ | NC ${ }^{2}$ |

${ }^{1}$ Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
${ }^{2} \mathrm{NC}$ means that the current model assumes the stock is not caught in U.S. ISBM fisheries.
${ }^{3}$ Stock group listed in Annex 4, Chapter 3, Attachment IV.. ${ }^{4}$ Stock with a CTC agreed escapement goal.

### 3.5.1 CWT-based Indices in 2010

Figure 3-10 and Figure 3-11 show the historical ISBM indices based on CWT recoveries from 1999 to 2009. The ISBM fishery restrictions do not apply to stocks meeting the escapement goals, however should the escapement goal not be met, the general obligation needs to be achieved.

Canadian ISBM indices for 2010, estimated from the CWT data were reduced more than required under the agreement for the seven indices that could be calculated. We identified several inconsistencies in the way these indices had been computed in the past, as noted above (Table 3-7, footnotes 4-9). Most inconsistencies were between model versus CWT exploitation rate based methods of calculating ISBM indices. In the case of Lower Georgia Strait, Nanaimo was dropped from the CWT-based index because of concern about the method of estimating the terminal fishery rates. Nanaimo and Cowichan stocks are no longer reported separately in the model-based index because a way to split the two stocks in the base period has not yet been developed.


Figure 3-10. CWT-based ISBM indices for Canadian fisheries for 1999-2010.
Five of the 16 U.S. ISBM indices for the CWT-based estimates for 2010 were reduced more than required. The other 11 U.S. CWT-based ISBM indices exceeded 0.60. All of these stocks met or exceeded their respective escapement goals, and thus are exempted from the general obligation.


Figure 3-11. CWT-based ISBM indices for U.S. fisheries for 1999-2010.

### 3.5.2 Predicted ISBM Indices for 2012

Seven of the 19 ISBM indices for Canada are predicted to exceed the allowable value of 0.635 for Canadian ISBM fisheries in 2012 based on outputs from calibration 1209 (Table 3-7). Six of these seven stocks do not have CTC-accepted management objectives and include all Puget Sound Natural Summer/Fall stocks and WCVI. The remaining stock, the Lewis River, exceeded its CTC escapement goal in 2011.

Ten of the 23 U.S. ISBM indices are predicted to be above the allowable limit of 0.60 for U.S. ISBM fisheries in 2012 based on calibration 1209 (Table 3-8). All but Grays Harbor, Greeen River, and Stillaguamish (which has an exploitation rate objective) have CTC agreed escapement goals: Quillayute, Columbia Upriver Brights, Deschutes, Mid-Columbia Summers, Nehalem, Siletz, and Siuslaw. Of the stocks with goals, all were above their goals in 2011.

### 3.5.3 CWT ISBM Indices for 2011

One of the limitations of the current ISBM indices relates to delayed data availability (CTC 2011). The data needed to calculate the postseason ISBM CWT-based index for several stocks caught in U.S. ISBM fisheries are not available at the time the index must be computed for timely use. Catch estimates from some U.S. ISBM fisheries may not be available until at least one year after a fishery has occurred, either because the catch data are unavailable or because
multiple agencies have not reached timely agreement on the 'final' catch estimates needed to generate expansion factors for CWT recoveries. Because these recoveries are needed to estimate cohort sizes, the consequence of these delays in the availability of CWT data from some U.S. fisheries is that the ISBM indices for both countries may not be computed within a timeframe for ISBM evaluations and to inform fishing plans for the upcoming season. Each agency's procedures for sampling fisheries for CWTs, decoding CWTs, and data management generally meet the timelines necessary for the CTC to develop the ISBM indices on time. However, the catch estimates that are necessary to expand the CWT sample data and some of the escapement CWT samples are not available on time for some Washington and Oregon sport and net fisheries.

One of the recommendations of the CTC's ISBM workgroup was that if late CWT data reporting issues are irresolvable for some U.S. ISBM fisheries, then estimation models should be developed and reviewed to enable the CTC to report the ISBM indices on time to use in the preseason management process for the next season (CTC 2011). Reducing the two-year time lag for CWT-based indices is highly desirable and possible for some Canadian stocks with timely available catch and CWT recovery data. The computation of CWT-based ISBM indices for year 2011 was possible for four Canadian stocks and these values are shown in Table 3-9. ISBM indices for stock groups Lower Strait of Georgia, Fraser Late, and Upper Strait of Georgia were below the general obligation, within the range observed from 1999 to 2010, and relatively close to the period average. The 2011 CWT index value for the WCVI stock group was greater than the general obligation and substantially larger than the index average for 1999-2010. There is a precedent of a higher CWT-based ISBM index value (0.906) for this stock group in 2007.

Table 3-9. 2011 Canadian and U.S. CWT-based ISBM indices for Canadian stock groups based on 2012 CWT analysis, their average CWT index values for 1999-2010, and model-based ISBM indices for 2011 and the average model values for 19992012. Values in parenthesis represent standard deviations.

| Stock Group | Escapement Indicator Stock | Canadian ISBM |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { CWT Indices } \\ 2011 \end{gathered}$ | CWT Indices Average (1999-2010) | Model Indices 2011 | Model Indices Average (1999-2012) |
| Lower Strait of Georgia | Cowichan | 0.172 | $\begin{gathered} 0.251 \\ (0.133) \end{gathered}$ | 0.367 | $\begin{gathered} 0.414 \\ (0.146) \end{gathered}$ |
| Fraser Late | Harrison River | 0.103 | $\begin{gathered} 0.063 \\ (0.031) \end{gathered}$ | 0.193 | $\begin{gathered} 0.292 \\ (0.138) \end{gathered}$ |
| Upper Strait of Georgia | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | 0.033 | $\begin{gathered} 0.096 \\ (0.090) \end{gathered}$ | 0.578 | $\begin{gathered} 0.423 \\ (0.273) \end{gathered}$ |
| West Coast Vancouver Island Falls | WCVI <br> (Artlish, <br> Burman, <br> Kauok, <br> Tahsis, <br> Tashish, <br> Marble) | 0.788 | $\begin{gathered} 0.387 \\ (0.259) \end{gathered}$ | 0.491 | $\begin{gathered} 0.555 \\ (0.405) \end{gathered}$ |
| U.S. ISBM |  |  |  |  |  |
| Lower Strait of Georgia | Cowichan | 2.27 | $\begin{gathered} 6.402 \\ (4.301) \end{gathered}$ | 0.367 | $\begin{gathered} 0.402 \\ (0.257) \end{gathered}$ |
| Fraser Late | Harrison River | 0.27 | $\begin{gathered} 0.351 \\ (0.164) \end{gathered}$ | 0.497 | $\begin{gathered} 0.599 \\ (0.237) \end{gathered}$ |

### 3.6 General Forecast Methods

For those stocks with externally provided forecasts of abundance in 2012, management agencies used two general methods to predict terminal returns or escapements:

Sibling Models. Empirical relationships between abundance (commonly measured as terminal run size) of age $a$ fish in calendar year CY and the comparable abundance of age $a+1$ fish in year $\mathrm{CY}+1$ are used to predict abundance in 2012 from data collected in previous years (forecast type $S$ in Table 3-2 ).

Average Return Rate Models. Return rates of adults by age from smolts or parents are averaged over past brood years, then these averages are used to discount abundance of smolts or parents for brood years that will be exploited in 2012 (forecast type R in Table 3-2).

### 3.6.1 Agency Stock Forecast Used In The Model

A summary of model-produced and agency-produced forecasts from 1999-2012 is shown in Table 3-10. The relationship between the model indicator stocks and exploitation rate indicator stocks and PST Annex stocks are shown in Appendix A. A major factor influencing the ability of the model to predict Chinook salmon abundance in AABM fisheries is the ability of the model to predict the returns of Chinook salmon (in terms of ocean escapement or spawning escapement) in the forecast year. During model calibration, agency forecasts are input to the model for all model stocks for which model forecasts are available. Thus, for model stocks with external forecasts, the variation between model forecasts and actual returns can be broken into two parts: the ability of the model to match the agency forecasts used as inputs to the model, and the ability of the agency forecasts to accurately predict the actual return of Chinook salmon in the upcoming year. In Table 3-10 the column labeled 'Model Fcst/Agency Fcst' shows the ratio of the model prediction and the agency forecast as a percentage. The column labeled 'Agency Fcst/Postseason' shows the ratio of the agency forecast and the actual return as a percentage. The column labeled 'Model Fcst/Postseason' shows the ratio of the return predicted by the model and the actual return as a percentage. A value of $100 \%$ would indicate that the predicted and actual values were the same.

The model forecasts are similar to the agency forecasts on average. This result is strongly influenced by the incorporation of the agency forecasts into the model calibration procedure. The mean absolute percent error (MAPE) of all 'Model Fcst/Agency Fcst' is $12.0 \%$, and the average percent error is $0.4 \%$. For all agency forecasts, the MAPE is $36.5 \%$ and the average percent error is $-8.5 \%$ with respect to the postseason estimate. For model forecasts, the MAPE is $35.2 \%$ with respect to the postseason estimate, whereas, the average percent error is $-7.6 \%$

The effect of the error in predicting terminal returns or escapement on the AABM abundance indices varies between fisheries and stocks. There is no clear directional bias of this error. For example, a small stock (small in ocean abundance terms) that is over or under predicted will generally not have a large effect on a fishery's abundance index. Errors in predicting a large stock may or may not affect a fishery's index, depending on the contribution of that stock to the fishery in question (see Appendix F for the model estimated stock composition of selected ocean fisheries). In addition, since the abundance index is a relative, rather than an absolute measure of abundance, over or under prediction of a stock's terminal return or escapement would not affect the abundance index of a fishery if the bias in the prediction is consistent over all years in the index, including the base period.

Table 3-10 $\quad$ Preseason forecasts and postseason estimates for PSC model stocks, 1999-2011.

| Stock | Year | Model Forecast | Agency Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ Postseason | Model Fcst/ Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{AKS}^{1}$ | 1999 | 11,866 | n/a | 12,337 | n/a | n/a | 96\% |
| (Alaska | 2000 | 18,967 | n/a | 16,361 | n/a | n/a | 116\% |
| SSE) | 2001 | 22,130 | n/a | 21,585 | n/a | n/a | 103\% |
|  | 2002 | 15,650 | n/a | 18,676 | n/a | n/a | 84\% |
|  | 2003 | 22,316 | n/a | 14,619 | n/a | n/a | 153\% |
|  | 2004 | 11,880 | n/a | 17,274 | n/a | n/a | 69\% |
|  | 2005 | 25,204 | n/a | 15,254 | n/a | n/a | 165\% |
|  | 2006 | 17,988 | n/a | 20,730 | n/a | $\mathrm{n} / \mathrm{a}$ | 87\% |
|  | 2007 | 25,653 | n/a | 15,084 | n/a | n/a | 170\% |
|  | 2008 | 14,626 | $\mathrm{n} / \mathrm{a}$ | 13,735 | n/a | n/a | 106\% |
|  | 2009 | 14,332 | $\mathrm{n} / \mathrm{a}$ | 10,428 | $\mathrm{n} / \mathrm{a}$ | n/a | 137\% |
|  | 2010 | 16,445 | $\mathrm{n} / \mathrm{a}$ | 16,194 | $\mathrm{n} / \mathrm{a}$ | n/a | 102\% |
|  | 2011 | 17,946 | n/a | 11,938 | n/a | n/a | 150\% |
|  | 2012 | 12,557 | n/a |  | n/a |  |  |
|  | AVG. |  |  |  | $\mathrm{n} / \mathrm{a}$ | n/a | 118\% |
| NTH ${ }^{2}$ | 1999 | 149,593 | n/a | 154,294 | n/a | n/a | 97\% |
| (North/ | 2000 | 159,818 | n/a | 188,482 | n/a | n/a | 85\% |
| Central BC) | 2001 | 189,088 | n/a | 214,541 | n/a | n/a | 88\% |
|  | 2002 | 228,073 | n/a | 150,870 | n/a | n/a | 151\% |
|  | 2003 | 161,995 | n/a | 170,410 | n/a | n/a | 95\% |
|  | 2004 | 171,070 | n/a | 158,967 | $\mathrm{n} / \mathrm{a}$ | n/a | 108\% |
|  | 2005 | 154,552 | n/a | 139,303 | n/a | n/a | 111\% |
|  | 2006 | 133,627 | n/a | 157,627 | n/a | n/a | 85\% |
|  | 2007 | 156,017 | n/a | 126,159 | n/a | n/a | 124\% |
|  | 2008 | 131,262 | n/a | 113,750 | $\mathrm{n} / \mathrm{a}$ | n/a | 115\% |
|  | 2009 | 113,024 | n/a | 126,805 | $\mathrm{n} / \mathrm{a}$ | n/a | 89\% |
|  | 2010 | 136,998 | n/a | 114,707 | $\mathrm{n} / \mathrm{a}$ | n/a | 119\% |
|  | 2011 | 115,399 | n/a | 95,175 | n/a | n/a | 121\% |
|  | 2012 | 98,010 | n/a |  | n/a |  |  |
|  | AVG. |  |  |  | n/a | n/a | 107\% |
| RBH+RBT ${ }^{2}$ | 1999 | 78,074 | 68,400 | 101,683 | 114\% | 67\% | 77\% |
| (WCVI | 2000 | 21,040 | 15,040 | 37,047 | 140\% | 41\% | 57\% |
| Hatchery + | 2001 | 33,702 | 30,633 | 87,004 | 110\% | 35\% | 39\% |
| Natural) | 2002 | 128,068 | 109,882 | 167,731 | 117\% | 66\% | 76\% |
|  | 2003 | 111,430 | 105,801 | 215,346 | 105\% | 49\% | 52\% |
|  | 2004 | 166,548 | 144,180 | 262,103 | 116\% | 55\% | 64\% |
|  | 2005 | 244,768 | 218,840 | 157,262 | 112\% | 139\% | 156\% |
|  | 2006 | 152,662 | 138,878 | 197,097 | 110\% | 70\% | 77\% |
|  | 2007 | 151,925 | 117,321 | 118,082 | 129\% | 99\% | 129\% |
|  | 2008 | 67,347 | 60,255 | 98,267 | 112\% | 61\% | 69\% |
|  | 2009 | 63,200 | 58,382 | 87,252 | 108\% | 67\% | 72\% |
|  | 2010 | 75,748 | 61,586 | 92,480 | 123\% | 67\% | 82\% |
|  | 2011 | 86,660 | 74,708 | 161,914 | 116\% | 46\% | 54\% |
|  | 2012 | 70,838 | 54,765 |  | 129\% |  |  |
|  | AVG. |  |  |  | 117\% | 66\% | 77\% |

Table 3-10 Continued.

| Stock | Year | Model Forecast | Agency Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ <br> Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GSQ $^{1}$(Upper Straitof Georgia) | 1999 | 16,472 | n/a | 16,103 | n/a | n/a | 102\% |
|  | 2000 | 19,452 | n/a | 23,471 | $\mathrm{n} / \mathrm{a}$ | n/a | 83\% |
|  | 2001 | 25,828 | $\mathrm{n} / \mathrm{a}$ | 31,271 | $\mathrm{n} / \mathrm{a}$ | n/a | 83\% |
|  | 2002 | 41,492 | $\mathrm{n} / \mathrm{a}$ | 32,060 | $\mathrm{n} / \mathrm{a}$ | n/a | 129\% |
|  | 2003 | 36,882 | n/a | 31,376 | n/a | n/a | 118\% |
|  | 2004 | 39,766 | $\mathrm{n} / \mathrm{a}$ | 27,338 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 145\% |
|  | 2005 | 38,798 | $\mathrm{n} / \mathrm{a}$ | 26,983 | $\mathrm{n} / \mathrm{a}$ | n/a | 144\% |
|  | 2006 | 39,577 | $\mathrm{n} / \mathrm{a}$ | 31,887 | $\mathrm{n} / \mathrm{a}$ | n/a | 124\% |
|  | 2007 | 41,711 | n/a | 22,806 | $\mathrm{n} / \mathrm{a}$ | n/a | 183\% |
|  | 2008 | 30,065 | $\mathrm{n} / \mathrm{a}$ | 18,002 | $\mathrm{n} / \mathrm{a}$ | n/a | 167\% |
|  | 2009 | 26,131 | $\mathrm{n} / \mathrm{a}$ | 21,323 | $\mathrm{n} / \mathrm{a}$ | n/a | 123\% |
|  | 2010 | 26,624 | n/a | 18,765 | $\mathrm{n} / \mathrm{a}$ | n/a | 142\% |
|  | 2011 | 14,585 | $\mathrm{n} / \mathrm{a}$ | 19,470 | $\mathrm{n} / \mathrm{a}$ | n/a | 75\% |
|  | 2012 | 25,756 | n/a |  | n/a |  |  |
|  | AVG. |  |  |  | n/a | n/a | 124\% |
| GSH $^{2}$(Lower Straitof GeorgiaHatchery) | 1999 | 23,648 | n/a | 23,015 | $\mathrm{n} / \mathrm{a}$ | n/a | 103\% |
|  | 2000 | 19,165 | $\mathrm{n} / \mathrm{a}$ | 21,322 | $\mathrm{n} / \mathrm{a}$ | n/a | 90\% |
|  | 2001 | 17,547 | n/a | 29,633 | $\mathrm{n} / \mathrm{a}$ | n/a | 59\% |
|  | 2002 | 25,051 | n/a | 22,064 | n/a | n/a | 114\% |
|  | 2003 | 22,409 | $\mathrm{n} / \mathrm{a}$ | 21,496 | $\mathrm{n} / \mathrm{a}$ | n/a | 104\% |
|  | 2004 | 16,573 | n/a | 20,852 | $\mathrm{n} / \mathrm{a}$ | n/a | 79\% |
|  | 2005 | 21,046 | n/a | 25,941 | $\mathrm{n} / \mathrm{a}$ | n/a | 81\% |
|  | 2006 | 22,937 | n/a | 22,109 | $\mathrm{n} / \mathrm{a}$ | n/a | 104\% |
|  | 2007 | 24,378 | n/a | 12,733 | n/a | n/a | 191\% |
|  | 2008 | 11,765 | $\mathrm{n} / \mathrm{a}$ | 12,011 | $\mathrm{n} / \mathrm{a}$ | n/a | 98\% |
|  | 2009 | 7,371 | $\mathrm{n} / \mathrm{a}$ | 13,380 | $\mathrm{n} / \mathrm{a}$ | n/a | 55\% |
|  | 2010 | 7,999 | n/a | 11,605 | n/a | n/a | 69\% |
|  | 2011 | 9,159 | n/a | 9,555 | n/a | n/a | 96\% |
|  | 2012 | 10,104 | $\mathrm{n} / \mathrm{a}$ |  | $\mathrm{n} / \mathrm{a}$ |  |  |
|  | AVG. |  |  |  | n/a | n/a | 96\% |
| $\mathrm{GST}^{1}$ <br> (Lower Strait of Georgia Natural) | 1999 | 14,737 | n/a | 8,715 | n/a | n/a | 169\% |
|  | 2000 | 11,094 | n/a | 8,223 | $\mathrm{n} / \mathrm{a}$ | n/a | 135\% |
|  | 2001 | 7,955 | n/a | 8,569 | n/a | n/a | 93\% |
|  | 2002 | 8,833 | n/a | 7,812 | $\mathrm{n} / \mathrm{a}$ | n/a | 113\% |
|  | 2003 | 8,088 | n/a | 5,903 | n/a | n/a | 137\% |
|  | 2004 | 5,157 | $\mathrm{n} / \mathrm{a}$ | 3,642 | $\mathrm{n} / \mathrm{a}$ | n/a | 142\% |
|  | 2005 | 4,459 | $\mathrm{n} / \mathrm{a}$ | 4,870 | $\mathrm{n} / \mathrm{a}$ | n/a | 92\% |
|  | 2006 | 4,945 | n/a | 4,880 | n/a | n/a | 101\% |
|  | 2007 | 7,782 | $\mathrm{n} / \mathrm{a}$ | 4,778 | $\mathrm{n} / \mathrm{a}$ | n/a | 163\% |
|  | 2008 | 6,823 | $\mathrm{n} / \mathrm{a}$ | 5,646 | n/a | n/a | 121\% |
|  | 2009 | 5,691 | $\mathrm{n} / \mathrm{a}$ | 3,106 | $\mathrm{n} / \mathrm{a}$ | n/a | 183\% |
|  | 2010 | 2,972 | n/a | 6,176 | n/a | n/a | 48\% |
|  | 2011 | 6,222 | n/a | 7,873 | n/a | n/a | 79\% |
|  | 2012 | 11,433 | $\mathrm{n} / \mathrm{a}$ |  | n/a |  |  |
|  | AVG. |  |  |  | n/a | n/a | 121\% |

Table 3-10 Continued.

| Stock | Year | Model <br> Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ <br> Agency Fcst | Agency Fcst/ Postseason | Model Fcst/ Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FRE ${ }^{2}$ | 1999 | 163,342 | n/a | 105,473 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 155\% |
| (Fraser Early) | 2000 | 118,058 | n/a | 116,233 | n/a | n/a | 102\% |
|  | 2001 | 122,333 | n/a | 154,175 | n/a | n/a | 79\% |
|  | 2002 | 170,232 | n/a | 186,827 | n/a | n/a | 91\% |
|  | 2003 | 175,919 | n/a | 188,183 | n/a | n/a | 93\% |
|  | 2004 | 185,450 | n/a | 141,029 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 131\% |
|  | 2005 | 151,591 | n/a | 134,641 | $\mathrm{n} / \mathrm{a}$ | n/a | 113\% |
|  | 2006 | 186,279 | n/a | 203,212 | n/a | n/a | 92\% |
|  | 2007 | 196,060 | n/a | 110,884 | n/a | n/a | 177\% |
|  | 2008 | 128,347 | n/a | 148,284 | n/a | n/a | 87\% |
|  | 2009 | 129,707 | n/a | 134,307 | n/a | n/a | 97\% |
|  | 2010 | 144,214 | n/a | 203,680 | n/a | n/a | 71\% |
|  | 2011 | 148,766 | n/a | 164,913 | n/a | n/a | 90\% |
|  | 2012 | 175,729 | n/a |  | n/a |  |  |
|  | AVG. |  |  |  | n/a | n/a | 106\% |
| FRL ${ }^{1}$ (Fraser Late) | 1999 | 144,316 | 82,650 | 184,099 | 175\% | 45\% | 78\% |
|  | 2000 | 187,970 | 222,400 | 120,744 | 85\% | 184\% | 156\% |
|  | 2001 | 141,745 | 131,800 | 141,196 | 108\% | 93\% | 100\% |
|  | 2002 | 132,946 | 160,100 | 165,245 | 83\% | 97\% | 80\% |
|  | 2003 | 127,144 | 114,780 | 313,929 | 111\% | 37\% | 41\% |
|  | 2004 | 104,597 | 97,227 | 196,396 | 108\% | 50\% | 53\% |
|  | 2005 | 121,315 | 108,061 | 124,704 | 112\% | 87\% | 97\% |
|  | 2006 | 116,263 | 116,682 | 108,639 | 100\% | 107\% | 107\% |
|  | 2007 | 122,402 | 107,311 | 105,385 | 114\% | 102\% | 116\% |
|  | 2008 | 125,100 | 116,038 | 88,012 | 108\% | 132\% | 142\% |
|  | 2009 | 119,886 | 91,391 | 87,365 | 131\% | 105\% | 137\% |
|  | 2010 | 119,953 | 118,891 | 188,875 | 101\% | 63\% | 64\% |
|  | 2011 | 179,875 | 284,604 | 178,224 | 63\% | 160\% | 101\% |
|  | 2012 | 107,738 | 93,652 |  | 115\% |  |  |
|  | AVG. |  |  |  | 108\% | 97\% | 98\% |
| NKS $^{1}$(NooksackSpring) | 1999 | 1068 | n/a | 251 | n/a | n/a | 425\% |
|  | 2000 | 834 | n/a | 444 | n/a | n/a | 188\% |
|  | 2001 | 982 | n/a | 531 | n/a | n/a | 185\% |
|  | 2002 | 1216 | n/a | 513 | n/a | n/a | 237\% |
|  | 2003 | 1301 | n/a | 414 | n/a | n/a | 314\% |
|  | 2004 | 1708 | n/a | 448 | n/a | n/a | 381\% |
|  | 2005 | 1549 | n/a | 330 | n/a | n/a | 469\% |
|  | 2006 | 485 | 677 | 630 | 72\% | 107\% | 77\% |
|  | 2007 | 582 | 575 | 334 | 101\% | 172\% | 174\% |
|  | 2008 | 371 | 378 | 351 | 98\% | 108\% | 106\% |
|  | 2009 | 336 | 315 | 291 | 107\% | 108\% | 115\% |
|  | 2010 | 374 | 390 | 204 | 96\% | 191\% | 183\% |
|  | 2011 | 259 | 309 | 109 | 84\% | 283\% | 238\% |
|  | 2012 | 271 | 243 |  | 112\% |  |  |
|  | AVG. |  |  |  | 96\% | 162\% | 238\% |

Table 3-10 Continued.

| Stock | Year | Model <br> Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ <br> Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{NKF}^{2}$ | 1999 | 27,472 | 27,000 | 43,655 | 102\% | 62\% | 63\% |
| (Nooksack/ | 2000 | 21,277 | 19,000 | 34,519 | 112\% | 55\% | 62\% |
| Samish Fall | 2001 | 33,974 | 36,450 | 68,884 | 93\% | 53\% | 49\% |
| Fingerling) | 2002 | 50,361 | 54,420 | 62,938 | 93\% | 86\% | 80\% |
|  | 2003 | 48,259 | 45,750 | 33,722 | 105\% | 136\% | 143\% |
|  | 2004 | 37,980 | 34,200 | 19,102 | 111\% | 179\% | 199\% |
|  | 2005 | 19,808 | 19,523 | 20,560 | 101\% | 95\% | 96\% |
|  | 2006 | 16,854 | 16,899 | 38,635 | 100\% | 44\% | 44\% |
|  | 2007 | 22,086 | 18,834 | 32,770 | 117\% | 57\% | 67\% |
|  | 2008 | 34,392 | 35,271 | 34,181 | 98\% | 103\% | 101\% |
|  | 2009 | 20,813 | 23,014 | 25,679 | 90\% | 90\% | 81\% |
|  | 2010 | 32,061 | 32,627 | 40,798 | 98\% | 80\% | 79\% |
|  | 2011 | 30,839 | 37,902 | 37,975 | 81\% | 100\% | 81\% |
|  | 2012 | 45,719 | 43,973 |  | 104\% |  |  |
|  | AVG. |  |  |  | 100\% | 88\% | 88\% |
| $\mathrm{SNO}^{2}$ <br> (Snohomish <br> Wild) | 1999 | 5,823 | 5,600 | 4,839 | 104\% | 116\% | 120\% |
|  | 2000 | 5,997 | 6,000 | 6,120 | 100\% | 98\% | 98\% |
|  | 2001 | 5,876 | 5,760 | 8,464 | 102\% | 68\% | 69\% |
|  | 2002 | 6,524 | 6,700 | 7,266 | 97\% | 92\% | 90\% |
|  | 2003 | 6,033 | 5,450 | 5,597 | 111\% | 97\% | 108\% |
|  | 2004 | 12,845 | 15,700 | 10,701 | 82\% | 147\% | 120\% |
|  | 2005 | 10,161 | n/a | 4,680 | n/a | n/a | 217\% |
|  | 2006 | 7,831 | 8,729 | 8,481 | 90\% | 103\% | 92\% |
|  | 2007 | 11,153 | 12,289 | 4,004 | 91\% | 307\% | 279\% |
|  | 2008 | 6,103 | 6,541 | 8,494 | 93\% | 77\% | 72\% |
|  | 2009 | 7,558 | 8,410 | 2,347 | 90\% | 358\% | 322\% |
|  | 2010 | 8,050 | 9,858 | 4,697 | 82\% | 210\% | 171\% |
|  | 2011 | 7,437 | 7,600 | 1,192 | 98\% |  |  |
|  | 2012 | 2,506 | 2,775 |  | 90\% |  |  |
|  | AVG. |  |  |  | 95\% | 152\% | 147\% |
| SKG ${ }^{2}$ <br> (Skagit <br> Summer/ <br> Fall Wild) | 1999 | 9,107 | 7,600 | 5,139 | 120\% | 148\% | 177\% |
|  | 2000 | 6,988 | 7,300 | 16,266 | 96\% | 45\% | 43\% |
|  | 2001 | 9,064 | 9,184 | 14,193 | 99\% | 65\% | 64\% |
|  | 2002 | 12,635 | 13,455 | 18,114 | 94\% | 74\% | 70\% |
|  | 2003 | 11,906 | 11,348 | 10,583 | 105\% | 107\% | 113\% |
|  | 2004 | 18,761 | 20,359 | 22,144 | 92\% | 92\% | 85\% |
|  | 2005 | 16,220 | 19,493 | 22,784 | 83\% | 86\% | 71\% |
|  | 2006 | 22,765 | 21,811 | 21,246 | 104\% | 103\% | 107\% |
|  | 2007 | 12,324 | 14,252 | 12,646 | 86\% | 113\% | 97\% |
|  | 2008 | 18,598 | 18,302 | 14,254 | 102\% | 128\% | 130\% |
|  | 2009 | 19,607 | 20,400 | 10,977 | 96\% | 186\% | 179\% |
|  | 2010 | 9,894 | 11,853 | 7,926 | 83\% | 150\% | 125\% |
|  | 2011 | 11,210 | 13,044 | 8,382 | 86\% | 156\% | 134\% |
|  | 2012 | 10,020 | 8,337 |  | 120\% |  |  |
|  | AVG. |  |  |  | 98\% | 112\% | 107\% |

Table 3-10 Continued.

| Stock | Year | Model <br> Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PSN ${ }^{2}$ | 1999 | 28,800 | 28,400 | 26,807 | 101\% | 106\% | 107\% |
| (Puget Sound | 2000 | 15,364 | 10,000 | 23,270 | 154\% | 43\% | 66\% |
| Natural) | 2001 | 19,938 | 18,900 | 42,441 | 105\% | 45\% | 47\% |
|  | 2002 | 20,008 | 19,801 | 33,530 | 101\% | 59\% | 60\% |
|  | 2003 | 25,743 | 26,600 | 17,704 | 97\% | 150\% | 145\% |
|  | 2004 | 24,616 | 23,200 | 37,801 | 106\% | 61\% | 65\% |
|  | 2005 | 22,208 | 17,715 | 15,961 | 125\% | 111\% | 139\% |
|  | 2006 | 20,207 | 21,301 | 23,378 | 95\% | 91\% | 86\% |
|  | 2007 | 18,964 | 17,014 | 20,321 | 111\% | 84\% | 93\% |
|  | 2008 | 23,118 | 21,100 | 26,958 | 110\% | 78\% | 86\% |
|  | 2009 | 20,287 | 23,073 | 9,918 | 88\% | 233\% | 205\% |
|  | 2010 | 14,734 | 15,128 | 13,401 | 97\% | 113\% | 110\% |
|  | 2011 | 14,314 | 15,997 | 11,659 | 89\% | 137\% | 123\% |
|  | 2012 | 14,396 | 13,860 |  | 104\% |  |  |
|  | AVG. |  |  |  | 106\% | 101\% | 103\% |
| STL $^{1}$(StillaguamishSummer/FallWild) | 1999 | 1,332 | n/a | 1,194 | n/a | n/a | 112\% |
|  | 2000 | 1,370 | 1,500 | 1,612 | 91\% | 91\% | 85\% |
|  | 2001 | 1,328 | 1,360 | 1,351 | 98\% | 98\% | 98\% |
|  | 2002 | 1,372 | 1,449 | 1,564 | 95\% | 91\% | 88\% |
|  | 2003 | 1,860 | 2,050 | 990 | 91\% | 207\% | 188\% |
|  | 2004 | 1,795 | n/a | 1,509 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 119\% |
|  | 2005 | 1,377 | n/a | 1,036 | n/a | n/a | 133\% |
|  | 2006 | 1,116 | 1,169 | 1,253 | 95\% | 92\% | 89\% |
|  | 2007 | 1,424 | 1,510 | 607 | 94\% | 192\% | 235\% |
|  | 2008 | 689 | 637 | 1,671 | 108\% | 35\% | 41\% |
|  | 2009 | 1,268 | 1,086 | 1,001 | 117\% | 108\% | 127\% |
|  | 2010 | 898 | 817 | 783 | 110\% | 104\% | 115\% |
|  | 2011 | 718 | 783 | 1,018 | 92\% | 77\% | 71\% |
|  | 2012 | 569 | 395 |  | 144\% |  |  |
|  | AVG. |  |  |  | 103\% | 110\% | 115\% |
| $\begin{gathered} \hline \text { PSF+PSY }{ }^{2} \\ \text { (Puget Sound } \\ \text { Fingerling + } \\ \text { Yearling) } \end{gathered}$ | 1999 | 66,876 | 69,285 | 139,869 | 97\% | 50\% | 48\% |
|  | 2000 | 67,306 | 69,800 | 103,367 | 96\% | 68\% | 65\% |
|  | 2001 | 102,899 | 105,955 | 138,565 | 97\% | 76\% | 74\% |
|  | 2002 | 114,889 | 124,608 | 142,621 | 92\% | 87\% | 81\% |
|  | 2003 | 114,275 | 133,850 | 139,415 | 85\% | 96\% | 82\% |
|  | 2004 | 127,902 | 132,300 | 128,126 | 97\% | 103\% | 100\% |
|  | 2005 | 104,084 | 110,542 | 157,045 | 94\% | 70\% | 66\% |
|  | 2006 | 107,452 | 113,486 | 182,965 | 95\% | 62\% | 59\% |
|  | 2007 | 127,115 | 135,714 | 208,607 | 94\% | 65\% | 61\% |
|  | 2008 | 166,071 | 159,200 | 148,563 | 104\% | 107\% | 112\% |
|  | 2009 | 110,373 | 133,187 | 128,493 | 83\% | 104\% | 86\% |
|  | 2010 | 138,238 | 140,074 | 133,715 | 99\% | 105\% | 103\% |
|  | 2011 | 131,361 | 168,642 | 131,104 | 78\% | 129\% | 100\% |
|  | 2012 | 153,462 | 153,989 |  | 100\% |  |  |
|  | AVG. |  |  |  | 94\% | 86\% | 80\% |

Table 3-10 Continued.

| Stock | Year | Model Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ <br> Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WCN ${ }^{2}$ | 1999 | 42,129 | 43,780 | 23,899 | 96\% | 175\% | 176\% |
| (Washington | 2000 | 34,741 | n/a | 26,360 | $\mathrm{n} / \mathrm{a}$ | n/a | 132\% |
| Coastal | 2001 | 34,563 | 35,306 | 34,344 | 98\% | 99\% | 101\% |
| Natural) | 2002 | 33,902 | 33,489 | 36,175 | 101\% | 90\% | 94\% |
|  | 2003 | 32,785 | n/a | 39,859 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 82\% |
|  | 2004 | 28,185 | $\mathrm{n} / \mathrm{a}$ | 58,681 | n/a | $\mathrm{n} / \mathrm{a}$ | 48\% |
|  | 2005 | 34,857 | $\mathrm{n} / \mathrm{a}$ | 41,860 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 83\% |
|  | 2006 | 45,084 | $\mathrm{n} / \mathrm{a}$ | 37,603 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 120\% |
|  | 2007 | 35,695 | 32,362 | 24,917 | 110\% | 130\% | 143\% |
|  | 2008 | 32,187 | 26,923 | 30,494 | 120\% | 88\% | 106\% |
|  | 2009 | 29,758 | 31,318 | 25,767 | 95\% | 122\% | 115\% |
|  | 2010 | 39,215 | $\mathrm{n} / \mathrm{a}$ | 38,457 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 102\% |
|  | 2011 | 28,079 | $\mathrm{n} / \mathrm{a}$ | 43,925 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 64\% |
|  | 2012 | 45,153 | $\mathrm{n} / \mathrm{a}$ |  | $\mathrm{n} / \mathrm{a}$ |  |  |
|  | AVG. |  |  |  | 103\% | 117\% | 105\% |
| $\mathrm{WCH}^{2}$ <br> (Washington <br> Coastal <br> Hatchery) | 1999 | 35,239 | 42,752 | 14,664 | 82\% | 292\% | 240\% |
|  | 2000 | 16,244 | $\mathrm{n} / \mathrm{a}$ | 22,545 | n/a | n/a | 72\% |
|  | 2001 | 15,792 | $\mathrm{n} / \mathrm{a}$ | 23,156 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 68\% |
|  | 2002 | 23,678 | n/a | 34,685 | $\mathrm{n} / \mathrm{a}$ | n/a | 68\% |
|  | 2003 | 20,755 | 18,222 | 41,839 | 114\% | 44\% | 50\% |
|  | 2004 | 28,900 | $\mathrm{n} / \mathrm{a}$ | 40,078 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 72\% |
|  | 2005 | 28,626 | $\mathrm{n} / \mathrm{a}$ | 42,656 | n/a | $\mathrm{n} / \mathrm{a}$ | 67\% |
|  | 2006 | 37,879 | n/a | 52,403 | n/a | n/a | 72\% |
|  | 2007 | 41,801 | 40,497 | 24,701 | 103\% | 164\% | 169\% |
|  | 2008 | 34,841 | 31,251 | 27,197 | 111\% | 115\% | 128\% |
|  | 2009 | 35,603 | 42,595 | 39,087 | 84\% | 109\% | 91\% |
|  | 2010 | 38,347 | n/a | 39,990 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 96\% |
|  | 2011 | 33,728 | $\mathrm{n} / \mathrm{a}$ | 38,810 | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | 87\% |
|  | 2012 | 45,128 | n/a |  | n/a |  |  |
|  | AVG. |  |  |  | 99\% | 145\% | 99\% |
| CWS ${ }^{2}$ <br> (Cowlitz <br> Spring) | 1999 | 3,363 | 3,950 | 4,799 | 85\% | 82\% | 70\% |
|  | 2000 | 4,922 | 6,050 | 6,132 | 81\% | 99\% | 80\% |
|  | 2001 | 3,684 | 4,849 | 7,182 | 76\% | 68\% | 51\% |
|  | 2002 | 5,534 | 6,800 | 11,644 | 81\% | 58\% | 48\% |
|  | 2003 | 9,550 | 11,700 | 25,584 | 82\% | 46\% | 37\% |
|  | 2004 | 20,802 | 27,350 | 28,696 | 76\% | 95\% | 72\% |
|  | 2005 | 18,349 | 24,850 | 16,227 | 74\% | 153\% | 113\% |
|  | 2006 | 12,841 | 15,250 | 19,685 | 84\% | 77\% | 65\% |
|  | 2007 | 9,945 | 10,600 | 19,519 | 94\% | 54\% | 51\% |
|  | 2008 | 9,544 | 12,400 | 6,838 | 77\% | 181\% | 140\% |
|  | 2009 | 5,122 | 14,400 | 7,867 | 36\% | 183\% | 65\% |
|  | 2010 | 18,927 | 19,409 | 12,410 | 98\% | 156\% | 153\% |
|  | 2011 | 8,427 | 10,602 | 6,264 | 79\% | 169\% | 135\% |
|  | 2012 | 9,287 | 8,724 |  | 106\% |  |  |
|  | AVG. |  |  |  | 81\% | 109\% | 83\% |

Table 3-10 Continued.

| Stock | Year | Model <br> Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WSH ${ }^{2}$ | 1999 | 46,187 | 49,875 | 57,787 | 93\% | 86\% | 80\% |
| (Willamette | 2000 | 57,202 | 61,211 | 61,292 | 93\% | 100\% | 93\% |
| Spring) | 2001 | 59,207 | 59,600 | 85,695 | 99\% | 70\% | 69\% |
|  | 2002 | 73,151 | 77,434 | 127,613 | 94\% | 61\% | 57\% |
|  | 2003 | 108,530 | 112,521 | 132,199 | 96\% | 85\% | 82\% |
|  | 2004 | 113,708 | 112,701 | 157,126 | 101\% | 72\% | 72\% |
|  | 2005 | 105,111 | 122,280 | 68,642 | 86\% | 178\% | 153\% |
|  | 2006 | 48,879 | 52,388 | 64,044 | 93\% | 82\% | 76\% |
|  | 2007 | 44,542 | 61,071 | 43,301 | 73\% | 141\% | 103\% |
|  | 2008 | 20,185 | 40,851 | 32,628 | 49\% | 125\% | 62\% |
|  | 2009 | 41,793 | 41,205 | 42,088 | 101\% | 98\% | 99\% |
|  | 2010 | 70,960 | 66,360 | 119,114 | 107\% | 56\% | 60\% |
|  | 2011 | 113,667 | 109,600 | 84,603 | 104\% | 130\% | 134\% |
|  | 2012 | 105,098 | 88,202 |  | 119\% |  |  |
|  | AVG |  |  |  | 94\% | 99\% | 88\% |
| SUM ${ }^{2}$ | 1999 | 21,651 | 20,900 | 21,867 | 104\% | 96\% | 99\% |
| (Columbia | 2000 | 27,214 | 28,038 | 22,595 | 97\% | 124\% | 120\% |
| River Summer) | 2001 | 27,029 | 24,500 | 52,960 | 110\% | 46\% | 51\% |
|  | 2002 | 70,290 | 77,700 | 89,524 | 90\% | 87\% | 79\% |
|  | 2003 | 97,280 | 87,600 | 83,058 | 111\% | 105\% | 117\% |
|  | 2004 | 83,246 | 78,589 | 65,623 | 106\% | 120\% | 127\% |
|  | 2005 | 66,190 | 62,400 | 60,272 | 106\% | 104\% | 110\% |
|  | 2006 | 75,893 | 78,512 | 77,573 | 97\% | 101\% | 98\% |
|  | 2007 | 56,948 | 45,555 | 37,035 | 125\% | 123\% | 154\% |
|  | 2008 | 50,171 | 52,000 | 55,532 | 96\% | 94\% | 90\% |
|  | 2009 | 59,367 | 70,700 | 53,881 | 84\% | 131\% | 110\% |
|  | 2010 | 81,403 | 88,800 | 72,364 | 92\% | 123\% | 112\% |
|  | 2011 | 80,607 | 91,900 | 80,574 | 88\% | 114\% | 100\% |
|  | 2012 | 91,202 | 91,200 |  | 100\% |  |  |
|  | AVG |  |  |  | 100\% | 105\% | 105\% |
| $\mathrm{BON}+\mathrm{CWF}^{2}$ | 1999 | 26,651 | 34,800 | 39,881 | 77\% | 87\% | 67\% |
| (Bonneville + | 2000 | 17,095 | 23,700 | 26,971 | 72\% | 88\% | 63\% |
| Cowlitz | 2001 | 28,732 | 32,200 | 94,240 | 89\% | 34\% | 30\% |
| Hatcheries) | 2002 | 100,401 | 137,600 | 156,411 | 73\% | 88\% | 64\% |
|  | 2003 | 100,196 | 115,900 | 154,960 | 86\% | 75\% | 65\% |
|  | 2004 | 64,696 | 77,100 | 108,308 | 84\% | 71\% | 60\% |
|  | 2005 | 65,971 | 74,100 | 73,861 | 89\% | 100\% | 89\% |
|  | 2006 | 49,302 | 55,800 | 58,317 | 88\% | 96\% | 85\% |
|  | 2007 | 49,219 | 54,900 | 32,689 | 90\% | 168\% | 151\% |
|  | 2008 | 58,557 | 59,000 | 60,268 | 99\% | 98\% | 97\% |
|  | 2009 | 66,704 | 88,800 | 76,738 | 75\% | 116\% | 87\% |
|  | 2010 | 95,581 | 90,600 | 103,055 | 105\% | 88\% | 93\% |
|  | 2011 | 104,985 | 133,430 | 108,961 | 79\% | 122\% | 96\% |
|  | 2012 | 132,629 | 127,000 |  | 104\% |  |  |
|  | AVG |  |  |  | 87\% | 95\% | 81\% |

Table 3-10 Continued.

| Stock | Year | Model Forecast | Agency <br> Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ <br> Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPR ${ }^{2}$ | 1999 | 62,831 | 65,800 | 50,189 | 95\% | 131\% | 125\% |
| (Spring Creek | 2000 | 17,335 | 21,900 | 20,528 | 79\% | 107\% | 84\% |
| Hatchery) | 2001 | 56,089 | 56,600 | 124,954 | 99\% | 45\% | 45\% |
|  | 2002 | 153,070 | 144,400 | 160,836 | 106\% | 90\% | 95\% |
|  | 2003 | 89,116 | 96,900 | 180,592 | 92\% | 54\% | 49\% |
|  | 2004 | 124,820 | 138,000 | 175,245 | 90\% | 79\% | 71\% |
|  | 2005 | 92,021 | 114,100 | 93,145 | 81\% | 122\% | 99\% |
|  | 2006 | 43,624 | 50,000 | 27,918 | 87\% | 179\% | 156\% |
|  | 2007 | 19,421 | 21,800 | 14,549 | 89\% | 150\% | 133\% |
|  | 2008 | 87,109 | 87,200 | 79,433 | 100\% | 110\% | 110\% |
|  | 2009 | 32,585 | 59,300 | 48,970 | 55\% | 121\% | 67\% |
|  | 2010 | 167,251 | 169,000 | 130,768 | 99\% | 129\% | 128\% |
|  | 2011 | 70,478 | 116,400 | 70,577 | 61\% | 165\% | 100\% |
|  | 2012 | 72,135 | 63,800 |  | 113\% |  |  |
|  | AVG. |  |  |  | 89\% | 114\% | 97\% |
| URB $^{2}$(ColumbiaUpriverBright) | 1999 | 173,866 | 147,500 | 165,889 | 118\% | 89\% | 105\% |
|  | 2000 | 212,317 | 171,100 | 156,553 | 124\% | 109\% | 136\% |
|  | 2001 | 150,973 | 127,200 | 232,491 | 119\% | 55\% | 65\% |
|  | 2002 | 249,721 | 281,000 | 276,948 | 89\% | 101\% | 90\% |
|  | 2003 | 246,890 | 280,400 | 373,191 | 88\% | 75\% | 66\% |
|  | 2004 | 246,943 | 292,200 | 362,804 | 85\% | 81\% | 68\% |
|  | 2005 | 318,535 | 352,200 | 278,339 | 90\% | 127\% | 114\% |
|  | 2006 | 231,646 | 253,900 | 230,390 | 91\% | 110\% | 101\% |
|  | 2007 | 168,594 | 182,400 | 114,064 | 92\% | 160\% | 148\% |
|  | 2008 | 151,839 | 162,500 | 196,881 | 93\% | 83\% | 77\% |
|  | 2009 | 226,413 | 259,900 | 212,047 | 87\% | 123\% | 107\% |
|  | 2010 | 296,816 | 310,800 | 324,908 | 96\% | 96\% | 91\% |
|  | 2011 | 345,631 | 398,200 | 322,234 | 87\% | 124\% | 107\% |
|  | 2012 | 365,693 | 353,500 |  | 103\% |  |  |
|  | AVG. |  |  |  | 97\% | 102\% | 98\% |
| LYF $^{1}$ <br> (Snake River <br> Wild) | 1999 | 542 | n/a | 905 | n/a | n/a | 60\% |
|  | 2000 | 1,243 | n/a | 1,148 | n/a | n/a | 108\% |
|  | 2001 | 733 | 734 | 5,163 | 100\% | 14\% | 14\% |
|  | 2002 | 2,066 | n/a | 2,116 | n/a | n/a | 98\% |
|  | 2003 | 2,493 | 2,185 | 3,856 | 114\% | 57\% | 65\% |
|  | 2004 | 4,323 | 3,725 | 2,983 | 116\% | 125\% | 145\% |
|  | 2005 | 4,453 | 4,000 | 2,602 | 111\% | 154\% | 171\% |
|  | 2006 | 8,310 | 3,500 | 2,483 | 237\% | 141\% | 335\% |
|  | 2007 | 3,128 | 2,700 | 2,016 | 116\% | 134\% | 155\% |
|  | 2008 | 2,718 | 2,534 | 2,222 | 107\% | 114\% | 122\% |
|  | 2009 | 5,742 | 6,952 | 2,126 | 83\% | 327\% | 270\% |
|  | 2010 | 2,609 | 2,610 | 9,583 | 100\% | 27\% | 27\% |
|  | 2011 | 7,591 | 8,006 | 9,215 | 95\% | 87\% | 82\% |
|  | 2012 | 10,401 | 8,683 |  | 120\% |  |  |
|  | AVG. |  |  |  | 118\% | 118\% | 127\% |

Table 3-10 Continued.

| Stock | Year | Model <br> Forecast | Agency Forecast | Postseason Return | Model Fcst/ Agency Fcst | Agency Fcst/ <br> Postseason | Model Fcst/ Postseason |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{MCB}^{2}$ | 1999 | 37,997 | 38,300 | 50,800 | 99\% | 75\% | 75\% |
| (Mid-Columbia | 2000 | 53,460 | 50,600 | 37,200 | 106\% | 136\% | 144\% |
| Bright) | 2001 | 45,055 | 43,500 | 76,600 | 104\% | 57\% | 59\% |
|  | 2002 | 102,085 | 96,200 | 108,400 | 106\% | 89\% | 94\% |
|  | 2003 | 126,698 | 104,800 | 150,300 | 121\% | 70\% | 84\% |
|  | 2004 | 94,895 | 90,400 | 122,600 | 105\% | 74\% | 77\% |
|  | 2005 | 93,837 | 89,400 | 97,900 | 105\% | 91\% | 96\% |
|  | 2006 | 90,881 | 88,300 | 80,471 | 103\% | 110\% | 113\% |
|  | 2007 | 77,470 | 68,000 | 47,575 | 114\% | 143\% | 163\% |
|  | 2008 | 59,481 | 45,000 | 75,489 | 132\% | 60\% | 79\% |
|  | 2009 | 87,172 | 94,400 | 73,069 | 92\% | 129\% | 119\% |
|  | 2010 | 82,454 | 72,600 | 78,937 | 114\% | 92\% | 104\% |
|  | 2011 | 98,442 | 100,000 | 87,263 | 98\% | 115\% | 113\% |
|  | 2012 | 100,809 | 90,800 |  | 111\% |  |  |
|  | AVG |  |  |  | 108\% | 95\% | 102\% |
| LRW ${ }^{2}$ | 1999 | 3,072 | 2,600 | 3,349 | 118\% | 78\% | 92\% |
| (Lewis River Wild) | 2000 | 4,053 | 3,500 | 10,234 | 116\% | 34\% | 40\% |
|  | 2001 | 16,574 | 16,700 | 15,721 | 99\% | 106\% | 105\% |
|  | 2002 | 18,910 | 18,200 | 24,948 | 104\% | 73\% | 76\% |
|  | 2003 | 25,820 | 24,600 | 26,021 | 105\% | 95\% | 99\% |
|  | 2004 | 24,590 | 24,100 | 22,327 | 102\% | 108\% | 110\% |
|  | 2005 | 21,937 | 20,200 | 16,767 | 109\% | 120\% | 131\% |
|  | 2006 | 19,826 | 16,600 | 17,896 | 119\% | 93\% | 111\% |
|  | 2007 | 10,306 | 10,100 | 4,276 | 102\% | 236\% | 241\% |
|  | 2008 | 4,479 | 3,800 | 7,120 | 118\% | 53\% | 63\% |
|  | 2009 | 8,478 | 8,500 | 7,533 | 100\% | 113\% | 113\% |
|  | 2010 | 11,034 | 9,700 | 10,862 | 114\% | 89\% | 102\% |
|  | 2011 | 12,445 | 12,500 | 15,180 | 100\% | 82\% | 82\% |
|  | 2012 | 17,806 | 16,200 |  | 110\% |  |  |
|  | AVG |  |  |  | 108\% | 99\% | 105\% |
| ORC ${ }^{1}$ <br> (Oregon <br> Coastal) | 1999 | 65,338 | 72,084 | 84,293 | 91\% | 86\% | 78\% |
|  | 2000 | 61,457 | 63,259 | 69,074 | 97\% | 92\% | 89\% |
|  | 2001 | 58,062 | 66,412 | 132,732 | 87\% | 50\% | 44\% |
|  | 2002 | 73,055 | 73,914 | 176,929 | 99\% | 42\% | 41\% |
|  | 2003 | 101,310 | 85,483 | 174,091 | 119\% | 49\% | 58\% |
|  | 2004 | 135,716 | 131,904 | 130,907 | 103\% | 101\% | 104\% |
|  | 2005 | 133,886 | 167,213 | 167,682 | 80\% | 100\% | 80\% |
|  | 2006 | 126,393 | 136,373 | 110,191 | 93\% | 124\% | 115\% |
|  | 2007 | 108,338 | 131,195 | 47,012 | 83\% | 279\% | 230\% |
|  | 2008 | 53,417 | 70,101 | 39,615 | 76\% | 177\% | 135\% |
|  | 2009 | 32,253 | 48,072 | 41,800 | 67\% | 115\% | 77\% |
|  | 2010 | 51,234 | 59,806 | 64,799 | 86\% | 92\% | 79\% |
|  | 2011 | 67,203 | 78,199 | 87,646 | 86\% | 89\% | 77\% |
|  | 2012 | 82,789 | 80,749 |  | 103\% |  |  |
|  | AVG |  |  |  | 91\% | 107\% | 93\% |

[^2]
## 4 EVALUATION OF MARK-SELECTIVE FISHERIES

Chinook salmon released from Puget Sound hatcheries and spring-run hatchery Chinook salmon in the Columbia River have been mass-marked since brood 1998. Mass marking of Columbia River fall Chinook salmon started with brood year 2005 and for brood year 2009 onwards most of the Chinook salmon production intended for harvest released in Washington and Oregon has been mass marked (SFEC 2009). Mark selective fisheries (MSFs) have been in place in Puget Sound (including US Strait of Juan de Fuca) since 2003, on the Columbia River since 2001, and in BC Juan de Fuca since 2008 (Table 4-1). Additionally, the first ocean mark-selective Chinook fishery occurred off the Washington Coast (Areas 1-4) in 2010.

### 4.1 Catch in MSFs

MSFs have been in place in Puget Sound in Washington Areas 5 and 6, part of Puget Sound North Sport (PSN Sp) during the summer since 2003. In 2005 a winter MSF started in Washington Areas 8.1 and 8.2 (Puget Sound other sport, PSO S). In 2007, additional MSFs were implemented in Washington Areas 9, 10 and 11 (PSO S) in the summer months and in Areas 7 (PSN S), 9 and 10 (PSO S) in the winter months (Table 4-1 and Table 4-2). MSFs have continued to expand in Puget Sound marine areas to the extent that in 2010 all marine sport management areas have MSFs for at least some portion of the year. Total landed catch in MSFs in marine sport fisheries remained fairly constant from 2003 to 2005, around 3,000 to 4,000, but then increased in 2007 to about 25,000, while landed catch in non-selective fisheries ranged from 20,000 to 26,000 over the same period (Figure 4-1). Since 2007, catch in MSF fisheries in northern Puget Sound marine areas has nearly doubled, while MSF catches in other marine areas have remained about the same. MSFs have been implemented in freshwater areas (TERM S) since 2003 (Figure 4-1 and Table 4-3), with total estimated MSF catch ranging from 1,000 to 7,000 . The percent of total MSF catch in the three PSC sport fisheries in Puget Sound (Figure $4-1$ ) for 2009 is about $70 \%$ in PSN, $90 \%$ in PSO, and about $50 \%$ in freshwater (TERM S).

Chinook salmon MSFs have been in place in the Columbia and Willamette rivers since 2001 (Table 4-2). Most of the catch from MSFs has been directed on mass marked spring Chinook salmon from the Willamette, Cowlitz, Kalama, Lewis Rivers in the lower Columbia, tributaries in the upper Columbia upstream of Bonneville Dam, and in the Snake River (Table 4-2). MSFs on fall Chinook salmon were first implemented in the Lower Columbia tributaries in 2008 (Grays River only) and have expanded to the other streams with significant numbers of hatchery origin fish (e.g. Elochoman, Cowlitz, Toutle, Lewis, Kalama, Washougal, Wind, White Salmon rivers and Drano Lake). The fishery in the Cowlitz River in 2009 had a mixed-bag, partial MSF limit allowing one unmarked adult Chinook salmon. Total catch in these MSF fisheries is smaller than the catches from the mainstem Columbia River that has not been under MSF regulations during the fall season (Table 4-2).

A mixed-bag, partial MSF has occurred in the BC Juan de Fuca sport fishery since 2008. The fishery has a minimum size limit of 45 cm , with a daily bag limit of 2 Chinook salmon, however wild Chinook salmon exceeding a fork length of 67 cm must be released. This partial MSF has occurred in 2008-2010. The mixed-bag, partial MSF regulation is intended to protect Fraser River spring-run age 1.2 and age 1.3 stock groups as they returned to the Fraser River.

Table 4-1. Mark selective fisheries occurring from 2003-2010 ( $\sqrt{ }$ ). See SFEC (2012) for more detailed information on MSF proposals and fisheries.

| Fishery | Location | Period | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sport | BC Strait of Juan de Fuca, selected subareas | MarchApril |  |  |  |  |  | $\checkmark$ | $\sqrt{ }$ | $\sqrt{ }$ |
| Sport | WA/OR Ocean Area 1-4 | June |  |  |  |  |  |  |  | $\checkmark$ |
| Sport | WA PS Area 5 | Summer | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 6 | Summer | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 7 | Winter |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 8.1 | Winter |  |  | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 8.2 | Winter |  |  | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 9 | Summer |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 9 | Winter |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 10 | Summer |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 10 | Winter |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 11 | Summer |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 11 | Winter |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |
| Sport | WA PS Area 12 | Winter |  |  |  |  |  |  |  | $\checkmark$ |
| Sport | WA PS Area 13 | Summer |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Nooksack | Sep-Dec |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Skykomish | Jun-July | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Carbon \& Puyallup R | Aug-Dec | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Upper Skagit | Jun-July |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Nisqually | Jul-Jan |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Skokomish | Aug-Dec |  |  |  |  |  |  |  | $\checkmark$ |
| Sport | Quillayute | Feb-Dec | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Hoh | May-Aug |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Willapa Bay | Jul-Jan |  |  |  |  |  |  |  | $\checkmark$ |
| Commercial | Willapa Bay | Aug-Nov |  |  |  |  |  |  |  | $\checkmark$ |
| Sport | Columbia | Summer | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  | $\checkmark$ |
| Sport | Lower Columbia | Spring | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Commercial (tangle net) | Lower Columbia | Spring | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Commercial, (large net) | Lower Columbia | Spring | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\sqrt{ }$ | $\checkmark$ | $\checkmark$ |
| Sport | Willamette | Spring | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Yakima R | Spring |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Lower Snake | Fall |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Sport | Oregon terminal | Spring |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |



Figure 4-1. Estimated total number of Chinook salmon landed in Selective and Non-Selective fisheries (left y-axis) and \% of catch in MSFs (right y-axis) in Puget Sound for catch years 2003-2010.




Figure 4-2. Estimated total catch (left y-axis) in Columbia River mark selective and non selective sport fisheries and catches during spring (May-June) and summer-fall seasons (Jul-Dec) and \% of catch in MSFs (right y-axis) for catch years 20032010.

Table 4-2. Retained or landed catch and total encounters (landed+released) and total mortalities (landed+release mortalities) by size and mark category in MSFs for Puget Sound and Juan de Fuca marine sport fisheries (PSN, PSO, JDF) for 20032010 and the Washington-Oregon ocean sport fishery in 2010.

| $\begin{aligned} & \overrightarrow{0} \\ & \frac{0}{3} \\ & \hline \end{aligned}$ |  | ジँ |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BC <br> Juan de <br> Fuca (JDF) | Area 19,20 | 2008 | Apr-May | 122 | 51 | $122^{1}$ | $68{ }^{1}$ | 64\% | $122^{2}$ | $64^{2}$ | $5^{2}$ | $3^{2}$ |
|  | Area 19,20 | 2009 | Mar-May | 152 | 26 | $152^{1}$ | $105^{1}$ | 59\% | $152^{2}$ | $41^{2}$ | $24^{2}$ | $16^{2}$ |
|  | Area 19,20 | 2010 | Mar-June | 827 | 347 | $827^{1}$ | $704{ }^{1}$ | 54\% | $827^{2}$ | 135 | NA | NA |
| WA/OR Ocean | Area 1-4 | 2010 | Jun | 5,018 | 19 | 7,565 | 3,791 | 67\% | 5,123 | 384 | 252 | 164 |
| PugetSound North $(\mathrm{PSN})^{3}$ | Area 5/6 | 2003 | Jul-Aug | 3,417 | 76 | 5,602 | 10,071 | 36\% | 3,287 | 783 | 567 | 1,055 |
|  | Area 5/6 | 2004 | Jul-Aug | 3,571 | 5 | 5,284 | 7,315 | 42\% | 3,475 | 730 | 438 | 495 |
|  | Area 5/6 | 2005 | Jul-Aug | 2,025 | 53 | 3,592 | 3,716 | 49\% | 1,982 | 354 | 356 | 321 |
|  | Area 5/6 | 2006 | Jul-Aug | 3,641 | 25 | 5,163 | 5,848 | 47\% | 3,546 | 553 | 399 | 456 |
|  | Area 5/6 | 2007 | Jul-Aug | 3,972 | 124 | 5,903 | 4,154 | 59\% | 3,795 | 467 | 564 | 317 |
|  | Area 5 | 2008 | Jul | 2,819 | 0 | 3,298 | 2,199 | 60\% | 2,856 | 280 | 58 | 66 |
|  | Area 5 | 2009 | Jul-Aug | 5,958 | 439 | 16,504 | 20,958 | 44\% | 4,988 | 1,009 | 3,079 | 3,223 |
|  | Area 5 | 2010 | Jul-Aug | 5,703 | 14 | 9,682 | 9,114 | 52\% | 5,624 | 758 | 875 | 828 |
|  | Area 6 | 2009 | Jul-Aug | 2,293 | -- | -- | -- | 66\% | -- | -- | -- | -- |
|  | Area 6 | 2010 | Jul-Aug | 1,383 | -- | -- | -- | 52\% | -- | -- | -- | -- |
|  | Area 7 | 2008 | Feb | 1,325 | 2 | 1,768 | 1,199 | 60\% | 1,341 | 158 | 72 | 31 |
|  | Area 7 | 2009 | Feb-Apr | 1,420 | 9 | 1,768 | 733 | 71\% | 1,448 | 115 | 42 | 3 |
|  | Area 7 | 2009-10 | Dec-Apr | 1,418 | 0 | 2,341 | 585 | 80\% | 1,442 | 66 | 161 | 29 |
| Puget Sound Other $(\mathrm{PSO})^{3}$ | Area 8-1, 2 | 2005-06 | Oct-Apr | 1,112 | 40 | 3,732 | 2,298 | 62\% | 1,068 | 161 | 568 | 290 |
|  | Area 8-1, 2 | 2006-07 | Oct-Apr | 1,176 | 33 | 13,254 | 6,598 | 67\% | 1,075 | 72 | 2,517 | 1,260 |
|  | Area 8-1, 2 | 2007-08 | Nov-Apr | 1,543 | 23 | 4,040 | 1,388 | 74\% | 1,475 | 92 | 568 | 179 |
|  | Area 8-1,2 | 2009 | Jan-Apr | 911 | 27 | 4,044 | 1,468 | 73\% | 917 | 24 | 621 | 287 |
|  | Area 8-1,2 | 2009-10 | Nov-Apr | 1,109 | 4 | 3,166 | 969 | 77\% | 1,120 | 36 | 400 | 151 |
|  | Area 9 | 2007 | Jul | 5,239 | 33 | 7,236 | 1,461 | 83\% | 5,236 | 180 | 403 | 83 |
|  | Area 9 | 2008 | Jan-Apr | 1,405 | 3 | 2,889 | 682 | 81\% | 1,372 | 49 | 330 | 75 |
|  | Area 9 | 2008 | Jul-Aug | 4,045 | 3 | 7,854 | 5,436 | 59\% | 4,154 | 244 | 653 | 765 |
|  | Area 9 | 2008-09 | Nov, Jan-Apr | 885 | 14 | 4,537 | 3,009 | 60\% | 897 | 37 | 718 | 567 |
|  | Area 9 | 2009 | Jul-Aug | 3,229 | 20 | 11,946 | 4,196 | 74\% | 3,182 | 210 | 1,790 | 581 |
|  | Area 9 | 2009-10 | Nov-Apr | 1,557 | 27 | 4,230 | 1,097 | 79\% | 1,494 | 76 | 598 | 146 |
|  | Area 9 | 2010 | Jul-Aug | 5,292 | 39 | 6,782 | 2,413 | 74\% | 5,430 | 352 | 159 | 55 |
|  | Area 10 | 2007 | Jul | 1,539 | 38 | 4,849 | 1,258 | 79\% | 1,511 | 105 | 690 | 152 |
|  | Area 10 | 2007-08 | Dec-Jan | 635 | 21 | 2,575 | 545 | 83\% | 555 | 45 | 468 | 72 |
|  | Area 10 | 2008 | Jul-Aug | 1,031 | 3 | 1,348 | 898 | 60\% | 1,053 | 79 | 42 | 77 |


|  |  | ジँ |  |  |  |  |  | $\begin{aligned} & \text { J } \\ & \text { 关 } \\ & \sum_{0} \\ & \text { o } \end{aligned}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Puget Sound Other $(\mathrm{PSO})^{3}$ | Area 10 | 2008－09 | Dec－Jan | 251 | 0 | 1，302 | 498 | 72\％ | 255 | 5 | 207 | 92 |
|  | Area 10 | 2009 | Jul－Aug | 1，621 | 22 | 4，329 | 1，121 | 79\％ | 1，549 | 34 | 613 | 203 |
|  | Area 10 | 2009－10 | Oct－Jan | 395 | 3 | 2，979 | 984 | 75\％ | 364 | 15 | 548 | 180 |
|  | Area 10 | 2010 | Jul－Aug | 2，988 | 42 | 4，444 | 2，734 | 62\％ | 3，037 | 187 | 242 | 342 |
|  | Area 11 | 2007 | Jun－Sep | 10，546 | 95 | 20，090 | 5，468 | 79\％ | 10，494 | 527 | 1，960 | 493 |
|  | Area 11 | 2008 | Jun－Sep | 7，377 | 23 | 10，434 | 2，270 | 82\％ | 7，495 | 318 | 494 | 54 |
|  | Area 11 | 2009 | Jun－Sep | 3，277 | 37 | 7，582 | 4，623 | 62\％ | 3，254 | 211 | 884 | 680 |
|  | Area 11 | 2010 | Feb－Apr | 326 | 3 | 487 | 93 | 84\％ | 325 | 15 | 33 | 2 |
|  | Area 11 | 2010 | Jun－Sep | 3，910 | 64 | 5，390 | 1，575 | 77\％ | 3，999 | 230 | 207 | 81 |
|  | Area 12 | 2010 | Feb－Apr | 300 | －－ | －－ | －－ | 50\％ | －－ | －－ | －－ | －－ |
|  | Area 13 | 2009 | May－Sep | 1，340 | －－ | －－ | －－ | 86\％ | －－ | －－ | －－ | －－ |
|  | Area 13 | 2010 | May－Sep | 668 | －－ | －－ | －－ | 82\％ | －－ | －－ | －－ | －－ |

${ }^{1}$ Legal sized Chinook salmon
${ }^{2}$ IM and drop－off rates same as used in CTC Catch \＆Escapement report：drop－off（6．9）and IM release rate（12．3）．
${ }^{3}$ Estimates for Puget Sound North and Puget Sound Other fisheries were updated with creel values from the WA State－Tribal Recreational Angling Impacts Database（Sept．2012），with the exception of Area 6 in 2009 and 2010 and Areas 12 and 13 in all years（these are based on draft WDFW Catch Record Card estimates）．

Table 4－3．MSFs in Puget Sound TERM Sport for Chinook salmon 2003－2010．Catches of marked fish are reported where available for the calendar year；either from
PSMFC catch sample database（a），preliminary catch record card estimates（b）or creel survey estimates（c）．Fishery and years that were sampled are indicated by an（s）．

| Fishery | Location | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sport | Nooksack River | －－ | $5^{\text {b }}$ | $186^{\text {b }}$ | $119^{\text {b }}$ | $162^{\text {b }}$ | $14^{\text {b }}$ | $42^{\text {b }}$ | $56^{\text {b }}$ |
| Sport | Skykomish River | $177^{\text {b }}$ | $85^{\text {b }}$ | $76^{\text {b }}$ | $78^{\text {b }}$ | $6^{25 b}$ | $432{ }^{\text {b }}$ | $227^{\text {b }}$ | $238{ }^{\text {b }}$ |
| Sport | Carbon \＆ Puyallup River | 1，287 ${ }^{\text {a，s }}$ | 1，019 ${ }^{\text {a，s }}$ | 1，590 ${ }^{\text {a，s }}$ | 1，736 ${ }^{\text {a，s }}$ | 2，525 ${ }^{\text {a，s }}$ | 1，665 ${ }^{\text {b }}$ | 2，919 ${ }^{\text {b }}$ | $509{ }^{\text {b }}$ |
| Sport | Upper Skagit \＆Cascade River | －－ | －－ | $173^{\text {a，s }}$ | $458{ }^{\text {a，}}$ | $724^{\text {a，s }}$ | $277^{\text {b }}$ | $343{ }^{\text {b }}$ | $250^{\text {b }}$ |
| Sport | Nisqually River | －－ | －－ | －－ | 3，711 ${ }^{\text {b }}$ | $4,302^{\text {b }}$ | 2，132 ${ }^{\text {b }}$ | 2，789 ${ }^{\text {b }}$ | 2，728 ${ }^{\text {b }}$ |
| Sport | Skokomish | －－ | －－ | －－ | －－ | －－ | －－ | －－ | 6，243 ${ }^{\text {b }}$ |

## 4．2 Size of MSFs

The size of a MSF relative to the total exploitation of a stock can be measured using the percentage of the total landed catch in net，sport and troll fisheries of tagged and marked PSC indicator stocks that is in MSFs（Table 4－4）．MSFs were first implemented in Puget Sound and
on spring stocks in the Columbia River. In Puget Sound a MSF occurred in the summer of 2003 in the Strait of Juan de Fuca and by 2010 has expanded to all areas in Puget Sound with the exception of Hood Canal (Table 4-2). In 2008, MSFs were implemented in the Columbia River on fall Chinook salmon, in BC in the Strait of Juan de Fuca, and in terminal areas of the Oregon coast. The percentage of the total landed tagged and marked catch that occurs in MSFs increased over this period for stocks in Puget Sound (Figure 4-3) and in 2010 the average was $27.7 \%$ and ranged from 1.8 to $69.4 \%$ (Table 4-4).

### 4.3 Impact of MSFs on unmarked Chinook salmon.

PSC indicator stocks that have been double index tagged (DIT) can be used to evaluate the impact of MSFs on the unmarked stocks represented by the unmarked tag group in a DIT pair ${ }^{1 .}$ The ratio of unmarked to marked fish $(\lambda)$ for a DIT group provides a relationship between the two tag groups and a measure to evaluate the impact of MSFs on the DIT stock: a comparison of the ratios of unmarked to marked at release and at escapement can be used in a test of the null hypothesis of no difference in proportional return of marked and unmarked groups. A positive test statistic occurs when a higher proportion of unmarked fish occur in the escapement and this is consistent with the harvest of marked fish through mark-selective fisheries. A negative test statistic occurs when a higher proportion of marked fish return, which could be indicative of sampling problems in the hatchery (i.e., the sampling procedure fails to detect all CWTs from unmarked fish present in the sample), or incorrect assumptions about release mortality rates, multiple encounters, or mark recognition errors. This is a concern when patterns occur over many brood years for a stock or hatchery. If stock-specific MSF impacts are small, then random variation in the CWT sampling procedures or simply random variability in processes, like survival, could result in both positive and negative test statistics in a random pattern across broods.

The comparison of proportion marked and unmarked DIT groups returning were not significant for brood years before 2002 for Puget Sound stocks (Table 4-5). This result is expected as MSFs did not start until 2003. In contrast, significant test statistics were observed for brood years before 2002 for the Fraser River-origin stock (Chilliwack River, Table 4-5). The test statistic was negative for brood year 1998 but positive for the next brood year (1999). These results are inconsistent with expectations and will be examined further. For Puget Sound DIT stocks, Skagit springs (SKS), Skykomish (SKY), Green River (SPS) and Nisqually (NIS) show significant differences in four or more years. All these Puget Sound DIT stocks except the Green River are subject to terminal sport MSFs which target the hatchery production including the DIT returns. In comparison, the Chilliwack River stock is only subject to preterminal MSFs in US marine areas around Puget Sound and in US and Canadian MSFs in Juan de Fuca Strait. There are no terminal MSFs targeting this stock in Canadian marine or freshwater areas, and this stock is not mass marked.

The ratio of the return proportions between the unmarked and marked tagged groups, or the odds
${ }^{1}$ A DIT group consists of at least two tag groups, one with the mass mark (or adipose fin clip) and one without the mark. These two tag groups are treated identically except for the mark and differences in mortality should be due to the MSFs, assuming there is no mark mortality occurring prior to recruitment to the fisheries.
ratio, $\frac{\lambda^{\text {unmarked }}}{\lambda^{\text {marked }}}$ (Agresti 1984), are methods to statistically compare the DIT groups, where an odds ratio of one indicates that the ratio did not change from release to escapement while an odds ratio larger than one indicates a higher removal of marked fish compared to the DIT unmarked fish, which is assumed to be due to MSFs. When releases and recoveries are summed over all Puget Sound DIT stocks the odds ratio is significantly larger than one for brood years 2001-2007 (Figure 4-4) which all have at least 2 ages returning in years with MSFs. For the Fraser River origin Chilliwack River stock, the $95 \%$ confidence intervals for the odds ratio includes the value one in most years (Figure 4-5) ), which indicates a lack of a detectable MSF impact for these brood years.

Among the DIT stocks examined in Table 4-2, MSF impacts have been statistically identified more often for recent brood years, except for brood year 2008 from which only age-2 fish had matured at the time of analysis (Figure 4-6). The temporal pattern of the odds ratio for the Puget Sound stocks (Figure 4-4) shows that unmarked fish have returned at higher rates than marked fish over the recent time series, presumably due to MSF impacts. However the odds ratio time series for the Chilliwack River appears different and is generally centered around an odds ratio of one (Figure 4-5). The different patterns between the Puget Sound and Chilliwack stocks may arise from different stock distributions and thus vulnerabilities to MSFs, or other mechanisms.

Table 4-4 Estimated landed catch of tagged and marked PSC Chinook Indicator Stocks in BC, Washington and Oregon in all net, troll and sport fisheries for catch years 2003-2009 and \% of total tagged and marked catch that was landed in MSFs.


| Region | Stock | 2003 |  | 2004 |  | 2005 |  | 2006 |  | 2007 |  | 2008 |  | 2009 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ | Total | $\begin{gathered} \% \\ \text { MSF } \end{gathered}$ |
| WA PS (cont) | Skagit Spr Fingerl | 224 | 1.1\% | 348 | 1.3\% | 402 | 11.3\% | 729 | 47.9\% | 1,253 | 40.2\% | 745 | 36.4\% | 491 | 30.6\% | 688 | 34.0\% |
|  | Skagit Spr Yearl | 436 | 1.7\% | 442 | 1.4\% | 470 | 19.0\% | 459 | 56.6\% | 467 | 52.2\% | 392 | 50.9\% | 213 | 34.1\% | 259 | 55.3\% |
|  | Skagit Sum Fingerl | 315 | 0.8\% | 184 | 2.3\% | 310 | 2.1\% | 292 | 2.7\% | 398 |  | 453 | 2.5\% | 496 | 4.3\% | 214 | 1.8\% |
|  | Skykomish Fall Fingerl | 84 | 5.6\% | 234 | 5.8\% | 202 | 1.8\% | 272 | 9.0\% | 429 | 3.6\% | 150 | 20.8\% | 88 | 40.0\% | 74 | 29.3\% |
|  | South Puget S Fall Yearl | 5 |  | 21 |  | 226 | 7.0\% | 208 | 5.2\% | 234 | 21.6\% | 63 | 42.4\% | 119 | 57.4\% | 68 | 69.4\% |
|  | Stillaguamish Fall Fingerl | 6 |  |  |  | 121 | 4.6\% | 158 | 3.2\% | 326 | 0.5\% | 376 | 19.8\% | 260 | 14.8\% | 359 | 13.8\% |
| $\begin{aligned} & \text { WA } \\ & \text { CST } \end{aligned}$ | Hoko Fall Fingerl | 219 |  | 279 | 1.5\% | 234 | 2.0\% | 231 | 1.6\% | 271 | 1.5\% | 127 |  | 85 | 4.5\% | 81 |  |
|  | Queets Fall Fingerl | 931 |  | 1,256 |  | 1,313 |  | 692 |  | 488 |  | 511 |  | 911 |  | 1,103 |  |
|  | Sooes Fall Fingerl | 357 | 1.3\% | 362 | 1.2\% | 344 |  | 161 | 2.3\% | 37 |  | 51 |  | 157 |  | 104 | 7.5\% |
| COLR | Cowlitz Fall Tule | 304 |  | 116 | 3.6\% | 94 |  | 54 |  | 50 |  | 63 | 4.7\% | 127 | 5.7\% | 216 | 4.6\% |
|  | Hanford Wild | 641 |  | 865 |  | 359 |  | 325 |  | 191 |  | 141 |  | 200 |  | 242 |  |
|  | Columbia LR Hat | 1,072 | 1.3\% | 912 | 0.2\% | 353 |  | 45 |  | 40 |  | 228 |  | 335 | 8.0\% | 1,047 | 4.1\% |
|  | Lewis River Wild | 209 | 4.9\% | 349 |  | 198 |  | 352 |  | 112 |  | 41 |  | 81 |  | 51 |  |
|  | Lyons Ferry | 117 |  | 190 | 1.7\% | 145 | 5.1\% | 116 |  | 248 |  | 1,334 | 0.2\% | 1,138 | 0.3\% | 1,550 | 5.4\% |
|  | Spr Creek Tule | 3,291 | 0.4\% | 3,063 | 0.6\% | 1,407 |  | 472 | 1.4\% | 572 | 1.5\% | 1,454 | 2.1\% | 1,268 | 5.0\% | 2,607 | 2.1\% |
|  | Columbia Hat | 4,278 | 0.3\% | 3,869 | 0.4\% | 4,218 |  | 2,558 | 1.1\% | 2,255 | 0.2\% | 882 | 0.3\% | 513 | 2.4\% | 728 | 0.5\% |
|  | Upriver Brights | 1,053 |  | 997 | 0.7\% | 1,486 |  | 931 | 0.4\% | 329 |  | 419 |  | 746 | 1.5\% | 670 |  |
|  | Willamette Spr | 1,697 | 28.7\% | 2,559 | 55.9\% | 943 | 29.7\% | 802 | 42.1\% | 467 | 56.4\% | 861 | 32.1\% | 1,395 | 52.4\% | 4,145 | 62.5\% |
| OR | Elk River | 2,814 |  | 2,783 |  | 1,368 |  | 1,408 |  | 1,321 |  | 1,424 |  | 990 | 0.4\% | 956 | 0.4\% |
| CST | Salmon River | 2,736 |  | 2,892 |  | 3,144 |  | 1,438 |  | 865 |  | 766 |  | 1,365 |  | 1,467 |  |



Figure 4-3. Percent of total fishery CWT recoveries in MSFs for run years 2003-2010 for Chinook salmon indicator stocks, by region of origin (British Columbia [BC], Columbia River excluding Willamette Spring [COLR], Oregon Coast [ORCST], Washington Coast [WACST], and Puget Sound [WAPS]).

Table 4-5. Results for hypothesis test (Ho: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant. Z-statistics in parentheses are negative, indicating that return proportion was greater for marked groups than for unmarked groups.

| Stock | Brood Year |  | Unmarked Return | Unmarked Release | Unmarked Prop. Ret | Marked Return | Marked Release | Marked Prop. Ret. | $\lambda$ rel | $\lambda$ esc | Z-statistic for H (o) of no impact | $\mathrm{p}(0.05)$ | Oldest age in brood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CHI | 1998 | Y | 145 | 98,926 | 0.0015 | 301 | 98,095 | 0.0031 | 1.008 | 0.481 | (7.441) | 0.000 | 5 |
|  | 1999 | Y | 403 | 96,193 | 0.0042 | 347 | 97,903 | 0.0035 | 0.983 | 1.161 | 2.287 | 0.022 | 5 |
|  | 2000 |  | 170 | 100,056 | 0.0017 | 168 | 99,766 | 0.0017 | 1.003 | 1.011 | 0.078 | 0.938 | 5 |
|  | 2001 |  | 230 | 97,227 | 0.0024 | 260 | 99,171 | 0.0026 | 0.980 | 0.885 | (1.126) | 0.260 | 5 |
|  | 2002 | Y | 182 | 99,657 | 0.0018 | 232 | 100,036 | 0.0023 | 0.996 | 0.783 | (2.437) | 0.015 | 5 |
|  | 2003 |  | 215 | 48,344 | 0.0044 | 239 | 48,242 | 0.0049 | 1.002 | 0.900 | (1.145) | 0.252 | 5 |
|  | 2004 |  | 126 | 100,557 | 0.0013 | 154 | 100,023 | 0.0015 | 1.005 | 0.823 | (1.669) | 0.095 | 5 |
|  | 2005 | Y | 1,116 | 89,159 | 0.0125 | 984 | 87,801 | 0.0112 | 1.015 | 1.135 | 2.550 | 0.011 | 5 |
|  | 2006 |  | 109 | 96,305 | 0.0011 | 86 | 95,382 | 0.0009 | 1.010 | 1.267 | 1.576 | 0.115 | 4 |
|  | 2007 |  | 866 | 99,632 | 0.0087 | 871 | 99,465 | 0.0088 | 1.002 | 0.994 | (0.155) | 0.877 | 3 |
|  | 2008 |  | 175 | 99,944 | 0.0018 | 168 | 99,451 | 0.0017 | 1.005 | 1.042 | 0.334 | 0.738 | 2 |
| GAD | 1998 |  | 7 | 224,228 | 0.0000 | 15 | 223,343 | 0.0001 | 1.004 | 0.467 | (1.714) | 0.087 | 5 |
|  | 1999 |  | 277 | 218,728 | 0.0013 | 232 | 208,330 | 0.0011 | 1.050 | 1.194 | 1.450 | 0.147 | 5 |
|  | 2000 |  | 471 | 225,071 | 0.0021 | 445 | 223,009 | 0.0020 | 1.009 | 1.059 | 0.722 | 0.470 | 5 |
|  | 2001 |  | 493 | 210,039 | 0.0023 | 509 | 223,933 | 0.0023 | 0.938 | 0.968 | 0.501 | 0.617 | 5 |
|  | 2002 |  | 912 | 208,727 | 0.0044 | 859 | 209,531 | 0.0041 | 0.996 | 1.062 | 1.326 | 0.185 | 5 |
|  | 2003 | Y | 601 | 223,637 | 0.0027 | 508 | 224,905 | 0.0023 | 0.994 | 1.182 | 2.789 | 0.005 | 5 |
|  | 2004 |  | 307 | 223,927 | 0.0014 | 280 | 224,882 | 0.0012 | 0.996 | 1.099 | 1.161 | 0.246 | 5 |
|  | 2005 | Y | 1,412 | 225,257 | 0.0063 | 1,224 | 225,216 | 0.0054 | 1.000 | 1.154 | 3.538 | 0.000 | 5 |
|  | 2006 |  | 476 | 225,937 | 0.0021 | 418 | 215,124 | 0.0019 | 1.050 | 1.140 | 1.196 | 0.232 | 4 |
|  | 2007 | Y | 1,252 | 221,008 | 0.0057 | 1,005 | 219,881 | 0.0046 | 1.005 | 1.245 | 5.020 | 0.000 | 3 |
|  | 2008 |  | 96 | 225,942 | 0.0004 | 96 | 226,985 | 0.0004 | 0.995 | 1.000 | 0.031 | 0.975 | 2 |
| GRN | 1998 |  | 30 | 197,824 | 0.0002 | 27 | 188,118 | 0.0001 | 1.052 | 1.120 | 0.229 | 0.819 | 5 |
|  | 1999 |  | 192 | 197,889 | 0.0010 | 186 | 193,300 | 0.0010 | 1.024 | 1.031 | 0.071 | 0.943 | 5 |
|  | 2000 |  | 214 | 202,658 | 0.0011 | 191 | 194,248 | 0.0010 | 1.043 | 1.116 | 0.675 | 0.499 | 5 |
|  | 2001 | Y | 108 | 162,160 | 0.0007 | 88 | 178,119 | 0.0005 | 0.910 | 1.230 | 2.076 | 0.038 | 5 |
|  | 2002 | Y | 493 | 198,321 | 0.0025 | 550 | 192,443 | 0.0029 | 1.031 | 0.896 | (2.256) | 0.024 | 5 |
|  | 2003 |  | 282 | 197,541 | 0.0014 | 246 | 197,726 | 0.0012 | 0.999 | 1.143 | 1.538 | 0.124 | 5 |
|  | 2004 | Y | 578 | 204,269 | 0.0028 | 507 | 204,698 | 0.0025 | 0.998 | 1.138 | 2.144 | 0.032 | 5 |
|  | 2005 | Y | 948 | 198,542 | 0.0048 | 823 | 196,353 | 0.0042 | 1.011 | 1.152 | 2.701 | 0.007 | 5 |

Table 4-5. Results for hypothesis test (Ho: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant. Z-statistics in parentheses are negative, indicating that return proportion was greater for marked groups than for unmarked groups.

| Stock | Brood Year |  | Unmarked Return | Unmarked Release | Unmarked Prop. Ret | Marked Return | Marked Release | Marked Prop. Ret. | $\lambda$ rel | $\lambda$ esc | Z-statistic for H (o) of no impact | $\mathrm{p}(0.05)$ | Oldest age in brood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GRN cont. | 2006 | Y | 426 | 204,385 | 0.0021 | 364 | 204,795 | 0.0018 | 0.998 | 1.170 | 2.191 | 0.028 | 4 |
|  | 2007 | Y | 478 | 202,635 | 0.0024 | 416 | 202,671 | 0.0021 | 1.000 | 1.149 | 2.033 | 0.042 | 3 |
|  | 2008 |  | 4 | 212,303 | 0.0000 | 10 | 201,409 | 0.0001 | 1.054 | 0.393 | (1.707) | 0.088 | 2 |
| GRO | 1999 |  | 565 | 180,536 | 0.0031 | 523 | 181,132 | 0.0029 | 0.997 | 1.081 | 1.330 | 0.184 | 5 |
|  | 2000 |  | 633 | 206,563 | 0.0031 | 602 | 203,754 | 0.0030 | 1.014 | 1.051 | 0.629 | 0.530 | 5 |
|  | 2001 |  | 532 | 203,840 | 0.0026 | 486 | 203,509 | 0.0024 | 1.002 | 1.094 | 1.412 | 0.158 | 5 |
|  | 2002 |  | 875 | 194,233 | 0.0045 | 851 | 198,987 | 0.0043 | 0.976 | 1.029 | 1.099 | 0.272 | 5 |
|  | 2003 | Y | 1,431 | 151,492 | 0.0094 | 1,348 | 163,799 | 0.0082 | 0.925 | 1.062 | 3.649 | 0.000 | 5 |
|  | 2004 | Y | 1,133 | 133,455 | 0.0085 | 872 | 118,197 | 0.0074 | 1.129 | 1.299 | 3.063 | 0.002 | 5 |
|  | 2005 | Y | 1,136 | 169,954 | 0.0067 | 1,084 | 136,519 | 0.0079 | 1.245 | 1.048 | (3.739) | 0.000 | 5 |
|  | 2006 |  | 873 | 185,397 | 0.0047 | 861 | 185,975 | 0.0046 | 0.997 | 1.013 | 0.314 | 0.754 | 4 |
|  | 2007 |  | 1,207 | 199,622 | 0.0060 | 1,247 | 199,251 | 0.0063 | 1.002 | 0.967 | (0.818) | 0.414 | 3 |
|  | 2008 |  | 42 | 200,006 | 0.0002 | 33 | 186,978 | 0.0002 | 1.070 | 1.276 | 0.735 | 0.462 | 2 |
| NIS | 1998 |  | 8 | 192,165 | 0.0000 | 11 | 202,103 | 0.0001 | 0.951 | 0.725 | (0.588) | 0.556 | 5 |
|  | 1999 |  | 213 | 194,985 | 0.0011 | 217 | 199,030 | 0.0011 | 0.980 | 0.981 | 0.016 | 0.987 | 5 |
|  | 2000 |  | 492 | 174,625 | 0.0028 | 479 | 169,143 | 0.0028 | 1.032 | 1.027 | (0.077) | 0.938 | 5 |
|  | 2001 |  | 402 | 214,059 | 0.0019 | 367 | 214,490 | 0.0017 | 0.998 | 1.094 | 1.249 | 0.212 | 5 |
|  | 2002 | Y | 1,071 | 192,248 | 0.0056 | 808 | 180,294 | 0.0045 | 1.066 | 1.326 | 4.632 | 0.000 | 5 |
|  | 2003 | Y | 1,235 | 203,624 | 0.0061 | 1,096 | 207,975 | 0.0053 | 0.979 | 1.127 | 3.300 | 0.001 | 5 |
|  | 2004 | Y | 1,102 | 209,905 | 0.0053 | 924 | 208,724 | 0.0044 | 1.006 | 1.193 | 3.708 | 0.000 | 5 |
|  | 2005 | Y | 675 | 127,293 | 0.0053 | 512 | 120,154 | 0.0043 | 1.059 | 1.319 | 3.610 | 0.000 | 5 |
|  | 2006 | Y | 445 | 185,397 | 0.0024 | 350 | 185,975 | 0.0019 | 0.997 | 1.271 | 3.067 | 0.002 | 4 |
|  | 2007 | Y | 1,061 | 179,625 | 0.0059 | 935 | 180,974 | 0.0052 | 0.993 | 1.135 | 2.732 | 0.006 | 3 |
|  | 2008 |  | 77 | 206,098 | 0.0004 | 82 | 206,480 | 0.0004 | 0.998 | 0.940 | (0.339) | 0.735 | 2 |
| NSF | 1998 |  | 50 | 168,574 | 0.0003 | 43 | 167,136 | 0.0003 | 1.009 | 1.154 | 0.333 | 0.739 | 5 |
|  | 1999 | Y | 182 | 200,294 | 0.0009 | 268 | 198,085 | 0.0014 | 1.011 | 0.678 | (2.186) | 0.029 | 5 |
|  | 2000 |  | 205 | 199,511 | 0.0010 | 189 | 197,364 | 0.0010 | 1.011 | 1.087 | 0.448 | 0.654 | 5 |
|  | 2001 |  | 60 | 99,062 | 0.0006 | 76 | 98,711 | 0.0008 | 1.004 | 0.794 | (1.302) | 0.193 | 5 |
|  | 2001 | Y | 328 | 98,860 | 0.0033 | 395 | 97,528 | 0.0040 | 1.014 | 0.832 | (2.565) | 0.010 | 5 |
|  | 2002 |  | 24 | 206,479 | 0.0001 | 27 | 203,675 | 0.0001 | 1.014 | 0.889 | (0.468) | 0.640 | 5 |

Table 4-5. Results for hypothesis test (Ho: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant. Z-statistics in parentheses are negative, indicating that return proportion was greater for marked groups than for unmarked groups.

| Stock | Brood Year |  | Unmarked Return | Unmarked Release | Unmarked Prop. Ret | Marked Return | Marked Release | Marked Prop. Ret. | $\lambda$ rel | $\lambda$ esc | Z-statistic for H (o) of no impact | $\mathrm{p}(0.05)$ | Oldest age in brood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NSF cont. | 2003 |  | 79 | 198,270 | 0.0004 | 76 | 202,184 | 0.0004 | 0.981 | 1.041 | 0.370 | 0.712 | 5 |
|  | 2004 |  | 46 | 185,400 | 0.0002 | 30 | 179,380 | 0.0002 | 1.034 | 1.552 | 1.726 | 0.084 | 5 |
|  | 2005 |  | 228 | 204,021 | 0.0011 | 210 | 203,918 | 0.0010 | 1.001 | 1.082 | 0.809 | 0.419 | 5 |
|  | 2006 |  | 41 | 134,773 | 0.0003 | 27 | 143,841 | 0.0002 | 0.937 | 1.513 | 1.937 | 0.053 | 4 |
|  | 2007 |  | 150 | 206,670 | 0.0007 | 121 | 206,867 | 0.0006 | 0.999 | 1.240 | 1.771 | 0.076 | 3 |
|  | 2008 |  | 11 | 175,656 | 0.0001 | 9 | 171,083 | 0.0001 | 1.027 | 1.222 | 0.389 | 0.697 | 2 |
| SAM | 1998 |  | 28 | 198,241 | 0.0001 | 31 | 196,029 | 0.0002 | 1.011 | 0.900 | (0.254) | 0.800 | 5 |
|  | 1999 |  | 182 | 177,940 | 0.0010 | 181 | 168,423 | 0.0011 | 1.057 | 1.007 | (0.262) | 0.793 | 5 |
|  | 2000 | Y | 65 | 149,187 | 0.0004 | 103 | 146,129 | 0.0007 | 1.021 | 0.630 | (2.161) | 0.031 | 5 |
|  | 2001 | Y | 176 | 169,452 | 0.0010 | 96 | 173,971 | 0.0006 | 0.974 | 1.839 | 2.704 | 0.007 | 5 |
|  | 2002 |  | 137 | 199,133 | 0.0007 | 135 | 197,111 | 0.0007 | 1.010 | 1.014 | 0.023 | 0.982 | 5 |
|  | 2003 |  | 330 | 195,566 | 0.0017 | 331 | 200,153 | 0.0017 | 0.977 | 0.997 | 0.201 | 0.841 | 5 |
|  | 2004 |  | 189 | 201,803 | 0.0009 | 209 | 196,576 | 0.0011 | 1.027 | 0.904 | (0.939) | 0.348 | 5 |
|  | 2005 |  | 802 | 182,920 | 0.0044 | 778 | 201,655 | 0.0039 | 0.907 | 1.031 | 1.648 | 0.099 | 5 |
|  | 2006 |  | 270 | 205,708 | 0.0013 | 223 | 206,496 | 0.0011 | 0.996 | 1.209 | 1.374 | 0.169 | 4 |
|  | 2007 |  | 708 | 216,849 | 0.0033 | 609 | 211,571 | 0.0029 | 1.025 | 1.163 | 0.977 | 0.329 | 3 |
|  | 2008 |  | 17 | 201,990 | 0.0001 | 17 | 201,764 | 0.0001 | 1.001 | 1.000 | (0.003) | 0.997 | 2 |
| SKS | 1998 |  | 2 | 67,098 | 0.0000 | 2 | 65,619 | 0.0000 | 1.023 | 1.000 | (0.022) | 0.982 | 5 |
|  | 1999 |  | 757 | 72,629 | 0.0104 | 738 | 71,246 | 0.0104 | 1.019 | 1.026 | 0.125 | 0.900 | 5 |
|  | 2000 |  | 780 | 73,356 | 0.0106 | 778 | 74,091 | 0.0105 | 0.990 | 1.003 | 0.249 | 0.804 | 5 |
|  | 2001 |  | 649 | 72,996 | 0.0089 | 620 | 76,520 | 0.0081 | 0.954 | 1.047 | 1.664 | 0.096 | 5 |
|  | 2002 | Y | 561 | 60,000 | 0.0094 | 436 | 59,777 | 0.0073 | 1.004 | 1.287 | 3.918 | 0.000 | 5 |
|  | 2003 | Y | 338 | 75,418 | 0.0045 | 242 | 74,590 | 0.0032 | 1.011 | 1.398 | 3.866 | 0.000 | 5 |
|  | 2004 | Y | 718 | 71,942 | 0.0100 | 465 | 73,668 | 0.0063 | 0.977 | 1.543 | 7.711 | 0.000 | 5 |
|  | 2005 | Y | 121 | 74,467 | 0.0016 | 88 | 74,633 | 0.0012 | 0.998 | 1.377 | 2.298 | 0.022 | 5 |
|  | 2006 |  | 200 | 66,540 | 0.0030 | 177 | 70,079 | 0.0025 | 0.949 | 1.131 | 1.691 | 0.091 | 4 |
|  | 2007 |  | 44 | 58,614 | 0.0008 | 32 | 58,502 | 0.0006 | 1.002 | 1.378 | 1.377 | 0.168 | 3 |
|  | 2008 |  | 24 | 75,683 | 0.0003 | 22 | 76,752 | 0.0003 | 0.986 | 1.091 | 0.342 | 0.732 | 2 |
| SKY | 2000 |  | 387 | 209,520 | 0.0018 | 357 | 205,008 | 0.0017 | 1.022 | 1.085 | 0.752 | 0.452 | 5 |
|  | 2001 |  | 243 | 197,946 | 0.0012 | 245 | 196,023 | 0.0012 | 1.010 | 0.994 | (0.173) | 0.863 | 5 |

Table 4-5. Results for hypothesis test (Ho: No difference in proportion marked and unmarked DIT groups returning to hatchery) for stocks and brood years where test was significant. Z-statistics in parentheses are negative, indicating that return proportion was greater for marked groups than for unmarked groups.

| Stock | Brood Year |  | Unmarked Return | Unmarked Release | Unmarked Prop. Ret | Marked Return | Marked Release | Marked <br> Prop. Ret. | $\lambda$ rel | $\lambda$ esc | Z-statistic for H (o) of no impact | $\mathrm{p}(0.05)$ | Oldest age in brood |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SKY cont. | 2002 | Y | 408 | 197,105 | 0.0021 | 325 | 195,075 | 0.0017 | 1.010 | 1.255 | 2.830 | 0.005 | 5 |
|  | 2003 | Y | 469 | 173,116 | 0.0027 | 416 | 176,427 | 0.0024 | 0.981 | 1.128 | 1.992 | 0.046 | 5 |
|  | 2004 | Y | 966 | 199,529 | 0.0048 | 814 | 200,398 | 0.0041 | 0.996 | 1.186 | 3.513 | 0.000 | 5 |
|  | 2005 |  | 239 | 206,091 | 0.0012 | 204 | 204,637 | 0.0010 | 1.007 | 1.174 | 1.538 | 0.124 | 5 |
|  | 2006 |  | 291 | 206,362 | 0.0014 | 283 | 205,344 | 0.0014 | 1.005 | 1.028 | 0.258 | 0.796 | 4 |
|  | 2007 | Y | 101 | 199,678 | 0.0005 | 60 | 199,858 | 0.0003 | 0.999 | 1.677 | 3.104 | 0.002 | 3 |
|  | 2008 |  | 13 | 202,000 | 0.0001 | 15 | 201,196 | 0.0001 | 1.004 | 0.856 | (0.405) | 0.686 | 2 |



Figure 4-4. Estimated odds ratios (+/- 95\% CI) for Puget Sound Chinook salmon DIT stocks combined. Note: 2001 is the first brood year for which all ages were exposed to MSFs; recoveries for the most recent brood year are for age- 2 fish only.


Figure 4-5. Estimated odds ratios (+/-95\% CI) for the Chilliwack River DIT stock originating from the lower Fraser River. Note: 2001 is the first brood year for which all ages were exposed to MSFs; recoveries for the most recent brood year are for age-2 fish only.


Figure 4-6. The percentage of DIT stock statistical test results reported in Table 4-5 that compare the lambdas at release and escapement by brood year. Test results were grouped as showing no significant difference, significantly fewer marked fish returning, or significantly fewer unmarked fish returning. Note: 2001 is the first brood year for which all ages were exposed to MSFs; recoveries for brood year 2008 are for age- 2 fish only.

## 5 PROGRESS REPORT ON IMPROVEMENTS TO THE COASTWIDE CWT Program

The CWT Improvement Program is a new activity identified in the 2008 Agreement. The objective is to implement over a five-year period, beginning no later than 2010, critical improvements to the coast-wide CWT programs operated by the Parties' respective management agencies. The bilateral CWT Improvement Team (CWTIT) was established on November 13, 2009, per the Terms of Reference from the PSC entitled Pacific Salmon Commission: Bilateral Approach to Implementation of Improvements to the Coast-wide Coded Wire Tagging (CWT) Program. The CWTIT is tasked with making recommendations regarding projects to improve the CWT system, including CWT reporting systems, data quality, tagging levels, sampling levels, and the precision and accuracy of statistics such as abundance, exploitation rates, survival estimates, etc. for Chinook salmon. Canada implemented the program in 2009 and the U.S. in 2010 due to differences in the timing of fiscal years. The results for past funding $(2009,2010)$ funding for Canada are reported in CTC $(2011,2012)$. In this report, the results of projects funded for 2011 are reported along with a list of projects approved for 2012.

### 5.1 Canadian CWTIT Projects

### 5.1.1 Progress on Canadian Projects Undertaken in 2011

A total of 20 Canadian projects in nine project categories were funded in FY 2011, representing a total expenditure of $\$ 1,500,000$. These projects are described below. Each project description includes the CWT issue listed in the PSC CWT Workgroup Tech Report 25 (Table 5-3, PSC 2008) that the program is intended to address

## 1) Increased CWT Marking Indicators <br> (2009: \$842,000 including \$650,000 tags purchased for 5 years, 2010: \$465,000 including \$143,000 tag purchase, 2011: $\$ 345,000$ ) <br> TR 25 Issue (Primary): 2

Application of CWTs was increased at four indicator stocks in 2009, 12 stocks in 2010 and 2011. In 2009 additional staff were trained and equipment was purchased so that all hatcheries were able to carry out the increased tagging in 2010-2011. Production was also increased at Shuswap and Spius hatcheries. In 2010 the planned incremental tag application was achieved at all facilities except the Cowichan Hatchery. Due to very poor escapement and broodstock availability, Cowichan Hatchery released only 250,000 of the total 400,000 planned incremental tagged Chinook. Production targets have been met at all facilities in 2011, including Cowichan. In 2011 incremental tags were applied to Philips River Chinook to evaluate this location as a potential southern BC mainland inlet indicator. This project was completed successfully in the above years, with the similar success anticipated in subsequent years.

## 2) Atnarko Chinook CWT Indicator Stock

 (2009: \$135,500, 2010: \$99,500, 2011: \$109,500)TR 25 Issue (Primary): 1, 4, 6, 10

The objective of this project was to expand the Atnarko Chinook assessment program to for the purpose of developing an exploitation rate indicator for Central coast Chinook stocks.
Technical Report 25 noted Central BC was lacking a Chinook indicator. The only northern indicator, Kitsumkalum is a stream type stock. The Atnarko is an ocean type stock. Progress toward meeting the objectives included the application of 250,000 incremental CWTs, sampling of the terminal commercial, sport, and First Nations fisheries, and reintroduction of a markrecapture program to improve escapement estimates.

The 2009 escapement mark-recapture program was very successful. 925 tags were applied, 2630 carcasses examined and $24 \%$ of tags recovered, to provide a spawning estimate of 10,700 Chinook (CV 5.7\%). The commercial fishery sampling rates ranged from 34-72\% (110 CWT recovered) with the exception that catch in the first week of July was not sampled. The Bella Coola First Nations fishery was sampled at $25 \%$ and 57 CWTs recovered. The creel program was satisfactory in interviewing anglers for catch rates and CWT sampling. However, aerial effort surveys were problematic due to high flows.

The 2010 escapement mark-recapture program was impacted by a major flood event at the end of September. Prior to the flooding event, 1008 Chinook were tagged, 1025 carcasses examined, and 87 tags recovered. The preliminary escapement estimate using the standard is $10,900-$ 11,760 (CV 10-11\%). Eighty-six CWTs were recovered. The Bella Coola River First Nation fishery caught 3,200 fish (preliminary), 775 were examined for fin clips, and 76 heads collected for CWT dissection. Unfortunately, the creel survey program did not proceed in 2010 due to staffing issues.

The 2011 escapement mark recapture program was successfully implemented. 833 Chinook were tagged, 775 carcasses examined, and 68 tags recovered, providing a preliminary escapement estimate of 9105 (CV 14\%). In 2011 all terminal fisheries were monitored. Greater than $30 \%$ of the First Nations FSC fishery was sampled and 47 CWTs recovered. The commercial gillnet fishery caught 4600 Chinook and the Bella Coola sport fishery caught less than 200 Chinook due to flow conditions. CWT data for both fisheries are pending. This project should be successful in meeting its objectives.

## 3) Increased CWT Recovery in Indicator Escapement Programs (2009: \$83,500, 2010: \$66,500, 2011: \$80,500) <br> TR 25 Issue (Primary): 5, 6

These projects were designed to improve the quantity and quality of CWT data (low sampling rates in escapement (Issue 5) and uncertainty in escapement estimates (Issue 6)) at spawning grounds and hatcheries. The strategy varied by location, details of which are described below along with results. Overall, this project was considered successful in meeting its objectives.

At Quinsam, a new study design to estimate river spawners determined the old methodology to be biased low by $2 \%$ to $11 \%$. Subsequently, the new estimate will be used.
In 2009, the lowest escapement was observed in the Nicola such that 2 additional samplers helped recover carcasses before predators could remove them. Only 33 CWTs were recovered. One-hundred ninety-one (191) and 115 CWTs were recovered in 2010 and 2011 respectively.

At Harrison in 2009, 56 CWTs were recovered with increased sampling effort, but a higher sampling rate was not achieved due to high water flows. In 2010 sampling was again hampered by poor water visibility due to a landslide, however 91 CWTs were collected. The turbidity remained for 2011; however water levels remained low for most of the project. Approximately 253 AFC heads were collected (CWT not read yet).

At Chilliwack, 2 additional staff achieved a $10 \%$ higher sampling rate. An additional study to determine the accuracy of wands for detection of CWTs on the spawning grounds was conducted. Results from motivated samplers using $2^{\text {nd }}$ generation wands determined $3 \%$ of CWTs from adipose fin-clipped CWT Chinook were missed compared to $29 \%$ of CWTs from the unmarked CWT Chinook. It was concluded that wands were not a reliable method for detecting CWTs in unclipped fish. In 2010-11, heads were collected from every available carcass. Approximately 3650 heads were collected in each year.

At Cowichan River, an additional crew was hired to survey about $1 / 3$ of the Cowichan River not part of the standard survey area, and extend the survey period by 4 weeks. In 2009, this additional survey effort represented $19 \%$ of the fish sampled at Cowichan River. Since 2009, recovery of carcasses has increased by $5 \%$ and recovery of heads from ad-clipped Chinook has increased more than $600 \%$ (confounded with increased tagging).

At Big Qualicum in 2010 planned sampling of spawners below the fence was not implemented, so escapement CWTs are biased low. In 2011, visual surveys were conducted below the fence to aid in the recovery of CWTs, as well as to calibrate the traditional escapement estimate. Preliminary results for 2011 using AUC methodology estimate escapement of CWTs below the fence at $26 \%$ of the estimate using the traditional methodology.

At Robertson hatchery, heads were systematically re-sampled to improve the quality assurance and quality control (QA/QC) on CWT recoveries. The hatchery did not install the carcass net funded for $\$ 2 \mathrm{~K}$ in 2009. At Kitsumkalum, all live fish with clipped adipose fins have been sacrificed during the tag application phase of the mark-recapture program since 2009. The average CWT sampling rate since 2009 increased to $18 \%$ from $13 \%$.

## 4) CWT Head Processing and Data Management

(2009: \$95,000, 2010: $\$ 135,000,2011: \$ 100,000$, inclusive of $\$ 5,000$ for improvements to freezer troller compliance)
TR 25 Issue (Primary): 1, 2, 4, 5, 7, 9, 10
This project funding addresses incremental costs in CDFO head lab operations and data entry resulting from increased quantities of samples from all CDFO programs as well as increased head recovery costs due to improvements in Freezer Troll head sampling.

Increased tagging, increased sampling rates at spawning grounds and in commercial, sport, and First Nation fisheries, increased sampling due to the development of the Atnarko indicator program, and increases in US mass-marked Chinook in Canadian fisheries have resulted in to the growth of CWT dissection and lab data entry activities. Additionally, significant progress has been made in improving representative sampling of the troll fisheries through the introduction of conditions of license for $50 \%$ of the troll fleet to retain heads for all kept Chinook. In 2009, sampling rates increased from $12 \%$ to $19 \%$ for Chinook. In 2010, sampling rates for Chinook increased to $21 \%$. 2011 results are not yet available. The goal is to increase sampling rates for the freezer troll fleet above $20 \%$. Results of this effort are an increased sampling of Canadian troll fisheries and an improved timeliness of reporting in general. This project was successful in meeting its objectives.

This project is incremental to the 'Increased CWT Recovery Costs' project above (project \#3). A goal is to achieve the $20 \%$ freezer troll sample rate while reducing the condition of license requirement to $<30 \%$ of the fleet to reduce costs of dissection and data entry of samples that do not meet QA/QC requirements. This project directs funds to the additional assessment of quantity and quality of fisher submitted samples and to the involvement of Conservation and Protection Fishery Officers that communicate warnings and enforce compliance. Improvements have included an increased enforcement for Canadian troll freezer sampling contributing to the success of the CWT recovery project

## 5) CWT Reporting System - Modifications to CDFO Mark Recovery Program (MRP) System

(2009: \$90,000, 2010: \$90,000, 2011: \$90,000)
TR 25 Issue (Primary): 14, 15, 17, 18
In 2009, a staffing process was completed and a full-time programmer was hired to address issues related to the CWT program: data quality, processing, and accessibility of CWT data. Improvements made to Canada's Mark Recovery Program (MRP) information system that supports the coded wire tag program include: (1) Rewrite of programs that handle data from 1990-1996 resulting in the completion of reviews and improvements to data and CWT estimates from 1990 to present; (2) increased flexibility for the stratification of CWT estimates by species, fisheries, locations and periods; (3) improved inter-relationship with other Canadian Systems (escapement, catch, creel) resulting in improvements to data and the timeliness for CWT calculations; and (4) improved access by Canadian users to CWT information. These changes are reflected in the quality, completeness (version 4.1) and timeliness of submissions to the United

States Regional Mark Information System (RMIS) through data sharing commitments. This project was considered successful in meeting its objectives.

## 6) Regional CWT and Catch Estimation QA/QC

(2010: \$75,000, 2011: \$75,000)
TR 25 Issue (Primary): 6, 8
The staffing process was completed in March 2010 and a full time technician was hired to provide QA/QC of all catch data associated with CWT recoveries and to ensure proper stratification for tag expansions. We initiated data quality checking of previous salmon seasons' logbook data. Years 2007 through 2010 have been completed and 2011 data were checked as received. During the off-season, staff will resume checking of 2006 and earlier years. This project was successful in meeting its objectives.
7) Sport and First Nation CWT Recovery Coordination (2009: \$85,000, 2010: \$85,000, 2011: \$85,000)

## TR 25 Issue (Primary): 6, 8

Since 2009, a full time senior technician was hired to coordinate the sampling and processing of CWT recoveries in all sport and First Nations fisheries and implement improvements in sampling procedures across these fishing sectors. In 2010, a significant amount of overtime was accrued due to the extent of new initiatives introduced. As a result, in 2011, two additional projects (discussed below) were initiated to hire seasonal staff to support improvements to recreational and First Nations sampling programs. This project was successful in meeting its objectives.

## 8) Improvements to the recreational catch database (CREST) (2011: \$30,000) TR 25 Issue (Primary): 4, 6, 10

The objective of this project is to enhance the current recreational catch database to improve estimates supporting CWT expansions. The migration of the CREST database to standardized regional implementation is currently underway. A list of improvements and activities has been prioritized for completion by the end of fiscal. Benefits to the CWT system include improved database operation, regional standardization, and improved access to catch estimates by science staff. This project will likely be successful in meeting its objectives.

## 9) Feasibility and Design of Regulations Database <br> (2010: \$20,000, 2011: \$9,500) <br> TR 25 Issue (Primary): 9

This project is the second year of a feasibility study to change business processes and design a database to capture salmon regulations. Regulations would be captured according to Regional data standards and maintained in a Pacific Region Oracle database. This regulation database would be available as records of management actions and for use in generating catch estimates and CWT expansions relative to regulations, and in timely and accurate reporting on effects of
management actions. This project will likely be successful in meeting its objectives.

## 10) Albion and Tyee Test Fishery Historic Data

(2011: \$26,000)
TR 25 Issue (Primary): 6, 8
Two technicians were hired to incorporate historic data from the Albion and Tyee Test Fisheries into the Fishery Operations System (FOS). Work has begun on input of 2002 and earlier Albion test fishery data into FOS. The entry of historic catch records is underway. Entry of biosample records will follow. Work has begun on analysis of the North Coast Area MS Access database which contains the Tyee test fishery data. Mapping of these data to FOS data structures is underway. Input of some of the supporting data e.g., fishery openings and net configurations, back to 1955 has been completed. This project is ongoing and will likely be successful in meeting its objectives.

## 11) Recovery of Historical Records of CWTs Obtained from CDFO Juvenile Salmon Surveys in BC Marine Areas

(2011: \$5,000)
TR 25 Issue (Primary): 9, 14
The objective of this project is to obtain records of CWTs recovered from salmon captured during many years of annual CDFO marine area surveys for juvenile salmon. The data are currently in hardcopy and old non-functional database formats. An appropriate format for reporting these recovery records will be established, the data will be entered into an Access database, validated, and exported for incorporation into the Mark Recovery Program (MRP) database which is the CDFO repository for all Canadian and U.S. CWT recovery data. Over 8,000 CWT recoveries have been obtained from the annual CDFO juvenile salmon surveys but only a small number of these currently exist in MRP and RMIS. Work on this project is expected to start early in 2012 and is likely to be successful in meeting its objectives

## 12) Regional Sport and First Nations Fishery CWT Recovery Improvements (2009: \$140,000, 2010: \$182,000, 2011: \$140,000) <br> TR 25 Issue (Primary): 4, 7, 9, 10, 11

The objectives of this project are to increase the head submission rates, improve the data associated with the Sport Head Recovery Program, and to improve CWT sampling in First Nations fisheries.

DFO introduced significant new projects since 2009 which have been augmented and continued in 2011. Measures in the recreational fishery include: public relations/outreach initiatives, expansion of south coast region creel program to include opportunistic direct visual sampling of CWTs and increased communication with recreational anglers from DFO creel survey staff, and implementation of projects to expand or improve sport head recovery program depots (e.g. signage, improvements to infrastructure to support increased capacity, maintenance, tracking, reports to anglers, etc.).

Collaboration with area staff to modify the head collection program has improved CWT recoveries in remote areas (Northern West Coast Vancouver Island, North Island, Central Coast, Northern BC, and BC interior). Results from the voluntary Sport Head Recovery program indicate increased Chinook heads recovered in 2011 (7489 heads) versus 2010 ( 6,210 heads) versus 2009 ( 4,072 heads). Average 2010 Chinook sport submission rates for 7 ocean and 6 freshwater sport fisheries were above $20 \%$ with the exception of Central Sport ( $9 \%$ ) and Lower Fraser (12.5\%).

DFO provided support to Lower Fraser First Nations to collect CWT samples from commercial and FSC fisheries as an integrated process in the Lower Fraser First Nations catch monitoring program. The Mid-Fraser, BC Interior, Cowichan, Big Qualicum, Somass and Bella Coola First Nations have expanded catch monitoring programs to collect CWT samples, improving the precision of the catch estimates. Sampling procedures, forms, data entry and programming have been modified to support these new data sources. This project is likely to be successful..

## 13) Expansion of Catch Monitoring and Sampling Southern BC Sport Fishery (2010: \$80,000, 2011: \$180,000) <br> TR 25 Issue (Primary): 4, 6

This project aims to conduct or increase recreational survey activity in areas and times currently unmonitored and verify assumptions regarding fishing effort to improve estimates of CWT expansions i.e. stock specific impacts, cohort size, ERs, and model outputs. Progress on this project includes creel surveys in key WCVI areas were expanded and extended from mid-August through September 2011. The creel survey in Juan de Fuca was extended from October (2011) to March (2012) which extends the survey to cover the full-year in this area. Surveys were extended from January to March (2012) in portions of Strait of Georgia (PFMA's 17, 18, 19).
Improvements to the CWT system include increased sampling for tags to improve expansions. Extensions of survey to non-surveyed periods will test the assumptions that current effort and catch is low, consistent with historical data. This project is likely to be successful.

## 14) Chilliwack River Creel Survey Extension <br> (2011: \$15,000)

TR 25 Issue (Primary): 4, 6
Historically, CWT recoveries for the first half of September were indirectly determined by the submission rate measured with creel survey and head recovery data for the last half of September. The accuracy and prudence of this approach has not been previously been evaluated. Hence, we initiated the Creel Survey project two weeks earlier to allow direct estimates of catch and CWT recoveries for the entire month of September. The project will provide catch estimates by species and mark status and an estimate of total angler effort for the September 1st to 15 th period. Additional catch and effort estimates are provided bi-monthly for the September16th to November 15th period by Fraser River Stock Assessment using existing CDFO funding Work on this project will also include a comparison of the 2011 estimates to the estimates of catch and CWT recoveries that would have generated using the method employed in 2010 and earlier. Currently, field operations (data collection) and data entry are complete. Generation of catch estimates is on-going and a comparison of analytical
techniques will occur in early 2012. This project is likely to be successful.

## 15) CWT Sampling - Lower Fraser First Nations CWT Recovery Improvements (2011: \$40,000) <br> TR 25 Issue (Primary): 4, 7, 9, 10, 11

This project directs efforts to collaborative work with the Lower Fraser Fisheries Alliance (LFFA) to improve CWT recoveries in First Nations Food, Social and Ceremonial (FSC) fisheries and Economic Opportunity (EO/Commercial) fisheries conducted in the Lower Fraser. In 2011, LFFA, with support from DFO, has been developing communications products and promotional materials, and conducting communication sessions with 26 Bands in the Lower Fraser to increase knowledge and participation in coded wire tag sampling programs by First Nations monitors and fishers in the Lower Fraser. Prior to 2011, less than 30 First Nations tag recoveries have occurred in the Lower Fraser. In 2011 alone, 18 heads have been recovered to date. This project is likely to be successful.

## 16) CWT Sampling - WCVI and Strait of Georgia First Nations CWT Recovery Improvements <br> (2011: \$20,000) <br> TR 25 Issue (Primary): 4, 7, 9, 10, 11

This project directs efforts to collaborative work with the WCVI and Cowichan First Nations to improve CWT recoveries in First Nations Food, Social and Ceremonial (FSC) fisheries and Economic Opportunity (EO/Commercial) fisheries. DFO has been collaborating with First Nations to develop standardized monitoring and reporting materials, and conducting communication sessions to increase knowledge and participation in coded wire tag sampling programs by First Nations monitors and fishers. In 2011 CWT funding was provided for a Cowichan First Nations crew to monitor their FSC fishery. This project is likely to be successful.

## 17) CWT Sampling - CWT Sampling -First Nations Sampling Improvements (seasonal) (2011: \$35,000) <br> TR 25 Issue (Primary): 4, 7, 9, 10, 11

Improvements to First Nations fishery sampling in 2010 resulted in significant seasonal overtime. In 2011, this issue was address by hiring a seasonal technician to focus on implementation of improvements and communication with the First Nations communities. The project was successful in meeting its objectives.
18) CWT Sampling - Sport Fishery Sampling Improvements (seasonal)
(2011: \$39,000)
TR 25 Issue (Primary): 4, 7, 9, 10, 11

Improvements to recreational sampling in 2010 resulted in significant seasonal overtime. In 2011, this issue was address by hiring a seasonal technician to focus on implementation of improvements and communication with the recreational community. The project was
successful in meeting its objectives.

## 19) Middle Shuswap Sport Fishery Catch Estimation and CWT sampling (2011: \$29,500) <br> TR 25 Issue (Primary): 4, 7

The objective of this project was to estimate the encounters of Chinook salmon by clip status, and any other regulation variation that affects the age composition of retained and released catch. This project is one component of a broader objective to decrease the uncertainty in estimates of terminal fishery catch and increase sample rates in terminal fisheries. In 2011 a pilot fish card survey was introduced and will be compared with estimates provided by the creel interview surveys. In 2011, the creel survey estimated 3 unmarked adult Chinook, 0 un-marked adult Chinook releases and 632 hours fished. No marked Chinook or jacks were encountered during the study. Unlike past surveys, catch rate and effort was very low likely due to a combination of higher than normal water levels, late migration and low stock abundance. If the 2011 creel was not funded the catch estimate derived using less rigorous methods would have been biased high. This project is likely to be successful.

## 20) Improvements to Central Coast recreational fishery monitoring (2011: \$5,000) <br> TR 25 Issue (Primary): 4, 6

Objectives of this pilot program were to assess the feasibility of using roving surveys to measure the incidence of adipose fin clips in Chinook salmon and augment CPUE data for Central Coast recreational fisheries. CWT recoveries in Canadian recreational fisheries are typically from voluntary head submissions. Expansions of CWT's from voluntary submissions require estimates of catch and independent estimates of adipose fin clip incidence by time and area. This pilot program was initiated to provide stratified mark-rate data for use in the calculation of CWT expansion factors for Central Coast sport recoveries.

Estimates of Chinook harvest by independent (non-lodge based) anglers were attempted using CPUE data from on-water interviews and effort index information from trailer counts in Bella Coola. Most recreational Chinook catch in the Central Coast is associated with fishing lodges and catch data are provided through log books.

The Central Coast Conservation and Protection (C\&P) branch of DFO conducted a total of 401 on-water interviews between June14 and Sept. 15, 2011 during which 99 Chinook were examined and 9 fin clipped fish were encountered.

An estimated 1,899 Chinook were harvested by independent anglers in DFO statistical areas 7\&8 during the study period. The total independent harvest of Chinook was estimated at 306 for DFO statistical areas $9 \& 10$ combined. The independent harvest of Central Coast Chinook for the study period was estimated at 2,205 while the lodge Chinook catch was 5,496.
Submission rate calculations and subsequent CWT expansion factors have yet to be calculated. The project was successful in meeting its objectives.

### 5.1.2 Canadian Projects Recommended for 2012

The Canadian CWTIT solicited projects to address priority issues identified in PSC Technical Report 25 (2008; see also Table 5-3) through an internal process which resulted in 40 projects recommended for funding, totaling $\$ 1,500,000$. Projects recommended for funding and contingency projects are listed in Table 5-1.

Table 5-1. Canadian CWT Improvement Projects approved for FY2012.

| Project Category | TR25 Issue | Project Title <br> (* Multi-year) | Cost (\$CDN) |
| :---: | :---: | :---: | :---: |
| Increased CWT Marking of CN Indicators | 2 | Incremental tagging of 12 Indicator Stocks (Robertson Creek, Cowichan, Big Qualicum, Quinsam, Lower Shuswap, Nicola, Chilliwack, Harrison, Taku, Stikine, Kitsumkalum, and Atnarko)* | \$358,500 |
| Increased Deadpitch CWT Recovery Effort, all Indicators | 5 | Increased effort in CWT recovery in indicator escapement programs (Quinsam, Cowichan, Big Qualicum, Chilliwack, Harrison, and Nicola)* | \$80,500 |
| Uncertainty in Estimates of Escapement or Terminal Fishery Catch | $1 \& 6$ | Atnarko Chinook CWT Indicator Stock* | \$110,000 |
| Agency Staffing (Programmer, Catch QA/QC Analyst, CWT Recovery Coordinator) | $\begin{aligned} & 4,7,8,9,10 \\ & 11,14,15,17 \\ & \& 18 \end{aligned}$ | Regional CWT Data system <br> Programming, Regional CWT and <br> Catch Estimation QA/QC, and Regional Sport \& FN Fishery CWT <br> Recovery Coordination * | \$250,000 |
| Increased Head Recovery Costs | 2, 4, 5, 7 | CWT Head Lab Processing and Data Management* | \$70,000 |
| Low Sample Rates in Terminal Fisheries, Sport and FN CWT recovery improvements | 4,7,9,10 \& 11 | Regional Commercial, Sport \& FN Fishery CWT Recovery Improvements* | \$215,000 |
| Low Sample Rates in Terminal Fisheries, FN Fishery CWT recovery improvements | 4 \& 10 | Improvements in CWT Recovery in Terminal First Nations Fisheries ( Fraser River, Georgia Strait, WCVI, Bella Coola, and Cowichan)* | \$80,000 |
| Low Sample Rates in Terminal Fisheries, FN Fishery CWT recovery improvements | 4 \& 10 | Improvements in Catch Estimates and CWT Recovery in Terminal Recreational Fisheries | \$174,000 |
| CWT data reporting system improvement | 13, 15, 17 | Database Improvements | \$162,000 |
|  |  | GRAND TOTAL | \$1,500,000 |

### 5.2 US CWTIT Projects

### 5.2.1 Progress on US Projects Undertaken in 2011

A total of 13 US projects were funded in FY 2011, inclusive of one covering costs associated with a bilateral CWTIT workshop. The total expenditure of US CWTIT projects in 2011 was
$\$ 1,500,000$. Progress on funded projects is described below and each description includes the CWT issue listed in the PSC CWT Workgroup Tech Report 25 (Table 5-3, PSC 2008) that the program is intended to address.

## 1) SEAK Tag Lab Increased Heads <br> (2010: \$65,000 USD, 2011: \$69,800 USD) <br> TR 25 Issue (Primary): 7

Objectives of the project were to provide funds to cover a portion of costs associated with the increased number of "NO TAG" heads associated with mass marking that are shipped to the SEAK CWT Lab. Cost recovery was for freight and personnel. This project has been funded for 2 years. The project is complete for the two years of funding to date. The occurrence of heads from Chinook with ad-clips, but without CWTs has increased from $10 \%$ to over $50 \%$ in the past few years in most SEAK fisheries due to mass marking in the Pacific Northwest. The project helped maintain the timeliness and accuracy of CWT data from Chinook caught in SEAK. This project was successful in meeting its objectives and future requests are anticipated for this project.

## 2) Stikine River Smolt Tagging (2010: \$121,300 USD, 2011: \$113,800 USD) TR 25 Issue (Primary): 1, 2

Objectives were to tag wild Chinook smolt in the Stikine River in spring 2011 and 2012 (with U.S. and Canadian funding), to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction for TBR and CTC work. This is a joint stock assessment project. Canadian CWTIT funds supported part of this project in 2009-2011. No surrogate hatchery exists. Tagging targets for smolt were exceeded $(40,000)$ in 2011 with joint efforts and we expect similar success in 2012 due to improvements in capture methods. This project will provide high-quality data to manage the terminal run for this stock. Improved adult estimates will assist in the harvest sharing accounts between countries. Stock parameters are estimated directly from wild-stock tagging. This project was successful in meeting its objectives a proposal has been submitted for 2012.

## 3) Chilkat River Smolt Tagging <br> (2010: \$91,100 USD, 2011: \$97,700 USD) <br> TR 25 Issue (Primary): 1, 2

Objectives were to tag wild Chinook smolt in the Chilkat River in fall 2010 to spring 2012, to subsequently estimate total adult and smolt production, exploitation, survival and provide run reconstruction for the CTC and ADF\&G. This is a wild stock and no surrogate hatchery exists. Tagging goals have been met, with 38,000 wild Chinook CWTd in fall 2010, 4,000 in spring 2011 and about 29,000 in fall 2011. This project will provide high-quality data for use as a CTC ERA and escapement indicator stock and thus far has been successful in meeting its objectives. Future annual requests are anticipated for this project.

## 4) Elk River Tagging, Creel and Escapement

(2010: \$113,600 USD, 2011: \$140,100 USD)
TR 25 Issue (Primary): 1, 3

Objectives were to tag Chinook from the Elk River Hatchery, the proposed mid-Oregon CWT indicator stock, to estimate freshwater harvest and escapement and sample them for CWTs. All aspects of the project were still in progress. This project was successful for the 2010 funding and the 2011 work was in progress. This project will likely provide high-quality data for this midOregon Coast stock and use as a CTC ERA stock. Future annual requests are anticipated for this project.

## 5) SEAK-Increased Sampling in Net and Terminal Fisheries <br> (2010: \$43,400 USD, 2011: \$69,700 USD) <br> TR 25 Issue (Primary): 4,7

Objectives were to increase the sampling rates in commercial net (seine and gillnet) and terminal commercial fisheries, by funding additional port samplers in 3 ports. Sampling for this project was completed during 2010 and 2011 and sampling rates were increased in most the SEAK net fisheries. Improvements to the CWT system include a higher sampling and recovery rates in specified fisheries, which increase the precision of CWT statistics. This project has been funded for two years, was successful in meeting into objectives. Future requests are likely.

## 6) Puget Sound Freshwater Sport Sampling

 (2010: \$182,500 USD, 2011: \$182,800 USD) TR 25 Issue (Primary): 4, 6Objectives were to increase the sampling rates in freshwater sport fisheries in Puget Sound and to develop an indirect method for estimation of the number of CWTs present in these fisheries in the past and future. Intensive creel surveys were conducted in 2010 and 2011 on 4 rivers (Skagit, Skokomish, Nisqually and Skykomish) to estimate total harvest, effort, CWTs, marked rate, unmarked mortality and to collect biological data. Sampling for this project was completed during 2010 and 2011 and results will be reported springing the near future. Improvements include higher sampling rates in specified fisheries. This project has been successful in completing creel sampling and harvest estimation of 2010 and 2011 fisheries. Future requests are anticipated for an additional years; this project has been funded for 2 years.

## 7) Nisqually River Indicator Stock Tagging (\$48,300 USD) TR 25 Issue (Primary): 1

This project will allow for the monitoring and evaluation of the Nisqually River stock and to be able to identify returns from the integrated program in the fishery, at the hatchery or at the new main stem weir (RM12) to be installed seasonally July-November beginning in 2011. This funding will be used to CWT an additional 325,000 un-marked fish, for a DIT group for this aspect. This project has not begun yet due to the late installation of the new weir in 2011 ; it is planned to be done during the 2012 season. This project will provide a DIT group for the
integrated program for this stock. Success of the project is unknown due to the late start date. Future requests are unknown.

## 8) Salmon River Hatchery vs. Wild Stock comparison ( $\$ 144,500$ USD) TR 25 Issue (Primary): 1,2

This is an 18-month grant to tag 30,000 wild smolts in the Salmon River. It included a feasibility study in 2011 to determine trapping locations and gear. Smolt will be tagged during the 2012 season and adult returns will continue through 2017. Exploitation rates from these wild stock fish will be compared statistically to rates from the hatchery stock at the same location, along with distribution, age at maturity and survival rates. The representativeness of the Salmon River hatchery as a surrogate for the NOC wild stocks is the question at hand. Progress: The feasibility study in 2011 produces about 7,500 Chinook smolt; the remainder of the project will occur in the future. Improvement: This project will compare CWT statistics from a hatchery and wild stock in the same system. It is too early to determine the success of this project. Future requests are expected for one additional year.

## 9) SEAK-Marine Sport Sampling Increase <br> (\$79,700 USD) <br> TR 25 Issue (Primary): 7

Objectives were to increase the sampling rate in the SEAK sport fishery in major ports with sampling rates below $20 \%$. This project funded additional sampling for marine sport fisheries in Juneau and Ketchikan. This project is complete and sampling rates were increased from 10-15\% (recent 5 years both ports) to about $22 \%$ in Juneau and to about $18 \%$ in Ketchikan, in 2011. Improvements to the CWT system include substantially increased the number of CWTs recovered in these two ports and improved the CWT statistics derived from them for the multiple stocks present in both locations. Thus far, the project has been successful in meeting its objectives. Future requests are expected for annually.

## 10) SEAK-New Data Loggers

(\$49,600 USD)
TR 25 Issue (Primary): 7
Objectives were to purchase 27 improved data loggers to replace the antiquated units purchased 8 years ago. This increased the efficiency and data quality of CWT data collected from commercial landings. This project is complete and the data loggers increased sampling efficiency, and data quality because of the features added to these units for immediate feedback for any missing or inappropriate data fields. Validation is complete. This project will keep sampling rates higher by improving sampling efficiency. Thus far, the project has been successful in meeting its objectives. No future requests are expected for many years.

## 11) WA Ocean Troll \& Sport Sampling <br> (\$353,100 USD) <br> TR 25 Issue (Primary): 7

Objectives were to fund sampling of WA ocean troll and sport fisheries to replace funding lost through elimination of the Anadromous Fish Act funds. This program has been in place for many years with its present methodology. Well-developed sampling protocols are in place. This project is complete and all sampling objectives were met; sampling rates were about $40 \%$ for both fisheries in 2011. Validation of CWT data is complete. The main benefit of this project continues the base sampling to produce reliable CWT statistics for WA ocean troll and sport fisheries and the CWT'd stocks caught in them. Thus far, the project has been successful in meeting its objectives. Future requests are expected.

## 12) OR Troll \& Columbia River Sport Sampling (\$100,100 USD)

TR 25 Issue (Primary): 7
Objectives were maintain at least a $20 \%$ sampling rate and to implement complete electronic sampling of troll and recreational fisheries in Oregon in the Columbia River management area. This funding represents about $50 \%$ base sampling lost to elimination of the Anadromous Fish Act funds and about $50 \%$ of CWT improvement. This project is complete; sampling rates were $46 \%$ in the sport fishery and $34 \%$ in the troll fishery in 2011; and the sampling protocol in all ports were changed to full electronic sampling. Validation is underway. Funding this project continues the base sampling to produce reliable CWT statistics for the affected fisheries and stocks. Electronic sampling was implemented to produce statistics for DIT stocks. Thus far, the project has been successful in meeting its objectives. Future requests are expected.

## 13) CWTIT Meetings and Projects (\$50,800 USD) TR 25 Issue (Primary): TBD

This project represents funds from 2011 to hold CWTIT meetings and to fund a future CWTIT project(s). A portion of these funds were used to hold the CWTIT Workshop in 2011. This project allows the CWTIT to meet and review progress and to reserve funds for a potential CWTIT project in 2012.

### 5.2.2 U.S. Projects Recommended for 2012

Projects were solicited through a request for proposals released for 2 months in late 2011. Projects were evaluated by the CWTIT on the basis of those providing the most perceived benefits to the CWT program for the associated cost. Table 5-2 provides a summary of the recommended projects by project category. Project categories are based on the themes specified in PSC Technical Report 25 (PSC 2008). Projects were scored and ranked individually by U.S. CWTIT members and consensus was subsequently reached to develop draft recommendations.

These were deliberated by the bilateral CWTIT. The U.S. PSC approved the following list of recommendations. The projects recommended by the U.S. represent a complete expenditure of the $\$ 1.5$ million available under this program for 2012. The CWTIT believes that the recommended projects will provide short- and long-term benefits to the CWT program and benefits to abundance-based management of Chinook salmon under jurisdiction of the PST.

Table 5-2. U.S. CWT Improvement Projects approved for FY2012.

| Project Category | TR25 <br> Issue | Project Title <br> (* Multi-year) | Cost <br> (\$USD) |
| :--- | :--- | :--- | :--- |
| Indicator hatchery stock tagging, terminal <br> fishery \& escapement \# \& sampling | $1,3,4,6$ | Mid-Oregon Coast CWT Recovery, and <br> Escapement of Elk River Fall Chinook * | $\$ 123,501$ |
| CWT Lab equipment purchase | 13 | Purchase of Microscope and Related Lab <br> Equipment | $\$ 5,312$ |
| Database \& reporting system upgrade | 13,14, <br> 17,18 | ODFW CWT Database Program System | $\$ 110,000$ |
| Low sample rates in terminal fisheries and <br> estimation of harvest | 4,6 | CWT Harvest Estimation in Puget Sound <br> Freshwater Chinook Sport Fisheries * | $\$ 185,122$ |
| Indicator stock tagging of wild stock <br> without hatchery representation | 1,2 | Stikine River Chinook Smolt CWT - <br> Bilateral * | $\$ 121,883$ |
| CWT data reporting system improvement | 8,9 | Spring Troll Re-stratification in SEAK | $\$ 29,685^{1}$ |
| Replace outdated CWT equipment | 12,13 | Replace ODFW Outdated Handheld CWT <br> Wand Detectors * | $\$ 80,710^{2}$ |
| Reduce head processing costs \& improve <br> sampling efficiency | $4,7,13$ | Purchase Commercial Port Sampling <br> Wands in SEAK | $\$ 131,309^{2}$ |
| Replace outdated CWT equipment | 12,13 | Replace WDFW Outdated Handheld CWT <br> Wand Detectors * | $\$ 230,726^{2}$ |
| CWT data reporting system improvement | 13,15, |  <br> Sample Datasets for CWT expansion | $\$ 72,206$ |
| Low sample rates in mixed-stock fisheries | 7 | Sampling Washington Ocean Salmon <br> Fisheries * | $\$ 339,400$ |
| Low sample rates in mixed-stock fisheries | 7,13 | Improvements to Oregon Ocean CWT <br> Sampling in CR Mgmt Area | $\$ 100,101$ |
|  | GRAND TOTAL | $\$ 1,529,685$ |  |

[^3]Table 5-3. Key to issues in PSC Technical Report 25.

| TR 25 Issue No. | Description |
| :--- | :--- |
| 1 | Incomplete and inconsistent representation of production regions |
| 2 | Determination of tagging levels |
| 3 | Representation of hatchery production |
| 4 | Low sample rates in terminal fisheries |
| 5 | Low sample rates in escapements |
| 6 | Uncertainty in estimates of escapement or terminal fisheries |
| 7 | Low sample rates in highly mixed stock fisheries |
| 8 | Uncertainty in estimates of catch in high mixed stock fisheries |
| 9 | Non-representative sampling |
| 10 | Incomplete coverage of fisheries or escapement |
| 11 | Voluntary sport fishery sampling programs |
| 12 | Sampling methods to facilitate sampling of mark selective fisheries and CWT processing |
| 13 | Timeliness of reporting |
| 14 | Incomplete/no exchange of CWT data |
| 15 | Inter/intra-agency coordination |
| 16 | Unclear authority to establish and enforce standards |
| 17 | Updating data is difficult and updates cannot be tracked |
| 18 | Validation is inadequate |
| Chapter 6 | Decision Theoretic Tool |

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## APPENDICES.

Appendix A Relationship between exploitation rate indicator stocks, escapement indicator stocks, model stocks, and additional management action stocks identified in the PST annex.

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Appendix A. 1 Indicator stocks for Southeast Alaska and Transboundary Rivers.

${ }^{1}$ SEAK fisheries will be managed to achieve escapement objectives for Southeast Alaska and Transboundary River Chinook stocks.
${ }^{2}$ Based on large spawners (ocean age 3 and older).
${ }^{3}$ Based on index count of large spawners (ocean age 3 and older)
NA = not available
${ }^{\text {a }}$ CTC escapement objective; ${ }^{\mathrm{b}}$ Agency objective

Appendix A. 2 Indicator stocks for Canada.

| Area | Annex Stock Group | Annex Indicator Stocks | Run Type | Escapement Indicator Stock | Escapement Objective ${ }^{\text {a }}$ | Model Stock | Escapement Goal in Model ${ }^{\text {b }}$ | Exploitation Rate Indicator Stock | CWT <br> Acronym |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NBC-Area 1 | North / Central <br> British <br> Columbia | Yakoun | Summer | Yakoun | Escapement goal range by stock | North / Central BC | 117,500 | Kitsumkalum | KLM |
| NBC-Area 3 |  | Nass | Summer | Nass |  |  |  |  |  |
| NBC-Area 4 |  | Skeena |  | Skeena |  |  |  |  |  |
| CBC-Area 8 |  |  | Spring/Fall | Rivers Inlet |  |  |  |  |  |
| CBC-Area 9 |  |  | Spring | Dean |  |  |  | Atnarko | ATN |
| WCVI | West Coast Vancouver Island Falls | Artlish, Burman, Gold, Kauok, Tahsis, Tashish, Marble | Fall | WCVI Aggregate <br> (Artlish, Burman, <br> Kauok, Tahsis, Tashish, <br> Marble) | Escapement goal range for aggregate | WCVI Natural | 42,734 | Robertson Creek | RBT |
|  |  |  |  |  |  | WCVI Hatchery | 6,472 |  |  |
| Upper Strait of Georgia | Upper Strait of Georgia | Klinaklini, <br> Kakweikan, <br> Wakeman, <br> Kingcome, Nimpkish | Summer/ Fall | Upper Strait of Georgia (Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish) | Escapement goal range for aggregate | Upper Strait of Georgia | 23,300 | Quinsam | QUI |
| Lower Strait of Georgia | Lower Strait of Georgia |  | Summer/ Fall |  |  | Lower Strait of Georgia Hatchery | 5,318 | Puntledge | PPS |
|  |  |  |  |  |  |  |  | Big Qualicum | BQR |
|  |  | Cowichan, Nanaimo | Fall | Lower Strait of Georgia <br> (Cowichan / Nanaimo) | Escapement goal range for aggregate | Lower Strait of Georgia Natural | 21,935 | Cowichan | COW |
|  |  |  |  |  |  |  |  | Nanaimo | NAN |
| Fraser River | Fraser Early | Upper Fraser <br> Mid Fraser <br> Thompson | Spring | Fraser Spring-run Age <br> 1.2 | Escapement goal range by stock | Fraser Early | 93,700 | Nicola | NIC |
|  |  |  |  | Fraser Spring-run Age <br> 1.3 |  |  |  | Dome | DOM |
|  |  |  | Summer | Fraser Summer-run Age <br> 1.3 |  |  |  | NA | NA |
|  |  |  |  | Fraser Summer-run Age <br> 0.3 |  |  |  | Lower Shuswap | SHU |
|  | Fraser Late | Harrison River | Fall | Harrison River | 75,100-98,500 | Fraser Late | 75,100 | Chilliwack | CHI |
|  |  |  |  |  |  |  |  | Harrison | HAR |

${ }^{\text {a }}$ CTC escapement objective; ${ }^{\text {b }}$ Agency objective

Appendix A. 3 Indicator stocks for Puget Sound.

| Area | Annex Stock Group | Annex Indicator Stocks | Run Type | Escapement Indicator Stock | Escapement Objective ${ }^{\text {a }}$ | Model Stock | Escapement Goal in Model ${ }^{\text {b }}$ | Exploitation Rate Indicator Stock | CWT <br> Acronym |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| North/ <br> Central <br> Puget <br> Sound | North Puget <br> Sound <br> Natural <br> Springs | Nooksack | Spring | Nooksack | Escapement goal range by stock | Nooksack Spring | 4,000 | Nooksack Spring Fingerling Nooksack Spring Yearling | $\begin{aligned} & \text { NSF } \\ & \text { NKS } \end{aligned}$ |
|  |  | Skagit |  | Skagit spring |  |  |  | Skagit Spring Fingerling Skagit Spring Yearling | $\begin{aligned} & \hline \text { SKF } \\ & \text { SKS } \end{aligned}$ |
|  | Not an Annex stock |  | Fall |  |  | Nooksack Fall | 11,923 | Samish Fall Fingerling | SAM |
|  | Puget Sound Natural Summer/Falls | Snohomish | Summer/Fall | Snohomish |  | Snohomish Wild | 5,250 | Skykomish | SKY |
|  |  | Skagit group |  | Skagit sum/fall |  | Skagit Wild | 9,778 | Skagit Summer Fingerling | SSF |
|  |  | Lake <br> Washington |  | Lake <br> Washington Falls |  | Puget Sound <br> Natural <br> Fingerling | 16,966 | NA |  |
|  |  | Green River |  | Green River |  |  |  | Green River Fingerling | GRN |
|  |  | Stillaguamish |  | Stillaguamish |  | Stillaguamish Wild | 2,000 | Stillaguamish Fall Fingerling | STL |
|  |  |  |  |  |  |  |  | Nisqually Fall Fingerling | NIS |
| Hood Canal | Not an Annex stock |  | Fall |  |  | Puget Sound Hatchery <br> Fingerling |  | George Adams Fall Fingerling | GAD |
| South <br> Puget <br> Sound | Not an annex stock |  | Fall |  |  | Puget Sound Hatchery Fingerling | 24,769 | South Puget Sound Fall Fingerling | SPS |
|  |  |  |  |  |  | Puget Sound Hatchery Yearling | 9,136 | South Puget Sound Fall Yearling | SPY |
|  |  |  |  |  |  |  |  | Squaxin Pens Fall Yearling | SQP |
|  |  |  |  |  |  |  |  | Univ. of Washington Accelerated Fall | UWA |
|  |  |  | Spring |  |  |  |  | White River Spring Yearling | WRY |

NA = not available
${ }^{\mathrm{a}}$ CTC escapement objective; ${ }^{\mathrm{b}}$ Agency objective

Appendix A. 4 Indicator stocks for the Washington Coast.

| Area | Annex Stock Group | Annex <br> Indicator <br> Stocks | Run Type | Escapement <br> Indicator Stock | Escapement Objective ${ }^{\text {a }}$ | Model Stock | Escapement Goal in Model ${ }^{\text {b }}$ | Exploitation Rate <br> Indicator Stock | CWT <br> Acronym |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WA Coast/ <br> Juan de <br> Fuca | Washington Coastal Fall Naturals | Hoko | Fall | Hoko |  |  |  | Elwha Fall Fingerling | ELW |
|  |  |  |  | Hoko |  |  |  | Hoko Fall Fingerling | HOK |
|  |  | Grays <br> Harbor |  | Grays Harbor Fall | Escapement goal range by stock | Washington Coastal Wild | 21,500 | NA |  |
|  |  | Queets |  | Queets Fall |  |  |  | Queets Fall Fingerling | QUE |
|  |  | Hoh |  | Hoh Fall |  |  |  | NA |  |
|  |  | Quillayute |  | Quillayute Fall |  |  |  | NA |  |
|  |  |  |  |  |  |  |  | Sooes Fall Fingerling | SOO |
|  | Not an annex stock |  | Fall |  |  | Washington Coastal Hatchery | 6,703 | NA |  |
|  | Not an annex stock |  | Spring | Grays Harbor Spring |  |  |  | NA |  |
|  | Not an annex stock |  | Spring/ Summer | Queets <br> Spring/Summer |  |  |  | NA |  |
|  |  |  |  | Hoh Spring/Summer |  |  |  | NA |  |
|  | Not an annex stock |  | Summer | Quillayute Summer |  |  |  | NA |  |

NA = not available
${ }^{\text {a }}$ CTC escapement objective; ${ }^{\text {b }}$ Agency objective

Appendix A.5.Indicator stocks for Columbia River and Oregon Coast.

| Area | Annex Stock <br> Group | Annex <br> Indicator Stocks | Run Type | Escapement Indicator Stock | Escapement Objective ${ }^{\text {a }}$ | Model Stock | Escapement Goal in Model ${ }^{\text {b }}$ | Exploitation Rate Indicator Stock | CWT <br> Acronym |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Columbia River | Not an Annex stock |  | Spring |  |  | Cowlitz Spring Hatchery | 2,500 | NA | CWS |
|  |  |  |  |  |  | Willamette River Hatchery | 13,500 | Willamette Spring | WSH |
|  | Columbia <br> River <br> Summers | Mid- <br> Columbia <br> Summers | Summer | Mid Columbia Summer | $17,857^{1}$ | Columbia River Summer | 17,857 | Columbia Summers | SUM |
|  | Columbia <br> River Falls |  | Fall |  |  | Fall Cowlitz Hat. | 8,800 | Cowlitz Tule | CWF |
|  |  |  |  |  |  | Spring Creek Hatchery | 7,000 | Spring Creek Tule | SPR |
|  |  |  |  |  |  | Lower Bonneville <br> Hatchery | 26,200 | Columbia Lower River Hatchery | LRH |
|  |  | Upriver Brights |  | Columbia Upriver Bright | 45,000 | Columbia Upriver Brights | 40,000 | Columbia Upriver Bright | URB |
|  |  |  |  |  |  |  |  | Hanford Wild | HAN |
|  |  | Deschutes |  | Deschutes River Fall | 4,532 | Subset of Columbia Upriver Brights | 4,000 | NA |  |
|  |  |  |  |  |  | Lyons Ferry | 3,430 | Lyons Ferry | LYF |
|  |  |  |  |  |  | Mid Columbia River Brights | 12,500 | NA |  |
|  |  | Lewis <br> River |  | Lewis | 5,700 | Lewis River Wild | 5,700 | Lewis River Wild | LRW |
| North <br> Oregon <br> Coast | Far North <br> Migrating <br> Oregon <br> Coastal <br> Falls | Nehalem | Fall | Nehalem | 6,989 | Oregon Coast | 62,382 | Salmon River | SRH |
|  |  | Siuslaw |  | Siuslaw | 12,925 |  |  |  |  |
|  |  | Siletz |  | Siletz | 2,944 |  |  |  |  |
| MidOregon Coast | Not an Annex stock |  | Fall | Umpqua |  |  |  | Elk River | ELK |
|  |  |  |  | Mid South Oregon Coastal Falls |  |  |  |  |  |

${ }^{1}$ Measured at Rock Island Dam
NA - not available
${ }^{\mathrm{a}}$ CTC escapement objective; ${ }^{\mathrm{b}}$ Agency objective

## Appendix B ISBM indices.

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Appendix B.1. ISBM Indices for Canadian fisheries based on CWT-based exploitation rate analysis (1999-2010). Footnotes appear at the end of Appendix B.

| Stock Group | Escapement Indicator Stocks | CWT Indices ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Lower Strait of Georgia | Cowichan ${ }^{8}$ | 0.517 | 0.196 | 0.260 | 0.247 | $0.363{ }^{6}$ | 0.284 | 0.132 | 0.191 | 0.043 | 0.242 | 0.400 | 0.261 |
|  | Nanaimo ${ }^{5,8}$ | 0.163 | 0.154 | 0.260 | 0.247 | NA ${ }^{7}$ | NA | NA | NA | NA | NA | NA | NA |
| Fraser Late | Harrison River ${ }^{3}$ | 0.112 | 0.073 | 0.090 | 0.105 | $0.055{ }^{\text {a }}$ | 0.032 | 0.058 | 0.032 | 0.035 | 0.031 | 0.058 | 0.134 |
| North Puget <br> Sound Natural Springs | Nooksack, Skagit | 0.183 | 1.176 | 0.040 | 0.023 | 0.046 | NA | NA | NA | NA | NA | 0.106 | 0.014 |
|  |  | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Upper Strait of Georgia | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | 0.021 | 0.123 | 0.040 | 0.063 | 0.006 | 0.018 | 0.028 | 0.079 | 0.268 | 0.073 | 0.247 | 0.182 |
| Fraser Early (spring and summers) | Upper Fraser, Mid <br> Fraser, Thompson | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| West Coast <br> Vancouver Island Falls | WCVI (Artlish, Burman, Kauok, Tahsis, Tashish, Marble) | 0.431 | 0.083 | 0.060 | 0.248 | $0.496{ }^{10}$ | 0.488 | 0.267 | 0.267 | 0.906 | 0.652 | 0.464 | 0.178 |
| Puget Sound Natural Summer / Falls | Skagit | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Stillaguamish | 0.194 | 0.111 | 0.145 | NA | NA | 0.027 | 0.057 | 0.074 | 0.192 | NA | 0.252 | 0.083 |
|  | Snohomish | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Lake Washington | $\mathrm{NA}^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Green River | 0.171 | 0.154 | 0.350 | 0.323 | 0.328 | 0.162 | 0.085 | 0.109 | 0.076 | 0.106 | 0.208 | 0.151 |
| North / Central B. C. | Yakoun, Nass, Skeena, Area 8 | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |


| Stock Group | Escapement Indicator Stocks | CWT Indices ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Washington Coastal Fall Naturals ${ }^{4}$ | Hoko, Grays Harbor, <br> Queets, Hoh, <br> Quillayute | $\mathrm{NA}^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Columbia River Falls ${ }^{4}$ | Upriver Brights | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Deschutes | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Lewis ${ }^{3}$ | $\mathrm{NA}^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Columbia R <br> Summers ${ }^{4}$ | Mid-Columbia Summers ${ }^{3}$ | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Far North Migrating OR Coastal Falls ${ }^{4}$ | Nehalem ${ }^{3}$, Siletz $^{3}$, Siuslaw ${ }^{3}$ | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Appendix B.2. ISBM Indices for U.S. fisheries based on CWT-based exploitation rate analysis (1999-2010). Footnotes appear at the end of Appendix B.

| Stock Group | Escapement Indicator Stocks | CWT Indices ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Washington Coastal Fall Naturals | Hoko | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Grays Harbor | 0.430 | 1.630 | 0.860 | 0.540 | 0.150 | 0.530 | 0.560 | 0.520 | 0.790 | 0.390 | 0.700 | 0.69 |
|  | Queets | 1.000 | 0.850 | 1.440 | 0.840 | 0.850 | 0.840 | 2.050 | 0.600 | 1.050 | 0.610 | 0.450 | 0.67 |
|  | Hoh | 1.540 | 2.750 | 1.660 | 0.950 | 1.340 | 1.220 | 1.030 | 1.290 | 2.230 | 0.950 | 1.220 | 1.00 |
|  | Quillayute | 1.300 | 2.470 | 1.480 | 1.420 | 0.990 | 1.150 | 1.030 | 1.180 | 1.470 | 1.160 | 1.970 | 0.67 |
| Columbia River Falls | Upriver Brights | 1.370 | 2.530 | 1.350 | 1.320 | 1.430 | 1.740 | 1.780 | 3.080 | 3.100 | 1.830 | 2.790 | 1.75 |
|  | Deschutes | 0.510 | 0.710 | 0.520 | 0.590 | 0.049 | 0.510 | 0.670 | 0.580 | 0.510 | 1.860 | 2.360 | 0.79 |
|  | Lewis ${ }^{3}$ | 0.000 | 0.360 | 0.580 | 0.560 | 1.030 | 0.170 | 0.980 | 1.330 | 0.790 | 0.630 | 0.140 | 0.43 |
| Puget Sound Natural Summer / Falls | Skagit | $\mathrm{NA}^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Stillaguamis h | 0.120 | 0.040 | 0.890 | NA | NA | 0.010 | 0.220 | 0.080 | 0.120 | NA ${ }^{2}$ | 0.200 | 0.38 |
|  | Snohomish | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Lake <br> Washington | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
|  | Green R | 0.500 | 0.700 | 1.180 | 1.070 | 1.030 | 1.010 | 0.170 | 0.370 | 0.380 | 0.280 | 0.290 | 0.34 |
| Fraser Late | Harrison River ${ }^{3}$ | 0.470 | 0.130 | 0.310 | 0.410 | 0.640 | 0.320 | NA ${ }^{12}$ | NA | NA | 0.260 | 0.150 | 0.47 |
| Columbia R Summers | Mid- <br> Columbia <br> Summers ${ }^{3}$ | 1.640 | 4.820 | 5.320 | 7.250 | 10.040 | 2.690 | 6.080 | 0.480 | 1.840 | 6.800 | 1.310 | 9.81 |
| Far North <br> Migrating OR Coastal Falls | Nehalem ${ }^{3}$ | 1.960 | 1.970 | 1.940 | 2.170 | 3.110 | 1.800 | 2.000 | 3.480 | 2.010 | 0.920 | 0.590 | 1.21 |
|  | Siletz ${ }^{3}$ | 0.820 | 1.160 | 1.190 | 1.310 | 1.590 | 2.290 | 1.190 | 2.340 | 1.600 | 0.670 | 0.730 | 0.50 |
|  | Siuslaw ${ }^{3}$ | 1.220 | 2.450 | 2.180 | 2.560 | 3.820 | 1.030 | 1.630 | 2.230 | 1.000 | 0.640 | 1.070 | 0.77 |
| North Puget <br> Sound <br> Natural <br> Springs | Nooksack | 0.440 | 0.000 | 0.040 | NA ${ }^{2}$ | NA | NA | NA | NA | NA | 0.210 | 0.520 | 0.70 |
|  | Skagit | $\mathrm{NA}^{2}$ | NA | NA | 1.120 | NA | NA | NA | NA | NA | NA | NA | NA |


| Stock Group | Escapement Indicator Stocks | CWT Indices ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Lower Strait of Georgia ${ }^{4}$ | Cowichan, | $\mathrm{NA}^{2}$ | 0.690 | 11.350 | 5.780 | 4.990 | 7.250 | 10.230 | 15.070 | 1.550 | 4.040 | 5.140 | 4.33 |
|  | Nanaimo ${ }^{5}$ | NA ${ }^{2}$ | 0.690 | 11.350 | 5.780 | 4.990 | $\mathrm{NA}^{7}$ | NA | NA | NA | NA | NA | NA |
| Upper Strait of Georgia ${ }^{4}$ | Klinaklini, <br> Kakweikan, <br> Wakeman, <br> Kingcome, <br> Nimpkish | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fraser Early (spring and summers) ${ }^{4}$ | Upper <br> Fraser, Mid <br> Fraser, <br> Thompson | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| West Coast Vancouver Island Falls ${ }^{4}$ | WCVI (Artlish, <br> Burman, <br> Kauok, <br> Tahsis, <br> Tashish, <br> Marble) | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| North / <br> Central B. C. | Yakoun, Nass, Skeena, Area 8 | NA ${ }^{2}$ | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Appendix B.3. ISBM Indices for Canadian fisheries, from the Chinook model (1999-2012) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 2008 Revised Annexes. Footnotes appear at the end of Appendix B.

| Stock Group | Escapement Indicator Stocks | Model Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|  |  | $\begin{gathered} \text { CLB0 } \\ 107 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB01 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB01 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB02 } \\ 06 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB03 } \\ 08 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB04 } \\ 04 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB05 } \\ 06 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB06 } \\ 04 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB07 } \\ 05 \end{gathered}$ | $\begin{gathered} \hline \text { CLB08 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB09 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB10 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB11 } \\ 06 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB12 } \\ 09 \\ \hline \end{gathered}$ |
| Lower Strait of Georgia | Cowichan | 0.304 | 0.232 | 0.325 | 0.541 | 0.490 | 0.593 | $0.381{ }^{\text {8 }}$ | $0.590{ }^{8}$ | $0.240{ }^{\text {8 }}$ | $0.315^{8}$ | $0.494{ }^{8}$ | $0.203{ }^{8}$ | $0.367{ }^{8}$ | $0.443{ }^{6}$ |
|  | Nanaimo ${ }^{5}$ | 0.209 | 0.113 | 0.246 | 0.190 | 0.498 | 0.695 |  |  |  |  |  |  |  |  |
| Fraser Late | Harrison River ${ }^{3}$ | 0.309 | 0.198 | 0.336 | 0.302 | 0.352 | 0.719 | 0.332 | 0.294 | 0.211 | 0.208 | 0.245 | 0.138 | 0.193 | 0.256 |
| North Puget Sound | Nooksack | 0.233 | 0.156 | 0.241 | 0.195 | 0.251 | 0.273 | 0.314 | 0.993 | 0.563 | 0.470 | 0.988 | 0.568 | 0.732 | 0.339 |
| Natural Springs | Skagit | NA ${ }^{2}$ | NA | NA | NA | 0.251 | 0.273 | 0.314 | 0.993 | 0.563 | 0.470 | 0.988 | 0.568 | 0.731 | 0.340 |
| Upper Strait of Georgia | Klinaklini, Kakweikan, Wakeman, Kingcome, Nimpkish | 0.174 | 0.118 | 0.314 | 0.272 | 0.649 | 0.971 | 0.649 | 0.584 | 0.146 | 0.622 | 0.128 | 0.122 | 0.578 | 0.596 |
| Fraser Early (spring and summers) | Upper <br> Fraser, Mid <br> Fraser, <br> Thompson | 0.125 | 0.124 | 0.210 | 0.145 | 0.661 | 0.718 | 0.654 | 0.610 | 0.159 | 0.128 | 0.094 | 0.121 | 0.222 | 0.226 |
| West Coast Vancouver Island Falls |  | 0.365 | 0.327 | 0.244 | 0.342 | 0.744 | 0.927 | 0.728 | 1.082 | 0.133 | 1.490 | 0.137 | 0.122 | 0.491 | 0.636 |
| Puget Sound | Skagit | 0.197 | 0.119 | 0.217 | 0.172 | 0.436 | 0.438 | 0.465 | 1.092 | 0.718 | 0.724 | 1.097 | 0.709 | 0.745 | 1.421 |
| Natural <br> Summer / | Stillaguamis h | 0.355 | 0.234 | 0.469 | 0.375 | 0.513 | 0.567 | 0.587 | 1.166 | 0.821 | 0.796 | 1.123 | 0.791 | 0.793 | 1.329 |


| Stock Group | Escapement Indicator Stocks | Model Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|  |  | $\begin{gathered} \text { CLB0 } \\ 107 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB01 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB01 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB02 } \\ 06 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB03 } \\ 08 \end{gathered}$ | $\begin{gathered} \hline \text { CLB04 } \\ 04 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB05 } \\ 06 \end{gathered}$ | $\begin{gathered} \hline \text { CLB06 } \\ 04 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB07 } \\ 05 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CLB08 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB09 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB10 } \\ 07 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB11 } \\ 06 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB12 } \\ 09 \\ \hline \end{gathered}$ |
| Falls |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Snohomish | 0.185 | 0.116 | 0.222 | 0.176 | 0.435 | 0.445 | 0.457 | 1.101 | 0.736 | 0.721 | 1.098 | 0.718 | 0.744 | 1.359 |
|  | Lk. Wash. | 0.332 | 0.202 | 0.355 | 0.275 | 0.508 | 0.446 | $0.497^{11}$ | 0.898 | 0.735 | 0.722 | 0.918 | 0.690 | 0.752 | 0.991 |
|  | Green River | 0.333 | 0.202 | 0.356 | 0.275 | 0.508 | 0.466 | $0.497{ }^{11}$ | 0.914 | 0.752 | 0.721 | 0.919 | 0.670 | 0.756 | 1.000 |
| North / <br> Central B. C. | Yakoun, Nass, Skeena, Area 8 | 0.237 | 0.254 | 0.613 | 0.584 | 0.689 | 0.804 | 0.680 | 0.626 | 0.202 | 0.593 | 0.224 | 0.177 | 0.598 | 0.536 |
| Washington Coastal Fall Naturals ${ }^{4}$ | Hoko, Grays <br> Harbor, <br> Queets, Hoh, Quillayute | 0.201 | 0.161 | 0.354 | 0.292 | 0.292 | 0.435 | 0.457 | 0.363 | 0.194 | 0.387 | 0.328 | 0.134 | 0.332 | 0.357 |
| Columbia River Falls ${ }^{4}$ | Upriver <br> Brights | 0.124 | 0.104 | 0.377 | 0.429 | 0.686 | 0.663 | 0.640 | 0.523 | 0.129 | 0.612 | 0.517 | 0.110 | 0.620 | 0.572 |
|  | Deschutes | 0.124 | 0.104 | 0.377 | 0.429 | 0.686 | 0.663 | 0.640 | 0.523 | 0.129 | 0.612 | 0.517 | 0.110 | 0.620 | 0.572 |
|  | Lewis ${ }^{3}$ | 0.056 | 0.180 | 0.180 | 0.171 | 0.515 | 0.480 | 0.546 | 0.315 | 0.030 | 0.432 | 0.832 | 0.920 | 0.994 | 3.345 |
| Columbia R <br> Summers ${ }^{4}$ | Mid- <br> Columbia <br> Summers $^{3}$ | 0.109 | 0.085 | 0.144 | 0.198 | 0.352 | 0.333 | 0.406 | 0.335 | 0.119 | 0.361 | 0.285 | 0.084 | 0.359 | 0.296 |
| Far North <br> Migr OR <br> Coastal <br> Falls ${ }^{4}$ | Nehalem ${ }^{3}$, Siletz ${ }^{3}$, Siuslaw ${ }^{3}$ | 0.094 | 0.110 | 0.505 | 0.514 | 0.689 | 0.672 | 0.674 | 0.515 | 0.078 | 0.088 | 0.543 | NA | 0.529 | 0.540 |

Appendix B.4. ISBM Indices for U.S. fisheries, from the Chinook model (1999-2012) used to establish the AI for each year. Order of the stock groups corresponds to Annex 4, Chapter 3, Attachment IV and V of the PST 2008 Revised Annexes. Footnotes appear at the end of Appendix B.

| Stock Group | Escapement <br> Indicator <br> Stocks | Model Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|  |  | $\begin{gathered} \text { CLB010 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB010 } \\ 7 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB010 } \\ 7 \\ \hline \end{gathered}$ | $\begin{gathered} \text { CLB020 } \\ 6 \end{gathered}$ | $\begin{gathered} \text { CLB030 } \\ 8 \end{gathered}$ | $\begin{gathered} \text { CLB040 } \\ 4 \end{gathered}$ | $\begin{gathered} \text { CLB050 } \\ 6 \end{gathered}$ | $\begin{gathered} \text { CLB060 } \\ 4 \end{gathered}$ | $\begin{gathered} \text { CLB070 } \\ 5 \end{gathered}$ | $\begin{gathered} \text { CLB080 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB090 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB100 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB110 } \\ 6 \end{gathered}$ | $\begin{gathered} \text { CLB120 } \\ 9 \end{gathered}$ |
| WA <br> Coastal <br> Fall <br> Naturals | Hoko | 0.39 | 0.34 | 0.56 | 0.48 | 0.682 | 0.966 | 0.444 | 0.442 | 0.401 | 0.305 | 0.284 | 0.130 | 0.419 | 0.378 |
|  | Grays <br> Harbor | 0.440 | 0.430 | 0.450 | 0.840 | 0.494 | 0.573 | 0.222 | 0.544 | 0.504 | 0.45 | 0.404 | 0.382 | 0.549 | 0.604 |
|  | Queets | 0.880 | 0.420 | 0.440 | 1.050 | 1.063 | 0.932 | 1.023 | 1.022 | 1.014 | 1.007 | 0.508 | 0.285 | 0.327 | 0.179 |
|  | Hoh | 1.390 | 0.730 | 0.760 | 1.260 | 1.208 | 1.214 | 1.499 | 1.493 | 1.111 | 1.457 | 0.981 | 0.987 | 0.760 | 0.443 |
|  | Quillayute | 1.140 | 0.720 | 0.750 | 1.310 | 1.292 | 1.139 | 1.133 | 0.673 | 0.883 | 0.851 | 0.881 | 0.963 | 1.058 | 1.151 |
| Columbia <br> River <br> Falls | Upriver <br> Brights | 1.020 | 1.090 | 0.990 | 0.910 | 1.022 | 0.906 | 0.734 | 0.814 | 0.726 | 0.701 | 0.798 | 0.801 | 0.841 | 0.894 |
|  | Deschutes | 1.020 | 0.880 | 0.740 | 0.550 | 0.561 | 0.475 | 0.483 | 0.437 | 0.493 | 0.428 | 0.461 | 1.004 | 1.044 | 0.684 |
|  | Lewis ${ }^{3}$ | 0.110 | 0.160 | 1.700 | 0.930 | 0.851 | 1.008 | 1.058 | 1.861 | 1.466 | 0.436 | 0.470 | 0.505 | 0.426 | 0.442 |
| Puget Sound Natural Summer / Falls | Skagit | 0.170 | 0.210 | 0.780 | 0.270 | 0.406 | 0.157 | 0.195 | 0.258 | 0.325 | 0.321 | 0.292 | 0.261 | 0.789 | 0.327 |
|  | Stillaguamis h | 0.140 | 0.140 | 0.400 | 0.200 | 0.184 | 0.224 | 0.185 | 0.493 | 0.152 | 0.137 | 0.446 | 0.117 | 0.169 | 1.054 |
|  | Snohomish | 0.040 | 0.050 | 0.600 | 0.150 | 0.072 | 0.110 | 0.891 | 0.199 | 0.138 | 0.165 | 0.202 | 0.125 | 0.211 | 0.332 |
|  | Lake <br> Washington | 0.500 | 0.480 | 0.590 | 1.250 | 0.768 | 0.411 | 0.373 | 0.613 | 0.391 | 0.392 | 0.768 | 0.517 | 0.387 | 0.590 |
|  | Green R | 0.500 | 0.480 | 0.600 | 0.350 | 0.263 | 0.260 | 0.202 | 0.361 | 0.278 | 0.380 | 0.555 | 0.520 | 0.236 | 0.631 |
| Fraser Late | Harrison River ${ }^{3}$ | 0.660 | 0.390 | 0.620 | 0.720 | 0.981 | 1.058 | 0.670 | 0.787 | 0.563 | 0.378 | 0.410 | 0.209 | 0.497 | 0.448 |
| Columbia <br> R <br> Summers | Mid- <br> Columbia <br> Summers ${ }^{3}$ | 0.110 | 0.090 | 0.140 | 0.820 | 0.794 | 0.715 | 0.545 | 0.696 | 0.943 | 1.254 | 1.236 | 1.142 | 1.398 | 1.369 |
| Far North Migrating OR Coastal Falls | Nehalem ${ }^{3}$ | 2.670 | 2.660 | 2.750 | 2.610 | 2.346 | 2.230 | 2.090 | 1.912 | 2.183 | 1.968 | 2.003 | 0.916 | 2.146 | 1.696 |
|  | Siletz ${ }^{3}$ | 1.810 | 1.790 | 1.870 | 1.330 | 1.302 | 1.288 | 1.233 | 1.237 | 1.399 | 1.592 | 1.217 | 0.698 | 0.643 | 0.814 |
|  | Siuslaw ${ }^{3}$ | 0.940 | 0.930 | 0.950 | 3.340 | 2.856 | 2.816 | 2.643 | 1.095 | 1.241 | 0.971 | 1.632 | 2.028 | 1.427 | 1.646 |


| Stock <br> Group | Escapement <br> Indicator <br> Stocks | Model Indices |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|  |  | $\begin{gathered} \text { CLB010 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB010 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB010 } \\ 7 \end{gathered}$ | $\begin{gathered} \text { CLB020 } \\ 6 \end{gathered}$ | $\begin{gathered} \text { CLB030 } \\ 8 \end{gathered}$ | $\begin{gathered} \text { CLB040 } \\ 4 \end{gathered}$ | $\begin{gathered} \text { CLB050 } \\ 6 \end{gathered}$ | $\begin{gathered} \text { CLB060 } \\ 4 \end{gathered}$ | $\underset{5}{\text { CLB070 }}$ | CLB080 7 | CLB090 7 | CLB100 7 | CLB110 | CLB120 9 |
| North <br> Puget <br> Sound <br> Natural <br> Springs | Nooksack | 0.150 | 0.200 | 0.010 | 0.000 | 0.121 | 0.974 | 0.222 | 0.121 | NA | NA | 0.107 | 0.181 | 0.484 | 0.171 |
|  | Skagit | $\mathrm{NA}^{2}$ | NA | 0.070 | 0.060 | 0.119 | 0.663 | 0.213 | 0.161 | NA | NA | 0.143 | 0.245 | 0.271 | 0.147 |
| Lower <br> Strait of <br> Georgia ${ }^{4}$ | Cowichan, | 0.170 | 0.210 | 0.480 | 0.220 | 0.452 | 0.915 | $0.407^{8}$ | $0.271{ }^{8}$ | $0.288{ }^{8}$ | $0.333{ }^{8}$ | $0.367{ }^{\text {8 }}$ | $0.216^{8}$ | $0.367{ }^{8}$ | 0.370 |
|  | Nanaimo ${ }^{5}$ | 0.170 | 0.210 | 0.480 | 0.220 | 0.452 | 0.915 |  |  |  |  |  |  |  | NA |
| Upper <br> Strait of <br> Georgia ${ }^{4}$ | Klinaklini, <br> Kakweikan, <br> Wakeman, <br> Kingcome, <br> Nimpkish | NC ${ }^{13}$ | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC |
| Fraser <br> Early <br> (spring <br> and <br> summers) ${ }^{4}$ | Upper <br> Fraser, Mid <br> Fraser, <br> Thompson | 0.080 | 0.150 | 0.700 | 0.150 | 0.277 | 0.839 | 0.257 | 0.224 | 0.219 | 0.100 | 0.156 | 0.111 | 0.239 | 0.228 |
| West <br> Coast <br> Vancouver <br> Island <br> Falls ${ }^{4}$ |  | 0.260 | 0.380 | 0.730 | 0.270 | 0.658 | 0.540 | 0.290 | 0.128 | 0.311 | 0.365 | 0.146 | 0.213 | 0.378 | 0.420 |
| North / <br> Central B. <br> C. | Yakoun, Nass, Skeena, Area 8 | NC ${ }^{13}$ | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC |

1 The CWT-based estimates, not the model estimates, are to be used in postseason assessments.
2 NA means not available because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
3 Stock or stock group with an agreed CTC escapement goal.
4 Stock group not in Annex Attachment IV.
5 Indices for the Nanaimo stock are calculated from CWT recoveries for Cowichan; differences between Nanaimo and Cowichan stock indices are due to

## differences in terminal harvest.

6An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based indices. The former included harvest rates for terminal sport while the latter did not. Terminal sport harvest rates are now included in the calculation of both indices. Further review is yet required to determine whether the base period terminal sport harvest rates obtained from analyses of Big Qualicum CWT recoveries adequately represent impacts that would have occurred on Cowichan Chinook.
7 Several problems have been identified in the approach previously used to calculate the CWT-based indices for Nanaimo Chinook; indices for this stock will not be reported as their utility is questionable.
8Although model-based indices were previously calculated separately for Cowichan and Nanaimo Chinook; these did not adequately represent impacts on either LGS stock. This is because the model-based data represent an aggregate of the two stocks and methods do not currently exist to correctly disaggregate these data for calculation of the ISBM values. Until such methods are developed, a single index value only will be reported representing the aggregate.
9 The terminal sport harvest rates for Chilliwack Hatchery Chinook, the indicator stock, were removed from the calculation for the Harrison River naturals this year because sport harvest has been essentially zero on the natural population.
10 A review of the approach used to calculate both the CWT-based and model data-based indices for the WCVI naturals was carried out in 2008. A similar approach was adopted for both indices but due to modifications to the formerly used procedures, the historical time series of values was updated.
11For the Canadian ISBM fisheries, both Lake Washington and Green are assumed to have the same distribution and thus the same index value.
12 The US CWT based indices for Fraser Late from 2005 onward do not accurately reflect the impacts on the natural stock because a considerable proportion of the recoveries in the US fisheries have occurred in mark-selective fisheries in which only clipped hatchery-origin fish are retained. The US indices since 2005 indicate greater impacts than would have occurred on the natural stocks and are no longer being reported.
13 NC means that the current model assumes the stock is not caught in U.S. ISBM fisheries.

Appendix C Percent distribution of landed catch and total mortality among fisheries and escapement for exploitation rate indicator stocks by calendar year with analagous model stocks listed in parentheses.

These data result from cohort analysis of CWT recoveries for the indicator stocks; data within a row for each calendar year sum to $100 \%$. Some changes are present in these distribution tables compared to those presented in previous reports due to changes in the CWT database. Data is not reported for a particular calendar year if there are less than 3 age classes present in the calendar year or if there are less than 10 estimated CWTs in the reported catch and escapement.

## LIST OF APPENDIX C FIGURES.

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| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 48 | 3 | Failed | Criteria | - |  | - | - |  | - | - | - | - | - | - |  |  | - | - |  |  |  | - |
| 1980 | 1735 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |  |
| 1981 | 899 | 3,4,5 | 40.2\% | 3.7\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 39.5\% |
| 1982 | 2678 | 3,4,5,6 | 21.1\% | 5.2\% | 3.4\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 65.3\% |
| 1983 | 5492 | 3,4,5,6 | 25.7\% | 1.3\% | 6.4\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 61.5\% |
| 1984 | 10319 | 3,4,5,6 | 21.6\% | 2.6\% | 12.9\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 59.7\% |
| 1985 | 15929 | 3,4,5,6 | 24.4\% | 5.0\% | 11.2\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 2.3\% | 55.0\% |
| 1986 | 16186 | 3,4,5,6 | 23.6\% | 4.3\% | 11.8\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 4.1\% | 54.7\% |
| 1987 | 15954 | 3,4,5,6 | 27.2\% | 2.6\% | 6.7\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 7.9\% | 54.4\% |
| 1988 | 15080 | 3,4,5,6 | 28.0\% | 1.8\% | 9.9\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 7.3\% | 51.5\% |
| 1989 | 11333 | 3,4,5,6 | 21.5\% | 5.0\% | 8.8\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 6.0\% | 52.8\% |
| 1990 | 13891 | 3,4,5,6 | 31.4\% | 2.5\% | 9.6\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 43.5\% |
| 1991 | 14057 | 3,4,5,6 | 35.3\% | 3.0\% | 9.7\% | 0.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.9\% | 38.9\% |
| 1992 | 6838 | 3,4,5,6 | 23.2\% | 5.6\% | 11.1\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 12.3\% | 47.0\% |
| 1993 | 5954 | 3,4,5,6 | 18.5\% | 3.6\% | 11.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 9.1\% | 54.9\% |
| 1994 | 5420 | 3,4,5,6 | 13.7\% | 13.1\% | 11.9\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 4.1\% | 52.7\% |
| 1995 | 5923 | 3,4,5,6 | 24.5\% | 4.7\% | 11.3\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 8.3\% | 41.3\% |
| 1996 | 6132 | 3,4,5,6 | 22.2\% | 4.5\% | 14.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 15.1\% | 37.9\% |
| 1997 | 5527 | 3,4,5,6 | 23.6\% | 4.1\% | 13.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 18.0\% | 36.7\% |
| 1998 | 3642 | 3,4,5,6 | 24.5\% | 6.5\% | 12.6\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 15.3\% | 36.5\% |
| 1999 | 5802 | 3,4,5,6 | 18.1\% | 2.4\% | 14.2\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 14.0\% | 47.8\% |
| 2000 | 6301 | 3,4,5,6 | 20.0\% | 2.7\% | 12.2\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 11.8\% | 50.5\% |
| 2001 | 6748 | 3,4,5,6 | 14.7\% | 2.1\% | 9.1\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 8.7\% | 63.1\% |
| 2002 | 5899 | 3,4,5,6 | 10.8\% | 1.7\% | 7.9\% | 1.0\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 7.7\% | 68.0\% |
| 2003 | 5887 | 3,4,5,6 | 15.8\% | 1.6\% | 8.0\% | 0.7\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 63.6\% |
| 2004 | 8268 | 3,4,5,6 | 15.7\% | 4.9\% | 5.2\% | 0.4\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 9.4\% | 63.4\% |
| 2005 | 7827 | 3,4,5,6 | 23.3\% | 5.5\% | 11.0\% | 0.3\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 19.9\% | 39.1\% |
| 2006 | 10251 | 3,4,5,6 | 32.4\% | 3.9\% | 5.7\% | 0.7\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 9.7\% | 45.6\% |
| 2007 | 9956 | 3,4,5,6 | 29.3\% | 3.1\% | 6.0\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 9.8\% | 50.2\% |
| 2008 | 9876 | 3,4,5,6 | 19.0\% | 3.4\% | 3.6\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 14.2\% | 58.3\% |
| 2009 | 7493 | 3,4,5,6 | 14.3\% | 3.5\% | 3.7\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 8.1\% | 64.8\% |
| 2010 | 5653 | 3,4,5,6 | 16.0\% | 4.0\% | 7.6\% | 0.2\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 8.9\% | 61.8\% |
| 1979-2010 | 8374 |  | 22.7\% | 3.9\% | 9.2\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 9.5\% | 52.0\% |
| 1979-1984 | 4847 |  | 27.1\% | 3.2\% | 7.1\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 56.5\% |
| 1985-1995 | 11506 |  | 24.7\% | 4.6\% | 10.3\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 7.7\% | 49.7\% |
| 1996-1998 | 5100 |  | 23.4\% | 5.0\% | 13.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 16.1\% | 37.0\% |
| 1999-2010 | 7497 |  | 19.1\% | 3.2\% | 7.8\% | 0.3\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 11.0\% | 56.4\% |

Appendix C.2. Percent distribution of Alaska Spring (Alaska South SE) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 264 | 3 | Failed | Criteria | - |  | - | - | - | - | - | - | - | - | - | - |  | - | - |  |  |  |  |
| 1980 | 2055 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 1136 | 3,4,5 | 44.6\% | 3.3\% | 11.1\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 31.3\% |
| 1982 | 3088 | 3,4,5,6 | 26.7\% | 5.3\% | 5.6\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 56.7\% |
| 1983 | 6600 | 3,4,5,6 | 34.1\% | 1.2\% | 8.3\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 51.2\% |
| 1984 | 12206 | 3,4,5,6 | 27.5\% | 2.5\% | 16.3\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 50.5\% |
| 1985 | 19356 | 3,4,5,6 | 28.2\% | 9.7\% | 12.9\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 2.1\% | 45.2\% |
| 1986 | 19552 | 3,4,5,6 | 26.8\% | 10.1\% | 12.5\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 3.7\% | 45.3\% |
| 1987 | 18799 | 3,4,5,6 | 33.9\% | 4.6\% | 7.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 7.2\% | 46.2\% |
| 1988 | 17159 | 3,4,5,6 | 31.5\% | 4.3\% | 10.5\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 6.9\% | 45.2\% |
| 1989 | 14453 | 3,4,5,6 | 22.4\% | 16.5\% | 9.5\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 5.0\% | 41.4\% |
| 1990 | 17329 | 3,4,5,6 | 36.6\% | 6.6\% | 10.2\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 34.9\% |
| 1991 | 16034 | 3,4,5,6 | 37.0\% | 6.6\% | 10.0\% | 0.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 34.1\% |
| 1992 | 10297 | 3,4,5,6 | 18.8\% | 31.9\% | 8.8\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 8.6\% | 31.2\% |
| 1993 | 6836 | 3,4,5,6 | 21.5\% | 7.3\% | 12.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 8.4\% | 47.8\% |
| 1994 | 8590 | 3,4,5,6 | 14.1\% | 36.5\% | 10.1\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 2.8\% | 33.2\% |
| 1995 | 7459 | 3,4,5,6 | 27.1\% | 12.6\% | 11.3\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 7.1\% | 32.8\% |
| 1996 | 6928 | 3,4,5,6 | 24.1\% | 7.4\% | 15.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 14.1\% | 33.5\% |
| 1997 | 6116 | 3,4,5,6 | 24.7\% | 6.3\% | 14.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 17.2\% | 33.1\% |
| 1998 | 4352 | 3,4,5,6 | 25.3\% | 11.6\% | 13.8\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 13.9\% | 30.5\% |
| 1999 | 6721 | 3,4,5,6 | 20.8\% | 3.7\% | 17.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 13.4\% | 41.3\% |
| 2000 | 7234 | 3,4,5,6 | 23.4\% | 4.5\% | 13.4\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 11.4\% | 44.0\% |
| 2001 | 7322 | 3,4,5,6 | 17.1\% | 3.4\% | 10.4\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 8.6\% | 58.2\% |
| 2002 | 6432 | 3,4,5,6 | 12.8\% | 2.5\% | 9.9\% | 1.1\% | 0.9\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 7.8\% | 62.3\% |
| 2003 | 6327 | 3,4,5,6 | 17.8\% | 2.1\% | 9.7\% | 0.8\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 59.2\% |
| 2004 | 9154 | 3,4,5,6 | 17.9\% | 7.1\% | 6.5\% | 0.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 9.3\% | 57.3\% |
| 2005 | 9212 | 3,4,5,6 | 26.3\% | 7.3\% | 13.2\% | 0.4\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 18.6\% | 33.2\% |
| 2006 | 11531 | 3,4,5,6 | 35.4\% | 4.7\% | 6.8\% | 0.7\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 9.5\% | 40.5\% |
| 2007 | 11435 | 3,4,5,6 | 31.5\% | 6.7\% | 6.6\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 9.5\% | 43.7\% |
| 2008 | 10553 | 3,4,5,6 | 21.0\% | 4.4\% | 4.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 14.3\% | 54.6\% |
| 2009 | 8200 | 3,4,5,6 | 17.2\% | 4.8\% | 4.3\% | 0.5\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 8.1\% | 59.2\% |
| 2010 | 6224 | 3,4,5,6 | 18.4\% | 6.5\% | 8.3\% | 0.2\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 8.8\% | 56.2\% |
| 1979-2010 | 9888 |  | 25.5\% | 8.1\% | 10.4\% | 0.5\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 8.8\% | 44.5\% |
| 1979-1984 | 5758 |  | 33.2\% | 3.1\% | 10.3\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 47.4\% |
| 1985-1995 | 14169 |  | 27.1\% | 13.3\% | 10.5\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 6.6\% | 39.8\% |
| 1996-1998 | 5799 |  | 24.7\% | 8.4\% | 14.7\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 15.1\% | 32.4\% |
| 1999-2010 | 8362 |  | 21.6\% | 4.8\% | 9.2\% | 0.4\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 10.8\% | 50.8\% |

Appendix C.3. Percent distribution of Atnarko River (North/Central BC) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 1 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 18 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 122 | 2,3,4 | 16.4\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 17.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 59.8\% |
| 1991 | 719 | 2,3,4,5 | 5.8\% | 0.0\% | 0.0\% | 1.0\% | 1.8\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 21.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.8\% | 64.8\% |
| 1992 | 943 | 2,3,4,5,6 | 7.3\% | 0.0\% | 0.0\% | 1.5\% | 3.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 18.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 1.8\% | 58.6\% |
| 1993 | 1293 | 2,3,4,5,6 | 8.7\% | 0.4\% | 0.5\% | 3.7\% | 3.2\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 2.1\% | 64.2\% |
| 1994 | 1647 | 2,3,4,5,6 | 6.1\% | 0.1\% | 0.2\% | 1.3\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 18.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.8\% | 66.6\% |
| 1995 | 2272 | 2,3,4,5,6 | 3.9\% | 0.0\% | 1.1\% | 0.9\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 15.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 2.6\% | 67.3\% |
| 1996 | 2001 | 2,3,4,5,6 | 2.4\% | 0.0\% | 0.5\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 4.4\% | 74.2\% |
| 1997 | 1138 | 2,3,4,5,6 | 3.9\% | 0.0\% | 1.2\% | 0.4\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 9.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 4.2\% | 69.4\% |
| 1998 | 1026 | 2,3,4,5,6 | 6.2\% | 0.0\% | 0.4\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 2.9\% | 61.2\% |
| 1999 | 1424 | 2,3,4,5,6 | 5.3\% | 0.0\% | 2.4\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 3.5\% | 73.4\% |
| 2000 | 1025 | 2,3,4,5,6 | 6.0\% | 0.1\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 3.9\% | 72.2\% |
| 2001 | 670 | 2,3,4,5,6 | 5.4\% | 0.0\% | 1.3\% | 0.0\% | 2.5\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 9.0\% | 3.9\% | 63.0\% |
| 2002 | 730 | 2,3,4,5,6 | 4.7\% | 0.1\% | 0.5\% | 8.1\% | 4.9\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 2.2\% | 54.2\% |
| 2003 | 607 | 2,3,4,5,6 | 4.4\% | 0.2\% | 0.0\% | 2.5\% | 13.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 3.8\% | 43.7\% |
| 2004 | 645 | 2,3,4,5,6 | 8.4\% | 0.0\% | 0.0\% | 3.1\% | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 1.6\% | 47.4\% |
| 2005 | 898 | 3,4,5,6 | 12.6\% | 0.1\% | 0.8\% | 4.3\% | 14.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 2.0\% | 42.5\% |
| 2006 | 1404 | 4,5,6 | 8.4\% | 0.0\% | 1.1\% | 2.2\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 2.3\% | 65.7\% |
| 2007 | 391 | 2,5,6 | 10.5\% | 0.0\% | 2.3\% | 1.0\% | 7.4\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 2.3\% | 52.4\% |
| 2008 | 136 | 2,3,6 | 0.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 83.8\% |
| 2009 | 672 | 2,3,4 | 7.3\% | 0.0\% | 0.0\% | 2.4\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 2.4\% | 46.4\% |
| 2010 | 780 | 3,4,5 | 9.7\% | 0.1\% | 0.6\% | 2.6\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 1.9\% | 53.1\% |
| 1979-2010 | 978 |  | 6.9\% | 0.1\% | 0.7\% | 1.7\% | 4.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 15.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 2.4\% | 61.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1166 |  | 8.0\% | 0.4\% | 0.3\% | 1.4\% | 2.3\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 17.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 1.4\% | 63.6\% |
| 1996-1998 | 1388 |  | 4.2\% | 0.0\% | 0.7\% | 0.1\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 11.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 3.8\% | 68.3\% |
| 1999-2010 | 782 |  | 6.9\% | 0.1\% | 0.8\% | 2.2\% | 6.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 2.5\% | 58.2\% |

Appendix C.4. Percent distribution of Atnarko River (North/Central BC) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 5 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 37 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 145 | 2,3,4 | 20.7\% | 4.1\% | 0.0\% | 1.4\% | 1.4\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 50.3\% |
| 1991 | 749 | 2,3,4,5 | 7.7\% | 0.1\% | 0.0\% | 1.6\% | 2.1\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 20.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.8\% | 62.2\% |
| 1992 | 979 | 2,3,4,5,6 | 8.9\% | 0.0\% | 0.0\% | 1.7\% | 3.7\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 18.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 1.8\% | 56.5\% |
| 1993 | 1359 | 2,3,4,5,6 | 10.5\% | 0.9\% | 0.6\% | 4.4\% | 3.6\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 13.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 2.1\% | 61.1\% |
| 1994 | 1701 | 2,3,4,5,6 | 7.6\% | 0.2\% | 0.3\% | 1.5\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 18.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.8\% | 64.5\% |
| 1995 | 2405 | 2,3,4,5,6 | 4.4\% | 0.1\% | 1.1\% | 1.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 18.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 2.6\% | 63.6\% |
| 1996 | 2078 | 2,3,4,5,6 | 2.6\% | 0.0\% | 0.5\% | 0.2\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 4.5\% | 71.5\% |
| 1997 | 1195 | 2,3,4,5,6 | 4.4\% | 0.0\% | 1.5\% | 0.4\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 10.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 4.3\% | 66.1\% |
| 1998 | 1094 | 2,3,4,5,6 | 7.1\% | 0.0\% | 0.5\% | 0.0\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 2.9\% | 57.4\% |
| 1999 | 1462 | 2,3,4,5,6 | 5.8\% | 0.0\% | 2.5\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 3.6\% | 71.5\% |
| 2000 | 1055 | 2,3,4,5,6 | 6.4\% | 0.1\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 4.1\% | 70.1\% |
| 2001 | 716 | 2,3,4,5,6 | 6.6\% | 0.0\% | 1.5\% | 0.0\% | 3.4\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 3.9\% | 58.9\% |
| 2002 | 782 | 2,3,4,5,6 | 5.0\% | 0.1\% | 0.5\% | 8.7\% | 6.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 2.2\% | 50.6\% |
| 2003 | 688 | 2,3,4,5,6 | 4.5\% | 0.1\% | 0.0\% | 2.6\% | 17.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 3.6\% | 38.5\% |
| 2004 | 722 | 2,3,4,5,6 | 9.4\% | 0.0\% | 0.0\% | 3.5\% | 12.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.8\% | 1.5\% | 42.4\% |
| 2005 | 978 | 3,4,5,6 | 12.5\% | 0.1\% | 0.8\% | 4.4\% | 16.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 1.9\% | 39.1\% |
| 2006 | 1463 | 4,5,6 | 8.5\% | 0.0\% | 1.1\% | 2.2\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 2.3\% | 63.1\% |
| 2007 | 471 | 2,5,6 | 10.0\% | 0.0\% | 2.1\% | 1.1\% | 8.7\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 2.1\% | 43.5\% |
| 2008 | 151 | 2,3,6 | 6.0\% | 0.0\% | 0.7\% | 1.3\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 75.5\% |
| 2009 | 796 | 2,3,4 | 7.3\% | 0.0\% | 0.0\% | 2.4\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 2.1\% | 39.2\% |
| 2010 | 816 | 3,4,5 | 9.9\% | 0.1\% | 0.6\% | 2.8\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 2.0\% | 50.7\% |
| 1979-2010 | 1038 |  | 7.9\% | 0.3\% | 0.7\% | 2.0\% | 6.2\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 16.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 2.4\% | 57.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1223 |  | 10.0\% | 0.9\% | 0.3\% | 1.9\% | 2.8\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 17.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 1.4\% | 59.7\% |
| 1996-1998 | 1456 |  | 4.7\% | 0.0\% | 0.8\% | 0.2\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 13.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.8\% | 3.9\% | 65.0\% |
| 1999-2010 | 842 |  | 7.7\% | 0.0\% | 0.8\% | 2.4\% | 8.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 2.5\% | 53.6\% |

Appendix C.5. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 4737 | 2,3,4,5 | 3.4\% | 0.7\% | 0.3\% | 1.7\% | 0.4\% | 2.2\% | 0.1\% | 21.2\% | 15.3\% | 9.4\% | 12.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 29.9\% |
| 1980 | 2736 | 2,3,4,5 | 1.3\% | 1.8\% | 0.4\% | 4.3\% | 1.4\% | 4.2\% | 0.0\% | 15.2\% | 20.1\% | 6.6\% | 12.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 0.0\% | 3.7\% | 27.7\% |
| 1981 | 1423 | 2,3,4,5 | 1.9\% | 0.1\% | 0.4\% | 1.3\% | 0.8\% | 1.5\% | 0.3\% | 17.8\% | 33.5\% | 11.4\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.6\% | 0.0\% | 0.0\% | 4.1\% | 12.2\% |
| 1982 | 740 | 2,3,4,5 | 4.5\% | 0.7\% | 1.2\% | 4.5\% | 0.4\% | 4.3\% | 0.0\% | 12.7\% | 11.2\% | 5.8\% | 20.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.0\% | 0.0\% | 1.6\% | 30.9\% |
| 1983 | 625 | 2,3,4,5 | 5.3\% | 0.3\% | 0.3\% | 5.0\% | 1.0\% | 1.1\% | 0.0\% | 13.4\% | 14.9\% | 6.9\% | 19.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 8.3\% | 23.8\% |
| 1984 | 495 | 2,3,4,5 | 1.4\% | 0.4\% | 0.0\% | 1.4\% | 5.7\% | 1.4\% | 0.0\% | 8.9\% | 38.8\% | 6.7\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 20.8\% |
| 1985 | 696 | 2,3,4,5 | 3.6\% | 1.4\% | 0.0\% | 1.7\% | 1.7\% | 1.4\% | 0.0\% | 1.7\% | 24.1\% | 3.7\% | 19.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 29.2\% |
| 1986 | 1203 | 2,3,4,5 | 1.9\% | 0.1\% | 0.0\% | 0.7\% | 2.8\% | 1.4\% | 0.0\% | 8.1\% | 30.8\% | 12.6\% | 15.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 20.1\% |
| 1987 | 738 | 2,3,4,5 | 8.7\% | 0.0\% | 0.9\% | 3.9\% | 2.7\% | 4.2\% | 0.0\% | 2.0\% | 22.6\% | 2.4\% | 7.7\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 36.6\% |
| 1988 | 396 | 2,3,4,5 | 2.8\% | 1.0\% | 0.0\% | 2.3\% | 1.3\% | 2.8\% | 2.0\% | 1.8\% | 25.3\% | 1.3\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 38.9\% |
| 1989 | 501 | 2,3,4,5 | 4.2\% | 1.6\% | 0.6\% | 3.2\% | 1.8\% | 4.8\% | 0.0\% | 1.8\% | 19.4\% | 0.6\% | 9.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 18.0\% | 33.7\% |
| 1990 | 633 | 2,3,4,5 | 4.7\% | 2.1\% | 0.0\% | 6.0\% | 2.4\% | 3.0\% | 0.0\% | 3.5\% | 14.5\% | 1.6\% | 17.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 4.6\% | 37.8\% |
| 1991 | 627 | 2,3,4,5 | 2.4\% | 1.6\% | 0.0\% | 2.1\% | 2.1\% | 1.9\% | 0.0\% | 5.3\% | 28.1\% | 1.1\% | 8.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 35.2\% |
| 1992 | 560 | 2,3,4,5 | 2.3\% | 0.7\% | 2.5\% | 5.4\% | 7.3\% | 3.4\% | 0.0\% | 8.9\% | 26.3\% | 5.9\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 25.5\% |
| 1993 | 407 | 2,3,4,5 | 1.2\% | 1.2\% | 0.0\% | 1.5\% | 2.7\% | 1.7\% | 0.0\% | 3.4\% | 37.1\% | 3.9\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 4.7\% | 31.7\% |
| 1994 | 253 | 2,3,4,5 | 4.3\% | 0.0\% | 0.0\% | 1.6\% | 2.0\% | 2.8\% | 0.0\% | 4.3\% | 23.3\% | 1.6\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 45.1\% |
| 1995 | 200 | 2,3,4,5 | 7.0\% | 0.0\% | 0.0\% | 1.5\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 11.0\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.5\% | 61.0\% |
| 1996 | 280 | 2,3,4,5 | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 44.3\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 2.1\% | 47.9\% |
| 1997 | 200 | 2,3,4,5 | 3.0\% | 0.0\% | 0.0\% | 5.0\% | 1.5\% | 0.0\% | 4.5\% | 1.0\% | 9.0\% | 1.5\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.5\% | 52.0\% |
| 1998 | 184 | 2,3,4,5 | 7.1\% | 0.5\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 10.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 67.4\% |
| 1999 | 260 | 2,3,4,5 | 5.4\% | 1.2\% | 0.0\% | 3.5\% | 3.8\% | 0.0\% | 3.5\% | 0.0\% | 8.8\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 67.3\% |
| 2000 | 222 | 2,3,4,5 | 14.0\% | 0.9\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 68.0\% |
| 2001 | 462 | 2,3,4,5 | 4.1\% | 6.9\% | 0.0\% | 0.0\% | 9.5\% | 0.6\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 66.5\% |
| 2002 | 295 | 2,3,4,5 | 10.2\% | 0.0\% | 3.1\% | 3.4\% | 5.8\% | 2.4\% | 3.1\% | 0.0\% | 5.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 59.7\% |
| 2003 | 244 | 2,3,4,5 | 7.8\% | 0.4\% | 1.6\% | 0.0\% | 11.9\% | 3.3\% | 0.0\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.4\% |
| 2004 | 363 | 2,3,4,5 | 7.2\% | 0.0\% | 0.3\% | 5.0\% | 2.8\% | 1.7\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 74.9\% |
| 2005 | 516 | 2,3,4,5 | 8.5\% | 0.4\% | 0.0\% | 1.9\% | 12.0\% | 5.2\% | 2.7\% | 0.0\% | 5.8\% | 0.0\% | 0.8\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 57.2\% |
| 2006 | 582 | 2,3,4,5 | 4.1\% | 2.1\% | 0.9\% | 1.4\% | 4.3\% | 0.5\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 79.4\% |
| 2007 | 557 | 2,3,4,5 | 10.8\% | 0.2\% | 0.4\% | 5.0\% | 7.4\% | 0.7\% | 2.2\% | 0.0\% | 5.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 61.9\% |
| 2008 | 386 | 2,3,4,5 | 4.4\% | 0.8\% | 0.3\% | 1.6\% | 6.7\% | 1.0\% | 6.7\% | 0.0\% | 6.2\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 3.1\% | 0.0\% | 0.0\% | 2.1\% | 64.8\% |
| 2009 | 503 | 2,3,4,5 | 3.6\% | 4.4\% | 0.0\% | 1.8\% | 3.2\% | 1.6\% | 4.8\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 0.0\% | 2.4\% | 69.2\% |
| 2010 | 427 | 2,3,4,5 | 6.1\% | 0.2\% | 1.2\% | 1.4\% | 7.3\% | 1.2\% | 3.3\% | 0.0\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.0\% |
| 1979-2010 | 702 |  | 5.0\% | 1.0\% | 0.4\% | 2.4\% | 3.9\% | 1.9\% | 1.0\% | 4.1\% | 17.0\% | 2.7\% | 6.7\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.9\% | 0.3\% | 0.0\% | 0.0\% | 5.3\% | 47.1\% |
| 1979-1984 | 1793 |  | 3.0\% | 0.7\% | 0.4\% | 3.0\% | 1.6\% | 2.5\% | 0.1\% | 14.9\% | 22.3\% | 7.8\% | 14.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 4.2\% | 24.2\% |
| 1985-1995 | 565 |  | 3.9\% | 0.9\% | 0.4\% | 2.7\% | 2.7\% | 2.5\% | 0.2\% | 3.7\% | 23.9\% | 3.2\% | 11.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.0\% | 0.0\% | 7.9\% | 35.9\% |
| 1996-1998 | 221 |  | 4.3\% | 0.2\% | 0.0\% | 1.7\% | 2.7\% | 0.0\% | 1.5\% | 0.3\% | 21.4\% | 0.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 10.4\% | 55.7\% |
| 1999-2010 | 401 |  | 7.2\% | 1.5\% | 0.6\% | 2.1\% | 6.4\% | 1.5\% | 2.2\% | 0.0\% | 6.9\% | 0.3\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 1.5\% | 0.3\% | 0.0\% | 0.0\% | 2.2\% | 66.8\% |

Appendix C.6. Percent distribution of Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total fishing mortalities among
fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 5102 | 2,3,4,5 | 4.4\% | 0.7\% | 0.5\% | 1.9\% | 0.4\% | 2.5\% | 0.1\% | 20.9\% | 15.2\% | 10.5\% | 11.9\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 27.8\% |
| 1980 | 2929 | 2,3,4,5 | 1.5\% | 1.8\% | 0.4\% | 4.6\% | 1.5\% | 4.7\% | 0.0\% | 15.2\% | 20.1\% | 7.1\% | 12.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 0.0\% | 3.7\% | 25.8\% |
| 1981 | 1545 | 2,3,4,5 | 2.4\% | 0.1\% | 0.4\% | 1.5\% | 0.8\% | 1.7\% | 0.3\% | 17.5\% | 32.9\% | 12.3\% | 14.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 0.0\% | 4.0\% | 11.2\% |
| 1982 | 789 | 2,3,4,5 | 5.4\% | 0.8\% | 1.4\% | 4.7\% | 0.4\% | 4.6\% | 0.0\% | 12.5\% | 11.3\% | 6.1\% | 20.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.8\% | 0.0\% | 0.0\% | 1.6\% | 29.0\% |
| 1983 | 695 | 2,3,4,5 | 5.5\% | 0.3\% | 0.7\% | 5.0\% | 1.2\% | 1.2\% | 0.0\% | 14.5\% | 15.3\% | 7.1\% | 18.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 8.2\% | 21.4\% |
| 1984 | 559 | 2,3,4,5 | 2.0\% | 0.4\% | 0.0\% | 1.4\% | 6.4\% | 1.6\% | 0.0\% | 9.1\% | 39.4\% | 7.0\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 18.4\% |
| 1985 | 841 | 2,3,4,5 | 6.3\% | 4.3\% | 0.0\% | 2.0\% | 2.0\% | 1.5\% | 0.0\% | 2.1\% | 23.8\% | 4.2\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 24.1\% |
| 1986 | 1347 | 2,3,4,5 | 3.0\% | 0.4\% | 0.0\% | 0.8\% | 2.8\% | 1.4\% | 0.0\% | 9.9\% | 29.9\% | 13.5\% | 14.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 18.0\% |
| 1987 | 801 | 2,3,4,5 | 10.2\% | 0.0\% | 1.0\% | 4.2\% | 2.9\% | 4.6\% | 0.0\% | 2.1\% | 22.8\% | 2.6\% | 7.5\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 33.7\% |
| 1988 | 547 | 2,3,4,5 | 2.4\% | 1.8\% | 0.0\% | 2.2\% | 1.1\% | 2.7\% | 1.6\% | 1.6\% | 39.5\% | 1.1\% | 12.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 28.2\% |
| 1989 | 626 | 2,3,4,5 | 4.3\% | 5.6\% | 0.8\% | 3.5\% | 1.8\% | 5.0\% | 0.0\% | 1.9\% | 22.5\% | 0.5\% | 7.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 17.9\% | 27.0\% |
| 1990 | 780 | 2,3,4,5 | 4.9\% | 4.7\% | 0.0\% | 6.3\% | 2.4\% | 3.1\% | 0.0\% | 3.7\% | 19.4\% | 1.5\% | 16.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 4.5\% | 30.6\% |
| 1991 | 785 | 2,3,4,5 | 2.8\% | 3.7\% | 0.0\% | 2.3\% | 1.9\% | 2.0\% | 0.0\% | 5.7\% | 33.4\% | 1.1\% | 7.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 28.2\% |
| 1992 | 743 | 2,3,4,5 | 3.4\% | 5.5\% | 2.6\% | 5.2\% | 6.5\% | 3.2\% | 0.0\% | 9.2\% | 29.6\% | 5.5\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 19.2\% |
| 1993 | 517 | 2,3,4,5 | 1.5\% | 2.3\% | 0.0\% | 1.5\% | 2.5\% | 1.7\% | 0.0\% | 3.9\% | 43.3\% | 4.1\% | 8.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 4.6\% | 25.0\% |
| 1994 | 281 | 2,3,4,5 | 5.0\% | 0.0\% | 0.0\% | 1.8\% | 1.8\% | 2.8\% | 0.0\% | 4.6\% | 26.7\% | 1.8\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 40.6\% |
| 1995 | 247 | 2,3,4,5 | 6.9\% | 0.0\% | 0.0\% | 1.6\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 17.4\% | 0.0\% | 10.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 49.4\% |
| 1996 | 371 | 2,3,4,5 | 3.0\% | 0.0\% | 0.0\% | 0.5\% | 0.8\% | 0.3\% | 0.0\% | 0.0\% | 55.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 2.2\% | 36.1\% |
| 1997 | 233 | 2,3,4,5 | 3.9\% | 0.0\% | 0.0\% | 5.6\% | 2.1\% | 0.0\% | 4.3\% | 0.9\% | 10.7\% | 1.7\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.5\% | 44.6\% |
| 1998 | 207 | 2,3,4,5 | 7.2\% | 1.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 14.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.2\% | 59.9\% |
| 1999 | 292 | 2,3,4,5 | 6.2\% | 1.7\% | 0.0\% | 3.8\% | 5.1\% | 0.0\% | 3.8\% | 0.0\% | 12.7\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 59.9\% |
| 2000 | 249 | 2,3,4,5 | 16.1\% | 1.6\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 60.6\% |
| 2001 | 548 | 2,3,4,5 | 4.6\% | 13.1\% | 0.0\% | 0.0\% | 12.2\% | 0.5\% | 0.0\% | 0.0\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 56.0\% |
| 2002 | 341 | 2,3,4,5 | 11.1\% | 0.0\% | 3.2\% | 3.5\% | 7.0\% | 2.1\% | 3.2\% | 0.0\% | 6.7\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 51.6\% |
| 2003 | 285 | 2,3,4,5 | 8.4\% | 0.7\% | 2.1\% | 0.0\% | 16.8\% | 3.2\% | 0.0\% | 0.0\% | 11.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 56.8\% |
| 2004 | 396 | 2,3,4,5 | 8.6\% | 0.0\% | 0.3\% | 5.8\% | 4.3\% | 1.5\% | 0.0\% | 0.0\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 68.7\% |
| 2005 | 612 | 2,3,4,5 | 9.5\% | 0.5\% | 0.0\% | 2.0\% | 17.0\% | 5.1\% | 2.9\% | 0.0\% | 7.8\% | 0.0\% | 1.0\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 48.2\% |
| 2006 | 624 | 2,3,4,5 | 5.3\% | 3.8\% | 1.0\% | 1.6\% | 5.0\% | 0.6\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 74.0\% |
| 2007 | 627 | 2,3,4,5 | 12.3\% | 0.5\% | 0.5\% | 5.3\% | 9.7\% | 0.6\% | 2.2\% | 0.0\% | 6.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 55.0\% |
| 2008 | 439 | 2,3,4,5 | 5.7\% | 0.9\% | 0.5\% | 1.8\% | 7.7\% | 0.9\% | 7.1\% | 0.0\% | 9.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 4.3\% | 0.0\% | 0.0\% | 2.5\% | 56.9\% |
| 2009 | 553 | 2,3,4,5 | 4.7\% | 5.6\% | 0.0\% | 2.0\% | 4.0\% | 1.6\% | 5.1\% | 0.0\% | 9.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.9\% | 0.9\% | 0.0\% | 0.0\% | 2.7\% | 62.9\% |
| 2010 | 471 | 2,3,4,5 | 7.0\% | 0.2\% | 1.3\% | 1.5\% | 9.1\% | 1.1\% | 3.8\% | 0.0\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.9\% |
| 1979-2010 | 793 |  | 5.8\% | 1.9\% | 0.5\% | 2.6\% | 4.7\% | 1.9\% | 1.1\% | 4.2\% | 19.7\% | 2.9\% | 6.7\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.9\% | 0.4\% | 0.0\% | 0.0\% | 5.3\% | 40.9\% |
| 1979-1984 | 1936 |  | 3.5\% | 0.7\% | 0.6\% | 3.2\% | 1.8\% | 2.7\% | 0.1\% | 15.0\% | 22.4\% | 8.3\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 0.0\% | 0.0\% | 4.2\% | 22.3\% |
| 1985-1995 | 683 |  | 4.6\% | 2.6\% | 0.4\% | 2.9\% | 2.7\% | 2.6\% | 0.1\% | 4.1\% | 28.0\% | 3.3\% | 10.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.8\% | 0.4\% | 0.0\% | 0.0\% | 7.7\% | 29.4\% |
| 1996-1998 | 270 |  | 4.7\% | 0.3\% | 0.0\% | 2.0\% | 3.6\% | 0.1\% | 1.4\% | 0.3\% | 26.7\% | 0.6\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 10.9\% | 46.9\% |
| 1999-2010 | 453 |  | 8.3\% | 2.4\% | 0.7\% | 2.3\% | 8.4\% | 1.4\% | 2.3\% | 0.0\% | 9.1\% | 0.3\% | 0.6\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 1.6\% | 0.4\% | 0.0\% | 0.0\% | 2.4\% | 59.2\% |

Appendix C.7. Percent distribution of Chilliwack River Fall (Fraser Late) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |  |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 2415 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1984 | 4260 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 2006 | 2,3,4 | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 34.5\% | 0.0\% | 5.4\% | 22.5\% | 2.3\% | 6.7\% | 0.0\% | 4.0\% | 0.0\% | 0.4\% | 4.2\% | 3.3\% | 0.0\% | 0.0\% | 0.9\% | 14.6\% |
| 1986 | 1816 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 19.5\% | 0.0\% | 7.8\% | 19.3\% | 2.5\% | 14.1\% | 0.0\% | 2.6\% | 0.0\% | 0.2\% | 4.0\% | 5.6\% | 0.0\% | 0.0\% | 1.1\% | 22.2\% |
| 1987 | 2366 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.3\% | 16.2\% | 0.5\% | 14.6\% | 19.5\% | 0.4\% | 2.6\% | 0.0\% | 3.8\% | 0.0\% | 0.2\% | 3.8\% | 2.5\% | 0.0\% | 0.0\% | 1.3\% | 33.5\% |
| 1988 | 2167 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 17.9\% | 0.0\% | 6.6\% | 10.6\% | 0.0\% | 2.4\% | 0.0\% | 4.2\% | 0.0\% | 0.1\% | 3.0\% | 1.7\% | 0.0\% | 0.0\% | 2.6\% | 50.3\% |
| 1989 | 1036 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 1.4\% | 15.3\% | 0.0\% | 4.2\% | 0.0\% | 5.3\% | 0.0\% | 0.2\% | 3.8\% | 1.2\% | 0.0\% | 0.0\% | 0.7\% | 48.3\% |
| 1990 | 1298 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 9.4\% | 2.4\% | 3.6\% | 10.5\% | 0.2\% | 6.0\% | 0.0\% | 6.2\% | 0.0\% | 0.5\% | 12.0\% | 4.9\% | 0.0\% | 0.0\% | 1.4\% | 41.8\% |
| 1991 | 2498 | 2,3,4,5 | 0.2\% | 0.1\% | 0.0\% | 0.4\% | 0.1\% | 18.2\% | 0.7\% | 7.7\% | 12.4\% | 0.2\% | 6.1\% | 0.0\% | 13.3\% | 0.0\% | 0.1\% | 5.2\% | 4.5\% | 0.0\% | 0.0\% | 1.7\% | 29.2\% |
| 1992 | 3730 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 18.0\% | 0.1\% | 5.3\% | 9.6\% | 0.6\% | 1.7\% | 0.0\% | 8.2\% | 0.0\% | 0.1\% | 0.9\% | 3.2\% | 0.0\% | 0.0\% | 1.2\% | 50.5\% |
| 1993 | 1848 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 11.9\% | 0.4\% | 6.5\% | 6.3\% | 0.0\% | 1.5\% | 0.0\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 2.0\% | 62.9\% |
| 1994 | 621 | 2,3,4,5 | 0.3\% | 0.2\% | 0.0\% | 0.6\% | 0.0\% | 6.8\% | 2.4\% | 2.7\% | 4.3\% | 0.3\% | 6.9\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 3.7\% | 3.5\% | 0.0\% | 0.0\% | 6.3\% | 60.2\% |
| 1995 | 1995 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 8.7\% | 0.5\% | 0.0\% | 5.3\% | 0.0\% | 2.8\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.1\% | 1.7\% | 0.0\% | 0.0\% | 1.1\% | 77.7\% |
| 1996 | 1474 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 13.3\% | 0.0\% | 2.0\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.9\% | 2.7\% | 0.0\% | 0.0\% | 2.4\% | 73.5\% |
| 1997 | 2154 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 10.0\% | 1.9\% | 0.0\% | 11.9\% | 0.5\% | 3.5\% | 0.0\% | 4.8\% | 0.0\% | 0.1\% | 2.3\% | 3.2\% | 0.0\% | 0.0\% | 2.6\% | 57.8\% |
| 1998 | 3101 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.3\% | 0.0\% | 2.7\% | 0.0\% | 0.2\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 0.0\% | 0.0\% | 1.2\% | 91.1\% |
| 1999 | 3173 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.3\% | 1.9\% | 0.0\% | 8.7\% | 0.0\% | 0.4\% | 0.0\% | 11.6\% | 0.0\% | 0.5\% | 0.7\% | 0.4\% | 0.0\% | 0.0\% | 1.6\% | 73.6\% |
| 2000 | 2572 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 5.4\% | 2.4\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.5\% | 0.4\% | 0.0\% | 0.0\% | 2.4\% | 81.3\% |
| 2001 | 3812 | 2,3,4,5 | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 3.5\% | 1.4\% | 0.0\% | 5.5\% | 0.0\% | 0.2\% | 0.0\% | 5.5\% | 0.0\% | 0.3\% | 0.8\% | 2.2\% | 0.0\% | 0.0\% | 13.2\% | 66.9\% |
| 2002 | 4853 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 8.4\% | 4.3\% | 0.0\% | 3.0\% | 0.0\% | 0.6\% | 0.0\% | 6.9\% | 0.0\% | 1.1\% | 0.3\% | 1.3\% | 0.0\% | 0.0\% | 5.2\% | 68.5\% |
| 2003 | 4480 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 5.7\% | 2.3\% | 0.0\% | 2.5\% | 0.0\% | 0.3\% | 0.0\% | 7.5\% | 0.0\% | 0.4\% | 0.3\% | 0.8\% | 0.0\% | 0.0\% | 6.3\% | 73.6\% |
| 2004 | 6580 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 5.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.7\% | 0.0\% | 6.0\% | 0.0\% | 0.2\% | 0.1\% | 0.7\% | 0.0\% | 0.0\% | 4.6\% | 79.7\% |
| 2005 | 3909 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 7.4\% | 3.8\% | 0.0\% | 3.0\% | 0.0\% | 3.4\% | 0.0\% | 3.4\% | 0.0\% | 0.8\% | 0.8\% | 0.5\% | 0.0\% | 0.0\% | 5.8\% | 70.8\% |
| 2006 | 2918 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 7.2\% | 1.9\% | 0.0\% | 2.0\% | 0.0\% | 0.6\% | 0.0\% | 2.3\% | 0.0\% | 0.3\% | 0.2\% | 1.1\% | 0.0\% | 0.0\% | 4.3\% | 79.9\% |
| 2007 | 1675 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 7.3\% | 2.8\% | 0.0\% | 0.8\% | 0.0\% | 2.8\% | 0.0\% | 2.1\% | 0.0\% | 0.1\% | 0.5\% | 0.5\% | 0.0\% | 0.2\% | 5.7\% | 76.8\% |
| 2008 | 2720 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.0\% | 4.5\% | 0.0\% | 1.5\% | 0.0\% | 0.8\% | 0.0\% | 3.9\% | 0.0\% | 1.6\% | 0.8\% | 1.5\% | 0.0\% | 0.0\% | 9.6\% | 64.5\% |
| 2009 | 2691 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 2.8\% | 0.0\% | 2.2\% | 0.0\% | 3.3\% | 0.0\% | 0.6\% | 0.0\% | 0.3\% | 0.9\% | 1.3\% | 0.0\% | 0.0\% | 12.3\% | 74.8\% |
| 2010 | 5029 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 3.1\% | 2.7\% | 0.0\% | 5.4\% | 0.0\% | 1.9\% | 0.0\% | 3.6\% | 0.0\% | 1.1\% | 0.9\% | 1.5\% | 0.0\% | 0.0\% | 6.4\% | 73.2\% |
| 1979-2010 | 2789 |  | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 9.9\% | 1.6\% | 2.4\% | 7.8\% | 0.3\% | 2.9\% | 0.0\% | 4.9\% | 0.0\% | 0.3\% | 2.0\% | 2.0\% | 0.0\% | 0.0\% | 4.0\% | 61.4\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1944 |  | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 16.4\% | 0.6\% | 5.6\% | 12.3\% | 0.6\% | 5.0\% | 0.0\% | 5.2\% | 0.0\% | 0.2\% | 3.8\% | 3.0\% | 0.0\% | 0.0\% | 1.8\% | 44.7\% |
| 1996-1998 | 2243 |  | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 3.4\% | 0.8\% | 0.0\% | 9.3\% | 0.2\% | 1.9\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 1.2\% | 2.1\% | 0.0\% | 0.0\% | 2.1\% | 74.2\% |
| 1999-2010 | 3701 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 5.5\% | 2.7\% | 0.0\% | 3.2\% | 0.0\% | 1.3\% | 0.0\% | 4.8\% | 0.0\% | 0.6\% | 0.6\% | 1.0\% | 0.0\% | 0.0\% | 6.4\% | 73.6\% |

Appendix C.8. Percent distribution of Chilliwack River Fall (Fraser Late) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 3143 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | 4631 | 2,3 | Failed | Criteria | - | - |  | - | - | - | - | - |  | - | - | - |  | - | - | - | - |  | - |
| 1985 | 2260 | 2,3,4 | 1.1\% | 0.1\% | 0.0\% | 0.4\% | 0.2\% | 33.8\% | 0.0\% | 6.3\% | 22.2\% | 2.3\% | 6.3\% | 0.0\% | 3.9\% | 0.0\% | 0.4\% | 4.9\% | 4.3\% | 0.0\% | 0.0\% | 0.9\% | 13.0\% |
| 1986 | 2153 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 20.3\% | 0.0\% | 9.4\% | 18.6\% | 2.6\% | 13.0\% | 0.0\% | 2.7\% | 0.0\% | 0.2\% | 4.9\% | 7.6\% | 0.0\% | 0.0\% | 1.0\% | 18.7\% |
| 1987 | 2642 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.3\% | 18.7\% | 0.5\% | 16.0\% | 18.8\% | 0.4\% | 2.3\% | 0.0\% | 4.0\% | 0.0\% | 0.2\% | 3.9\% | 2.7\% | 0.0\% | 0.0\% | 1.2\% | 30.0\% |
| 1988 | 2376 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 18.0\% | 0.0\% | 6.5\% | 12.9\% | 0.0\% | 2.3\% | 0.0\% | 4.2\% | 0.0\% | 0.1\% | 4.0\% | 2.9\% | 0.0\% | 0.0\% | 2.6\% | 45.9\% |
| 1989 | 1306 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.3\% | 0.0\% | 1.8\% | 21.2\% | 0.0\% | 3.6\% | 0.0\% | 5.8\% | 0.0\% | 0.2\% | 3.7\% | 1.3\% | 0.0\% | 0.0\% | 0.6\% | 38.3\% |
| 1990 | 1803 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 10.5\% | 2.0\% | 3.4\% | 17.1\% | 0.1\% | 4.8\% | 0.0\% | 6.1\% | 0.0\% | 0.5\% | 15.5\% | 7.5\% | 0.0\% | 0.0\% | 1.1\% | 30.1\% |
| 1991 | 3118 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.4\% | 0.1\% | 19.2\% | 0.6\% | 8.5\% | 16.0\% | 0.2\% | 5.2\% | 0.0\% | 13.3\% | 0.0\% | 0.1\% | 5.8\% | 5.1\% | 0.0\% | 0.0\% | 1.5\% | 23.4\% |
| 1992 | 4154 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 20.2\% | 0.1\% | 6.2\% | 10.9\% | 0.7\% | 1.6\% | 0.0\% | 8.7\% | 0.0\% | 0.1\% | 0.9\% | 3.6\% | 0.0\% | 0.0\% | 1.2\% | 45.3\% |
| 1993 | 1982 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 13.4\% | 0.4\% | 7.7\% | 7.1\% | 0.0\% | 1.4\% | 0.0\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 2.0\% | 58.7\% |
| 1994 | 740 | 2,3,4,5 | 0.4\% | 0.4\% | 0.0\% | 0.8\% | 0.0\% | 8.1\% | 2.6\% | 3.2\% | 7.7\% | 0.4\% | 7.3\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 5.3\% | 5.9\% | 0.0\% | 0.0\% | 5.8\% | 50.5\% |
| 1995 | 2191 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 11.6\% | 0.5\% | 0.0\% | 7.9\% | 0.0\% | 3.1\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 1.5\% | 2.3\% | 0.0\% | 0.0\% | 1.0\% | 70.7\% |
| 1996 | 1788 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 2.0\% | 0.3\% | 0.0\% | 23.1\% | 0.0\% | 2.2\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 1.1\% | 4.3\% | 0.0\% | 0.0\% | 2.2\% | 60.6\% |
| 1997 | 2405 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 12.1\% | 1.9\% | 0.0\% | 14.8\% | 0.5\% | 3.7\% | 0.0\% | 4.6\% | 0.0\% | 0.1\% | 2.5\% | 3.8\% | 0.0\% | 0.0\% | 2.5\% | 51.8\% |
| 1998 | 3178 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.3\% | 0.0\% | 4.0\% | 0.0\% | 0.2\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.3\% | 0.8\% | 0.0\% | 0.0\% | 1.3\% | 88.9\% |
| 1999 | 3387 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.3\% | 1.9\% | 0.0\% | 11.2\% | 0.0\% | 0.4\% | 0.0\% | 13.5\% | 0.0\% | 0.5\% | 0.7\% | 0.5\% | 0.0\% | 0.0\% | 1.6\% | 68.9\% |
| 2000 | 2719 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 5.8\% | 2.8\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 0.1\% | 0.7\% | 0.8\% | 0.0\% | 0.0\% | 2.5\% | 76.9\% |
| 2001 | 4230 | 2,3,4,5 | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 3.6\% | 1.7\% | 0.0\% | 9.2\% | 0.0\% | 0.2\% | 0.0\% | 6.2\% | 0.0\% | 0.4\% | 1.1\% | 3.9\% | 0.0\% | 0.0\% | 13.0\% | 60.3\% |
| 2002 | 5173 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 8.5\% | 5.0\% | 0.0\% | 4.2\% | 0.0\% | 0.7\% | 0.0\% | 8.0\% | 0.0\% | 1.1\% | 0.3\% | 1.8\% | 0.0\% | 0.0\% | 5.3\% | 64.2\% |
| 2003 | 4684 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 5.8\% | 3.0\% | 0.0\% | 3.2\% | 0.0\% | 0.3\% | 0.0\% | 8.5\% | 0.0\% | 0.5\% | 0.3\% | 1.2\% | 0.0\% | 0.0\% | 6.4\% | 70.4\% |
| 2004 | 6770 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.2\% | 2.4\% | 0.0\% | 0.8\% | 0.0\% | 0.7\% | 0.0\% | 6.8\% | 0.0\% | 0.2\% | 0.1\% | 1.0\% | 0.0\% | 0.0\% | 4.8\% | 77.5\% |
| 2005 | 4058 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 7.5\% | 4.4\% | 0.0\% | 3.7\% | 0.0\% | 3.4\% | 0.0\% | 3.8\% | 0.0\% | 0.9\% | 0.9\% | 0.9\% | 0.0\% | 0.0\% | 6.0\% | 68.2\% |
| 2006 | 3009 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 7.4\% | 2.2\% | 0.0\% | 2.4\% | 0.0\% | 0.6\% | 0.0\% | 2.8\% | 0.0\% | 0.3\% | 0.3\% | 1.6\% | 0.0\% | 0.0\% | 4.5\% | 77.5\% |
| 2007 | 1802 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 8.5\% | 3.3\% | 0.0\% | 2.3\% | 0.0\% | 3.1\% | 0.0\% | 2.6\% | 0.0\% | 0.2\% | 0.7\% | 1.6\% | 0.0\% | 0.2\% | 5.9\% | 71.4\% |
| 2008 | 2847 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.0\% | 5.0\% | 0.0\% | 2.1\% | 0.0\% | 0.8\% | 0.0\% | 4.8\% | 0.0\% | 1.7\% | 0.9\% | 1.9\% | 0.0\% | 0.0\% | 9.8\% | 61.6\% |
| 2009 | 2947 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 3.4\% | 0.0\% | 4.7\% | 0.0\% | 3.6\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 1.3\% | 3.4\% | 0.0\% | 0.0\% | 12.6\% | 68.3\% |
| 2010 | 5329 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 3.1\% | 3.2\% | 0.0\% | 7.4\% | 0.0\% | 1.9\% | 0.0\% | 4.2\% | 0.0\% | 1.1\% | 1.0\% | 1.9\% | 0.0\% | 0.0\% | 6.6\% | 69.1\% |
| 1979-2010 | 3040 |  | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 10.8\% | 1.8\% | 2.7\% | 10.0\% | 0.3\% | 2.8\% | 0.0\% | 5.3\% | 0.0\% | 0.4\% | 2.4\% | 2.8\% | 0.0\% | 0.0\% | 4.0\% | 56.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 2248 |  | 0.4\% | 0.1\% | 0.0\% | 0.3\% | 0.2\% | 17.9\% | 0.6\% | 6.3\% | 14.6\% | 0.6\% | 4.6\% | 0.0\% | 5.4\% | 0.0\% | 0.2\% | 4.6\% | 4.0\% | 0.0\% | 0.0\% | 1.7\% | 38.6\% |
| 1996-1998 | 2457 |  | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 4.8\% | 0.8\% | 0.0\% | 14.0\% | 0.2\% | 2.0\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 1.3\% | 3.0\% | 0.0\% | 0.0\% | 2.0\% | 67.1\% |
| 1999-2010 | 3913 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 5.7\% | 3.2\% | 0.0\% | 4.7\% | 0.0\% | 1.3\% | 0.0\% | 5.5\% | 0.0\% | 0.6\% | 0.7\% | 1.7\% | 0.0\% | 0.0\% | 6.6\% | 69.5\% |

Appendix C.9. Percent distribution of Chilkat River reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 36 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 200 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 359 | 3,4,5 | 6.4\% | 9.7\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 76.0\% |
| 2005 | 353 | 3,4,5,6 | 6.5\% | 5.9\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 85.6\% |
| 2006 | 184 | 3,4,5,6 | 4.9\% | 2.2\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.8\% |
| 2007 | 157 | 3,4,5,6 | 7.0\% | 8.3\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.6\% |
| 2008 | 270 | 3,4,5,6 | 7.4\% | 7.4\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.1\% |
| 2009 | 356 | 3,4,5,6 | 5.1\% | 1.7\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 93.0\% |
| 2010 | 214 | 3,4,5,6 | 5.6\% | 13.6\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.2\% |
| 1979-2010 | 270 |  | 6.1\% | 7.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 83.5\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 270 |  | 6.1\% | 7.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 83.5\% |

Appendix C.10. Percent distribution of Chilkat River total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 48 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 222 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 379 | 3,4,5 | 7.1\% | 12.7\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 72.0\% |
| 2005 | 365 | 3,4,5,6 | 7.1\% | 7.9\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.7\% |
| 2006 | 189 | 3,4,5,6 | 5.8\% | 3.2\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.4\% |
| 2007 | 184 | 3,4,5,6 | 7.6\% | 18.5\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.9\% |
| 2008 | 279 | 3,4,5,6 | 7.9\% | 9.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 81.4\% |
| 2009 | 361 | 3,4,5,6 | 5.5\% | 2.5\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 91.7\% |
| 2010 | 234 | 3,4,5,6 | 6.4\% | 17.9\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 68.8\% |
| 1979-2010 | 284 |  | 6.8\% | 10.3\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 284 |  | 6.8\% | 10.3\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.0\% |

Appendix C.11. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 73 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 261 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 343 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 1072 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.3\% | 0.0\% | 18.8\% | 32.5\% | 1.4\% | 17.4\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 3.1\% | 2.0\% | 0.0\% | 0.7\% | 1.9\% | 19.8\% |
| 1991 | 2862 | 2,3,4 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 1.5\% | 3.4\% | 0.9\% | 7.3\% | 52.3\% | 0.2\% | 5.6\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 3.7\% | 0.9\% | 0.0\% | 0.5\% | 0.8\% | 21.6\% |
| 1992 | 3227 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 0.9\% | 9.6\% | 1.4\% | 17.2\% | 45.1\% | 1.1\% | 5.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 1.4\% | 1.3\% | 0.0\% | 0.9\% | 0.5\% | 14.6\% |
| 1993 | 3287 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 1.2\% | 7.8\% | 1.6\% | 10.1\% | 48.9\% | 0.5\% | 4.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.9\% | 0.5\% | 0.0\% | 1.3\% | 0.7\% | 21.8\% |
| 1994 | 1020 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 4.0\% | 0.9\% | 4.6\% | 30.9\% | 0.2\% | 8.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 3.7\% | 0.5\% | 0.0\% | 4.4\% | 2.1\% | 38.5\% |
| 1995 | 1356 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.7\% | 0.0\% | 29.9\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.7\% | 0.0\% | 1.8\% | 3.9\% | 54.4\% |
| 1996 | 1023 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 39.8\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 3.5\% | 0.0\% | 5.8\% | 2.2\% | 45.7\% |
| 1997 | 784 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 2.3\% | 0.9\% | 0.0\% | 18.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 2.4\% | 0.0\% | 0.4\% | 2.0\% | 68.2\% |
| 1998 | 397 | 2,3,4,5 | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.5\% | 1.8\% | 0.0\% | 19.1\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 9.6\% | 7.3\% | 53.9\% |
| 1999 | 415 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 3.9\% | 0.0\% | 32.5\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.7\% | 6.7\% | 0.0\% | 0.0\% | 2.9\% | 6.0\% | 45.1\% |
| 2000 | 689 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 4.8\% | 0.0\% | 12.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 1.3\% | 0.0\% | 0.6\% | 6.2\% | 68.4\% |
| 2001 | 619 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 10.7\% | 0.0\% | 0.0\% | 24.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 11.6\% | 1.0\% | 0.0\% | 8.1\% | 2.3\% | 41.7\% |
| 2002 | 635 | 2,3,4,5 | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 4.4\% | 3.0\% | 0.0\% | 18.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 3.8\% | 4.1\% | 0.0\% | 14.2\% | 13.7\% | 34.8\% |
| 2003 | 299 | 2,3,4,5 | 2.3\% | 0.3\% | 0.0\% | 2.7\% | 3.0\% | 9.7\% | 3.0\% | 0.0\% | 24.4\% | 3.7\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 6.7\% | 2.3\% | 0.0\% | 5.7\% | 4.0\% | 31.4\% |
| 2004 | 309 | 2,3,4,5 | 0.0\% | 0.3\% | 0.0\% | 1.0\% | 4.2\% | 15.2\% | 12.3\% | 0.0\% | 18.8\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 6.5\% | 1.6\% | 0.0\% | 4.5\% | 3.2\% | 29.8\% |
| 2005 | 285 | 2,3,4,5 | 0.0\% | 0.4\% | 0.0\% | 1.4\% | 4.9\% | 24.2\% | 2.1\% | 0.0\% | 7.7\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 1.1\% | 15.4\% | 1.1\% | 0.0\% | 8.8\% | 0.0\% | 31.6\% |
| 2006 | 249 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 23.7\% | 9.2\% | 0.0\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.8\% | 5.2\% | 4.8\% | 0.0\% | 7.6\% | 0.0\% | 31.3\% |
| 2007 | 221 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 1.4\% | 0.0\% | 4.5\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 6.8\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 71.0\% |
| 2008 | 212 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 13.2\% | 0.0\% | 22.2\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 36.3\% |
| 2009 | 315 | 2,3,4 | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 6.7\% | 9.8\% | 0.0\% | 29.2\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 4.1\% | 3.2\% | 0.0\% | 10.2\% | 0.0\% | 35.2\% |
| 2010 | 816 | 2,3,4,5 | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 1.7\% | 8.5\% | 2.3\% | 0.0\% | 19.9\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 5.5\% | 2.2\% | 0.0\% | 2.6\% | 0.0\% | 55.9\% |
| 1979-2010 | 957 |  | 0.5\% | 0.1\% | 0.0\% | 0.3\% | 1.1\% | 7.6\% | 3.5\% | 2.8\% | 26.0\% | 0.3\% | 2.2\% | 0.0\% | 0.7\% | 0.0\% | 0.2\% | 4.9\% | 1.6\% | 0.0\% | 5.0\% | 2.7\% | 40.5\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 2137 |  | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 5.0\% | 0.9\% | 9.7\% | 39.9\% | 0.6\% | 7.2\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 2.5\% | 1.0\% | 0.0\% | 1.6\% | 1.6\% | 28.4\% |
| 1996-1998 | 735 |  | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.9\% | 1.2\% | 0.0\% | 25.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 2.0\% | 0.0\% | 5.2\% | 3.9\% | 55.9\% |
| 1999-2010 | 422 |  | 0.4\% | 0.1\% | 0.1\% | 0.5\% | 1.5\% | 10.6\% | 5.4\% | 0.0\% | 19.0\% | 0.3\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.3\% | 6.8\% | 1.8\% | 0.0\% | 6.6\% | 3.0\% | 42.7\% |

Appendix C.12. Percent distribution of Cowichan River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 120 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 302 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 626 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 2071 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 2.2\% | 0.0\% | 13.0\% | 54.9\% | 1.0\% | 10.1\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 3.5\% | 1.9\% | 0.0\% | 0.4\% | 1.3\% | 10.2\% |
| 1991 | 4197 | 2,3,4 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 1.2\% | 3.9\% | 0.7\% | 8.3\% | 60.2\% | 0.3\% | 4.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 3.3\% | 0.9\% | 0.0\% | 0.4\% | 0.7\% | 14.7\% |
| 1992 | 4519 | 2,3,4,5 | 0.1\% | 0.1\% | 0.0\% | 0.4\% | 0.8\% | 8.8\% | 1.1\% | 16.8\% | 52.5\% | 1.0\% | 4.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.3\% | 1.3\% | 0.0\% | 0.7\% | 0.5\% | 10.4\% |
| 1993 | 4094 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 1.1\% | 7.9\% | 1.4\% | 11.1\% | 53.1\% | 0.5\% | 3.4\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.9\% | 0.5\% | 0.0\% | 1.1\% | 0.8\% | 17.5\% |
| 1994 | 1341 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 4.0\% | 0.7\% | 4.8\% | 41.3\% | 0.1\% | 7.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 4.1\% | 0.7\% | 0.0\% | 3.7\% | 2.3\% | 29.3\% |
| 1995 | 1665 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.6\% | 0.0\% | 37.5\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.9\% | 0.0\% | 1.5\% | 4.4\% | 44.3\% |
| 1996 | 1352 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.0\% | 0.0\% | 50.3\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 4.4\% | 0.0\% | 4.7\% | 2.6\% | 34.5\% |
| 1997 | 933 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 2.8\% | 0.9\% | 0.0\% | 26.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 3.2\% | 0.0\% | 0.3\% | 2.9\% | 57.3\% |
| 1998 | 472 | 2,3,4,5 | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.4\% | 1.7\% | 0.0\% | 26.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 8.7\% | 8.9\% | 45.3\% |
| 1999 | 578 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 3.5\% | 0.0\% | 46.2\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.5\% | 7.6\% | 0.0\% | 0.0\% | 2.2\% | 5.5\% | 32.4\% |
| 2000 | 799 | 2,3,4,5 | 0.8\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 4.9\% | 0.0\% | 18.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 1.9\% | 0.0\% | 0.5\% | 7.5\% | 58.9\% |
| 2001 | 776 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 9.4\% | 0.0\% | 0.0\% | 32.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 12.9\% | 1.9\% | 0.0\% | 6.7\% | 2.4\% | 33.2\% |
| 2002 | 736 | 2,3,4,5 | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 3.9\% | 3.3\% | 0.0\% | 21.3\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 4.1\% | 5.2\% | 0.0\% | 12.5\% | 14.8\% | 30.0\% |
| 2003 | 390 | 2,3,4,5 | 2.3\% | 0.3\% | 0.0\% | 2.6\% | 3.6\% | 8.5\% | 3.3\% | 0.0\% | 31.3\% | 3.8\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 7.9\% | 3.1\% | 0.0\% | 4.6\% | 4.1\% | 24.1\% |
| 2004 | 376 | 2,3,4,5 | 0.0\% | 0.5\% | 0.0\% | 0.8\% | 5.9\% | 13.3\% | 12.5\% | 0.0\% | 23.4\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 6.9\% | 1.9\% | 0.0\% | 4.0\% | 3.7\% | 24.5\% |
| 2005 | 345 | 2,3,4,5 | 0.0\% | 0.3\% | 0.0\% | 1.4\% | 6.4\% | 22.6\% | 2.3\% | 0.0\% | 10.1\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 0.0\% | 0.9\% | 18.8\% | 1.4\% | 0.0\% | 7.8\% | 0.0\% | 26.1\% |
| 2006 | 269 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 22.7\% | 9.7\% | 0.0\% | 16.4\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.7\% | 5.6\% | 5.6\% | 0.0\% | 7.1\% | 0.0\% | 29.0\% |
| 2007 | 291 | 2,4,5 | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 7.9\% | 2.4\% | 0.0\% | 18.6\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 0.0\% | 0.7\% | 8.2\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 54.0\% |
| 2008 | 268 | 2,3,5 | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 12.3\% | 12.7\% | 0.0\% | 32.8\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 4.9\% | 0.7\% | 0.0\% | 6.0\% | 0.0\% | 28.7\% |
| 2009 | 505 | 2,3,4 | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.4\% | 5.3\% | 7.5\% | 0.0\% | 46.7\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 5.5\% | 4.8\% | 0.0\% | 6.5\% | 0.0\% | 22.0\% |
| 2010 | 1023 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 2.3\% | 7.6\% | 2.5\% | 0.0\% | 29.7\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 6.5\% | 3.1\% | 0.0\% | 2.2\% | 0.0\% | 44.6\% |
| 1979-2010 | 1286 |  | 0.6\% | 0.1\% | 0.1\% | 0.3\% | 1.3\% | 7.1\% | 3.5\% | 2.6\% | 34.8\% | 0.3\% | 1.8\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 5.6\% | 2.1\% | 0.0\% | 4.2\% | 3.0\% | 32.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 2981 |  | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 5.3\% | 0.8\% | 9.0\% | 49.9\% | 0.5\% | 5.5\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 2.6\% | 1.0\% | 0.0\% | 1.3\% | 1.7\% | 21.1\% |
| 1996-1998 | 919 |  | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 1.2\% | 1.2\% | 0.0\% | 34.1\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 2.5\% | 0.0\% | 4.6\% | 4.8\% | 45.7\% |
| 1999-2010 | 530 |  | 0.4\% | 0.1\% | 0.1\% | 0.5\% | 1.9\% | 9.6\% | 5.4\% | 0.0\% | 27.3\% | 0.3\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 7.8\% | 2.5\% | 0.0\% | 5.5\% | 3.2\% | 34.0\% |

Appendix C.13. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 3 | 2 | Failed | Criteria | - | - | - |  | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1980 | 242 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 378 | 2,3,4 | 5.6\% | 0.0\% | 0.0\% | 2.4\% | 6.3\% | 16.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 10.8\% | 0.0\% | 12.7\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 0.0\% | 27.5\% |
| 1982 | 435 | 2,3,4,5 | 3.7\% | 0.0\% | 0.2\% | 1.4\% | 0.0\% | 14.9\% | 0.9\% | 0.0\% | 0.0\% | 0.5\% | 3.2\% | 0.0\% | 18.4\% | 0.0\% | 10.6\% | 2.1\% | 0.0\% | 0.0\% | 7.6\% | 1.8\% | 34.7\% |
| 1983 | 564 | 2,3,4,5 | 3.7\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 17.9\% | 0.0\% | 0.0\% | 0.4\% | 3.7\% | 1.1\% | 0.0\% | 6.9\% | 0.0\% | 17.6\% | 0.4\% | 0.0\% | 0.0\% | 4.4\% | 1.1\% | 36.2\% |
| 1984 | 748 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 7.2\% | 0.8\% | 24.3\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 1.9\% | 0.0\% | 4.5\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 15.0\% | 3.5\% | 36.0\% |
| 1985 | 677 | 2,3,4,5 | 3.7\% | 0.3\% | 0.0\% | 4.0\% | 0.0\% | 11.4\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 5.6\% | 0.0\% | 4.4\% | 0.0\% | 5.2\% | 0.4\% | 0.4\% | 0.0\% | 6.1\% | 8.1\% | 49.9\% |
| 1986 | 1392 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 12.7\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 1.9\% | 0.0\% | 12.9\% | 0.0\% | 5.3\% | 0.2\% | 0.4\% | 0.0\% | 30.7\% | 6.8\% | 27.4\% |
| 1987 | 1316 | 2,3,4,5 | 3.7\% | 0.3\% | 0.0\% | 3.9\% | 0.0\% | 9.7\% | 1.0\% | 0.0\% | 0.0\% | 1.2\% | 0.8\% | 0.0\% | 11.4\% | 0.0\% | 7.2\% | 0.2\% | 0.5\% | 0.0\% | 22.8\% | 8.4\% | 29.0\% |
| 1988 | 1447 | 2,3,4,5 | 1.7\% | 0.3\% | 0.0\% | 1.9\% | 0.0\% | 15.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 15.3\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 24.0\% | 10.4\% | 27.7\% |
| 1989 | 578 | 2,3,4,5 | 3.3\% | 0.0\% | 0.7\% | 4.5\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 17.8\% | 0.0\% | 3.1\% | 0.0\% | 0.3\% | 0.0\% | 7.1\% | 7.1\% | 48.1\% |
| 1990 | 274 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 14.2\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 3.3\% | 0.0\% | 9.5\% | 0.0\% | 7.7\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 1.1\% | 51.8\% |
| 1991 | 130 | 2,3,4,5 | 9.2\% | 3.8\% | 0.0\% | 3.1\% | 0.0\% | 5.4\% | 3.8\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 10.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 5.4\% | 43.1\% |
| 1992 | 185 | 2,3,4,5 | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 7.0\% | 2.2\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 59.5\% |
| 1993 | 325 | 2,3,4,5 | 3.4\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 17.5\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 15.1\% | 43.4\% |
| 1994 | 213 | 2,3,4,5 | 4.2\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.7\% |
| 1995 | 169 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 1.8\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.2\% | 1.8\% | 83.4\% |
| 1996 | 269 | 2,3,4,5 | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 3.3\% | 83.3\% |
| 1997 | 164 | 2,3,4,5 | 4.9\% | 0.0\% | 9.8\% | 3.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 68.3\% |
| 1998 | 81 | 2,3,4,5 | 3.7\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 76.5\% |
| 1999 | 139 | 2,3,4,5 | 4.3\% | 0.0\% | 3.6\% | 0.0\% | 5.8\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.4\% | 56.1\% |
| 2000 | 98 | 2,3,4,5 | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 5.1\% | 51.0\% |
| 2001 | 456 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 2.4\% | 70.6\% |
| 2002 | 528 | 2,3,4,5 | 6.3\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 7.8\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.8\% | 0.0\% | 21.4\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 3.8\% | 27.7\% |
| 2003 | 519 | 2,3,4,5 | 5.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 10.0\% | 1.9\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 17.1\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 5.2\% | 42.6\% |
| 2004 | 207 | 2,3,4,5 | 4.3\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.9\% | 0.0\% | 9.2\% | 0.0\% | 1.4\% | 0.0\% | 9.2\% | 2.4\% | 48.3\% |
| 2005 | 226 | 2,3,4,5 | 2.7\% | 5.8\% | 0.0\% | 2.7\% | 0.0\% | 4.4\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 4.0\% | 60.6\% |
| 2006 | 138 | 2,3,4,5 | 5.8\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 10.9\% | 64.5\% |
| 2007 | 135 | 2,3,4,5 | 2.2\% | 1.5\% | 0.0\% | 5.2\% | 0.0\% | 10.4\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 60.0\% |
| 2008 | 190 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 5.3\% | 0.0\% | 1.6\% | 0.0\% | 2.6\% | 10.0\% | 70.0\% |
| 2009 | 429 | 2,3,4,5 | 2.1\% | 0.0\% | 1.2\% | 0.0\% | 1.4\% | 1.6\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 3.7\% | 0.0\% | 1.4\% | 0.0\% | 1.4\% | 7.2\% | 72.0\% |
| 2010 | 606 | 2,3,4,5 | 2.5\% | 0.2\% | 0.0\% | 1.0\% | 0.3\% | 3.3\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 0.0\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 1.3\% | 67.5\% |
| 1979-2010 | 434 |  | 3.5\% | 0.4\% | 0.5\% | 2.3\% | 0.5\% | 8.4\% | 1.2\% | 0.0\% | 0.3\% | 0.5\% | 0.9\% | 0.0\% | 10.5\% | 0.1\% | 5.7\% | 0.2\% | 0.3\% | 0.0\% | 6.4\% | 4.7\% | 53.5\% |
| 1979-1984 | 531 |  | 4.3\% | 0.0\% | 0.1\% | 4.4\% | 1.8\% | 18.3\% | 0.2\% | 0.0\% | 0.1\% | 1.6\% | 2.5\% | 0.0\% | 10.2\% | 0.0\% | 10.2\% | 0.6\% | 0.0\% | 0.0\% | 10.5\% | 1.6\% | 33.6\% |
| 1985-1995 | 610 |  | 3.3\% | 0.4\% | 0.1\% | 2.3\% | 0.1\% | 9.5\% | 0.7\% | 0.0\% | 0.1\% | 0.8\% | 1.4\% | 0.0\% | 10.4\% | 0.2\% | 4.2\% | 0.2\% | 0.5\% | 0.0\% | 9.9\% | 5.8\% | 50.2\% |
| 1996-1998 | 171 |  | 4.2\% | 0.0\% | 3.3\% | 3.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.5\% | 76.0\% |
| 1999-2010 | 306 |  | 3.3\% | 0.6\% | 0.4\% | 1.2\% | 0.6\% | 5.9\% | 2.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 11.6\% | 0.0\% | 6.9\% | 0.0\% | 0.4\% | 0.0\% | 3.3\% | 5.6\% | 57.6\% |

Appendix C.14. Percent distribution of Cowlitz Fall Tule (Fall Cowlitz Hatchery) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 28 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 282 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 417 | 2,3,4 | 6.0\% | 0.0\% | 0.0\% | 2.4\% | 6.2\% | 17.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 12.7\% | 0.0\% | 12.7\% | 0.5\% | 0.0\% | 0.0\% | 13.9\% | 0.0\% | 24.9\% |
| 1982 | 505 | 2,3,4,5 | 4.2\% | 0.0\% | 0.4\% | 1.6\% | 0.0\% | 16.4\% | 1.0\% | 0.0\% | 0.0\% | 0.4\% | 3.4\% | 0.0\% | 20.2\% | 0.0\% | 10.9\% | 2.8\% | 0.0\% | 0.0\% | 7.3\% | 1.6\% | 29.9\% |
| 1983 | 616 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 18.8\% | 0.0\% | 0.0\% | 0.3\% | 3.9\% | 1.0\% | 0.0\% | 7.8\% | 0.0\% | 17.7\% | 0.5\% | 0.0\% | 0.0\% | 4.4\% | 1.0\% | 33.1\% |
| 1984 | 794 | 2,3,4,5 | 5.2\% | 0.0\% | 0.0\% | 7.4\% | 0.9\% | 25.2\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 1.9\% | 0.0\% | 4.8\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 14.9\% | 3.4\% | 33.9\% |
| 1985 | 741 | 2,3,4,5 | 3.9\% | 0.9\% | 0.0\% | 4.5\% | 0.0\% | 12.6\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 5.7\% | 0.0\% | 5.1\% | 0.0\% | 5.7\% | 0.5\% | 0.7\% | 0.0\% | 6.7\% | 7.7\% | 45.6\% |
| 1986 | 1552 | 2,3,4,5 | 0.5\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 13.9\% | 0.0\% | 0.0\% | 0.3\% | 0.7\% | 1.8\% | 0.0\% | 14.4\% | 0.0\% | 5.5\% | 0.3\% | 0.5\% | 0.0\% | 30.9\% | 6.3\% | 24.5\% |
| 1987 | 1477 | 2,3,4,5 | 5.7\% | 0.6\% | 0.0\% | 4.5\% | 0.0\% | 11.1\% | 0.9\% | 0.0\% | 0.0\% | 1.4\% | 0.7\% | 0.0\% | 12.2\% | 0.0\% | 7.1\% | 0.1\% | 0.5\% | 0.0\% | 21.5\% | 7.7\% | 25.8\% |
| 1988 | 1548 | 2,3,4,5 | 1.8\% | 0.6\% | 0.0\% | 2.1\% | 0.0\% | 17.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 16.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 23.2\% | 10.2\% | 25.9\% |
| 1989 | 611 | 2,3,4,5 | 4.3\% | 0.0\% | 0.7\% | 4.7\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 18.8\% | 0.0\% | 3.3\% | 0.0\% | 0.3\% | 0.0\% | 6.9\% | 7.0\% | 45.5\% |
| 1990 | 295 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 15.6\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 3.7\% | 0.0\% | 10.2\% | 0.0\% | 7.8\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 1.0\% | 48.1\% |
| 1991 | 151 | 2,3,4,5 | 11.3\% | 8.6\% | 0.0\% | 3.3\% | 0.0\% | 6.0\% | 3.3\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 10.6\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 5.3\% | 37.1\% |
| 1992 | 203 | 2,3,4,5 | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 20.2\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 7.9\% | 2.5\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 54.2\% |
| 1993 | 361 | 2,3,4,5 | 4.2\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 19.1\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 15.2\% | 39.1\% |
| 1994 | 217 | 2,3,4,5 | 5.1\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.1\% |
| 1995 | 173 | 2,3,4,5 | 1.7\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 2.3\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.2\% | 1.7\% | 81.5\% |
| 1996 | 279 | 2,3,4,5 | 5.4\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 3.6\% | 80.3\% |
| 1997 | 172 | 2,3,4,5 | 5.8\% | 0.0\% | 11.0\% | 3.5\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 65.1\% |
| 1998 | 83 | 2,3,4,5 | 4.8\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.7\% |
| 1999 | 150 | 2,3,4,5 | 6.7\% | 0.0\% | 4.0\% | 0.0\% | 6.7\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.3\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 52.0\% |
| 2000 | 110 | 2,3,4,5 | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 13.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 5.5\% | 45.5\% |
| 2001 | 479 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.1\% | 0.0\% | 10.2\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 2.5\% | 67.2\% |
| 2002 | 577 | 2,3,4,5 | 6.9\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 7.3\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.6\% | 0.0\% | 21.5\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 3.8\% | 25.3\% |
| 2003 | 546 | 2,3,4,5 | 5.3\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 9.9\% | 2.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 5.1\% | 40.5\% |
| 2004 | 220 | 2,3,4,5 | 5.5\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 9.5\% | 0.0\% | 1.8\% | 0.0\% | 9.1\% | 2.3\% | 45.5\% |
| 2005 | 236 | 2,3,4,5 | 3.0\% | 6.8\% | 0.0\% | 3.0\% | 0.0\% | 4.2\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 4.2\% | 58.1\% |
| 2006 | 141 | 2,3,4,5 | 5.7\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 12.1\% | 63.1\% |
| 2007 | 154 | 2,3,4,5 | 2.6\% | 3.9\% | 0.0\% | 5.2\% | 0.0\% | 9.7\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.5\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 52.6\% |
| 2008 | 199 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 6.0\% | 0.0\% | 2.0\% | 0.0\% | 3.0\% | 10.6\% | 66.8\% |
| 2009 | 464 | 2,3,4,5 | 2.8\% | 0.0\% | 1.7\% | 0.0\% | 1.7\% | 1.5\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 0.0\% | 3.9\% | 0.0\% | 2.4\% | 0.0\% | 1.5\% | 7.8\% | 66.6\% |
| 2010 | 643 | 2,3,4,5 | 3.4\% | 0.3\% | 0.0\% | 1.2\% | 0.3\% | 3.3\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 0.0\% | 11.2\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 1.4\% | 63.6\% |
| 1979-2010 | 470 |  | 4.2\% | 0.7\% | 0.6\% | 2.5\% | 0.6\% | 9.0\% | 1.3\% | 0.0\% | 0.4\% | 0.5\% | 0.9\% | 0.0\% | 11.5\% | 0.1\% | 5.9\% | 0.2\% | 0.4\% | 0.0\% | 6.3\% | 4.7\% | 50.1\% |
| 1979-1984 | 583 |  | 4.9\% | 0.0\% | 0.1\% | 4.6\% | 1.8\% | 19.4\% | 0.2\% | 0.0\% | 0.1\% | 1.6\% | 2.4\% | 0.0\% | 11.4\% | 0.0\% | 10.4\% | 1.0\% | 0.0\% | 0.0\% | 10.1\% | 1.5\% | 30.5\% |
| 1985-1995 | 666 |  | 4.1\% | 1.0\% | 0.1\% | 2.6\% | 0.1\% | 10.6\% | 0.6\% | 0.0\% | 0.1\% | 0.8\% | 1.5\% | 0.0\% | 11.1\% | 0.2\% | 4.3\% | 0.2\% | 0.6\% | 0.0\% | 9.7\% | 5.7\% | 46.8\% |
| 1996-1998 | 178 |  | 5.3\% | 0.0\% | 3.7\% | 4.1\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.6\% | 73.4\% |
| 1999-2010 | 327 |  | 3.9\% | 0.9\% | 0.5\% | 1.3\% | 0.7\% | 5.8\% | 2.7\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 13.1\% | 0.0\% | 7.2\% | 0.0\% | 0.5\% | 0.0\% | 3.3\% | 5.8\% | 53.9\% |

Appendix C.15. Percent distribution of Dome Creek Spring (Fraser Early) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 33 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 141 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 4.3\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 0.0\% | 3.5\% | 69.5\% |
| 1992 | 154 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 3.9\% | 0.0\% | 2.6\% | 5.8\% | 0.0\% | 46.8\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 32.5\% |
| 1993 | 344 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 1.2\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 50.6\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 34.6\% |
| 1994 | 295 | 3,4,5,6 | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 26.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 67.8\% |
| 1995 | 514 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 21.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 2.9\% | 67.7\% |
| 1996 | 349 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 37.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 4.3\% | 50.4\% |
| 1997 | 317 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.3\% | 0.0\% | 6.3\% | 0.0\% | 38.5\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.4\% |
| 1998 | 228 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 0.0\% | 40.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 44.7\% |
| 1999 | 24 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.2\% | 0.0\% | 20.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% | 25.0\% |
| 2000 | 94 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.0\% | 39.4\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 41.5\% |
| 2001 | 300 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 2.0\% | 0.0\% | 0.0\% | 13.0\% | 0.0\% | 59.7\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 21.7\% |
| 2002 | 148 | 4,5,6 | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 10.1\% | 0.0\% | 18.2\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 45.3\% |
| 2003 | 149 | 3,5,6 | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 12.1\% | 0.0\% | 61.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.4\% |
| 2004 | 5 | 3,4,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 218 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 60.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 25.7\% |
| 2006 | 89 | 4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 31.5\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 52.8\% |
| 2007 | 16 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 224 |  | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.6\% | 2.0\% | 0.4\% | 0.2\% | 8.8\% | 0.0\% | 37.1\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.1\% | 1.4\% | 0.0\% | 0.0\% | 4.0\% | 43.1\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 290 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 1.4\% | 1.5\% | 0.0\% | 0.5\% | 4.5\% | 0.0\% | 29.8\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 2.9\% | 54.4\% |
| 1996-1998 | 298 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.1\% | 0.0\% | 6.3\% | 0.0\% | 39.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.5\% | 0.0\% | 0.0\% | 3.8\% | 48.9\% |
| 1999-2010 | 146 |  | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.1\% | 3.1\% | 0.9\% | 0.0\% | 13.0\% | 0.0\% | 41.5\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 32.5\% |

Appendix C.16. Percent distribution of Dome Creek Spring (Fraser Early) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 41 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 152 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.7\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 5.3\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 13.8\% | 0.0\% | 0.0\% | 3.3\% | 64.5\% |
| 1992 | 163 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 4.3\% | 0.0\% | 3.1\% | 7.4\% | 0.0\% | 44.8\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 30.7\% |
| 1993 | 361 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 1.7\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 48.8\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 33.0\% |
| 1994 | 304 | 3,4,5,6 | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 27.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 65.8\% |
| 1995 | 533 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 20.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 3.0\% | 65.3\% |
| 1996 | 374 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.8\% | 0.3\% | 0.0\% | 0.0\% | 8.0\% | 0.0\% | 36.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 4.3\% | 47.1\% |
| 1997 | 328 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.3\% | 0.0\% | 7.6\% | 0.0\% | 38.7\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 49.7\% |
| 1998 | 247 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 44.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 41.3\% |
| 1999 | 39 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.8\% | 0.0\% | 12.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.9\% | 15.4\% |
| 2000 | 113 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.8\% | 0.0\% | 38.1\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.5\% |
| 2001 | 326 | 3,4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 1.8\% | 0.0\% | 0.0\% | 17.5\% | 0.0\% | 56.7\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 19.9\% |
| 2002 | 155 | 4,5,6 | 0.0\% | 0.0\% | 0.0\% | 11.0\% | 0.0\% | 11.6\% | 0.0\% | 0.0\% | 11.6\% | 0.0\% | 19.4\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 43.2\% |
| 2003 | 153 | 3,5,6 | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 7.8\% | 0.0\% | 12.4\% | 0.0\% | 59.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% |
| 2004 | 10 | 3,4,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 228 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 58.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 7.0\% | 24.6\% |
| 2006 | 91 | 4,5,6 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 31.9\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.6\% |
| 2007 | 17 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 238 |  | 0.1\% | 0.0\% | 0.0\% | 1.4\% | 0.7\% | 2.3\% | 0.5\% | 0.2\% | 12.3\% | 0.0\% | 36.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.1\% | 1.6\% | 0.0\% | 0.0\% | 3.6\% | 40.1\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 303 |  | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 1.7\% | 2.0\% | 0.0\% | 0.6\% | 6.0\% | 0.0\% | 29.3\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 2.9\% | 51.8\% |
| 1996-1998 | 316 |  | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 0.5\% | 0.1\% | 0.0\% | 7.8\% | 0.0\% | 39.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 0.0\% | 0.0\% | 3.7\% | 46.0\% |
| 1999-2010 | 158 |  | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.1\% | 3.2\% | 1.1\% | 0.0\% | 18.7\% | 0.0\% | 39.6\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 4.0\% | 29.2\% |

Appendix C.17. Percent distribution of Elk River (Oregon Coast) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 11 | 2 | Failed | Criteria |  | - | - | - |  |  | - | - | - | - | - |  | - |  |  |  |  |  |  |
| 1980 | 245 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1981 | 986 | 2,3,4 | 1.2\% | 0.0\% | 0.1\% | 1.7\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.4\% | 0.0\% | 5.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 78.1\% | 10.0\% |
| 1982 | 2967 | 2,3,4,5 | 0.6\% | 0.4\% | 0.2\% | 1.5\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% | 0.0\% | 14.9\% | 0.0\% | 0.8\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 56.5\% | 19.6\% |
| 1983 | 3577 | 2,3,4,5 | 2.1\% | 0.1\% | 0.0\% | 4.8\% | 0.0\% | 5.7\% | 0.1\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 22.2\% | 54.6\% |
| 1984 | 2287 | 2,3,4,5 | 2.3\% | 0.0\% | 0.0\% | 4.1\% | 0.1\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% | 59.5\% |
| 1985 | 1926 | 2,3,4,5 | 1.6\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 4.9\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.8\% | 57.3\% |
| 1986 | 927 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 11.2\% | 0.4\% | 0.0\% | 0.4\% | 1.9\% | 0.0\% | 0.0\% | 30.9\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 35.6\% |
| 1987 | 1962 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 4.9\% | 0.7\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 22.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.8\% | 41.7\% |
| 1988 | 2060 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 17.3\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 35.2\% | 40.5\% |
| 1989 | 1314 | 2,3,4,5 | 0.5\% | 0.0\% | 0.3\% | 1.2\% | 0.4\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 26.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.7\% | 36.7\% |
| 1990 | 534 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 15.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.8\% | 42.5\% |
| 1991 | 452 | 2,3,4,5 | 0.0\% | 0.4\% | 0.0\% | 2.0\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.2\% | 59.1\% |
| 1992 | 573 | 2,3,4,5 | 1.4\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 8.9\% | 0.0\% | 0.3\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 37.7\% | 44.2\% |
| 1993 | 849 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 3.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.5\% | 49.2\% |
| 1994 | 1548 | 2,3,4,5 | 1.7\% | 0.2\% | 0.0\% | 1.4\% | 0.4\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.6\% | 0.0\% | 17.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.8\% | 41.1\% |
| 1995 | 3191 | 2,3,4,5 | 1.2\% | 0.2\% | 0.4\% | 0.8\% | 0.2\% | 1.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 13.5\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 32.4\% | 49.0\% |
| 1996 | 4794 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 28.8\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 11.9\% | 57.3\% |
| 1997 | 3893 | 2,3,4,5 | 12.8\% | 0.0\% | 0.1\% | 1.6\% | 0.3\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 19.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.6\% | 46.2\% |
| 1998 | 5909 | 2,3,4,5 | 7.0\% | 0.0\% | 0.0\% | 3.2\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.5\% | 67.4\% |
| 1999 | 5811 | 2,3,4,5 | 5.0\% | 0.0\% | 0.3\% | 1.5\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 15.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.4\% | 60.9\% |
| 2000 | 4780 | 2,3,4,5 | 5.7\% | 0.0\% | 0.1\% | 1.4\% | 0.5\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.9\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 53.7\% |
| 2001 | 16482 | 2,3,4,5 | 2.3\% | 0.0\% | 0.2\% | 1.2\% | 0.0\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.6\% | 71.8\% |
| 2002 | 10692 | 2,3,4,5 | 4.8\% | 0.0\% | 0.5\% | 3.6\% | 0.6\% | 0.9\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 70.6\% |
| 2003 | 6102 | 2,3,4,5 | 5.3\% | 0.0\% | 0.3\% | 3.2\% | 0.4\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.6\% | 53.3\% |
| 2004 | 10816 | 2,3,4,5 | 3.7\% | 0.0\% | 0.2\% | 1.8\% | 0.3\% | 1.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 73.9\% |
| 2005 | 2848 | 2,3,4,5 | 8.4\% | 0.0\% | 0.2\% | 4.7\% | 1.6\% | 4.2\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.3\% | 51.1\% |
| 2006 | 2665 | 2,3,4,5 | 5.5\% | 0.0\% | 0.0\% | 4.4\% | 1.4\% | 4.9\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 49.6\% |
| 2007 | 2067 | 2,3,4,5 | 7.8\% | 0.0\% | 0.6\% | 4.2\% | 0.9\% | 1.7\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 27.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.7\% | 36.7\% |
| 2008 | 3987 | 2,3,4,5 | 3.9\% | 0.0\% | 0.0\% | 3.6\% | 1.6\% | 1.5\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 19.5\% | 64.4\% |
| 2009 | 3199 | 2,3,4,5 | 5.8\% | 0.0\% | 0.1\% | 4.2\% | 0.7\% | 1.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 15.6\% | 68.6\% |
| 2010 | 3777 | 2,3,4,5 | 4.9\% | 0.0\% | 0.4\% | 4.4\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 74.8\% |
| 1979-2010 | 3766 |  | 3.4\% | 0.1\% | 0.1\% | 2.4\% | 0.3\% | 2.6\% | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 15.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% | 51.4\% |
| 1979-1984 | 2454 |  | 1.6\% | 0.1\% | 0.1\% | 3.0\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.6\% | 0.0\% | 9.3\% | 0.0\% | 0.4\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 44.2\% | 35.9\% |
| 1985-1995 | 1394 |  | 1.0\% | 0.2\% | 0.1\% | 1.5\% | 0.1\% | 3.8\% | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 16.5\% | 0.0\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 30.2\% | 45.2\% |
| 1996-1998 | 4865 |  | 7.0\% | 0.0\% | 0.0\% | 1.6\% | 0.2\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 20.2\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 13.3\% | 57.0\% |
| 1999-2010 | 6102 |  | 5.2\% | 0.0\% | 0.2\% | 3.2\% | 0.7\% | 1.6\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.0\% | 60.8\% |

Appendix C.18. Percent distribution of Elk River (Oregon Coast) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 30 | 2 | Failed | Criteria |  | - | - | - |  | - | - | - | - | - | - |  | - |  |  |  |  |  | - |
| 1980 | 270 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 1191 | 2,3,4 | 2.4\% | 0.1\% | 0.2\% | 3.1\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 1.3\% | 0.0\% | 12.3\% | 0.0\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 67.0\% | 8.3\% |
| 1982 | 3185 | 2,3,4,5 | 1.0\% | 0.4\% | 0.2\% | 1.7\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% | 0.0\% | 17.0\% | 0.0\% | 0.8\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 54.6\% | 18.3\% |
| 1983 | 3732 | 2,3,4,5 | 2.7\% | 0.1\% | 0.0\% | 5.1\% | 0.0\% | 6.1\% | 0.1\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 9.8\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 22.0\% | 52.3\% |
| 1984 | 2359 | 2,3,4,5 | 3.1\% | 0.0\% | 0.0\% | 4.2\% | 0.1\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.2\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.1\% | 57.7\% |
| 1985 | 1989 | 2,3,4,5 | 1.8\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.6\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.1\% | 55.5\% |
| 1986 | 1068 | 2,3,4,5 | 1.9\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 12.2\% | 0.5\% | 0.0\% | 0.5\% | 2.2\% | 0.0\% | 0.0\% | 34.9\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.4\% | 30.9\% |
| 1987 | 2134 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 5.9\% | 0.7\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 24.9\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.7\% | 38.4\% |
| 1988 | 2226 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 18.8\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 35.6\% | 37.5\% |
| 1989 | 1390 | 2,3,4,5 | 0.7\% | 0.0\% | 0.3\% | 1.3\% | 0.4\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 28.6\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.4\% | 34.7\% |
| 1990 | 561 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 17.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.8\% | 40.5\% |
| 1991 | 482 | 2,3,4,5 | 0.0\% | 1.0\% | 0.0\% | 2.5\% | 0.0\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.8\% | 55.4\% |
| 1992 | 726 | 2,3,4,5 | 3.2\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 13.2\% | 0.0\% | 0.4\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 33.6\% | 34.8\% |
| 1993 | 1033 | 2,3,4,5 | 2.9\% | 0.0\% | 0.0\% | 2.4\% | 0.3\% | 6.1\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.0\% | 40.5\% |
| 1994 | 1702 | 2,3,4,5 | 3.7\% | 0.8\% | 0.0\% | 1.9\% | 0.5\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 17.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.8\% | 37.4\% |
| 1995 | 3461 | 2,3,4,5 | 2.4\% | 0.7\% | 0.6\% | 1.0\% | 0.3\% | 2.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 13.7\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 32.9\% | 45.2\% |
| 1996 | 5115 | 2,3,4,5 | 2.2\% | 0.0\% | 0.0\% | 1.8\% | 0.2\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 29.0\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 12.0\% | 53.7\% |
| 1997 | 4262 | 2,3,4,5 | 16.5\% | 0.0\% | 0.1\% | 1.9\% | 0.5\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 19.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 42.2\% |
| 1998 | 6133 | 2,3,4,5 | 8.5\% | 0.0\% | 0.0\% | 3.7\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.7\% | 64.9\% |
| 1999 | 6374 | 2,3,4,5 | 7.8\% | 0.0\% | 0.4\% | 1.8\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 17.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 55.5\% |
| 2000 | 5393 | 2,3,4,5 | 8.0\% | 0.1\% | 0.1\% | 1.7\% | 0.7\% | 0.7\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 26.3\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 47.6\% |
| 2001 | 17223 | 2,3,4,5 | 3.2\% | 0.0\% | 0.2\% | 1.5\% | 0.0\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.9\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 68.8\% |
| 2002 | 11309 | 2,3,4,5 | 6.0\% | 0.0\% | 0.6\% | 4.2\% | 0.8\% | 0.9\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 66.7\% |
| 2003 | 6492 | 2,3,4,5 | 6.3\% | 0.0\% | 0.3\% | 3.6\% | 0.5\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.5\% | 50.1\% |
| 2004 | 11181 | 2,3,4,5 | 4.3\% | 0.0\% | 0.2\% | 2.0\% | 0.4\% | 1.8\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 71.5\% |
| 2005 | 3084 | 2,3,4,5 | 10.0\% | 0.0\% | 0.2\% | 5.3\% | 2.1\% | 4.1\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.4\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 47.1\% |
| 2006 | 2987 | 2,3,4,5 | 6.7\% | 0.0\% | 0.0\% | 5.0\% | 2.1\% | 5.2\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.2\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 44.3\% |
| 2007 | 2374 | 2,3,4,5 | 10.1\% | 0.1\% | 0.7\% | 4.9\% | 1.1\% | 1.6\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 29.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.9\% | 32.0\% |
| 2008 | 4169 | 2,3,4,5 | 4.9\% | 0.0\% | 0.0\% | 3.9\% | 2.1\% | 1.6\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.9\% | 61.5\% |
| 2009 | 3332 | 2,3,4,5 | 6.9\% | 0.0\% | 0.2\% | 4.6\% | 0.8\% | 1.7\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 16.2\% | 65.8\% |
| 2010 | 3909 | 2,3,4,5 | 6.1\% | 0.0\% | 0.5\% | 4.7\% | 0.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 72.3\% |
| 1979-2010 | 4019 |  | 4.5\% | 0.3\% | 0.2\% | 2.8\% | 0.5\% | 3.1\% | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 16.8\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 22.8\% | 47.7\% |
| 1979-1984 | 2617 |  | 2.3\% | 0.1\% | 0.1\% | 3.5\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.5\% | 0.0\% | 11.9\% | 0.0\% | 0.4\% | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 40.9\% | 34.1\% |
| 1985-1995 | 1525 |  | 1.7\% | 0.6\% | 0.1\% | 1.9\% | 0.1\% | 4.8\% | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.0\% | 18.6\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 29.6\% | 41.0\% |
| 1996-1998 | 5170 |  | 9.1\% | 0.0\% | 0.0\% | 2.5\% | 0.3\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 20.3\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 13.3\% | 53.6\% |
| 1999-2010 | 6486 |  | 6.7\% | 0.0\% | 0.3\% | 3.6\% | 0.9\% | 1.6\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.8\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 56.9\% |

Appendix C.19. Percent distribution of Elwha River reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 23 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 185 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 641 | 2,3,4 | 24.3\% | 1.6\% | 0.0\% | 2.3\% | 0.5\% | 18.1\% | 0.9\% | 0.8\% | 6.4\% | 0.8\% | 6.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 12.2\% | 13.4\% | 0.0\% | 0.2\% | 0.0\% | 11.4\% |
| 1987 | 401 | 2,3,4,5 | 14.7\% | 0.0\% | 0.0\% | 4.5\% | 2.0\% | 14.2\% | 2.5\% | 0.7\% | 9.0\% | 2.2\% | 5.7\% | 0.0\% | 3.0\% | 0.2\% | 0.0\% | 6.5\% | 18.7\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% |
| 1988 | 430 | 2,3,4,5 | 5.3\% | 0.5\% | 0.5\% | 3.7\% | 2.3\% | 13.7\% | 6.0\% | 0.5\% | 0.0\% | 1.4\% | 1.2\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 8.1\% | 8.4\% | 0.0\% | 4.0\% | 0.0\% | 40.0\% |
| 1989 | 279 | 3,4,5 | 6.1\% | 1.8\% | 0.0\% | 4.7\% | 2.2\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.4\% | 9.3\% | 13.3\% | 0.0\% | 2.2\% | 0.0\% | 48.4\% |
| 1990 | 38 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 13.2\% | 0.0\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 10.5\% | 0.0\% | 5.3\% | 0.0\% | 50.0\% |
| 1991 | 12 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.3\% | 0.0\% | 8.3\% | 0.0\% | 0.0\% | 83.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1992 | 49 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 38.8\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 0.0\% | 16.3\% | 0.0\% | 0.0\% | 0.0\% | 26.5\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% |
| 1993 | 129 | 2,3,4,5 | 9.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 11.6\% | 1.6\% | 10.9\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 28.7\% | 0.0\% | 3.1\% | 0.0\% | 17.8\% |
| 1994 | 76 | 2,3,4,5 | 3.9\% | 0.0\% | 0.0\% | 9.2\% | 0.0\% | 17.1\% | 0.0\% | 3.9\% | 2.6\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 55.3\% |
| 1995 | 117 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 26.5\% | 2.6\% | 0.0\% | 0.0\% | 2.6\% | 6.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.9\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 47.0\% |
| 1996 | 289 | 2,3,4,5 | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 3.1\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 81.3\% |
| 1997 | 182 | 3,4,5 | 13.7\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 3.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 57.1\% |
| 1998 | 169 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | 27 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 220 |  | 6.7\% | 0.3\% | 0.0\% | 3.3\% | 0.8\% | 14.1\% | 2.6\% | 0.6\% | 3.2\% | 0.9\% | 4.2\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 10.5\% | 12.3\% | 0.0\% | 1.2\% | 0.0\% | 35.7\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 217 |  | 6.4\% | 0.4\% | 0.0\% | 3.8\% | 1.0\% | 16.4\% | 2.8\% | 0.7\% | 2.9\% | 1.0\% | 4.6\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 12.6\% | 13.0\% | 0.0\% | 1.5\% | 0.0\% | 29.0\% |
| 1996-1998 | 236 |  | 8.6\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 2.5\% | 1.6\% | 0.0\% | 4.9\% | 0.0\% | 2.7\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 69.2\% |
| 1999-2010 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

Appendix C.20. Percent distribution of Elwha River total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 71 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 272 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 727 | 2,3,4 | 24.2\% | 3.0\% | 0.0\% | 2.6\% | 0.7\% | 17.6\% | 1.1\% | 0.8\% | 6.1\% | 1.0\% | 5.9\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 11.0\% | 14.7\% | 0.0\% | 0.1\% | 0.0\% | 10.0\% |
| 1987 | 472 | 2,3,4,5 | 16.3\% | 0.0\% | 0.0\% | 4.9\% | 1.9\% | 15.5\% | 2.3\% | 0.8\% | 8.3\% | 2.5\% | 5.1\% | 0.0\% | 3.0\% | 0.2\% | 0.0\% | 5.7\% | 19.9\% | 0.0\% | 0.0\% | 0.0\% | 13.6\% |
| 1988 | 463 | 2,3,4,5 | 5.8\% | 0.9\% | 0.6\% | 3.9\% | 2.4\% | 15.1\% | 6.0\% | 0.4\% | 0.0\% | 1.5\% | 1.3\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 7.8\% | 8.9\% | 0.0\% | 3.7\% | 0.0\% | 37.1\% |
| 1989 | 301 | 3,4,5 | 6.0\% | 6.3\% | 0.0\% | 4.7\% | 2.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.3\% | 8.6\% | 14.0\% | 0.0\% | 2.0\% | 0.0\% | 44.9\% |
| 1990 | 39 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 15.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 12.8\% | 0.0\% | 5.1\% | 0.0\% | 48.7\% |
| 1991 | 26 | 2,3,5 | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.4\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 3.8\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 53.8\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1992 | 74 | 2,3,4 | 2.7\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 33.8\% | 4.1\% | 0.0\% | 4.1\% | 0.0\% | 8.1\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 31.1\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% |
| 1993 | 156 | 2,3,4,5 | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.4\% | 10.3\% | 1.9\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 28.8\% | 0.0\% | 2.6\% | 0.0\% | 14.7\% |
| 1994 | 87 | 2,3,4,5 | 8.0\% | 0.0\% | 0.0\% | 9.2\% | 0.0\% | 18.4\% | 0.0\% | 4.6\% | 3.4\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.3\% |
| 1995 | 145 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 31.0\% | 2.8\% | 0.0\% | 0.0\% | 3.4\% | 6.9\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.7\% | 13.1\% | 0.0\% | 0.0\% | 0.0\% | 37.9\% |
| 1996 | 312 | 2,3,4,5 | 4.2\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 1.6\% | 3.2\% | 0.0\% | 3.8\% | 0.0\% | 2.6\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 75.3\% |
| 1997 | 195 | 3,4,5 | 15.4\% | 0.0\% | 0.5\% | 1.5\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 3.1\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 53.3\% |
| 1998 | 172 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | 27 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 250 |  | 8.2\% | 0.9\% | 0.1\% | 3.5\% | 0.8\% | 15.8\% | 2.5\% | 0.7\% | 4.0\% | 1.0\% | 3.7\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 7.7\% | 14.6\% | 0.0\% | 1.1\% | 0.0\% | 32.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 249 |  | 7.9\% | 1.0\% | 0.1\% | 3.9\% | 1.0\% | 18.3\% | 2.7\% | 0.9\% | 3.7\% | 1.1\% | 3.9\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 9.3\% | 15.5\% | 0.0\% | 1.3\% | 0.0\% | 25.8\% |
| 1996-1998 | 254 |  | 9.8\% | 0.0\% | 0.3\% | 1.4\% | 0.0\% | 3.4\% | 1.6\% | 0.0\% | 5.3\% | 0.0\% | 2.8\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 64.3\% |
| 1999-2010 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

Appendix C.21. Percent distribution of George Adams Fall Fingerling reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 69 | 4,5 | Failed | Criteria | - | - |  |  | - | - | - | - | - | - | - | - | - | - |  |  |  |  | - |
| 1980 | 256 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 611 | 2,3 | Failed | Criteria | - | - | - |  | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1982 | 796 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.9\% | 0.0\% | 0.3\% | 4.1\% | 0.5\% | 0.6\% | 0.0\% | 3.0\% | 0.0\% | 0.4\% | 30.4\% | 10.3\% | 0.0\% | 7.7\% | 0.0\% | 21.9\% |
| 1983 | 575 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.8\% | 0.5\% | 0.0\% | 3.5\% | 1.6\% | 5.7\% | 0.0\% | 0.2\% | 0.0\% | 0.9\% | 21.0\% | 24.9\% | 0.0\% | 8.7\% | 0.0\% | 17.2\% |
| 1984 | 979 | 3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 0.4\% | 18.1\% | 0.0\% | 1.2\% | 4.5\% | 3.2\% | 1.9\% | 0.0\% | 2.2\% | 0.0\% | 0.4\% | 12.7\% | 20.2\% | 0.0\% | 18.6\% | 0.0\% | 15.9\% |
| 1985 | 348 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1986 | 17 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 83 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1988 | 733 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1655 | 2,3,4 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 1.7\% | 0.0\% | 3.8\% | 0.0\% | 4.8\% | 0.0\% | 12.9\% | 0.2\% | 0.9\% | 18.1\% | 14.9\% | 0.0\% | 20.3\% | 1.5\% | 12.2\% |
| 1990 | 1340 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 19.3\% | 5.0\% | 0.0\% | 4.7\% | 0.3\% | 1.6\% | 0.0\% | 15.0\% | 0.0\% | 0.4\% | 11.3\% | 17.7\% | 0.0\% | 17.0\% | 0.3\% | 6.8\% |
| 1991 | 982 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.4\% | 4.5\% | 0.0\% | 2.2\% | 0.0\% | 0.4\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 18.8\% | 17.2\% | 0.0\% | 14.5\% | 0.8\% | 14.4\% |
| 1992 | 192 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 5.7\% | 0.0\% | 20.3\% | 0.0\% | 0.0\% | 2.6\% | 39.6\% | 0.0\% | 6.8\% | 0.0\% | 7.3\% |
| 1993 | 114 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.2\% | 7.9\% | 0.9\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 4.4\% | 21.9\% | 0.0\% | 0.0\% | 0.0\% | 18.4\% |
| 1994 | 43 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 72.1\% |
| 1995 | 206 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.8\% | 3.9\% | 0.0\% | 3.9\% | 0.0\% | 2.4\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 4.4\% | 18.4\% | 0.0\% | 0.0\% | 0.0\% | 58.3\% |
| 1996 | 339 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 12.7\% | 0.0\% | 2.1\% | 0.0\% | 5.9\% | 0.0\% | 0.6\% | 0.0\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 60.8\% |
| 1997 | 340 | 2,3,4,5 | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 1.5\% | 0.0\% | 3.2\% | 0.0\% | 0.3\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.9\% | 20.0\% | 0.0\% | 0.0\% | 0.0\% | 64.1\% |
| 1998 | 447 | 2,3,4,5 | 0.7\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 1.8\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 86.4\% |
| 1999 | 831 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 9.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 1.3\% | 2.3\% | 9.5\% | 0.0\% | 0.6\% | 0.0\% | 68.6\% |
| 2000 | 826 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 21.1\% | 8.5\% | 0.0\% | 2.7\% | 0.0\% | 0.1\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.4\% | 5.9\% | 0.0\% | 0.0\% | 11.6\% | 45.5\% |
| 2001 | 779 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 12.3\% | 2.1\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 1.0\% | 5.6\% | 8.5\% | 0.0\% | 5.4\% | 0.5\% | 55.1\% |
| 2002 | 960 | 2,3,4,5 | 1.5\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 11.3\% | 10.1\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 1.0\% | 7.2\% | 4.7\% | 0.0\% | 3.9\% | 9.4\% | 44.2\% |
| 2003 | 951 | 2,3,4,5 | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 11.6\% | 2.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 0.2\% | 4.2\% | 6.1\% | 0.0\% | 6.3\% | 11.9\% | 47.8\% |
| 2004 | 1315 | 2,3,4,5 | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 14.7\% | 3.0\% | 0.2\% | 2.3\% | 0.0\% | 0.3\% | 0.0\% | 6.1\% | 0.0\% | 0.5\% | 7.2\% | 5.5\% | 0.0\% | 4.6\% | 1.2\% | 53.7\% |
| 2005 | 1546 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.1\% | 0.8\% | 11.8\% | 8.4\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 1.3\% | 2.6\% | 6.8\% | 0.0\% | 2.8\% | 6.3\% | 46.2\% |
| 2006 | 1086 | 2,3,4,5 | 0.4\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 12.2\% | 1.8\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.4\% | 7.6\% | 8.0\% | 0.0\% | 6.3\% | 1.4\% | 51.4\% |
| 2007 | 1641 | 2,3,4,5 | 0.2\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 1.7\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.2\% | 2.4\% | 11.8\% | 0.0\% | 10.1\% | 11.9\% | 45.3\% |
| 2008 | 1133 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 4.3\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.4\% | 0.7\% | 6.0\% | 8.7\% | 0.0\% | 9.9\% | 0.0\% | 62.0\% |
| 2009 | 1227 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 5.3\% | 4.2\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.3\% | 3.8\% | 6.8\% | 0.0\% | 3.4\% | 0.0\% | 71.9\% |
| 2010 | 1617 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 3.3\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.2\% | 6.8\% | 7.9\% | 0.0\% | 14.7\% | 6.4\% | 50.3\% |
| 1979-2010 | 877 |  | 0.3\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 11.4\% | 3.6\% | 0.4\% | 3.3\% | 0.2\% | 1.0\% | 0.0\% | 5.4\% | 0.0\% | 0.4\% | 7.9\% | 12.9\% | 0.0\% | 6.5\% | 2.5\% | 43.9\% |
| 1979-1984 | 783 |  | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 18.3\% | 0.2\% | 0.5\% | 4.0\% | 1.7\% | 2.8\% | 0.0\% | 1.8\% | 0.0\% | 0.6\% | 21.4\% | 18.5\% | 0.0\% | 11.6\% | 0.0\% | 18.3\% |
| 1985-1995 | 647 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 14.8\% | 3.3\% | 1.1\% | 2.9\% | 0.0\% | 2.1\% | 0.0\% | 9.5\% | 0.0\% | 0.2\% | 10.5\% | 19.5\% | 0.0\% | 8.4\% | 0.4\% | 27.1\% |
| 1996-1998 | 375 |  | 0.9\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 2.4\% | 0.0\% | 5.5\% | 0.0\% | 0.8\% | 0.0\% | 3.6\% | 0.0\% | 0.2\% | 0.9\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 70.4\% |
| 1999-2010 | 1159 |  | 0.4\% | 0.1\% | 0.0\% | 0.2\% | 0.1\% | 10.2\% | 4.9\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 0.6\% | 4.7\% | 7.5\% | 0.0\% | 5.7\% | 5.1\% | 53.5\% |

Appendix C.22. Percent distribution of George Adams Fall Fingerling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 70 | 4,5 | Failed | Criteria | - | - |  | - | - | - | - | - | - | - | - |  | - | - | - | - | - |  | - |
| 1980 | 404 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 710 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - | - | - |  | - |
| 1982 | 855 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.8\% | 0.0\% | 0.2\% | 4.1\% | 0.6\% | 0.8\% | 0.0\% | 2.9\% | 0.0\% | 0.5\% | 29.4\% | 12.5\% | 0.0\% | 7.8\% | 0.0\% | 20.4\% |
| 1983 | 925 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.3\% | 0.3\% | 0.0\% | 2.6\% | 1.2\% | 4.1\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 19.5\% | 40.9\% | 0.0\% | 7.8\% | 0.0\% | 10.7\% |
| 1984 | 1069 | 3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.6\% | 0.5\% | 18.1\% | 0.0\% | 1.2\% | 4.4\% | 3.2\% | 1.8\% | 0.0\% | 2.3\% | 0.0\% | 0.4\% | 12.8\% | 22.3\% | 0.0\% | 17.9\% | 0.0\% | 14.6\% |
| 1985 | 362 | 4,5 | Failed | Criteria | - | - |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1986 | 18 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 242 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - |  |  |
| 1988 | 932 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 2012 | 2,3,4 | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 1.7\% | 0.0\% | 4.4\% | 0.0\% | 4.2\% | 0.0\% | 12.7\% | 0.2\% | 0.8\% | 17.3\% | 17.4\% | 0.0\% | 19.2\% | 1.4\% | 10.0\% |
| 1990 | 1557 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 21.1\% | 4.6\% | 0.0\% | 5.1\% | 0.3\% | 1.5\% | 0.0\% | 15.4\% | 0.0\% | 0.4\% | 10.5\% | 18.2\% | 0.0\% | 15.7\% | 0.3\% | 5.8\% |
| 1991 | 1063 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.4\% | 4.5\% | 0.0\% | 2.4\% | 0.0\% | 0.4\% | 0.0\% | 8.7\% | 0.0\% | 0.0\% | 17.9\% | 18.8\% | 0.0\% | 13.7\% | 0.8\% | 13.3\% |
| 1992 | 218 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.5\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 5.0\% | 0.0\% | 20.2\% | 0.0\% | 0.0\% | 2.3\% | 41.3\% | 0.0\% | 6.0\% | 0.0\% | 6.4\% |
| 1993 | 135 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.1\% | 7.4\% | 1.5\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 0.0\% | 0.0\% | 4.4\% | 25.2\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% |
| 1994 | 49 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 63.3\% |
| 1995 | 260 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 3.8\% | 0.0\% | 6.5\% | 0.0\% | 3.5\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 4.2\% | 26.2\% | 0.0\% | 0.0\% | 0.0\% | 46.2\% |
| 1996 | 370 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 4.6\% | 0.0\% | 14.9\% | 0.0\% | 2.2\% | 0.0\% | 5.7\% | 0.0\% | 0.5\% | 0.0\% | 15.1\% | 0.0\% | 0.0\% | 0.0\% | 55.7\% |
| 1997 | 369 | 2,3,4,5 | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 1.4\% | 0.0\% | 3.5\% | 0.0\% | 0.5\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.8\% | 24.7\% | 0.0\% | 0.0\% | 0.0\% | 59.1\% |
| 1998 | 561 | 2,3,4,5 | 0.7\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.2\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 2.1\% | 23.0\% | 0.0\% | 0.0\% | 0.0\% | 68.8\% |
| 1999 | 891 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 9.2\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 1.5\% | 2.2\% | 12.0\% | 0.0\% | 0.6\% | 0.0\% | 64.0\% |
| 2000 | 949 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 20.5\% | 9.1\% | 0.0\% | 3.6\% | 0.0\% | 0.2\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.3\% | 9.7\% | 0.0\% | 0.0\% | 12.5\% | 39.6\% |
| 2001 | 873 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 11.9\% | 2.3\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 1.0\% | 5.6\% | 13.1\% | 0.0\% | 5.4\% | 0.6\% | 49.1\% |
| 2002 | 1056 | 2,3,4,5 | 1.7\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 11.0\% | 11.4\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 1.0\% | 7.0\% | 6.3\% | 0.0\% | 3.7\% | 10.0\% | 40.2\% |
| 2003 | 1048 | 2,3,4,5 | 0.6\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 2.5\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 0.2\% | 4.1\% | 8.2\% | 0.0\% | 6.2\% | 12.7\% | 43.4\% |
| 2004 | 1456 | 2,3,4,5 | 0.5\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 14.5\% | 3.4\% | 0.1\% | 3.1\% | 0.0\% | 0.6\% | 0.0\% | 6.7\% | 0.0\% | 0.5\% | 7.6\% | 7.8\% | 0.0\% | 4.9\% | 1.4\% | 48.5\% |
| 2005 | 1741 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.1\% | 1.1\% | 11.3\% | 9.1\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 0.0\% | 1.3\% | 2.5\% | 9.1\% | 0.0\% | 2.8\% | 6.5\% | 41.1\% |
| 2006 | 1192 | 2,3,4,5 | 0.4\% | 0.3\% | 0.0\% | 0.8\% | 0.0\% | 11.8\% | 2.0\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 0.4\% | 8.0\% | 10.3\% | 0.0\% | 6.5\% | 1.5\% | 46.8\% |
| 2007 | 1978 | 2,3,4,5 | 0.3\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 9.3\% | 1.7\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.2\% | 2.6\% | 17.2\% | 0.0\% | 10.6\% | 13.2\% | 37.6\% |
| 2008 | 1207 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 4.6\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.4\% | 0.7\% | 6.5\% | 10.4\% | 0.0\% | 10.7\% | 0.0\% | 58.2\% |
| 2009 | 1322 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.1\% | 4.5\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.4\% | 4.6\% | 9.2\% | 0.0\% | 4.2\% | 0.0\% | 66.7\% |
| 2010 | 1744 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 3.9\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.2\% | 7.1\% | 9.2\% | 0.0\% | 15.2\% | 7.2\% | 46.6\% |
| 1979-2010 | 996 |  | 0.4\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 11.4\% | 3.7\% | 0.4\% | 3.9\% | 0.2\% | 1.0\% | 0.0\% | 5.5\% | 0.0\% | 0.4\% | 7.8\% | 16.8\% | 0.0\% | 6.3\% | 2.7\% | 38.9\% |
| 1979-1984 | 950 |  | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 17.1\% | 0.1\% | 0.5\% | 3.7\% | 1.7\% | 2.2\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 20.5\% | 25.2\% | 0.0\% | 11.2\% | 0.0\% | 15.2\% |
| 1985-1995 | 756 |  | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 15.7\% | 3.2\% | 1.4\% | 3.5\% | 0.1\% | 2.1\% | 0.0\% | 9.4\% | 0.0\% | 0.2\% | 10.4\% | 22.8\% | 0.0\% | 7.8\% | 0.4\% | 22.9\% |
| 1996-1998 | 433 |  | 0.9\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 2.4\% | 0.0\% | 6.8\% | 0.0\% | 0.9\% | 0.0\% | 3.4\% | 0.0\% | 0.2\% | 1.0\% | 20.9\% | 0.0\% | 0.0\% | 0.0\% | 61.2\% |
| 1999-2010 | 1288 |  | 0.5\% | 0.1\% | 0.0\% | 0.2\% | 0.1\% | 9.9\% | 5.3\% | 0.0\% | 3.5\% | 0.0\% | 0.1\% | 0.0\% | 4.7\% | 0.0\% | 0.6\% | 4.8\% | 10.2\% | 0.0\% | 5.9\% | 5.5\% | 48.5\% |

Appendix C.23. Percent distribution of Hanford Wild Brights reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 74 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 92 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1990 | 440 | 2,3,4 | 8.4\% | 0.5\% | 0.0\% | 4.3\% | 0.0\% | 8.4\% | 3.6\% | 0.0\% | 0.0\% | 0.5\% | 0.7\% | 0.0\% | 0.5\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 22.5\% | 6.1\% | 43.6\% |
| 1991 | 591 | 2,3,4,5 | 8.6\% | 0.0\% | 1.4\% | 9.5\% | 0.5\% | 4.7\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 23.4\% | 3.9\% | 45.5\% |
| 1992 | 289 | 2,3,4,5 | 16.3\% | 2.4\% | 1.4\% | 5.9\% | 0.0\% | 15.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 1.7\% | 36.0\% |
| 1993 | 378 | 2,3,4,5 | 14.0\% | 0.0\% | 2.1\% | 2.9\% | 1.3\% | 5.3\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 16.1\% | 7.4\% | 42.1\% |
| 1994 | 725 | 2,3,4,5 | 14.3\% | 1.0\% | 0.0\% | 4.8\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.4\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.6\% | 5.4\% | 55.2\% |
| 1995 | 655 | 2,3,4,5 | 11.0\% | 0.0\% | 3.7\% | 4.3\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 7.0\% | 62.0\% |
| 1996 | 591 | 2,3,4,5 | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.4\% | 7.8\% | 53.5\% |
| 1997 | 633 | 2,3,4,5 | 16.3\% | 0.8\% | 0.9\% | 3.6\% | 2.4\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 7.0\% | 53.4\% |
| 1998 | 324 | 2,3,4,5 | 12.3\% | 0.0\% | 0.0\% | 8.6\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% | 6.5\% | 54.3\% |
| 1999 | 259 | 2,3,4,5 | 9.7\% | 0.4\% | 1.9\% | 12.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 6.2\% | 57.9\% |
| 2000 | 219 | 2,3,4,5 | 16.4\% | 0.5\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.2\% | 5.5\% | 46.6\% |
| 2001 | 343 | 2,3,4,5 | 4.4\% | 0.3\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 14.6\% | 58.0\% |
| 2002 | 841 | 2,3,4,5 | 13.9\% | 0.0\% | 1.3\% | 0.7\% | 0.5\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 10.7\% | 58.3\% |
| 2003 | 1488 | 2,3,4,5 | 12.6\% | 0.0\% | 0.9\% | 3.9\% | 0.9\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 14.3\% | 9.2\% | 57.0\% |
| 2004 | 1808 | 2,3,4,5 | 17.3\% | 1.4\% | 2.9\% | 6.1\% | 2.9\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 4.0\% | 48.0\% |
| 2005 | 445 | 2,3,4,5 | 11.9\% | 0.0\% | 0.0\% | 8.1\% | 2.5\% | 4.3\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 12.4\% | 15.3\% | 41.1\% |
| 2006 | 542 | 2,3,4,5 | 17.2\% | 0.0\% | 0.9\% | 5.0\% | 0.0\% | 2.8\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 19.4\% | 36.5\% |
| 2007 | 276 | 2,3,4,5 | 20.7\% | 0.0\% | 1.1\% | 6.5\% | 6.5\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 17.8\% | 35.1\% |
| 2008 | 194 | 2,3,4,5 | 25.8\% | 0.0\% | 4.6\% | 1.5\% | 2.1\% | 3.6\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.1\% | 7.7\% | 32.5\% |
| 2009 | 215 | 2,3,4,5 | 18.1\% | 0.0\% | 0.9\% | 3.7\% | 1.9\% | 1.4\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.6\% | 4.7\% | 12.1\% |
| 2010 | 472 | 3,4,5 | 14.8\% | 0.0\% | 4.9\% | 7.2\% | 2.8\% | 0.8\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 5.1\% | 49.4\% |
| 1979-2010 | 558 |  | 14.0\% | 0.3\% | 1.5\% | 4.7\% | 1.2\% | 3.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 18.1\% | 8.2\% | 46.6\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 513 |  | 12.1\% | 0.6\% | 1.4\% | 5.3\% | 0.3\% | 6.8\% | 0.9\% | 0.0\% | 0.1\% | 0.1\% | 0.7\% | 0.0\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 17.1\% | 5.3\% | 47.4\% |
| 1996-1998 | 516 |  | 12.8\% | 0.3\% | 0.3\% | 4.1\% | 1.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% | 7.1\% | 53.7\% |
| 1999-2010 | 592 |  | 15.2\% | 0.2\% | 1.8\% | 4.6\% | 1.7\% | 1.8\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 18.2\% | 10.0\% | 44.4\% |

Appendix C.24. Percent distribution of Hanford Wild Brights total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1988 | 109 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 119 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1990 | 478 | 2,3,4 | 9.2\% | 1.0\% | 0.4\% | 4.8\% | 0.0\% | 8.8\% | 3.6\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 0.0\% | 0.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 23.2\% | 6.3\% | 40.2\% |
| 1991 | 624 | 2,3,4,5 | 10.6\% | 0.0\% | 1.4\% | 10.3\% | 0.5\% | 5.1\% | 0.0\% | 0.0\% | 1.0\% | 0.2\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 22.4\% | 3.8\% | 43.1\% |
| 1992 | 371 | 2,3,4,5 | 15.9\% | 15.6\% | 1.3\% | 5.9\% | 0.0\% | 15.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 15.1\% | 1.3\% | 28.0\% |
| 1993 | 424 | 2,3,4,5 | 19.3\% | 0.0\% | 2.1\% | 3.1\% | 1.2\% | 6.1\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 14.9\% | 7.1\% | 37.5\% |
| 1994 | 786 | 2,3,4,5 | 16.8\% | 3.3\% | 0.0\% | 5.1\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 5.2\% | 50.9\% |
| 1995 | 693 | 2,3,4,5 | 13.1\% | 0.0\% | 4.2\% | 5.1\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 6.9\% | 58.6\% |
| 1996 | 629 | 2,3,4,5 | 12.7\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.2\% | 7.6\% | 50.2\% |
| 1997 | 665 | 2,3,4,5 | 17.7\% | 1.2\% | 1.1\% | 3.6\% | 3.3\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 6.9\% | 50.8\% |
| 1998 | 342 | 2,3,4,5 | 14.3\% | 0.0\% | 0.0\% | 9.6\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.3\% | 6.4\% | 51.5\% |
| 1999 | 281 | 2,3,4,5 | 13.2\% | 1.1\% | 2.1\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 6.0\% | 53.4\% |
| 2000 | 236 | 2,3,4,5 | 19.9\% | 0.4\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.4\% | 5.5\% | 43.2\% |
| 2001 | 364 | 2,3,4,5 | 6.0\% | 0.8\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.2\% | 14.8\% | 54.7\% |
| 2002 | 900 | 2,3,4,5 | 17.9\% | 0.0\% | 1.4\% | 0.8\% | 0.6\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 9.7\% | 10.6\% | 54.4\% |
| 2003 | 1532 | 2,3,4,5 | 13.7\% | 0.0\% | 0.9\% | 4.1\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 9.3\% | 55.4\% |
| 2004 | 1916 | 2,3,4,5 | 18.5\% | 2.0\% | 3.0\% | 6.5\% | 4.2\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.2\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 4.0\% | 45.3\% |
| 2005 | 470 | 2,3,4,5 | 13.2\% | 0.0\% | 0.0\% | 8.7\% | 3.2\% | 4.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 11.9\% | 15.3\% | 38.9\% |
| 2006 | 569 | 2,3,4,5 | 19.0\% | 0.0\% | 1.1\% | 5.3\% | 0.0\% | 2.6\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 19.3\% | 34.8\% |
| 2007 | 308 | 2,3,4,5 | 23.4\% | 0.0\% | 1.3\% | 6.8\% | 8.4\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 16.9\% | 31.5\% |
| 2008 | 228 | 2,3,4,5 | 32.9\% | 0.0\% | 5.3\% | 1.8\% | 2.2\% | 3.1\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.0\% | 7.0\% | 27.6\% |
| 2009 | 233 | 2,3,4,5 | 20.2\% | 0.0\% | 0.9\% | 3.9\% | 2.1\% | 1.3\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 49.8\% | 4.7\% | 11.2\% |
| 2010 | 489 | 3,4,5 | 16.0\% | 0.0\% | 4.9\% | 7.2\% | 3.3\% | 0.8\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 5.1\% | 47.6\% |
| 1979-2010 | 597 |  | 16.4\% | 1.2\% | 1.7\% | 5.0\% | 1.5\% | 3.1\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 17.4\% | 8.1\% | 43.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 563 |  | 14.2\% | 3.3\% | 1.6\% | 5.7\% | 0.3\% | 7.1\% | 0.9\% | 0.0\% | 0.2\% | 0.1\% | 0.7\% | 0.0\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 16.1\% | 5.1\% | 43.0\% |
| 1996-1998 | 545 |  | 14.9\% | 0.4\% | 0.4\% | 4.7\% | 1.4\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.3\% | 7.0\% | 50.8\% |
| 1999-2010 | 627 |  | 17.8\% | 0.4\% | 2.0\% | 4.8\% | 2.1\% | 1.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% | 9.9\% | 41.5\% |

Appendix C.25. Percent distribution of Harrison River (Fraser Late) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1983 | 795 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | 2539 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |  | - |
| 1985 | 1687 | 2,3,4 | 0.1\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 25.0\% | 0.7\% | 7.5\% | 27.4\% | 1.7\% | 5.2\% | 0.0\% | 1.1\% | 0.0\% | 0.2\% | 4.2\% | 3.4\% | 0.0\% | 0.0\% | 0.2\% | 22.1\% |
| 1986 | 835 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.5\% | 0.4\% | 18.2\% | 0.5\% | 17.0\% | 24.4\% | 2.9\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% |
| 1987 | 459 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 8.7\% | 27.9\% | 0.7\% | 5.9\% | 0.0\% | 3.5\% | 0.0\% | 0.4\% | 8.5\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 32.5\% |
| 1988 | 756 | 2,3,4,5 | 0.7\% | 0.0\% | 0.5\% | 0.0\% | 1.1\% | 4.8\% | 5.2\% | 14.6\% | 19.2\% | 1.6\% | 10.3\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 14.3\% | 4.1\% | 0.0\% | 0.0\% | 0.7\% | 16.8\% |
| 1989 | 1976 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 22.6\% | 1.2\% | 5.2\% | 21.0\% | 0.6\% | 6.6\% | 0.0\% | 6.5\% | 0.0\% | 0.1\% | 5.3\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 25.7\% |
| 1990 | 2632 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 20.2\% | 1.2\% | 4.4\% | 10.3\% | 0.7\% | 3.0\% | 0.0\% | 5.8\% | 0.0\% | 0.2\% | 3.0\% | 4.5\% | 0.0\% | 0.0\% | 0.3\% | 45.4\% |
| 1991 | 1271 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 28.0\% | 0.0\% | 7.3\% | 10.2\% | 0.3\% | 6.8\% | 0.0\% | 12.1\% | 0.0\% | 0.0\% | 2.6\% | 4.3\% | 0.0\% | 0.0\% | 0.5\% | 27.5\% |
| 1992 | 1424 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 17.1\% | 0.0\% | 10.9\% | 11.4\% | 0.1\% | 2.2\% | 0.0\% | 11.2\% | 0.0\% | 0.0\% | 1.2\% | 6.7\% | 0.0\% | 0.0\% | 0.3\% | 38.4\% |
| 1993 | 1048 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 17.3\% | 0.0\% | 5.4\% | 7.0\% | 0.4\% | 3.1\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.6\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 53.8\% |
| 1994 | 410 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.1\% | 2.0\% | 8.0\% | 5.4\% | 0.0\% | 4.9\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 2.9\% | 1.7\% | 0.0\% | 0.0\% | 1.0\% | 53.7\% |
| 1995 | 235 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% | 1.7\% | 0.0\% | 12.3\% | 0.0\% | 6.8\% | 0.0\% | 12.3\% | 0.0\% | 0.4\% | 5.5\% | 2.1\% | 0.0\% | 0.0\% | 1.3\% | 37.4\% |
| 1996 | 918 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 15.0\% | 0.0\% | 0.9\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 73.6\% |
| 1997 | 760 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 11.3\% | 3.8\% | 0.3\% | 15.9\% | 0.0\% | 3.0\% | 0.0\% | 10.3\% | 0.0\% | 0.0\% | 3.3\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 45.1\% |
| 1998 | 1122 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.3\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 90.3\% |
| 1999 | 1220 | 2,3,4,5 | 0.2\% | 0.2\% | 0.0\% | 0.4\% | 0.7\% | 0.6\% | 1.7\% | 0.0\% | 6.7\% | 0.2\% | 0.7\% | 0.0\% | 12.1\% | 0.0\% | 0.3\% | 0.8\% | 0.4\% | 0.0\% | 0.0\% | 0.2\% | 74.6\% |
| 2000 | 631 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 11.9\% | 3.5\% | 0.0\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 12.4\% | 0.0\% | 0.0\% | 0.6\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 60.9\% |
| 2001 | 772 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 2.2\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 1.7\% | 1.3\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 74.6\% |
| 2002 | 336 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 3.0\% | 0.0\% | 7.1\% | 0.0\% | 1.8\% | 0.0\% | 15.5\% | 0.0\% | 1.5\% | 3.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 50.0\% |
| 2003 | 536 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 3.2\% | 0.0\% | 3.2\% | 0.0\% | 1.5\% | 0.0\% | 6.2\% | 0.0\% | 1.1\% | 0.2\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 75.6\% |
| 2004 | 518 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 18.0\% | 6.0\% | 0.0\% | 0.8\% | 0.0\% | 2.7\% | 0.0\% | 14.5\% | 0.0\% | 0.4\% | 0.2\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 53.5\% |
| 2005 | 679 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 2.2\% | 14.0\% | 3.5\% | 0.0\% | 3.7\% | 0.0\% | 5.3\% | 0.0\% | 5.7\% | 0.0\% | 2.5\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 62.0\% |
| 2006 | 426 | 3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 22.8\% | 5.9\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 0.0\% | 0.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 50.9\% |
| 2007 | 786 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 1.1\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 86.6\% |
| 2008 | 840 | 2,3,5 | 0.4\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 30.7\% | 12.6\% | 0.0\% | 5.4\% | 0.0\% | 0.6\% | 0.0\% | 5.4\% | 0.0\% | 1.2\% | 2.3\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 40.0\% |
| 2009 | 2122 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 1.2\% | 3.5\% | 0.0\% | 3.3\% | 0.0\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.1\% | 0.1\% | 1.6\% | 0.0\% | 0.0\% | 0.8\% | 87.0\% |
| 2010 | 1841 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.9\% | 3.0\% | 2.8\% | 0.0\% | 2.8\% | 0.0\% | 1.1\% | 0.0\% | 2.5\% | 0.0\% | 0.8\% | 0.4\% | 1.4\% | 0.0\% | 0.0\% | 0.3\% | 83.6\% |
| 1979-2010 | 1009 |  | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 13.5\% | 2.5\% | 3.4\% | 10.0\% | 0.4\% | 3.3\% | 0.0\% | 7.3\% | 0.0\% | 0.5\% | 2.4\% | 2.5\% | 0.0\% | 0.0\% | 0.2\% | 53.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1158 |  | 0.4\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 18.1\% | 1.1\% | 8.1\% | 16.0\% | 0.8\% | 6.1\% | 0.0\% | 6.5\% | 0.0\% | 0.1\% | 4.5\% | 3.6\% | 0.0\% | 0.0\% | 0.4\% | 33.7\% |
| 1996-1998 | 933 |  | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 4.0\% | 1.3\% | 0.1\% | 11.3\% | 0.0\% | 1.4\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 1.2\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 69.7\% |
| 1999-2010 | 892 |  | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 11.6\% | 4.1\% | 0.0\% | 4.2\% | 0.0\% | 1.3\% | 0.0\% | 8.2\% | 0.0\% | 0.9\% | 0.8\% | 1.2\% | 0.0\% | 0.0\% | 0.1\% | 66.6\% |

Appendix C.26. Percent distribution of Harrison River (Fraser Late) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - |  |  | - | - | - | - | - | - | - | - | - | - | - |  | - |  | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 1370 | 2 | Failed | Criteria | - | - |  |  | - | - | - | - | - | - | - | - | - |  | - |  | - |  |  |
| 1984 | 2960 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 1862 | 2,3,4 | 0.3\% | 0.0\% | 0.0\% | 1.2\% | 0.1\% | 25.1\% | 0.7\% | 8.9\% | 27.1\% | 1.8\% | 5.0\% | 0.0\% | 1.1\% | 0.0\% | 0.2\% | 4.5\% | 3.8\% | 0.0\% | 0.0\% | 0.2\% | 20.0\% |
| 1986 | 921 | 2,3,4,5 | 1.7\% | 0.0\% | 0.0\% | 0.4\% | 0.4\% | 18.2\% | 0.4\% | 19.2\% | 24.1\% | 2.8\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% |
| 1987 | 532 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 0.0\% | 9.4\% | 27.6\% | 0.8\% | 5.5\% | 0.0\% | 3.8\% | 0.0\% | 0.4\% | 11.1\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 28.0\% |
| 1988 | 1298 | 2,3,4,5 | 0.5\% | 0.0\% | 0.8\% | 0.0\% | 0.9\% | 3.8\% | 3.7\% | 11.6\% | 33.6\% | 1.3\% | 6.8\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 14.9\% | 7.1\% | 0.0\% | 0.0\% | 0.4\% | 9.8\% |
| 1989 | 2367 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 24.4\% | 1.1\% | 5.6\% | 23.8\% | 0.7\% | 5.7\% | 0.0\% | 6.7\% | 0.0\% | 0.1\% | 5.2\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 21.5\% |
| 1990 | 2913 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 20.0\% | 1.2\% | 4.4\% | 11.8\% | 0.7\% | 2.9\% | 0.0\% | 6.0\% | 0.0\% | 0.1\% | 4.3\% | 5.9\% | 0.0\% | 0.0\% | 0.3\% | 41.1\% |
| 1991 | 1585 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 29.7\% | 0.0\% | 8.4\% | 12.9\% | 0.3\% | 5.7\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 2.9\% | 5.0\% | 0.0\% | 0.0\% | 0.4\% | 22.0\% |
| 1992 | 1668 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 18.8\% | 0.0\% | 12.5\% | 12.8\% | 0.2\% | 2.0\% | 0.0\% | 11.7\% | 0.0\% | 0.0\% | 1.3\% | 7.3\% | 0.0\% | 0.0\% | 0.2\% | 32.8\% |
| 1993 | 1141 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 19.1\% | 0.0\% | 6.2\% | 7.6\% | 0.4\% | 3.1\% | 0.0\% | 10.0\% | 0.0\% | 0.0\% | 0.5\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 49.4\% |
| 1994 | 452 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 2.0\% | 8.8\% | 6.4\% | 0.0\% | 5.1\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 3.5\% | 2.2\% | 0.0\% | 0.0\% | 0.9\% | 48.7\% |
| 1995 | 330 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.2\% | 1.5\% | 0.0\% | 22.7\% | 0.0\% | 6.1\% | 0.0\% | 9.7\% | 0.0\% | 0.6\% | 6.7\% | 3.9\% | 0.0\% | 0.0\% | 0.9\% | 26.7\% |
| 1996 | 1094 | 2,3,4,5 | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.2\% | 0.0\% | 23.2\% | 0.0\% | 0.9\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 61.8\% |
| 1997 | 868 | 2,3,4,5 | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 13.5\% | 3.6\% | 0.3\% | 18.9\% | 0.0\% | 3.0\% | 0.0\% | 9.6\% | 0.0\% | 0.0\% | 3.3\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 39.5\% |
| 1998 | 1141 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.4\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 88.8\% |
| 1999 | 1295 | 2,3,4,5 | 0.3\% | 0.5\% | 0.0\% | 0.5\% | 0.8\% | 0.6\% | 1.8\% | 0.0\% | 8.4\% | 0.3\% | 0.6\% | 0.0\% | 13.8\% | 0.0\% | 0.4\% | 0.9\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 70.3\% |
| 2000 | 668 | 2,3,4,5 | 1.8\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 12.0\% | 3.7\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 0.0\% | 0.7\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 57.5\% |
| 2001 | 826 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 2.5\% | 0.0\% | 7.3\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 1.8\% | 1.6\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 69.7\% |
| 2002 | 393 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 3.1\% | 0.0\% | 8.1\% | 0.0\% | 7.9\% | 0.0\% | 15.0\% | 0.0\% | 1.5\% | 3.3\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 42.7\% |
| 2003 | 573 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 4.2\% | 0.0\% | 4.9\% | 0.0\% | 1.6\% | 0.0\% | 7.0\% | 0.0\% | 1.2\% | 0.3\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 70.7\% |
| 2004 | 554 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 17.5\% | 6.7\% | 0.0\% | 0.9\% | 0.0\% | 2.5\% | 0.0\% | 16.2\% | 0.0\% | 0.5\% | 0.2\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 50.0\% |
| 2005 | 718 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.1\% | 14.2\% | 4.0\% | 0.0\% | 4.6\% | 0.0\% | 5.2\% | 0.0\% | 6.4\% | 0.0\% | 2.6\% | 0.6\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 58.6\% |
| 2006 | 443 | 3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 22.3\% | 6.5\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 0.0\% | 0.9\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 49.0\% |
| 2007 | 878 | 2,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 2.4\% | 0.0\% | 4.1\% | 0.0\% | 0.1\% | 0.0\% | 1.5\% | 0.0\% | 0.1\% | 0.8\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 77.6\% |
| 2008 | 909 | 2,3,5 | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 29.2\% | 14.0\% | 0.0\% | 7.3\% | 0.0\% | 0.6\% | 0.0\% | 5.7\% | 0.0\% | 1.2\% | 2.3\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 37.0\% |
| 2009 | 2290 | 2,3,4 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 1.5\% | 4.1\% | 0.0\% | 5.9\% | 0.0\% | 1.5\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 0.3\% | 3.1\% | 0.0\% | 0.0\% | 0.9\% | 80.6\% |
| 2010 | 1898 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 1.1\% | 3.0\% | 3.3\% | 0.0\% | 3.5\% | 0.0\% | 1.2\% | 0.0\% | 3.0\% | 0.0\% | 0.8\% | 0.5\% | 1.6\% | 0.0\% | 0.0\% | 0.3\% | 81.1\% |
| 1979-2010 | 1139 |  | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 14.0\% | 2.7\% | 3.7\% | 12.5\% | 0.4\% | 3.2\% | 0.0\% | 7.5\% | 0.0\% | 0.5\% | 2.7\% | 3.3\% | 0.0\% | 0.0\% | 0.2\% | 48.1\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1370 |  | 0.5\% | 0.0\% | 0.1\% | 0.3\% | 0.2\% | 19.0\% | 1.0\% | 8.6\% | 19.1\% | 0.8\% | 5.4\% | 0.0\% | 6.3\% | 0.0\% | 0.1\% | 5.1\% | 4.4\% | 0.0\% | 0.0\% | 0.3\% | 28.7\% |
| 1996-1998 | 1034 |  | 0.9\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 5.2\% | 1.3\% | 0.1\% | 15.3\% | 0.0\% | 1.4\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 1.2\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 63.4\% |
| 1999-2010 | 954 |  | 0.7\% | 0.1\% | 0.0\% | 0.2\% | 0.4\% | 11.6\% | 4.7\% | 0.0\% | 5.6\% | 0.0\% | 1.8\% | 0.0\% | 8.9\% | 0.0\% | 1.0\% | 1.0\% | 1.8\% | 0.0\% | 0.0\% | 0.1\% | 62.1\% |

Appendix C.27. Percent distribution of Hoko Fall Fingerling reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 74 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 248 | 2,3,4 | 4.8\% | 0.8\% | 0.0\% | 7.7\% | 0.0\% | 10.9\% | 0.0\% | 0.0\% | 1.6\% | 0.4\% | 21.4\% | 0.0\% | 0.8\% | 0.0\% | 0.4\% | 0.4\% | 21.4\% | 0.0\% | 0.0\% | 0.0\% | 29.4\% |
| 1990 | 587 | 3,4,5 | 15.8\% | 1.7\% | 0.5\% | 8.0\% | 0.0\% | 17.0\% | 0.0\% | 0.5\% | 0.3\% | 0.7\% | 4.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.7\% | 14.5\% | 0.0\% | 0.2\% | 0.0\% | 35.3\% |
| 1991 | 1242 | 2,4,5,6 | 15.2\% | 0.0\% | 0.0\% | 5.0\% | 0.6\% | 6.9\% | 0.5\% | 0.0\% | 0.4\% | 1.1\% | 1.0\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 1.0\% | 8.1\% | 0.0\% | 0.1\% | 0.0\% | 59.8\% |
| 1992 | 572 | 2,3,5,6 | 7.7\% | 1.7\% | 1.2\% | 4.4\% | 0.7\% | 9.8\% | 2.1\% | 0.0\% | 0.5\% | 1.2\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.2\% | 0.0\% | 66.6\% |
| 1993 | 303 | 2,3,4,6 | 6.6\% | 0.0\% | 2.0\% | 6.6\% | 0.0\% | 14.9\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 4.3\% | 0.0\% | 0.3\% | 0.0\% | 59.4\% |
| 1994 | 332 | 2,3,4,5 | 13.6\% | 2.4\% | 2.4\% | 14.8\% | 0.0\% | 11.4\% | 2.1\% | 0.0\% | 2.1\% | 0.6\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 47.9\% |
| 1995 | 747 | 2,3,4,5,6 | 12.4\% | 0.0\% | 4.1\% | 6.2\% | 0.5\% | 2.9\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 71.9\% |
| 1996 | 638 | 2,3,4,5,6 | 10.3\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 85.4\% |
| 1997 | 880 | 2,3,4,5,6 | 13.6\% | 0.0\% | 0.0\% | 1.5\% | 0.5\% | 1.0\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.2\% |
| 1998 | 1130 | 2,3,4,5,6 | 9.0\% | 0.0\% | 0.4\% | 5.9\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.1\% |
| 1999 | 751 | 2,3,4,5,6 | 6.4\% | 0.0\% | 0.7\% | 7.2\% | 1.2\% | 0.0\% | 1.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.8\% |
| 2000 | 503 | 2,3,4,5,6 | 4.4\% | 0.2\% | 1.8\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 92.0\% |
| 2001 | 515 | 2,3,4,5,6 | 6.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.1\% |
| 2002 | 668 | 2,3,4,5,6 | 17.2\% | 0.0\% | 0.9\% | 4.3\% | 2.8\% | 1.5\% | 0.0\% | 0.0\% | 1.9\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 69.9\% |
| 2003 | 954 | 2,3,4,5,6 | 13.6\% | 0.1\% | 2.6\% | 3.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 78.4\% |
| 2004 | 1059 | 2,3,4,5,6 | 10.9\% | 0.0\% | 1.0\% | 8.3\% | 1.5\% | 0.7\% | 0.8\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 71.4\% |
| 2005 | 589 | 2,3,4,5,6 | 11.2\% | 0.0\% | 1.2\% | 11.0\% | 5.3\% | 0.0\% | 1.2\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 63.7\% |
| 2006 | 770 | 2,3,4,5,6 | 9.9\% | 1.0\% | 2.2\% | 5.8\% | 3.4\% | 0.0\% | 1.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 74.5\% |
| 2007 | 291 | 2,3,4,5,6 | 15.8\% | 0.3\% | 4.1\% | 7.2\% | 5.2\% | 0.7\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 63.6\% |
| 2008 | 80 | 2,3,4,5,6 | 17.5\% | 0.0\% | 5.0\% | 7.5\% | 13.8\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 52.5\% |
| 2009 | 302 | 2,3,4,5,6 | 8.3\% | 0.0\% | 0.0\% | 6.3\% | 0.7\% | 0.0\% | 1.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 80.8\% |
| 2010 | 684 | 2,3,4,5,6 | 1.5\% | 0.0\% | 1.5\% | 3.2\% | 0.6\% | 0.7\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.6\% |
| 1979-2010 | 629 |  | 10.5\% | 0.4\% | 1.7\% | 5.6\% | 1.7\% | 3.6\% | 0.6\% | 0.0\% | 1.4\% | 0.2\% | 1.7\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.1\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 69.7\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 576 |  | 10.9\% | 1.0\% | 1.5\% | 7.5\% | 0.3\% | 10.6\% | 0.7\% | 0.1\% | 0.9\% | 0.6\% | 5.2\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.3\% | 7.3\% | 0.0\% | 0.1\% | 0.0\% | 52.9\% |
| 1996-1998 | 883 |  | 11.0\% | 0.0\% | 1.4\% | 2.5\% | 0.2\% | 0.3\% | 0.3\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 83.9\% |
| 1999-2010 | 597 |  | 10.2\% | 0.1\% | 1.9\% | 5.3\% | 2.9\% | 0.3\% | 0.6\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 75.9\% |

Appendix C.28. Percent distribution of Hoko Fall Fingerling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 8 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1988 | 137 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 353 | 2,3,4 | 10.8\% | 3.7\% | 0.3\% | 8.5\% | 0.0\% | 13.6\% | 0.0\% | 0.0\% | 1.7\% | 0.8\% | 16.1\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 1.4\% | 21.2\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% |
| 1990 | 676 | 3,4,5 | 18.2\% | 4.1\% | 0.6\% | 8.3\% | 0.0\% | 17.2\% | 0.0\% | 0.4\% | 0.3\% | 0.7\% | 3.7\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.6\% | 14.5\% | 0.0\% | 0.1\% | 0.0\% | 30.6\% |
| 1991 | 1327 | 2,4,5,6 | 18.1\% | 0.0\% | 0.1\% | 5.2\% | 0.5\% | 7.1\% | 0.5\% | 0.0\% | 0.5\% | 1.1\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.9\% | 8.8\% | 0.0\% | 0.1\% | 0.0\% | 56.0\% |
| 1992 | 668 | 2,3,5,6 | 8.1\% | 10.5\% | 1.5\% | 4.9\% | 0.6\% | 9.7\% | 1.9\% | 0.0\% | 0.6\% | 1.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 57.0\% |
| 1993 | 348 | 2,3,4,6 | 11.8\% | 1.1\% | 2.3\% | 7.5\% | 0.0\% | 14.9\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 4.3\% | 0.0\% | 0.3\% | 0.0\% | 51.7\% |
| 1994 | 404 | 2,3,4,5 | 19.3\% | 8.2\% | 2.7\% | 13.1\% | 0.0\% | 10.4\% | 1.7\% | 0.0\% | 2.0\% | 0.5\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 39.4\% |
| 1995 | 820 | 2,3,4,5,6 | 16.2\% | 0.0\% | 4.8\% | 7.1\% | 0.6\% | 3.5\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 65.5\% |
| 1996 | 685 | 2,3,4,5,6 | 13.6\% | 0.0\% | 4.4\% | 0.7\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 79.6\% |
| 1997 | 914 | 2,3,4,5,6 | 16.2\% | 0.0\% | 0.0\% | 1.6\% | 0.5\% | 1.2\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.1\% |
| 1998 | 1147 | 2,3,4,5,6 | 9.9\% | 0.0\% | 0.3\% | 6.4\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.8\% |
| 1999 | 772 | 2,3,4,5,6 | 7.8\% | 0.0\% | 0.6\% | 7.8\% | 1.4\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 80.6\% |
| 2000 | 521 | 2,3,4,5,6 | 6.0\% | 0.2\% | 2.9\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.9\% |
| 2001 | 541 | 2,3,4,5,6 | 8.3\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 85.8\% |
| 2002 | 711 | 2,3,4,5,6 | 19.7\% | 0.0\% | 0.8\% | 4.8\% | 3.7\% | 1.7\% | 0.0\% | 0.0\% | 2.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.7\% |
| 2003 | 980 | 2,3,4,5,6 | 14.8\% | 0.1\% | 2.9\% | 3.3\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 76.3\% |
| 2004 | 1122 | 2,3,4,5,6 | 12.2\% | 0.0\% | 1.2\% | 9.2\% | 2.3\% | 0.7\% | 1.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 67.4\% |
| 2005 | 639 | 2,3,4,5,6 | 12.7\% | 0.2\% | 1.3\% | 12.1\% | 6.7\% | 0.0\% | 1.3\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 58.7\% |
| 2006 | 800 | 2,3,4,5,6 | 10.8\% | 1.5\% | 2.4\% | 6.3\% | 4.0\% | 0.0\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 71.8\% |
| 2007 | 308 | 2,3,4,5,6 | 16.9\% | 0.3\% | 4.5\% | 7.5\% | 6.5\% | 0.6\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 60.1\% |
| 2008 | 94 | 2,3,4,5,6 | 20.2\% | 0.0\% | 6.4\% | 7.4\% | 16.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 44.7\% |
| 2009 | 339 | 2,3,4,5,6 | 11.5\% | 0.0\% | 0.0\% | 8.0\% | 1.5\% | 0.0\% | 1.2\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 72.0\% |
| 2010 | 706 | 2,3,4,5,6 | 2.0\% | 0.0\% | 2.3\% | 4.1\% | 0.8\% | 0.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.8\% |
| 1979-2010 | 676 |  | 12.9\% | 1.4\% | 2.1\% | 6.1\% | 2.1\% | 3.8\% | 0.6\% | 0.0\% | 1.7\% | 0.2\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.1\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 64.6\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 657 |  | 14.6\% | 3.9\% | 1.7\% | 7.8\% | 0.2\% | 10.9\% | 0.6\% | 0.1\% | 1.0\% | 0.6\% | 4.3\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.4\% | 7.5\% | 0.0\% | 0.1\% | 0.0\% | 45.8\% |
| 1996-1998 | 915 |  | 13.2\% | 0.0\% | 1.6\% | 2.9\% | 0.2\% | 0.8\% | 0.3\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 80.5\% |
| 1999-2010 | 628 |  | 11.9\% | 0.2\% | 2.3\% | 5.9\% | 3.6\% | 0.3\% | 0.7\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 71.6\% |

Appendix C.29. Percent distribution of Kitsumkalum River Summer (North/Central BC) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1982 | 5 | 3 | Failed | Criteria |  |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1983 | 20 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - |  | - | - | - |  | - |  | - |  |  |
| 1984 | 65 | 3,4,5 | 50.8\% | 0.0\% | 0.0\% | 18.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985 | 184 | 4,5,6 | 26.1\% | 0.0\% | 1.6\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.6\% |
| 1986 | 213 | 3,5,6 | 8.9\% | 0.0\% | 0.0\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 65.7\% |
| 1987 | 231 | 3,4,6 | 7.4\% | 0.0\% | 0.0\% | 9.1\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 71.4\% |
| 1988 | 161 | 3,4,5 | 17.4\% | 0.6\% | 1.9\% | 3.1\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 46.6\% |
| 1989 | 800 | 3,4,5,6 | 10.9\% | 0.3\% | 6.8\% | 5.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 59.1\% |
| 1990 | 610 | 3,4,5,6 | 10.7\% | 0.0\% | 2.8\% | 6.7\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 64.4\% |
| 1991 | 294 | 3,4,5,6 | 14.6\% | 0.0\% | 3.7\% | 8.8\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 16.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 41.8\% |
| 1992 | 669 | 3,4,5,6 | 13.9\% | 0.0\% | 1.9\% | 7.0\% | 5.4\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 60.7\% |
| 1993 | 230 | 3,4,5,6 | 10.4\% | 0.9\% | 2.2\% | 10.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.5\% |
| 1994 | 124 | 3,4,5,6 | 11.3\% | 0.0\% | 0.0\% | 5.6\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 58.9\% |
| 1995 | 184 | 3,4,5,6 | 12.0\% | 0.0\% | 2.7\% | 7.1\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 42.4\% |
| 1996 | 505 | 3,4,5,6 | 8.5\% | 0.2\% | 6.1\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 63.8\% |
| 1997 | 610 | 3,4,5,6 | 10.7\% | 0.0\% | 7.7\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 64.1\% |
| 1998 | 490 | 3,4,5,6 | 8.6\% | 0.0\% | 3.1\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 81.6\% |
| 1999 | 716 | 3,4,5,6 | 14.7\% | 0.0\% | 8.9\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 62.7\% |
| 2000 | 332 | 3,4,5,6 | 8.1\% | 0.0\% | 7.8\% | 0.0\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 66.9\% |
| 2001 | 520 | 3,4,5,6 | 10.0\% | 0.0\% | 8.7\% | 0.6\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 63.7\% |
| 2002 | 914 | 3,4,5,6 | 13.8\% | 0.2\% | 5.7\% | 1.5\% | 10.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 62.9\% |
| 2003 | 604 | 3,4,5,6 | 13.9\% | 0.0\% | 1.7\% | 5.1\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 69.9\% |
| 2004 | 904 | 3,4,5,6 | 8.1\% | 2.4\% | 5.4\% | 0.9\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 73.1\% |
| 2005 | 324 | 3,4,5,6 | 14.8\% | 0.0\% | 2.5\% | 2.5\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 67.9\% |
| 2006 | 286 | 3,4,5,6 | 12.6\% | 3.5\% | 1.7\% | 2.8\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 63.6\% |
| 2007 | 511 | 3,4,5,6 | 11.4\% | 0.4\% | 2.7\% | 1.6\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 72.4\% |
| 2008 | 484 | 3,4,5,6 | 6.0\% | 0.2\% | 1.7\% | 2.3\% | 13.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 53.1\% |
| 2009 | 651 | 3,4,5,6 | 10.4\% | 1.8\% | 4.3\% | 1.1\% | 6.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 74.2\% |
| 2010 | 971 | 4,5,6 | 5.0\% | 0.3\% | 4.0\% | 2.1\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 73.6\% |
| 1979-2010 | 466 |  | 13.0\% | 0.4\% | 3.5\% | 4.5\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 60.4\% |
| 1979-1984 | 65 |  | 50.8\% | 0.0\% | 0.0\% | 18.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 336 |  | 13.0\% | 0.2\% | 2.1\% | 7.6\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 15.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 56.0\% |
| 1996-1998 | 535 |  | 9.2\% | 0.1\% | 5.6\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 69.8\% |
| 1999-2010 | 601 |  | 10.7\% | 0.7\% | 4.6\% | 1.7\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 67.0\% |

Appendix C.30. Percent distribution of Kitsumkalum River Summer (North/Central BC) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1982 | 8 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 28 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |  |  |  | - |
| 1984 | 82 | 3,4,5 | 56.1\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985 | 195 | 4,5,6 | 29.2\% | 0.0\% | 1.5\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.7\% |
| 1986 | 216 | 3,5,6 | 10.2\% | 0.0\% | 0.0\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 64.8\% |
| 1987 | 264 | 3,4,6 | 12.9\% | 0.0\% | 2.7\% | 9.5\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 62.5\% |
| 1988 | 202 | 3,4,5 | 24.3\% | 1.5\% | 5.0\% | 6.4\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 37.1\% |
| 1989 | 851 | 3,4,5,6 | 14.0\% | 0.8\% | 6.9\% | 5.3\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 55.6\% |
| 1990 | 635 | 3,4,5,6 | 11.7\% | 0.0\% | 3.3\% | 7.6\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 61.9\% |
| 1991 | 334 | 3,4,5,6 | 19.5\% | 0.0\% | 4.2\% | 10.5\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 15.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 36.8\% |
| 1992 | 693 | 3,4,5,6 | 15.3\% | 0.0\% | 2.0\% | 7.6\% | 5.6\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 58.6\% |
| 1993 | 241 | 3,4,5,6 | 11.6\% | 1.7\% | 2.1\% | 11.2\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.0\% |
| 1994 | 132 | 3,4,5,6 | 13.6\% | 0.0\% | 0.0\% | 6.8\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 55.3\% |
| 1995 | 215 | 3,4,5,6 | 13.5\% | 0.0\% | 2.8\% | 8.4\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 36.3\% |
| 1996 | 547 | 3,4,5,6 | 10.2\% | 0.2\% | 6.8\% | 0.4\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 58.9\% |
| 1997 | 657 | 3,4,5,6 | 12.0\% | 0.0\% | 8.8\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 59.5\% |
| 1998 | 509 | 3,4,5,6 | 10.4\% | 0.0\% | 3.5\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 78.6\% |
| 1999 | 770 | 3,4,5,6 | 15.6\% | 0.0\% | 9.7\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 58.3\% |
| 2000 | 367 | 3,4,5,6 | 9.5\% | 0.0\% | 10.1\% | 0.0\% | 9.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 60.5\% |
| 2001 | 629 | 3,4,5,6 | 11.0\% | 0.0\% | 9.2\% | 0.6\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 52.6\% |
| 2002 | 1037 | 3,4,5,6 | 14.6\% | 0.4\% | 6.2\% | 1.6\% | 13.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 55.4\% |
| 2003 | 641 | 3,4,5,6 | 15.6\% | 0.0\% | 1.9\% | 5.8\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 65.8\% |
| 2004 | 984 | 3,4,5,6 | 8.3\% | 3.4\% | 5.6\% | 0.9\% | 11.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 67.2\% |
| 2005 | 347 | 3,4,5,6 | 17.0\% | 0.0\% | 2.9\% | 2.6\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 63.4\% |
| 2006 | 307 | 3,4,5,6 | 14.3\% | 3.9\% | 2.3\% | 2.9\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 59.3\% |
| 2007 | 556 | 3,4,5,6 | 12.9\% | 0.9\% | 3.2\% | 1.6\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 66.5\% |
| 2008 | 533 | 3,4,5,6 | 6.8\% | 0.4\% | 2.1\% | 2.6\% | 17.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.4\% | 48.2\% |
| 2009 | 709 | 3,4,5,6 | 12.8\% | 2.4\% | 5.6\% | 1.3\% | 7.8\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 68.1\% |
| 2010 | 1010 | 4,5,6 | 5.2\% | 0.4\% | 4.1\% | 2.1\% | 12.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 70.8\% |
| 1979-2010 | 506 |  | 15.1\% | 0.6\% | 4.2\% | 5.1\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 55.6\% |
| 1979-1984 | 82 |  | 56.1\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 362 |  | 16.0\% | 0.4\% | 2.8\% | 8.6\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 14.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 51.7\% |
| 1996-1998 | 571 |  | 10.9\% | 0.1\% | 6.4\% | 0.1\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 65.7\% |
| 1999-2010 | 658 |  | 12.0\% | 1.0\% | 5.2\% | 1.8\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 61.4\% |

Appendix C.31. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 129 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - |  | - |  |  |  | - |  | - |  |  |  | - |
| 1980 | 396 | 2,3,4 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.7\% | 1.3\% | 0.0\% | 3.3\% | 0.5\% | 7.6\% | 0.0\% | 18.7\% | 1.0\% | 12.1\% | 3.0\% | 10.1\% | 0.0\% | 5.6\% | 0.0\% | 19.4\% |
| 1981 | 2765 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.0\% | 0.3\% | 0.0\% | 1.8\% | 0.5\% | 2.5\% | 0.0\% | 21.5\% | 0.0\% | 8.1\% | 0.5\% | 3.4\% | 0.0\% | 1.4\% | 0.3\% | 28.6\% |
| 1982 | 3176 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 26.1\% | 0.5\% | 0.0\% | 0.9\% | 1.8\% | 0.3\% | 0.0\% | 18.6\% | 0.2\% | 7.6\% | 1.9\% | 1.3\% | 0.0\% | 14.1\% | 0.1\% | 26.5\% |
| 1983 | 1793 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 34.6\% | 0.4\% | 0.0\% | 1.4\% | 2.3\% | 0.8\% | 0.0\% | 11.3\% | 0.0\% | 4.4\% | 1.3\% | 4.2\% | 0.0\% | 5.5\% | 0.0\% | 33.6\% |
| 1984 | 1465 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 50.1\% | 0.3\% | 0.5\% | 0.8\% | 3.2\% | 1.6\% | 0.0\% | 5.9\% | 0.0\% | 1.2\% | 0.7\% | 1.0\% | 0.0\% | 10.7\% | 1.6\% | 22.5\% |
| 1985 | 995 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.0\% | 0.7\% | 0.0\% | 1.1\% | 0.9\% | 1.6\% | 0.0\% | 15.7\% | 0.3\% | 3.8\% | 1.3\% | 1.3\% | 0.0\% | 2.5\% | 0.6\% | 42.1\% |
| 1986 | 1341 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 9.4\% | 2.7\% | 0.0\% | 2.5\% | 0.0\% | 8.1\% | 0.0\% | 6.9\% | 0.0\% | 2.2\% | 1.4\% | 3.4\% | 0.0\% | 9.8\% | 5.9\% | 47.7\% |
| 1987 | 7478 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 26.9\% | 2.5\% | 0.0\% | 0.5\% | 1.6\% | 0.2\% | 0.0\% | 16.6\% | 0.5\% | 4.0\% | 0.7\% | 1.5\% | 0.0\% | 19.4\% | 4.0\% | 21.3\% |
| 1988 | 2511 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 29.0\% | 2.4\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 0.0\% | 11.5\% | 0.5\% | 0.9\% | 0.3\% | 0.5\% | 0.0\% | 23.6\% | 1.8\% | 27.3\% |
| 1989 | 254 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 22.4\% | 0.0\% | 2.4\% | 0.0\% | 2.0\% | 0.0\% | 5.9\% | 0.8\% | 49.2\% |
| 1990 | 288 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 16.3\% | 0.0\% | 6.9\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 2.8\% | 50.3\% |
| 1991 | 442 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 2.3\% | 0.0\% | 0.7\% | 0.2\% | 2.5\% | 0.0\% | 9.3\% | 0.0\% | 4.3\% | 0.2\% | 1.1\% | 0.0\% | 2.0\% | 9.5\% | 57.9\% |
| 1992 | 1150 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 1.9\% | 0.0\% | 0.0\% | 0.5\% | 1.0\% | 0.0\% | 28.0\% | 0.0\% | 5.4\% | 0.0\% | 1.9\% | 0.0\% | 0.8\% | 3.7\% | 40.5\% |
| 1993 | 486 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.5\% | 4.5\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 19.8\% | 0.0\% | 2.5\% | 0.0\% | 4.1\% | 0.0\% | 2.1\% | 4.3\% | 43.6\% |
| 1994 | 29 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.6\% | 0.0\% | 0.0\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.1\% |
| 1995 | 30 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 10.0\% | 86.7\% |
| 1996 | 62 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 0.0\% | 85.5\% |
| 1997 | 209 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 3.8\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 8.6\% | 55.0\% |
| 1998 | 104 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 1.0\% | 9.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 21.2\% | 60.6\% |
| 1999 | 307 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 9.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 6.2\% | 68.7\% |
| 2000 | 222 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% | 12.2\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 2.7\% | 3.6\% | 59.0\% |
| 2001 | 1064 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 2.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 19.3\% | 0.0\% | 3.6\% | 0.1\% | 0.3\% | 0.0\% | 1.4\% | 4.8\% | 59.8\% |
| 2002 | 1658 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.6\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 0.0\% | 7.8\% | 0.1\% | 0.0\% | 0.0\% | 8.5\% | 3.1\% | 45.7\% |
| 2003 | 1699 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.2\% | 5.7\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 15.2\% | 0.0\% | 7.0\% | 0.0\% | 0.7\% | 0.0\% | 7.2\% | 2.3\% | 45.3\% |
| 2004 | 1446 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 23.0\% | 8.6\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 0.0\% | 3.7\% | 0.0\% | 0.1\% | 0.0\% | 16.9\% | 1.2\% | 36.4\% |
| 2005 | 558 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 31.5\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 17.7\% | 0.2\% | 33.7\% |
| 2006 | 82 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.1\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 1.2\% | 54.9\% |
| 2007 | 144 | 2,3,4,5 | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 2.8\% | 68.1\% |
| 2008 | 348 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% | 3.4\% | 38.8\% |
| 2009 | 477 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 9.9\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 5.0\% | 0.0\% | 4.4\% | 0.0\% | 33.5\% | 3.1\% | 33.3\% |
| 2010 | 1326 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 1.4\% | 7.3\% | 5.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 17.5\% | 0.3\% | 5.7\% | 0.0\% | 0.3\% | 0.0\% | 32.1\% | 3.6\% | 24.9\% |
| 1979-2010 | 1107 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 17.5\% | 3.9\% | 0.0\% | 1.1\% | 0.4\% | 1.0\% | 0.0\% | 11.4\% | 0.1\% | 3.8\% | 0.4\% | 1.4\% | 0.0\% | 9.0\% | 3.6\% | 46.1\% |
| 1979-1984 | 1919 |  | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 31.7\% | 0.6\% | 0.1\% | 1.6\% | 1.7\% | 2.6\% | 0.0\% | 15.2\% | 0.2\% | 6.7\% | 1.5\% | 4.0\% | 0.0\% | 7.5\% | 0.4\% | 26.1\% |
| 1985-1995 | 1364 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 1.5\% | 0.0\% | 1.5\% | 0.4\% | 1.6\% | 0.0\% | 13.3\% | 0.1\% | 2.9\% | 0.4\% | 1.6\% | 0.0\% | 6.3\% | 3.9\% | 48.1\% |
| 1996-1998 | 125 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 6.1\% | 4.5\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 9.9\% | 67.0\% |
| 1999-2010 | 778 |  | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 13.7\% | 7.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 9.5\% | 0.0\% | 4.0\% | 0.0\% | 0.6\% | 0.0\% | 13.6\% | 3.0\% | 47.4\% |

Appendix C.32. Percent distribution of Lower River Hatchery Tule (Lower Bonneville Hatchery) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 163 | 2,3 | Failed | Criteria | - | - | - | - | - | - |  | - |  | - |  |  |  |  |  |  |  |  |  |
| 1980 | 676 | 2,3,4 | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 29.1\% | 1.0\% | 0.0\% | 2.1\% | 0.7\% | 5.3\% | 0.0\% | 23.7\% | 0.7\% | 9.0\% | 2.8\% | 9.6\% | 0.0\% | 3.8\% | 0.0\% | 11.4\% |
| 1981 | 3211 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.9\% | 0.3\% | 0.0\% | 1.7\% | 0.5\% | 2.3\% | 0.0\% | 24.8\% | 0.0\% | 8.0\% | 0.6\% | 3.7\% | 0.0\% | 1.2\% | 0.2\% | 24.6\% |
| 1982 | 3573 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 27.2\% | 0.5\% | 0.0\% | 0.8\% | 1.9\% | 0.3\% | 0.0\% | 20.7\% | 0.2\% | 7.6\% | 2.2\% | 1.5\% | 0.0\% | 13.2\% | 0.1\% | 23.6\% |
| 1983 | 2040 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 36.5\% | 0.4\% | 0.0\% | 1.4\% | 2.5\% | 0.8\% | 0.0\% | 12.4\% | 0.0\% | 4.4\% | 1.6\% | 5.3\% | 0.0\% | 5.2\% | 0.0\% | 29.6\% |
| 1984 | 1636 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.7\% | 0.2\% | 0.5\% | 0.8\% | 3.4\% | 1.5\% | 0.0\% | 6.2\% | 0.0\% | 1.2\% | 0.9\% | 1.4\% | 0.0\% | 10.6\% | 1.5\% | 20.2\% |
| 1985 | 1103 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.0\% | 0.7\% | 0.0\% | 1.1\% | 0.9\% | 1.5\% | 0.0\% | 17.8\% | 0.3\% | 3.8\% | 1.4\% | 1.5\% | 0.0\% | 2.4\% | 0.5\% | 38.0\% |
| 1986 | 1925 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 8.7\% | 2.4\% | 0.0\% | 2.1\% | 0.0\% | 6.7\% | 0.0\% | 6.2\% | 0.0\% | 1.9\% | 1.9\% | 21.5\% | 0.0\% | 10.9\% | 4.3\% | 33.2\% |
| 1987 | 8960 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 32.5\% | 2.3\% | 0.0\% | 0.4\% | 1.9\% | 0.2\% | 0.0\% | 17.5\% | 0.5\% | 3.7\% | 0.6\% | 1.5\% | 0.0\% | 17.5\% | 3.5\% | 17.8\% |
| 1988 | 2676 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 31.4\% | 2.4\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 0.0\% | 11.8\% | 0.5\% | 0.9\% | 0.3\% | 0.5\% | 0.0\% | 22.5\% | 1.8\% | 25.6\% |
| 1989 | 277 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 25.3\% | 0.0\% | 2.2\% | 0.0\% | 2.5\% | 0.0\% | 5.4\% | 0.7\% | 45.1\% |
| 1990 | 323 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 18.3\% | 0.0\% | 7.1\% | 0.0\% | 1.9\% | 0.0\% | 0.3\% | 2.8\% | 44.9\% |
| 1991 | 515 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 2.3\% | 0.0\% | 2.5\% | 0.2\% | 2.3\% | 0.0\% | 10.7\% | 0.0\% | 4.7\% | 0.4\% | 2.7\% | 0.0\% | 2.5\% | 10.3\% | 49.7\% |
| 1992 | 1326 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 1.8\% | 0.0\% | 0.0\% | 0.6\% | 0.8\% | 0.0\% | 30.5\% | 0.0\% | 5.2\% | 0.0\% | 2.0\% | 0.0\% | 0.8\% | 3.5\% | 35.1\% |
| 1993 | 531 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.9\% | 4.3\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 20.9\% | 0.0\% | 2.4\% | 0.0\% | 4.5\% | 0.0\% | 1.9\% | 4.3\% | 39.9\% |
| 1994 | 31 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.0\% | 0.0\% | 0.0\% | 12.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 58.1\% |
| 1995 | 31 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 12.9\% | 83.9\% |
| 1996 | 66 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 80.3\% |
| 1997 | 225 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.3\% | 3.6\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 8.9\% | 51.1\% |
| 1998 | 115 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.9\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 22.6\% | 54.8\% |
| 1999 | 319 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 6.6\% | 66.1\% |
| 2000 | 253 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.8\% | 13.8\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 2.8\% | 3.6\% | 51.8\% |
| 2001 | 1154 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.3\% | 2.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 22.3\% | 0.0\% | 3.8\% | 0.1\% | 0.7\% | 0.0\% | 1.5\% | 5.0\% | 55.1\% |
| 2002 | 1808 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.6\% | 0.0\% | 8.2\% | 0.1\% | 0.0\% | 0.0\% | 8.4\% | 3.1\% | 41.9\% |
| 2003 | 1825 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.7\% | 7.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 0.0\% | 7.2\% | 0.0\% | 0.8\% | 0.0\% | 7.1\% | 2.3\% | 42.2\% |
| 2004 | 1510 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 22.6\% | 9.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 0.0\% | 3.8\% | 0.0\% | 0.1\% | 0.0\% | 16.6\% | 1.3\% | 34.9\% |
| 2005 | 581 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 31.3\% | 8.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% | 0.2\% | 32.4\% |
| 2006 | 87 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 17.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.3\% | 1.1\% | 51.7\% |
| 2007 | 154 | 2,3,4,5 | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 16.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 3.2\% | 63.6\% |
| 2008 | 379 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.9\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 25.9\% | 3.7\% | 35.6\% |
| 2009 | 607 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 9.9\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 4.8\% | 0.0\% | 9.7\% | 0.0\% | 32.6\% | 3.0\% | 26.2\% |
| 2010 | 1504 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 1.7\% | 7.0\% | 6.9\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 0.3\% | 5.7\% | 0.0\% | 0.4\% | 0.0\% | 31.5\% | 3.6\% | 21.9\% |
| 1979-2010 | 1272 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 19.1\% | 4.3\% | 0.0\% | 1.4\% | 0.4\% | 0.8\% | 0.0\% | 12.6\% | 0.1\% | 3.8\% | 0.4\% | 2.4\% | 0.0\% | 8.9\% | 3.7\% | 41.6\% |
| 1979-1984 | 2227 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 35.3\% | 0.5\% | 0.1\% | 1.3\% | 1.8\% | 2.1\% | 0.0\% | 17.5\% | 0.2\% | 6.1\% | 1.6\% | 4.3\% | 0.0\% | 6.8\% | 0.4\% | 21.9\% |
| 1985-1995 | 1609 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.3\% | 1.5\% | 0.0\% | 1.8\% | 0.4\% | 1.4\% | 0.0\% | 14.4\% | 0.1\% | 2.9\% | 0.4\% | 3.5\% | 0.0\% | 6.1\% | 4.1\% | 42.9\% |
| 1996-1998 | 135 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 8.9\% | 4.7\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 10.5\% | 62.1\% |
| 1999-2010 | 848 |  | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.2\% | 13.7\% | 8.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.0\% | 4.1\% | 0.0\% | 1.2\% | 0.0\% | 13.6\% | 3.1\% | 43.6\% |

Appendix C.33. Percent distribution of Lewis River Wild (Lewis River Wild) reported catch among fisheries and escapement.

| $\begin{aligned} & \text { Catch } \\ & \text { Year } \end{aligned}$ | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 148 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |  | - |
| 1980 | 262 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 1125 | 2,3,4 | 6.4\% | 0.0\% | 0.0\% | 3.3\% | 2.1\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.9\% | 0.0\% | 2.1\% | 0.0\% | 2.6\% | 0.1\% | 0.2\% | 0.0\% | 4.1\% | 13.2\% | 57.7\% |
| 1982 | 922 | 3,4,5 | 6.1\% | 1.0\% | 0.2\% | 3.0\% | 0.0\% | 10.7\% | 0.0\% | 0.4\% | 0.0\% | 1.4\% | 1.5\% | 0.0\% | 4.1\% | 0.9\% | 7.5\% | 0.7\% | 0.8\% | 0.0\% | 4.7\% | 15.3\% | 41.8\% |
| 1983 | 1020 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |  | - | - |
| 1984 | 348 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 307 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1986 | 635 | 2,3,4 | 4.9\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 6.8\% | 2.5\% | 0.0\% | 0.0\% | 2.2\% | 0.9\% | 0.0\% | 3.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 26.6\% | 11.5\% | 39.1\% |
| 1987 | 1099 | 2,3,4,5 | 4.1\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 8.4\% | 0.9\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 2.7\% | 0.4\% | 0.9\% | 0.0\% | 0.3\% | 0.0\% | 25.3\% | 5.1\% | 46.0\% |
| 1988 | 923 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 4.6\% | 0.0\% | 1.1\% | 0.0\% | 1.1\% | 0.0\% | 23.1\% | 14.5\% | 38.8\% |
| 1989 | 1280 | 2,3,4,5 | 1.8\% | 0.2\% | 0.2\% | 4.5\% | 0.5\% | 5.1\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 1.5\% | 0.0\% | 4.9\% | 0.2\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 9.2\% | 6.6\% | 63.9\% |
| 1990 | 1138 | 2,3,4,5 | 5.4\% | 0.0\% | 0.0\% | 1.7\% | 0.6\% | 12.1\% | 0.8\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 0.0\% | 4.0\% | 0.0\% | 1.8\% | 0.0\% | 1.1\% | 0.0\% | 3.3\% | 2.2\% | 65.8\% |
| 1991 | 884 | 2,3,4,5 | 6.0\% | 0.1\% | 0.0\% | 3.8\% | 1.1\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.7\% | 0.0\% | 2.4\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 15.8\% | 6.0\% | 56.6\% |
| 1992 | 552 | 2,3,4,5 | 1.6\% | 0.0\% | 0.0\% | 3.8\% | 0.7\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.7\% | 0.0\% | 0.9\% | 0.0\% | 4.5\% | 21.7\% | 55.1\% |
| 1993 | 384 | 2,3,4,5 | 3.6\% | 0.0\% | 1.0\% | 4.9\% | 0.0\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.8\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 8.6\% | 64.3\% |
| 1994 | 250 | 2,3,4,5 | 6.4\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 83.2\% |
| 1995 | 527 | 2,3,4,5 | 6.5\% | 0.0\% | 2.3\% | 3.2\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.7\% | 57.7\% |
| 1996 | 324 | 2,3,4,5 | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 4.6\% | 84.0\% |
| 1997 | 222 | 3,4,5 | 12.6\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 81.1\% |
| 1998 | 101 | 2,4,5 | 7.9\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 83.2\% |
| 1999 | 53 | 2,3,5 | 11.3\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.2\% |
| 2000 | 67 | 2,3,4 | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.4\% | 3.0\% | 77.6\% |
| 2001 | 223 | 2,3,4,5 | 4.9\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 8.5\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 3.1\% | 69.1\% |
| 2002 | 361 | 2,3,4,5 | 11.4\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 6.1\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 2.5\% | 60.9\% |
| 2003 | 459 | 2,3,4,5 | 9.4\% | 0.0\% | 0.0\% | 1.5\% | 1.1\% | 5.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 5.9\% | 58.8\% |
| 2004 | 2145 | 2,3,4,5 | 6.0\% | 0.0\% | 0.5\% | 3.0\% | 0.7\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 1.9\% | 82.6\% |
| 2005 | 373 | 2,3,4,5 | 3.5\% | 0.0\% | 0.0\% | 12.1\% | 6.2\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 12.1\% | 8.8\% | 50.7\% |
| 2006 | 574 | 2,3,4,5 | 13.6\% | 0.0\% | 0.5\% | 6.4\% | 1.6\% | 8.5\% | 0.9\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 19.0\% | 39.9\% |
| 2007 | 189 | 2,3,4,5 | 32.8\% | 0.0\% | 1.1\% | 6.3\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 44.4\% |
| 2008 | 135 | 2,3,4,5 | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.7\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 5.2\% | 60.7\% |
| 2009 | 167 | 2,3,4,5 | 18.0\% | 0.0\% | 0.0\% | 3.6\% | 3.6\% | 6.6\% | 18.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 3.6\% | 44.9\% |
| 2010 | 172 | 3,4,5 | 7.0\% | 0.0\% | 0.0\% | 5.2\% | 2.3\% | 1.7\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 70.3\% |
| 1979-2010 | 566 |  | 7.9\% | 0.0\% | 0.3\% | 3.6\% | 0.9\% | 5.3\% | 1.3\% | 0.0\% | 0.1\% | 0.3\% | 0.4\% | 0.0\% | 2.8\% | 0.1\% | 1.3\% | 0.0\% | 0.3\% | 0.0\% | 6.7\% | 7.2\% | 61.4\% |
| 1979-1984 | 1024 |  | 6.2\% | 0.5\% | 0.1\% | 3.2\% | 1.1\% | 8.3\% | 0.0\% | 0.2\% | 0.0\% | 1.4\% | 1.2\% | 0.0\% | 3.1\% | 0.4\% | 5.0\% | 0.4\% | 0.5\% | 0.0\% | 4.4\% | 14.2\% | 49.7\% |
| 1985-1995 | 767 |  | 4.5\% | 0.0\% | 0.4\% | 3.4\% | 0.3\% | 6.9\% | 0.5\% | 0.0\% | 0.0\% | 0.6\% | 0.8\% | 0.0\% | 2.6\% | 0.1\% | 0.8\% | 0.0\% | 0.3\% | 0.0\% | 11.6\% | 10.1\% | 57.0\% |
| 1996-1998 | 216 |  | 9.4\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 3.3\% | 82.7\% |
| 1999-2010 | 410 |  | 10.6\% | 0.0\% | 0.4\% | 4.0\% | 1.7\% | 4.9\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 1.4\% | 0.0\% | 0.3\% | 0.0\% | 4.5\% | 4.6\% | 61.6\% |

Appendix C.34. Percent distribution of Lewis River Wild (Lewis River Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 193 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |  |
| 1980 | 302 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 1208 | 2,3,4 | 7.5\% | 0.0\% | 0.0\% | 3.6\% | 2.2\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 1.0\% | 0.0\% | 2.6\% | 0.0\% | 2.9\% | 0.2\% | 0.2\% | 0.0\% | 4.8\% | 12.7\% | 53.7\% |
| 1982 | 972 | 3,4,5 | 7.6\% | 0.9\% | 0.2\% | 3.3\% | 0.0\% | 11.1\% | 0.0\% | 0.4\% | 0.0\% | 1.5\% | 1.4\% | 0.0\% | 4.3\% | 0.8\% | 7.6\% | 0.6\% | 0.8\% | 0.0\% | 4.6\% | 15.0\% | 39.6\% |
| 1983 | 1081 | 4,5 | Failed | Criteria | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - |  |  |  | - |
| 1984 | 377 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1985 | 381 | 2,3 | Failed | Criteria | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - |  |  | - |
| 1986 | 694 | 2,3,4 | 6.1\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 8.1\% | 2.6\% | 0.0\% | 0.0\% | 2.2\% | 1.0\% | 0.0\% | 3.7\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 26.8\% | 11.0\% | 35.7\% |
| 1987 | 1206 | 2,3,4,5 | 5.5\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 9.2\% | 0.9\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 2.8\% | 0.4\% | 0.9\% | 0.0\% | 0.3\% | 0.0\% | 26.7\% | 4.8\% | 41.9\% |
| 1988 | 1030 | 2,3,4,5 | 5.1\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 10.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 4.9\% | 0.0\% | 1.1\% | 0.0\% | 1.4\% | 0.0\% | 24.3\% | 14.6\% | 34.8\% |
| 1989 | 1357 | 2,3,4,5 | 2.4\% | 0.7\% | 0.3\% | 5.0\% | 0.4\% | 5.8\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 1.5\% | 0.0\% | 5.4\% | 0.3\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 6.8\% | 60.3\% |
| 1990 | 1215 | 2,3,4,5 | 7.6\% | 0.0\% | 0.0\% | 1.9\% | 0.6\% | 13.3\% | 0.8\% | 0.0\% | 0.0\% | 0.5\% | 0.7\% | 0.0\% | 4.2\% | 0.0\% | 1.9\% | 0.0\% | 1.3\% | 0.0\% | 3.4\% | 2.2\% | 61.6\% |
| 1991 | 921 | 2,3,4,5 | 7.2\% | 0.2\% | 0.0\% | 4.1\% | 1.2\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 0.0\% | 2.5\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% | 6.3\% | 54.3\% |
| 1992 | 580 | 2,3,4,5 | 1.7\% | 0.0\% | 0.0\% | 4.1\% | 0.7\% | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.7\% | 0.0\% | 1.0\% | 0.0\% | 5.0\% | 22.6\% | 52.4\% |
| 1993 | 406 | 2,3,4,5 | 4.4\% | 0.0\% | 1.2\% | 5.7\% | 0.0\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 1.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 8.6\% | 60.8\% |
| 1994 | 265 | 2,3,4,5 | 9.1\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 78.5\% |
| 1995 | 553 | 2,3,4,5 | 7.6\% | 0.0\% | 2.4\% | 3.6\% | 0.0\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.8\% | 55.0\% |
| 1996 | 332 | 2,3,4,5 | 9.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 4.8\% | 81.9\% |
| 1997 | 226 | 3,4,5 | 14.2\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 79.6\% |
| 1998 | 101 | 2,4,5 | 7.9\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 83.2\% |
| 1999 | 62 | 2,3,5 | 17.7\% | 0.0\% | 1.6\% | 8.1\% | 0.0\% | 1.6\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.7\% |
| 2000 | 73 | 2,3,4 | 6.8\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.1\% | 2.7\% | 71.2\% |
| 2001 | 238 | 2,3,4,5 | 5.9\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 8.8\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 2.9\% | 64.7\% |
| 2002 | 394 | 2,3,4,5 | 14.5\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 5.8\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 2.5\% | 55.8\% |
| 2003 | 478 | 2,3,4,5 | 10.5\% | 0.0\% | 0.0\% | 1.7\% | 1.3\% | 5.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.3\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 5.9\% | 56.5\% |
| 2004 | 2182 | 2,3,4,5 | 6.6\% | 0.0\% | 0.5\% | 3.3\% | 1.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 1.9\% | 81.2\% |
| 2005 | 394 | 2,3,4,5 | 4.1\% | 0.0\% | 0.0\% | 12.9\% | 7.6\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 8.9\% | 48.0\% |
| 2006 | 594 | 2,3,4,5 | 14.5\% | 0.0\% | 0.5\% | 6.6\% | 1.9\% | 8.4\% | 1.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 19.2\% | 38.6\% |
| 2007 | 209 | 2,3,4,5 | 37.3\% | 0.0\% | 1.0\% | 6.7\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 40.2\% |
| 2008 | 141 | 2,3,4,5 | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 12.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 0.7\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 5.0\% | 58.2\% |
| 2009 | 179 | 2,3,4,5 | 20.1\% | 0.0\% | 0.0\% | 3.4\% | 3.9\% | 6.1\% | 19.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 3.4\% | 41.9\% |
| 2010 | 176 | 3,4,5 | 7.4\% | 0.0\% | 0.0\% | 5.1\% | 2.8\% | 1.7\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 68.8\% |
| 1979-2010 | 599 |  | 9.5\% | 0.1\% | 0.5\% | 3.8\% | 1.1\% | 5.7\% | 1.5\% | 0.0\% | 0.1\% | 0.4\% | 0.4\% | 0.0\% | 3.2\% | 0.1\% | 1.3\% | 0.0\% | 0.4\% | 0.0\% | 6.8\% | 7.2\% | 58.0\% |
| 1979-1984 | 1090 |  | 7.6\% | 0.5\% | 0.1\% | 3.5\% | 1.1\% | 9.1\% | 0.0\% | 0.2\% | 0.0\% | 1.6\% | 1.2\% | 0.0\% | 3.4\% | 0.4\% | 5.3\% | 0.4\% | 0.5\% | 0.0\% | 4.7\% | 13.8\% | 46.7\% |
| 1985-1995 | 823 |  | 5.7\% | 0.1\% | 0.4\% | 4.0\% | 0.3\% | 7.8\% | 0.5\% | 0.0\% | 0.0\% | 0.7\% | 0.8\% | 0.0\% | 2.9\% | 0.1\% | 0.7\% | 0.0\% | 0.4\% | 0.0\% | 12.0\% | 10.2\% | 53.5\% |
| 1996-1998 | 220 |  | 10.4\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 3.3\% | 81.6\% |
| 1999-2010 | 427 |  | 12.8\% | 0.0\% | 0.7\% | 4.0\% | 1.9\% | 4.9\% | 3.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 1.5\% | 0.0\% | 0.4\% | 0.0\% | 4.4\% | 4.6\% | 57.7\% |

Appendix C.35. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 214 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 759 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 797 | 2,3,4 | 2.8\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 18.7\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 1.0\% | 0.0\% | 10.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 29.7\% | 3.6\% | 29.5\% |
| 1989 | 683 | 2,3,4,5 | 2.8\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 16.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 12.3\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 27.2\% | 3.1\% | 26.5\% |
| 1990 | 622 | 2,3,4,5 | 5.3\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 16.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 9.6\% | 0.0\% | 3.4\% | 0.0\% | 1.4\% | 0.0\% | 26.4\% | 1.0\% | 32.8\% |
| 1991 | 225 | 2,3,4,5 | 2.7\% | 0.0\% | 1.8\% | 4.9\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 4.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 1.3\% | 60.9\% |
| 1992 | 171 | 2,3,4,5 | 1.2\% | 2.3\% | 0.0\% | 3.5\% | 0.0\% | 10.5\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 1.8\% | 61.4\% |
| 1993 | 252 | 3,4,5 | 3.6\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 2.0\% | 0.0\% | 7.9\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 0.0\% | 55.6\% |
| 1994 | 630 | 2,4,5 | 5.7\% | 0.6\% | 1.3\% | 5.6\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 0.5\% | 61.4\% |
| 1995 | 806 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 583 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 78 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | 154 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | 120 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | 704 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 1335 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 1348 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 398 | 2,3,5 | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 11.3\% | 3.5\% | 71.1\% |
| 2004 | 787 | 2,3,4 | 2.4\% | 0.0\% | 0.0\% | 1.4\% | 1.4\% | 1.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 2.5\% | 77.8\% |
| 2005 | 464 | 2,3,4,5 | 3.2\% | 0.2\% | 0.0\% | 3.0\% | 1.3\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 2.4\% | 0.0\% | 1.5\% | 0.0\% | 12.3\% | 0.9\% | 68.1\% |
| 2006 | 313 | 2,3,4,5 | 4.8\% | 0.0\% | 0.0\% | 0.6\% | 3.2\% | 1.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 1.3\% | 70.3\% |
| 2007 | 2375 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 1.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 2.5\% | 2.2\% | 92.6\% |
| 2008 | 4300 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 6.2\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 2.3\% | 0.0\% | 0.1\% | 0.0\% | 8.0\% | 2.1\% | 73.7\% |
| 2009 | 5691 | 2,3,4,5 | 1.1\% | 0.0\% | 0.1\% | 0.9\% | 0.1\% | 1.0\% | 1.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 8.3\% | 2.3\% | 82.1\% |
| 2010 | 3181 | 2,3,4,5 | 0.6\% | 0.1\% | 0.0\% | 1.0\% | 0.2\% | 4.7\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 7.3\% | 0.0\% | 0.4\% | 0.0\% | 16.9\% | 2.1\% | 54.0\% |
| 1979-2010 | 1393 |  | 2.9\% | 0.2\% | 0.2\% | 2.6\% | 0.5\% | 7.2\% | 1.0\% | 0.0\% | 0.1\% | 0.1\% | 0.8\% | 0.0\% | 5.7\% | 0.0\% | 1.9\% | 0.0\% | 0.2\% | 0.0\% | 13.7\% | 1.9\% | 61.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 483 |  | 3.4\% | 0.4\% | 0.4\% | 4.5\% | 0.0\% | 12.4\% | 0.5\% | 0.0\% | 0.1\% | 0.3\% | 1.6\% | 0.0\% | 7.2\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 19.0\% | 1.6\% | 46.9\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 2189 |  | 2.4\% | 0.0\% | 0.0\% | 0.9\% | 0.9\% | 2.5\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 2.3\% | 0.0\% | 0.3\% | 0.0\% | 9.1\% | 2.1\% | 73.7\% |

Appendix C.36. Percent distribution of Lyons Ferry (Lyons Ferry Hatchery) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 331 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 877 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 880 | 2,3,4 | 3.2\% | 0.0\% | 0.1\% | 3.8\% | 0.0\% | 20.9\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.9\% | 0.0\% | 11.4\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 28.5\% | 3.5\% | 26.7\% |
| 1989 | 760 | 2,3,4,5 | 3.8\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 17.9\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 12.9\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 25.9\% | 3.0\% | 23.8\% |
| 1990 | 654 | 2,3,4,5 | 5.5\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 17.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 9.9\% | 0.0\% | 3.5\% | 0.0\% | 1.7\% | 0.0\% | 26.1\% | 0.9\% | 31.2\% |
| 1991 | 243 | 2,3,4,5 | 3.3\% | 0.0\% | 2.5\% | 5.3\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 4.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 1.2\% | 56.4\% |
| 1992 | 223 | 2,3,4,5 | 1.3\% | 17.5\% | 0.0\% | 3.6\% | 0.0\% | 10.3\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 1.8\% | 47.1\% |
| 1993 | 277 | 3,4,5 | 5.4\% | 1.1\% | 0.4\% | 5.4\% | 0.0\% | 11.6\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.8\% | 0.0\% | 7.9\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 13.4\% | 0.0\% | 50.5\% |
| 1994 | 676 | 2,4,5 | 6.2\% | 2.2\% | 1.2\% | 5.3\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 0.7\% | 0.6\% | 3.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 15.5\% | 0.6\% | 57.2\% |
| 1995 | 827 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 600 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 82 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | 156 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | 123 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | 796 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 1389 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 1383 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 428 | 2,3,5 | 7.7\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 12.9\% | 4.0\% | 66.1\% |
| 2004 | 821 | 2,3,4 | 2.7\% | 0.0\% | 0.0\% | 1.6\% | 1.9\% | 1.6\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 1.9\% | 0.0\% | 0.2\% | 0.0\% | 6.0\% | 2.6\% | 74.5\% |
| 2005 | 493 | 2,3,4,5 | 3.7\% | 0.2\% | 0.0\% | 3.4\% | 2.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 2.4\% | 0.0\% | 2.2\% | 0.0\% | 13.4\% | 0.8\% | 64.1\% |
| 2006 | 331 | 2,3,4,5 | 5.7\% | 0.0\% | 0.0\% | 0.6\% | 4.2\% | 0.9\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 1.2\% | 66.5\% |
| 2007 | 2592 | 2,3,4,5 | 0.2\% | 0.1\% | 0.0\% | 0.2\% | 0.7\% | 1.7\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.9\% | 0.0\% | 0.7\% | 0.0\% | 5.4\% | 4.4\% | 84.8\% |
| 2008 | 4447 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.3\% | 0.5\% | 6.2\% | 2.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 0.0\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 8.5\% | 2.2\% | 71.2\% |
| 2009 | 6040 | 2,3,4,5 | 1.3\% | 0.0\% | 0.2\% | 1.0\% | 0.2\% | 1.1\% | 2.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.9\% | 0.0\% | 0.3\% | 0.0\% | 11.0\% | 2.7\% | 77.4\% |
| 2010 | 3408 | 2,3,4,5 | 0.9\% | 0.1\% | 0.0\% | 1.3\% | 0.2\% | 4.5\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 0.0\% | 7.5\% | 0.0\% | 0.5\% | 0.0\% | 17.5\% | 2.3\% | 50.4\% |
| 1979-2010 | 1485 |  | 3.4\% | 1.4\% | 0.3\% | 2.9\% | 0.7\% | 7.7\% | 1.1\% | 0.0\% | 0.1\% | 0.1\% | 0.8\% | 0.0\% | 6.2\% | 0.0\% | 2.0\% | 0.0\% | 0.4\% | 0.0\% | 14.3\% | 2.1\% | 56.5\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 530 |  | 4.1\% | 3.0\% | 0.6\% | 4.9\% | 0.0\% | 13.5\% | 0.5\% | 0.0\% | 0.1\% | 0.3\% | 1.6\% | 0.0\% | 7.5\% | 0.0\% | 1.5\% | 0.0\% | 0.3\% | 0.0\% | 18.8\% | 1.6\% | 41.9\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 2320 |  | 2.9\% | 0.1\% | 0.0\% | 1.1\% | 1.3\% | 2.6\% | 1.6\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 2.4\% | 0.0\% | 0.5\% | 0.0\% | 10.5\% | 2.5\% | 69.4\% |

Appendix C.37. Percent distribution of Lyons Ferry Yearling reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 89 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 385 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 1486 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1567 | 2,3,5 | 0.3\% | 0.1\% | 0.0\% | 1.7\% | 0.0\% | 5.2\% | 7.0\% | 0.0\% | 0.0\% | 0.4\% | 3.8\% | 0.0\% | 11.6\% | 0.0\% | 2.8\% | 0.6\% | 1.2\% | 0.0\% | 17.8\% | 2.8\% | 44.8\% |
| 1990 | 3133 | 2,3,4 | 0.5\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 17.2\% | 3.6\% | 0.0\% | 0.0\% | 0.8\% | 0.8\% | 0.0\% | 20.7\% | 0.0\% | 5.2\% | 0.2\% | 1.4\% | 0.0\% | 12.8\% | 1.4\% | 34.9\% |
| 1991 | 2666 | 3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 7.9\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 2.0\% | 0.0\% | 9.0\% | 0.0\% | 1.5\% | 0.5\% | 1.1\% | 0.0\% | 13.4\% | 0.6\% | 62.2\% |
| 1992 | 2072 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | 726 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 280 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 3585 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.8\% | 3.1\% | 93.8\% |
| 1996 | 3270 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 6.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 14.9\% | 2.8\% | 74.2\% |
| 1997 | 3242 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 1.0\% | 0.2\% | 3.9\% | 1.0\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 0.0\% | 7.4\% | 0.0\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 11.6\% | 4.5\% | 67.4\% |
| 1998 | 5799 | 2,3,4,5 | 1.4\% | 0.1\% | 0.1\% | 1.7\% | 1.1\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 3.1\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 9.9\% | 5.6\% | 76.4\% |
| 1999 | 7097 | 2,3,4,5 | 0.9\% | 0.1\% | 0.3\% | 0.6\% | 0.5\% | 1.2\% | 1.2\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 11.7\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 3.8\% | 69.9\% |
| 2000 | 6378 | 2,3,4,5 | 1.3\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 6.1\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 4.2\% | 64.3\% |
| 2001 | 9506 | 2,3,4,5 | 0.6\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 7.2\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.9\% | 0.0\% | 4.8\% | 0.0\% | 0.3\% | 0.0\% | 13.7\% | 3.8\% | 48.7\% |
| 2002 | 7017 | 2,3,4,5 | 1.0\% | 0.1\% | 0.0\% | 0.7\% | 0.5\% | 7.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.5\% | 0.0\% | 9.7\% | 0.1\% | 0.1\% | 0.0\% | 10.5\% | 4.0\% | 49.4\% |
| 2003 | 10784 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.7\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 2.8\% | 0.0\% | 0.2\% | 0.0\% | 7.0\% | 2.0\% | 74.3\% |
| 2004 | 14552 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 3.5\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 2.9\% | 0.0\% | 0.5\% | 0.0\% | 4.9\% | 2.0\% | 77.1\% |
| 2005 | 8371 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.5\% | 8.3\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.0\% | 5.9\% | 0.0\% | 0.2\% | 0.0\% | 10.0\% | 1.8\% | 59.9\% |
| 2006 | 6700 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 1.0\% | 0.6\% | 3.7\% | 1.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 1.9\% | 0.0\% | 0.2\% | 0.0\% | 8.4\% | 1.4\% | 75.8\% |
| 2007 | 8447 | 2,3,4,5 | 0.7\% | 0.1\% | 0.1\% | 0.3\% | 0.1\% | 4.6\% | 1.7\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 4.9\% | 0.0\% | 3.6\% | 0.0\% | 0.4\% | 0.0\% | 7.2\% | 2.3\% | 73.8\% |
| 2008 | 7133 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 3.5\% | 1.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 1.4\% | 0.1\% | 0.1\% | 0.0\% | 12.4\% | 2.3\% | 73.8\% |
| 2009 | 11295 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 1.8\% | 3.7\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 4.6\% | 0.1\% | 2.0\% | 0.0\% | 10.4\% | 3.4\% | 70.2\% |
| 2010 | 6256 | 2,3,4,5 | 0.7\% | 0.1\% | 0.0\% | 1.0\% | 0.4\% | 6.4\% | 3.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 0.0\% | 9.7\% | 0.0\% | 0.5\% | 0.0\% | 26.9\% | 2.7\% | 36.7\% |
| 1979-2010 | 6674 |  | 0.6\% | 0.0\% | 0.0\% | 0.5\% | 0.3\% | 4.9\% | 1.9\% | 0.0\% | 0.1\% | 0.1\% | 0.5\% | 0.0\% | 8.6\% | 0.0\% | 3.4\% | 0.1\% | 0.4\% | 0.0\% | 11.1\% | 2.9\% | 64.6\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 2738 |  | 0.2\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 7.6\% | 3.1\% | 0.0\% | 0.0\% | 0.3\% | 1.8\% | 0.0\% | 10.5\% | 0.0\% | 2.4\% | 0.4\% | 0.9\% | 0.0\% | 11.2\% | 2.0\% | 58.9\% |
| 1996-1998 | 4104 |  | 1.1\% | 0.0\% | 0.0\% | 0.9\% | 0.5\% | 1.3\% | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 0.0\% | 5.5\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 12.1\% | 4.3\% | 72.7\% |
| 1999-2010 | 8628 |  | 0.6\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 4.9\% | 1.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 0.0\% | 4.5\% | 0.0\% | 0.4\% | 0.0\% | 10.8\% | 2.8\% | 64.5\% |

Appendix C.38. Percent distribution of Lyons Ferry Yearling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 188 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 464 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 1737 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1989 | 1769 | 2,3,5 | 0.3\% | 0.6\% | 0.0\% | 1.6\% | 0.0\% | 8.5\% | 6.7\% | 0.0\% | 0.0\% | 0.5\% | 3.4\% | 0.0\% | 13.9\% | 0.0\% | 2.8\% | 0.6\% | 1.8\% | 0.0\% | 16.9\% | 2.7\% | 39.7\% |
| 1990 | 3430 | 2,3,4 | 0.6\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 18.5\% | 3.6\% | 0.0\% | 0.1\% | 0.8\% | 0.9\% | 0.0\% | 21.3\% | 0.0\% | 5.2\% | 0.3\% | 1.7\% | 0.0\% | 13.2\% | 1.4\% | 31.9\% |
| 1991 | 2799 | 3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 9.6\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 1.9\% | 0.0\% | 10.1\% | 0.0\% | 1.6\% | 0.4\% | 1.2\% | 0.0\% | 13.2\% | 0.6\% | 59.2\% |
| 1992 | 2143 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1993 | 743 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 341 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 3921 | 2,3,4 | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 0.2\% | 0.8\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.3\% | 0.1\% | 0.0\% | 5.8\% | 4.1\% | 85.7\% |
| 1996 | 3490 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 1.3\% | 0.2\% | 0.8\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 5.9\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 16.6\% | 3.3\% | 69.5\% |
| 1997 | 3419 | 2,3,4,5 | 1.8\% | 0.1\% | 0.0\% | 1.2\% | 0.3\% | 4.8\% | 1.1\% | 0.0\% | 0.0\% | 0.4\% | 0.5\% | 0.0\% | 7.6\% | 0.0\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 12.8\% | 4.8\% | 63.9\% |
| 1998 | 5959 | 2,3,4,5 | 1.9\% | 0.1\% | 0.2\% | 2.1\% | 1.4\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 3.1\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 10.3\% | 5.9\% | 74.3\% |
| 1999 | 7415 | 2,3,4,5 | 1.2\% | 0.1\% | 0.4\% | 0.6\% | 0.6\% | 1.2\% | 1.3\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 0.0\% | 13.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 4.0\% | 66.9\% |
| 2000 | 6698 | 2,3,4,5 | 1.7\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 6.3\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% | 4.4\% | 61.2\% |
| 2001 | 10047 | 2,3,4,5 | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 7.1\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 0.0\% | 5.1\% | 0.0\% | 0.5\% | 0.0\% | 13.6\% | 3.8\% | 46.0\% |
| 2002 | 7512 | 2,3,4,5 | 1.2\% | 0.2\% | 0.0\% | 0.7\% | 0.7\% | 7.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 16.9\% | 0.0\% | 10.2\% | 0.1\% | 0.1\% | 0.0\% | 10.6\% | 4.1\% | 46.1\% |
| 2003 | 11351 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 6.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 3.1\% | 0.0\% | 0.3\% | 0.0\% | 8.1\% | 2.2\% | 70.6\% |
| 2004 | 15023 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 3.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 3.1\% | 0.0\% | 0.6\% | 0.0\% | 5.3\% | 2.2\% | 74.7\% |
| 2005 | 8733 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 8.4\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 0.0\% | 6.3\% | 0.0\% | 0.2\% | 0.0\% | 10.6\% | 1.8\% | 57.4\% |
| 2006 | 7034 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 1.2\% | 0.8\% | 3.9\% | 1.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 2.1\% | 0.1\% | 0.4\% | 0.0\% | 9.9\% | 1.6\% | 72.2\% |
| 2007 | 8807 | 2,3,4,5 | 0.9\% | 0.3\% | 0.1\% | 0.4\% | 0.1\% | 4.8\% | 1.8\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 5.9\% | 0.0\% | 3.9\% | 0.0\% | 0.5\% | 0.0\% | 7.7\% | 2.5\% | 70.8\% |
| 2008 | 7530 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.4\% | 3.6\% | 1.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 1.5\% | 0.2\% | 0.3\% | 0.0\% | 14.6\% | 2.6\% | 69.9\% |
| 2009 | 11721 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.2\% | 0.1\% | 1.8\% | 4.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 4.9\% | 0.1\% | 2.6\% | 0.0\% | 10.9\% | 3.7\% | 67.6\% |
| 2010 | 6621 | 2,3,4,5 | 0.9\% | 0.1\% | 0.0\% | 1.1\% | 0.5\% | 6.3\% | 3.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 0.0\% | 10.0\% | 0.0\% | 0.6\% | 0.0\% | 26.7\% | 2.7\% | 34.6\% |
| 1979-2010 | 7015 |  | 0.8\% | 0.1\% | 0.0\% | 0.7\% | 0.4\% | 5.4\% | 2.1\% | 0.0\% | 0.1\% | 0.1\% | 0.5\% | 0.0\% | 9.4\% | 0.0\% | 3.6\% | 0.1\% | 0.6\% | 0.0\% | 11.9\% | 3.1\% | 61.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 2980 |  | 0.4\% | 0.1\% | 0.0\% | 0.8\% | 0.1\% | 9.4\% | 3.1\% | 0.0\% | 0.1\% | 0.3\% | 1.7\% | 0.0\% | 11.5\% | 0.0\% | 2.4\% | 0.4\% | 1.2\% | 0.0\% | 12.3\% | 2.2\% | 54.1\% |
| 1996-1998 | 4289 |  | 1.4\% | 0.1\% | 0.1\% | 1.5\% | 0.6\% | 1.9\% | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.6\% | 0.0\% | 5.5\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 13.2\% | 4.7\% | 69.3\% |
| 1999-2010 | 9041 |  | 0.7\% | 0.1\% | 0.1\% | 0.5\% | 0.4\% | 5.0\% | 2.2\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 9.7\% | 0.0\% | 4.7\% | 0.0\% | 0.5\% | 0.0\% | 11.5\% | 3.0\% | 61.5\% |

Appendix C.39. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 247 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 1319 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 1783 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 515 | 2,4,5 | 4.1\% | 0.0\% | 0.0\% | 1.9\% | 2.7\% | 1.7\% | 0.8\% | 1.0\% | 36.3\% | 12.8\% | 20.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.0\% | 0.0\% | 0.0\% | 5.6\% | 11.7\% |
| 1985 | 54 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 23 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 8 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 227 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 742 | 2,3,4 | 0.3\% | 0.3\% | 0.0\% | 0.8\% | 2.2\% | 0.5\% | 0.9\% | 6.1\% | 34.0\% | 0.8\% | 11.5\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 2.8\% | 0.7\% | 0.0\% | 0.3\% | 7.8\% | 30.3\% |
| 1992 | 1596 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.8\% | 2.9\% | 5.5\% | 0.3\% | 7.3\% | 30.5\% | 1.3\% | 7.2\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.8\% | 0.6\% | 0.0\% | 0.0\% | 1.2\% | 40.9\% |
| 1993 | 1332 | 2,3,4,5 | 0.1\% | 0.2\% | 0.0\% | 1.5\% | 1.7\% | 2.5\% | 0.5\% | 4.8\% | 49.2\% | 1.1\% | 5.2\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 1.1\% | 0.0\% | 0.0\% | 2.9\% | 28.6\% |
| 1994 | 397 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.8\% | 1.8\% | 4.0\% | 1.3\% | 0.8\% | 24.9\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.8\% | 55.4\% |
| 1995 | 1198 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 1.2\% | 0.9\% | 0.0\% | 15.4\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.3\% | 4.1\% | 74.2\% |
| 1996 | 721 | 2,3,4,5 | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.6\% | 0.0\% | 54.9\% | 0.0\% | 2.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.6\% | 2.6\% | 0.0\% | 4.6\% | 5.1\% | 27.6\% |
| 1997 | 223 | 2,3,4,5 | 6.3\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 1.3\% | 0.4\% | 0.0\% | 31.4\% | 2.2\% | 1.3\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 4.0\% | 3.1\% | 0.0\% | 0.0\% | 3.1\% | 41.7\% |
| 1998 | 188 | 2,3,4,5 | 1.1\% | 3.2\% | 0.0\% | 5.3\% | 3.2\% | 0.5\% | 0.0\% | 0.0\% | 18.1\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 14.4\% | 52.1\% |
| 1999 | 251 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 2.4\% | 0.0\% | 23.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 2.0\% | 0.0\% | 1.2\% | 2.8\% | 62.9\% |
| 2000 | 162 | 3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 6.2\% | 0.0\% | 23.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 17.9\% | 42.6\% |
| 2001 | 290 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 83.8\% |
| 2002 | 767 | 2,3,5 | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.9\% | 1.2\% | 0.0\% | 0.0\% | 33.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 3.0\% | 0.0\% | 4.8\% | 0.3\% | 53.7\% |
| 2003 | 758 | 2,3,4 | 0.5\% | 0.5\% | 0.0\% | 0.0\% | 5.5\% | 3.8\% | 0.7\% | 0.0\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 1.6\% | 0.0\% | 1.8\% | 0.3\% | 67.8\% |
| 2004 | 805 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.6\% | 6.3\% | 5.2\% | 2.0\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 1.5\% | 2.1\% | 0.0\% | 6.1\% | 1.2\% | 64.2\% |
| 2005 | 494 | 3,4,5 | 0.6\% | 0.0\% | 0.6\% | 1.6\% | 9.1\% | 6.5\% | 1.6\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.8\% | 0.0\% | 20.0\% | 0.0\% | 50.2\% |
| 2006 | 1221 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.9\% | 0.0\% | 4.8\% | 0.0\% | 92.1\% |
| 2007 | 993 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | 257 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | 6 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 686 |  | 1.0\% | 0.3\% | 0.0\% | 1.0\% | 2.4\% | 2.3\% | 1.1\% | 1.2\% | 24.4\% | 1.1\% | 3.5\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 1.4\% | 1.3\% | 0.0\% | 3.2\% | 4.0\% | 51.8\% |
| 1979-1984 | 515 |  | 4.1\% | 0.0\% | 0.0\% | 1.9\% | 2.7\% | 1.7\% | 0.8\% | 1.0\% | 36.3\% | 12.8\% | 20.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.0\% | 0.0\% | 0.0\% | 5.6\% | 11.7\% |
| 1985-1995 | 1053 |  | 0.2\% | 0.1\% | 0.0\% | 0.8\% | 1.9\% | 2.7\% | 0.8\% | 3.8\% | 30.8\% | 0.7\% | 6.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.8\% | 0.9\% | 0.0\% | 0.1\% | 3.3\% | 45.9\% |
| 1996-1998 | 377 |  | 2.4\% | 1.2\% | 0.0\% | 3.0\% | 1.4\% | 0.6\% | 0.3\% | 0.0\% | 34.8\% | 0.7\% | 1.6\% | 0.0\% | 0.1\% | 0.4\% | 0.0\% | 1.5\% | 1.9\% | 0.0\% | 1.9\% | 7.5\% | 40.5\% |
| 1999-2010 | 594 |  | 0.5\% | 0.1\% | 0.1\% | 0.3\% | 3.0\% | 2.6\% | 1.7\% | 0.0\% | 14.9\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.9\% | 1.3\% | 0.0\% | 6.0\% | 2.8\% | 64.7\% |

Appendix C.40. Percent distribution of Nanaimo River Fall (Lower Strait of Georgia Natural) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 285 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 1572 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 1879 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 539 | 2,4,5 | 4.3\% | 0.0\% | 0.0\% | 1.9\% | 2.8\% | 1.7\% | 0.7\% | 1.1\% | 37.5\% | 12.6\% | 19.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.1\% | 0.0\% | 0.0\% | 5.8\% | 11.1\% |
| 1985 | 58 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 29 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 29 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 431 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 1180 | 2,3,4 | 0.2\% | 0.4\% | 0.0\% | 0.8\% | 2.1\% | 1.8\% | 0.7\% | 6.4\% | 48.6\% | 1.0\% | 8.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 2.7\% | 0.9\% | 0.0\% | 0.2\% | 6.3\% | 19.1\% |
| 1992 | 2278 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.8\% | 2.7\% | 5.2\% | 0.3\% | 7.6\% | 43.8\% | 1.2\% | 5.7\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.8\% | 0.8\% | 0.0\% | 0.0\% | 1.9\% | 28.7\% |
| 1993 | 1624 | 2,3,4,5 | 0.1\% | 0.4\% | 0.0\% | 1.7\% | 1.5\% | 2.7\% | 0.5\% | 5.6\% | 53.7\% | 1.3\% | 4.4\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 1.0\% | 0.0\% | 0.0\% | 2.9\% | 23.5\% |
| 1994 | 520 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.6\% | 1.9\% | 3.8\% | 1.2\% | 0.8\% | 38.7\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 1.0\% | 42.3\% |
| 1995 | 1645 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 1.3\% | 0.8\% | 0.0\% | 30.4\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.2\% | 7.4\% | 54.0\% |
| 1996 | 960 | 2,3,4,5 | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.7\% | 0.3\% | 0.4\% | 0.0\% | 62.3\% | 0.0\% | 2.3\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 2.8\% | 0.0\% | 3.5\% | 5.2\% | 20.7\% |
| 1997 | 284 | 2,3,4,5 | 6.3\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 1.4\% | 0.4\% | 0.0\% | 38.4\% | 2.1\% | 2.1\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 4.6\% | 3.9\% | 0.0\% | 0.0\% | 3.2\% | 32.7\% |
| 1998 | 259 | 2,3,4,5 | 1.2\% | 5.4\% | 0.0\% | 5.4\% | 4.6\% | 0.4\% | 0.0\% | 0.0\% | 28.2\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 15.1\% | 37.8\% |
| 1999 | 303 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 2.0\% | 0.0\% | 33.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 2.6\% | 0.0\% | 1.0\% | 3.3\% | 52.1\% |
| 2000 | 180 | 3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 6.1\% | 0.0\% | 26.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 20.0\% | 38.3\% |
| 2001 | 521 | 2,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 1.0\% | 0.2\% | 0.0\% | 38.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 4.6\% | 0.0\% | 2.5\% | 0.2\% | 46.6\% |
| 2002 | 956 | 2,3,5 | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 2.6\% | 1.3\% | 0.1\% | 0.0\% | 39.4\% | 0.0\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 2.5\% | 3.5\% | 0.0\% | 4.1\% | 0.3\% | 43.1\% |
| 2003 | 874 | 2,3,4 | 0.6\% | 0.7\% | 0.1\% | 0.2\% | 8.2\% | 3.8\% | 1.0\% | 0.0\% | 19.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.9\% | 2.7\% | 0.0\% | 2.1\% | 0.5\% | 58.8\% |
| 2004 | 878 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.7\% | 9.3\% | 5.0\% | 2.2\% | 0.0\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 1.5\% | 2.5\% | 0.0\% | 5.7\% | 1.4\% | 58.9\% |
| 2005 | 520 | 3,4,5 | 0.6\% | 0.0\% | 0.6\% | 1.5\% | 11.3\% | 6.2\% | 1.7\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 1.0\% | 0.0\% | 19.2\% | 0.0\% | 47.7\% |
| 2006 | 1494 | 2,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 1.0\% | 0.5\% | 0.6\% | 0.0\% | 14.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.6\% | 1.6\% | 0.0\% | 4.8\% | 1.0\% | 75.3\% |
| 2007 | 1085 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | 261 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | 6 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 883 |  | 1.0\% | 0.5\% | 0.0\% | 1.0\% | 3.2\% | 2.3\% | 1.1\% | 1.3\% | 33.6\% | 1.1\% | 3.3\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 1.5\% | 1.9\% | 0.0\% | 2.9\% | 4.4\% | 40.6\% |
| 1979-1984 | 539 |  | 4.3\% | 0.0\% | 0.0\% | 1.9\% | 2.8\% | 1.7\% | 0.7\% | 1.1\% | 37.5\% | 12.6\% | 19.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.1\% | 0.0\% | 0.0\% | 5.8\% | 11.1\% |
| 1985-1995 | 1449 |  | 0.2\% | 0.2\% | 0.0\% | 0.8\% | 1.9\% | 3.0\% | 0.7\% | 4.1\% | 43.0\% | 0.7\% | 5.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.7\% | 1.2\% | 0.0\% | 0.1\% | 3.9\% | 33.5\% |
| 1996-1998 | 501 |  | 2.5\% | 2.1\% | 0.0\% | 3.0\% | 1.8\% | 0.7\% | 0.3\% | 0.0\% | 43.0\% | 0.7\% | 1.9\% | 0.0\% | 0.1\% | 0.5\% | 0.0\% | 1.7\% | 2.2\% | 0.0\% | 1.4\% | 7.8\% | 30.4\% |
| 1999-2010 | 716 |  | 0.6\% | 0.1\% | 0.1\% | 0.3\% | 4.6\% | 2.6\% | 1.7\% | 0.0\% | 23.7\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 2.1\% | 2.3\% | 0.0\% | 5.5\% | 3.3\% | 52.6\% |

Appendix C.41. Percent distribution of Nicola River Spring (Fraser Early) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 166 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1242 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.1\% | 0.9\% | 0.0\% | 0.0\% | 11.7\% | 0.0\% | 12.8\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 1.1\% | 1.7\% | 0.0\% | 0.0\% | 4.0\% | 65.5\% |
| 1990 | 281 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 14.2\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 14.2\% | 63.7\% |
| 1991 | 1268 | 2,3,4,5 | 0.2\% | 0.2\% | 0.0\% | 0.0\% | 0.6\% | 3.7\% | 0.0\% | 0.2\% | 4.9\% | 0.2\% | 14.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 1.3\% | 0.0\% | 0.0\% | 8.1\% | 65.1\% |
| 1992 | 504 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 1.6\% | 4.8\% | 0.0\% | 0.0\% | 6.3\% | 2.2\% | 7.9\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 9.5\% | 53.6\% |
| 1993 | 1124 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 1.2\% | 5.0\% | 1.2\% | 0.0\% | 4.7\% | 0.0\% | 11.9\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 5.6\% | 64.1\% |
| 1994 | 2015 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 3.1\% | 0.4\% | 0.0\% | 3.2\% | 0.0\% | 1.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 83.5\% |
| 1995 | 1821 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.7\% | 1.0\% | 0.5\% | 0.0\% | 2.6\% | 0.0\% | 3.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 3.5\% | 87.6\% |
| 1996 | 69 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 81.2\% |
| 1997 | 200 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 0.0\% | 6.5\% | 79.0\% |
| 1998 | 827 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 84.2\% |
| 1999 | 2414 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 6.9\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 89.7\% |
| 2000 | 1692 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 81.2\% |
| 2001 | 2146 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 7.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 83.8\% |
| 2002 | 2110 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.3\% | 0.8\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.8\% | 0.0\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 89.4\% |
| 2003 | 1760 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.9\% | 0.5\% | 0.0\% | 2.3\% | 0.0\% | 0.6\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 86.5\% |
| 2004 | 436 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 23.9\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 68.1\% |
| 2005 | 368 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 6.5\% | 0.0\% | 7.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.5\% | 65.2\% |
| 2006 | 382 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 4.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 78.5\% |
| 2007 | 109 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.4\% | 56.9\% |
| 2008 | 580 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 6.7\% | 0.0\% | 1.9\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 3.6\% | 81.7\% |
| 2009 | 234 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 0.0\% | 5.1\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 23.5\% | 56.8\% |
| 2010 | 2297 | 3,4,5 | 0.3\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 1.0\% | 0.0\% | 4.4\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 91.1\% |
| 1979-2010 | 1085 |  | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.5\% | 1.7\% | 0.1\% | 0.0\% | 3.7\% | 0.1\% | 8.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.1\% | 0.9\% | 0.0\% | 0.0\% | 7.7\% | 75.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1179 |  | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 2.9\% | 0.3\% | 0.0\% | 5.1\% | 0.3\% | 9.5\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.2\% | 1.7\% | 0.0\% | 0.0\% | 7.5\% | 69.0\% |
| 1996-1998 | 365 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 4.9\% | 81.4\% |
| 1999-2010 | 1211 |  | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.3\% | 1.5\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 6.9\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 8.5\% | 77.4\% |

Appendix C.42. Percent distribution of Nicola River Spring (Fraser Early) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 19 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1988 | 186 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1279 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.2\% | 1.3\% | 0.0\% | 0.0\% | 13.0\% | 0.0\% | 12.4\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 1.1\% | 2.1\% | 0.0\% | 0.0\% | 4.1\% | 63.6\% |
| 1990 | 292 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 13.7\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 14.7\% | 61.3\% |
| 1991 | 1311 | 2,3,4,5 | 0.2\% | 0.5\% | 0.0\% | 0.0\% | 0.6\% | 4.1\% | 0.0\% | 0.3\% | 5.9\% | 0.2\% | 14.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.2\% | 1.6\% | 0.0\% | 0.0\% | 8.4\% | 62.9\% |
| 1992 | 557 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 1.8\% | 5.0\% | 0.0\% | 0.0\% | 9.3\% | 2.3\% | 7.2\% | 0.0\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 0.0\% | 9.2\% | 48.5\% |
| 1993 | 1174 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 1.3\% | 5.7\% | 1.2\% | 0.0\% | 5.9\% | 0.0\% | 11.5\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 5.7\% | 61.3\% |
| 1994 | 2047 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 3.6\% | 0.4\% | 0.0\% | 3.6\% | 0.0\% | 1.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 82.2\% |
| 1995 | 1867 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.9\% | 1.2\% | 0.5\% | 0.0\% | 2.8\% | 0.0\% | 4.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 3.6\% | 85.5\% |
| 1996 | 75 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.7\% |
| 1997 | 263 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 15.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.5\% | 0.0\% | 0.0\% | 5.3\% | 60.1\% |
| 1998 | 857 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 81.2\% |
| 1999 | 2424 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 6.9\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 89.4\% |
| 2000 | 1749 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 78.6\% |
| 2001 | 2175 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 7.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 82.7\% |
| 2002 | 2129 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 0.8\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 3.9\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 88.6\% |
| 2003 | 1783 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 1.0\% | 0.7\% | 0.0\% | 2.6\% | 0.0\% | 0.6\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 85.4\% |
| 2004 | 444 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 23.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.9\% |
| 2005 | 377 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 6.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.2\% | 63.7\% |
| 2006 | 391 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 4.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 76.7\% |
| 2007 | 111 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.7\% | 55.9\% |
| 2008 | 605 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 6.4\% | 0.0\% | 2.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 3.6\% | 78.3\% |
| 2009 | 293 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.9\% | 0.0\% | 4.4\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 20.1\% | 45.4\% |
| 2010 | 2309 | 3,4,5 | 0.3\% | 0.0\% | 0.0\% | 1.2\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 1.1\% | 0.0\% | 4.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.1\% | 90.6\% |
| 1979-2010 | 1114 |  | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.6\% | 1.9\% | 0.1\% | 0.0\% | 5.3\% | 0.1\% | 8.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.1\% | 1.3\% | 0.0\% | 0.0\% | 7.7\% | 72.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1218 |  | 0.0\% | 0.1\% | 0.0\% | 1.2\% | 0.8\% | 3.3\% | 0.3\% | 0.0\% | 6.2\% | 0.4\% | 9.4\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.2\% | 2.2\% | 0.0\% | 0.0\% | 7.7\% | 66.5\% |
| 1996-1998 | 398 |  | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.7\% | 0.4\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 14.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 4.6\% | 72.0\% |
| 1999-2010 | 1232 |  | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.4\% | 1.5\% | 0.1\% | 0.0\% | 5.1\% | 0.0\% | 6.8\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 8.5\% | 75.2\% |

Appendix C.43. Percent distribution of Nisqually Fall Fingerling reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |  |  |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1981 | 10 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - |  | - |  |  | - |  |  | - |  |  |
| 1982 | 77 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 197 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 14.7\% | 0.0\% | 2.5\% | 10.2\% | 0.0\% | 6.1\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 10.2\% | 46.7\% | 0.0\% | 1.0\% | 0.0\% | 1.5\% |
| 1984 | 205 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.2\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 2.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 15.6\% | 21.0\% | 0.0\% | 21.0\% | 0.0\% | 5.9\% |
| 1985 | 61 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.9\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 23.0\% | 18.0\% | 0.0\% | 11.5\% | 0.0\% | 4.9\% |
| 1986 | 112 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.2\% | 0.0\% | 0.0\% | 12.5\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 14.3\% | 0.0\% | 24.1\% | 0.0\% | 19.6\% |
| 1987 | 144 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.0\% | 0.0\% | 1.4\% | 12.5\% | 2.1\% | 2.1\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 4.2\% | 12.5\% | 0.0\% | 34.7\% | 2.8\% | 13.2\% |
| 1988 | 277 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 2.2\% | 5.4\% | 0.0\% | 4.0\% | 13.7\% | 2.2\% | 5.4\% | 0.0\% | 8.7\% | 0.0\% | 0.0\% | 7.2\% | 10.5\% | 0.0\% | 10.1\% | 0.0\% | 30.0\% |
| 1989 | 1035 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 4.4\% | 6.3\% | 0.0\% | 2.5\% | 0.0\% | 4.3\% | 0.0\% | 13.3\% | 2.1\% | 0.4\% | 12.4\% | 17.5\% | 0.0\% | 28.1\% | 0.4\% | 8.0\% |
| 1990 | 1290 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.6\% | 5.8\% | 0.0\% | 3.1\% | 0.2\% | 0.2\% | 0.0\% | 10.2\% | 0.0\% | 0.1\% | 2.1\% | 11.7\% | 0.0\% | 35.8\% | 0.0\% | 8.2\% |
| 1991 | 243 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 8.2\% | 2.1\% | 0.0\% | 3.3\% | 0.0\% | 2.5\% | 0.0\% | 16.5\% | 0.0\% | 0.8\% | 6.6\% | 23.5\% | 0.0\% | 16.5\% | 0.0\% | 18.1\% |
| 1992 | 379 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 7.7\% | 4.0\% | 0.0\% | 2.9\% | 0.0\% | 2.6\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 10.3\% | 16.4\% | 0.0\% | 8.2\% | 0.0\% | 39.8\% |
| 1993 | 589 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.2\% | 1.9\% | 0.3\% | 3.4\% | 0.0\% | 3.2\% | 0.0\% | 2.7\% | 0.0\% | 0.7\% | 3.4\% | 18.3\% | 0.0\% | 19.2\% | 0.0\% | 34.6\% |
| 1994 | 1000 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.5\% | 0.0\% | 2.4\% | 0.0\% | 2.5\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 5.2\% | 20.1\% | 0.0\% | 17.1\% | 0.4\% | 46.8\% |
| 1995 | 1736 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 5.4\% | 3.1\% | 0.0\% | 1.7\% | 0.0\% | 0.4\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 1.5\% | 24.4\% | 0.0\% | 30.8\% | 0.0\% | 29.6\% |
| 1996 | 962 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.3\% | 0.0\% | 0.8\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 1.6\% | 21.3\% | 0.0\% | 40.5\% | 0.0\% | 29.4\% |
| 1997 | 619 | 2,3,4,5 | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.5\% | 2.7\% | 4.5\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 0.0\% | 0.8\% | 0.0\% | 1.0\% | 0.8\% | 22.1\% | 0.0\% | 18.1\% | 1.3\% | 47.0\% |
| 1998 | 1098 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.5\% | 0.7\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 11.4\% | 0.0\% | 35.9\% | 0.7\% | 47.8\% |
| 1999 | 1475 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 2.7\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.3\% | 1.3\% | 19.0\% | 0.0\% | 42.7\% | 0.0\% | 27.8\% |
| 2000 | 579 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.2\% | 3.1\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 1.6\% | 2.6\% | 15.7\% | 0.0\% | 43.2\% | 0.0\% | 14.0\% |
| 2001 | 965 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 2.9\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.4\% | 0.4\% | 15.4\% | 0.0\% | 29.2\% | 0.0\% | 42.6\% |
| 2002 | 1364 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 3.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 0.6\% | 0.6\% | 7.8\% | 0.0\% | 41.2\% | 3.2\% | 32.0\% |
| 2003 | 1587 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 5.5\% | 1.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.4\% | 11.2\% | 0.0\% | 43.5\% | 1.8\% | 29.9\% |
| 2004 | 1630 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 1.1\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 0.6\% | 0.6\% | 8.0\% | 0.0\% | 31.2\% | 0.0\% | 44.5\% |
| 2005 | 1160 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 2.0\% | 0.0\% | 3.4\% | 0.0\% | 0.3\% | 0.0\% | 3.7\% | 0.0\% | 1.9\% | 0.6\% | 6.1\% | 0.0\% | 10.3\% | 0.0\% | 66.1\% |
| 2006 | 2791 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 1.6\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 0.4\% | 0.8\% | 5.7\% | 0.0\% | 38.9\% | 0.0\% | 39.3\% |
| 2007 | 3010 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 10.2\% | 1.5\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 0.4\% | 0.8\% | 10.7\% | 0.0\% | 35.3\% | 0.0\% | 35.6\% |
| 2008 | 988 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 3.3\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.4\% | 0.8\% | 11.3\% | 0.0\% | 47.2\% | 0.0\% | 25.8\% |
| 2009 | 1446 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.1\% | 0.8\% | 8.0\% | 0.0\% | 39.8\% | 0.0\% | 43.4\% |
| 2010 | 1792 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 1.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 0.3\% | 0.2\% | 1.3\% | 0.0\% | 39.3\% | 4.0\% | 45.2\% |
| 1979-2010 | 1026 |  | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 8.7\% | 2.2\% | 0.3\% | 3.4\% | 0.2\% | 1.4\% | 0.0\% | 4.6\% | 0.1\% | 0.4\% | 4.5\% | 15.4\% | 0.0\% | 28.4\% | 0.5\% | 29.7\% |
| 1979-1984 | 201 |  | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 23.0\% | 0.0\% | 1.3\% | 5.8\% | 0.0\% | 4.3\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 12.9\% | 33.8\% | 0.0\% | 11.0\% | 0.0\% | 3.7\% |
| 1985-1995 | 624 |  | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 11.1\% | 2.4\% | 0.5\% | 5.3\% | 0.4\% | 2.7\% | 0.0\% | 6.8\% | 0.2\% | 0.2\% | 8.0\% | 17.0\% | 0.0\% | 21.5\% | 0.3\% | 23.0\% |
| 1996-1998 | 893 |  | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 1.1\% | 2.1\% | 0.0\% | 1.8\% | 0.0\% | 0.3\% | 0.0\% | 1.0\% | 0.0\% | 0.3\% | 0.9\% | 18.3\% | 0.0\% | 31.5\% | 0.7\% | 41.4\% |
| 1999-2010 | 1566 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 2.4\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.6\% | 0.8\% | 10.0\% | 0.0\% | 36.8\% | 0.7\% | 37.2\% |

Appendix C.44. Percent distribution of Nisqually Fall Fingerling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1981 | 25 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - |  | - | - |  | - | - |  | - |  |  |
| 1982 | 99 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 298 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 13.1\% | 0.0\% | 1.7\% | 7.4\% | 0.0\% | 4.7\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 8.4\% | 56.0\% | 0.0\% | 3.0\% | 0.0\% | 1.0\% |
| 1984 | 250 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.4\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 2.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 15.6\% | 23.6\% | 0.0\% | 21.2\% | 0.0\% | 4.8\% |
| 1985 | 81 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.2\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 6.2\% | 0.0\% | 0.0\% | 22.2\% | 22.2\% | 0.0\% | 11.1\% | 0.0\% | 3.7\% |
| 1986 | 125 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.2\% | 18.4\% | 0.0\% | 22.4\% | 0.0\% | 17.6\% |
| 1987 | 198 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.6\% | 0.0\% | 1.0\% | 10.6\% | 2.5\% | 1.5\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 4.0\% | 17.7\% | 0.0\% | 33.3\% | 2.5\% | 9.6\% |
| 1988 | 478 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 2.1\% | 4.4\% | 0.0\% | 2.9\% | 28.9\% | 1.7\% | 3.6\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 6.5\% | 16.1\% | 0.0\% | 9.4\% | 0.0\% | 17.4\% |
| 1989 | 1158 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 5.4\% | 6.0\% | 0.0\% | 3.0\% | 0.0\% | 3.8\% | 0.0\% | 14.6\% | 2.2\% | 0.3\% | 11.7\% | 18.5\% | 0.0\% | 26.6\% | 0.4\% | 7.2\% |
| 1990 | 1390 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% | 5.9\% | 0.0\% | 3.2\% | 0.2\% | 0.1\% | 0.0\% | 10.4\% | 0.0\% | 0.1\% | 2.0\% | 13.0\% | 0.0\% | 33.9\% | 0.0\% | 7.6\% |
| 1991 | 277 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 9.0\% | 1.8\% | 0.0\% | 3.6\% | 0.0\% | 2.2\% | 0.0\% | 17.0\% | 0.0\% | 0.7\% | 6.1\% | 25.6\% | 0.0\% | 15.9\% | 0.0\% | 15.9\% |
| 1992 | 544 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 6.6\% | 3.3\% | 0.0\% | 5.3\% | 0.0\% | 2.0\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 11.4\% | 27.6\% | 0.0\% | 8.8\% | 0.0\% | 27.8\% |
| 1993 | 718 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.8\% | 1.7\% | 0.4\% | 4.5\% | 0.0\% | 2.8\% | 0.0\% | 2.9\% | 0.0\% | 0.7\% | 3.8\% | 20.2\% | 0.0\% | 20.9\% | 0.0\% | 28.4\% |
| 1994 | 1539 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.4\% | 0.0\% | 4.3\% | 0.0\% | 2.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 4.9\% | 36.3\% | 0.0\% | 16.6\% | 0.4\% | 30.4\% |
| 1995 | 2001 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 7.1\% | 2.9\% | 0.0\% | 2.1\% | 0.0\% | 0.6\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 1.4\% | 27.3\% | 0.0\% | 29.9\% | 0.0\% | 25.7\% |
| 1996 | 1082 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 1.2\% | 0.0\% | 3.9\% | 0.0\% | 0.9\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 1.5\% | 25.7\% | 0.0\% | 38.3\% | 0.0\% | 26.2\% |
| 1997 | 739 | 2,3,4,5 | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 3.0\% | 4.2\% | 0.0\% | 0.8\% | 0.0\% | 0.4\% | 0.0\% | 0.7\% | 0.0\% | 0.9\% | 0.8\% | 27.9\% | 0.0\% | 19.4\% | 1.5\% | 39.4\% |
| 1998 | 1490 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.3\% | 0.6\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.5\% | 20.9\% | 0.0\% | 38.2\% | 0.8\% | 35.2\% |
| 1999 | 1655 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 2.7\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.3\% | 1.3\% | 22.3\% | 0.0\% | 41.8\% | 0.0\% | 24.8\% |
| 2000 | 712 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 3.1\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 1.4\% | 2.2\% | 25.6\% | 0.0\% | 36.9\% | 0.0\% | 11.4\% |
| 2001 | 1151 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 3.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 0.4\% | 0.4\% | 22.7\% | 0.0\% | 28.0\% | 0.0\% | 35.7\% |
| 2002 | 1542 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 3.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.6\% | 0.6\% | 11.0\% | 0.0\% | 41.1\% | 3.4\% | 28.3\% |
| 2003 | 1755 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 5.3\% | 2.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 0.4\% | 14.0\% | 0.0\% | 42.7\% | 1.9\% | 27.1\% |
| 2004 | 1875 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 1.3\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 0.6\% | 0.6\% | 11.3\% | 0.0\% | 33.0\% | 0.0\% | 38.7\% |
| 2005 | 1342 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 2.2\% | 0.0\% | 5.7\% | 0.0\% | 0.3\% | 0.0\% | 4.1\% | 0.0\% | 1.9\% | 0.7\% | 11.4\% | 0.0\% | 11.1\% | 0.0\% | 57.2\% |
| 2006 | 3203 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 1.7\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 0.3\% | 0.8\% | 7.6\% | 0.0\% | 41.1\% | 0.0\% | 34.2\% |
| 2007 | 3316 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 9.8\% | 1.5\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.4\% | 0.8\% | 13.3\% | 0.0\% | 35.9\% | 0.0\% | 32.4\% |
| 2008 | 1176 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 3.4\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.4\% | 0.9\% | 14.2\% | 0.0\% | 48.0\% | 0.0\% | 21.7\% |
| 2009 | 1791 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.1\% | 0.9\% | 13.0\% | 0.0\% | 43.0\% | 0.0\% | 35.0\% |
| 2010 | 1941 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 1.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 0.4\% | 0.2\% | 1.6\% | 0.0\% | 41.2\% | 4.4\% | 41.7\% |
| 1979-2010 | 1208 |  | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 8.7\% | 2.2\% | 0.2\% | 4.3\% | 0.2\% | 1.2\% | 0.0\% | 4.5\% | 0.1\% | 0.3\% | 4.3\% | 20.2\% | 0.0\% | 28.3\% | 0.5\% | 24.5\% |
| 1979-1984 | 274 |  | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 21.7\% | 0.0\% | 0.8\% | 4.3\% | 0.0\% | 3.3\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 12.0\% | 39.8\% | 0.0\% | 12.1\% | 0.0\% | 2.9\% |
| 1985-1995 | 774 |  | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 11.7\% | 2.3\% | 0.4\% | 7.1\% | 0.4\% | 2.2\% | 0.0\% | 6.6\% | 0.2\% | 0.2\% | 7.7\% | 22.1\% | 0.0\% | 20.8\% | 0.3\% | 17.4\% |
| 1996-1998 | 1104 |  | 0.1\% | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 1.3\% | 2.0\% | 0.0\% | 2.3\% | 0.0\% | 0.4\% | 0.0\% | 0.9\% | 0.0\% | 0.3\% | 0.9\% | 24.8\% | 0.0\% | 31.9\% | 0.8\% | 33.6\% |
| 1999-2010 | 1788 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 5.6\% | 2.5\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 0.6\% | 0.8\% | 14.0\% | 0.0\% | 37.0\% | 0.8\% | 32.3\% |

Appendix C.45. Percent distribution of Nooksack Spring Yearling (Nooksack Spring) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 23 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 214 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 185 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 191 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 84.8\% |
| 1987 | 523 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 537 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 116 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.8\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 73.3\% |
| 1990 | 41 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 0.0\% | 14.6\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 4.9\% | 34.1\% | 0.0\% | 0.0\% | 0.0\% | 29.3\% |
| 1991 | 285 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 7.0\% | 0.0\% | 31.9\% | 0.0\% | 7.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 7.0\% | 5.3\% | 0.0\% | 1.4\% | 0.0\% | 36.1\% |
| 1992 | 859 | 2,3,4,5 | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 17.5\% | 2.3\% | 1.3\% | 11.1\% | 0.9\% | 1.7\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.3\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 55.1\% |
| 1993 | 616 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 7.6\% | 2.3\% | 12.7\% | 0.0\% | 6.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 5.4\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 49.4\% |
| 1994 | 512 | 2,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 6.1\% | 28.3\% | 0.0\% | 1.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 6.3\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 49.2\% |
| 1995 | 171 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 67.3\% |
| 1996 | 186 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.2\% | 0.0\% | 12.4\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 79.6\% |
| 1997 | 113 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 14.2\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 15.9\% | 0.0\% | 0.0\% | 0.0\% | 58.4\% |
| 1998 | 114 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 6.1\% | 0.0\% | 15.8\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 5.3\% | 0.0\% | 2.6\% | 0.0\% | 59.6\% |
| 1999 | 195 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 1.0\% | 0.0\% | 23.6\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 1.5\% | 1.0\% | 0.0\% | 3.1\% | 0.0\% | 64.6\% |
| 2000 | 148 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 31 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 283 |  | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 2.6\% | 2.7\% | 0.8\% | 16.9\% | 0.1\% | 3.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 4.0\% | 8.6\% | 0.0\% | 0.6\% | 0.0\% | 58.9\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 349 |  | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 2.1\% | 1.2\% | 17.0\% | 0.1\% | 4.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 5.1\% | 9.7\% | 0.0\% | 0.2\% | 0.0\% | 55.5\% |
| 1996-1998 | 138 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 4.9\% | 0.0\% | 14.1\% | 0.0\% | 2.6\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.8\% | 8.1\% | 0.0\% | 0.9\% | 0.0\% | 65.9\% |
| 1999-2010 | 195 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 1.0\% | 0.0\% | 23.6\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 1.5\% | 1.0\% | 0.0\% | 3.1\% | 0.0\% | 64.6\% |

Appendix C.46. Percent distribution of Nooksack Spring Yearling (Nooksack Spring) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 45 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 226 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 201 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 256 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.8\% | 2.3\% | 15.6\% | 0.4\% | 4.3\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 7.4\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 63.3\% |
| 1987 | 565 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 560 | 2,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 129 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 9.3\% | 0.0\% | 0.8\% | 0.0\% | 65.9\% |
| 1990 | 87 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 1.1\% | 0.0\% | 39.1\% | 1.1\% | 10.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 2.3\% | 23.0\% | 0.0\% | 0.0\% | 0.0\% | 13.8\% |
| 1991 | 383 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 6.0\% | 0.0\% | 43.6\% | 0.0\% | 6.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 5.7\% | 6.3\% | 0.0\% | 1.3\% | 0.0\% | 26.9\% |
| 1992 | 1034 | 2,3,4,5 | 1.6\% | 1.9\% | 0.0\% | 0.0\% | 0.3\% | 18.9\% | 2.2\% | 1.5\% | 14.3\% | 1.0\% | 1.6\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.4\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 45.7\% |
| 1993 | 670 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 7.6\% | 3.0\% | 15.5\% | 0.0\% | 5.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 5.1\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 45.4\% |
| 1994 | 539 | 2,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 5.9\% | 30.6\% | 0.0\% | 1.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 5.9\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 46.8\% |
| 1995 | 195 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 10.8\% | 0.0\% | 0.0\% | 0.0\% | 59.0\% |
| 1996 | 202 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.5\% | 3.0\% | 0.0\% | 16.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 0.5\% | 0.0\% | 73.3\% |
| 1997 | 129 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 17.1\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 20.9\% | 0.0\% | 0.0\% | 0.0\% | 51.2\% |
| 1998 | 134 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 6.0\% | 0.0\% | 21.6\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 7.5\% | 0.0\% | 2.2\% | 0.0\% | 50.7\% |
| 1999 | 210 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 1.4\% | 0.0\% | 27.1\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 1.4\% | 1.9\% | 0.0\% | 2.9\% | 0.0\% | 60.0\% |
| 2000 | 154 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 31 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 331 |  | 0.2\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 3.6\% | 2.8\% | 1.1\% | 23.1\% | 0.2\% | 3.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 4.2\% | 9.5\% | 0.0\% | 0.6\% | 0.0\% | 50.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 412 |  | 0.3\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 2.2\% | 1.6\% | 24.4\% | 0.3\% | 3.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 5.5\% | 9.8\% | 0.0\% | 0.3\% | 0.0\% | 45.8\% |
| 1996-1998 | 155 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.2\% | 4.8\% | 0.0\% | 18.3\% | 0.0\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.5\% | 11.1\% | 0.0\% | 0.9\% | 0.0\% | 58.4\% |
| 1999-2010 | 210 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 1.4\% | 0.0\% | 27.1\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 1.4\% | 1.9\% | 0.0\% | 2.9\% | 0.0\% | 60.0\% |

Appendix C.47. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 4 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 127 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 458 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | 359 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 45 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 358 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 949 | 2,3,4 | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 4.0\% | 0.0\% | 17.0\% | 0.0\% | 4.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 6.4\% | 0.0\% | 0.1\% | 0.0\% | 64.2\% |
| 1997 | 1920 | 2,3,4,5 | 3.5\% | 0.2\% | 0.7\% | 0.2\% | 0.1\% | 1.8\% | 2.9\% | 0.0\% | 10.3\% | 0.1\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 5.3\% | 0.0\% | 0.8\% | 0.0\% | 72.9\% |
| 1998 | 1476 | 2,3,4,5 | 8.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 3.2\% | 0.0\% | 3.0\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 82.9\% |
| 1999 | 1589 | 2,3,4,5 | 1.6\% | 0.1\% | 0.0\% | 0.0\% | 0.9\% | 2.2\% | 5.4\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 84.2\% |
| 2000 | 867 | 2,3,4,5 | 4.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 20.5\% | 4.6\% | 0.0\% | 11.6\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 57.7\% |
| 2001 | 1331 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 4.4\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.5\% | 0.7\% | 0.0\% | 0.3\% | 0.0\% | 77.3\% |
| 2002 | 1242 | 2,3,4,5 | 5.5\% | 0.0\% | 0.5\% | 0.8\% | 1.1\% | 17.6\% | 2.1\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 0.2\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 69.9\% |
| 2003 | 733 | 2,3,4,5 | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 13.6\% | 2.3\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.8\% | 0.0\% | 1.0\% | 0.0\% | 71.1\% |
| 2004 | 645 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 31.9\% | 4.8\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.5\% | 0.0\% | 48.5\% |
| 2005 | 792 | 2,3,4,5 | 3.4\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 32.4\% | 3.9\% | 0.0\% | 7.6\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 0.8\% | 0.0\% | 0.9\% | 0.0\% | 49.5\% |
| 2006 | 517 | 2,3,4,5 | 1.9\% | 0.0\% | 0.4\% | 1.2\% | 0.0\% | 32.3\% | 6.2\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.2\% | 2.7\% | 0.0\% | 2.3\% | 0.6\% | 43.7\% |
| 2007 | 524 | 2,3,4,5 | 5.3\% | 0.2\% | 0.4\% | 0.4\% | 0.0\% | 24.8\% | 9.2\% | 0.0\% | 7.1\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.8\% | 0.4\% | 47.9\% |
| 2008 | 969 | 2,3,4,5 | 1.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 20.9\% | 12.9\% | 0.0\% | 13.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.4\% | 5.6\% | 0.0\% | 2.6\% | 0.2\% | 41.4\% |
| 2009 | 740 | 2,3,4,5 | 3.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 10.1\% | 0.0\% | 11.9\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.5\% | 0.0\% | 62.2\% |
| 2010 | 778 | 2,3,4,5 | 3.0\% | 0.1\% | 0.0\% | 0.6\% | 1.3\% | 21.5\% | 9.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.4\% | 0.3\% | 3.2\% | 0.0\% | 0.5\% | 0.0\% | 56.4\% |
| 1979-2010 | 1005 |  | 3.2\% | 0.1\% | 0.1\% | 0.3\% | 0.3\% | 15.9\% | 5.7\% | 0.0\% | 7.6\% | 0.0\% | 0.4\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.2\% | 2.4\% | 0.0\% | 0.7\% | 0.1\% | 62.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 1448 |  | 4.3\% | 0.1\% | 0.2\% | 0.1\% | 0.4\% | 1.2\% | 3.4\% | 0.0\% | 10.1\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 4.1\% | 0.0\% | 0.3\% | 0.0\% | 73.3\% |
| 1999-2010 | 894 |  | 2.9\% | 0.1\% | 0.1\% | 0.3\% | 0.3\% | 19.6\% | 6.2\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.1\% | 0.2\% | 1.9\% | 0.0\% | 0.9\% | 0.1\% | 59.1\% |

Appendix C.48. Percent distribution of Nooksack Spring Fingerling (Nooksack Spring) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 11 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | 194 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 511 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | 367 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 67 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 494 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 1122 | 2,3,4 | 3.3\% | 0.0\% | 0.2\% | 0.0\% | 1.1\% | 1.1\% | 4.0\% | 0.0\% | 20.9\% | 0.0\% | 5.4\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 8.8\% | 0.0\% | 0.1\% | 0.0\% | 54.3\% |
| 1997 | 2049 | 2,3,4,5 | 4.0\% | 0.4\% | 0.8\% | 0.2\% | 0.1\% | 2.1\% | 2.9\% | 0.0\% | 11.7\% | 0.0\% | 1.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.4\% | 6.3\% | 0.0\% | 0.8\% | 0.0\% | 68.3\% |
| 1998 | 1521 | 2,3,4,5 | 8.7\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 3.6\% | 0.0\% | 3.8\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 80.5\% |
| 1999 | 1645 | 2,3,4,5 | 2.0\% | 0.2\% | 0.0\% | 0.0\% | 1.1\% | 2.2\% | 5.8\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 81.3\% |
| 2000 | 945 | 2,3,4,5 | 5.1\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 20.6\% | 5.1\% | 0.0\% | 15.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 52.9\% |
| 2001 | 1388 | 2,3,4,5 | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.2\% | 5.1\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.5\% | 1.2\% | 0.0\% | 0.3\% | 0.0\% | 74.1\% |
| 2002 | 1283 | 2,3,4,5 | 6.2\% | 0.0\% | 0.5\% | 0.9\% | 1.6\% | 17.7\% | 2.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.5\% | 0.2\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 67.7\% |
| 2003 | 786 | 2,3,4,5 | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 14.0\% | 3.2\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 2.9\% | 0.0\% | 0.9\% | 0.0\% | 66.3\% |
| 2004 | 693 | 2,3,4,5 | 1.6\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 31.2\% | 5.5\% | 0.0\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.4\% | 0.0\% | 45.2\% |
| 2005 | 841 | 2,3,4,5 | 3.8\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 32.7\% | 4.5\% | 0.0\% | 8.9\% | 0.0\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 1.0\% | 0.0\% | 0.8\% | 0.0\% | 46.6\% |
| 2006 | 567 | 2,3,4,5 | 2.3\% | 0.0\% | 0.5\% | 1.2\% | 0.0\% | 31.6\% | 6.9\% | 0.0\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.2\% | 3.5\% | 0.0\% | 2.3\% | 0.7\% | 39.9\% |
| 2007 | 608 | 2,3,4,5 | 5.4\% | 0.3\% | 0.5\% | 0.3\% | 0.0\% | 24.5\% | 9.7\% | 0.0\% | 11.3\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 0.7\% | 0.3\% | 41.3\% |
| 2008 | 1078 | 2,3,4,5 | 1.4\% | 0.2\% | 0.0\% | 0.4\% | 0.0\% | 19.7\% | 13.6\% | 0.0\% | 16.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.5\% | 0.4\% | 6.7\% | 0.0\% | 2.5\% | 0.2\% | 37.2\% |
| 2009 | 855 | 2,3,4,5 | 3.3\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 11.2\% | 0.0\% | 17.3\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 1.4\% | 0.0\% | 53.8\% |
| 2010 | 844 | 2,3,4,5 | 3.7\% | 0.4\% | 0.0\% | 0.8\% | 1.7\% | 21.1\% | 10.7\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.5\% | 0.2\% | 4.0\% | 0.0\% | 0.5\% | 0.0\% | 52.0\% |
| 1979-2010 | 1082 |  | 3.8\% | 0.2\% | 0.2\% | 0.3\% | 0.4\% | 15.8\% | 6.3\% | 0.0\% | 9.8\% | 0.0\% | 0.5\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.2\% | 3.3\% | 0.0\% | 0.7\% | 0.1\% | 57.4\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 1564 |  | 5.3\% | 0.2\% | 0.3\% | 0.1\% | 0.4\% | 1.6\% | 3.5\% | 0.0\% | 12.1\% | 0.0\% | 2.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 5.4\% | 0.0\% | 0.3\% | 0.0\% | 67.7\% |
| 1999-2010 | 961 |  | 3.4\% | 0.2\% | 0.1\% | 0.4\% | 0.4\% | 19.4\% | 7.0\% | 0.0\% | 9.3\% | 0.0\% | 0.1\% | 0.0\% | 1.1\% | 0.0\% | 0.1\% | 0.2\% | 2.7\% | 0.0\% | 0.8\% | 0.1\% | 54.9\% |

Appendix C.49. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1470 | 2,3,4 | 1.5\% | 0.3\% | 0.2\% | 2.6\% | 0.3\% | 0.7\% | 0.0\% | 19.9\% | 16.9\% | 8.0\% | 12.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.0\% |
| 1980 | 760 | 2,3,4,5 | 2.2\% | 0.0\% | 0.4\% | 2.0\% | 1.3\% | 5.3\% | 0.0\% | 16.2\% | 23.2\% | 5.8\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.6\% |
| 1981 | 506 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 4.5\% | 4.0\% | 0.0\% | 0.0\% | 21.9\% | 37.5\% | 7.3\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% |
| 1982 | 506 | 2,3,4,5 | 0.8\% | 0.4\% | 0.0\% | 3.8\% | 1.2\% | 1.8\% | 0.0\% | 5.5\% | 16.2\% | 14.4\% | 22.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.4\% |
| 1983 | 487 | 2,3,4,5 | 1.0\% | 0.2\% | 0.0\% | 7.8\% | 3.1\% | 2.5\% | 0.0\% | 12.5\% | 13.3\% | 16.2\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.3\% |
| 1984 | 300 | 2,3,4,5 | 0.0\% | 1.0\% | 0.0\% | 2.0\% | 1.0\% | 2.0\% | 0.0\% | 5.3\% | 17.7\% | 5.0\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 60.3\% |
| 1985 | 131 | 2,3,4,5 | 9.2\% | 0.8\% | 2.3\% | 6.1\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 32.8\% | 1.5\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.7\% |
| 1986 | 180 | 2,3,4,5 | 5.6\% | 0.0\% | 4.4\% | 2.8\% | 0.0\% | 2.8\% | 0.0\% | 10.6\% | 32.2\% | 3.9\% | 11.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.1\% |
| 1987 | 148 | 2,3,4,5 | 2.7\% | 0.7\% | 0.0\% | 12.2\% | 10.1\% | 0.0\% | 4.7\% | 0.0\% | 16.9\% | 2.0\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 43.9\% |
| 1988 | 92 | 2,3,4,5 | 12.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 17.4\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.1\% |
| 1989 | 62 | 2,3,4,5 | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.4\% |
| 1990 | 96 | 2,3,4,5 | 8.3\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 8.3\% | 3.1\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 61.5\% |
| 1991 | 96 | 2,3,4,5 | 6.3\% | 4.2\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 27.1\% | 0.0\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 40.6\% |
| 1992 | 87 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 3.4\% | 33.3\% | 0.0\% | 21.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.9\% |
| 1993 | 69 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 49.3\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.3\% |
| 1994 | 28 | 2,3,4,5 | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.6\% | 0.0\% | 10.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.6\% |
| 1995 | 36 | 2,3,4,5 | 5.6\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.6\% | 0.0\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 47.2\% |
| 1996 | 45 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 28.9\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.2\% |
| 1997 | 26 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 80.8\% |
| 1998 | 8 | 2,4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1999 | 48 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 83.3\% |
| 2000 | 61 | 2,3,4 | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.5\% |
| 2001 | 212 | 2,3,4,5 | 2.8\% | 0.5\% | 0.0\% | 0.0\% | 0.9\% | 2.4\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.6\% |
| 2002 | 112 | 2,3,4,5 | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 9.8\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 73.2\% |
| 2003 | 108 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.3\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 85.2\% |
| 2004 | 98 | 2,3,4,5 | 14.3\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 73.5\% |
| 2005 | 306 | 2,3,4,5 | 1.6\% | 0.0\% | 0.0\% | 1.3\% | 9.2\% | 0.7\% | 0.0\% | 0.0\% | 11.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.5\% |
| 2006 | 205 | 2,3,4,5 | 7.3\% | 1.5\% | 0.0\% | 1.0\% | 2.9\% | 0.0\% | 2.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.9\% |
| 2007 | 161 | 2,3,4,5 | 19.9\% | 6.8\% | 1.9\% | 1.2\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.1\% |
| 2008 | 114 | 2,3,4,5 | 1.8\% | 1.8\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 9.6\% | 0.0\% | 16.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.0\% |
| 2009 | 571 | 2,3,4,5 | 4.6\% | 1.4\% | 0.2\% | 0.9\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 81.6\% |
| 2010 | 461 | 2,3,4,5 | 6.1\% | 0.7\% | 0.0\% | 0.0\% | 8.7\% | 1.7\% | 0.9\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 77.0\% |
| 1979-2010 | 245 |  | 4.2\% | 0.8\% | 0.3\% | 1.6\% | 4.5\% | 0.7\% | 0.9\% | 3.1\% | 19.2\% | 2.2\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 56.1\% |
| 1979-1984 | 672 |  | 1.1\% | 0.3\% | 0.1\% | 3.8\% | 1.8\% | 2.0\% | 0.0\% | 13.6\% | 20.8\% | 9.5\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.8\% |
| 1985-1995 | 93 |  | 5.4\% | 0.8\% | 0.6\% | 1.9\% | 5.3\% | 0.3\% | 0.4\% | 1.3\% | 31.8\% | 1.0\% | 10.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 40.5\% |
| 1996-1998 | 36 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.5\% |
| 1999-2010 | 205 |  | 5.2\% | 1.3\% | 0.2\% | 0.4\% | 4.7\% | 0.7\% | 1.9\% | 0.0\% | 7.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 78.1\% |

Appendix C.50. Percent distribution of Puntledge River Summer (Lower Strait of Georgia Hatchery) total fishing mortalities among fisheries and
escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | AgesPresent | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1539 | 2,3,4 | 1.9\% | 0.3\% | 0.3\% | 2.7\% | 0.4\% | 1.0\% | 0.0\% | 19.8\% | 17.2\% | 8.6\% | 12.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.3\% |
| 1980 | 815 | 2,3,4,5 | 2.6\% | 0.0\% | 0.5\% | 2.2\% | 1.5\% | 5.8\% | 0.0\% | 16.3\% | 23.1\% | 6.4\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.3\% |
| 1981 | 541 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 5.0\% | 4.3\% | 0.0\% | 0.0\% | 21.6\% | 37.5\% | 7.9\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% |
| 1982 | 561 | 2,3,4,5 | 1.1\% | 0.5\% | 0.0\% | 4.1\% | 1.6\% | 2.1\% | 0.0\% | 5.7\% | 15.7\% | 16.0\% | 23.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.1\% |
| 1983 | 531 | 2,3,4,5 | 2.1\% | 0.2\% | 0.0\% | 8.5\% | 3.0\% | 2.6\% | 0.0\% | 12.6\% | 13.4\% | 17.3\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.4\% |
| 1984 | 317 | 2,3,4,5 | 0.0\% | 0.9\% | 0.0\% | 2.2\% | 1.3\% | 2.2\% | 0.0\% | 5.7\% | 18.9\% | 5.7\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 57.1\% |
| 1985 | 156 | 2,3,4,5 | 13.5\% | 1.3\% | 3.8\% | 6.4\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 31.4\% | 1.3\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.4\% |
| 1986 | 204 | 2,3,4,5 | 5.9\% | 0.0\% | 5.4\% | 2.9\% | 0.0\% | 2.9\% | 0.0\% | 12.3\% | 31.9\% | 4.4\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.0\% |
| 1987 | 162 | 2,3,4,5 | 3.1\% | 1.2\% | 0.0\% | 15.4\% | 10.5\% | 0.0\% | 4.3\% | 0.0\% | 16.7\% | 2.5\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 40.1\% |
| 1988 | 108 | 2,3,4,5 | 11.1\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 43.5\% |
| 1989 | 75 | 2,3,4,5 | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 57.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 40.0\% |
| 1990 | 103 | 2,3,4,5 | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 9.7\% | 3.9\% | 15.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 57.3\% |
| 1991 | 131 | 2,3,4,5 | 6.1\% | 7.6\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 36.6\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.8\% |
| 1992 | 103 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 3.9\% | 40.8\% | 0.0\% | 19.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.0\% |
| 1993 | 82 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 56.1\% | 0.0\% | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.0\% |
| 1994 | 34 | 2,3,4,5 | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 58.8\% | 0.0\% | 8.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% |
| 1995 | 58 | 2,3,4,5 | 3.4\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 50.0\% | 0.0\% | 12.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.3\% |
| 1996 | 51 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 37.3\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.9\% |
| 1997 | 27 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 77.8\% |
| 1998 | 12 | 2,4,5 | Failed | Criteria |  | - |  |  | - | - | - | - | - | - | - | - | - | - |  | - | - |  | - |
| 1999 | 53 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 15.1\% | 0.0\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.5\% |
| 2000 | 64 | 2,3,4 | 1.6\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.4\% |
| 2001 | 215 | 2,3,4,5 | 3.3\% | 0.5\% | 0.0\% | 0.0\% | 1.4\% | 2.3\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.3\% |
| 2002 | 126 | 2,3,4,5 | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 12.7\% | 0.0\% | 11.9\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.1\% |
| 2003 | 116 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.3\% |
| 2004 | 108 | 2,3,4,5 | 16.7\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 13.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.7\% |
| 2005 | 339 | 2,3,4,5 | 1.8\% | 0.0\% | 0.0\% | 1.5\% | 12.4\% | 0.6\% | 0.0\% | 0.0\% | 15.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 68.1\% |
| 2006 | 227 | 2,3,4,5 | 10.6\% | 3.1\% | 0.0\% | 1.3\% | 4.0\% | 0.0\% | 2.2\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.9\% |
| 2007 | 214 | 2,3,4,5 | 21.5\% | 16.8\% | 2.8\% | 1.4\% | 8.4\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 46.7\% |
| 2008 | 135 | 2,3,4,5 | 3.0\% | 2.2\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 10.4\% | 0.0\% | 23.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.1\% |
| 2009 | 623 | 2,3,4,5 | 5.5\% | 1.6\% | 0.2\% | 1.1\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 11.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.8\% |
| 2010 | 495 | 2,3,4,5 | 7.5\% | 1.0\% | 0.0\% | 0.0\% | 10.9\% | 1.6\% | 1.0\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.7\% |
| 1979-2010 | 268 |  | 4.8\% | 1.4\% | 0.4\% | 1.8\% | 5.3\% | 0.8\% | 1.0\% | 3.2\% | 22.7\% | 2.4\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 50.1\% |
| 1979-1984 | 717 |  | 1.4\% | 0.3\% | 0.1\% | 4.1\% | 2.0\% | 2.3\% | 0.0\% | 13.6\% | 21.0\% | 10.3\% | 11.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.4\% |
| 1985-1995 | 111 |  | 5.8\% | 1.4\% | 0.8\% | 2.3\% | 5.4\% | 0.3\% | 0.4\% | 1.5\% | 37.7\% | 1.1\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.6\% |
| 1996-1998 | 39 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 0.0\% | 0.0\% | 0.0\% | 22.3\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.3\% |
| 1999-2010 | 226 |  | 6.4\% | 2.3\% | 0.2\% | 0.4\% | 6.3\% | 0.6\% | 2.3\% | 0.0\% | 9.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 70.9\% |

Appendix C.51. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1980 | 3 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 94 | 2,3,4 | 9.6\% | 0.0\% | 0.0\% | 13.8\% | 0.0\% | 11.7\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 2.1\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 31.9\% | 0.0\% | 24.5\% |
| 1982 | 226 | 2,3,4,5 | 13.3\% | 1.8\% | 0.0\% | 17.7\% | 1.3\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.4\% | 0.0\% | 24.8\% |
| 1983 | 141 | 2,3,4,5,6 | 27.7\% | 0.0\% | 0.0\% | 16.3\% | 0.0\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 22.7\% | 0.0\% | 21.3\% |
| 1984 | 138 | 2,3,4,5,6 | 16.7\% | 0.7\% | 0.0\% | 17.4\% | 1.4\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.7\% | 0.0\% | 23.9\% |
| 1985 | 244 | 2,3,4,5,6 | 16.0\% | 0.0\% | 0.0\% | 29.9\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 14.8\% | 0.0\% | 34.4\% |
| 1986 | 283 | 3,4,5,6 | 17.3\% | 0.0\% | 1.1\% | 11.7\% | 0.0\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.5\% | 0.0\% | 50.5\% |
| 1987 | 543 | 2,4,5,6 | 22.1\% | 1.1\% | 0.0\% | 11.6\% | 0.9\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.6\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 22.5\% | 0.0\% | 38.3\% |
| 1988 | 726 | 2,3,5,6 | 14.5\% | 0.7\% | 1.7\% | 7.9\% | 0.0\% | 4.0\% | 1.1\% | 0.0\% | 0.0\% | 2.5\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 16.7\% | 0.0\% | 47.4\% |
| 1989 | 569 | 2,3,4,6 | 11.1\% | 0.0\% | 0.0\% | 9.1\% | 1.1\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 27.8\% | 0.0\% | 41.1\% |
| 1990 | 1275 | 2,3,4,5 | 12.5\% | 0.3\% | 0.0\% | 5.4\% | 2.4\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 0.0\% | 58.4\% |
| 1991 | 1102 | 2,3,4,5,6 | 20.5\% | 0.2\% | 1.1\% | 9.7\% | 1.3\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 15.7\% | 0.0\% | 46.3\% |
| 1992 | 632 | 2,3,4,5,6 | 8.4\% | 0.9\% | 2.2\% | 7.8\% | 1.9\% | 16.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 19.3\% | 0.0\% | 41.6\% |
| 1993 | 619 | 2,3,4,5,6 | 15.3\% | 1.0\% | 0.6\% | 13.9\% | 2.1\% | 12.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.9\% | 0.0\% | 0.8\% | 0.0\% | 15.8\% | 0.0\% | 35.2\% |
| 1994 | 1050 | 2,3,4,5,6 | 16.2\% | 0.4\% | 0.5\% | 21.7\% | 1.4\% | 4.1\% | 1.0\% | 0.0\% | 0.3\% | 0.2\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.4\% | 0.0\% | 32.4\% |
| 1995 | 746 | 2,3,4,5,6 | 17.3\% | 0.0\% | 1.6\% | 6.0\% | 3.4\% | 0.7\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 33.1\% | 0.0\% | 36.2\% |
| 1996 | 714 | 2,3,4,5,6 | 10.4\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.5\% | 0.6\% | 70.2\% |
| 1997 | 904 | 2,3,4,5,6 | 34.4\% | 0.4\% | 0.0\% | 6.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.8\% | 0.0\% | 37.3\% |
| 1998 | 638 | 2,3,4,5,6 | 23.8\% | 0.0\% | 3.0\% | 19.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 12.1\% | 4.4\% | 37.0\% |
| 1999 | 738 | 2,3,4,5,6 | 9.1\% | 0.0\% | 1.4\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 78.0\% |
| 2000 | 433 | 2,3,4,5,6 | 22.6\% | 0.0\% | 9.5\% | 12.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 0.0\% | 51.3\% |
| 2001 | 445 | 2,3,4,5,6 | 23.1\% | 0.0\% | 5.8\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 42.0\% | 0.0\% | 22.5\% |
| 2002 | 1632 | 2,3,4,5,6 | 25.4\% | 0.0\% | 3.3\% | 4.8\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 24.9\% | 0.0\% | 38.7\% |
| 2003 | 1447 | 2,3,4,5,6 | 20.8\% | 0.1\% | 3.6\% | 10.6\% | 4.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 21.4\% | 0.0\% | 37.7\% |
| 2004 | 2552 | 2,3,4,5,6 | 15.2\% | 0.6\% | 3.1\% | 6.7\% | 6.5\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 0.0\% | 54.0\% |
| 2005 | 2523 | 2,3,4,5,6 | 14.5\% | 0.0\% | 3.3\% | 6.8\% | 2.6\% | 3.6\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 19.9\% | 0.0\% | 48.4\% |
| 2006 | 1074 | 2,3,4,5,6 | 23.6\% | 0.2\% | 2.6\% | 13.1\% | 3.3\% | 4.1\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 17.3\% | 0.0\% | 34.5\% |
| 2007 | 599 | 2,3,4,5,6 | 28.5\% | 0.0\% | 3.8\% | 11.2\% | 13.9\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.3\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 16.4\% | 0.0\% | 23.0\% |
| 2008 | 1003 | 2,3,4,5,6 | 13.3\% | 0.0\% | 1.2\% | 7.2\% | 4.4\% | 0.8\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.4\% | 0.0\% | 50.7\% |
| 2009 | 1570 | 3,4,5,6 | 22.3\% | 1.1\% | 2.9\% | 8.9\% | 2.9\% | 0.1\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.8\% | 0.0\% | 44.0\% |
| 2010 | 1585 | 4,5,6 | 25.7\% | 0.0\% | 6.0\% | 5.6\% | 5.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 0.0\% | 38.5\% |
| 1979-2010 | 875 |  | 18.4\% | 0.3\% | 2.0\% | 10.7\% | 2.1\% | 4.0\% | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.1\% | 0.4\% | 0.0\% | 19.8\% | 0.2\% | 40.7\% |
| 1979-1984 | 150 |  | 16.8\% | 0.6\% | 0.0\% | 16.3\% | 0.7\% | 10.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.4\% | 0.8\% | 0.0\% | 27.9\% | 0.0\% | 23.6\% |
| 1985-1995 | 708 |  | 15.6\% | 0.4\% | 0.8\% | 12.2\% | 1.3\% | 6.1\% | 0.2\% | 0.0\% | 0.1\% | 0.6\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 19.1\% | 0.0\% | 42.0\% |
| 1996-1998 | 752 |  | 22.9\% | 0.1\% | 1.5\% | 8.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 16.8\% | 1.6\% | 48.1\% |
| 1999-2010 | 1300 |  | 20.3\% | 0.2\% | 3.9\% | 7.9\% | 3.9\% | 0.9\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 18.5\% | 0.0\% | 43.4\% |

Appendix C.52. Percent distribution of Queets Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 2 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 14 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - | - | - | - | - |
| 1981 | 110 | 2,3,4 | 12.7\% | 0.0\% | 0.0\% | 16.4\% | 0.0\% | 11.8\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 2.7\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 28.2\% | 0.0\% | 20.9\% |
| 1982 | 241 | 2,3,4,5 | 15.4\% | 1.7\% | 0.0\% | 18.7\% | 1.2\% | 12.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 26.1\% | 0.0\% | 23.2\% |
| 1983 | 196 | 2,3,4,5,6 | 45.4\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 16.8\% | 0.0\% | 15.3\% |
| 1984 | 149 | 2,3,4,5,6 | 16.8\% | 0.7\% | 0.0\% | 20.1\% | 2.0\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.2\% | 0.0\% | 22.1\% |
| 1985 | 286 | 2,3,4,5,6 | 20.3\% | 0.0\% | 0.0\% | 32.2\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 12.9\% | 0.0\% | 29.4\% |
| 1986 | 329 | 3,4,5,6 | 25.5\% | 0.0\% | 1.2\% | 11.2\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 0.0\% | 43.5\% |
| 1987 | 618 | 2,4,5,6 | 28.0\% | 1.8\% | 0.0\% | 11.5\% | 1.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.8\% | 0.0\% | 19.9\% | 0.0\% | 33.7\% |
| 1988 | 821 | 2,3,5,6 | 18.0\% | 1.7\% | 1.6\% | 9.0\% | 0.2\% | 5.4\% | 1.0\% | 0.0\% | 0.0\% | 2.3\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 15.1\% | 0.0\% | 41.9\% |
| 1989 | 662 | 2,3,4,6 | 16.9\% | 0.3\% | 0.2\% | 10.4\% | 1.1\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 24.3\% | 0.0\% | 35.3\% |
| 1990 | 1362 | 2,3,4,5 | 15.1\% | 0.7\% | 0.1\% | 6.1\% | 2.4\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.2\% | 0.0\% | 54.7\% |
| 1991 | 1200 | 2,3,4,5,6 | 24.4\% | 0.3\% | 1.2\% | 10.0\% | 1.4\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 14.7\% | 0.0\% | 42.5\% |
| 1992 | 774 | 2,3,4,5,6 | 13.8\% | 5.8\% | 2.3\% | 8.1\% | 1.8\% | 17.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.0\% | 34.0\% |
| 1993 | 712 | 2,3,4,5,6 | 19.0\% | 2.2\% | 0.7\% | 14.6\% | 2.0\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.8\% | 0.0\% | 1.0\% | 0.0\% | 14.0\% | 0.0\% | 30.6\% |
| 1994 | 1217 | 2,3,4,5,6 | 23.6\% | 1.3\% | 0.4\% | 21.0\% | 1.4\% | 4.0\% | 1.0\% | 0.0\% | 0.2\% | 0.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.7\% | 0.0\% | 27.9\% |
| 1995 | 829 | 2,3,4,5,6 | 22.1\% | 0.0\% | 1.8\% | 6.8\% | 4.1\% | 0.7\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 30.0\% | 0.0\% | 32.6\% |
| 1996 | 805 | 2,3,4,5,6 | 18.1\% | 0.0\% | 1.5\% | 1.1\% | 0.1\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.9\% | 0.5\% | 62.2\% |
| 1997 | 973 | 2,3,4,5,6 | 38.1\% | 0.6\% | 0.0\% | 6.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 0.0\% | 34.6\% |
| 1998 | 676 | 2,3,4,5,6 | 25.4\% | 0.0\% | 3.1\% | 19.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 11.5\% | 4.4\% | 34.9\% |
| 1999 | 787 | 2,3,4,5,6 | 13.5\% | 0.0\% | 1.8\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 0.0\% | 73.2\% |
| 2000 | 500 | 2,3,4,5,6 | 26.6\% | 0.0\% | 12.0\% | 13.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 44.4\% |
| 2001 | 501 | 2,3,4,5,6 | 28.3\% | 0.0\% | 6.8\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 38.1\% | 0.0\% | 20.0\% |
| 2002 | 1788 | 2,3,4,5,6 | 29.3\% | 0.0\% | 3.6\% | 5.1\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 23.1\% | 0.0\% | 35.3\% |
| 2003 | 1582 | 2,3,4,5,6 | 22.8\% | 0.1\% | 3.9\% | 11.4\% | 6.4\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 19.8\% | 0.0\% | 34.5\% |
| 2004 | 2787 | 2,3,4,5,6 | 17.2\% | 1.0\% | 3.2\% | 7.2\% | 9.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 0.0\% | 49.4\% |
| 2005 | 2627 | 2,3,4,5,6 | 15.6\% | 0.0\% | 3.5\% | 7.2\% | 3.3\% | 3.5\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 19.4\% | 0.0\% | 46.5\% |
| 2006 | 1170 | 2,3,4,5,6 | 26.2\% | 0.2\% | 2.9\% | 13.6\% | 4.0\% | 4.1\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 16.1\% | 0.0\% | 31.6\% |
| 2007 | 718 | 2,3,4,5,6 | 32.0\% | 0.0\% | 4.3\% | 11.1\% | 16.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 0.0\% | 19.2\% |
| 2008 | 1089 | 2,3,4,5,6 | 16.9\% | 0.0\% | 1.4\% | 7.9\% | 5.1\% | 0.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.2\% | 0.0\% | 46.7\% |
| 2009 | 1681 | 3,4,5,6 | 25.5\% | 1.1\% | 3.0\% | 8.9\% | 3.2\% | 0.1\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.0\% | 41.1\% |
| 2010 | 1698 | 4,5,6 | 28.4\% | 0.0\% | 5.8\% | 5.4\% | 6.8\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 16.2\% | 0.0\% | 35.9\% |
| 1979-2010 | 963 |  | 22.7\% | 0.6\% | 2.2\% | 11.2\% | 2.5\% | 4.0\% | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% | 0.4\% | 0.0\% | 0.2\% | 0.1\% | 0.4\% | 0.0\% | 18.0\% | 0.2\% | 36.6\% |
| 1979-1984 | 174 |  | 22.6\% | 0.6\% | 0.0\% | 17.1\% | 0.8\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 1.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.5\% | 0.9\% | 0.0\% | 24.8\% | 0.0\% | 20.4\% |
| 1985-1995 | 801 |  | 20.6\% | 1.3\% | 0.9\% | 12.8\% | 1.4\% | 6.6\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.8\% | 0.0\% | 17.1\% | 0.0\% | 36.9\% |
| 1996-1998 | 818 |  | 27.2\% | 0.2\% | 1.5\% | 9.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 15.7\% | 1.6\% | 43.9\% |
| 1999-2010 | 1411 |  | 23.5\% | 0.2\% | 4.3\% | 8.2\% | 4.8\% | 0.9\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 0.0\% | 39.8\% |

Appendix C.53. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | uget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1548 | 2,3,4,5 | 4.7\% | 4.5\% | 0.7\% | 5.4\% | 3.0\% | 0.0\% | 0.0\% | 2.5\% | 4.2\% | 10.1\% | 23.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 41.7\% |
| 1980 | 1561 | 2,3,4,5,6 | 14.6\% | 4.9\% | 2.9\% | 10.3\% | 5.3\% | 0.0\% | 0.0\% | 1.5\% | 5.1\% | 16.2\% | 21.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% |
| 1981 | 1594 | 2,3,4,5,6 | 10.9\% | 4.1\% | 1.6\% | 12.7\% | 5.5\% | 0.6\% | 0.0\% | 2.1\% | 9.8\% | 12.1\% | 16.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% |
| 1982 | 1119 | 2,3,4,5,6 | 16.3\% | 6.6\% | 5.0\% | 8.3\% | 2.2\% | 0.4\% | 0.0\% | 0.0\% | 3.8\% | 6.3\% | 26.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.3\% |
| 1983 | 1139 | 2,3,4,5,6 | 21.2\% | 1.3\% | 0.3\% | 14.5\% | 2.7\% | 0.7\% | 0.0\% | 0.3\% | 4.5\% | 11.5\% | 25.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.6\% |
| 1984 | 1169 | 2,3,4,5,6 | 14.3\% | 4.9\% | 5.0\% | 6.3\% | 4.0\% | 0.9\% | 0.0\% | 0.9\% | 6.8\% | 5.0\% | 21.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.5\% |
| 1985 | 1564 | 2,3,4,5,6 | 25.9\% | 5.0\% | 4.3\% | 5.1\% | 1.0\% | 0.1\% | 0.0\% | 0.0\% | 4.2\% | 3.6\% | 19.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 31.1\% |
| 1986 | 1555 | 2,3,4,5,6 | 13.8\% | 4.1\% | 2.8\% | 6.6\% | 2.9\% | 0.0\% | 0.0\% | 0.1\% | 6.1\% | 7.3\% | 26.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.0\% |
| 1987 | 1317 | 2,3,4,5,6 | 10.6\% | 3.5\% | 2.8\% | 6.3\% | 6.5\% | 0.4\% | 0.4\% | 0.2\% | 3.9\% | 6.1\% | 24.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.9\% |
| 1988 | 1556 | 2,3,4,5,6 | 18.6\% | 2.4\% | 1.2\% | 6.4\% | 2.8\% | 0.7\% | 0.9\% | 0.2\% | 3.5\% | 2.4\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 51.4\% |
| 1989 | 1657 | 2,3,4,5,6 | 12.6\% | 2.5\% | 2.8\% | 3.9\% | 3.2\% | 0.3\% | 0.0\% | 0.0\% | 7.4\% | 1.9\% | 18.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 47.4\% |
| 1990 | 1144 | 2,3,4,5,6 | 15.9\% | 2.3\% | 0.5\% | 6.1\% | 8.7\% | 1.3\% | 0.0\% | 1.6\% | 1.7\% | 4.5\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 42.7\% |
| 1991 | 756 | 2,3,4,5,6 | 10.3\% | 2.2\% | 1.5\% | 6.0\% | 11.5\% | 0.5\% | 0.8\% | 0.7\% | 4.0\% | 9.5\% | 14.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 38.6\% |
| 1992 | 598 | 2,3,4,5,6 | 12.0\% | 0.5\% | 2.5\% | 10.5\% | 6.4\% | 0.3\% | 0.0\% | 0.3\% | 3.3\% | 9.7\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 44.0\% |
| 1993 | 332 | 2,3,4,5,6 | 7.8\% | 3.3\% | 1.2\% | 5.7\% | 7.8\% | 1.2\% | 0.0\% | 0.6\% | 9.9\% | 5.7\% | 22.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.7\% |
| 1994 | 351 | 2,3,4,5,6 | 4.6\% | 20.5\% | 3.4\% | 8.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 1.1\% | 15.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 39.0\% |
| 1995 | 235 | 2,3,4,5,6 | 7.2\% | 5.1\% | 0.0\% | 9.4\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 15.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 49.4\% |
| 1996 | 261 | 2,3,4,5,6 | 6.5\% | 0.8\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 16.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.9\% |
| 1997 | 420 | 2,3,4,5,6 | 9.3\% | 2.9\% | 2.6\% | 4.0\% | 6.7\% | 0.7\% | 5.2\% | 0.0\% | 9.0\% | 3.6\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.6\% |
| 1998 | 549 | 2,3,4,5,6 | 14.0\% | 2.0\% | 2.0\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.9\% |
| 1999 | 895 | 2,3,4,5,6 | 7.9\% | 2.5\% | 3.9\% | 2.0\% | 18.1\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.3\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.5\% |
| 2000 | 780 | 2,3,4,5,6 | 12.8\% | 2.2\% | 4.9\% | 0.4\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.3\% |
| 2001 | 1217 | 2,3,4,5,6 | 9.7\% | 1.6\% | 1.8\% | 0.1\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 80.8\% |
| 2002 | 882 | 2,3,4,5,6 | 14.9\% | 2.7\% | 0.9\% | 0.6\% | 11.2\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.3\% |
| 2003 | 481 | 2,3,4,5,6 | 17.7\% | 1.7\% | 0.8\% | 0.0\% | 20.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.5\% |
| 2004 | 705 | 2,3,4,5,6 | 8.8\% | 13.2\% | 1.7\% | 0.3\% | 14.6\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.7\% |
| 2005 | 858 | 2,3,4,5,6 | 17.2\% | 2.3\% | 2.8\% | 0.3\% | 14.7\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 60.3\% |
| 2006 | 788 | 2,3,4,5,6 | 16.1\% | 4.3\% | 1.1\% | 0.8\% | 7.7\% | 0.0\% | 0.8\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.0\% |
| 2007 | 566 | 2,3,4,5,6 | 19.8\% | 2.8\% | 1.1\% | 3.2\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.9\% |
| 2008 | 390 | 2,3,4,5,6 | 10.5\% | 1.5\% | 0.3\% | 0.8\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.4\% |
| 2009 | 398 | 2,3,4,5,6 | 11.3\% | 4.0\% | 2.0\% | 0.8\% | 10.3\% | 0.0\% | 1.5\% | 0.0\% | 8.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 60.6\% |
| 2010 | 572 | 2,3,4,5,6 | 4.9\% | 3.5\% | 0.5\% | 0.0\% | 12.6\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 71.3\% |
| 1979-2010 | 905 |  | 12.6\% | 3.9\% | 2.0\% | 4.5\% | 7.5\% | 0.3\% | 0.3\% | 0.3\% | 4.7\% | 3.7\% | 11.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 49.1\% |
| 1979-1984 | 1355 |  | 13.7\% | 4.4\% | 2.6\% | 9.6\% | 3.8\% | 0.4\% | 0.0\% | 1.2\% | 5.7\% | 10.2\% | 22.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.9\% |
| 1985-1995 | 1006 |  | 12.7\% | 4.7\% | 2.1\% | 6.7\% | 5.5\% | 0.4\% | 0.2\% | 0.3\% | 5.1\% | 4.7\% | 17.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 40.2\% |
| 1996-1998 | 410 |  | 9.9\% | 1.9\% | 1.5\% | 1.3\% | 6.3\% | 0.2\% | 1.7\% | 0.0\% | 6.9\% | 1.2\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.5\% |
| 1999-2010 | 711 |  | 12.6\% | 3.5\% | 1.8\% | 0.8\% | 11.6\% | 0.0\% | 0.2\% | 0.0\% | 3.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 65.6\% |

Appendix C.54. Percent distribution of Quinsam River Fall (Upper Strait of Georgia) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1686 | 2,3,4,5 | 6.5\% | 4.4\% | 1.1\% | 6.2\% | 3.3\% | 0.1\% | 0.0\% | 2.4\% | 4.2\% | 10.9\% | 22.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 38.3\% |
| 1980 | 1703 | 2,3,4,5,6 | 15.3\% | 4.8\% | 3.2\% | 10.5\% | 5.6\% | 0.0\% | 0.0\% | 1.5\% | 5.0\% | 16.6\% | 21.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.1\% |
| 1981 | 1707 | 2,3,4,5,6 | 11.7\% | 4.1\% | 1.8\% | 13.1\% | 5.7\% | 0.6\% | 0.0\% | 2.1\% | 9.8\% | 12.4\% | 16.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.0\% |
| 1982 | 1263 | 2,3,4,5,6 | 19.3\% | 6.6\% | 5.5\% | 8.5\% | 2.3\% | 0.3\% | 0.0\% | 0.0\% | 3.6\% | 6.4\% | 26.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.5\% |
| 1983 | 1332 | 2,3,4,5,6 | 25.3\% | 1.2\% | 0.3\% | 14.4\% | 2.9\% | 0.7\% | 0.0\% | 0.2\% | 4.4\% | 11.5\% | 24.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% |
| 1984 | 1277 | 2,3,4,5,6 | 17.0\% | 4.7\% | 5.6\% | 6.5\% | 4.1\% | 0.9\% | 0.0\% | 0.9\% | 6.7\% | 5.0\% | 20.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.0\% |
| 1985 | 1807 | 2,3,4,5,6 | 28.1\% | 9.3\% | 4.3\% | 4.9\% | 1.0\% | 0.1\% | 0.0\% | 0.0\% | 3.9\% | 3.4\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 27.0\% |
| 1986 | 1913 | 2,3,4,5,6 | 15.2\% | 10.1\% | 3.1\% | 6.6\% | 3.0\% | 0.0\% | 0.0\% | 0.2\% | 5.7\% | 7.3\% | 24.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.4\% |
| 1987 | 1615 | 2,3,4,5,6 | 15.3\% | 8.6\% | 2.8\% | 6.8\% | 5.8\% | 0.4\% | 0.3\% | 0.2\% | 3.4\% | 6.7\% | 21.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.5\% |
| 1988 | 1706 | 2,3,4,5,6 | 19.5\% | 4.9\% | 1.3\% | 6.7\% | 3.0\% | 0.8\% | 0.9\% | 0.2\% | 4.0\% | 2.5\% | 9.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 46.9\% |
| 1989 | 1914 | 2,3,4,5,6 | 13.4\% | 9.2\% | 2.8\% | 4.0\% | 3.1\% | 0.3\% | 0.0\% | 0.0\% | 7.8\% | 1.9\% | 16.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 41.0\% |
| 1990 | 1292 | 2,3,4,5,6 | 17.2\% | 5.5\% | 0.5\% | 6.6\% | 8.8\% | 1.4\% | 0.0\% | 1.6\% | 1.9\% | 4.8\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.8\% |
| 1991 | 846 | 2,3,4,5,6 | 11.2\% | 5.8\% | 1.5\% | 6.3\% | 11.1\% | 0.6\% | 0.7\% | 0.7\% | 4.3\% | 10.0\% | 13.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.5\% |
| 1992 | 684 | 2,3,4,5,6 | 15.2\% | 2.6\% | 2.6\% | 10.7\% | 6.4\% | 0.3\% | 0.0\% | 0.4\% | 3.5\% | 9.8\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 38.5\% |
| 1993 | 391 | 2,3,4,5,6 | 8.4\% | 6.4\% | 1.3\% | 6.1\% | 7.9\% | 1.3\% | 0.0\% | 0.8\% | 12.3\% | 6.1\% | 20.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.6\% |
| 1994 | 601 | 2,3,4,5,6 | 3.8\% | 49.6\% | 2.3\% | 5.7\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.8\% | 9.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.8\% |
| 1995 | 311 | 2,3,4,5,6 | 8.0\% | 13.2\% | 0.0\% | 9.3\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 17.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 37.3\% |
| 1996 | 294 | 2,3,4,5,6 | 7.1\% | 1.4\% | 0.0\% | 1.4\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 0.0\% | 19.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 58.5\% |
| 1997 | 494 | 2,3,4,5,6 | 10.1\% | 4.9\% | 3.0\% | 4.3\% | 8.7\% | 0.8\% | 4.9\% | 0.0\% | 10.5\% | 3.6\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 45.5\% |
| 1998 | 625 | 2,3,4,5,6 | 14.9\% | 4.0\% | 2.2\% | 0.0\% | 11.2\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.7\% |
| 1999 | 1028 | 2,3,4,5,6 | 9.3\% | 3.9\% | 4.8\% | 2.1\% | 21.8\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.4\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.4\% |
| 2000 | 865 | 2,3,4,5,6 | 14.2\% | 3.4\% | 5.4\% | 0.3\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.3\% |
| 2001 | 1286 | 2,3,4,5,6 | 10.7\% | 2.6\% | 2.0\% | 0.1\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 76.4\% |
| 2002 | 959 | 2,3,4,5,6 | 15.5\% | 3.6\% | 0.9\% | 0.6\% | 14.7\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 61.9\% |
| 2003 | 561 | 2,3,4,5,6 | 19.6\% | 2.1\% | 0.9\% | 0.0\% | 26.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.0\% |
| 2004 | 862 | 2,3,4,5,6 | 8.6\% | 18.7\% | 1.7\% | 0.2\% | 19.6\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.8\% |
| 2005 | 950 | 2,3,4,5,6 | 18.0\% | 2.8\% | 2.9\% | 0.4\% | 18.7\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.4\% |
| 2006 | 846 | 2,3,4,5,6 | 17.6\% | 5.3\% | 1.3\% | 0.7\% | 9.0\% | 0.0\% | 0.8\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 60.5\% |
| 2007 | 647 | 2,3,4,5,6 | 20.4\% | 5.6\% | 1.1\% | 3.1\% | 15.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 47.1\% |
| 2008 | 412 | 2,3,4,5,6 | 12.4\% | 2.4\% | 0.2\% | 0.7\% | 8.5\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.4\% |
| 2009 | 480 | 2,3,4,5,6 | 12.5\% | 4.2\% | 2.5\% | 0.8\% | 15.2\% | 0.0\% | 1.7\% | 0.0\% | 11.5\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 50.2\% |
| 2010 | 647 | 2,3,4,5,6 | 6.3\% | 6.2\% | 0.6\% | 0.0\% | 14.7\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 63.1\% |
| 1979-2010 | 1031 |  | 14.0\% | 6.9\% | 2.2\% | 4.6\% | 8.8\% | 0.3\% | 0.3\% | 0.3\% | 5.2\% | 3.8\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 43.0\% |
| 1979-1984 | 1495 |  | 15.8\% | 4.3\% | 2.9\% | 9.9\% | 4.0\% | 0.4\% | 0.0\% | 1.2\% | 5.6\% | 10.4\% | 21.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% |
| 1985-1995 | 1189 |  | 14.1\% | 11.4\% | 2.1\% | 6.7\% | 5.3\% | 0.5\% | 0.2\% | 0.4\% | 5.3\% | 4.9\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.4\% |
| 1996-1998 | 471 |  | 10.7\% | 3.4\% | 1.8\% | 1.9\% | 8.0\% | 0.3\% | 1.6\% | 0.0\% | 8.7\% | 1.2\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.6\% |
| 1999-2010 | 795 |  | 13.8\% | 5.1\% | 2.0\% | 0.8\% | 14.6\% | 0.0\% | 0.2\% | 0.0\% | 4.0\% | 0.1\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 58.6\% |

Appendix C.55. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 4901 | 2,3,4,5 | 18.0\% | 0.6\% | 0.7\% | 11.6\% | 0.3\% | 8.1\% | 0.1\% | 0.6\% | 1.2\% | 11.0\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 32.6\% |
| 1980 | 4628 | 2,3,4,5 | 26.8\% | 6.2\% | 0.9\% | 8.0\% | 0.1\% | 6.9\% | 0.4\% | 0.0\% | 0.1\% | 8.3\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 10.2\% | 3.0\% | 23.0\% |
| 1981 | 2622 | 2,3,4,5 | 27.2\% | 2.1\% | 0.8\% | 13.5\% | 0.6\% | 5.7\% | 0.6\% | 0.4\% | 0.8\% | 8.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.1\% | 0.0\% | 11.9\% | 4.9\% | 16.1\% |
| 1982 | 4133 | 2,3,4,5 | 24.9\% | 4.0\% | 1.5\% | 14.7\% | 0.0\% | 6.0\% | 0.4\% | 0.2\% | 0.7\% | 7.1\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 14.1\% | 6.1\% | 13.4\% |
| 1983 | 3590 | 2,3,4,5 | 36.5\% | 3.0\% | 0.4\% | 11.5\% | 0.2\% | 5.9\% | 0.0\% | 0.0\% | 0.2\% | 8.2\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 16.8\% | 5.0\% | 8.9\% |
| 1984 | 2981 | 2,3,4,5 | 26.2\% | 4.6\% | 0.1\% | 14.0\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 1.0\% | 4.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 16.5\% | 15.2\% | 8.0\% |
| 1985 | 1406 | 2,3,4,5 | 17.4\% | 6.0\% | 0.0\% | 17.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.6\% | 1.1\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.1\% | 0.0\% | 1.3\% | 17.1\% | 29.2\% |
| 1986 | 759 | 2,3,4,5 | 13.7\% | 3.7\% | 0.4\% | 7.9\% | 0.5\% | 5.8\% | 0.7\% | 0.0\% | 0.5\% | 0.8\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.7\% | 0.0\% | 0.4\% | 31.0\% | 29.5\% |
| 1987 | 1422 | 2,3,4,5 | 7.0\% | 1.8\% | 0.6\% | 6.0\% | 0.5\% | 2.2\% | 0.1\% | 0.0\% | 0.5\% | 2.8\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 20.5\% | 54.2\% |
| 1988 | 2685 | 2,3,4,5 | 9.2\% | 2.1\% | 0.9\% | 6.2\% | 0.8\% | 3.9\% | 4.5\% | 0.0\% | 0.6\% | 1.1\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 7.5\% | 13.7\% | 47.0\% |
| 1989 | 5497 | 2,3,4,5 | 7.0\% | 2.2\% | 0.3\% | 8.1\% | 0.7\% | 2.2\% | 1.9\% | 0.0\% | 0.8\% | 1.5\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 18.9\% | 18.2\% | 35.9\% |
| 1990 | 9957 | 2,3,4,5 | 16.3\% | 1.0\% | 1.8\% | 8.0\% | 1.0\% | 5.8\% | 1.4\% | 0.0\% | 0.3\% | 2.1\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 8.2\% | 8.4\% | 43.2\% |
| 1991 | 12533 | 2,3,4,5 | 17.2\% | 1.4\% | 3.1\% | 9.2\% | 0.8\% | 4.5\% | 1.3\% | 0.0\% | 0.4\% | 2.4\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 15.6\% | 13.1\% | 29.7\% |
| 1992 | 8673 | 2,3,4,5 | 14.3\% | 2.8\% | 1.8\% | 7.1\% | 1.6\% | 18.7\% | 2.2\% | 0.0\% | 0.1\% | 3.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 6.1\% | 40.4\% |
| 1993 | 6056 | 2,3,4,5 | 14.0\% | 1.0\% | 2.4\% | 7.1\% | 1.3\% | 13.9\% | 2.4\% | 0.0\% | 0.5\% | 1.9\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 7.5\% | 12.9\% | 33.6\% |
| 1994 | 3400 | 2,3,4,5 | 16.2\% | 2.2\% | 4.2\% | 9.6\% | 0.9\% | 5.0\% | 4.0\% | 0.0\% | 0.4\% | 1.2\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 12.4\% | 16.6\% | 26.1\% |
| 1995 | 1272 | 2,3,4,5 | 14.9\% | 0.0\% | 4.2\% | 2.8\% | 1.7\% | 1.4\% | 2.9\% | 0.0\% | 1.4\% | 0.3\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 6.8\% | 9.0\% | 53.9\% |
| 1996 | 684 | 2,3,4,5 | 5.6\% | 0.1\% | 1.9\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.4\% |
| 1997 | 1969 | 2,3,4,5 | 10.9\% | 1.5\% | 4.0\% | 4.5\% | 3.0\% | 0.2\% | 1.9\% | 0.0\% | 0.6\% | 1.9\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 6.7\% | 18.3\% | 46.1\% |
| 1998 | 3191 | 2,3,4,5 | 16.0\% | 1.1\% | 4.9\% | 6.1\% | 2.8\% | 0.0\% | 4.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 15.9\% | 43.9\% |
| 1999 | 1195 | 2,3,4,5 | 11.5\% | 0.4\% | 7.4\% | 5.4\% | 6.5\% | 0.0\% | 3.2\% | 0.0\% | 0.8\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 17.7\% | 40.3\% |
| 2000 | 233 | 2,3,4,5 | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.4\% |
| 2001 | 910 | 2,3,4,5 | 3.0\% | 0.0\% | 1.6\% | 0.0\% | 0.4\% | 0.0\% | 2.1\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 89.2\% |
| 2002 | 1890 | 2,3,4,5 | 11.2\% | 0.4\% | 1.5\% | 3.5\% | 3.8\% | 0.4\% | 2.9\% | 0.0\% | 0.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 14.6\% | 53.4\% |
| 2003 | 2745 | 2,3,4,5 | 12.5\% | 1.7\% | 3.0\% | 0.7\% | 4.2\% | 0.0\% | 1.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 14.2\% | 52.9\% |
| 2004 | 4557 | 2,3,4,5 | 12.0\% | 6.3\% | 2.7\% | 2.4\% | 4.7\% | 0.2\% | 1.3\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 12.7\% | 12.7\% | 43.7\% |
| 2005 | 3015 | 2,3,4,5 | 13.8\% | 1.4\% | 3.6\% | 2.8\% | 9.9\% | 0.0\% | 1.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.0\% | 8.1\% | 26.0\% |
| 2006 | 2637 | 2,3,4,5 | 9.8\% | 1.6\% | 2.4\% | 2.4\% | 5.6\% | 0.0\% | 3.6\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.6\% | 11.0\% | 35.7\% |
| 2007 | 2067 | 2,3,4,5 | 15.5\% | 1.9\% | 3.4\% | 5.1\% | 6.7\% | 0.1\% | 4.1\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.8\% | 12.5\% | 22.0\% |
| 2008 | 1499 | 2,3,4,5 | 7.7\% | 0.3\% | 1.3\% | 2.3\% | 5.8\% | 0.0\% | 1.2\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.4\% | 13.0\% | 45.3\% |
| 2009 | 1305 | 2,3,4,5 | 11.9\% | 6.8\% | 2.2\% | 2.0\% | 10.2\% | 0.0\% | 4.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 12.6\% | 42.0\% |
| 2010 | 1202 | 2,3,4,5 | 6.0\% | 0.1\% | 3.2\% | 2.6\% | 9.0\% | 0.7\% | 2.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 4.7\% | 3.1\% | 67.2\% |
| 1979-2010 | 3300 |  | 14.4\% | 2.1\% | 2.1\% | 6.3\% | 2.8\% | 3.3\% | 1.8\% | 0.0\% | 0.8\% | 2.1\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 9.8\% | 11.3\% | 40.9\% |
| 1979-1984 | 3809 |  | 26.6\% | 3.4\% | 0.7\% | 12.2\% | 0.2\% | 6.5\% | 0.2\% | 0.2\% | 0.7\% | 7.8\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 11.6\% | 6.6\% | 17.0\% |
| 1985-1995 | 4878 |  | 13.4\% | 2.2\% | 1.8\% | 8.1\% | 0.9\% | 5.9\% | 2.0\% | 0.0\% | 0.6\% | 1.7\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.1\% | 0.0\% | 7.2\% | 15.2\% | 38.4\% |
| 1996-1998 | 1948 |  | 10.8\% | 0.9\% | 3.6\% | 3.5\% | 2.9\% | 0.1\% | 2.2\% | 0.0\% | 0.9\% | 0.9\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 11.4\% | 59.1\% |
| 1999-2010 | 1938 |  | 10.0\% | 1.7\% | 2.7\% | 2.4\% | 5.9\% | 0.1\% | 2.3\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 10.1\% | 50.5\% |

Appendix C.56. Percent distribution of Robertson Creek Fall (WCVI Hatchery and Natural) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 5485 | 2,3,4,5 | 21.5\% | 0.6\% | 0.7\% | 11.9\% | 0.3\% | 8.3\% | 0.1\% | 0.5\% | 1.1\% | 11.2\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 29.2\% |
| 1980 | 5100 | 2,3,4,5 | 28.1\% | 6.3\% | 1.1\% | 8.5\% | 0.1\% | 7.3\% | 0.5\% | 0.0\% | 0.1\% | 8.6\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 9.5\% | 3.0\% | 20.9\% |
| 1981 | 3131 | 2,3,4,5 | 31.7\% | 1.9\% | 1.0\% | 13.8\% | 0.6\% | 5.7\% | 0.5\% | 0.4\% | 0.7\% | 8.2\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.1\% | 0.0\% | 10.3\% | 4.5\% | 13.5\% |
| 1982 | 4736 | 2,3,4,5 | 29.1\% | 3.8\% | 1.6\% | 14.6\% | 0.1\% | 6.0\% | 0.3\% | 0.1\% | 0.7\% | 7.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 12.5\% | 5.8\% | 11.7\% |
| 1983 | 4108 | 2,3,4,5 | 41.5\% | 2.8\% | 0.4\% | 11.0\% | 0.2\% | 5.6\% | 0.0\% | 0.0\% | 0.2\% | 7.9\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 14.8\% | 4.7\% | 7.7\% |
| 1984 | 3318 | 2,3,4,5 | 30.0\% | 4.3\% | 0.1\% | 13.7\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 1.0\% | 3.9\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 14.9\% | 14.6\% | 7.1\% |
| 1985 | 1700 | 2,3,4,5 | 19.8\% | 13.8\% | 0.0\% | 15.9\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.6\% | 0.9\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.2\% | 0.0\% | 1.1\% | 15.2\% | 24.1\% |
| 1986 | 919 | 2,3,4,5 | 15.8\% | 8.5\% | 0.5\% | 8.1\% | 0.8\% | 6.0\% | 0.7\% | 0.0\% | 0.5\% | 0.9\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.4\% | 0.0\% | 0.3\% | 28.0\% | 24.4\% |
| 1987 | 1617 | 2,3,4,5 | 10.4\% | 3.3\% | 1.1\% | 7.2\% | 0.6\% | 2.6\% | 0.2\% | 0.0\% | 0.5\% | 3.3\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 19.5\% | 47.7\% |
| 1988 | 3112 | 2,3,4,5 | 11.4\% | 4.5\% | 1.3\% | 7.3\% | 1.0\% | 4.8\% | 4.6\% | 0.0\% | 1.0\% | 1.3\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.3\% | 0.0\% | 6.7\% | 12.9\% | 40.5\% |
| 1989 | 6700 | 2,3,4,5 | 10.0\% | 8.2\% | 0.4\% | 9.4\% | 0.7\% | 2.5\% | 1.8\% | 0.0\% | 1.2\% | 1.6\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 16.2\% | 16.4\% | 29.5\% |
| 1990 | 11153 | 2,3,4,5 | 19.1\% | 2.5\% | 2.0\% | 8.7\% | 1.0\% | 6.2\% | 1.4\% | 0.0\% | 0.3\% | 2.3\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 7.4\% | 8.1\% | 38.6\% |
| 1991 | 13849 | 2,3,4,5 | 19.5\% | 2.5\% | 3.2\% | 9.6\% | 0.9\% | 4.9\% | 1.3\% | 0.0\% | 0.4\% | 2.6\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 14.2\% | 12.7\% | 26.9\% |
| 1992 | 11377 | 2,3,4,5 | 15.4\% | 16.1\% | 1.6\% | 6.5\% | 1.3\% | 17.1\% | 1.9\% | 0.0\% | 0.1\% | 2.7\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 5.0\% | 30.8\% |
| 1993 | 6698 | 2,3,4,5 | 16.0\% | 2.1\% | 2.4\% | 7.5\% | 1.3\% | 14.7\% | 2.4\% | 0.0\% | 0.5\% | 2.1\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 6.9\% | 12.5\% | 30.3\% |
| 1994 | 3819 | 2,3,4,5 | 17.8\% | 6.8\% | 3.9\% | 9.1\% | 0.8\% | 4.9\% | 3.8\% | 0.0\% | 0.4\% | 1.2\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 11.1\% | 15.8\% | 23.2\% |
| 1995 | 1378 | 2,3,4,5 | 16.5\% | 0.0\% | 4.7\% | 3.1\% | 2.2\% | 1.6\% | 3.0\% | 0.0\% | 1.7\% | 0.4\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 6.4\% | 9.8\% | 49.7\% |
| 1996 | 805 | 2,3,4,5 | 9.1\% | 0.1\% | 4.5\% | 2.7\% | 2.4\% | 0.7\% | 0.0\% | 0.0\% | 3.4\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 74.3\% |
| 1997 | 2272 | 2,3,4,5 | 14.5\% | 4.1\% | 4.6\% | 5.1\% | 3.7\% | 0.2\% | 1.8\% | 0.0\% | 0.6\% | 2.1\% | 0.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 16.9\% | 39.9\% |
| 1998 | 3360 | 2,3,4,5 | 16.4\% | 1.9\% | 5.0\% | 6.1\% | 3.5\% | 0.0\% | 4.6\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 16.2\% | 41.7\% |
| 1999 | 1264 | 2,3,4,5 | 12.2\% | 0.6\% | 7.5\% | 5.4\% | 7.5\% | 0.0\% | 3.3\% | 0.0\% | 0.8\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 18.2\% | 38.1\% |
| 2000 | 262 | 2,3,4,5 | 6.1\% | 0.0\% | 0.0\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 78.6\% |
| 2001 | 971 | 2,3,4,5 | 4.2\% | 0.0\% | 3.0\% | 0.0\% | 0.7\% | 0.0\% | 2.5\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 83.6\% |
| 2002 | 2069 | 2,3,4,5 | 13.1\% | 0.6\% | 1.8\% | 3.9\% | 4.9\% | 0.4\% | 3.2\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 15.3\% | 48.8\% |
| 2003 | 3020 | 2,3,4,5 | 13.9\% | 2.2\% | 3.5\% | 0.8\% | 5.9\% | 0.0\% | 2.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.1\% | 15.1\% | 48.1\% |
| 2004 | 5218 | 2,3,4,5 | 12.9\% | 9.8\% | 2.8\% | 2.6\% | 6.5\% | 0.1\% | 1.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 11.2\% | 13.0\% | 38.2\% |
| 2005 | 3342 | 2,3,4,5 | 14.7\% | 1.6\% | 4.0\% | 3.0\% | 13.3\% | 0.0\% | 1.9\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.1\% | 8.1\% | 23.5\% |
| 2006 | 2860 | 2,3,4,5 | 11.6\% | 2.7\% | 2.7\% | 2.6\% | 6.3\% | 0.0\% | 3.8\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.7\% | 11.1\% | 32.9\% |
| 2007 | 2301 | 2,3,4,5 | 16.5\% | 3.5\% | 3.7\% | 5.2\% | 8.5\% | 0.1\% | 4.3\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.2\% | 12.4\% | 19.7\% |
| 2008 | 1607 | 2,3,4,5 | 10.0\% | 0.5\% | 1.6\% | 2.6\% | 6.3\% | 0.0\% | 1.3\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.2\% | 13.2\% | 42.3\% |
| 2009 | 1484 | 2,3,4,5 | 12.8\% | 7.1\% | 2.6\% | 2.0\% | 13.4\% | 0.0\% | 4.3\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 12.6\% | 36.9\% |
| 2010 | 1345 | 2,3,4,5 | 8.1\% | 0.2\% | 4.2\% | 3.3\% | 11.6\% | 0.7\% | 2.9\% | 0.0\% | 1.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 4.3\% | 3.2\% | 60.1\% |
| 1979-2010 | 3762 |  | 16.6\% | 3.8\% | 2.4\% | 6.6\% | 3.6\% | 3.4\% | 1.9\% | 0.0\% | 1.2\% | 2.2\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 8.9\% | 11.0\% | 36.3\% |
| 1979-1984 | 4313 |  | 30.3\% | 3.3\% | 0.8\% | 12.2\% | 0.2\% | 6.6\% | 0.2\% | 0.2\% | 0.6\% | 7.8\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 10.3\% | 6.3\% | 15.0\% |
| 1985-1995 | 5666 |  | 15.6\% | 6.2\% | 1.9\% | 8.4\% | 1.0\% | 6.1\% | 1.9\% | 0.0\% | 0.7\% | 1.7\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 6.4\% | 14.2\% | 33.2\% |
| 1996-1998 | 2146 |  | 13.3\% | 2.1\% | 4.7\% | 4.7\% | 3.2\% | 0.3\% | 2.1\% | 0.0\% | 1.5\% | 1.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 11.7\% | 52.0\% |
| 1999-2010 | 2145 |  | 11.3\% | 2.4\% | 3.1\% | 2.6\% | 7.8\% | 0.1\% | 2.6\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.9\% | 10.3\% | 45.9\% |

Appendix C.57. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1916 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 83 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 898 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 4953 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 6152 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 357 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 23 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 614 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1777 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 6.8\% | 1.9\% | 0.9\% | 16.3\% | 0.2\% | 3.7\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 36.2\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 16.5\% |
| 1990 | 2348 | 2,3,4,5 | 2.1\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 18.8\% | 2.0\% | 3.4\% | 9.8\% | 0.1\% | 1.5\% | 0.0\% | 9.1\% | 0.0\% | 0.1\% | 29.1\% | 7.4\% | 0.0\% | 0.3\% | 0.0\% | 15.6\% |
| 1991 | 940 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.4\% | 3.4\% | 1.7\% | 9.7\% | 0.1\% | 3.0\% | 0.0\% | 8.9\% | 0.0\% | 0.7\% | 21.7\% | 8.8\% | 0.0\% | 1.5\% | 1.3\% | 25.7\% |
| 1992 | 578 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 11.4\% | 0.9\% | 2.1\% | 12.5\% | 0.0\% | 2.2\% | 0.0\% | 10.2\% | 0.0\% | 0.7\% | 15.6\% | 15.7\% | 0.0\% | 0.0\% | 0.7\% | 27.3\% |
| 1993 | 1043 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 12.1\% | 8.5\% | 2.8\% | 16.4\% | 0.2\% | 2.8\% | 0.0\% | 3.9\% | 0.0\% | 0.1\% | 16.5\% | 12.6\% | 0.0\% | 0.0\% | 0.0\% | 23.6\% |
| 1994 | 939 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 12.0\% | 5.4\% | 1.2\% | 12.7\% | 0.0\% | 2.2\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 38.4\% | 3.5\% | 0.0\% | 0.0\% | 0.4\% | 21.2\% |
| 1995 | 685 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 3.4\% | 0.0\% | 5.1\% | 0.0\% | 1.0\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 27.2\% | 12.7\% | 0.0\% | 0.0\% | 2.3\% | 38.8\% |
| 1996 | 1106 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 10.8\% | 0.0\% | 0.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 34.1\% | 9.4\% | 0.0\% | 0.0\% | 14.6\% | 28.2\% |
| 1997 | 1290 | 2,3,4,5 | 0.5\% | 0.1\% | 0.0\% | 0.3\% | 0.2\% | 2.3\% | 1.8\% | 0.0\% | 8.2\% | 0.7\% | 0.8\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 34.5\% | 9.4\% | 0.0\% | 0.0\% | 0.3\% | 40.0\% |
| 1998 | 699 | 2,3,4,5 | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 3.1\% | 0.0\% | 10.9\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 43.5\% | 3.4\% | 0.0\% | 0.0\% | 0.6\% | 32.8\% |
| 1999 | 248 | 2,3,4,5 | 3.6\% | 0.0\% | 0.0\% | 2.0\% | 3.2\% | 1.6\% | 10.1\% | 0.0\% | 10.9\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 38.3\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% |
| 2000 | 269 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.3\% | 10.4\% | 0.0\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 36.8\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 32.3\% |
| 2001 | 1521 | 2,3,4,5 | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 4.7\% | 5.2\% | 0.0\% | 7.6\% | 0.0\% | 0.3\% | 0.0\% | 2.4\% | 0.0\% | 0.1\% | 39.4\% | 4.0\% | 0.0\% | 0.5\% | 0.0\% | 35.6\% |
| 2002 | 1530 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 8.8\% | 6.6\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.6\% | 36.5\% | 4.4\% | 0.0\% | 0.3\% | 0.0\% | 31.6\% |
| 2003 | 730 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 2.6\% | 0.0\% | 5.1\% | 0.0\% | 0.3\% | 0.0\% | 6.2\% | 0.0\% | 0.5\% | 38.6\% | 2.2\% | 0.0\% | 0.3\% | 0.0\% | 29.7\% |
| 2004 | 494 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 6.3\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 0.0\% | 0.4\% | 30.0\% | 5.7\% | 0.0\% | 1.8\% | 0.0\% | 32.4\% |
| 2005 | 637 | 2,3,4,5 | 0.3\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 11.3\% | 7.5\% | 0.0\% | 12.7\% | 0.0\% | 0.0\% | 0.0\% | 7.1\% | 0.0\% | 0.8\% | 33.8\% | 3.8\% | 0.0\% | 0.9\% | 0.0\% | 21.4\% |
| 2006 | 1435 | 2,3,4,5 | 0.8\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 8.3\% | 5.4\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 0.0\% | 1.2\% | 51.2\% | 5.6\% | 0.0\% | 0.5\% | 0.0\% | 15.1\% |
| 2007 | 1833 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 4.7\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.4\% | 29.7\% | 3.3\% | 0.0\% | 0.5\% | 20.4\% | 22.5\% |
| 2008 | 1624 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 4.7\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.3\% | 43.0\% | 9.0\% | 0.0\% | 0.3\% | 0.0\% | 26.6\% |
| 2009 | 1479 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 5.3\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 0.2\% | 33.5\% | 7.8\% | 0.0\% | 0.6\% | 0.0\% | 42.7\% |
| 2010 | 1637 | 2,3,4,5 | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 7.4\% | 6.1\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 9.3\% | 0.0\% | 0.7\% | 31.3\% | 8.6\% | 0.0\% | 0.8\% | 0.0\% | 31.0\% |
| 1979-2010 | 1129 |  | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 8.1\% | 4.8\% | 0.5\% | 8.7\% | 0.1\% | 0.8\% | 0.0\% | 4.8\% | 0.0\% | 0.3\% | 33.6\% | 6.9\% | 0.0\% | 0.4\% | 1.8\% | 28.0\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1187 |  | 0.4\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 11.5\% | 3.6\% | 1.7\% | 11.8\% | 0.1\% | 2.4\% | 0.0\% | 6.5\% | 0.0\% | 0.2\% | 26.4\% | 10.1\% | 0.0\% | 0.3\% | 0.7\% | 24.1\% |
| 1996-1998 | 1032 |  | 1.3\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 1.3\% | 1.9\% | 0.0\% | 9.9\% | 0.2\% | 0.4\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 37.4\% | 7.4\% | 0.0\% | 0.0\% | 5.1\% | 33.7\% |
| 1999-2010 | 1120 |  | 0.6\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 7.9\% | 6.2\% | 0.0\% | 6.6\% | 0.0\% | 0.1\% | 0.0\% | 4.7\% | 0.0\% | 0.4\% | 36.8\% | 5.0\% | 0.0\% | 0.5\% | 1.7\% | 28.8\% |

Appendix C.58. Percent distribution of Samish Fall Fingerling (Nooksack Fall Fingerling) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1964 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 83 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1981 | 1513 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 5385 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1983 | 6362 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 369 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1985 | No Data |  |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 74 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 994 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1989 | 2078 | 2,3,4 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 9.0\% | 1.8\% | 1.3\% | 18.1\% | 0.2\% | 3.3\% | 0.0\% | 7.8\% | 0.0\% | 0.0\% | 32.7\% | 11.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% |
| 1990 | 2557 | 2,3,4,5 | 2.2\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 20.1\% | 2.0\% | 3.5\% | 10.5\% | 0.1\% | 1.5\% | 0.0\% | 9.4\% | 0.0\% | 0.1\% | 27.3\% | 8.1\% | 0.0\% | 0.3\% | 0.0\% | 14.3\% |
| 1991 | 1038 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.4\% | 3.4\% | 1.8\% | 11.0\% | 0.1\% | 2.9\% | 0.0\% | 9.3\% | 0.0\% | 0.8\% | 20.2\% | 10.1\% | 0.0\% | 1.3\% | 1.3\% | 23.3\% |
| 1992 | 775 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 10.8\% | 0.8\% | 2.2\% | 18.2\% | 0.0\% | 1.8\% | 0.0\% | 9.3\% | 0.0\% | 0.6\% | 13.3\% | 21.3\% | 0.0\% | 0.0\% | 0.6\% | 20.4\% |
| 1993 | 1243 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 13.5\% | 7.9\% | 3.4\% | 19.6\% | 0.2\% | 2.4\% | 0.0\% | 4.0\% | 0.0\% | 0.1\% | 15.0\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 19.8\% |
| 1994 | 1048 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 13.1\% | 5.4\% | 1.3\% | 14.7\% | 0.0\% | 2.4\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 36.5\% | 4.1\% | 0.0\% | 0.0\% | 0.5\% | 19.0\% |
| 1995 | 812 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 3.2\% | 0.0\% | 6.9\% | 0.0\% | 1.6\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 24.6\% | 18.5\% | 0.0\% | 0.0\% | 2.3\% | 32.8\% |
| 1996 | 1401 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.9\% | 0.6\% | 0.0\% | 14.8\% | 0.0\% | 0.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 31.9\% | 12.8\% | 0.0\% | 0.0\% | 14.4\% | 22.3\% |
| 1997 | 1405 | 2,3,4,5 | 0.6\% | 0.1\% | 0.0\% | 0.4\% | 0.1\% | 2.8\% | 1.7\% | 0.0\% | 9.7\% | 0.8\% | 1.1\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 33.7\% | 11.0\% | 0.0\% | 0.0\% | 0.4\% | 36.7\% |
| 1998 | 736 | 2,3,4,5 | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 3.3\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 42.5\% | 4.5\% | 0.0\% | 0.0\% | 0.7\% | 31.1\% |
| 1999 | 281 | 2,3,4,5 | 4.3\% | 0.0\% | 0.0\% | 2.1\% | 3.9\% | 1.4\% | 10.3\% | 0.0\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 35.6\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 22.1\% |
| 2000 | 380 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 9.5\% | 0.0\% | 16.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 35.5\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 22.9\% |
| 2001 | 1712 | 2,3,4,5 | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 4.5\% | 5.5\% | 0.0\% | 9.8\% | 0.0\% | 0.6\% | 0.0\% | 2.7\% | 0.0\% | 0.1\% | 38.0\% | 6.3\% | 0.0\% | 0.5\% | 0.0\% | 31.6\% |
| 2002 | 1623 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 8.5\% | 7.4\% | 0.0\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.6\% | 35.5\% | 5.6\% | 0.0\% | 0.3\% | 0.0\% | 29.8\% |
| 2003 | 773 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 3.4\% | 0.0\% | 6.2\% | 0.0\% | 0.3\% | 0.0\% | 6.6\% | 0.0\% | 0.5\% | 37.1\% | 3.0\% | 0.0\% | 0.3\% | 0.0\% | 28.1\% |
| 2004 | 560 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 7.0\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 11.8\% | 0.0\% | 0.4\% | 28.2\% | 7.9\% | 0.0\% | 1.8\% | 0.0\% | 28.6\% |
| 2005 | 779 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 10.4\% | 8.0\% | 0.0\% | 18.9\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 0.8\% | 29.8\% | 5.9\% | 0.0\% | 0.8\% | 0.0\% | 17.5\% |
| 2006 | 1619 | 2,3,4,5 | 1.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 7.8\% | 5.7\% | 0.0\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 1.2\% | 49.7\% | 6.9\% | 0.0\% | 0.5\% | 0.0\% | 13.3\% |
| 2007 | 2229 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 4.7\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.4\% | 29.4\% | 5.3\% | 0.0\% | 0.5\% | 21.4\% | 18.5\% |
| 2008 | 1804 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 5.0\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.3\% | 42.2\% | 10.5\% | 0.0\% | 0.3\% | 0.0\% | 23.9\% |
| 2009 | 1726 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 5.7\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 0.2\% | 32.7\% | 12.6\% | 0.0\% | 0.6\% | 0.0\% | 36.6\% |
| 2010 | 1824 | 2,3,4,5 | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 7.0\% | 6.9\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 0.0\% | 0.7\% | 30.6\% | 9.9\% | 0.0\% | 0.8\% | 0.0\% | 27.9\% |
| 1979-2010 | 1291 |  | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 8.2\% | 5.0\% | 0.6\% | 11.3\% | 0.1\% | 0.8\% | 0.0\% | 5.0\% | 0.0\% | 0.3\% | 31.9\% | 9.0\% | 0.0\% | 0.4\% | 1.9\% | 24.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 1364 |  | 0.4\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 12.5\% | 3.5\% | 1.9\% | 14.2\% | 0.1\% | 2.3\% | 0.0\% | 6.4\% | 0.0\% | 0.2\% | 24.2\% | 12.4\% | 0.0\% | 0.2\% | 0.7\% | 20.5\% |
| 1996-1998 | 1181 |  | 1.4\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 1.7\% | 1.9\% | 0.0\% | 12.3\% | 0.3\% | 0.5\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 36.1\% | 9.4\% | 0.0\% | 0.0\% | 5.2\% | 30.0\% |
| 1999-2010 | 1276 |  | 0.7\% | 0.1\% | 0.0\% | 0.3\% | 0.4\% | 7.4\% | 6.6\% | 0.0\% | 9.3\% | 0.0\% | 0.1\% | 0.0\% | 5.1\% | 0.0\% | 0.4\% | 35.4\% | 7.0\% | 0.0\% | 0.5\% | 1.8\% | 25.1\% |

Appendix C.59. Percent distribution of Lower Shuswap River Summer (Fraser Early) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 56 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 647 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 1615 | 2,3,4 | 6.9\% | 0.0\% | 0.0\% | 9.4\% | 1.3\% | 5.6\% | 0.0\% | 0.0\% | 2.3\% | 1.8\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 1.9\% | 0.2\% | 0.0\% | 0.0\% | 2.5\% | 58.3\% |
| 1989 | 1304 | 2,3,4,5 | 4.8\% | 1.5\% | 0.0\% | 7.8\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 65.5\% |
| 1990 | 1073 | 2,3,4,5 | 29.3\% | 0.0\% | 0.9\% | 19.6\% | 1.4\% | 3.8\% | 3.4\% | 0.0\% | 1.7\% | 1.8\% | 12.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.7\% | 24.0\% |
| 1991 | 531 | 2,3,4,5 | 31.1\% | 0.0\% | 0.8\% | 23.5\% | 1.5\% | 3.2\% | 0.0\% | 0.0\% | 0.6\% | 1.5\% | 13.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 19.8\% |
| 1992 | 207 | 2,3,4,5 | 14.5\% | 0.0\% | 0.0\% | 19.3\% | 1.4\% | 5.3\% | 0.0\% | 0.0\% | 4.3\% | 7.2\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 5.8\% | 25.6\% |
| 1993 | 462 | 2,3,4,5 | 8.9\% | 0.6\% | 0.0\% | 8.9\% | 0.6\% | 7.6\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 16.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 52.4\% |
| 1994 | 688 | 2,3,4,5 | 10.5\% | 0.0\% | 1.5\% | 21.8\% | 3.6\% | 10.0\% | 0.0\% | 1.2\% | 1.2\% | 12.6\% | 20.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% |
| 1995 | 295 | 2,3,4,5 | 17.6\% | 0.0\% | 5.4\% | 13.2\% | 11.2\% | 4.1\% | 0.0\% | 0.0\% | 2.0\% | 1.0\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.3\% | 0.7\% | 24.7\% |
| 1996 | 552 | 2,3,4,5 | 16.7\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 1.3\% | 0.0\% | 3.3\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 1.4\% | 64.5\% |
| 1997 | 315 | 2,3,4,5 | 19.4\% | 1.0\% | 0.0\% | 13.0\% | 6.0\% | 0.6\% | 0.0\% | 0.0\% | 7.6\% | 1.3\% | 29.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 16.8\% |
| 1998 | 628 | 2,3,4,5 | 21.3\% | 0.3\% | 8.6\% | 9.4\% | 15.1\% | 0.0\% | 0.8\% | 0.0\% | 6.2\% | 0.0\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.8\% | 0.8\% | 29.9\% |
| 1999 | 342 | 2,3,4,5 | 28.4\% | 0.0\% | 13.2\% | 1.5\% | 13.5\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 11.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.9\% | 25.4\% |
| 2000 | 649 | 2,3,4,5 | 9.6\% | 0.0\% | 6.6\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 1.4\% | 68.0\% |
| 2001 | 1087 | 2,3,4,5 | 5.9\% | 0.8\% | 0.3\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 0.1\% | 4.3\% | 0.8\% | 0.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 1.6\% | 79.9\% |
| 2002 | 1412 | 2,3,4,5 | 16.5\% | 0.0\% | 3.0\% | 11.7\% | 5.8\% | 1.6\% | 0.0\% | 0.0\% | 2.6\% | 0.1\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.5\% | 48.7\% |
| 2003 | 1551 | 2,3,4,5 | 10.1\% | 0.7\% | 2.0\% | 8.1\% | 5.2\% | 0.0\% | 0.3\% | 0.0\% | 5.2\% | 0.8\% | 4.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 1.3\% | 2.6\% | 58.7\% |
| 2004 | 1053 | 2,3,4,5 | 16.2\% | 0.0\% | 1.6\% | 8.4\% | 8.2\% | 0.9\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 12.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.5\% | 2.8\% | 43.7\% |
| 2005 | 738 | 2,3,4,5 | 13.6\% | 0.0\% | 0.8\% | 11.1\% | 15.2\% | 0.4\% | 3.1\% | 0.0\% | 4.1\% | 0.0\% | 7.6\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 3.9\% | 39.4\% |
| 2006 | 1228 | 2,3,4,5 | 11.6\% | 0.0\% | 2.0\% | 12.9\% | 12.0\% | 0.3\% | 0.9\% | 0.0\% | 6.6\% | 0.0\% | 6.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.6\% | 3.0\% | 42.1\% |
| 2007 | 405 | 2,3,4,5 | 6.2\% | 0.2\% | 3.2\% | 2.7\% | 6.4\% | 0.0\% | 0.7\% | 0.0\% | 3.5\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 67.4\% |
| 2008 | 1598 | 2,3,4,5 | 6.7\% | 0.0\% | 0.3\% | 6.6\% | 8.1\% | 0.0\% | 1.5\% | 0.0\% | 4.6\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 3.1\% | 66.3\% |
| 2009 | 1566 | 2,3,4,5 | 7.6\% | 0.0\% | 1.0\% | 5.5\% | 5.2\% | 0.8\% | 2.1\% | 0.0\% | 6.1\% | 0.0\% | 9.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.1\% | 6.3\% | 54.4\% |
| 2010 | 1851 | 2,3,4,5 | 8.4\% | 0.0\% | 1.3\% | 9.3\% | 6.7\% | 0.0\% | 0.4\% | 0.0\% | 4.5\% | 0.0\% | 9.2\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 1.6\% | 0.0\% | 0.0\% | 0.7\% | 2.2\% | 55.3\% |
| 1979-2010 | 920 |  | 14.0\% | 0.2\% | 2.3\% | 9.7\% | 6.1\% | 2.0\% | 0.6\% | 0.1\% | 3.7\% | 1.3\% | 10.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.2\% | 0.1\% | 0.0\% | 0.5\% | 2.3\% | 45.4\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 772 |  | 15.4\% | 0.3\% | 1.1\% | 15.4\% | 2.6\% | 5.1\% | 0.4\% | 0.1\% | 1.6\% | 3.4\% | 14.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 2.2\% | 0.3\% | 0.0\% | 0.0\% | 1.9\% | 35.3\% |
| 1996-1998 | 498 |  | 19.1\% | 0.4\% | 2.9\% | 7.5\% | 8.4\% | 0.2\% | 0.7\% | 0.0\% | 5.7\% | 0.4\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.6\% | 0.7\% | 37.1\% |
| 1999-2010 | 1123 |  | 11.7\% | 0.1\% | 3.0\% | 6.5\% | 7.8\% | 0.3\% | 0.8\% | 0.0\% | 4.6\% | 0.1\% | 6.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.7\% | 2.9\% | 54.1\% |

Appendix C.60. Percent distribution of Lower Shuswap River Summer (Fraser Early) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 120 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 756 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 1744 | 2,3,4 | 9.1\% | 0.2\% | 0.1\% | 11.0\% | 1.3\% | 5.8\% | 0.1\% | 0.0\% | 2.5\% | 1.9\% | 9.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 1.9\% | 0.3\% | 0.0\% | 0.0\% | 2.5\% | 54.0\% |
| 1989 | 1417 | 2,3,4,5 | 6.3\% | 5.2\% | 0.0\% | 8.5\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.4\% | 0.6\% | 14.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.1\% | 0.0\% | 0.0\% | 0.5\% | 60.3\% |
| 1990 | 1152 | 2,3,4,5 | 30.1\% | 0.0\% | 1.0\% | 20.5\% | 1.4\% | 4.1\% | 3.3\% | 0.0\% | 1.8\% | 1.9\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.6\% | 22.3\% |
| 1991 | 605 | 2,3,4,5 | 35.5\% | 0.0\% | 0.7\% | 23.1\% | 1.5\% | 3.1\% | 0.0\% | 0.0\% | 0.5\% | 1.5\% | 11.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 17.4\% |
| 1992 | 247 | 2,3,4,5 | 16.2\% | 0.0\% | 0.0\% | 20.2\% | 1.6\% | 5.3\% | 0.0\% | 0.0\% | 7.3\% | 7.3\% | 12.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 5.3\% | 21.5\% |
| 1993 | 523 | 2,3,4,5 | 11.7\% | 1.7\% | 0.0\% | 11.1\% | 0.8\% | 9.0\% | 0.0\% | 0.0\% | 0.4\% | 1.0\% | 14.5\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 46.3\% |
| 1994 | 807 | 2,3,4,5 | 12.0\% | 0.0\% | 1.5\% | 22.2\% | 3.6\% | 10.4\% | 0.0\% | 1.1\% | 1.2\% | 12.9\% | 18.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% |
| 1995 | 380 | 2,3,4,5 | 23.2\% | 0.0\% | 5.3\% | 13.7\% | 11.3\% | 4.2\% | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 13.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.3\% | 0.5\% | 19.2\% |
| 1996 | 600 | 2,3,4,5 | 20.0\% | 0.0\% | 0.0\% | 0.5\% | 3.8\% | 0.3\% | 1.3\% | 0.0\% | 4.3\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 1.5\% | 59.3\% |
| 1997 | 391 | 2,3,4,5 | 21.2\% | 1.5\% | 0.0\% | 13.0\% | 7.2\% | 0.8\% | 0.0\% | 0.0\% | 8.4\% | 1.3\% | 28.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 13.6\% |
| 1998 | 747 | 2,3,4,5 | 21.3\% | 0.5\% | 9.0\% | 9.2\% | 18.9\% | 0.0\% | 0.8\% | 0.0\% | 7.0\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.7\% | 0.7\% | 25.2\% |
| 1999 | 405 | 2,3,4,5 | 32.3\% | 0.0\% | 13.6\% | 1.5\% | 14.3\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 0.0\% | 9.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.7\% | 21.5\% |
| 2000 | 749 | 2,3,4,5 | 10.7\% | 0.0\% | 9.6\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.4\% | 1.3\% | 58.9\% |
| 2001 | 1196 | 2,3,4,5 | 7.9\% | 1.5\% | 0.3\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.1\% | 6.3\% | 1.4\% | 1.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 1.5\% | 72.6\% |
| 2002 | 1557 | 2,3,4,5 | 18.1\% | 0.0\% | 3.4\% | 12.7\% | 7.6\% | 1.5\% | 0.0\% | 0.0\% | 3.1\% | 0.1\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.5\% | 44.2\% |
| 2003 | 1678 | 2,3,4,5 | 11.0\% | 1.0\% | 2.3\% | 8.8\% | 6.7\% | 0.0\% | 0.4\% | 0.0\% | 6.0\% | 0.9\% | 3.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.2\% | 2.6\% | 54.3\% |
| 2004 | 1206 | 2,3,4,5 | 17.1\% | 0.0\% | 1.8\% | 9.0\% | 12.8\% | 0.7\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 11.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.4\% | 2.7\% | 38.1\% |
| 2005 | 834 | 2,3,4,5 | 14.7\% | 0.0\% | 0.8\% | 12.2\% | 18.0\% | 0.4\% | 3.2\% | 0.0\% | 4.4\% | 0.0\% | 6.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 3.7\% | 34.9\% |
| 2006 | 1315 | 2,3,4,5 | 11.9\% | 0.0\% | 2.1\% | 13.2\% | 14.0\% | 0.3\% | 1.0\% | 0.0\% | 7.1\% | 0.0\% | 6.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.5\% | 3.0\% | 39.3\% |
| 2007 | 527 | 2,3,4,5 | 7.4\% | 0.2\% | 7.6\% | 3.0\% | 12.1\% | 0.0\% | 0.9\% | 0.0\% | 8.5\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 51.8\% |
| 2008 | 1786 | 2,3,4,5 | 8.8\% | 0.0\% | 0.5\% | 7.8\% | 9.4\% | 0.0\% | 1.6\% | 0.0\% | 6.8\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 3.0\% | 59.3\% |
| 2009 | 1726 | 2,3,4,5 | 9.0\% | 0.0\% | 1.2\% | 6.3\% | 6.3\% | 0.8\% | 2.3\% | 0.0\% | 7.8\% | 0.0\% | 9.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.0\% | 6.1\% | 49.4\% |
| 2010 | 2005 | 2,3,4,5 | 9.9\% | 0.0\% | 1.4\% | 10.3\% | 8.0\% | 0.0\% | 0.5\% | 0.0\% | 5.1\% | 0.0\% | 8.8\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 1.7\% | 0.0\% | 0.0\% | 0.6\% | 2.1\% | 51.0\% |
| 1979-2010 | 1026 |  | 15.9\% | 0.5\% | 2.7\% | 10.3\% | 7.5\% | 2.1\% | 0.7\% | 0.1\% | 4.7\% | 1.4\% | 9.8\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.3\% | 0.2\% | 0.0\% | 0.4\% | 2.1\% | 40.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 859 |  | 18.0\% | 0.9\% | 1.1\% | 16.3\% | 2.7\% | 5.4\% | 0.4\% | 0.1\% | 2.0\% | 3.5\% | 13.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.5\% | 0.0\% | 0.0\% | 1.8\% | 31.4\% |
| 1996-1998 | 579 |  | 20.8\% | 0.7\% | 3.0\% | 7.6\% | 10.0\% | 0.4\% | 0.7\% | 0.0\% | 6.6\% | 0.4\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.5\% | 0.7\% | 32.7\% |
| 1999-2010 | 1249 |  | 13.2\% | 0.2\% | 3.7\% | 7.1\% | 10.1\% | 0.3\% | 0.8\% | 0.0\% | 6.0\% | 0.2\% | 6.4\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.4\% | 0.0\% | 0.0\% | 0.6\% | 2.7\% | 47.9\% |

Appendix C.61. Percent distribution of Skagit Spring Fingerling reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 21 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 63 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 38 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 4 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 33 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 467 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 904 | 2,3,4 | 1.0\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 1.5\% | 4.0\% | 0.0\% | 8.7\% | 0.6\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 7.3\% | 0.0\% | 0.6\% | 0.0\% | 72.7\% |
| 1998 | 674 | 2,3,4,5 | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 4.9\% | 0.0\% | 9.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 2.5\% | 0.0\% | 1.2\% | 0.0\% | 78.3\% |
| 1999 | 1712 | 2,3,4,5 | 0.5\% | 0.1\% | 0.0\% | 0.3\% | 0.7\% | 2.0\% | 6.0\% | 0.0\% | 4.6\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.5\% | 1.6\% | 0.0\% | 1.0\% | 0.0\% | 82.3\% |
| 2000 | 1109 | 2,3,4,5 | 1.5\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 6.2\% | 6.9\% | 0.0\% | 9.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 2.4\% | 0.0\% | 0.1\% | 0.0\% | 72.8\% |
| 2001 | 1811 | 2,3,4,5 | 1.3\% | 0.1\% | 0.3\% | 0.2\% | 0.8\% | 5.6\% | 3.8\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 4.3\% | 0.0\% | 0.5\% | 0.0\% | 77.3\% |
| 2002 | 1746 | 2,3,4,5 | 2.5\% | 0.0\% | 0.5\% | 0.5\% | 0.7\% | 6.7\% | 4.5\% | 0.0\% | 6.8\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 2.5\% | 0.0\% | 0.6\% | 0.0\% | 74.3\% |
| 2003 | 673 | 2,3,4,5 | 2.2\% | 0.0\% | 0.9\% | 1.2\% | 0.7\% | 18.3\% | 0.7\% | 0.0\% | 5.3\% | 0.0\% | 0.1\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.1\% | 1.2\% | 0.0\% | 0.7\% | 0.0\% | 67.0\% |
| 2004 | 1101 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 11.7\% | 2.6\% | 0.0\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 1.4\% | 0.0\% | 73.0\% |
| 2005 | 1234 | 2,3,4,5 | 1.3\% | 0.1\% | 0.0\% | 0.0\% | 1.4\% | 11.0\% | 5.3\% | 0.0\% | 5.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 3.7\% | 70.7\% |
| 2006 | 1718 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.2\% | 0.5\% | 6.3\% | 2.8\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.5\% | 2.3\% | 0.0\% | 1.0\% | 19.3\% | 60.9\% |
| 2007 | 2478 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 6.5\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.3\% | 2.8\% | 0.0\% | 1.3\% | 19.7\% | 52.5\% |
| 2008 | 1450 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.7\% | 5.9\% | 0.0\% | 4.7\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.2\% | 6.0\% | 0.0\% | 12.8\% | 15.0\% | 49.2\% |
| 2009 | 923 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 5.1\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 0.0\% | 19.9\% | 10.3\% | 50.5\% |
| 2010 | 1537 | 3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 2.0\% | 3.3\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 1.4\% | 0.0\% | 18.0\% | 11.9\% | 58.8\% |
| 1979-2010 | 1362 |  | 1.0\% | 0.0\% | 0.1\% | 0.2\% | 0.6\% | 6.2\% | 4.4\% | 0.0\% | 6.1\% | 0.0\% | 0.2\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 3.0\% | 0.0\% | 4.2\% | 5.7\% | 67.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 789 |  | 1.5\% | 0.0\% | 0.0\% | 0.2\% | 0.7\% | 0.8\% | 4.4\% | 0.0\% | 9.0\% | 0.3\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 4.9\% | 0.0\% | 0.9\% | 0.0\% | 75.5\% |
| 1999-2010 | 1458 |  | 0.9\% | 0.0\% | 0.2\% | 0.2\% | 0.6\% | 7.1\% | 4.4\% | 0.0\% | 5.6\% | 0.0\% | 0.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.3\% | 2.7\% | 0.0\% | 4.8\% | 6.7\% | 65.8\% |

Appendix C.62. Percent distribution of Skagit Spring Fingerling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 31 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 69 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 38 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 4 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 79 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 552 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 977 | 2,3,4 | 1.2\% | 0.0\% | 0.0\% | 0.4\% | 0.9\% | 1.6\% | 4.3\% | 0.0\% | 11.0\% | 0.5\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 8.7\% | 0.0\% | 0.5\% | 0.0\% | 67.2\% |
| 1998 | 771 | 2,3,4,5 | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 5.1\% | 0.0\% | 16.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 4.7\% | 0.0\% | 1.2\% | 0.0\% | 68.5\% |
| 1999 | 1799 | 2,3,4,5 | 0.9\% | 0.2\% | 0.0\% | 0.3\% | 0.9\% | 2.0\% | 6.5\% | 0.0\% | 6.4\% | 0.0\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.5\% | 2.4\% | 0.0\% | 1.0\% | 0.0\% | 78.3\% |
| 2000 | 1235 | 2,3,4,5 | 1.9\% | 0.0\% | 0.6\% | 0.0\% | 0.7\% | 6.5\% | 7.4\% | 0.0\% | 13.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 4.0\% | 0.0\% | 0.1\% | 0.0\% | 65.3\% |
| 2001 | 1957 | 2,3,4,5 | 1.7\% | 0.1\% | 0.4\% | 0.3\% | 1.0\% | 5.5\% | 4.2\% | 0.0\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 7.5\% | 0.0\% | 0.5\% | 0.0\% | 71.5\% |
| 2002 | 1830 | 2,3,4,5 | 2.8\% | 0.0\% | 0.5\% | 0.5\% | 0.9\% | 6.7\% | 5.1\% | 0.0\% | 8.0\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 3.3\% | 0.0\% | 0.5\% | 0.0\% | 70.9\% |
| 2003 | 707 | 2,3,4,5 | 2.4\% | 0.0\% | 1.0\% | 1.3\% | 1.0\% | 18.7\% | 1.0\% | 0.0\% | 6.8\% | 0.0\% | 0.1\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.1\% | 1.7\% | 0.0\% | 0.7\% | 0.0\% | 63.8\% |
| 2004 | 1179 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 12.0\% | 3.1\% | 0.0\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 1.4\% | 0.0\% | 68.2\% |
| 2005 | 1324 | 2,3,4,5 | 1.6\% | 0.2\% | 0.0\% | 0.0\% | 2.0\% | 11.1\% | 6.2\% | 0.0\% | 7.7\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 4.1\% | 65.9\% |
| 2006 | 1882 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.3\% | 0.6\% | 6.3\% | 3.2\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 3.2\% | 0.0\% | 1.0\% | 20.8\% | 55.6\% |
| 2007 | 2665 | 2,3,4,5 | 0.4\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 6.8\% | 0.0\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.3\% | 3.5\% | 0.0\% | 1.3\% | 21.3\% | 48.8\% |
| 2008 | 1571 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.6\% | 6.6\% | 0.0\% | 5.5\% | 0.0\% | 0.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 1.1\% | 7.8\% | 0.0\% | 12.2\% | 16.0\% | 45.4\% |
| 2009 | 1024 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 5.6\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 0.0\% | 19.2\% | 10.9\% | 45.5\% |
| 2010 | 1613 | 3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 3.8\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 1.7\% | 0.0\% | 17.7\% | 13.2\% | 56.0\% |
| 1979-2010 | 1467 |  | 1.2\% | 0.1\% | 0.2\% | 0.3\% | 0.8\% | 6.3\% | 4.9\% | 0.0\% | 8.3\% | 0.0\% | 0.3\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.3\% | 4.3\% | 0.0\% | 4.1\% | 6.2\% | 62.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 874 |  | 1.6\% | 0.0\% | 0.0\% | 0.2\% | 1.1\% | 0.8\% | 4.7\% | 0.0\% | 13.6\% | 0.3\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 6.7\% | 0.0\% | 0.8\% | 0.0\% | 67.9\% |
| 1999-2010 | 1566 |  | 1.1\% | 0.1\% | 0.2\% | 0.3\% | 0.8\% | 7.2\% | 5.0\% | 0.0\% | 7.4\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 3.9\% | 0.0\% | 4.7\% | 7.2\% | 61.3\% |

Appendix C.63. Percent distribution of Skagit Spring Yearling reported catch among fisheries and escapement.

| Catch Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 3 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 60 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 120 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 29.2\% | 0.0\% | 26.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 11.7\% |
| 1986 | 211 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 5.7\% | 6.2\% | 35.5\% | 4.3\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 20.4\% |
| 1987 | 109 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 10.1\% | 0.0\% | 11.9\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 24.8\% | 20.2\% | 0.0\% | 0.0\% | 0.0\% | 22.9\% |
| 1988 | 509 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 9.6\% | 0.4\% | 14.5\% | 0.0\% | 13.6\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 20.6\% | 14.5\% | 0.0\% | 0.0\% | 0.0\% | 23.2\% |
| 1989 | 760 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 1.8\% | 0.0\% | 17.5\% | 0.8\% | 3.4\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 12.4\% | 8.4\% | 0.0\% | 18.0\% | 0.0\% | 29.9\% |
| 1990 | 675 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 4.9\% | 8.7\% | 3.1\% | 11.1\% | 0.4\% | 5.8\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 13.5\% | 22.7\% | 0.0\% | 1.9\% | 0.0\% | 23.4\% |
| 1991 | 483 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 30 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | 376 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 732 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 143 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 135 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 448 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 10.3\% | 0.0\% | 19.6\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 21.0\% | 0.0\% | 1.1\% | 0.0\% | 42.4\% |
| 1998 | 1118 | 2,3,4,5 | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 2.8\% | 1.3\% | 10.1\% | 0.0\% | 8.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 16.7\% | 0.0\% | 0.7\% | 0.0\% | 56.4\% |
| 1999 | 2376 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 4.8\% | 4.3\% | 0.0\% | 7.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 8.7\% | 0.0\% | 1.2\% | 0.0\% | 72.4\% |
| 2000 | 522 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 7.1\% | 3.1\% | 0.0\% | 15.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 15.5\% | 0.0\% | 0.6\% | 0.0\% | 56.5\% |
| 2001 | 251 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 2.4\% | 0.0\% | 12.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 0.0\% | 2.0\% | 0.0\% | 66.1\% |
| 2002 | 269 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 14.1\% | 0.0\% | 14.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 8.6\% | 0.0\% | 0.7\% | 0.0\% | 59.5\% |
| 2003 | 890 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.3\% | 20.3\% | 3.8\% | 0.0\% | 9.4\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.6\% | 7.5\% | 0.0\% | 0.2\% | 0.0\% | 56.7\% |
| 2004 | 1582 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 13.0\% | 3.7\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.2\% | 4.0\% | 0.0\% | 0.8\% | 0.1\% | 71.4\% |
| 2005 | 1157 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 7.6\% | 5.3\% | 0.0\% | 10.4\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.1\% | 6.3\% | 0.0\% | 1.0\% | 6.6\% | 60.8\% |
| 2006 | 717 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 6.0\% | 0.0\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% | 2.8\% | 0.0\% | 1.1\% | 33.6\% | 35.8\% |
| 2007 | 759 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 8.2\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 1.1\% | 14.4\% | 0.0\% | 0.4\% | 24.5\% | 43.7\% |
| 2008 | 709 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 3.5\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 9.9\% | 0.0\% | 12.4\% | 20.6\% | 45.7\% |
| 2009 | 365 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.6\% | 12.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.3\% | 7.7\% | 0.0\% | 18.9\% | 12.9\% | 42.7\% |
| 2010 | 414 | 3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 2.4\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 0.0\% | 17.1\% | 30.0\% | 41.8\% |
| 1979-2010 | 698 |  | 0.4\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 5.1\% | 5.8\% | 0.5\% | 12.1\% | 0.3\% | 3.7\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 4.7\% | 11.5\% | 0.0\% | 3.9\% | 6.4\% | 44.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 397 |  | 0.2\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 4.4\% | 4.3\% | 1.6\% | 19.7\% | 0.9\% | 11.8\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 14.1\% | 14.9\% | 0.0\% | 3.3\% | 0.0\% | 21.9\% |
| 1996-1998 | 783 |  | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 1.5\% | 10.2\% | 0.0\% | 14.2\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 18.9\% | 0.0\% | 0.9\% | 0.0\% | 49.4\% |
| 1999-2010 | 834 |  | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 6.0\% | 5.8\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 0.4\% | 8.6\% | 0.0\% | 4.7\% | 10.7\% | 54.4\% |

Appendix C.64. Percent distribution of Skagit Spring Yearling total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | 7 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - |  | - | - | - | - | - |  | - |
| 1984 | 76 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 131 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 0.0\% | 29.8\% | 0.0\% | 25.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.2\% | 18.3\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% |
| 1986 | 228 | 2,3,4,5 | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 5.7\% | 6.1\% | 36.0\% | 3.9\% | 9.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 9.2\% | 0.0\% | 0.0\% | 0.0\% | 18.9\% |
| 1987 | 167 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 9.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 19.2\% | 40.1\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% |
| 1988 | 589 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 9.2\% | 0.5\% | 18.3\% | 0.0\% | 12.4\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 19.2\% | 16.1\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% |
| 1989 | 867 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.9\% | 1.8\% | 0.0\% | 21.1\% | 0.8\% | 3.3\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 11.2\% | 10.3\% | 0.0\% | 16.7\% | 0.0\% | 26.2\% |
| 1990 | 733 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 5.0\% | 8.6\% | 3.3\% | 12.0\% | 0.4\% | 5.5\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 12.8\% | 24.3\% | 0.0\% | 1.8\% | 0.0\% | 21.6\% |
| 1991 | 502 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 102 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | 422 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 754 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 179 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 188 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 624 | 2,3,4 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 2.9\% | 9.0\% | 0.0\% | 22.9\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 28.0\% | 0.0\% | 0.8\% | 0.0\% | 30.4\% |
| 1998 | 1229 | 2,3,4,5 | 0.7\% | 0.2\% | 0.0\% | 0.0\% | 3.4\% | 1.1\% | 9.9\% | 0.0\% | 10.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 19.8\% | 0.0\% | 0.7\% | 0.0\% | 51.3\% |
| 1999 | 2490 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 4.8\% | 4.5\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 11.2\% | 0.0\% | 1.2\% | 0.0\% | 69.1\% |
| 2000 | 568 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 6.7\% | 3.2\% | 0.0\% | 16.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 18.8\% | 0.0\% | 0.5\% | 0.0\% | 51.9\% |
| 2001 | 333 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 2.4\% | 0.0\% | 20.7\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 20.1\% | 0.0\% | 1.5\% | 0.0\% | 49.8\% |
| 2002 | 318 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 15.1\% | 0.0\% | 19.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 11.6\% | 0.0\% | 0.6\% | 0.0\% | 50.3\% |
| 2003 | 966 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.5\% | 19.8\% | 4.9\% | 0.0\% | 11.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.5\% | 9.5\% | 0.0\% | 0.2\% | 0.0\% | 52.3\% |
| 2004 | 1655 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 13.2\% | 4.2\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.2\% | 5.3\% | 0.0\% | 0.8\% | 0.1\% | 68.3\% |
| 2005 | 1245 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 7.5\% | 5.8\% | 0.0\% | 12.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.1\% | 8.0\% | 0.0\% | 0.9\% | 7.1\% | 56.5\% |
| 2006 | 819 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 6.5\% | 0.0\% | 13.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.5\% | 4.2\% | 0.0\% | 1.0\% | 33.9\% | 31.4\% |
| 2007 | 841 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 8.3\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 1.0\% | 16.9\% | 0.0\% | 0.4\% | 25.7\% | 39.5\% |
| 2008 | 770 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 3.9\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 12.2\% | 0.0\% | 11.6\% | 21.8\% | 42.1\% |
| 2009 | 396 | 2,3,4,5 | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 1.5\% | 13.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.3\% | 9.8\% | 0.0\% | 17.9\% | 13.6\% | 39.4\% |
| 2010 | 443 | 3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 2.7\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 16.3\% | 32.3\% | 39.1\% |
| 1979-2010 | 771 |  | 0.4\% | 0.0\% | 0.0\% | 0.3\% | 0.5\% | 5.0\% | 6.0\% | 0.5\% | 14.0\% | 0.3\% | 3.4\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 4.1\% | 15.1\% | 0.0\% | 3.6\% | 6.7\% | 39.2\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 452 |  | 0.3\% | 0.0\% | 0.0\% | 0.7\% | 0.2\% | 4.5\% | 4.2\% | 1.7\% | 20.9\% | 0.9\% | 10.8\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 12.4\% | 19.7\% | 0.0\% | 3.1\% | 0.0\% | 18.7\% |
| 1996-1998 | 926 |  | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 2.3\% | 2.0\% | 9.5\% | 0.0\% | 16.6\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 23.9\% | 0.0\% | 0.7\% | 0.0\% | 40.9\% |
| 1999-2010 | 904 |  | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 0.4\% | 5.8\% | 6.2\% | 0.0\% | 10.1\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.1\% | 0.4\% | 11.3\% | 0.0\% | 4.4\% | 11.2\% | 49.1\% |

Appendix C.65. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 1 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 103 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 569 | 2,3,4 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 16.7\% | 3.2\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.5\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 64.5\% |
| 2005 | 511 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 18.4\% | 8.0\% | 0.0\% | 5.1\% | 0.0\% | 0.6\% | 0.0\% | 2.9\% | 0.0\% | 0.4\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 61.3\% |
| 2006 | 584 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 14.6\% | 3.9\% | 0.0\% | 6.5\% | 0.0\% | 0.2\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 1.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 63.2\% |
| 2007 | 1098 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 1.2\% | 15.2\% | 6.3\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 1.5\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 62.6\% |
| 2008 | 720 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.0\% | 2.6\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 6.3\% | 0.0\% | 0.0\% | 0.0\% | 77.8\% |
| 2009 | 328 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 4.3\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 12.2\% | 0.0\% | 0.0\% | 0.0\% | 76.2\% |
| 2010 | 389 | 2,3,4,5 | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 2.1\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 1.8\% | 5.9\% | 0.0\% | 0.0\% | 2.6\% | 82.0\% |
| 1979-2010 | 600 |  | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 0.4\% | 11.2\% | 4.3\% | 0.0\% | 4.5\% | 0.0\% | 0.1\% | 0.0\% | 1.8\% | 0.0\% | 0.1\% | 0.9\% | 6.2\% | 0.0\% | 0.0\% | 0.4\% | 69.6\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 600 |  | 0.4\% | 0.0\% | 0.0\% | 0.1\% | 0.4\% | 11.2\% | 4.3\% | 0.0\% | 4.5\% | 0.0\% | 0.1\% | 0.0\% | 1.8\% | 0.0\% | 0.1\% | 0.9\% | 6.2\% | 0.0\% | 0.0\% | 0.4\% | 69.6\% |

Appendix C.66. Percent distribution of Skykomish Fall Fingerling (Snohomish Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | 20 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 131 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 612 | 2,3,4 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 16.3\% | 3.9\% | 0.0\% | 8.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.5\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 60.0\% |
| 2005 | 551 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 18.3\% | 9.1\% | 0.0\% | 6.7\% | 0.0\% | 0.7\% | 0.0\% | 3.3\% | 0.0\% | 0.5\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 56.8\% |
| 2006 | 652 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 14.1\% | 4.3\% | 0.0\% | 9.8\% | 0.0\% | 0.2\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.9\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 56.6\% |
| 2007 | 1155 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 1.4\% | 15.1\% | 6.7\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 1.6\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 59.5\% |
| 2008 | 747 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 3.1\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 75.0\% |
| 2009 | 354 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 4.8\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 16.1\% | 0.0\% | 0.0\% | 0.0\% | 70.6\% |
| 2010 | 430 | 2,3,4,5 | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 2.6\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.9\% | 10.9\% | 0.0\% | 0.0\% | 2.8\% | 74.2\% |
| 1979-2010 | 643 |  | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 11.1\% | 4.9\% | 0.0\% | 6.0\% | 0.0\% | 0.1\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 0.9\% | 8.7\% | 0.0\% | 0.0\% | 0.4\% | 64.7\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 643 |  | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 11.1\% | 4.9\% | 0.0\% | 6.0\% | 0.0\% | 0.1\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 0.9\% | 8.7\% | 0.0\% | 0.0\% | 0.4\% | 64.7\% |

Appendix C.67. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 13 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 26 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 167 | 2,3,4 | 6.6\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.3\% |
| 1990 | 140 | 3,4,5 | 10.0\% | 2.1\% | 4.3\% | 14.3\% | 0.0\% | 17.9\% | 0.0\% | 0.0\% | 7.1\% | 1.4\% | 2.9\% | 0.0\% | 1.4\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.0\% |
| 1991 | 345 | 2,4,5,6 | 11.9\% | 0.0\% | 0.0\% | 9.9\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 64.3\% |
| 1992 | 295 | 2,3,5,6 | 8.5\% | 0.0\% | 0.0\% | 9.5\% | 0.0\% | 19.3\% | 1.7\% | 0.0\% | 1.0\% | 2.0\% | 3.4\% | 0.0\% | 0.3\% | 0.0\% | 0.7\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 51.9\% |
| 1993 | 237 | 2,3,4,6 | 4.6\% | 0.0\% | 0.0\% | 7.6\% | 2.1\% | 16.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 2.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 64.1\% |
| 1994 | 203 | 2,3,4,5 | 16.7\% | 3.9\% | 3.9\% | 10.8\% | 1.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.7\% |
| 1995 | 153 | 2,3,4,5,6 | 8.5\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 73.9\% |
| 1996 | 206 | 2,3,4,5,6 | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.3\% |
| 1997 | 289 | 2,3,4,5,6 | 10.4\% | 0.0\% | 5.2\% | 5.2\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.4\% | 0.7\% | 0.3\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 20.8\% | 0.0\% | 49.5\% |
| 1998 | 267 | 2,3,4,5,6 | 9.0\% | 0.0\% | 1.5\% | 17.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 72.3\% |
| 1999 | 226 | 2,3,4,5,6 | 11.9\% | 0.0\% | 11.9\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 68.6\% |
| 2000 | 84 | 2,3,4,5,6 | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 86.9\% |
| 2001 | 295 | 2,3,4,5,6 | 6.1\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.5\% |
| 2002 | 534 | 2,3,4,5,6 | 10.7\% | 0.2\% | 1.3\% | 2.8\% | 2.8\% | 0.6\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 80.0\% |
| 2003 | 746 | 2,3,4,5,6 | 11.7\% | 0.1\% | 0.0\% | 4.7\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 25.5\% | 0.0\% | 53.5\% |
| 2004 | 866 | 2,3,4,5,6 | 16.9\% | 0.5\% | 2.1\% | 14.4\% | 0.0\% | 0.8\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 0.9\% | 0.0\% | 62.0\% |
| 2005 | 478 | 2,3,4,5,6 | 25.9\% | 0.0\% | 2.3\% | 24.5\% | 7.1\% | 1.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.7\% |
| 2006 | 219 | 2,3,4,5,6 | 22.4\% | 3.7\% | 2.7\% | 26.0\% | 1.8\% | 1.4\% | 2.7\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 30.6\% |
| 2007 | 68 | 2,3,4,5,6 | 11.8\% | 0.0\% | 0.0\% | 17.6\% | 10.3\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.4\% |
| 2008 | 91 | 3,4,5,6 | 5.5\% | 0.0\% | 0.0\% | 13.2\% | 13.2\% | 0.0\% | 11.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.9\% |
| 2009 | 473 | 2,4,5,6 | 9.5\% | 0.0\% | 0.6\% | 7.2\% | 2.7\% | 0.0\% | 4.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.7\% |
| 2010 | 390 | 2,3,5,6 | 2.3\% | 0.0\% | 1.8\% | 4.9\% | 0.5\% | 1.0\% | 1.0\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 3.3\% | 0.3\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 80.5\% |
| 1979-2010 | 308 |  | 10.4\% | 0.8\% | 1.9\% | 9.1\% | 2.0\% | 3.8\% | 2.1\% | 0.0\% | 1.4\% | 0.3\% | 0.9\% | 0.0\% | 0.4\% | 0.0\% | 0.6\% | 0.2\% | 0.5\% | 0.0\% | 2.3\% | 0.0\% | 63.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 220 |  | 9.5\% | 1.8\% | 1.2\% | 8.1\% | 0.4\% | 11.1\% | 1.4\% | 0.0\% | 1.2\% | 0.9\% | 2.7\% | 0.0\% | 0.3\% | 0.0\% | 0.6\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 59.3\% |
| 1996-1998 | 254 |  | 9.4\% | 0.0\% | 2.2\% | 7.5\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.5\% | 0.2\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.9\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 70.7\% |
| 1999-2010 | 372 |  | 11.2\% | 0.4\% | 2.3\% | 10.2\% | 3.4\% | 0.4\% | 2.8\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.1\% | 0.3\% | 0.0\% | 2.2\% | 0.0\% | 63.9\% |

Appendix C.68. Percent distribution of Sooes Fall Fingerling (Washington Coastal Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 17 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 32 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1989 | 230 | 2,3,4 | 8.3\% | 20.4\% | 0.4\% | 2.6\% | 0.0\% | 3.9\% | 6.1\% | 0.0\% | 0.4\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 51.7\% |
| 1990 | 168 | 3,4,5 | 11.9\% | 6.0\% | 4.2\% | 15.5\% | 0.0\% | 17.9\% | 0.0\% | 0.0\% | 6.5\% | 1.8\% | 2.4\% | 0.0\% | 1.8\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.2\% |
| 1991 | 374 | 2,4,5,6 | 13.6\% | 0.0\% | 0.3\% | 10.4\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 59.4\% |
| 1992 | 325 | 2,3,5,6 | 10.8\% | 0.3\% | 0.3\% | 10.2\% | 0.0\% | 20.6\% | 1.5\% | 0.0\% | 1.2\% | 2.2\% | 3.1\% | 0.0\% | 0.3\% | 0.0\% | 0.6\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 47.1\% |
| 1993 | 253 | 2,3,4,6 | 7.1\% | 0.4\% | 0.0\% | 7.9\% | 2.0\% | 17.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 2.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 60.1\% |
| 1994 | 244 | 2,3,4,5 | 18.0\% | 14.8\% | 3.3\% | 9.0\% | 0.8\% | 7.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 45.5\% |
| 1995 | 179 | 2,3,4,5,6 | 15.1\% | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 11.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 63.1\% |
| 1996 | 226 | 2,3,4,5,6 | 15.5\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.3\% |
| 1997 | 312 | 2,3,4,5,6 | 11.9\% | 0.0\% | 5.8\% | 5.4\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 1.6\% | 0.6\% | 0.6\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 20.8\% | 0.0\% | 45.8\% |
| 1998 | 280 | 2,3,4,5,6 | 10.4\% | 0.0\% | 1.8\% | 18.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 68.9\% |
| 1999 | 236 | 2,3,4,5,6 | 13.1\% | 0.0\% | 13.1\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.7\% |
| 2000 | 89 | 2,3,4,5,6 | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.0\% | 12.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 82.0\% |
| 2001 | 314 | 2,3,4,5,6 | 9.2\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 83.1\% |
| 2002 | 567 | 2,3,4,5,6 | 12.9\% | 0.2\% | 1.6\% | 3.4\% | 4.1\% | 0.7\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.3\% |
| 2003 | 801 | 2,3,4,5,6 | 13.7\% | 0.1\% | 0.0\% | 5.4\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.7\% | 0.0\% | 25.2\% | 0.0\% | 49.8\% |
| 2004 | 923 | 2,3,4,5,6 | 18.7\% | 0.8\% | 2.2\% | 15.8\% | 0.0\% | 0.8\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 0.0\% | 0.9\% | 0.0\% | 58.2\% |
| 2005 | 512 | 2,3,4,5,6 | 26.2\% | 0.0\% | 2.3\% | 24.8\% | 8.8\% | 1.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.4\% |
| 2006 | 234 | 2,3,4,5,6 | 22.6\% | 4.3\% | 2.6\% | 26.1\% | 2.1\% | 1.7\% | 3.0\% | 0.0\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.3\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 28.6\% |
| 2007 | 90 | 2,3,4,5,6 | 11.1\% | 0.0\% | 0.0\% | 16.7\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 41.1\% |
| 2008 | 108 | 3,4,5,6 | 11.1\% | 0.0\% | 0.0\% | 15.7\% | 13.0\% | 0.0\% | 10.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 46.3\% |
| 2009 | 500 | 2,4,5,6 | 9.8\% | 0.0\% | 1.4\% | 7.4\% | 3.2\% | 0.0\% | 4.4\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 67.8\% |
| 2010 | 406 | 2,3,5,6 | 3.0\% | 0.0\% | 2.2\% | 5.2\% | 0.7\% | 1.0\% | 1.2\% | 0.0\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 3.4\% | 0.2\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 77.3\% |
| 1979-2010 | 335 |  | 12.5\% | 2.1\% | 2.3\% | 9.7\% | 2.5\% | 4.1\% | 2.1\% | 0.0\% | 2.0\% | 0.3\% | 0.8\% | 0.0\% | 0.4\% | 0.0\% | 0.6\% | 0.3\% | 0.6\% | 0.0\% | 2.3\% | 0.0\% | 57.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 253 |  | 12.1\% | 6.0\% | 1.2\% | 8.7\% | 0.4\% | 12.2\% | 1.1\% | 0.0\% | 1.2\% | 1.0\% | 2.5\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.1\% | 1.3\% | 0.0\% | 0.4\% | 0.0\% | 50.9\% |
| 1996-1998 | 273 |  | 12.6\% | 0.0\% | 2.5\% | 8.4\% | 0.0\% | 0.1\% | 0.9\% | 0.0\% | 0.5\% | 0.2\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 1.3\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 65.7\% |
| 1999-2010 | 398 |  | 12.6\% | 0.4\% | 2.8\% | 10.6\% | 4.4\% | 0.4\% | 3.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.8\% | 0.1\% | 0.4\% | 0.0\% | 2.2\% | 0.0\% | 59.0\% |

Appendix C.69. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 4508 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 23.6\% | 0.1\% | 0.2\% | 1.2\% | 0.7\% | 2.8\% | 0.0\% | 16.5\% | 0.6\% | 7.5\% | 1.4\% | 5.4\% | 0.0\% | 21.6\% | 0.0\% | 18.4\% |
| 1980 | 5944 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 26.0\% | 0.1\% | 0.1\% | 2.7\% | 0.5\% | 1.1\% | 0.0\% | 23.4\% | 1.9\% | 5.2\% | 0.7\% | 4.9\% | 0.0\% | 20.9\% | 0.0\% | 12.5\% |
| 1981 | 6529 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 21.2\% | 0.1\% | 0.1\% | 1.4\% | 0.2\% | 2.0\% | 0.0\% | 23.2\% | 0.3\% | 10.8\% | 0.5\% | 1.9\% | 0.0\% | 20.0\% | 0.0\% | 18.3\% |
| 1982 | 4315 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.1\% | 0.0\% | 0.0\% | 1.0\% | 0.5\% | 0.3\% | 0.0\% | 19.6\% | 0.1\% | 7.2\% | 1.1\% | 1.0\% | 0.0\% | 34.4\% | 0.0\% | 12.7\% |
| 1983 | 782 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.9\% | 0.5\% | 0.0\% | 1.2\% | 0.4\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 4.0\% | 0.3\% | 5.8\% | 0.0\% | 19.9\% | 0.0\% | 29.7\% |
| 1984 | 1013 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.0\% | 0.4\% | 0.0\% | 0.0\% | 2.4\% | 1.3\% | 0.0\% | 5.8\% | 0.0\% | 1.0\% | 0.7\% | 3.8\% | 0.0\% | 26.0\% | 3.0\% | 28.7\% |
| 1985 | 1160 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 14.0\% | 0.0\% | 2.4\% | 0.7\% | 1.4\% | 0.0\% | 26.7\% | 0.3\% | 40.0\% |
| 1986 | 325 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.1\% | 2.5\% | 0.0\% | 1.8\% | 2.8\% | 1.5\% | 0.0\% | 2.5\% | 0.0\% | 2.5\% | 0.9\% | 4.0\% | 0.0\% | 34.2\% | 1.2\% | 23.1\% |
| 1987 | 114 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.0\% | 0.0\% | 8.8\% | 17.5\% | 2.6\% | 0.0\% | 21.1\% | 8.8\% | 19.3\% |
| 1988 | 668 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 22.2\% | 2.2\% | 0.0\% | 0.9\% | 0.3\% | 1.9\% | 0.0\% | 16.3\% | 0.0\% | 3.1\% | 1.5\% | 2.5\% | 0.0\% | 28.1\% | 4.2\% | 16.2\% |
| 1989 | 2054 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 14.3\% | 3.3\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 0.0\% | 24.5\% | 0.0\% | 3.3\% | 0.1\% | 1.6\% | 0.0\% | 34.1\% | 3.3\% | 14.5\% |
| 1990 | 2097 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 17.6\% | 4.5\% | 0.3\% | 0.4\% | 0.3\% | 1.0\% | 0.0\% | 14.3\% | 0.0\% | 7.0\% | 0.3\% | 3.9\% | 0.0\% | 22.7\% | 2.2\% | 25.3\% |
| 1991 | 2600 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.0\% | 1.4\% | 0.0\% | 0.2\% | 0.3\% | 0.5\% | 0.0\% | 16.8\% | 0.0\% | 4.7\% | 0.5\% | 2.4\% | 0.0\% | 33.5\% | 3.8\% | 23.0\% |
| 1992 | 2818 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 2.5\% | 0.2\% | 0.4\% | 0.3\% | 0.5\% | 0.0\% | 26.6\% | 0.0\% | 5.2\% | 0.0\% | 3.1\% | 0.0\% | 14.7\% | 3.5\% | 30.9\% |
| 1993 | 1109 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.7\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 17.7\% | 0.0\% | 2.9\% | 0.0\% | 4.3\% | 0.0\% | 21.4\% | 3.2\% | 28.4\% |
| 1994 | 892 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.4\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 30.4\% | 0.0\% | 42.4\% |
| 1995 | 882 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 38.5\% | 0.0\% | 49.4\% |
| 1996 | 845 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 1.1\% | 0.0\% | 0.7\% | 0.0\% | 55.9\% | 1.4\% | 32.1\% |
| 1997 | 601 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 1.3\% | 0.0\% | 2.8\% | 0.0\% | 24.1\% | 6.7\% | 45.1\% |
| 1998 | 744 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 1.7\% | 0.0\% | 0.3\% | 0.0\% | 15.7\% | 11.4\% | 66.1\% |
| 1999 | 1514 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 16.8\% | 0.0\% | 2.6\% | 0.0\% | 0.2\% | 0.0\% | 36.5\% | 6.4\% | 33.0\% |
| 2000 | 855 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.0\% | 0.0\% | 1.8\% | 0.0\% | 0.4\% | 0.0\% | 20.4\% | 6.5\% | 57.1\% |
| 2001 | 6191 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 14.2\% | 0.0\% | 3.0\% | 0.0\% | 0.3\% | 0.0\% | 23.0\% | 2.1\% | 52.9\% |
| 2002 | 4312 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 1.3\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 0.0\% | 7.8\% | 0.0\% | 0.3\% | 0.0\% | 25.1\% | 2.5\% | 35.5\% |
| 2003 | 5999 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.0\% | 3.5\% | 0.0\% | 0.1\% | 0.0\% | 22.5\% | 2.2\% | 48.2\% |
| 2004 | 6107 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.1\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 0.0\% | 3.2\% | 0.0\% | 0.3\% | 0.0\% | 18.5\% | 1.8\% | 52.2\% |
| 2005 | 2351 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 27.4\% | 0.9\% | 37.3\% |
| 2006 | 699 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.7\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.0\% | 1.9\% | 0.0\% | 1.0\% | 0.0\% | 37.1\% | 1.0\% | 32.8\% |
| 2007 | 986 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 3.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 3.9\% | 0.0\% | 0.9\% | 0.0\% | 38.7\% | 1.4\% | 42.7\% |
| 2008 | 2146 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 6.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 2.8\% | 0.0\% | 1.4\% | 0.0\% | 41.6\% | 2.6\% | 33.6\% |
| 2009 | 2220 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.1\% | 2.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 3.5\% | 0.0\% | 1.9\% | 0.0\% | 37.8\% | 2.6\% | 49.1\% |
| 2010 | 2580 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 6.8\% | 4.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 20.4\% | 0.2\% | 7.5\% | 0.0\% | 1.2\% | 0.0\% | 54.8\% | 2.1\% | 2.1\% |
| 1979-2010 | 2374 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.4\% | 2.3\% | 0.0\% | 0.4\% | 0.3\% | 0.5\% | 0.0\% | 11.8\% | 0.1\% | 3.8\% | 0.8\% | 1.9\% | 0.0\% | 29.0\% | 2.7\% | 32.9\% |
| 1979-1984 | 3848 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% | 0.2\% | 0.1\% | 1.2\% | 0.8\% | 1.2\% | 0.0\% | 16.1\% | 0.5\% | 5.9\% | 0.8\% | 3.8\% | 0.0\% | 23.8\% | 0.5\% | 20.1\% |
| 1985-1995 | 1338 |  | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 15.1\% | 2.5\% | 0.0\% | 0.4\% | 0.4\% | 0.7\% | 0.0\% | 13.8\% | 0.0\% | 3.6\% | 2.0\% | 2.4\% | 0.0\% | 27.8\% | 2.8\% | 28.4\% |
| 1996-1998 | 730 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 1.4\% | 0.0\% | 1.3\% | 0.0\% | 31.9\% | 6.5\% | 47.8\% |
| 1999-2010 | 2997 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 3.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 0.0\% | 3.5\% | 0.0\% | 0.7\% | 0.0\% | 31.9\% | 2.7\% | 39.7\% |

Appendix C.70. Percent distribution of Spring Creek Tule (Spring Creek Hatchery) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 5337 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 24.8\% | 0.1\% | 0.2\% | 1.1\% | 0.7\% | 2.5\% | 0.0\% | 18.1\% | 0.7\% | 7.3\% | 1.8\% | 6.2\% | 0.0\% | 20.9\% | 0.0\% | 15.5\% |
| 1980 | 7048 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 26.7\% | 0.1\% | 0.1\% | 2.4\% | 0.5\% | 1.0\% | 0.0\% | 24.7\% | 2.2\% | 5.0\% | 0.8\% | 5.8\% | 0.0\% | 19.8\% | 0.0\% | 10.5\% |
| 1981 | 7431 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 21.5\% | 0.1\% | 0.1\% | 1.3\% | 0.2\% | 1.9\% | 0.0\% | 24.3\% | 0.3\% | 10.8\% | 0.5\% | 2.2\% | 0.0\% | 20.6\% | 0.0\% | 16.1\% |
| 1982 | 4812 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.6\% | 0.0\% | 0.0\% | 1.0\% | 0.5\% | 0.2\% | 0.0\% | 22.1\% | 0.1\% | 7.1\% | 1.1\% | 1.1\% | 0.0\% | 32.7\% | 0.0\% | 11.4\% |
| 1983 | 897 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.9\% | 0.4\% | 0.0\% | 1.2\% | 0.4\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 4.1\% | 0.3\% | 8.0\% | 0.0\% | 19.7\% | 0.0\% | 25.9\% |
| 1984 | 1182 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.3\% | 0.3\% | 0.0\% | 0.0\% | 2.3\% | 1.2\% | 0.0\% | 5.8\% | 0.0\% | 1.0\% | 0.9\% | 9.1\% | 0.0\% | 25.8\% | 2.6\% | 24.6\% |
| 1985 | 1261 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.5\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 16.2\% | 0.0\% | 2.5\% | 0.7\% | 1.4\% | 0.0\% | 26.7\% | 0.2\% | 36.8\% |
| 1986 | 355 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.2\% | 2.5\% | 0.0\% | 2.0\% | 2.8\% | 1.7\% | 0.0\% | 2.5\% | 0.0\% | 2.5\% | 1.1\% | 4.8\% | 0.0\% | 33.5\% | 1.1\% | 21.1\% |
| 1987 | 154 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.9\% | 0.0\% | 7.8\% | 22.7\% | 5.2\% | 0.0\% | 18.8\% | 6.5\% | 14.3\% |
| 1988 | 900 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 23.1\% | 2.0\% | 0.0\% | 2.0\% | 0.2\% | 1.7\% | 0.0\% | 15.8\% | 0.0\% | 2.8\% | 1.9\% | 4.8\% | 0.0\% | 29.3\% | 4.0\% | 12.0\% |
| 1989 | 2430 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 16.1\% | 3.1\% | 0.0\% | 0.6\% | 0.0\% | 0.4\% | 0.0\% | 26.2\% | 0.0\% | 3.1\% | 0.2\% | 1.9\% | 0.0\% | 32.8\% | 3.2\% | 12.3\% |
| 1990 | 2536 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 19.2\% | 4.4\% | 0.3\% | 0.6\% | 0.4\% | 0.9\% | 0.0\% | 15.0\% | 0.0\% | 6.8\% | 0.4\% | 5.5\% | 0.0\% | 23.3\% | 2.1\% | 20.9\% |
| 1991 | 3022 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.9\% | 1.4\% | 0.0\% | 0.3\% | 0.3\% | 0.5\% | 0.0\% | 18.3\% | 0.0\% | 4.6\% | 0.6\% | 3.2\% | 0.0\% | 32.3\% | 3.7\% | 19.8\% |
| 1992 | 3204 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 2.4\% | 0.2\% | 0.5\% | 0.3\% | 0.5\% | 0.0\% | 28.8\% | 0.0\% | 5.1\% | 0.0\% | 3.4\% | 0.0\% | 14.1\% | 3.4\% | 27.2\% |
| 1993 | 1263 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.6\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 19.2\% | 0.0\% | 2.9\% | 0.0\% | 5.5\% | 0.0\% | 20.5\% | 3.0\% | 24.9\% |
| 1994 | 992 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.2\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 31.7\% | 0.0\% | 38.1\% |
| 1995 | 962 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.1\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 39.9\% | 0.0\% | 45.3\% |
| 1996 | 932 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 0.0\% | 1.2\% | 0.0\% | 0.9\% | 0.0\% | 57.3\% | 1.5\% | 29.1\% |
| 1997 | 645 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.1\% | 0.0\% | 1.2\% | 0.0\% | 3.6\% | 0.0\% | 24.0\% | 6.8\% | 42.0\% |
| 1998 | 869 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.8\% | 0.0\% | 1.0\% | 0.0\% | 21.6\% | 14.3\% | 56.6\% |
| 1999 | 1653 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 19.4\% | 0.0\% | 2.7\% | 0.0\% | 0.2\% | 0.0\% | 36.4\% | 6.5\% | 30.2\% |
| 2000 | 1013 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 1.9\% | 0.0\% | 1.3\% | 0.0\% | 26.1\% | 7.6\% | 48.2\% |
| 2001 | 6735 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 16.3\% | 0.0\% | 3.1\% | 0.0\% | 0.8\% | 0.0\% | 24.1\% | 2.2\% | 48.6\% |
| 2002 | 4741 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.1\% | 1.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 18.6\% | 0.0\% | 8.1\% | 0.0\% | 0.5\% | 0.0\% | 25.1\% | 2.5\% | 32.3\% |
| 2003 | 6454 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.1\% | 0.0\% | 3.7\% | 0.0\% | 0.2\% | 0.0\% | 23.1\% | 2.2\% | 44.8\% |
| 2004 | 6398 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.0\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 0.0\% | 3.3\% | 0.0\% | 0.4\% | 0.0\% | 19.0\% | 1.9\% | 49.8\% |
| 2005 | 2464 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.2\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.2\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 27.8\% | 0.9\% | 35.6\% |
| 2006 | 753 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.6\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 1.9\% | 0.0\% | 1.2\% | 0.0\% | 38.0\% | 1.1\% | 30.4\% |
| 2007 | 1305 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 3.1\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 3.7\% | 0.0\% | 3.7\% | 0.0\% | 46.4\% | 1.5\% | 32.3\% |
| 2008 | 2324 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 6.8\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 2.9\% | 0.0\% | 1.6\% | 0.0\% | 42.3\% | 2.7\% | 31.0\% |
| 2009 | 2624 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 1.1\% | 2.4\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 3.6\% | 0.0\% | 4.6\% | 0.0\% | 41.7\% | 2.7\% | 41.5\% |
| 2010 | 2975 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 6.2\% | 4.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 22.2\% | 0.2\% | 7.3\% | 0.0\% | 1.4\% | 0.0\% | 53.2\% | 2.1\% | 1.8\% |
| 1979-2010 | 2677 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.2\% | 2.5\% | 0.0\% | 0.5\% | 0.3\% | 0.4\% | 0.0\% | 12.8\% | 0.1\% | 3.8\% | 1.1\% | 2.8\% | 0.0\% | 29.6\% | 2.7\% | 29.1\% |
| 1979-1984 | 4451 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.5\% | 0.2\% | 0.1\% | 1.2\% | 0.8\% | 1.1\% | 0.0\% | 17.3\% | 0.5\% | 5.9\% | 0.9\% | 5.4\% | 0.0\% | 23.3\% | 0.4\% | 17.3\% |
| 1985-1995 | 1553 |  | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 16.9\% | 2.5\% | 0.0\% | 0.5\% | 0.4\% | 0.7\% | 0.0\% | 14.7\% | 0.0\% | 3.5\% | 2.6\% | 3.3\% | 0.0\% | 27.5\% | 2.5\% | 24.8\% |
| 1996-1998 | 815 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 1.4\% | 0.0\% | 1.8\% | 0.0\% | 34.3\% | 7.5\% | 42.6\% |
| 1999-2010 | 3287 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 8.3\% | 3.6\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 10.8\% | 0.0\% | 3.6\% | 0.0\% | 1.3\% | 0.0\% | 33.6\% | 2.8\% | 35.5\% |

Appendix C.71. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) reported catch among fisheries and
escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 993 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  |  |
| 1980 | 426 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |  |  | - |  |
| 1981 | 957 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - |  | - | - | - | - | - |  |  | - |  |
| 1982 | 2778 | 2,3,4 | 0.2\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 22.4\% | 0.1\% | 2.4\% | 11.5\% | 0.8\% | 2.0\% | 0.0\% | 2.8\% | 0.0\% | 0.1\% | 17.9\% | 21.4\% | 0.0\% | 7.1\% | 0.0\% | 10.9\% |
| 1983 | 3851 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.7\% | 0.1\% | 18.2\% | 0.3\% | 0.3\% | 4.2\% | 1.8\% | 3.2\% | 0.0\% | 1.6\% | 0.0\% | 0.1\% | 20.5\% | 28.1\% | 0.0\% | 6.7\% | 0.2\% | 14.2\% |
| 1984 | 3640 | 2,3,4,5 | 0.1\% | 0.2\% | 0.0\% | 0.7\% | 0.1\% | 20.8\% | 0.3\% | 1.3\% | 7.3\% | 1.4\% | 1.2\% | 0.0\% | 1.4\% | 0.0\% | 0.1\% | 15.2\% | 22.1\% | 0.0\% | 9.3\% | 0.2\% | 18.4\% |
| 1985 | 1421 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 18.6\% | 0.8\% | 0.4\% | 5.9\% | 0.3\% | 2.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 17.6\% | 18.2\% | 0.0\% | 11.7\% | 0.0\% | 21.6\% |
| 1986 | 480 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 0.0\% | 0.0\% | 7.5\% | 0.0\% | 2.9\% | 0.0\% | 4.0\% | 0.0\% | 1.3\% | 9.8\% | 21.0\% | 0.0\% | 0.8\% | 0.0\% | 33.8\% |
| 1987 | 435 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.6\% | 0.0\% | 0.0\% | 12.6\% | 0.0\% | 3.9\% | 0.0\% | 7.1\% | 0.5\% | 0.2\% | 13.8\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 38.6\% |
| 1988 | 1706 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 5.5\% | 4.2\% | 0.2\% | 7.3\% | 0.5\% | 4.6\% | 0.0\% | 7.1\% | 0.0\% | 0.6\% | 25.2\% | 14.1\% | 0.0\% | 1.2\% | 0.0\% | 28.7\% |
| 1989 | 5015 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 7.4\% | 2.5\% | 0.2\% | 4.3\% | 0.3\% | 4.0\% | 0.0\% | 11.0\% | 0.0\% | 0.4\% | 15.3\% | 15.7\% | 0.0\% | 6.1\% | 0.0\% | 32.3\% |
| 1990 | 5453 | 2,3,4,5 | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.0\% | 22.7\% | 4.3\% | 0.3\% | 3.4\% | 0.3\% | 1.2\% | 0.0\% | 9.0\% | 0.0\% | 0.4\% | 14.0\% | 11.6\% | 0.0\% | 9.7\% | 0.4\% | 22.4\% |
| 1991 | 1747 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.2\% | 2.7\% | 0.1\% | 1.7\% | 0.1\% | 1.0\% | 0.0\% | 11.6\% | 0.0\% | 0.3\% | 11.8\% | 12.6\% | 0.0\% | 14.7\% | 0.2\% | 27.4\% |
| 1992 | 1332 | 2,3,4,5 | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 17.3\% | 2.2\% | 0.3\% | 3.4\% | 0.9\% | 3.1\% | 0.0\% | 9.2\% | 0.0\% | 0.7\% | 14.2\% | 17.4\% | 0.0\% | 9.6\% | 0.0\% | 21.2\% |
| 1993 | 1404 | 2,3,4,5 | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% | 4.6\% | 0.7\% | 3.1\% | 0.1\% | 2.8\% | 0.0\% | 5.5\% | 0.0\% | 0.2\% | 8.3\% | 20.8\% | 0.0\% | 7.5\% | 0.0\% | 30.4\% |
| 1994 | 1591 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 9.1\% | 1.3\% | 0.0\% | 3.0\% | 0.0\% | 4.3\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 11.3\% | 9.5\% | 0.0\% | 5.0\% | 0.3\% | 55.1\% |
| 1995 | 3515 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 3.7\% | 1.1\% | 0.0\% | 1.8\% | 0.0\% | 1.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 4.6\% | 11.7\% | 0.0\% | 1.0\% | 0.0\% | 73.4\% |
| 1996 | 4825 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 1.7\% | 0.0\% | 4.1\% | 0.0\% | 0.4\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 3.8\% | 14.9\% | 0.0\% | 2.6\% | 0.0\% | 69.5\% |
| 1997 | 2545 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 5.5\% | 1.5\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 0.0\% | 1.6\% | 0.0\% | 0.1\% | 2.2\% | 12.9\% | 0.0\% | 0.7\% | 0.2\% | 72.3\% |
| 1998 | 1754 | 2,3,4,5 | 1.3\% | 0.0\% | 0.0\% | 0.9\% | 0.1\% | 0.5\% | 1.4\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 4.2\% | 5.8\% | 0.0\% | 3.8\% | 0.5\% | 79.0\% |
| 1999 | 2153 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 4.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.3\% | 4.5\% | 4.8\% | 0.0\% | 4.7\% | 0.0\% | 74.7\% |
| 2000 | 2219 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.0\% | 4.3\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 6.2\% | 6.3\% | 0.0\% | 5.8\% | 0.0\% | 64.6\% |
| 2001 | 3726 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 8.1\% | 3.2\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.4\% | 4.2\% | 8.7\% | 0.0\% | 7.2\% | 0.0\% | 60.8\% |
| 2002 | 3425 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.7\% | 0.1\% | 12.7\% | 3.1\% | 0.0\% | 4.4\% | 0.0\% | 0.1\% | 0.0\% | 4.0\% | 0.0\% | 0.5\% | 3.6\% | 6.3\% | 0.0\% | 14.4\% | 0.0\% | 49.5\% |
| 2003 | 2166 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 14.2\% | 3.6\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.4\% | 7.0\% | 9.5\% | 0.0\% | 7.5\% | 0.0\% | 47.6\% |
| 2004 | 1934 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.6\% | 0.3\% | 17.7\% | 4.2\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% | 0.0\% | 1.4\% | 8.0\% | 9.2\% | 0.0\% | 6.6\% | 0.0\% | 39.2\% |
| 2005 | 2115 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.5\% | 13.4\% | 4.5\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 1.2\% | 4.1\% | 6.3\% | 0.0\% | 1.8\% | 0.0\% | 58.4\% |
| 2006 | 3274 | 2,3,4,5 | 0.3\% | 0.0\% | 0.1\% | 0.5\% | 0.4\% | 12.3\% | 2.6\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 0.5\% | 6.3\% | 6.4\% | 0.0\% | 7.7\% | 0.0\% | 54.4\% |
| 2007 | 3274 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 12.0\% | 4.3\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.2\% | 3.1\% | 10.5\% | 0.0\% | 12.3\% | 0.2\% | 50.4\% |
| 2008 | 2387 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 7.3\% | 3.5\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.4\% | 4.0\% | 10.6\% | 0.0\% | 12.9\% | 0.3\% | 55.6\% |
| 2009 | 2657 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.0\% | 8.4\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.3\% | 2.5\% | 8.4\% | 0.0\% | 12.5\% | 0.2\% | 55.9\% |
| 2010 | 2815 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.6\% | 5.5\% | 4.9\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 1.3\% | 1.1\% | 10.4\% | 0.0\% | 1.0\% | 0.0\% | 70.6\% |
| 1979-2010 | 2608 |  | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.1\% | 11.5\% | 2.7\% | 0.2\% | 4.1\% | 0.2\% | 1.3\% | 0.0\% | 4.5\% | 0.0\% | 0.4\% | 9.1\% | 12.6\% | 0.0\% | 6.6\% | 0.1\% | 45.9\% |
| 1979-1984 | 3423 |  | 0.2\% | 0.1\% | 0.0\% | 0.5\% | 0.1\% | 20.5\% | 0.2\% | 1.3\% | 7.6\% | 1.3\% | 2.1\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 17.9\% | 23.8\% | 0.0\% | 7.7\% | 0.1\% | 14.5\% |
| 1985-1995 | 2191 |  | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 13.3\% | 2.2\% | 0.2\% | 4.9\% | 0.2\% | 2.8\% | 0.0\% | 6.2\% | 0.0\% | 0.4\% | 13.3\% | 14.8\% | 0.0\% | 6.1\% | 0.1\% | 35.0\% |
| 1996-1998 | 3041 |  | 0.6\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 2.0\% | 1.5\% | 0.0\% | 2.5\% | 0.0\% | 0.3\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 3.4\% | 11.2\% | 0.0\% | 2.4\% | 0.2\% | 73.6\% |
| 1999-2010 | 2679 |  | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 9.9\% | 4.2\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.6\% | 4.6\% | 8.1\% | 0.0\% | 7.9\% | 0.1\% | 56.8\% |

Appendix C.72. Percent distribution of South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) total fishing mortalities among
fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 1027 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1980 | 621 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1981 | 1275 | 2,3 | Failed | Criteria | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |  | - |
| 1982 | 3230 | 2,3,4 | 0.2\% | 0.1\% | 0.0\% | 0.2\% | 0.1\% | 22.5\% | 0.1\% | 2.1\% | 10.6\% | 0.9\% | 1.8\% | 0.0\% | 2.8\% | 0.0\% | 0.1\% | 17.3\% | 24.6\% | 0.0\% | 7.1\% | 0.0\% | 9.4\% |
| 1983 | 5001 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.7\% | 0.1\% | 17.4\% | 0.2\% | 0.2\% | 3.7\% | 1.7\% | 2.7\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 19.4\% | 34.4\% | 0.0\% | 6.6\% | 0.2\% | 10.9\% |
| 1984 | 3985 | 2,3,4,5 | 0.1\% | 0.2\% | 0.0\% | 0.7\% | 0.1\% | 21.1\% | 0.3\% | 1.3\% | 7.1\% | 1.4\% | 1.1\% | 0.0\% | 1.5\% | 0.0\% | 0.1\% | 14.7\% | 24.3\% | 0.0\% | 9.1\% | 0.2\% | 16.8\% |
| 1985 | 1519 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 18.4\% | 0.9\% | 0.3\% | 5.9\% | 0.3\% | 1.9\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 17.4\% | 20.7\% | 0.0\% | 11.2\% | 0.0\% | 20.2\% |
| 1986 | 554 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 0.0\% | 0.0\% | 7.4\% | 0.0\% | 2.9\% | 0.0\% | 4.0\% | 0.0\% | 1.3\% | 9.0\% | 26.5\% | 0.0\% | 0.7\% | 0.0\% | 29.2\% |
| 1987 | 591 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.0\% | 0.0\% | 0.0\% | 12.0\% | 0.0\% | 3.4\% | 0.0\% | 8.8\% | 0.8\% | 0.2\% | 11.2\% | 15.2\% | 0.0\% | 0.0\% | 0.0\% | 28.4\% |
| 1988 | 2781 | 2,3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.4\% | 8.5\% | 3.1\% | 0.1\% | 17.3\% | 0.8\% | 3.2\% | 0.0\% | 7.0\% | 0.0\% | 0.5\% | 19.4\% | 20.6\% | 0.0\% | 1.0\% | 0.0\% | 17.6\% |
| 1989 | 5624 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 8.8\% | 2.4\% | 0.2\% | 5.2\% | 0.4\% | 3.7\% | 0.0\% | 12.2\% | 0.0\% | 0.4\% | 14.6\% | 17.1\% | 0.0\% | 5.8\% | 0.0\% | 28.8\% |
| 1990 | 5949 | 2,3,4,5 | 0.0\% | 0.1\% | 0.1\% | 0.3\% | 0.0\% | 23.8\% | 4.3\% | 0.3\% | 3.7\% | 0.3\% | 1.2\% | 0.0\% | 9.2\% | 0.0\% | 0.4\% | 13.3\% | 13.0\% | 0.0\% | 9.2\% | 0.5\% | 20.5\% |
| 1991 | 1907 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.5\% | 2.7\% | 0.2\% | 1.8\% | 0.1\% | 0.9\% | 0.0\% | 12.3\% | 0.0\% | 0.4\% | 11.3\% | 14.0\% | 0.0\% | 14.0\% | 0.3\% | 25.1\% |
| 1992 | 1627 | 2,3,4,5 | 0.6\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 2.0\% | 0.3\% | 4.4\% | 0.9\% | 2.8\% | 0.0\% | 8.9\% | 0.0\% | 0.6\% | 12.7\% | 23.3\% | 0.0\% | 8.6\% | 0.0\% | 17.3\% |
| 1993 | 1621 | 2,3,4,5 | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 18.0\% | 4.4\% | 0.9\% | 3.8\% | 0.1\% | 2.6\% | 0.0\% | 5.9\% | 0.0\% | 0.2\% | 7.8\% | 22.7\% | 0.0\% | 7.0\% | 0.0\% | 26.3\% |
| 1994 | 1906 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 9.4\% | 1.3\% | 0.0\% | 4.9\% | 0.0\% | 4.9\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 10.9\% | 16.4\% | 0.0\% | 4.9\% | 0.3\% | 46.0\% |
| 1995 | 3959 | 2,3,4,5 | 0.2\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 4.9\% | 1.2\% | 0.0\% | 2.8\% | 0.0\% | 1.7\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 4.8\% | 16.7\% | 0.0\% | 1.0\% | 0.0\% | 65.2\% |
| 1996 | 5193 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.9\% | 1.8\% | 0.0\% | 5.1\% | 0.0\% | 0.5\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 3.7\% | 17.8\% | 0.0\% | 2.6\% | 0.0\% | 64.6\% |
| 1997 | 2706 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 6.5\% | 1.6\% | 0.0\% | 2.0\% | 0.0\% | 0.8\% | 0.0\% | 1.6\% | 0.0\% | 0.1\% | 2.1\% | 15.6\% | 0.0\% | 0.7\% | 0.2\% | 68.0\% |
| 1998 | 1892 | 2,3,4,5 | 1.4\% | 0.0\% | 0.0\% | 0.9\% | 0.1\% | 0.5\% | 1.5\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 4.3\% | 10.1\% | 0.0\% | 4.0\% | 0.5\% | 73.3\% |
| 1999 | 2276 | 2,3,4,5 | 0.6\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.7\% | 4.3\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 0.3\% | 4.5\% | 6.8\% | 0.0\% | 4.8\% | 0.0\% | 70.7\% |
| 2000 | 2509 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 4.8\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 6.4\% | 11.8\% | 0.0\% | 6.0\% | 0.0\% | 57.1\% |
| 2001 | 4071 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 7.9\% | 3.5\% | 0.0\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 0.4\% | 4.2\% | 12.3\% | 0.0\% | 7.1\% | 0.0\% | 55.6\% |
| 2002 | 3681 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 12.6\% | 3.5\% | 0.0\% | 5.2\% | 0.0\% | 0.2\% | 0.0\% | 4.3\% | 0.0\% | 0.5\% | 3.5\% | 8.3\% | 0.0\% | 14.0\% | 0.0\% | 46.1\% |
| 2003 | 2345 | 2,3,4,5 | 0.7\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 13.8\% | 4.5\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.4\% | 6.7\% | 12.1\% | 0.0\% | 7.2\% | 0.0\% | 44.0\% |
| 2004 | 2204 | 2,3,4,5 | 0.4\% | 0.1\% | 0.0\% | 0.6\% | 0.5\% | 17.1\% | 4.6\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 10.1\% | 0.0\% | 1.4\% | 7.6\% | 13.2\% | 0.0\% | 6.3\% | 0.0\% | 34.4\% |
| 2005 | 2339 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 13.2\% | 5.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 0.0\% | 1.2\% | 4.1\% | 9.2\% | 0.0\% | 1.8\% | 0.0\% | 52.8\% |
| 2006 | 3576 | 2,3,4,5 | 0.3\% | 0.0\% | 0.1\% | 0.5\% | 0.5\% | 12.1\% | 2.9\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 0.5\% | 6.5\% | 8.9\% | 0.0\% | 7.9\% | 0.0\% | 49.8\% |
| 2007 | 3664 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 11.7\% | 4.5\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 0.2\% | 3.1\% | 14.9\% | 0.0\% | 12.3\% | 0.2\% | 45.0\% |
| 2008 | 2615 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 7.2\% | 3.9\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.4\% | 4.1\% | 13.8\% | 0.0\% | 13.0\% | 0.3\% | 50.8\% |
| 2009 | 2998 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 5.0\% | 9.2\% | 0.0\% | 5.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.3\% | 2.5\% | 12.3\% | 0.0\% | 12.6\% | 0.2\% | 49.6\% |
| 2010 | 2985 | 2,3,4,5 | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.8\% | 5.4\% | 5.9\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.4\% | 1.1\% | 12.5\% | 0.0\% | 1.0\% | 0.0\% | 66.6\% |
| 1979-2010 | 2942 |  | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 0.1\% | 12.1\% | 2.9\% | 0.2\% | 5.0\% | 0.2\% | 1.3\% | 0.0\% | 4.8\% | 0.0\% | 0.4\% | 8.6\% | 16.2\% | 0.0\% | 6.5\% | 0.1\% | 41.0\% |
| 1979-1984 | 4072 |  | 0.2\% | 0.1\% | 0.0\% | 0.5\% | 0.1\% | 20.3\% | 0.2\% | 1.2\% | 7.1\% | 1.4\% | 1.9\% | 0.0\% | 1.9\% | 0.0\% | 0.1\% | 17.1\% | 27.8\% | 0.0\% | 7.6\% | 0.1\% | 12.4\% |
| 1985-1995 | 2549 |  | 0.3\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 14.9\% | 2.0\% | 0.2\% | 6.3\% | 0.3\% | 2.7\% | 0.0\% | 6.5\% | 0.1\% | 0.4\% | 12.0\% | 18.8\% | 0.0\% | 5.8\% | 0.1\% | 29.5\% |
| 1996-1998 | 3264 |  | 0.7\% | 0.0\% | 0.0\% | 0.4\% | 0.1\% | 2.6\% | 1.6\% | 0.0\% | 3.2\% | 0.0\% | 0.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 3.4\% | 14.5\% | 0.0\% | 2.4\% | 0.2\% | 68.6\% |
| 1999-2010 | 2939 |  | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 0.2\% | 9.7\% | 4.7\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 0.6\% | 4.5\% | 11.4\% | 0.0\% | 7.8\% | 0.1\% | 51.9\% |

Appendix C.73. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 2 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 118 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 283 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 3.2\% | 2.5\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 12.0\% | 66.1\% | 0.0\% | 2.5\% | 1.4\% | 8.5\% |
| 1983 | 395 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.5\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 76.2\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% |
| 1984 | 247 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.3\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.8\% | 43.3\% | 0.0\% | 0.8\% | 0.0\% | 14.2\% |
| 1985 | 65 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 30 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 448 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 1270 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 1.4\% | 0.0\% | 0.1\% | 33.1\% | 52.4\% | 0.0\% | 0.3\% | 0.6\% | 11.0\% |
| 1991 | 1036 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 12.6\% | 57.2\% | 0.0\% | 0.2\% | 0.4\% | 19.6\% |
| 1992 | 500 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 1.2\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.8\% | 27.4\% | 48.4\% | 0.0\% | 1.0\% | 0.0\% | 11.2\% |
| 1993 | 265 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 10.9\% | 52.5\% | 0.0\% | 0.0\% | 3.0\% | 29.4\% |
| 1994 | 729 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.7\% | 0.0\% | 0.5\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.5\% | 61.3\% | 0.0\% | 0.0\% | 0.0\% | 17.8\% |
| 1995 | 548 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 2.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 10.0\% | 66.8\% | 0.0\% | 0.4\% | 1.5\% | 10.0\% |
| 1996 | 691 | 2,3,4,5 | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 2.9\% | 88.7\% | 0.0\% | 0.3\% | 0.6\% | 3.3\% |
| 1997 | 476 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.4\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 2.3\% | 4.0\% | 64.3\% | 0.0\% | 0.0\% | 0.0\% | 25.2\% |
| 1998 | 90 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 2.2\% | 82.2\% | 0.0\% | 3.3\% | 0.0\% | 10.0\% |
| 1999 | 35 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.1\% | 0.0\% | 0.0\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 2.9\% | 65.7\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% |
| 2000 | 76 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% | 0.0\% | 0.0\% | 11.8\% | 69.7\% | 0.0\% | 0.0\% | 0.0\% | 6.6\% |
| 2001 | 67 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 74.6\% | 0.0\% | 0.0\% | 0.0\% | 17.9\% |
| 2002 | 8 | 2,3,5 | Failed | Criteria |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 2003 | 6 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |  | - |
| 2004 | 126 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 97.6\% |
| 2005 | 255 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.2\% | 16.1\% | 53.7\% | 0.0\% | 3.1\% | 0.0\% | 23.9\% |
| 2006 | 270 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.5\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 21.1\% | 30.4\% | 0.0\% | 3.0\% | 0.0\% | 30.4\% |
| 2007 | 243 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 2.1\% | 16.5\% | 41.6\% | 0.0\% | 2.9\% | 0.0\% | 30.0\% |
| 2008 | 78 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 6.4\% | 28.2\% | 0.0\% | 12.8\% | 0.0\% | 46.2\% |
| 2009 | 121 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 2.5\% | 4.1\% | 38.8\% | 0.0\% | 1.7\% | 5.0\% | 27.3\% |
| 2010 | 146 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 2.1\% | 6.2\% | 21.9\% | 0.0\% | 0.0\% | 0.0\% | 64.4\% |
| 1979-2010 | 361 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 1.7\% | 0.0\% | 1.6\% | 0.2\% | 0.1\% | 0.0\% | 2.1\% | 0.0\% | 0.5\% | 11.8\% | 53.9\% | 0.0\% | 1.5\% | 0.6\% | 23.5\% |
| 1979-1984 | 308 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 1.8\% | 1.4\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 18.2\% | 61.9\% | 0.0\% | 1.1\% | 0.5\% | 9.5\% |
| 1985-1995 | 725 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.6\% | 0.0\% | 1.0\% | 0.0\% | 0.5\% | 0.0\% | 1.9\% | 0.0\% | 0.1\% | 18.4\% | 56.4\% | 0.0\% | 0.3\% | 0.9\% | 16.5\% |
| 1996-1998 | 419 |  | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.6\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.8\% | 3.0\% | 78.4\% | 0.0\% | 1.2\% | 0.2\% | 12.8\% |
| 1999-2010 | 142 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 3.2\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.8\% | 8.5\% | 42.7\% | 0.0\% | 2.3\% | 0.5\% | 35.0\% |

Appendix C.74. Percent distribution of South Puget Sound Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  | - |
| 1980 | 18 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | 177 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1982 | 373 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 2.7\% | 2.1\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 10.7\% | 70.5\% | 0.0\% | 1.9\% | 1.3\% | 6.4\% |
| 1983 | 491 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 0.4\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 78.8\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% |
| 1984 | 271 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.0\% | 46.5\% | 0.0\% | 0.7\% | 0.0\% | 12.9\% |
| 1985 | 70 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 146 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 744 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1990 | 1432 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.5\% | 0.0\% | 1.6\% | 0.0\% | 0.1\% | 31.1\% | 55.0\% | 0.0\% | 0.3\% | 0.6\% | 9.8\% |
| 1991 | 1234 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 11.3\% | 62.2\% | 0.0\% | 0.2\% | 0.4\% | 16.5\% |
| 1992 | 588 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 1.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 0.0\% | 0.7\% | 25.9\% | 51.2\% | 0.0\% | 1.0\% | 0.0\% | 9.5\% |
| 1993 | 507 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 6.9\% | 71.6\% | 0.0\% | 0.0\% | 2.0\% | 15.4\% |
| 1994 | 886 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.7\% | 0.0\% | 0.9\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.1\% | 65.2\% | 0.0\% | 0.0\% | 0.0\% | 14.7\% |
| 1995 | 777 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.7\% | 1.7\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 8.1\% | 73.0\% | 0.0\% | 0.3\% | 1.4\% | 7.1\% |
| 1996 | 812 | 2,3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 1.1\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 2.6\% | 89.5\% | 0.0\% | 0.2\% | 0.6\% | 2.8\% |
| 1997 | 564 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 2.1\% | 3.5\% | 69.1\% | 0.0\% | 0.0\% | 0.0\% | 21.3\% |
| 1998 | 109 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 1.8\% | 85.3\% | 0.0\% | 2.8\% | 0.0\% | 8.3\% |
| 1999 | 85 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 1.2\% | 76.5\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% |
| 2000 | 92 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 9.8\% | 72.8\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% |
| 2001 | 83 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 79.5\% | 0.0\% | 0.0\% | 0.0\% | 14.5\% |
| 2002 | 10 | 2,3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 7 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 238 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 12.6\% | 31.9\% | 0.0\% | 2.1\% | 0.0\% | 51.7\% |
| 2005 | 306 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.3\% | 14.7\% | 58.8\% | 0.0\% | 2.9\% | 0.0\% | 19.9\% |
| 2006 | 379 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 18.5\% | 46.4\% | 0.0\% | 2.1\% | 0.0\% | 21.6\% |
| 2007 | 330 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 1.5\% | 17.6\% | 50.3\% | 0.0\% | 2.7\% | 0.0\% | 22.1\% |
| 2008 | 125 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 7.2\% | 43.2\% | 0.0\% | 15.2\% | 0.0\% | 28.8\% |
| 2009 | 169 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.8\% | 4.7\% | 47.3\% | 0.0\% | 1.8\% | 6.5\% | 19.5\% |
| 2010 | 194 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.5\% | 7.2\% | 35.6\% | 0.0\% | 0.0\% | 0.0\% | 48.5\% |
| 1979-2010 | 457 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 1.6\% | 0.0\% | 1.6\% | 0.2\% | 0.1\% | 0.0\% | 1.7\% | 0.0\% | 0.4\% | 11.4\% | 61.8\% | 0.0\% | 1.6\% | 0.6\% | 16.5\% |
| 1979-1984 | 378 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 1.6\% | 1.3\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 16.8\% | 65.3\% | 0.0\% | 0.9\% | 0.4\% | 8.0\% |
| 1985-1995 | 904 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.2\% | 0.6\% | 0.0\% | 1.1\% | 0.0\% | 0.5\% | 0.0\% | 1.9\% | 0.0\% | 0.1\% | 16.4\% | 63.0\% | 0.0\% | 0.3\% | 0.7\% | 12.1\% |
| 1996-1998 | 495 |  | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.5\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.7\% | 2.7\% | 81.3\% | 0.0\% | 1.0\% | 0.2\% | 10.8\% |
| 1999-2010 | 200 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 3.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.6\% | 9.3\% | 54.2\% | 0.0\% | 2.7\% | 0.7\% | 23.4\% |

Appendix C.75. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 54 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 580 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 1423 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.6\% | 0.0\% | 0.7\% | 0.0\% | 1.3\% | 0.0\% | 4.1\% | 0.0\% | 0.4\% | 33.1\% | 53.1\% | 0.0\% | 0.6\% | 0.0\% | 2.5\% |
| 1991 | 788 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.5\% | 1.1\% | 0.0\% | 0.5\% | 0.0\% | 8.8\% | 0.0\% | 0.4\% | 35.3\% | 45.2\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% |
| 1992 | 576 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.6\% | 0.5\% | 0.5\% | 2.1\% | 0.0\% | 2.1\% | 0.0\% | 5.2\% | 0.0\% | 0.3\% | 26.9\% | 53.6\% | 0.0\% | 1.4\% | 0.0\% | 5.6\% |
| 1993 | 286 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 2.8\% | 0.0\% | 6.6\% | 0.0\% | 2.8\% | 0.0\% | 11.5\% | 0.0\% | 0.7\% | 2.8\% | 46.5\% | 0.0\% | 1.4\% | 0.0\% | 16.4\% |
| 1994 | 162 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.2\% | 4.9\% | 0.0\% | 6.2\% | 0.0\% | 3.7\% | 0.0\% | 6.8\% | 0.0\% | 0.0\% | 23.5\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 22.8\% |
| 1995 | 45 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.2\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 28.9\% |
| 1996 | 337 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 4.7\% | 89.9\% | 0.0\% | 0.3\% | 0.0\% | 2.7\% |
| 1997 | 171 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 8.2\% | 86.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% |
| 1998 | 104 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 1.9\% | 91.3\% | 0.0\% | 1.0\% | 0.0\% | 2.9\% |
| 1999 | 16 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.5\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% |
| 2000 | 272 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 180 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 391 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 0.9\% | 0.1\% | 1.9\% | 0.0\% | 1.0\% | 0.0\% | 4.3\% | 0.0\% | 0.2\% | 19.9\% | 54.2\% | 0.0\% | 0.5\% | 0.0\% | 11.1\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 547 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.5\% | 1.5\% | 0.2\% | 2.8\% | 0.0\% | 1.7\% | 0.0\% | 6.1\% | 0.0\% | 0.3\% | 30.6\% | 35.4\% | 0.0\% | 0.6\% | 0.0\% | 13.3\% |
| 1996-1998 | 204 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 5.0\% | 89.1\% | 0.0\% | 0.4\% | 0.0\% | 2.0\% |
| 1999-2010 | 16 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 12.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 62.5\% | 0.0\% | 0.0\% | 0.0\% | 25.0\% |

Appendix C.76. Percent distribution of Squaxin Pens Fall Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 196 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 1008 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 1725 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.6\% | 0.1\% | 0.9\% | 0.0\% | 1.1\% | 0.0\% | 4.1\% | 0.0\% | 0.4\% | 32.3\% | 54.6\% | 0.0\% | 0.5\% | 0.0\% | 2.1\% |
| 1991 | 922 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.5\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 8.6\% | 0.0\% | 0.3\% | 33.2\% | 48.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% |
| 1992 | 811 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 1.4\% | 0.5\% | 0.4\% | 2.5\% | 0.0\% | 1.5\% | 0.0\% | 4.3\% | 0.0\% | 0.2\% | 25.3\% | 58.4\% | 0.0\% | 1.5\% | 0.0\% | 3.9\% |
| 1993 | 328 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 2.4\% | 0.0\% | 7.6\% | 0.0\% | 2.4\% | 0.0\% | 11.3\% | 0.0\% | 0.6\% | 3.0\% | 47.3\% | 0.0\% | 1.2\% | 0.0\% | 14.3\% |
| 1994 | 173 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 26.6\% | 5.2\% | 0.0\% | 6.4\% | 0.0\% | 4.6\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 22.5\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 21.4\% |
| 1995 | 206 | 2,3,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 24.8\% | 66.5\% | 0.0\% | 0.5\% | 0.0\% | 6.3\% |
| 1996 | 417 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 5.3\% | 89.7\% | 0.0\% | 0.2\% | 0.0\% | 2.2\% |
| 1997 | 219 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 6.8\% | 88.1\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% |
| 1998 | 126 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 1.6\% | 92.9\% | 0.0\% | 0.8\% | 0.0\% | 2.4\% |
| 1999 | 128 | 2,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.8\% | 90.6\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% |
| 2000 | 339 | 3,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | 209 | 4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 506 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.2\% | 0.9\% | 0.1\% | 2.4\% | 0.0\% | 1.0\% | 0.0\% | 4.0\% | 0.0\% | 0.2\% | 15.6\% | 64.3\% | 0.0\% | 0.5\% | 0.0\% | 5.9\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 694 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 1.5\% | 0.2\% | 3.3\% | 0.0\% | 1.7\% | 0.0\% | 5.8\% | 0.0\% | 0.3\% | 23.5\% | 47.0\% | 0.0\% | 0.6\% | 0.0\% | 8.5\% |
| 1996-1998 | 254 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 4.6\% | 90.2\% | 0.0\% | 0.3\% | 0.0\% | 1.7\% |
| 1999-2010 | 128 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.8\% | 90.6\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% |

Appendix C.77. Percent distribution of Salmon River (Oregon Coast) reported catch among fisheries and escapement.

| $\begin{aligned} & \text { Catch } \\ & \text { Year } \end{aligned}$ | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 479 | 2,3 | Failed | Criteria |  |  |  |  | - |  | - | - | - | - | - |  | - | - |  |  |  |  |  |
| 1980 | 844 | 2,3,4 | 31.2\% | 0.0\% | 0.8\% | 9.6\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 1.5\% | 0.0\% | 1.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 31.6\% |
| 1981 | 772 | 2,3,4,5 | 21.5\% | 0.0\% | 0.5\% | 25.3\% | 0.0\% | 3.4\% | 0.6\% | 0.0\% | 0.0\% | 0.3\% | 2.6\% | 0.0\% | 0.8\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.5\% | 28.6\% |
| 1982 | 717 | 2,3,4,5,6 | 7.8\% | 1.4\% | 0.8\% | 12.4\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 1.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.8\% | 43.8\% |
| 1983 | 641 | 3,4,5,6 | 15.4\% | 0.6\% | 0.0\% | 15.1\% | 0.0\% | 8.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.1\% | 38.7\% |
| 1984 | 764 | 2,4,5,6 | 10.6\% | 0.0\% | 0.0\% | 17.8\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 1.2\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 20.5\% | 42.1\% |
| 1985 | 600 | 2,3,5,6 | 13.2\% | 2.2\% | 0.0\% | 17.3\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.2\% | 43.0\% |
| 1986 | 541 | 2,3,4,6 | 14.4\% | 0.0\% | 0.0\% | 12.8\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.8\% | 48.4\% |
| 1987 | 728 | 2,3,4,5 | 10.3\% | 0.0\% | 0.0\% | 15.1\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.8\% | 44.4\% |
| 1988 | 1218 | 2,3,4,5,6 | 9.3\% | 0.3\% | 0.0\% | 6.2\% | 0.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.2\% | 63.4\% |
| 1989 | 1142 | 2,3,4,5,6 | 8.4\% | 0.0\% | 0.0\% | 11.4\% | 0.0\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 3.4\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 24.0\% | 46.8\% |
| 1990 | 1478 | 2,3,4,5,6 | 11.9\% | 0.7\% | 0.0\% | 10.6\% | 1.6\% | 7.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.9\% | 0.0\% | 3.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% | 38.0\% |
| 1991 | 2442 | 2,3,4,5,6 | 18.4\% | 0.0\% | 0.5\% | 15.2\% | 0.8\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 24.5\% | 33.4\% |
| 1992 | 2804 | 2,3,4,5,6 | 2.6\% | 0.6\% | 0.0\% | 6.6\% | 1.8\% | 14.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.4\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 15.3\% | 54.5\% |
| 1993 | 2551 | 2,3,4,5,6 | 6.8\% | 0.2\% | 0.2\% | 13.5\% | 1.0\% | 16.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 0.0\% | 2.9\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.4\% | 27.2\% |
| 1994 | 4075 | 2,3,4,5,6 | 8.8\% | 0.2\% | 1.0\% | 14.8\% | 1.9\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 1.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 17.3\% | 49.1\% |
| 1995 | 3895 | 2,3,4,5,6 | 6.6\% | 0.1\% | 0.3\% | 4.5\% | 0.9\% | 0.8\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.8\% | 56.3\% |
| 1996 | 1930 | 2,3,4,5,6 | 11.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 51.7\% | 31.5\% |
| 1997 | 3971 | 2,3,4,5,6 | 27.7\% | 0.0\% | 1.6\% | 3.3\% | 0.4\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 46.1\% |
| 1998 | 2881 | 2,3,4,5,6 | 10.3\% | 0.5\% | 0.4\% | 11.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 30.8\% | 44.2\% |
| 1999 | 2047 | 2,3,4,5,6 | 12.0\% | 0.1\% | 0.0\% | 4.4\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.7\% | 44.0\% |
| 2000 | 2647 | 2,3,4,5,6 | 12.7\% | 0.0\% | 0.5\% | 2.9\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.6\% | 61.4\% |
| 2001 | 3591 | 2,3,4,5,6 | 12.3\% | 0.0\% | 0.7\% | 3.3\% | 1.3\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 25.2\% | 52.5\% |
| 2002 | 4745 | 2,3,4,5,6 | 17.6\% | 0.0\% | 0.9\% | 7.1\% | 2.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.8\% | 36.1\% |
| 2003 | 4662 | 2,3,4,5,6 | 12.9\% | 1.0\% | 0.6\% | 5.9\% | 1.6\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.3\% | 41.2\% |
| 2004 | 4963 | 2,3,4,5,6 | 18.1\% | 0.9\% | 0.8\% | 7.3\% | 3.6\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.8\% | 42.7\% |
| 2005 | 4539 | 2,3,4,5,6 | 19.7\% | 0.0\% | 1.2\% | 8.5\% | 4.8\% | 2.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.1\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.3\% | 30.0\% |
| 2006 | 1857 | 2,3,4,5,6 | 24.3\% | 0.1\% | 1.7\% | 12.3\% | 5.3\% | 2.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 27.0\% | 20.9\% |
| 2007 | 1436 | 2,3,4,5,6 | 11.6\% | 0.0\% | 0.8\% | 5.8\% | 4.0\% | 0.1\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.9\% | 40.2\% |
| 2008 | 1753 | 2,3,4,5,6 | 12.8\% | 0.0\% | 1.4\% | 6.7\% | 4.9\% | 0.8\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.0\% | 0.0\% | 0.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 13.7\% | 56.5\% |
| 2009 | 2307 | 2,3,4,5,6 | 16.1\% | 0.9\% | 1.4\% | 12.5\% | 3.3\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.2\% | 38.8\% |
| 2010 | 3784 | 2,3,4,5,6 | 10.5\% | 0.0\% | 1.2\% | 6.7\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 43.5\% | 35.3\% |
| 1979-2010 | 2333 |  | 13.8\% | 0.3\% | 0.6\% | 9.9\% | 1.5\% | 3.3\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 0.4\% | 0.0\% | 1.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.2\% | 42.3\% |
| 1979-1984 | 748 |  | 17.3\% | 0.4\% | 0.4\% | 16.0\% | 0.0\% | 5.9\% | 0.1\% | 0.0\% | 0.0\% | 1.3\% | 1.2\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 19.1\% | 37.0\% |
| 1985-1995 | 1952 |  | 10.1\% | 0.4\% | 0.2\% | 11.7\% | 0.7\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.0\% | 1.5\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 22.0\% | 45.9\% |
| 1996-1998 | 2927 |  | 16.4\% | 0.2\% | 0.7\% | 4.8\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 33.8\% | 40.6\% |
| 1999-2010 | 3194 |  | 15.0\% | 0.2\% | 0.9\% | 6.9\% | 3.2\% | 0.7\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.5\% | 41.6\% |

Appendix C.78. Percent distribution of Salmon River (Oregon Coast) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 573 | 2,3 | Failed | Criteria | - | - |  |  | - | - | - | - | - | - |  |  | - | - |  |  |  |  |  |
| 1980 | 911 | 2,3,4 | 31.5\% | 0.1\% | 0.9\% | 11.6\% | 0.0\% | 8.5\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.5\% | 0.0\% | 1.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 29.3\% |
| 1981 | 847 | 2,3,4,5 | 23.0\% | 0.0\% | 0.5\% | 26.3\% | 0.0\% | 3.9\% | 0.6\% | 0.0\% | 0.0\% | 0.6\% | 2.6\% | 0.0\% | 0.8\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.6\% | 26.1\% |
| 1982 | 794 | 2,3,4,5,6 | 11.1\% | 1.4\% | 1.0\% | 13.9\% | 0.0\% | 7.1\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 1.1\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.3\% | 39.5\% |
| 1983 | 714 | 3,4,5,6 | 21.1\% | 0.6\% | 0.0\% | 15.3\% | 0.0\% | 7.6\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.6\% | 34.7\% |
| 1984 | 821 | 2,4,5,6 | 13.5\% | 0.1\% | 0.0\% | 18.5\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 1.1\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 19.9\% | 39.2\% |
| 1985 | 681 | 2,3,5,6 | 17.2\% | 4.0\% | 0.0\% | 17.6\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.5\% | 37.9\% |
| 1986 | 640 | 2,3,4,6 | 20.3\% | 0.0\% | 0.0\% | 14.8\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 4.4\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 40.9\% |
| 1987 | 843 | 2,3,4,5 | 17.1\% | 0.0\% | 0.0\% | 16.1\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.2\% | 38.3\% |
| 1988 | 1423 | 2,3,4,5,6 | 15.2\% | 1.3\% | 0.0\% | 7.9\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.1\% | 54.3\% |
| 1989 | 1504 | 2,3,4,5,6 | 17.6\% | 0.0\% | 0.0\% | 16.2\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.3\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 20.9\% | 35.6\% |
| 1990 | 1804 | 2,3,4,5,6 | 18.5\% | 2.2\% | 0.0\% | 12.3\% | 1.4\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.8\% | 0.0\% | 3.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.8\% | 31.1\% |
| 1991 | 2890 | 2,3,4,5,6 | 24.3\% | 0.0\% | 0.6\% | 16.4\% | 0.8\% | 6.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 22.1\% | 28.2\% |
| 1992 | 3309 | 2,3,4,5,6 | 4.6\% | 4.3\% | 0.0\% | 7.8\% | 2.0\% | 16.8\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.3\% | 0.0\% | 2.0\% | 0.0\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 14.3\% | 46.2\% |
| 1993 | 2992 | 2,3,4,5,6 | 9.7\% | 0.5\% | 0.2\% | 15.2\% | 0.9\% | 17.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.4\% | 0.0\% | 2.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 28.9\% | 23.2\% |
| 1994 | 4648 | 2,3,4,5,6 | 15.3\% | 0.6\% | 1.0\% | 15.0\% | 1.9\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 1.4\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.1\% | 43.0\% |
| 1995 | 4342 | 2,3,4,5,6 | 10.3\% | 0.4\% | 0.4\% | 5.7\% | 1.3\% | 1.1\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.5\% | 50.5\% |
| 1996 | 2374 | 2,3,4,5,6 | 20.6\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 45.3\% | 25.6\% |
| 1997 | 4371 | 2,3,4,5,6 | 32.4\% | 0.0\% | 1.7\% | 3.4\% | 0.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.1\% | 41.9\% |
| 1998 | 3092 | 2,3,4,5,6 | 11.7\% | 1.0\% | 0.5\% | 11.8\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 30.4\% | 41.2\% |
| 1999 | 2378 | 2,3,4,5,6 | 18.2\% | 0.2\% | 0.0\% | 4.8\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.3\% | 37.8\% |
| 2000 | 2932 | 2,3,4,5,6 | 17.5\% | 0.0\% | 0.7\% | 3.4\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.3\% | 55.4\% |
| 2001 | 4004 | 2,3,4,5,6 | 16.8\% | 0.0\% | 1.0\% | 3.8\% | 2.0\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 24.3\% | 47.1\% |
| 2002 | 5481 | 2,3,4,5,6 | 22.3\% | 0.0\% | 1.1\% | 8.0\% | 2.9\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.8\% | 31.3\% |
| 2003 | 5115 | 2,3,4,5,6 | 15.5\% | 1.6\% | 0.7\% | 6.6\% | 2.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.2\% | 37.6\% |
| 2004 | 5492 | 2,3,4,5,6 | 20.6\% | 1.4\% | 0.9\% | 7.8\% | 5.2\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 21.8\% | 38.6\% |
| 2005 | 4924 | 2,3,4,5,6 | 21.3\% | 0.0\% | 1.3\% | 8.9\% | 6.0\% | 2.5\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.1\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 29.4\% | 27.6\% |
| 2006 | 2130 | 2,3,4,5,6 | 26.9\% | 0.0\% | 1.9\% | 12.6\% | 6.9\% | 2.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 24.7\% | 18.3\% |
| 2007 | 1595 | 2,3,4,5,6 | 14.6\% | 0.0\% | 1.0\% | 6.6\% | 5.3\% | 0.1\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 34.4\% | 36.2\% |
| 2008 | 1985 | 2,3,4,5,6 | 17.9\% | 0.0\% | 1.7\% | 7.6\% | 5.7\% | 0.8\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.1\% | 0.0\% | 0.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 12.9\% | 49.9\% |
| 2009 | 2836 | 2,3,4,5,6 | 20.3\% | 1.0\% | 2.9\% | 14.0\% | 5.7\% | 0.4\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 22.6\% | 31.6\% |
| 2010 | 4313 | 2,3,4,5,6 | 14.4\% | 0.0\% | 1.7\% | 7.8\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 41.8\% | 30.9\% |
| 1979-2010 | 2651 |  | 18.1\% | 0.7\% | 0.7\% | 11.0\% | 2.0\% | 3.6\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 0.3\% | 0.0\% | 1.2\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% | 37.1\% |
| 1979-1984 | 817 |  | 20.1\% | 0.4\% | 0.5\% | 17.1\% | 0.0\% | 6.1\% | 0.1\% | 0.0\% | 0.0\% | 1.3\% | 1.2\% | 0.0\% | 0.7\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.1\% | 33.8\% |
| 1985-1995 | 2280 |  | 15.5\% | 1.2\% | 0.2\% | 13.2\% | 0.8\% | 6.6\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.4\% | 0.0\% | 1.5\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 20.1\% | 39.0\% |
| 1996-1998 | 3279 |  | 21.6\% | 0.3\% | 0.7\% | 6.0\% | 0.9\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 31.3\% | 36.2\% |
| 1999-2010 | 3599 |  | 18.9\% | 0.4\% | 1.2\% | 7.7\% | 4.3\% | 0.7\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 27.0\% | 36.9\% |

Appendix C.79. Percent distribution of Skagit Summer Fingerling (Skagit Wild) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 3 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 6 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | 179 | 2,3,4 | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.7\% | 6.7\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 84.4\% |
| 1999 | 164 | 2,3,4,5 | 7.3\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 63.4\% |
| 2000 | 219 | 2,3,4,5 | 5.9\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 7.8\% | 0.0\% | 6.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 68.5\% |
| 2001 | 766 | 2,3,4,5 | 6.5\% | 1.6\% | 0.9\% | 0.0\% | 0.9\% | 9.1\% | 6.3\% | 0.0\% | 8.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 1.3\% | 0.0\% | 0.5\% | 0.0\% | 63.8\% |
| 2002 | 2150 | 2,3,4,5 | 12.7\% | 0.0\% | 0.8\% | 1.4\% | 1.1\% | 6.5\% | 1.6\% | 0.0\% | 3.9\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 70.5\% |
| 2003 | 829 | 2,3,4,5 | 6.3\% | 0.1\% | 0.0\% | 3.9\% | 2.3\% | 11.0\% | 3.7\% | 0.0\% | 6.0\% | 0.0\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 0.5\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 64.8\% |
| 2004 | 798 | 2,3,4,5 | 5.0\% | 0.0\% | 0.0\% | 2.4\% | 0.5\% | 10.8\% | 1.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 1.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 77.2\% |
| 2005 | 906 | 2,3,4,5 | 7.3\% | 0.2\% | 0.0\% | 1.4\% | 4.5\% | 7.1\% | 4.0\% | 0.0\% | 1.8\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.7\% | 0.0\% | 3.8\% | 0.2\% | 68.7\% |
| 2006 | 1347 | 2,3,4,5 | 3.1\% | 0.8\% | 0.1\% | 0.6\% | 2.7\% | 4.2\% | 3.0\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 0.0\% | 3.0\% | 0.0\% | 79.1\% |
| 2007 | 1423 | 2,3,4,5 | 5.4\% | 0.4\% | 0.2\% | 0.9\% | 0.9\% | 8.6\% | 3.4\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.2\% | 0.4\% | 0.0\% | 2.8\% | 0.0\% | 75.1\% |
| 2008 | 1076 | 2,3,4,5 | 4.6\% | 0.0\% | 0.0\% | 1.3\% | 1.5\% | 5.2\% | 5.3\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.1\% | 0.0\% | 18.1\% | 0.0\% | 60.8\% |
| 2009 | 783 | 2,3,4,5 | 6.8\% | 0.8\% | 0.8\% | 1.5\% | 1.1\% | 3.6\% | 7.5\% | 0.0\% | 3.6\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 2.4\% | 0.0\% | 35.5\% | 0.0\% | 36.0\% |
| 2010 | 533 | 3,4,5 | 7.3\% | 0.6\% | 0.2\% | 1.5\% | 3.4\% | 4.9\% | 3.4\% | 0.0\% | 2.8\% | 0.0\% | 0.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.8\% | 2.6\% | 0.0\% | 7.5\% | 0.4\% | 63.6\% |
| 1979-2010 | 859 |  | 6.3\% | 0.5\% | 0.2\% | 1.2\% | 1.5\% | 5.8\% | 5.8\% | 0.0\% | 3.6\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.5\% | 1.3\% | 0.0\% | 5.6\% | 0.0\% | 67.4\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 179 |  | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.7\% | 6.7\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 84.4\% |
| 1999-2010 | 916 |  | 6.5\% | 0.5\% | 0.3\% | 1.2\% | 1.6\% | 6.1\% | 5.7\% | 0.0\% | 3.8\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.5\% | 1.3\% | 0.0\% | 6.1\% | 0.0\% | 66.0\% |

Appendix C.80. Percent distribution of Skagit Summer Fingerling (Skagit Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 5 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 12 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | 183 | 2,3,4 | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.6\% | 6.6\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 82.5\% |
| 1999 | 189 | 2,3,4,5 | 10.6\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.6\% | 0.0\% | 11.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 55.0\% |
| 2000 | 274 | 2,3,4,5 | 9.9\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 8.0\% | 0.0\% | 11.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 9.5\% | 0.0\% | 0.0\% | 0.0\% | 54.7\% |
| 2001 | 863 | 2,3,4,5 | 9.3\% | 3.2\% | 1.0\% | 0.0\% | 1.2\% | 8.6\% | 6.7\% | 0.0\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 2.1\% | 0.0\% | 0.5\% | 0.0\% | 56.7\% |
| 2002 | 2280 | 2,3,4,5 | 13.3\% | 0.0\% | 0.9\% | 1.5\% | 1.4\% | 6.4\% | 1.8\% | 0.0\% | 4.3\% | 0.0\% | 2.9\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 66.5\% |
| 2003 | 884 | 2,3,4,5 | 6.8\% | 0.2\% | 0.0\% | 4.2\% | 3.2\% | 10.9\% | 4.9\% | 0.0\% | 7.1\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.5\% | 0.5\% | 0.0\% | 0.2\% | 0.0\% | 60.7\% |
| 2004 | 826 | 2,3,4,5 | 5.7\% | 0.0\% | 0.0\% | 2.9\% | 0.7\% | 11.3\% | 1.5\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 1.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 74.6\% |
| 2005 | 970 | 2,3,4,5 | 8.6\% | 0.3\% | 0.0\% | 1.6\% | 6.3\% | 7.0\% | 4.6\% | 0.0\% | 2.2\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.9\% | 0.0\% | 3.6\% | 0.2\% | 64.1\% |
| 2006 | 1397 | 2,3,4,5 | 3.6\% | 1.1\% | 0.2\% | 0.6\% | 3.4\% | 4.3\% | 3.5\% | 0.0\% | 2.5\% | 0.0\% | 0.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 3.1\% | 0.0\% | 76.2\% |
| 2007 | 1477 | 2,3,4,5 | 6.4\% | 0.9\% | 0.2\% | 1.0\% | 1.2\% | 8.8\% | 3.8\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 2.8\% | 0.0\% | 72.4\% |
| 2008 | 1125 | 2,3,4,5 | 5.6\% | 0.0\% | 0.0\% | 1.5\% | 1.7\% | 5.2\% | 6.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.4\% | 0.0\% | 18.0\% | 0.0\% | 58.1\% |
| 2009 | 840 | 2,3,4,5 | 7.7\% | 1.0\% | 0.8\% | 1.7\% | 1.4\% | 3.6\% | 8.2\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 3.1\% | 0.0\% | 34.3\% | 0.0\% | 33.6\% |
| 2010 | 559 | 3,4,5 | 7.2\% | 0.9\% | 0.2\% | 1.6\% | 4.1\% | 4.7\% | 4.1\% | 0.0\% | 3.4\% | 0.0\% | 0.4\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.7\% | 3.2\% | 0.0\% | 7.7\% | 0.4\% | 60.6\% |
| 1979-2010 | 913 |  | 7.6\% | 0.7\% | 0.3\% | 1.3\% | 2.0\% | 5.8\% | 6.2\% | 0.0\% | 4.9\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 1.9\% | 0.0\% | 5.5\% | 0.0\% | 62.8\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1996-1998 | 183 |  | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 1.6\% | 6.6\% | 0.0\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 82.5\% |
| 1999-2010 | 974 |  | 7.9\% | 0.8\% | 0.3\% | 1.4\% | 2.0\% | 6.2\% | 6.2\% | 0.0\% | 5.1\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.4\% | 1.9\% | 0.0\% | 6.0\% | 0.0\% | 61.1\% |

Appendix C.81. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 10 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1983 | 42 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 83 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 3.6\% | 7.2\% | 0.0\% | 0.0\% | 15.7\% | 19.3\% | 26.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 19.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985 | 97 | 2,3,4,5 | 7.2\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 29.9\% | 9.3\% | 0.0\% | 10.3\% | 0.0\% | 15.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.3\% | 13.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% |
| 1986 | 89 | 3,4,5 | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.6\% | 0.0\% | 0.0\% | 20.2\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 16.9\% | 21.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1987 | 41 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 57 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 255 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 339 | 2,3,4 | 0.6\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 21.2\% | 6.5\% | 0.6\% | 9.4\% | 8.0\% | 10.9\% | 0.0\% | 5.6\% | 0.0\% | 0.0\% | 7.4\% | 13.6\% | 0.0\% | 2.1\% | 0.0\% | 13.3\% |
| 1991 | 916 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 4.7\% | 2.3\% | 0.0\% | 3.6\% | 0.0\% | 1.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 3.7\% | 6.4\% | 0.0\% | 1.9\% | 0.0\% | 71.5\% |
| 1992 | 636 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 18.1\% | 4.2\% | 0.0\% | 5.3\% | 0.0\% | 5.2\% | 0.0\% | 6.0\% | 0.0\% | 0.0\% | 10.2\% | 29.6\% | 0.0\% | 2.4\% | 0.0\% | 18.6\% |
| 1993 | 817 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 1.2\% | 11.3\% | 9.7\% | 0.2\% | 8.3\% | 0.4\% | 2.3\% | 0.0\% | 5.3\% | 0.0\% | 0.4\% | 0.5\% | 20.2\% | 0.0\% | 1.0\% | 0.0\% | 38.7\% |
| 1994 | 451 | 2,3,4,5 | 2.4\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 6.7\% | 5.3\% | 0.0\% | 7.8\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 5.8\% | 0.0\% | 0.2\% | 0.0\% | 66.7\% |
| 1995 | 378 | 2,3,4,5 | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 9.8\% | 0.0\% | 4.2\% | 0.0\% | 10.8\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 2.1\% | 14.0\% | 0.0\% | 0.3\% | 0.0\% | 52.9\% |
| 1996 | 679 | 2,3,4,5 | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 7.1\% | 0.0\% | 6.0\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.7\% | 0.0\% | 0.3\% | 0.0\% | 58.8\% |
| 1997 | 759 | 2,3,4,5 | 9.1\% | 0.4\% | 0.0\% | 0.5\% | 0.9\% | 6.2\% | 5.0\% | 0.0\% | 4.7\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 15.4\% | 0.0\% | 0.5\% | 0.0\% | 54.4\% |
| 1998 | 1040 | 2,3,4,5 | 9.4\% | 0.1\% | 0.3\% | 1.0\% | 0.5\% | 1.0\% | 2.2\% | 0.0\% | 1.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 1.9\% | 0.0\% | 0.3\% | 0.0\% | 80.2\% |
| 1999 | 650 | 2,3,4,5 | 0.6\% | 0.3\% | 0.0\% | 0.0\% | 0.3\% | 2.9\% | 7.4\% | 0.0\% | 5.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 79.4\% |
| 2000 | 955 | 2,3,4,5 | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 1.3\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.1\% | 0.0\% | 85.7\% |
| 2001 | 286 | 3,4,5 | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.6\% | 4.2\% | 0.0\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 1.0\% | 10.1\% | 0.0\% | 0.3\% | 0.0\% | 71.7\% |
| 2002 | 308 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 13 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 98 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 455 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | 778 | 2,3,4 | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 11.2\% | 1.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 1.7\% | 2.3\% | 0.0\% | 0.6\% | 0.0\% | 77.1\% |
| 2007 | 656 | 2,3,4,5 | 0.6\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 15.7\% | 5.9\% | 0.0\% | 9.0\% | 0.0\% | 0.5\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 4.3\% | 5.0\% | 0.0\% | 0.6\% | 0.0\% | 56.1\% |
| 2008 | 1122 | 2,3,4,5 | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 5.2\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.5\% | 9.6\% | 0.0\% | 3.4\% | 0.0\% | 69.9\% |
| 2009 | 881 | 2,3,4,5 | 1.2\% | 0.1\% | 0.2\% | 0.3\% | 0.5\% | 2.3\% | 4.1\% | 0.0\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 5.8\% | 0.0\% | 4.1\% | 0.0\% | 72.8\% |
| 2010 | 772 | 2,3,4,5 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 5.4\% | 8.5\% | 7.3\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.4\% | 3.5\% | 7.0\% | 0.0\% | 2.5\% | 0.0\% | 60.9\% |
| 1979-2010 | 619 |  | 2.5\% | 0.1\% | 0.0\% | 0.6\% | 0.7\% | 9.9\% | 4.9\% | 0.0\% | 6.7\% | 1.4\% | 4.4\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 3.6\% | 11.2\% | 0.0\% | 1.0\% | 0.0\% | 51.5\% |
| 1979-1984 | 83 |  | 0.0\% | 0.0\% | 0.0\% | 3.6\% | 3.6\% | 7.2\% | 0.0\% | 0.0\% | 15.7\% | 19.3\% | 26.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 19.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 465 |  | 2.2\% | 0.0\% | 0.0\% | 0.8\% | 0.2\% | 15.8\% | 5.9\% | 0.1\% | 8.7\% | 1.0\% | 6.6\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 6.5\% | 15.5\% | 0.0\% | 1.0\% | 0.0\% | 32.8\% |
| 1996-1998 | 826 |  | 6.5\% | 0.2\% | 0.1\% | 0.5\% | 0.8\% | 2.4\% | 4.8\% | 0.0\% | 4.1\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 12.0\% | 0.0\% | 0.4\% | 0.0\% | 64.5\% |
| 1999-2010 | 762 |  | 1.6\% | 0.1\% | 0.0\% | 0.0\% | 0.9\% | 7.1\% | 4.5\% | 0.0\% | 4.6\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.6\% | 5.5\% | 0.0\% | 1.5\% | 0.0\% | 71.7\% |

Appendix C.82. Percent distribution of Stillaguamish Fall Fingerling (Stillaguamish Wild) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 15 | 2 | Failed | Criteria | - | - | - | - | - | - |  | - | - | - | - | - |  | - | - | - | - |  |  |
| 1983 | 56 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 108 | 2,3,4 | 0.9\% | 0.0\% | 0.0\% | 3.7\% | 2.8\% | 10.2\% | 0.0\% | 0.0\% | 13.9\% | 16.7\% | 21.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 25.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985 | 114 | 2,3,4,5 | 7.0\% | 0.0\% | 0.0\% | 4.4\% | 0.0\% | 29.8\% | 8.8\% | 0.0\% | 9.6\% | 0.0\% | 13.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.8\% | 17.5\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% |
| 1986 | 96 | 3,4,5 | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 32.3\% | 0.0\% | 0.0\% | 20.8\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% | 21.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1987 | 42 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | 114 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 325 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | 420 | 2,3,4 | 0.7\% | 0.0\% | 0.0\% | 1.0\% | 0.2\% | 21.0\% | 6.0\% | 0.7\% | 11.2\% | 7.4\% | 9.5\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 6.9\% | 16.2\% | 0.0\% | 2.1\% | 0.0\% | 10.7\% |
| 1991 | 977 | 2,3,4,5 | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 5.4\% | 2.5\% | 0.0\% | 4.8\% | 0.0\% | 0.9\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 3.7\% | 8.4\% | 0.0\% | 1.8\% | 0.0\% | 67.0\% |
| 1992 | 935 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 17.1\% | 3.5\% | 0.0\% | 7.8\% | 0.0\% | 4.0\% | 0.0\% | 5.5\% | 0.0\% | 0.0\% | 8.7\% | 38.2\% | 0.0\% | 2.2\% | 0.0\% | 12.6\% |
| 1993 | 932 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 1.1\% | 13.4\% | 9.2\% | 0.3\% | 9.7\% | 0.5\% | 2.1\% | 0.0\% | 5.8\% | 0.0\% | 0.3\% | 0.4\% | 21.5\% | 0.0\% | 1.0\% | 0.0\% | 33.9\% |
| 1994 | 479 | 2,3,4,5 | 2.7\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 7.3\% | 5.6\% | 0.0\% | 9.2\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 7.1\% | 0.0\% | 0.2\% | 0.0\% | 62.8\% |
| 1995 | 501 | 2,3,4,5 | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 9.0\% | 0.0\% | 7.0\% | 0.0\% | 12.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 2.0\% | 22.8\% | 0.0\% | 0.2\% | 0.0\% | 39.9\% |
| 1996 | 828 | 2,3,4,5 | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 1.1\% | 6.8\% | 0.0\% | 8.5\% | 0.0\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.1\% | 0.0\% | 0.2\% | 0.0\% | 48.2\% |
| 1997 | 841 | 2,3,4,5 | 9.9\% | 0.7\% | 0.0\% | 0.5\% | 1.2\% | 6.8\% | 4.9\% | 0.0\% | 5.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 18.1\% | 0.0\% | 0.5\% | 0.0\% | 49.1\% |
| 1998 | 1093 | 2,3,4,5 | 10.5\% | 0.4\% | 0.4\% | 1.6\% | 0.8\% | 0.9\% | 2.5\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 2.7\% | 0.0\% | 0.3\% | 0.0\% | 76.3\% |
| 1999 | 680 | 2,3,4,5 | 0.7\% | 1.0\% | 0.0\% | 0.0\% | 0.3\% | 2.9\% | 7.9\% | 0.0\% | 6.9\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 3.4\% | 0.0\% | 0.1\% | 0.0\% | 75.9\% |
| 2000 | 978 | 2,3,4,5 | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.1\% | 1.4\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.1\% | 0.0\% | 83.6\% |
| 2001 | 302 | 3,4,5 | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 4.3\% | 0.0\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 1.0\% | 14.2\% | 0.0\% | 0.3\% | 0.0\% | 67.9\% |
| 2002 | 308 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | 13 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | 131 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 495 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | 819 | 2,3,4 | 2.4\% | 0.1\% | 0.0\% | 0.0\% | 0.9\% | 11.7\% | 1.3\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 1.7\% | 3.5\% | 0.0\% | 0.6\% | 0.0\% | 73.3\% |
| 2007 | 807 | 2,3,4,5 | 1.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 14.7\% | 6.1\% | 0.0\% | 15.7\% | 0.0\% | 0.9\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 4.1\% | 8.3\% | 0.0\% | 0.6\% | 0.0\% | 45.6\% |
| 2008 | 1196 | 2,3,4,5 | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.8\% | 5.7\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.5\% | 11.5\% | 0.0\% | 3.4\% | 0.0\% | 65.6\% |
| 2009 | 961 | 2,3,4,5 | 1.2\% | 0.1\% | 0.3\% | 0.3\% | 0.6\% | 2.3\% | 4.6\% | 0.0\% | 9.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.2\% | 8.6\% | 0.0\% | 4.1\% | 0.0\% | 66.7\% |
| 2010 | 846 | 2,3,4,5 | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 8.3\% | 8.5\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.5\% | 3.4\% | 8.7\% | 0.0\% | 2.4\% | 0.0\% | 55.6\% |
| 1979-2010 | 696 |  | 2.8\% | 0.2\% | 0.0\% | 0.7\% | 0.8\% | 10.2\% | 4.9\% | 0.1\% | 8.0\% | 1.2\% | 4.1\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 3.4\% | 14.3\% | 0.0\% | 1.0\% | 0.0\% | 46.8\% |
| 1979-1984 | 108 |  | 0.9\% | 0.0\% | 0.0\% | 3.7\% | 2.8\% | 10.2\% | 0.0\% | 0.0\% | 13.9\% | 16.7\% | 21.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 25.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 557 |  | 2.3\% | 0.0\% | 0.0\% | 0.9\% | 0.2\% | 16.2\% | 5.6\% | 0.1\% | 10.0\% | 1.0\% | 6.1\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 6.0\% | 19.2\% | 0.0\% | 1.0\% | 0.0\% | 28.5\% |
| 1996-1998 | 921 |  | 7.2\% | 0.4\% | 0.1\% | 0.7\% | 1.0\% | 2.9\% | 4.7\% | 0.0\% | 5.3\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 15.3\% | 0.0\% | 0.3\% | 0.0\% | 57.9\% |
| 1999-2010 | 824 |  | 1.9\% | 0.3\% | 0.0\% | 0.0\% | 1.1\% | 7.0\% | 5.0\% | 0.0\% | 6.3\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 1.5\% | 7.6\% | 0.0\% | 1.5\% | 0.0\% | 66.8\% |

Appendix C.83. Percent distribution of Columbia River Summers (Columbia River Summers) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 163 | 2,3,4 | 11.0\% | 0.0\% | 1.2\% | 6.7\% | 0.0\% | 16.6\% | 0.0\% | 3.1\% | 4.9\% | 2.5\% | 11.7\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 33.1\% |
| 1980 | 326 | 3,4,5 | 33.1\% | 0.0\% | 0.9\% | 8.9\% | 0.0\% | 17.2\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 1.2\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 32.5\% |
| 1981 | 312 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1982 | 24 | 5 | Failed | Criteria | - | - | - | - | - | - |  | - | - | - | - |  |  | - |  |  |  |  |  |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |  |  |  | - |  |
| 1985 | 13 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1986 | 76 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - |  |  | - |  |  |  | - | - |
| 1987 | 123 | 2,3,4 | 13.8\% | 0.0\% | 0.0\% | 5.7\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 4.1\% | 0.0\% | 20.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.4\% | 0.0\% | 32.5\% |
| 1988 | 262 | 2,3,4,5 | 1.1\% | 1.1\% | 0.0\% | 7.6\% | 1.9\% | 16.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 9.2\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 3.1\% | 37.0\% |
| 1989 | 610 | 2,3,4,5 | 4.9\% | 0.5\% | 0.7\% | 5.2\% | 0.7\% | 15.2\% | 2.5\% | 0.0\% | 1.5\% | 0.7\% | 2.6\% | 0.0\% | 14.8\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 0.0\% | 39.5\% |
| 1990 | 816 | 2,3,4,5 | 10.0\% | 0.0\% | 0.0\% | 6.9\% | 0.0\% | 20.2\% | 0.0\% | 0.0\% | 0.6\% | 1.1\% | 1.7\% | 0.0\% | 5.9\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 11.2\% | 0.2\% | 39.8\% |
| 1991 | 594 | 2,3,4,5 | 4.9\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 6.9\% | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 3.4\% | 0.0\% | 4.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.5\% | 69.2\% |
| 1992 | 282 | 2,3,4,5 | 14.5\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 15.2\% | 0.0\% | 0.0\% | 0.7\% | 2.1\% | 1.1\% | 0.0\% | 6.7\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 1.4\% | 0.0\% | 53.2\% |
| 1993 | 205 | 2,3,4,5 | 7.3\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 14.6\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 5.4\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 3.4\% | 0.0\% | 62.0\% |
| 1994 | 35 | 2,3,4,5 | 14.3\% | 0.0\% | 0.0\% | 0.0\% | 14.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 11.4\% | 0.0\% | 60.0\% |
| 1995 | 148 | 2,3,4,5 | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.2\% |
| 1996 | 346 | 2,3,4,5 | 13.9\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 2.9\% | 0.0\% | 2.9\% | 0.0\% | 0.9\% | 0.0\% | 1.2\% | 0.0\% | 4.0\% | 2.3\% | 69.4\% |
| 1997 | 1229 | 2,3,4,5 | 8.1\% | 0.1\% | 3.4\% | 0.2\% | 1.1\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.2\% | 0.5\% | 80.1\% |
| 1998 | 1500 | 2,3,4,5 | 8.5\% | 0.1\% | 0.9\% | 0.5\% | 1.8\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.9\% | 80.1\% |
| 1999 | 841 | 2,3,4,5 | 9.9\% | 0.5\% | 1.8\% | 0.6\% | 2.0\% | 0.6\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 8.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 2.9\% | 66.3\% |
| 2000 | 2472 | 2,3,4,5 | 20.7\% | 1.2\% | 2.5\% | 0.5\% | 2.1\% | 4.7\% | 5.1\% | 0.0\% | 0.6\% | 0.0\% | 0.4\% | 0.0\% | 2.9\% | 0.0\% | 1.3\% | 0.0\% | 0.2\% | 0.0\% | 1.0\% | 2.2\% | 54.7\% |
| 2001 | 6674 | 2,3,4,5 | 13.3\% | 1.5\% | 1.4\% | 0.5\% | 1.4\% | 13.2\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 16.6\% | 0.0\% | 3.7\% | 0.0\% | 0.6\% | 0.0\% | 0.7\% | 1.6\% | 42.7\% |
| 2002 | 10424 | 2,3,4,5 | 21.6\% | 0.0\% | 1.4\% | 12.3\% | 1.6\% | 15.2\% | 1.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 0.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 2.2\% | 31.3\% |
| 2003 | 7235 | 2,3,4,5 | 25.7\% | 0.4\% | 1.0\% | 11.1\% | 2.0\% | 12.2\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 1.0\% | 0.0\% | 0.1\% | 0.0\% | 2.9\% | 5.8\% | 30.9\% |
| 2004 | 4537 | 2,3,4,5 | 13.1\% | 0.3\% | 1.1\% | 5.1\% | 1.3\% | 12.5\% | 1.3\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 10.3\% | 0.0\% | 1.5\% | 0.0\% | 0.2\% | 0.0\% | 7.8\% | 14.7\% | 30.6\% |
| 2005 | 9651 | 2,3,4,5 | 8.3\% | 0.0\% | 0.6\% | 5.6\% | 2.1\% | 10.4\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.9\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 7.0\% | 7.6\% | 51.1\% |
| 2006 | 3642 | 2,3,4,5 | 10.8\% | 0.1\% | 0.5\% | 3.5\% | 1.1\% | 11.1\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.4\% | 0.2\% | 0.1\% | 0.0\% | 13.3\% | 9.8\% | 45.1\% |
| 2007 | 4767 | 2,3,4,5 | 9.2\% | 0.7\% | 1.0\% | 1.2\% | 1.7\% | 5.9\% | 1.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 9.4\% | 13.0\% | 52.8\% |
| 2008 | 1511 | 2,3,4,5 | 6.3\% | 0.3\% | 0.4\% | 1.0\% | 0.3\% | 4.3\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 22.7\% | 9.9\% | 49.2\% |
| 2009 | 998 | 2,3,4,5 | 6.2\% | 0.3\% | 0.2\% | 1.4\% | 0.2\% | 10.8\% | 10.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 9.4\% | 5.5\% | 52.9\% |
| 2010 | 1437 | 2,3,4,5 | 8.1\% | 0.0\% | 0.4\% | 1.7\% | 3.0\% | 2.2\% | 0.6\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 8.1\% | 49.0\% |
| 1979-2010 | 2340 |  | 11.6\% | 0.3\% | 0.7\% | 3.6\% | 1.6\% | 8.9\% | 1.6\% | 0.1\% | 0.5\% | 0.6\% | 1.6\% | 0.0\% | 5.6\% | 0.0\% | 1.1\% | 0.1\% | 0.2\% | 0.0\% | 7.1\% | 3.5\% | 51.3\% |
| 1979-1984 | 244 |  | 22.1\% | 0.0\% | 1.1\% | 7.8\% | 0.0\% | 16.9\% | 0.0\% | 1.5\% | 2.5\% | 3.2\% | 6.4\% | 0.0\% | 0.8\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 32.8\% |
| 1985-1995 | 342 |  | 8.2\% | 0.2\% | 0.1\% | 3.7\% | 2.2\% | 10.3\% | 1.1\% | 0.0\% | 0.3\% | 1.0\% | 2.7\% | 0.0\% | 7.0\% | 0.0\% | 0.9\% | 0.2\% | 0.2\% | 0.0\% | 8.0\% | 0.4\% | 53.6\% |
| 1996-1998 | 1025 |  | 10.1\% | 0.2\% | 1.4\% | 0.2\% | 1.0\% | 0.6\% | 0.2\% | 0.0\% | 0.8\% | 0.0\% | 1.1\% | 0.0\% | 2.6\% | 0.0\% | 0.3\% | 0.0\% | 0.4\% | 0.0\% | 3.4\% | 1.2\% | 76.5\% |
| 1999-2010 | 4516 |  | 12.8\% | 0.4\% | 1.0\% | 3.7\% | 1.6\% | 8.6\% | 2.7\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 6.1\% | 0.0\% | 1.2\% | 0.0\% | 0.1\% | 0.0\% | 8.1\% | 6.9\% | 46.4\% |

Appendix C.84. Percent distribution of Columbia River Summers (Columbia River Summers) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 197 | 2,3,4 | 14.7\% | 0.0\% | 1.0\% | 8.1\% | 1.5\% | 17.8\% | 0.0\% | 2.5\% | 4.6\% | 3.6\% | 10.2\% | 0.0\% | 0.5\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 27.4\% |
| 1980 | 338 | 3,4,5 | 33.4\% | 0.0\% | 0.9\% | 9.2\% | 0.0\% | 17.5\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 1.2\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 31.4\% |
| 1981 | 315 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | 24 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 22 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1986 | 87 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 161 | 2,3,4 | 15.5\% | 0.6\% | 0.0\% | 8.1\% | 2.5\% | 7.5\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 4.3\% | 0.0\% | 19.9\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 12.4\% | 0.0\% | 24.8\% |
| 1988 | 315 | 2,3,4,5 | 1.6\% | 3.5\% | 0.0\% | 9.5\% | 1.9\% | 20.0\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 8.9\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.3\% | 2.9\% | 30.8\% |
| 1989 | 700 | 2,3,4,5 | 6.6\% | 2.9\% | 0.7\% | 5.6\% | 0.6\% | 16.7\% | 2.4\% | 0.0\% | 1.6\% | 0.7\% | 2.4\% | 0.0\% | 15.1\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 7.7\% | 0.0\% | 34.4\% |
| 1990 | 863 | 2,3,4,5 | 10.9\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 21.1\% | 0.0\% | 0.0\% | 0.6\% | 1.2\% | 1.7\% | 0.0\% | 5.9\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.2\% | 37.7\% |
| 1991 | 607 | 2,3,4,5 | 5.1\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 7.6\% | 0.8\% | 0.0\% | 0.0\% | 0.7\% | 3.5\% | 0.0\% | 4.3\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 0.5\% | 67.7\% |
| 1992 | 306 | 2,3,4,5 | 18.3\% | 0.0\% | 0.0\% | 3.6\% | 0.0\% | 15.7\% | 0.0\% | 0.0\% | 0.7\% | 2.0\% | 1.0\% | 0.0\% | 6.9\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 1.3\% | 0.0\% | 49.0\% |
| 1993 | 213 | 2,3,4,5 | 8.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 16.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 5.6\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.0\% | 59.6\% |
| 1994 | 38 | 2,3,4,5 | 18.4\% | 0.0\% | 0.0\% | 0.0\% | 15.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.5\% | 0.0\% | 55.3\% |
| 1995 | 157 | 2,3,4,5 | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.1\% |
| 1996 | 420 | 2,3,4,5 | 21.7\% | 1.0\% | 0.0\% | 1.9\% | 0.2\% | 2.6\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 3.1\% | 0.0\% | 2.6\% | 0.0\% | 0.7\% | 0.0\% | 1.2\% | 0.0\% | 3.3\% | 1.9\% | 57.1\% |
| 1997 | 1270 | 2,3,4,5 | 9.3\% | 0.1\% | 3.9\% | 0.2\% | 1.7\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 1.2\% | 0.5\% | 77.5\% |
| 1998 | 1558 | 2,3,4,5 | 10.0\% | 0.3\% | 1.2\% | 0.5\% | 2.7\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 1.0\% | 77.1\% |
| 1999 | 955 | 2,3,4,5 | 14.3\% | 0.7\% | 3.0\% | 0.6\% | 3.0\% | 0.5\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 9.1\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 2.7\% | 58.4\% |
| 2000 | 2804 | 2,3,4,5 | 24.6\% | 1.8\% | 3.2\% | 0.6\% | 3.0\% | 4.4\% | 5.3\% | 0.0\% | 0.7\% | 0.0\% | 0.5\% | 0.0\% | 3.1\% | 0.0\% | 1.3\% | 0.1\% | 0.2\% | 0.0\% | 0.9\% | 2.0\% | 48.2\% |
| 2001 | 7332 | 2,3,4,5 | 15.5\% | 2.8\% | 1.4\% | 0.5\% | 1.8\% | 12.4\% | 2.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 17.0\% | 0.0\% | 3.6\% | 0.0\% | 0.9\% | 0.0\% | 0.7\% | 1.6\% | 38.8\% |
| 2002 | 11280 | 2,3,4,5 | 22.8\% | 0.0\% | 1.5\% | 12.6\% | 2.2\% | 15.0\% | 1.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 0.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 2.2\% | 28.9\% |
| 2003 | 7902 | 2,3,4,5 | 27.5\% | 0.7\% | 1.1\% | 11.8\% | 2.5\% | 11.7\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 6.7\% | 0.0\% | 1.0\% | 0.0\% | 0.1\% | 0.0\% | 2.7\% | 5.6\% | 28.3\% |
| 2004 | 4873 | 2,3,4,5 | 14.3\% | 0.4\% | 1.1\% | 5.4\% | 1.9\% | 12.3\% | 1.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 10.7\% | 0.0\% | 1.5\% | 0.0\% | 0.3\% | 0.0\% | 7.4\% | 14.3\% | 28.5\% |
| 2005 | 10058 | 2,3,4,5 | 9.1\% | 0.0\% | 0.6\% | 6.0\% | 2.8\% | 10.3\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 6.8\% | 7.6\% | 49.1\% |
| 2006 | 3774 | 2,3,4,5 | 11.9\% | 0.1\% | 0.5\% | 3.7\% | 1.3\% | 11.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.1\% | 0.0\% | 0.4\% | 0.2\% | 0.1\% | 0.0\% | 13.1\% | 9.9\% | 43.5\% |
| 2007 | 4951 | 2,3,4,5 | 10.0\% | 1.2\% | 1.0\% | 1.3\% | 2.1\% | 5.9\% | 1.2\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 9.1\% | 13.1\% | 50.8\% |
| 2008 | 1572 | 2,3,4,5 | 7.6\% | 0.5\% | 0.4\% | 1.1\% | 0.3\% | 4.3\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 22.1\% | 9.9\% | 47.3\% |
| 2009 | 1055 | 2,3,4,5 | 8.1\% | 0.4\% | 0.2\% | 1.4\% | 0.2\% | 10.7\% | 11.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 9.2\% | 5.5\% | 50.0\% |
| 2010 | 1550 | 2,3,4,5 | 9.4\% | 0.0\% | 0.5\% | 1.9\% | 4.5\% | 2.3\% | 0.8\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 4.6\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 19.8\% | 7.9\% | 45.4\% |
| 1979-2010 | 2510 |  | 13.6\% | 0.6\% | 0.9\% | 4.1\% | 2.0\% | 9.7\% | 1.8\% | 0.1\% | 0.5\% | 0.6\% | 1.6\% | 0.0\% | 5.8\% | 0.0\% | 1.1\% | 0.1\% | 0.2\% | 0.0\% | 6.6\% | 3.4\% | 47.4\% |
| 1979-1984 | 268 |  | 24.1\% | 0.0\% | 1.0\% | 8.6\% | 0.8\% | 17.6\% | 0.0\% | 1.3\% | 2.3\% | 3.8\% | 5.7\% | 0.0\% | 1.1\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 29.4\% |
| 1985-1995 | 373 |  | 9.8\% | 0.8\% | 0.1\% | 4.3\% | 2.3\% | 12.3\% | 1.0\% | 0.0\% | 0.3\% | 0.9\% | 2.9\% | 0.0\% | 7.0\% | 0.0\% | 1.0\% | 0.3\% | 0.2\% | 0.0\% | 7.1\% | 0.4\% | 49.3\% |
| 1996-1998 | 1083 |  | 13.7\% | 0.5\% | 1.7\% | 0.9\% | 1.6\% | 1.6\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 1.1\% | 0.0\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 0.5\% | 0.0\% | 3.1\% | 1.1\% | 70.6\% |
| 1999-2010 | 4842 |  | 14.6\% | 0.7\% | 1.2\% | 3.9\% | 2.1\% | 8.4\% | 3.0\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 6.5\% | 0.0\% | 1.2\% | 0.0\% | 0.2\% | 0.0\% | 7.8\% | 6.9\% | 43.1\% |

Appendix C.85. Percent distribution of Taku River reported catch among fisheries and escapement.

| Catch <br> Year | Estimated\# ofCWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 210 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 297 | 3,4,5 | 3.0\% | 3.0\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.6\% |
| 1981 | 446 | 3,4,5,6 | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.8\% |
| 1982 | 262 | 3,4,5,6 | 6.1\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 91.2\% |
| 1983 | 169 | 3,4,5,6 | 2.4\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 96.4\% |
| 1984 | 353 | 3,4,5,6 | 9.6\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.4\% |
| 1985 | 342 | 4,5,6 | 2.9\% | 0.0\% | 8.2\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.0\% |
| 1986 | 163 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 50 | 6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | 63 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 168 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 376 | 3,4,5 | 1.9\% | 1.1\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 95.2\% |
| 1997 | 633 | 3,4,5,6 | 0.5\% | 1.9\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.9\% |
| 1998 | 388 | 3,4,5,6 | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 99.2\% |
| 1999 | 594 | 3,4,5,6 | 1.3\% | 2.2\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.1\% |
| 2000 | 1101 | 3,4,5,6 | 1.9\% | 0.7\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 95.4\% |
| 2001 | 981 | 3,4,5,6 | 3.4\% | 2.2\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 91.3\% |
| 2002 | 902 | 3,4,5,6 | 2.7\% | 2.1\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.8\% |
| 2003 | 893 | 3,4,5,6 | 1.6\% | 1.5\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 95.9\% |
| 2004 | 2137 | 3,4,5,6 | 2.8\% | 4.1\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.3\% |
| 2005 | 1210 | 3,4,5,6 | 3.6\% | 29.1\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.0\% |
| 2006 | 880 | 3,4,5,6 | 3.4\% | 16.3\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 77.4\% |
| 2007 | 365 | 3,4,5,6 | 6.6\% | 5.2\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.1\% |
| 2008 | 621 | 3,4,5,6 | 4.7\% | 4.2\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.8\% |
| 2009 | 281 | 3,4,5,6 | 7.1\% | 11.0\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.0\% |
| 2010 | 173 | 4,5,6 | 4.0\% | 1.7\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 92.5\% |
| 1979-2010 | 638 |  | 3.6\% | 4.4\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.5\% |
| 1979-1984 | 305 |  | 5.3\% | 1.8\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 92.3\% |
| 1985-1995 | 342 |  | 2.9\% | 0.0\% | 8.2\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.0\% |
| 1996-1998 | 466 |  | 1.0\% | 1.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.5\% |
| 1999-2010 | 845 |  | 3.6\% | 6.7\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.3\% |

Appendix C.86. Percent distribution of Taku River total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 217 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | 300 | 3,4,5 | 3.7\% | 3.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.7\% |
| 1981 | 446 | 3,4,5,6 | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.8\% |
| 1982 | 266 | 3,4,5,6 | 7.1\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.8\% |
| 1983 | 171 | 3,4,5,6 | 2.9\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 95.3\% |
| 1984 | 356 | 3,4,5,6 | 10.4\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.6\% |
| 1985 | 343 | 4,5,6 | 2.9\% | 0.0\% | 8.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.8\% |
| 1986 | 165 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 50 | 6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1988 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1994 | 70 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 194 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1996 | 384 | 3,4,5 | 1.8\% | 2.3\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 93.2\% |
| 1997 | 651 | 3,4,5,6 | 0.5\% | 3.2\% | 9.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 86.5\% |
| 1998 | 390 | 3,4,5,6 | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 98.7\% |
| 1999 | 635 | 3,4,5,6 | 1.9\% | 6.1\% | 3.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 88.0\% |
| 2000 | 1113 | 3,4,5,6 | 2.2\% | 1.2\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 94.3\% |
| 2001 | 1003 | 3,4,5,6 | 3.7\% | 3.6\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.3\% |
| 2002 | 933 | 3,4,5,6 | 3.1\% | 2.9\% | 7.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 86.8\% |
| 2003 | 914 | 3,4,5,6 | 2.1\% | 2.6\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 93.7\% |
| 2004 | 2212 | 3,4,5,6 | 3.2\% | 6.5\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.2\% |
| 2005 | 1292 | 3,4,5,6 | 3.6\% | 33.1\% | 3.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.9\% |
| 2006 | 908 | 3,4,5,6 | 3.6\% | 18.1\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 75.0\% |
| 2007 | 403 | 3,4,5,6 | 7.4\% | 12.4\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 78.9\% |
| 2008 | 629 | 3,4,5,6 | 4.9\% | 5.1\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 89.7\% |
| 2009 | 290 | 3,4,5,6 | 7.2\% | 13.1\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 76.6\% |
| 2010 | 176 | 4,5,6 | 4.0\% | 2.3\% | 2.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.9\% |
| 1979-2010 | 658 |  | 3.9\% | 5.8\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.3\% |
| 1979-1984 | 308 |  | 5.9\% | 1.9\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 91.5\% |
| 1985-1995 | 343 |  | 2.9\% | 0.0\% | 8.5\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.8\% |
| 1996-1998 | 475 |  | 1.2\% | 1.9\% | 4.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 92.8\% |
| 1999-2010 | 876 |  | 3.9\% | 8.9\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.2\% |

Appendix C.87. Percent distribution of Unuk River reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1985 | 24 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 604 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 418 | 3,4,5 | 9.1\% | 0.2\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.1\% |
| 1988 | 436 | 3,4,5,6 | 6.0\% | 0.5\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 92.4\% |
| 1989 | 256 | 3,4,5,6 | 7.0\% | 0.8\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 90.6\% |
| 1990 | 157 | 4,5,6 | 21.7\% | 0.0\% | 10.2\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.6\% |
| 1991 | 129 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 143 | 6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 1 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 21 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 122 | 3,4,5 | 9.8\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.4\% |
| 1998 | 339 | 3,4,5,6 | 10.3\% | 1.8\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.7\% |
| 1999 | 458 | 3,4,5,6 | 8.5\% | 0.9\% | 13.5\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.7\% |
| 2000 | 604 | 3,4,5,6 | 15.2\% | 2.6\% | 13.6\% | 0.0\% | 3.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.1\% |
| 2001 | 699 | 3,4,5,6 | 14.0\% | 1.0\% | 10.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 73.7\% |
| 2002 | 408 | 3,4,5,6 | 16.9\% | 0.7\% | 12.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.9\% |
| 2003 | 284 | 3,4,5,6 | 24.3\% | 0.4\% | 15.8\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 55.6\% |
| 2004 | 292 | 3,4,5,6 | 13.4\% | 21.2\% | 7.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 57.5\% |
| 2005 | 371 | 3,4,5,6 | 34.8\% | 3.8\% | 17.8\% | 0.5\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 39.4\% |
| 2006 | 360 | 3,4,5,6 | 20.8\% | 11.4\% | 12.5\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 53.6\% |
| 2007 | 302 | 3,4,5,6 | 32.1\% | 6.6\% | 6.6\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 52.6\% |
| 2008 | 172 | 3,4,5,6 | 26.7\% | 7.0\% | 1.7\% | 0.0\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 59.9\% |
| 2009 | 231 | 3,4,5,6 | 19.0\% | 1.7\% | 8.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 71.0\% |
| 2010 | 341 | 3,4,5,6 | 21.7\% | 0.9\% | 7.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 69.5\% |
| 1979-2010 | 347 |  | 17.3\% | 3.7\% | 8.0\% | 0.7\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 69.1\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 317 |  | 10.9\% | 0.4\% | 3.6\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 83.9\% |
| 1996-1998 | 230 |  | 10.1\% | 3.8\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.5\% |
| 1999-2010 | 377 |  | 20.6\% | 4.9\% | 10.6\% | 0.8\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 61.6\% |

Appendix C.88. Percent distribution of Unuk River total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1982 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |
| 1983 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 1985 | 44 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1986 | 645 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1987 | 430 | 3,4,5 | 11.2\% | 0.5\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 84.7\% |
| 1988 | 443 | 3,4,5,6 | 6.8\% | 1.1\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 91.0\% |
| 1989 | 266 | 3,4,5,6 | 8.6\% | 2.3\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 87.2\% |
| 1990 | 179 | 4,5,6 | 27.9\% | 0.6\% | 11.7\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 57.5\% |
| 1991 | 138 | 5,6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 144 | 6 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | 2 | 3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | 32 | 3,4 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | 146 | 3,4,5 | 13.7\% | 10.3\% | 5.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 70.5\% |
| 1998 | 362 | 3,4,5,6 | 12.4\% | 3.9\% | 4.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 79.3\% |
| 1999 | 516 | 3,4,5,6 | 11.2\% | 1.6\% | 17.6\% | 0.0\% | 1.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 66.3\% |
| 2000 | 667 | 3,4,5,6 | 17.2\% | 4.8\% | 14.5\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 58.0\% |
| 2001 | 727 | 3,4,5,6 | 15.0\% | 1.4\% | 11.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 70.8\% |
| 2002 | 430 | 3,4,5,6 | 18.4\% | 1.4\% | 13.3\% | 2.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.4\% |
| 2003 | 316 | 3,4,5,6 | 26.6\% | 0.3\% | 19.0\% | 3.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 50.0\% |
| 2004 | 370 | 3,4,5,6 | 13.8\% | 32.7\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 45.4\% |
| 2005 | 415 | 3,4,5,6 | 35.7\% | 4.3\% | 19.3\% | 0.5\% | 5.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 35.2\% |
| 2006 | 401 | 3,4,5,6 | 22.2\% | 14.7\% | 13.5\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 48.1\% |
| 2007 | 342 | 3,4,5,6 | 31.3\% | 12.6\% | 6.7\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 46.5\% |
| 2008 | 190 | 3,4,5,6 | 30.0\% | 7.9\% | 2.1\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 54.2\% |
| 2009 | 255 | 3,4,5,6 | 22.4\% | 2.7\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 64.3\% |
| 2010 | 362 | 3,4,5,6 | 24.3\% | 1.7\% | 7.7\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 65.5\% |
| 1979-2010 | 379 |  | 19.4\% | 5.8\% | 9.4\% | 0.7\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 63.3\% |
| 1979-1984 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1985-1995 | 330 |  | 13.6\% | 1.1\% | 4.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 80.1\% |
| 1996-1998 | 254 |  | 13.1\% | 7.1\% | 4.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 74.9\% |
| 1999-2010 | 416 |  | 22.3\% | 7.2\% | 12.0\% | 0.8\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 55.7\% |

Appendix C.89. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 5346 | 2,3,4 | 17.8\% | 0.3\% | 0.6\% | 7.5\% | 0.1\% | 12.5\% | 0.0\% | 0.4\% | 0.1\% | 4.0\% | 4.4\% | 0.0\% | 1.3\% | 0.1\% | 1.1\% | 0.1\% | 0.2\% | 0.0\% | 22.8\% | 0.5\% | 26.4\% |
| 1980 | 3572 | 2,3,4,5 | 19.8\% | 0.8\% | 0.5\% | 6.4\% | 0.1\% | 7.3\% | 0.0\% | 0.4\% | 0.6\% | 1.6\% | 1.9\% | 0.0\% | 1.1\% | 0.0\% | 0.8\% | 0.0\% | 0.4\% | 0.0\% | 6.3\% | 0.7\% | 51.3\% |
| 1981 | 2273 | 2,3,4,5 | 16.0\% | 0.2\% | 0.4\% | 5.5\% | 0.0\% | 3.8\% | 0.2\% | 0.2\% | 0.2\% | 1.1\% | 1.8\% | 0.0\% | 0.5\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 3.6\% | 0.0\% | 65.6\% |
| 1982 | 1360 | 2,3,4,5 | 6.4\% | 0.5\% | 0.2\% | 3.4\% | 0.1\% | 4.6\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.5\% | 0.0\% | 0.6\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 79.2\% |
| 1983 | 844 | 2,3,4,5 | 15.6\% | 0.2\% | 0.0\% | 10.2\% | 0.2\% | 3.7\% | 0.0\% | 0.0\% | 0.2\% | 1.8\% | 3.6\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 8.2\% | 0.0\% | 55.9\% |
| 1984 | 1842 | 2,3,4,5 | 14.5\% | 1.0\% | 0.1\% | 8.9\% | 0.2\% | 7.2\% | 0.2\% | 0.0\% | 0.2\% | 2.0\% | 2.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 15.4\% | 1.2\% | 46.1\% |
| 1985 | 3522 | 2,3,4,5 | 8.7\% | 1.3\% | 0.2\% | 8.2\% | 0.0\% | 7.5\% | 0.1\% | 0.0\% | 0.1\% | 0.8\% | 2.6\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.1\% | 0.4\% | 0.0\% | 31.5\% | 3.6\% | 34.0\% |
| 1986 | 5263 | 2,3,4,5 | 9.7\% | 0.7\% | 0.1\% | 7.8\% | 0.1\% | 7.0\% | 0.1\% | 0.0\% | 0.1\% | 1.7\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 0.0\% | 33.8\% | 1.8\% | 34.5\% |
| 1987 | 4160 | 2,3,4,5 | 15.0\% | 0.7\% | 0.3\% | 11.8\% | 0.1\% | 7.0\% | 0.4\% | 0.0\% | 0.0\% | 1.7\% | 0.8\% | 0.0\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 35.8\% | 2.8\% | 21.5\% |
| 1988 | 2804 | 2,3,4,5 | 9.9\% | 0.7\% | 0.4\% | 8.1\% | 0.0\% | 10.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.6\% | 0.0\% | 1.9\% | 0.0\% | 0.5\% | 0.1\% | 0.1\% | 0.0\% | 45.0\% | 2.3\% | 19.1\% |
| 1989 | 1231 | 2,3,4,5 | 11.9\% | 0.0\% | 0.2\% | 14.9\% | 0.6\% | 7.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.5\% | 0.0\% | 1.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 42.5\% | 1.6\% | 17.3\% |
| 1990 | 678 | 2,3,4,5 | 13.6\% | 0.0\% | 1.0\% | 9.9\% | 0.0\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.7\% | 0.0\% | 1.2\% | 0.0\% | 0.4\% | 0.0\% | 0.7\% | 0.0\% | 33.8\% | 1.2\% | 28.6\% |
| 1991 | 269 | 2,3,4,5 | 6.3\% | 0.7\% | 2.6\% | 5.9\% | 0.0\% | 8.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.7\% | 4.1\% | 50.9\% |
| 1992 | 303 | 2,3,4,5 | 3.0\% | 0.3\% | 0.0\% | 3.0\% | 0.0\% | 10.6\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 17.2\% | 5.9\% | 55.4\% |
| 1993 | 525 | 2,3,4,5 | 10.9\% | 0.0\% | 0.0\% | 6.7\% | 0.6\% | 17.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.7\% | 0.0\% | 1.3\% | 0.0\% | 0.8\% | 0.0\% | 15.6\% | 4.4\% | 40.2\% |
| 1994 | 935 | 2,3,4,5 | 9.3\% | 0.9\% | 0.0\% | 7.6\% | 1.2\% | 6.5\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.3\% | 3.3\% | 50.3\% |
| 1995 | 694 | 2,3,4,5 | 8.1\% | 0.1\% | 1.7\% | 2.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.7\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 9.9\% | 3.6\% | 67.3\% |
| 1996 | 762 | 2,3,4,5 | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 22.4\% | 5.1\% | 68.0\% |
| 1997 | 981 | 2,3,4,5 | 11.1\% | 0.5\% | 2.5\% | 4.6\% | 0.7\% | 0.6\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.8\% | 10.1\% | 47.7\% |
| 1998 | 704 | 2,3,4,5 | 8.5\% | 1.7\% | 2.3\% | 2.7\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.9\% | 8.7\% | 60.8\% |
| 1999 | 1336 | 2,3,4,5 | 10.8\% | 0.0\% | 2.5\% | 7.3\% | 0.7\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 8.1\% | 55.2\% |
| 2000 | 890 | 2,3,4,5 | 19.3\% | 0.1\% | 2.2\% | 0.0\% | 0.0\% | 1.3\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 20.7\% | 5.4\% | 47.5\% |
| 2001 | 1704 | 2,3,4,5 | 3.9\% | 0.0\% | 0.7\% | 0.0\% | 0.4\% | 0.7\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 13.6\% | 7.7\% | 70.3\% |
| 2002 | 2196 | 2,3,4,5 | 14.3\% | 0.0\% | 2.3\% | 1.4\% | 0.6\% | 1.4\% | 0.5\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 1.7\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 18.3\% | 7.4\% | 50.6\% |
| 2003 | 2334 | 2,3,4,5 | 13.5\% | 0.9\% | 0.6\% | 4.7\% | 0.9\% | 0.7\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 15.1\% | 6.8\% | 55.2\% |
| 2004 | 2338 | 2,3,4,5 | 8.9\% | 1.1\% | 0.4\% | 3.3\% | 1.4\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 1.5\% | 0.0\% | 0.1\% | 0.0\% | 16.0\% | 6.2\% | 58.0\% |
| 2005 | 2488 | 2,3,4,5 | 13.9\% | 0.9\% | 0.9\% | 8.9\% | 4.5\% | 3.5\% | 2.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 13.9\% | 7.0\% | 42.4\% |
| 2006 | 1636 | 2,3,4,5 | 13.0\% | 1.5\% | 1.3\% | 6.7\% | 1.7\% | 1.6\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 13.4\% | 15.2\% | 41.7\% |
| 2007 | 551 | 2,3,4,5 | 10.5\% | 0.2\% | 0.7\% | 5.6\% | 4.7\% | 1.1\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 12.2\% | 18.1\% | 44.6\% |
| 2008 | 800 | 2,3,4,5 | 8.6\% | 0.3\% | 0.0\% | 2.3\% | 1.9\% | 2.0\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 19.6\% | 8.3\% | 51.4\% |
| 2009 | 1172 | 2,3,4,5 | 17.1\% | 1.8\% | 1.3\% | 8.1\% | 1.2\% | 0.5\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.1\% | 0.0\% | 0.7\% | 0.0\% | 22.3\% | 6.5\% | 37.5\% |
| 2010 | 1745 | 2,3,4,5 | 3.3\% | 0.3\% | 1.7\% | 1.2\% | 1.0\% | 0.9\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 18.6\% | 4.6\% | 63.2\% |
| 1979-2010 | 1789 |  | 11.1\% | 0.6\% | 0.9\% | 5.8\% | 0.7\% | 4.8\% | 0.6\% | 0.0\% | 0.1\% | 0.5\% | 0.9\% | 0.0\% | 0.9\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 0.0\% | 19.3\% | 5.1\% | 48.1\% |
| 1979-1984 | 2540 |  | 15.0\% | 0.5\% | 0.3\% | 7.0\% | 0.1\% | 6.5\% | 0.1\% | 0.2\% | 0.2\% | 1.8\% | 2.6\% | 0.0\% | 0.7\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 0.0\% | 9.8\% | 0.4\% | 54.1\% |
| 1985-1995 | 1853 |  | 9.7\% | 0.5\% | 0.6\% | 7.8\% | 0.2\% | 8.8\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 1.1\% | 0.0\% | 0.9\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 27.6\% | 3.1\% | 38.1\% |
| 1996-1998 | 816 |  | 7.5\% | 0.7\% | 1.6\% | 2.4\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 19.4\% | 8.0\% | 58.8\% |
| 1999-2010 | 1599 |  | 11.4\% | 0.6\% | 1.2\% | 4.1\% | 1.6\% | 1.3\% | 1.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.0\% | 16.5\% | 8.5\% | 51.5\% |

Appendix C.90. Percent distribution of Columbia River Upriver Bright (Columbia River Upriver Brights) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 5547 | 2,3,4 | 18.4\% | 0.3\% | 0.6\% | 7.7\% | 0.1\% | 12.9\% | 0.0\% | 0.4\% | 0.1\% | 4.0\% | 4.4\% | 0.0\% | 1.3\% | 0.1\% | 1.2\% | 0.1\% | 0.3\% | 0.0\% | 22.4\% | 0.5\% | 25.4\% |
| 1980 | 3704 | 2,3,4,5 | 20.9\% | 0.8\% | 0.6\% | 6.7\% | 0.1\% | 7.5\% | 0.0\% | 0.5\% | 0.6\% | 1.6\% | 1.9\% | 0.0\% | 1.1\% | 0.0\% | 0.8\% | 0.0\% | 0.4\% | 0.0\% | 6.3\% | 0.7\% | 49.5\% |
| 1981 | 2335 | 2,3,4,5 | 17.1\% | 0.2\% | 0.4\% | 5.7\% | 0.0\% | 4.0\% | 0.2\% | 0.2\% | 0.2\% | 1.1\% | 1.8\% | 0.0\% | 0.6\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 3.6\% | 0.0\% | 63.9\% |
| 1982 | 1437 | 2,3,4,5 | 9.0\% | 0.5\% | 0.3\% | 4.0\% | 0.2\% | 5.2\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.6\% | 0.0\% | 0.8\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 74.9\% |
| 1983 | 972 | 2,3,4,5 | 22.3\% | 0.3\% | 0.0\% | 11.1\% | 0.2\% | 3.9\% | 0.0\% | 0.0\% | 0.2\% | 2.0\% | 3.4\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 7.6\% | 0.0\% | 48.6\% |
| 1984 | 2170 | 2,3,4,5 | 18.9\% | 0.9\% | 0.2\% | 9.7\% | 0.2\% | 7.8\% | 0.2\% | 0.0\% | 0.2\% | 2.2\% | 2.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 16.1\% | 1.1\% | 39.2\% |
| 1985 | 4068 | 2,3,4,5 | 12.0\% | 2.4\% | 0.3\% | 8.3\% | 0.0\% | 7.6\% | 0.1\% | 0.0\% | 0.0\% | 0.8\% | 2.4\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 31.8\% | 3.2\% | 29.4\% |
| 1986 | 5780 | 2,3,4,5 | 11.2\% | 1.4\% | 0.1\% | 7.9\% | 0.1\% | 7.3\% | 0.1\% | 0.0\% | 0.1\% | 1.7\% | 1.3\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.1\% | 0.5\% | 0.0\% | 34.2\% | 1.7\% | 31.4\% |
| 1987 | 4705 | 2,3,4,5 | 19.3\% | 1.3\% | 0.3\% | 12.3\% | 0.1\% | 7.6\% | 0.4\% | 0.0\% | 0.0\% | 1.8\% | 0.7\% | 0.0\% | 1.2\% | 0.1\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 32.7\% | 2.5\% | 19.0\% |
| 1988 | 3038 | 2,3,4,5 | 11.0\% | 1.6\% | 0.4\% | 8.5\% | 0.0\% | 11.5\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% | 0.0\% | 1.9\% | 0.0\% | 0.6\% | 0.1\% | 0.2\% | 0.0\% | 43.2\% | 2.2\% | 17.6\% |
| 1989 | 1321 | 2,3,4,5 | 14.2\% | 0.0\% | 0.2\% | 15.2\% | 0.5\% | 8.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 1.4\% | 0.0\% | 1.2\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 40.9\% | 1.6\% | 16.1\% |
| 1990 | 710 | 2,3,4,5 | 14.1\% | 0.0\% | 1.1\% | 10.6\% | 0.0\% | 8.7\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.7\% | 0.0\% | 1.3\% | 0.0\% | 0.4\% | 0.0\% | 0.8\% | 0.0\% | 33.1\% | 1.1\% | 27.3\% |
| 1991 | 303 | 2,3,4,5 | 7.9\% | 2.3\% | 3.3\% | 6.3\% | 0.0\% | 9.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.1\% | 4.0\% | 45.2\% |
| 1992 | 334 | 2,3,4,5 | 3.6\% | 1.5\% | 0.0\% | 3.6\% | 0.0\% | 12.3\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 18.0\% | 6.0\% | 50.3\% |
| 1993 | 604 | 2,3,4,5 | 15.6\% | 0.0\% | 0.0\% | 7.5\% | 0.5\% | 19.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.7\% | 0.0\% | 1.2\% | 0.0\% | 0.7\% | 0.0\% | 14.2\% | 4.1\% | 34.9\% |
| 1994 | 1000 | 2,3,4,5 | 10.8\% | 2.5\% | 0.0\% | 7.9\% | 1.2\% | 7.0\% | 0.6\% | 0.0\% | 0.0\% | 0.2\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.6\% | 3.3\% | 47.0\% |
| 1995 | 751 | 2,3,4,5 | 10.1\% | 0.4\% | 2.4\% | 2.4\% | 0.0\% | 6.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 10.4\% | 3.6\% | 62.2\% |
| 1996 | 807 | 2,3,4,5 | 4.5\% | 0.0\% | 0.0\% | 1.4\% | 0.2\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 22.4\% | 5.2\% | 64.2\% |
| 1997 | 1044 | 2,3,4,5 | 12.7\% | 0.7\% | 3.3\% | 5.0\% | 1.1\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 20.4\% | 10.1\% | 44.8\% |
| 1998 | 772 | 2,3,4,5 | 10.5\% | 4.1\% | 2.8\% | 3.1\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 8.7\% | 55.4\% |
| 1999 | 1430 | 2,3,4,5 | 14.2\% | 0.0\% | 2.7\% | 7.7\% | 0.8\% | 0.0\% | 0.3\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 8.0\% | 51.6\% |
| 2000 | 1016 | 2,3,4,5 | 25.7\% | 0.1\% | 3.2\% | 0.0\% | 0.0\% | 1.5\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 18.9\% | 5.0\% | 41.6\% |
| 2001 | 1793 | 2,3,4,5 | 5.4\% | 0.0\% | 1.1\% | 0.0\% | 0.6\% | 0.8\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 14.3\% | 8.1\% | 66.8\% |
| 2002 | 2355 | 2,3,4,5 | 16.3\% | 0.0\% | 2.5\% | 1.6\% | 0.7\% | 1.4\% | 0.6\% | 0.0\% | 0.5\% | 0.0\% | 1.1\% | 0.0\% | 1.9\% | 0.0\% | 1.0\% | 0.0\% | 0.0\% | 0.0\% | 17.8\% | 7.4\% | 47.2\% |
| 2003 | 2467 | 2,3,4,5 | 15.2\% | 1.1\% | 0.6\% | 5.2\% | 1.3\% | 0.7\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 6.8\% | 52.2\% |
| 2004 | 2513 | 2,3,4,5 | 11.0\% | 1.9\% | 0.5\% | 3.8\% | 2.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 0.0\% | 1.5\% | 0.0\% | 0.2\% | 0.0\% | 15.8\% | 6.3\% | 54.0\% |
| 2005 | 2646 | 2,3,4,5 | 14.8\% | 1.1\% | 0.9\% | 9.4\% | 5.6\% | 3.4\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 7.0\% | 39.8\% |
| 2006 | 1712 | 2,3,4,5 | 14.0\% | 1.8\% | 1.4\% | 6.9\% | 2.0\% | 1.5\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 13.1\% | 15.3\% | 39.8\% |
| 2007 | 636 | 2,3,4,5 | 10.7\% | 0.3\% | 1.1\% | 5.2\% | 6.1\% | 1.1\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% | 20.9\% | 38.7\% |
| 2008 | 888 | 2,3,4,5 | 13.2\% | 0.6\% | 0.0\% | 2.9\% | 1.9\% | 1.9\% | 3.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 8.2\% | 46.3\% |
| 2009 | 1452 | 2,3,4,5 | 20.6\% | 1.8\% | 1.8\% | 8.6\% | 1.9\% | 0.6\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 1.0\% | 0.0\% | 1.2\% | 0.0\% | 24.1\% | 6.1\% | 30.2\% |
| 2010 | 1889 | 2,3,4,5 | 4.7\% | 0.4\% | 2.5\% | 1.5\% | 1.3\% | 0.8\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 19.7\% | 4.9\% | 58.4\% |
| 1979-2010 | 1944 |  | 13.4\% | 0.9\% | 1.1\% | 6.2\% | 0.9\% | 5.1\% | 0.6\% | 0.0\% | 0.1\% | 0.5\% | 0.9\% | 0.0\% | 0.9\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 0.0\% | 19.1\% | 5.1\% | 44.2\% |
| 1979-1984 | 2694 |  | 17.8\% | 0.5\% | 0.3\% | 7.5\% | 0.1\% | 6.9\% | 0.1\% | 0.2\% | 0.2\% | 1.9\% | 2.5\% | 0.0\% | 0.7\% | 0.0\% | 0.6\% | 0.0\% | 0.3\% | 0.0\% | 9.8\% | 0.4\% | 50.2\% |
| 1985-1995 | 2056 |  | 11.8\% | 1.2\% | 0.7\% | 8.2\% | 0.2\% | 9.6\% | 0.2\% | 0.0\% | 0.0\% | 0.5\% | 1.1\% | 0.0\% | 0.9\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 27.0\% | 3.0\% | 34.6\% |
| 1996-1998 | 874 |  | 9.2\% | 1.6\% | 2.0\% | 3.2\% | 0.6\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 19.2\% | 8.0\% | 54.8\% |
| 1999-2010 | 1733 |  | 13.8\% | 0.8\% | 1.5\% | 4.4\% | 2.0\% | 1.3\% | 1.4\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 1.1\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.0\% | 16.5\% | 8.7\% | 47.2\% |

Appendix C.91. Percent distribution of University Of Washington Accelerated reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 3752 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.0\% | 0.1\% | 1.7\% | 4.4\% | 0.3\% | 4.1\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 6.6\% | 38.2\% | 0.0\% | 0.0\% | 0.0\% | 27.4\% |
| 1980 | 4308 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 7.1\% | 0.1\% | 0.3\% | 5.0\% | 0.2\% | 1.4\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 12.8\% | 49.0\% | 0.0\% | 0.0\% | 0.2\% | 22.3\% |
| 1981 | 3460 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 10.2\% | 0.1\% | 0.6\% | 4.9\% | 0.0\% | 4.0\% | 0.0\% | 2.3\% | 0.0\% | 0.3\% | 11.7\% | 45.5\% | 0.0\% | 0.0\% | 0.0\% | 19.9\% |
| 1982 | 3299 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 0.2\% | 0.3\% | 3.8\% | 0.3\% | 0.9\% | 0.0\% | 2.3\% | 0.0\% | 0.4\% | 12.8\% | 29.4\% | 0.0\% | 1.2\% | 0.0\% | 32.3\% |
| 1983 | 2887 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 10.6\% | 0.1\% | 0.7\% | 3.1\% | 1.0\% | 1.7\% | 0.0\% | 1.3\% | 0.0\% | 0.2\% | 19.2\% | 30.3\% | 0.0\% | 4.6\% | 0.0\% | 27.2\% |
| 1984 | 1700 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.2\% | 0.2\% | 0.5\% | 4.4\% | 0.5\% | 1.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 20.0\% | 23.8\% | 0.0\% | 3.5\% | 0.0\% | 25.0\% |
| 1985 | 744 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.4\% | 1.3\% | 0.0\% | 5.0\% | 0.0\% | 5.4\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 6.3\% | 23.1\% | 0.0\% | 9.4\% | 0.0\% | 32.9\% |
| 1986 | 757 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.4\% | 0.9\% | 0.0\% | 3.8\% | 0.0\% | 8.3\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 20.7\% | 18.5\% | 0.0\% | 5.7\% | 0.0\% | 22.2\% |
| 1987 | 953 | 3,4,5 | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 9.8\% | 1.5\% | 1.4\% | 4.7\% | 0.3\% | 0.3\% | 0.0\% | 4.1\% | 0.0\% | 0.2\% | 23.1\% | 13.9\% | 0.0\% | 25.8\% | 0.0\% | 14.7\% |
| 1988 | 594 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 43 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 2429 |  | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 13.4\% | 0.5\% | 0.6\% | 4.3\% | 0.3\% | 3.0\% | 0.0\% | 2.1\% | 0.0\% | 0.2\% | 14.8\% | 30.2\% | 0.0\% | 5.6\% | 0.0\% | 24.9\% |
| 1979-1984 | 3234 |  | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 13.0\% | 0.2\% | 0.7\% | 4.3\% | 0.4\% | 2.2\% | 0.0\% | 1.8\% | 0.0\% | 0.2\% | 13.8\% | 36.0\% | 0.0\% | 1.6\% | 0.0\% | 25.7\% |
| 1985-1995 | 818 |  | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.2\% | 1.2\% | 0.5\% | 4.5\% | 0.1\% | 4.7\% | 0.0\% | 2.6\% | 0.0\% | 0.1\% | 16.7\% | 18.5\% | 0.0\% | 13.6\% | 0.0\% | 23.3\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

Appendix C.92. Percent distribution of University Of Washington Accelerated total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 4319 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 15.3\% | 0.1\% | 1.6\% | 4.1\% | 0.3\% | 3.7\% | 0.0\% | 1.8\% | 0.0\% | 0.5\% | 7.0\% | 41.8\% | 0.0\% | 0.0\% | 0.0\% | 23.8\% |
| 1980 | 5908 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 8.4\% | 0.1\% | 0.3\% | 3.9\% | 0.2\% | 1.2\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 13.0\% | 54.9\% | 0.0\% | 0.0\% | 0.2\% | 16.3\% |
| 1981 | 4320 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 10.7\% | 0.1\% | 0.5\% | 4.3\% | 0.0\% | 3.5\% | 0.0\% | 2.2\% | 0.0\% | 0.3\% | 11.1\% | 50.8\% | 0.0\% | 0.0\% | 0.0\% | 15.9\% |
| 1982 | 3882 | 2,3,4,5 | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 18.9\% | 0.2\% | 0.3\% | 3.5\% | 0.3\% | 0.8\% | 0.0\% | 2.6\% | 0.0\% | 0.4\% | 13.0\% | 31.5\% | 0.0\% | 1.1\% | 0.0\% | 27.4\% |
| 1983 | 3842 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 9.8\% | 0.1\% | 0.7\% | 2.5\% | 0.9\% | 1.4\% | 0.0\% | 1.2\% | 0.0\% | 0.2\% | 20.7\% | 38.4\% | 0.0\% | 3.7\% | 0.0\% | 20.4\% |
| 1984 | 2023 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 18.2\% | 0.2\% | 0.4\% | 4.0\% | 0.5\% | 1.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 20.2\% | 29.6\% | 0.0\% | 3.1\% | 0.0\% | 21.0\% |
| 1985 | 870 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.1\% | 1.3\% | 0.0\% | 4.6\% | 0.0\% | 5.1\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 6.7\% | 29.4\% | 0.0\% | 8.6\% | 0.0\% | 28.2\% |
| 1986 | 934 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.0\% | 0.9\% | 0.0\% | 3.4\% | 0.0\% | 7.5\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 20.8\% | 23.9\% | 0.0\% | 5.0\% | 0.0\% | 18.0\% |
| 1987 | 1038 | 3,4,5 | 0.5\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 11.3\% | 1.4\% | 1.3\% | 4.6\% | 0.4\% | 0.3\% | 0.0\% | 4.4\% | 0.0\% | 0.2\% | 22.3\% | 14.8\% | 0.0\% | 24.9\% | 0.0\% | 13.5\% |
| 1988 | 617 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1989 | 44 | 5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1990 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1991 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1993 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1994 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1995 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1996 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1997 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1998 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1999 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2000 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2001 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2007 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2008 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979-2010 | 3015 |  | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 14.0\% | 0.5\% | 0.6\% | 3.9\% | 0.3\% | 2.7\% | 0.0\% | 2.1\% | 0.0\% | 0.2\% | 15.0\% | 35.0\% | 0.0\% | 5.2\% | 0.0\% | 20.5\% |
| 1979-1984 | 4049 |  | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 13.5\% | 0.1\% | 0.6\% | 3.7\% | 0.4\% | 1.9\% | 0.0\% | 1.8\% | 0.0\% | 0.2\% | 14.2\% | 41.2\% | 0.0\% | 1.3\% | 0.0\% | 20.8\% |
| 1985-1995 | 947 |  | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 14.8\% | 1.2\% | 0.4\% | 4.2\% | 0.1\% | 4.3\% | 0.0\% | 2.7\% | 0.0\% | 0.1\% | 16.6\% | 22.7\% | 0.0\% | 12.8\% | 0.0\% | 19.9\% |
| 1996-1998 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 1999-2010 | 0 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

Appendix C.93. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |  |
| 1980 | 1 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - | - |
| 1982 | 82 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 67.1\% | 23.2\% | 0.0\% | 6.1\% | 0.0\% | 1.2\% |
| 1983 | 186 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 11.3\% | 59.7\% | 0.0\% | 0.0\% | 0.0\% | 21.5\% |
| 1984 | 155 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.5\% | 0.0\% | 5.2\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.0\% | 3.9\% | 25.2\% | 0.0\% | 5.2\% | 0.0\% | 47.7\% |
| 1985 | 312 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.8\% | 50.6\% | 0.0\% | 0.0\% | 0.0\% | 13.5\% |
| 1986 | 844 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 2.4\% | 0.4\% | 2.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 15.3\% | 52.3\% | 0.0\% | 0.0\% | 0.0\% | 26.8\% |
| 1987 | 464 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.4\% | 0.0\% | 3.2\% | 0.0\% | 0.0\% | 13.6\% | 41.2\% | 0.0\% | 0.0\% | 0.0\% | 40.1\% |
| 1988 | 1606 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.8\% | 0.0\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 1.3\% | 0.0\% | 0.2\% | 13.0\% | 48.3\% | 0.0\% | 0.0\% | 0.0\% | 33.6\% |
| 1989 | 895 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 1.0\% | 0.0\% | 6.0\% | 0.0\% | 0.2\% | 13.3\% | 40.9\% | 0.0\% | 0.3\% | 0.0\% | 35.8\% |
| 1990 | 441 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.0\% | 5.4\% | 0.0\% | 0.0\% | 15.6\% | 42.0\% | 0.0\% | 0.5\% | 0.0\% | 33.3\% |
| 1991 | 389 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 1.5\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 10.8\% | 38.0\% | 0.0\% | 0.0\% | 0.0\% | 43.4\% |
| 1992 | 778 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.8\% | 0.0\% | 1.9\% | 0.0\% | 2.8\% | 0.0\% | 2.4\% | 0.0\% | 0.5\% | 7.1\% | 45.0\% | 0.0\% | 0.8\% | 0.0\% | 36.2\% |
| 1993 | 278 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.0\% | 2.9\% | 30.6\% | 0.0\% | 0.7\% | 0.0\% | 62.2\% |
| 1994 | 212 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 43.9\% | 0.0\% | 0.0\% | 0.0\% | 51.9\% |
| 1995 | 388 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 29.4\% | 0.0\% | 0.0\% | 0.0\% | 69.3\% |
| 1996 | 340 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 42.9\% | 0.0\% | 0.0\% | 0.0\% | 55.9\% |
| 1997 | 267 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.7\% | 40.4\% | 0.0\% | 0.0\% | 0.0\% | 55.8\% |
| 1998 | 126 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 1.6\% | 27.0\% | 0.0\% | 0.0\% | 0.0\% | 69.8\% |
| 1999 | 82 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 30.5\% | 0.0\% | 0.0\% | 0.0\% | 64.6\% |
| 2000 | 86 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 37.2\% | 0.0\% | 0.0\% | 0.0\% | 54.7\% |
| 2001 | 46 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 2004 | 161 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 1038 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 2006 | 1014 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.0\% | 0.1\% | 0.2\% | 9.1\% | 0.0\% | 1.7\% | 0.0\% | 84.9\% |
| 2007 | 866 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.5\% | 0.2\% | 17.4\% | 0.0\% | 2.2\% | 0.0\% | 78.3\% |
| 2008 | 231 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 5.2\% | 0.0\% | 5.6\% | 0.0\% | 86.6\% |
| 2009 | 202 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 10.9\% | 0.0\% | 2.5\% | 0.0\% | 86.6\% |
| 2010 | 210 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 7.6\% | 0.0\% | 89.0\% |
| 1979-2010 | 436 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.2\% | 0.2\% | 0.8\% | 0.3\% | 0.5\% | 0.0\% | 1.4\% | 0.0\% | 0.1\% | 9.0\% | 33.0\% | 0.0\% | 1.4\% | 0.0\% | 51.8\% |
| 1979-1984 | 141 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 1.7\% | 0.8\% | 1.9\% | 0.5\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 27.4\% | 36.0\% | 0.0\% | 3.8\% | 0.0\% | 23.5\% |
| 1985-1995 | 601 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.5\% | 0.0\% | 1.3\% | 0.0\% | 1.0\% | 0.0\% | 2.3\% | 0.0\% | 0.1\% | 11.3\% | 42.0\% | 0.0\% | 0.2\% | 0.0\% | 40.6\% |
| 1996-1998 | 244 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.9\% | 36.8\% | 0.0\% | 0.0\% | 0.0\% | 60.5\% |
| 1999-2010 | 384 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.5\% | 16.0\% | 0.0\% | 2.8\% | 0.0\% | 77.8\% |

Appendix C.94. Percent distribution of White River Spring Yearling (Puget Sound Hatchery Yearling) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |  | - |
| 1980 | 1 | 2,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  |
| 1981 | 9 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  |  | - |
| 1982 | 108 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 1.9\% | 0.9\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 54.6\% | 34.3\% | 0.0\% | 5.6\% | 0.0\% | 0.9\% |
| 1983 | 212 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 10.4\% | 63.7\% | 0.0\% | 0.0\% | 0.0\% | 18.9\% |
| 1984 | 227 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.0\% | 0.0\% | 4.4\% | 0.0\% | 4.8\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 3.5\% | 44.5\% | 0.0\% | 4.4\% | 0.0\% | 32.6\% |
| 1985 | 438 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 25.6\% | 60.5\% | 0.0\% | 0.0\% | 0.0\% | 9.6\% |
| 1986 | 960 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 2.3\% | 0.4\% | 2.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 14.1\% | 56.7\% | 0.0\% | 0.0\% | 0.0\% | 23.5\% |
| 1987 | 733 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 2.5\% | 0.0\% | 0.0\% | 10.1\% | 60.6\% | 0.0\% | 0.0\% | 0.0\% | 25.4\% |
| 1988 | 1837 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.8\% | 0.0\% | 2.9\% | 0.0\% | 0.2\% | 0.0\% | 1.4\% | 0.0\% | 0.2\% | 12.5\% | 52.4\% | 0.0\% | 0.0\% | 0.0\% | 29.3\% |
| 1989 | 1022 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 1.0\% | 0.0\% | 6.3\% | 0.0\% | 0.2\% | 11.9\% | 46.4\% | 0.0\% | 0.3\% | 0.0\% | 31.3\% |
| 1990 | 518 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.6\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 13.9\% | 48.3\% | 0.0\% | 0.4\% | 0.0\% | 28.4\% |
| 1991 | 466 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 1.5\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 4.1\% | 0.0\% | 0.0\% | 9.7\% | 46.1\% | 0.0\% | 0.0\% | 0.0\% | 36.3\% |
| 1992 | 862 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.7\% | 0.7\% | 0.0\% | 2.1\% | 0.0\% | 2.6\% | 0.0\% | 2.7\% | 0.0\% | 0.5\% | 6.7\% | 48.7\% | 0.0\% | 0.7\% | 0.0\% | 32.7\% |
| 1993 | 322 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.0\% | 0.0\% | 2.5\% | 39.4\% | 0.0\% | 0.6\% | 0.0\% | 53.7\% |
| 1994 | 251 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 51.4\% | 0.0\% | 0.0\% | 0.0\% | 43.8\% |
| 1995 | 465 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 40.4\% | 0.0\% | 0.0\% | 0.0\% | 57.8\% |
| 1996 | 382 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 48.7\% | 0.0\% | 0.0\% | 0.0\% | 49.7\% |
| 1997 | 310 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.5\% | 48.4\% | 0.0\% | 0.0\% | 0.0\% | 48.1\% |
| 1998 | 137 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 1.5\% | 32.8\% | 0.0\% | 0.0\% | 0.0\% | 64.2\% |
| 1999 | 100 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 42.0\% | 0.0\% | 0.0\% | 0.0\% | 53.0\% |
| 2000 | 95 | 3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 5.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 43.2\% | 0.0\% | 0.0\% | 0.0\% | 49.5\% |
| 2001 | 55 | 4,5 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2002 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 | No Data |  | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |  | - |
| 2004 | 209 | 2 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2005 | 1071 | 2,3 | Failed | Criteria | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2006 | 1098 | 2,3,4 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.6\% | 0.0\% | 0.1\% | 0.2\% | 15.7\% | 0.0\% | 1.8\% | 0.0\% | 78.4\% |
| 2007 | 907 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 0.2\% | 21.1\% | 0.0\% | 2.2\% | 0.0\% | 74.8\% |
| 2008 | 239 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 7.9\% | 0.0\% | 5.9\% | 0.0\% | 83.7\% |
| 2009 | 207 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.0\% | 0.0\% | 2.4\% | 0.0\% | 84.5\% |
| 2010 | 212 | 2,3,4,5 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 8.0\% | 0.0\% | 88.2\% |
| 1979-2010 | 504 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.3\% | 0.2\% | 0.2\% | 0.9\% | 0.3\% | 0.5\% | 0.0\% | 1.4\% | 0.0\% | 0.1\% | 7.8\% | 40.3\% | 0.0\% | 1.3\% | 0.0\% | 45.8\% |
| 1979-1984 | 182 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 3.0\% | 0.0\% | 1.5\% | 0.6\% | 1.9\% | 0.5\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 22.8\% | 47.5\% | 0.0\% | 3.3\% | 0.0\% | 17.5\% |
| 1985-1995 | 716 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.0\% | 1.5\% | 0.0\% | 0.9\% | 0.0\% | 2.4\% | 0.0\% | 0.1\% | 9.9\% | 50.1\% | 0.0\% | 0.2\% | 0.0\% | 33.8\% |
| 1996-1998 | 276 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 1.8\% | 43.3\% | 0.0\% | 0.0\% | 0.0\% | 54.0\% |
| 1999-2010 | 408 |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.9\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.1\% | 0.4\% | 20.7\% | 0.0\% | 2.9\% | 0.0\% | 73.2\% |

Appendix C.95. Percent distribution of Willamette Spring (Willamette River Hatchery) reported catch among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 2097 | 3,4 | Failed | Criteria | - | - | - | - | - |  | - | - | - | - | - |  | - | - | - | - |  |  |  |
| 1980 | 5780 | 3,4,5 | 3.4\% | 0.7\% | 0.1\% | 5.8\% | 0.1\% | 2.7\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 7.9\% | 77.1\% |
| 1981 | 8042 | 3,4,5,6 | 4.4\% | 0.4\% | 0.1\% | 6.1\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 10.5\% | 74.5\% |
| 1982 | 3701 | 3,4,5,6 | 4.1\% | 1.1\% | 0.1\% | 6.5\% | 0.1\% | 4.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.4\% | 0.0\% | 1.1\% | 0.0\% | 1.7\% | 0.1\% | 0.1\% | 0.0\% | 7.0\% | 24.7\% | 48.9\% |
| 1983 | 2478 | 3,4,5,6 | 12.5\% | 0.1\% | 0.0\% | 11.6\% | 0.0\% | 1.8\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 0.0\% | 6.3\% | 22.4\% | 41.5\% |
| 1984 | 4016 | 3,4,5,6 | 4.0\% | 0.2\% | 0.3\% | 2.1\% | 0.1\% | 1.9\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 6.4\% | 25.8\% | 57.8\% |
| 1985 | 2777 | 3,4,5,6 | 4.6\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 16.6\% | 27.4\% | 49.8\% |
| 1986 | 715 | 3,4,5,6 | 2.9\% | 0.1\% | 0.0\% | 6.3\% | 0.0\% | 5.2\% | 0.6\% | 0.0\% | 0.0\% | 0.6\% | 2.4\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 8.7\% | 21.1\% | 51.5\% |
| 1987 | 645 | 3,4,5,6 | 9.6\% | 0.0\% | 0.6\% | 13.0\% | 0.0\% | 0.9\% | 1.2\% | 0.0\% | 0.0\% | 0.8\% | 1.1\% | 0.0\% | 2.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 6.0\% | 28.2\% | 35.8\% |
| 1988 | 1894 | 3,4,5,6 | 8.6\% | 0.2\% | 0.4\% | 6.2\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.1\% | 0.0\% | 2.2\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 28.6\% | 42.9\% |
| 1989 | 2636 | 3,4,5,6 | 4.4\% | 0.0\% | 0.2\% | 1.8\% | 0.0\% | 1.4\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.3\% | 0.0\% | 1.5\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 12.6\% | 20.0\% | 56.6\% |
| 1990 | 2557 | 3,4,5,6 | 6.3\% | 0.3\% | 0.2\% | 1.4\% | 0.4\% | 2.1\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 1.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 17.0\% | 27.6\% | 41.9\% |
| 1991 | 2811 | 3,4,5,6 | 3.1\% | 0.9\% | 0.6\% | 1.7\% | 0.0\% | 0.4\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 42.7\% | 43.2\% |
| 1992 | 2463 | 3,4,5,6 | 3.5\% | 1.2\% | 0.2\% | 1.7\% | 0.2\% | 2.7\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 2.4\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 5.8\% | 30.7\% | 50.5\% |
| 1993 | 4792 | 3,4,5,6 | 8.1\% | 0.0\% | 0.0\% | 1.3\% | 0.1\% | 1.4\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 43.0\% | 43.5\% |
| 1994 | 4725 | 3,4,5,6 | 4.1\% | 0.3\% | 0.9\% | 0.7\% | 0.1\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 5.1\% | 38.6\% | 48.8\% |
| 1995 | 4151 | 3,4,5,6 | 2.8\% | 0.1\% | 0.3\% | 1.0\% | 0.0\% | 0.3\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 43.6\% | 50.9\% |
| 1996 | 3589 | 3,4,5,6 | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.8\% | 33.3\% | 64.1\% |
| 1997 | 2224 | 3,4,5,6 | 3.6\% | 0.0\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 15.8\% | 79.0\% |
| 1998 | 1538 | 3,4,5,6 | 4.3\% | 0.1\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.4\% | 16.4\% | 78.2\% |
| 1999 | 1710 | 3,4,5,6 | 4.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 14.6\% | 79.3\% |
| 2000 | 6269 | 3,4,5,6 | 7.8\% | 0.1\% | 0.4\% | 0.1\% | 0.5\% | 0.4\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 29.3\% | 58.0\% |
| 2001 | 33968 | 3,4,5,6 | 1.4\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 3.5\% | 23.1\% | 70.9\% |
| 2002 | 19449 | 3,4,5,6 | 1.8\% | 0.1\% | 0.1\% | 0.9\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 15.8\% | 20.0\% | 59.5\% |
| 2003 | 6751 | 3,4,5,6 | 4.8\% | 0.0\% | 0.1\% | 0.4\% | 0.2\% | 2.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 15.6\% | 74.6\% |
| 2004 | 6782 | 3,4,5,6 | 2.9\% | 0.3\% | 0.1\% | 0.6\% | 0.0\% | 5.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.2\% | 20.2\% | 62.4\% |
| 2005 | 2960 | 3,4,5,6 | 2.7\% | 0.0\% | 0.1\% | 0.3\% | 0.2\% | 5.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 5.1\% | 15.5\% | 69.7\% |
| 2006 | 1903 | 3,4,5,6 | 3.0\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 7.9\% | 24.5\% | 58.0\% |
| 2007 | 1538 | 3,4,5,6 | 3.9\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.7\% | 17.7\% | 71.7\% |
| 2008 | 2172 | 3,4,5,6 | 1.3\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 19.4\% | 12.2\% | 65.0\% |
| 2009 | 3808 | 3,4,5,6 | 2.5\% | 0.0\% | 0.0\% | 0.2\% | 0.3\% | 0.8\% | 2.5\% | 0.0\% | 0.6\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 8.2\% | 19.4\% | 64.8\% |
| 2010 | 8078 | 3,4,5,6 | 3.0\% | 0.0\% | 0.2\% | 0.5\% | 0.3\% | 0.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.4\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 5.3\% | 43.1\% | 44.0\% |
| 1979-2010 | 5062 |  | 4.4\% | 0.2\% | 0.2\% | 2.3\% | 0.1\% | 1.7\% | 0.2\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 6.1\% | 24.6\% | 58.5\% |
| 1979-1984 | 4803 |  | 5.7\% | 0.5\% | 0.1\% | 6.4\% | 0.1\% | 2.4\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.0\% | 0.9\% | 0.0\% | 0.6\% | 0.0\% | 0.2\% | 0.0\% | 4.3\% | 18.3\% | 60.0\% |
| 1985-1995 | 2742 |  | 5.3\% | 0.3\% | 0.3\% | 3.2\% | 0.1\% | 1.7\% | 0.3\% | 0.0\% | 0.1\% | 0.2\% | 0.5\% | 0.0\% | 1.1\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 7.8\% | 32.0\% | 46.9\% |
| 1996-1998 | 2450 |  | 3.1\% | 0.0\% | 0.1\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.7\% | 21.8\% | 73.8\% |
| 1999-2010 | 7949 |  | 3.3\% | 0.1\% | 0.1\% | 0.3\% | 0.2\% | 1.9\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 6.7\% | 21.3\% | 64.8\% |

Appendix C.96. Percent distribution of Willamette Spring (Willamette River Hatchery) total fishing mortalities among fisheries and escapement.

| Catch <br> Year | Estimated <br> \# of <br> CWTs | Ages <br> Present | AABM |  |  |  |  |  |  | ISBM |  |  |  |  |  |  |  |  |  |  |  |  | Esc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SEAK |  |  | NBC |  | WCVI |  | Geo St |  | Canada |  |  | WA/OR coast |  |  | Puget Sound |  | Terminal |  |  |  |
|  |  |  | Troll | Net | Sport | Troll | Sport | Troll | Sport | Troll | Sport | Troll | Net | Sport | Troll | Net | Sport | Net | Sport | Troll | Net | Sport |  |
| 1979 | 2296 | 3,4 | Failed | Criteria | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |  |  |  |  |
| 1980 | 6096 | 3,4,5 | 5.0\% | 0.8\% | 0.2\% | 7.3\% | 0.1\% | 3.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 0.0\% | 0.7\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 7.8\% | 73.1\% |
| 1981 | 8348 | 3,4,5,6 | 5.8\% | 0.4\% | 0.1\% | 7.0\% | 0.0\% | 1.6\% | 0.0\% | 0.0\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 10.5\% | 71.7\% |
| 1982 | 3963 | 3,4,5,6 | 5.8\% | 1.2\% | 0.2\% | 7.5\% | 0.1\% | 4.7\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.4\% | 0.0\% | 1.3\% | 0.0\% | 1.9\% | 0.2\% | 0.2\% | 0.0\% | 6.9\% | 23.9\% | 45.7\% |
| 1983 | 2862 | 3,4,5,6 | 18.8\% | 0.1\% | 0.0\% | 13.0\% | 0.0\% | 2.0\% | 0.0\% | 0.5\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.5\% | 0.0\% | 0.7\% | 0.0\% | 5.8\% | 20.1\% | 36.0\% |
| 1984 | 4160 | 3,4,5,6 | 4.9\% | 0.2\% | 0.4\% | 2.5\% | 0.1\% | 2.1\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 6.5\% | 25.8\% | 55.8\% |
| 1985 | 2900 | 3,4,5,6 | 7.1\% | 0.2\% | 0.0\% | 0.5\% | 0.0\% | 0.5\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 16.1\% | 27.2\% | 47.7\% |
| 1986 | 760 | 3,4,5,6 | 4.3\% | 0.4\% | 0.0\% | 7.2\% | 0.0\% | 6.1\% | 0.7\% | 0.0\% | 0.0\% | 0.7\% | 2.5\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 8.4\% | 20.5\% | 48.4\% |
| 1987 | 805 | 3,4,5,6 | 18.0\% | 0.0\% | 1.0\% | 15.0\% | 0.0\% | 1.4\% | 1.2\% | 0.0\% | 0.0\% | 1.1\% | 1.0\% | 0.0\% | 3.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% | 5.3\% | 23.5\% | 28.7\% |
| 1988 | 2163 | 3,4,5,6 | 12.0\% | 0.4\% | 0.6\% | 7.7\% | 0.0\% | 3.7\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 2.5\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 6.9\% | 27.7\% | 37.5\% |
| 1989 | 2784 | 3,4,5,6 | 5.7\% | 0.0\% | 0.3\% | 2.2\% | 0.0\% | 1.7\% | 0.6\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.0\% | 1.8\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 12.4\% | 20.4\% | 53.6\% |
| 1990 | 2822 | 3,4,5,6 | 10.1\% | 0.8\% | 0.3\% | 1.9\% | 0.4\% | 2.7\% | 0.7\% | 0.0\% | 0.0\% | 0.2\% | 0.6\% | 0.0\% | 1.5\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 16.0\% | 26.7\% | 38.0\% |
| 1991 | 3027 | 3,4,5,6 | 4.3\% | 2.0\% | 0.7\% | 2.1\% | 0.0\% | 0.4\% | 0.2\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.8\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 6.0\% | 42.7\% | 40.1\% |
| 1992 | 2879 | 3,4,5,6 | 7.1\% | 6.5\% | 0.2\% | 1.9\% | 0.2\% | 3.1\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 2.7\% | 0.0\% | 0.4\% | 0.0\% | 0.6\% | 0.0\% | 5.3\% | 28.3\% | 43.2\% |
| 1993 | 5367 | 3,4,5,6 | 13.0\% | 0.0\% | 0.0\% | 1.5\% | 0.1\% | 1.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.7\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 42.0\% | 38.9\% |
| 1994 | 5050 | 3,4,5,6 | 5.8\% | 1.0\% | 1.1\% | 0.9\% | 0.1\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 5.0\% | 38.7\% | 45.7\% |
| 1995 | 4482 | 3,4,5,6 | 5.7\% | 0.3\% | 0.4\% | 1.3\% | 0.0\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.3\% | 43.6\% | 47.2\% |
| 1996 | 3728 | 3,4,5,6 | 2.4\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.8\% | 34.4\% | 61.7\% |
| 1997 | 2275 | 3,4,5,6 | 4.5\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 16.4\% | 77.2\% |
| 1998 | 1592 | 3,4,5,6 | 5.8\% | 0.3\% | 0.3\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.4\% | 17.1\% | 75.6\% |
| 1999 | 1853 | 3,4,5,6 | 9.4\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 14.6\% | 73.2\% |
| 2000 | 7121 | 3,4,5,6 | 14.2\% | 0.1\% | 1.0\% | 0.2\% | 0.8\% | 0.4\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 28.8\% | 51.0\% |
| 2001 | 35086 | 3,4,5,6 | 1.7\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.5\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 3.8\% | 24.6\% | 68.6\% |
| 2002 | 19966 | 3,4,5,6 | 2.3\% | 0.1\% | 0.1\% | 1.1\% | 0.1\% | 0.7\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 15.6\% | 20.8\% | 58.0\% |
| 2003 | 6975 | 3,4,5,6 | 6.1\% | 0.0\% | 0.1\% | 0.5\% | 0.2\% | 2.6\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 1.5\% | 16.2\% | 72.2\% |
| 2004 | 7087 | 3,4,5,6 | 3.9\% | 0.5\% | 0.1\% | 0.7\% | 0.0\% | 5.9\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 6.3\% | 21.0\% | 59.7\% |
| 2005 | 3045 | 3,4,5,6 | 3.3\% | 0.0\% | 0.1\% | 0.3\% | 0.3\% | 5.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 5.2\% | 16.2\% | 67.7\% |
| 2006 | 2009 | 3,4,5,6 | 4.3\% | 0.0\% | 0.0\% | 0.4\% | 0.8\% | 4.5\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 7.9\% | 25.2\% | 55.0\% |
| 2007 | 1610 | 3,4,5,6 | 5.5\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 4.9\% | 18.6\% | 68.4\% |
| 2008 | 2266 | 3,4,5,6 | 1.9\% | 0.1\% | 0.1\% | 0.5\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 20.3\% | 12.9\% | 62.3\% |
| 2009 | 4101 | 3,4,5,6 | 4.0\% | 0.0\% | 0.0\% | 0.3\% | 0.4\% | 0.9\% | 3.1\% | 0.0\% | 1.3\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.2\% | 0.0\% | 0.5\% | 0.0\% | 8.6\% | 20.1\% | 60.2\% |
| 2010 | 8797 | 3,4,5,6 | 4.1\% | 0.0\% | 0.3\% | 0.7\% | 0.4\% | 0.8\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.9\% | 0.0\% | 0.3\% | 0.0\% | 0.2\% | 0.0\% | 5.3\% | 44.4\% | 40.4\% |
| 1979-2010 | 5354 |  | 6.7\% | 0.5\% | 0.3\% | 2.8\% | 0.1\% | 2.0\% | 0.3\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.0\% | 1.0\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 6.1\% | 24.5\% | 54.9\% |
| 1979-1984 | 5086 |  | 8.0\% | 0.5\% | 0.2\% | 7.5\% | 0.1\% | 2.7\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.0\% | 1.1\% | 0.0\% | 0.7\% | 0.0\% | 0.2\% | 0.0\% | 4.2\% | 17.6\% | 56.5\% |
| 1985-1995 | 3004 |  | 8.5\% | 1.1\% | 0.4\% | 3.8\% | 0.1\% | 2.1\% | 0.4\% | 0.0\% | 0.1\% | 0.3\% | 0.5\% | 0.0\% | 1.3\% | 0.0\% | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 7.5\% | 31.0\% | 42.6\% |
| 1996-1998 | 2532 |  | 4.3\% | 0.1\% | 0.1\% | 0.3\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.0\% | 0.7\% | 22.6\% | 71.5\% |
| 1999-2010 | 8326 |  | 5.1\% | 0.1\% | 0.2\% | 0.4\% | 0.3\% | 2.1\% | 0.4\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.9\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 6.9\% | 22.0\% | 61.4\% |

Appendix D Age 2 (fingerling stocks) or age 3 (yearling stocks) CWT survival indices (completed brood years only) for exploitation rate indicator stocks and age 2 or 3 Chinook model (EV) survival indices for corresponding model stocks. Some exploitation rate indicator stocks do not have corresponding model stocks. CWT indices are brood year survival divided by the long term average brood year survival. EV indices are brood year EV's divided by the long term average EV's using the same years in the average as the CWT index. The correlation coefficient (r) between CWT and EV survival indices is shown on each figure.

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Figure D8. Dome Creek Spring CWT and Fraser Early EV indices.


Figure D9. Elk River CWT and Oregon Coast EV indices.

## George Adams Fall Fingerling

 Index Of Age 2 Survival

Figure D11. George Adams Fall Fingerling CWT index.

Elwha River Index Of Age 2 Survival


Figure D10. Elwha River CWT index.

Hanford Wild Brights Index Of Age 2 Survival


Figure D12. Hanford Wild Brights CWT index.


Figure D13. Harrison River CWT and Fraser Late EV indices.

Kitsumkalum River Summer (North/Central BC) Index Of Age 3 Survival $\mathrm{r}=0.11$

———EV - - CWT
Figure D15. Kitsumkalum River
Summer CWT and North/Central BC EV indices.

Hoko Fall Fingerling Index Of Age 2 Survival


Figure D14. Hoko Fall Fingerling CWT index.

Lower River Hatchery Tule (Lower Bonneville Hatchery) Index Of Age 2 Survival $r=0.51$


$$
— — E V \quad-\quad-\quad \text { CWT }
$$

Figure D16. Lower River Hatchery Tule CWT and Lower Bonneville Hatchery EV indices.


Figure D17. Lewis River Wild CWT and Lewis River Wild EV indices.


Figure D19. Lyons Ferry Yearling CWT index.

Figure D18. Lyons Ferry Fingerling CWT and Lyons Ferry Hatchery EV indices.


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Nooksack Spring Yearling (Nooksack Spring Yearling) Index Of Age 2 Survival
$r=0.66$


$$
— — \mathrm{EV} \quad-\mathrm{E}-\mathrm{CWT}
$$

Figure D23. Nooksack Spring
Yearling CWT and Nooksack Spring Yearling EV indices.

Nisqually Fall Fingerling Index Of Age 2 Survival


Figure D22. Nisqually Fall Fingerling CWT index.


Figure D24. Nooksack Spring
Fingerling CWT and Nooksack Spring Yearling EV indices.


Figure D25. Puntledge River Summer CWT and Lower Strait of Georgia Hatchery EV indices.

Quinsam River Fall (Upper Strait of Georgia) Index Of Age 2 Survival $r=0.58$

———EV - - CWT
Figure D27. Quinsam River Fall CWT and Upper Strait of Georgia EV indices.


Figure D26. Queets Fall Fingerling CWT and Washington Coastal Wild EV indices.


Figure D28. Robertson Creek Fall CWT and WCVI Hatchery and Natural EV indices.

## Samish Fall Fingerling (Nooksack Fall Fingerling) Index Of Age 2 Survival r=0.67



$$
\text { - EV }- \text { - }-\mathrm{CWT}
$$

Figure D29. Samish Fall Fingerling CWT and Nooksack Fall Fingerling EV indices.

Lower Shuswap River Summer
(Fraser Early) Index Of Age 2 Survival $r=0.27$


$$
\text { - EV - }-\mathrm{CWT}
$$

Figure D30. Lower Shuswap River Summer CWT and Fraser Early EV indices.

Skagit Spring Fingerling Index Of Age 2 Survival


Figure D31. Skagit Spring Fingerling CWT index.

Skagit Spring Yearling Index Of Age 2 Survival


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Figure D35. Spring Creek Tule CWT and Spring Creek Hatchery EV indices.

Sooes Fall Fingerling (Washington Coastal Wild) Index Of Age 2 Survival $r=0.02$


$$
\text { -—EV - }--\mathrm{CWT}
$$

Figure D34. Sooes Fall Fingerling CWT and Washington Coastal Wild EV indices.

South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) Index Of Age 2 Survival
$r=0.46$


$$
— — E V \quad-\quad-\quad \text { CWT }
$$

Figure D36. South Puget Sound Fall Fingerling CWT and Puget Sound Hatchery Fingerling EV indices.


Figure D37. South Puget Sound Fall
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Figure D38. Squaxin Pens Fall Yearling CWT and Puget Sound Hatchery Yearling EV indices.


Figure D40. Skagit Summer Fingerling CWT and Skagit Wild EV indices.

Stillaguamish Fall Fingerling (Stillaguamish Wild) Index Of Age 2 Survival $r=-0.48$

-—EV ———CWT
Figure D41. Stillaguamish Fall
Fingerling CWT and Stillaguamish Wild EV indices.

Figure D42. Columbia River Summer CWT and Columbia River Summer EV indices.
Columbia River Summer
(Columbia River Summer) Index Of Age 2 Survival $r=0.67$


$$
\text { -—EV }-=-\mathrm{CWT}
$$



Figure D43. Taku River CWT index.


Figure D45. Columbia River Upriver Bright CWT and Columbia River Upriver Bright EV indices.

White River Spring Yearling (Puget Sound Hatchery Yearling) Index Of Age 2 Survival $r=-0.13$


Brood Year
———EV - - - CWT
Figure D47. White River Spring Yearling CWT and Puget Sound Hatchery Yearling EV indices.

University Of Washington Accelerated
Index Of Age 2 Survival


Figure D46. University Of
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Figure D48. Willamette Spring CWT and Willamette River Hatchery EV indices.

Appendix E Total mortality and landed catch exploitation rates for exploitation rate indicator stocks with analogous model stocks in parentheses (complete broods only).

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Alaska Spring Ocean Exploitation Rates


Figure E1. Alaska Spring (Alaska
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Figure E3. Big Qualicum River Fall (Lower Strait of Georgia Hatchery and Natural) total exploitation rates by brood year.

Atnarko River Total Exploitation Rates


Figure E2. Atnarko River (North/Central BC) total exploitation rates by brood year.


Figure E4. Chilliwack River Fall (Fraser Late) total exploitation rates by brood year.

Chilkat River
Ocean Exploitation Rates


Figure E5. Chilkat River ocean exploitation rates by brood year.

Cowlitz Fall Tule Ocean Exploitation Rates


Brood Year
$\square$ landed catch $\quad$ incidental mortality
Figure E7. Cowlitz Fall Tule (Fall Cowlitz Hatchery) ocean exploitation rates by brood year.

Cowichan River Fall Total Exploitation Rates


Figure E6. Cowichan River Fall (Lower Strait of Georgia Natural) total exploitation rates by brood year.


Figure E8. Dome Creek Spring (Fraser Early) total exploitation rates by brood year.

Elk River
Ocean Exploitation Rates


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George Adams Fall Fingerling Ocean Exploitation Rates


Figure E11. George Adams Fall Fingerling ocean exploitation rates by brood year.

Elwha River Ocean Exploitation Rates


Figure E10. Elwha River ocean exploitation rates by brood year.


Figure E12. Hanford Wild Brights total exploitation rates by brood year.

Harrison River
Total Exploitation Rates

$\square$ landed catch ■ incidental mortality
Figure E13. Harrison River (Fraser Late) total exploitation rates by brood year.


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Hoko Fall Fingerling Ocean Exploitation Rates


Figure E14. Hoko Fall Fingerling ocean exploitation rates by brood year.


Figure E16. Lower River Hatchery Tule (Lower Bonneville Hatchery) total exploitation rates by brood year.

Lewis River Wild Total Exploitation Rates


Brood Year
$\square$ landed catch ■ incidental mortality
Figure E17. Lewis River Wild (Lewis River Wild) total exploitation rates by brood year.

Lyons Ferry Yearling Total Exploitation Rates


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Lyons Ferry Fingerling Total Exploitation Rates


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## Nooksack Spring Yearling Ocean Exploitation Rates



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Nisqually Fall Fingerling Ocean Exploitation Rates


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Quinsam River Fall Total Exploitation Rates

$\square$ landed catch $\quad$ incidental mortality
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Queets Fall Fingerling Total Exploitation Rates

$\square$ landed catch $\quad$ incidental mortality
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Robertson Creek Fall Ocean Exploitation Rates

$\square$ landed catch $\quad$ incidental mortality
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Lower Shuswap River Summer Total Exploitation Rates


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Skykomish Fall Fingerling Ocean Exploitation Rates


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Spring Creek Tule Total Exploitation Rates


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Sooes Fall Fingerling Ocean Exploitation Rates


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South Puget Sound Fall Fingerling Ocean Exploitation Rates


Brood Year
$\square$ landed catch $\quad$ incidental mortality
Figure E36. South Puget Sound Fall Fingerling (Puget Sound Hatchery Fingerling) ocean exploitation rates by brood year.


Figure E37. South Puget Sound Fall
Yearling (Puget Sound Hatchery
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Salmon River Ocean Exploitation Rates

$\square$ landed catch $\quad$ incidental mortality
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Squaxin Pens Fall Yearling Ocean Exploitation Rates


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Skagit Summer Fingerling Ocean Exploitation Rates


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Taku River Ocean Exploitation Rates


Figure E43. Taku River ocean exploitation rates by brood year.

Columbia River Summer Total Exploitation Rates


Figure E42. Columbia River Summer (Columbia River Summer) total exploitation rates by brood year.

## Ocean Exploitation Rates



Figure E44. Unuk River ocean exploitation rates by brood year.

Columbia River Upriver Bright Total Exploitation Rates


Figure E45. Columbia River Upriver Bright (Columbia River Upriver Bright) total exploitation rates by brood year.


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University Of Washington Accelerated Ocean Exploitation Rates


Figure E46. University Of Washington Accelerated ocean exploitation rates by brood year.


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Appendix F.1. Southeast Alaska All Gear

| FISHERY: | SE ALASKA ALL GEAR |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Average (1985-2010) |  |  |  |
| Model Stock | \% of Fishery Catch | \% of Fishery Catch | \% of <br> Stock <br> Catch | \% of <br> Stock <br> Total <br> Return | Associated Escapement Indicator Stocks ${ }^{1}$ |
| North/Central BC | 10.37\% | 16.52\% | 21.51\% | 10.26\% | Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet |
| Columbia Upriver Bright | 24.37\% | 15.70\% | 27.15\% | 13.26\% | Columbia Upriver Bright |
| WCVI Hatchery | 14.77\% | 15.50\% | 48.50\% | 16.75\% | NA |
| Oregon Coastal North Migrating | 10.66\% | 14.71\% | 35.70\% | 16.00\% | Oregon Coastal |
| Fraser Early | 6.78\% | 5.97\% | 30.42\% | 7.32\% | Upper Fraser Middle Fraser Thompson |
| Mid-Columbia Brights | 7.96\% | 5.57\% | 33.43\% | 13.35\% | Not Represented |
| Upper Georgia Strait | 4.08\% | 4.43\% | 33.78\% | 19.66\% | Upper Georgia Strait |
| Alaska South SE | 3.13\% | 3.83\% | 96.45\% | 35.14\% | King Salmon Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |
| Washington Coastal Wild | 2.64\% | 3.38\% | 20.00\% | 10.86\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |
| WCVI Wild | 1.87\% | 3.18\% | 49.41\% | 16.85\% | WCVI |
| Columbia Upriver Summer | 6.22\% | 3.00\% | 33.52\% | 14.37\% | Columbia Upriver Summer |
| WA Coastal Hatchery | 2.48\% | 2.76\% | 18.58\% | 10.14\% | NA |
| Willamette River Hatchery | 2.22\% | 2.21\% | 11.63\% | 5.14\% | NA |
| Fall Cowlitz Hatchery | 0.49\% | 0.99\% | 5.44\% | 2.08\% | NA |
| Lewis River Wild | 0.62\% | 0.81\% | 17.99\% | 7.69\% | Lewis River |
| Lower GS Hatchery | 0.19\% | 0.37\% | 3.57\% | 1.85\% | NA |
| Lower Georgia Strait | 0.18\% | 0.21\% | 3.82\% | 2.03\% | Lower Georgia Strait |
| PS Hatchery Fingerling | 0.15\% | 0.18\% | 0.45\% | 0.25\% | NA |
| Fraser Late | 0.23\% | 0.18\% | 0.37\% | 0.14\% | Harrison |
| Snake River Fall | 0.38\% | 0.10\% | 8.65\% | 5.23\% | Not Represented |
| Skagit Summer/Fall | 0.02\% | 0.09\% | 3.71\% | 1.04\% | Skagit Summer/Fall |
| Spring Cowlitz Hatchery | 0.03\% | 0.08\% | 1.62\% | 0.83\% | NA |
| Stillaguamish Summer/Fall | 0.04\% | 0.06\% | 16.99\% | 6.44\% | Stillaguamish |
| PS Yearling | 0.06\% | 0.05\% | 0.49\% | 0.32\% | NA |
| Puget Sound Natural | 0.02\% | 0.05\% | 0.54\% | 0.25\% | Green, Lake Washington |
| Snohomish Summer/Fall | 0.02\% | 0.04\% | 2.65\% | 1.08\% | Snohomish |
| Nooksack Fall | 0.02\% | 0.04\% | 0.15\% | 0.11\% | NA |
| Spring Creek Hatchery | 0.00\% | 0.00\% | 0.00\% | 0.00\% | NA |
| Lower Bonneville Hatchery | 0.00\% | 0.00\% | 0.00\% | 0.00\% | NA |
| Nooksack Spring | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Nooksack Spring |

1 'NA' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

Appendix F.2. North BC Troll and Sport

| FISHERY: | NORTH TROLL AND SPORT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Average (1985-2010) |  |  |  |
| Model Stock |  | \% of <br> Fishery <br> Catch | \% of <br> Stock <br> Catch | \% of Stock Total Return | Associated Escapement Indicator Stocks |
| North/Central BC | 64.19\% | 53.70\% | 70.17\% | 36.93\% | Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet |
| Oregon Coastal North Migrating | 4.14\% | 11.31\% | 27.28\% | 13.23\% | Oregon Coastal |
| Columbia Upriver Bright | 6.15\% | 5.82\% | 10.79\% | 5.51\% | Columbia Upriver Bright |
| WCVI Hatchery | 2.23\% | 5.02\% | 15.12\% | 5.71\% | NA |
| Upper Georgia Strait | 5.56\% | 4.23\% | 36.50\% | 21.52\% | Upper Georgia Strait |
| Fraser Early | 1.96\% | 2.85\% | 16.23\% | 4.43\% | Upper Fraser Middle Fraser Thompson |
| Willamette River Hatchery | 1.69\% | 2.83\% | 14.85\% | 7.16\% | NA |
| Washington Coastal Wild | 0.98\% | 2.47\% | 14.44\% | 8.39\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |
| WA Coastal Hatchery | 0.90\% | 1.97\% | 13.68\% | 7.87\% | NA |
| Columbia Upriver Summer | 4.67\% | 1.91\% | 24.18\% | 10.89\% | Columbia Upriver Summer |
| Mid-Columbia Brights | 2.01\% | 1.81\% | 12.83\% | 5.43\% | Not Represented |
| WCVI Wild | 0.28\% | 1.10\% | 15.31\% | 5.71\% | WCVI |
| Lower GS Hatchery | 0.50\% | 0.88\% | 9.77\% | 5.07\% | NA |
| Fall Cowlitz Hatchery | 1.25\% | 0.78\% | 4.36\% | 1.79\% | NA |
| Fraser Late | 0.86\% | 0.77\% | 1.63\% | 0.66\% | Harrison |
| Lower Georgia Strait | 0.50\% | 0.45\% | 9.52\% | 5.24\% | Lower Georgia Strait |
| Nooksack Fall | 0.58\% | 0.41\% | 2.03\% | 1.45\% | NA |
| Skagit Summer/Fall | 0.26\% | 0.33\% | 16.42\% | 4.70\% | Skagit Summer/Fall |
| PS Hatchery Fingerling | 0.34\% | 0.30\% | 0.89\% | 0.49\% | NA |
| Lewis River Wild | 0.22\% | 0.28\% | 5.79\% | 2.80\% | Lewis River |
| Spring Cowlitz Hatchery | 0.12\% | 0.21\% | 4.54\% | 2.48\% | NA |
| PS Yearling | 0.28\% | 0.17\% | 2.21\% | 1.44\% | NA |
| Snohomish Summer/Fall | 0.07\% | 0.17\% | 11.42\% | 4.66\% | Snohomish |
| Alaska South SE | 0.04\% | 0.08\% | 2.41\% | 0.87\% | King Salmon Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |
| Puget Sound Natural | 0.03\% | 0.07\% | 0.96\% | 0.45\% | Green <br> Lake Washington |
| Snake River Fall | 0.14\% | 0.05\% | 5.97\% | 3.83\% | Not Represented |
| Stillaguamish Summer/Fall | 0.02\% | 0.04\% | 10.79\% | 4.11\% | Stillaguamish |
| Spring Creek Hatchery | 0.02\% | 0.01\% | 0.06\% | 0.04\% | NA |
| Nooksack Spring | 0.00\% | 0.00\% | 1.90\% | 0.61\% | Nooksack Spring |
| Lower Bonneville Hatchery | 0.00\% | 0.00\% | 0.00\% | 0.00\% | NA |

' NA ' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

Appendix F.3. Central BC Troll

| FISHERY: | CENTRAL TROLL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Average (1985-2010) |  |  |  |
| Model Stock | \% of <br> Fishery <br> Catch | $\%$ of <br> Fishery <br> Catch | $\%$ of <br> Stock <br> Catch | \% of Stock <br> Total <br> Return | Associated Escapement Indicator Stocks |
| Fraser Late | 0.00\% | 16.44\% | 1.58\% | 0.89\% | Harrison |
| WCVI Hatchery | 0.00\% | 14.40\% | 2.73\% | 1.13\% | NA |
| Columbia Upriver Bright | 0.00\% | 6.79\% | 0.69\% | 0.40\% | Columbia Upriver Bright |
| North/Central BC | 0.00\% | 5.80\% | 0.76\% | 0.32\% | Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet |
| Upper Georgia Strait | 0.00\% | 4.94\% | 2.57\% | 1.65\% | Upper Georgia Strait |
| WCVI Wild | 0.00\% | 3.35\% | 2.70\% | 1.12\% | WCVI |
| Columbia Upriver Summer | 0.00\% | 3.20\% | 2.70\% | 1.28\% | Columbia Upriver Summer |
| Fraser Early | 0.00\% | 2.88\% | 0.76\% | 0.27\% | Upper Fraser Middle Fraser Thompson |
| Washington Coastal Wild | 0.00\% | 2.84\% | 0.87\% | 0.57\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |
| Lower GS Hatchery | 0.00\% | 2.55\% | 1.06\% | 0.73\% | NA |
| WA Coastal Hatchery | 0.00\% | 2.30\% | 0.82\% | 0.53\% | NA |
| Mid-Columbia Brights | 0.00\% | 2.27\% | 0.82\% | 0.41\% | Not Represented |
| Oregon Coastal North Migrating | 0.00\% | 2.16\% | 0.28\% | 0.14\% | Oregon Coastal |
| Lower Bonneville Hatchery | 0.00\% | 1.97\% | 0.75\% | 0.38\% | NA |
| Nooksack Fall | 0.00\% | 1.58\% | 0.28\% | 0.23\% | NA |
| Lower Georgia Strait | 0.00\% | 1.56\% | 1.01\% | 0.72\% | Lower Georgia Strait |
| PS Hatchery Fingerling | 0.00\% | 1.55\% | 0.19\% | 0.13\% | NA |
| Skagit Summer/Fall | 0.00\% | 1.09\% | 1.64\% | 0.69\% | Skagit Summer/Fall |
| Lewis River Wild | 0.00\% | 0.82\% | 0.47\% | 0.26\% | Lewis River |
| Snohomish Summer/Fall | 0.00\% | 0.76\% | 1.14\% | 0.71\% | Snohomish |
| Puget Sound Natural | 0.00\% | 0.71\% | 0.22\% | 0.14\% | Green <br> Lake Washington |
| PS Yearling | 0.00\% | 0.71\% | 0.29\% | 0.23\% | NA |
| Spring Creek Hatchery | 0.00\% | 0.67\% | 0.08\% | 0.06\% | NA |
| Willamette River Hatchery | 0.00\% | 0.63\% | 0.08\% | 0.05\% | NA |
| Spring Cowlitz Hatchery | 0.00\% | 0.49\% | 0.15\% | 0.10\% | NA |
| Fall Cowlitz Hatchery | 0.00\% | 0.49\% | 0.04\% | 0.02\% | NA |
| Stillaguamish Summer/Fall | 0.00\% | 0.46\% | 1.47\% | 0.73\% | Stillaguamish |
| Snake River Fall | 0.00\% | 0.43\% | 0.56\% | 0.41\% | Not Represented |
| Nooksack Spring | 0.00\% | 0.40\% | 0.59\% | 0.22\% | Nooksack Spring |
| Alaska South SE | 0.00\% | 0.39\% | 0.02\% | 0.01\% | King Salmon Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |

[^4]Appendix F. 4 WCVI Troll and Outside Sport

| FISHERY: | WCVI TROLL AND OUTSIDE SPORT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Aver | ge (1985 | 2010) |  |
| Model Stock | $\%$ of <br> Fishery <br> Catch | $\%$ of <br> Fishery <br> Catch | $\%$ of Stock Catch | \% of Stock Total Return | Associated Escapement Indicator Stocks |
| Fraser Late | 28.44\% | 23.15\% | 22.63\% | 10.91\% | Harrison |
| PS Hatchery Fingerling | 9.38\% | 11.08\% | 15.06\% | 9.29\% | NA |
| Columbia Upriver Bright | 7.87\% | 8.13\% | 8.54\% | 4.62\% | Columbia Upriver Bright |
| Spring Creek Hatchery | 9.35\% | 7.10\% | 13.74\% | 10.81\% | NA |
| Fall Cowlitz Hatchery | 8.47\% | 6.90\% | 22.67\% | 10.45\% | NA |
| Lower Bonneville Hatchery | 3.79\% | 5.50\% | 30.93\% | 14.41\% | NA |
| Oregon Coastal North Migrating | 2.15\% | 4.72\% | 6.90\% | 3.39\% | Oregon Coastal |
| Nooksack Fall | 2.85\% | 4.57\% | 10.36\% | 8.00\% | NA |
| WCVI Hatchery | 0.00\% | 4.05\% | 6.57\% | 2.94\% | NA |
| Mid-Columbia Brights | 4.21\% | 3.54\% | 12.40\% | 5.59\% | Not Represented |
| Columbia Upriver Summer | 5.70\% | 2.96\% | 20.74\% | 9.63\% | Columbia Upriver Summer |
| Puget Sound Natural | 1.07\% | 2.70\% | 17.15\% | 9.36\% | Green <br> Lake Washington |
| Washington Coastal Wild | 3.08\% | 2.48\% | 8.73\% | 5.00\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |
| WA Coastal Hatchery | 2.78\% | 2.14\% | 8.61\% | 4.81\% | NA |
| Willamette River Hatchery | 2.22\% | 2.10\% | 6.29\% | 3.11\% | NA |
| PS Yearling | 1.86\% | 1.57\% | 9.73\% | 7.01\% | NA |
| Fraser Early | 2.03\% | 1.51\% | 4.24\% | 1.12\% | Upper Fraser Middle Fraser Thompson |
| WCVI Wild | 0.00\% | 1.02\% | 6.55\% | 2.95\% | WCVI |
| Skagit Summer/Fall | 0.62\% | 0.92\% | 20.53\% | 6.90\% | Skagit Summer/Fall |
| Lewis River Wild | 0.68\% | 0.79\% | 10.25\% | 5.01\% | Lewis River |
| Spring Cowlitz Hatchery | 0.33\% | 0.69\% | 7.34\% | 4.67\% | NA |
| North/Central BC | 0.42\% | 0.51\% | 0.40\% | 0.19\% | Yakoun <br> Nass <br> Skeena <br> Area 6 Index <br> Area 8 Index <br> Rivers Inlet <br> Smith Inlet |
| Lower GS Hatchery | 0.31\% | 0.48\% | 2.60\% | 1.42\% | NA |
| Snohomish Summer/Fall | 0.16\% | 0.47\% | 14.48\% | 6.87\% | Snohomish |
| Snake River Fall | 1.64\% | 0.44\% | 22.02\% | 14.75\% | Not Represented |
| Lower Georgia Strait | 0.42\% | 0.24\% | 2.53\% | 1.46\% | Lower Georgia Strait |
| Upper Georgia Strait | 0.12\% | 0.12\% | 0.55\% | 0.33\% | Upper Georgia Strait |
| Stillaguamish Summer/Fall | 0.05\% | 0.11\% | 15.44\% | 6.59\% | Stillaguamish |
| Nooksack Spring | 0.01\% | 0.03\% | 10.89\% | 3.88\% | Nooksack Spring |
| Alaska South SE | 0.00\% | 0.00\% | 0.00\% | 0.00\% | King Salmon Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |

${ }^{1}$ 'NA' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

Appendix F. 5 Strait of Georgia Sport and Troll

| FISHERY: | GS SPORT AND TROLL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Average (1985-2010) |  |  |  |
| Model Stock | \% of <br> Fishery Catch | \% of <br> Fishery Catch | \% of Stock Catch | \% of <br> Stock <br> Total <br> Return | Associated Escapement Indicator Stocks |
| Oregon Coastal North Migrating | 17.40\% | 22.26\% | 26.20\% | 11.37\% | Oregon Coastal |
| Willamette River Hatchery | 20.28\% | 18.92\% | 44.65\% | 21.89\% | NA |
| WCVI Hatchery | 9.31\% | 9.55\% | 14.54\% | 4.92\% | NA |
| Lower GS Hatchery | 3.36\% | 8.35\% | 34.34\% | 19.10\% | NA |
| Columbia Upriver Bright | 19.63\% | 8.06\% | 5.93\% | 2.84\% | Columbia Upriver Bright |
| Spring Cowlitz Hatchery | 2.39\% | 5.92\% | 50.90\% | 31.03\% | NA |
| Lewis River Wild | 8.72\% | 5.16\% | 40.11\% | 22.11\% | Lewis River |
| Fraser Late | 0.00\% | 4.71\% | 3.45\% | 2.09\% | Harrison |
| Lower Georgia Strait | 3.29\% | 4.22\% | 33.37\% | 19.54\% | Lower Georgia Strait |
| Fall Cowlitz Hatchery | 7.71\% | 3.81\% | 9.95\% | 3.91\% | NA |
| North/Central BC | 1.45\% | 2.64\% | 1.83\% | 0.83\% | Yakoun Nass Skeena Area 6 Index Area 8 Index Rivers Inlet Smith Inlet |
| WCVI Wild | 1.20\% | 1.86\% | 14.86\% | 4.97\% | WCVI |
| Mid-Columbia Brights | 1.99\% | 1.48\% | 3.71\% | 1.40\% | Not Represented |
| Nooksack Fall | 0.98\% | 1.20\% | 2.16\% | 1.63\% | NA |
| Lower Bonneville Hatchery | 0.42\% | 0.43\% | 1.98\% | 0.79\% | NA |
| PS Yearling | 0.21\% | 0.34\% | 1.89\% | 1.43\% | NA |
| PS Hatchery Fingerling | 0.10\% | 0.33\% | 0.44\% | 0.29\% | NA |
| Columbia Upriver Summer | 0.48\% | 0.30\% | 1.80\% | 0.79\% | Columbia Upriver Summer |
| Snake River Fall | 1.02\% | 0.16\% | 4.50\% | 2.65\% | Not Represented |
| Puget Sound Natural | 0.01\% | 0.10\% | 0.47\% | 0.28\% | Green <br> Lake Washington |
| Skagit Summer/Fall | 0.01\% | 0.07\% | 1.30\% | 0.51\% | Skagit Summer/Fall |
| Snohomish Summer/Fall | 0.01\% | 0.04\% | 0.90\% | 0.51\% | Snohomish |
| Upper Georgia Strait | 0.00\% | 0.04\% | 0.18\% | 0.12\% | Upper Georgia Strait |
| Fraser Early | 0.00\% | 0.03\% | 0.09\% | 0.03\% | Upper Fraser Middle Fraser Thompson |
| Nooksack Spring | 0.00\% | 0.02\% | 4.90\% | 2.65\% | Nooksack Spring |
| Spring Creek Hatchery | 0.01\% | 0.02\% | 0.03\% | 0.02\% | NA |
| WA Coastal Hatchery | 0.00\% | 0.00\% | 0.00\% | 0.00\% | NA |
| Alaska South SE | 0.00\% | 0.00\% | 0.00\% | 0.00\% | King Salmon <br> Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |
| Stillaguamish Summer/Fall | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Stillaguamish |
| Washington Coastal Wild | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |

${ }^{1}$ 'NA' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

Appendix F. 6 Washington/Oregon Troll and Sport

| FISHERY: | WA/OR TROLL AND SPORT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 | Average (1985-2010) |  |  |  |
| Model Stock | \% of <br> Fishery Catch | \% of <br> Fishery Catch | \% of Stock Catch | \% of <br> Stock <br> Total <br> Return | Associated Escapement Indicator Stocks |
| Spring Creek Hatchery | 28.17\% | 23.69\% | 29.80\% | 23.59\% | NA |
| Fall Cowlitz Hatchery | 26.71\% | 19.17\% | 40.99\% | 17.89\% | NA |
| Fraser Late | 11.74\% | 19.15\% | 11.97\% | 5.59\% | Harrison |
| Lower Bonneville Hatchery | 7.35\% | 10.50\% | 40.24\% | 17.36\% | NA |
| Spring Cowlitz Hatchery | 2.37\% | 4.50\% | 33.70\% | 19.33\% | NA |
| PS Hatchery Fingerling | 2.77\% | 4.38\% | 3.66\% | 2.16\% | NA |
| Columbia Upriver Bright | 6.14\% | 4.09\% | 2.75\% | 1.40\% | Columbia Upriver Bright |
| Oregon Coastal North Migrating | 1.93\% | 2.64\% | 2.56\% | 1.16\% | Oregon Coastal |
| Willamette River Hatchery | 2.19\% | 1.93\% | 3.74\% | 1.77\% | NA |
| Nooksack Fall | 0.84\% | 1.80\% | 2.43\% | 1.83\% | NA |
| Mid-Columbia Brights | 1.88\% | 1.42\% | 3.20\% | 1.37\% | Not Represented |
| Lewis River Wild | 1.30\% | 1.41\% | 13.34\% | 5.68\% | Lewis River |
| Washington Coastal Wild | 0.83\% | 1.18\% | 2.34\% | 1.32\% | Grays Harbor Fall Quillayute Fall Hoh Fall Queets Fall |
| Puget Sound Natural | 0.32\% | 1.06\% | 4.26\% | 2.15\% | Green <br> Lake Washington |
| WA Coastal Hatchery | 0.75\% | 1.01\% | 2.30\% | 1.28\% | NA |
| Columbia Upriver Summer | 1.56\% | 0.73\% | 3.12\% | 1.41\% | Columbia Upriver Summer |
| Snake River Fall | 2.47\% | 0.72\% | 21.74\% | 13.98\% | Not Represented |
| PS Yearling | 0.27\% | 0.27\% | 1.04\% | 0.71\% | NA |
| Fraser Early | 0.32\% | 0.20\% | 0.42\% | 0.10\% | Upper Fraser Middle Fraser <br> Thompson |
| Alaska South SE | 0.04\% | 0.08\% | 0.75\% | 0.27\% | King Salmon <br> Andrew Creek <br> Blossom <br> Keta <br> Unuk <br> Chickamin |
| Lower GS Hatchery | 0.02\% | 0.03\% | 0.14\% | 0.07\% | NA |
| WCVI Hatchery | 0.01\% | 0.03\% | 0.04\% | 0.01\% | NA |
| Lower Georgia Strait | 0.02\% | 0.02\% | 0.15\% | 0.08\% | Lower Georgia Strait |
| WCVI Wild | 0.00\% | 0.01\% | 0.04\% | 0.01\% | WCVI |
| Skagit Summer/Fall | 0.00\% | 0.00\% | 0.05\% | 0.01\% | Skagit Summer/Fall |
| Snohomish Summer/Fall | 0.00\% | 0.00\% | 0.04\% | 0.02\% | Snohomish |
| Upper Georgia Strait | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Upper Georgia Strait |
| Stillaguamish Summer/Fall | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Stillaguamish |
| North/Central BC | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Yakoun <br> Nass <br> Skeena <br> Area 6 Index <br> Area 8 Index <br> Rivers Inlet <br> Smith Inlet |
| Nooksack Spring | 0.00\% | 0.00\% | 0.00\% | 0.00\% | Nooksack Spring |

1 'NA' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

Appendix G Incidental mortality rates applied in the CTC model. Rates in original model were applied to all years. In the current model, rates in some fisheries vary in accordance to changes in management regulations.

| Fishery Number | Fishery | Rates in original Model |  |  | Rates applied in Model CLB1209 |  |  | Applicable <br> Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sublegal Rate | Legal | Dropoff | Sublegal Rate | Legal <br> Rate | Dropoff |  |
| 1 | Alaska T | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.008 | All |
| 2 | North T | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.017 | 1979-1995 |
| 2 | North T |  |  |  | 0.220 | 0.185 | 0.016 | 1996-current |
| 3 | Centr T | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.017 | 1979-1995 |
| 3 | Centr T |  |  |  | 0.220 | 0.185 | 0.016 | 1996-current |
| 4 | WCVIT | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.017 | 1979-1997 |
| 4 | WCVIT |  |  |  | 0.220 | 0.185 | 0.016 | 1998-current |
| 5 | WA/OR T | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.017 | 1979-1983 |
| 5 | WA/OR T |  |  |  | 0.220 | 0.185 | 0.016 | 1984-current |
| 6 | Geo St T | 0.3 | 0.3 | 0 | 0.255 | 0.211 | 0.017 | 1979-1985,1987-1996 |
| 6 | Geo St T |  |  |  | 0.220 | 0.185 | 0.016 | 1986,1998-current |
| 7 | Alaska N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 8 | North N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 9 | Centr N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 10 | WCVIN | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 11 | J De F N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 12 | PgtNth N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 13 | PgtSth N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 14 | WashCst N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 15 | Col R N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 16 | JohnSt N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 17 | Fraser N | 0.9 | 0.9 | 0 | 0.9 | 0.9 | 0 | All |
| 18 | Alaska S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.036 | All |
| 19 | Nor/Cen S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.036 | All |
| 20 | WCVI S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.069 | All |
| 21 | WashOcn S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.069 | All |
| 22 | PgtNth S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.145 | All |
| 23 | PgtSth S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.145 | All |
| 24 | Geo St S | 0.3 | 0.3 | 0 | 0.322 | 0.322 | 0.069 | 1979-1981 |
| 24 | Geo St S |  |  |  | 0.123 | 0.123 | 0.069 | 1982-current |
| 25 | ColR S | 0.3 | 0.3 | 0 | 0.123 | 0.123 | 0.069 | All |

Appendix H Time series of abundance indices from 1979 to 2012 for SEAK, NBC, and WCVI AABM fisheries as estimated by CTC Chinook Model calibration CLB1209.

This time series is NOT the first postseason AI and is for trend analysis only (Figures 3.10-3.12). For evaluation of overage and underage, use the first postseason AI in Table 3-3 instead. (Source 1209PABD).

| Year | SEAK | NBC | WCVI |
| :---: | :---: | :---: | :---: |
| 1979 | 0.96 | 1.03 | 1.11 |
| 1980 | 1.02 | 0.97 | 0.96 |
| 1981 | 0.92 | 0.94 | 1.93 |
| 1982 | 1.10 | 1.06 | 0.93 |
| 1983 | 1.29 | 1.21 | 0.99 |
| 1984 | 1.45 | 1.37 | 0.97 |
| 1985 | 1.31 | 1.29 | 1.02 |
| 1986 | 1.49 | 1.46 | 1.19 |
| 1987 | 1.73 | 1.72 | 1.14 |
| 1988 | 2.12 | 1.83 | 0.99 |
| 1989 | 1.84 | 1.66 | 0.90 |
| 1990 | 1.87 | 1.63 | 0.76 |
| 1991 | 1.79 | 1.52 | 0.79 |
| 1992 | 1.67 | 1.40 | 0.70 |
| 1993 | 1.66 | 1.41 | 0.53 |
| 1994 | 1.56 | 1.23 | 0.41 |
| 1995 | 1.05 | 0.96 | 0.50 |
| 1996 | 0.93 | 0.92 | 0.60 |
| 1997 | 1.23 | 1.10 | 0.57 |
| 1998 | 1.19 | 1.00 | 0.51 |
| 1999 | 1.09 | 0.95 | 0.52 |
| 2000 | 0.97 | 0.93 | 0.80 |
| 2001 | 1.16 | 1.20 | 1.16 |
| 2002 | 1.73 | 1.68 | 1.22 |
| 2003 | 2.18 | 1.90 | 1.02 |
| 2004 | 2.04 | 1.78 | 0.83 |
| 2005 | 1.80 | 1.54 | 0.65 |
| 2006 | 1.51 | 1.23 | 0.52 |
| 2007 | 1.15 | 0.92 | 0.56 |
| 2008 | 0.88 | 0.80 | 0.80 |
| 2009 | 1.04 | 0.95 |  |
| 2010 | 1.16 | 1.13 | 1.31 |
| 2011 | 1.52 |  |  |
| 2012 |  | 1.32 |  |
|  | 152 |  |  |

Appendix I Abundance indices in total and by model stock for AABM fisheries, from Calibration 1209.

## LIST OF APPENDIX I TABLES

Table I.1. Abundance indices (AIs) for the Southeast Alaska troll fishery by model stock and year (stock groups 1-15 this page; 16-30 on following page ), from CLB 1209. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.243

Table I.2. Abundance indices (AIs) for the Northern BC troll fishery by stock and year (stock groups 1-15 this page; 16-30 on following page ), from CLB 1209. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.245

Table I.3. Abundance indices (AIs) for the WCVI troll fishery by stock and year. .247

Table I.1. Abundance indices (AIs) for the Southeast Alaska troll fishery by model stock and year (stock groups 1-15 this page; 16-30 on following page ), from CLB 1209. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

| Year | Alaska <br> South SE | North / Centr | Fraser Early | Fraser Late | WCVI <br> Hatchery | WCVI <br> Natural | Georgia St. Upper | Georgia St. Lwr Nat | Georgia St. Lwr Hat | Nooksack Fall | Pgt Sd Fing | Pgt Sd <br> NatF | Pgt Sd Year | Nooksack Spring | Skagit <br> Wild | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.03 | 0.12 | 0.06 | 0.00 | 0.05 | 0.07 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.96 |
| 1980 | 0.03 | 0.13 | 0.05 | 0.00 | 0.10 | 0.15 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.02 |
| 1981 | 0.04 | 0.13 | 0.04 | 0.00 | 0.08 | 0.11 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 |
| 1982 | 0.04 | 0.14 | 0.04 | 0.00 | 0.19 | 0.21 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.10 |
| 1983 | 0.05 | 0.16 | 0.04 | 0.00 | 0.31 | 0.15 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.29 |
| 1984 | 0.06 | 0.18 | 0.05 | 0.00 | 0.29 | 0.10 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.45 |
| 1985 | 0.06 | 0.20 | 0.07 | 0.00 | 0.15 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.31 |
| 1986 | 0.07 | 0.22 | 0.07 | 0.00 | 0.12 | 0.04 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.49 |
| 1987 | 0.07 | 0.23 | 0.07 | 0.00 | 0.09 | 0.03 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.73 |
| 1988 | 0.06 | 0.24 | 0.07 | 0.00 | 0.21 | 0.06 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.12 |
| 1989 | 0.04 | 0.25 | 0.06 | 0.00 | 0.31 | 0.07 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.84 |
| 1990 | 0.03 | 0.26 | 0.06 | 0.00 | 0.47 | 0.10 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.87 |
| 1991 | 0.03 | 0.27 | 0.06 | 0.00 | 0.59 | 0.13 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.79 |
| 1992 | 0.03 | 0.26 | 0.06 | 0.00 | 0.55 | 0.13 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.67 |
| 1993 | 0.04 | 0.24 | 0.06 | 0.00 | 0.51 | 0.13 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.66 |
| 1994 | 0.03 | 0.22 | 0.07 | 0.00 | 0.42 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.56 |
| 1995 | 0.03 | 0.23 | 0.07 | 0.00 | 0.15 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.05 |
| 1996 | 0.03 | 0.23 | 0.08 | 0.00 | 0.05 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.93 |
| 1997 | 0.03 | 0.23 | 0.09 | 0.00 | 0.17 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 |
| 1998 | 0.03 | 0.23 | 0.08 | 0.00 | 0.27 | 0.07 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.19 |
| 1999 | 0.04 | 0.24 | 0.07 | 0.00 | 0.14 | 0.03 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.09 |
| 2000 | 0.05 | 0.25 | 0.06 | 0.00 | 0.05 | 0.01 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 |
| 2001 | 0.05 | 0.25 | 0.08 | 0.00 | 0.07 | 0.01 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 |
| 2002 | 0.04 | 0.25 | 0.10 | 0.00 | 0.23 | 0.03 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.73 |
| 2003 | 0.04 | 0.24 | 0.10 | 0.00 | 0.36 | 0.04 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.18 |
| 2004 | 0.04 | 0.25 | 0.09 | 0.00 | 0.36 | 0.03 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 |
| 2005 | 0.04 | 0.24 | 0.09 | 0.00 | 0.26 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.80 |
| 2006 | 0.05 | 0.22 | 0.10 | 0.00 | 0.23 | 0.03 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.51 |
| 2007 | 0.05 | 0.21 | 0.08 | 0.00 | 0.24 | 0.03 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.15 |
| 2008 | 0.03 | 0.19 | 0.08 | 0.00 | 0.12 | 0.01 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 |
| 2009 | 0.03 | 0.18 | 0.08 | 0.00 | 0.10 | 0.01 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.04 |
| 2010 | 0.04 | 0.17 | 0.10 | 0.00 | 0.11 | 0.02 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 |
| 2011 | 0.04 | 0.16 | 0.10 | 0.00 | 0.24 | 0.03 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.62 |
| 2012 | 0.04 | 0.15 | 0.10 | 0.00 | 0.12 | 0.01 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.52 |
| Average | - 0.04 | 0.21 | 0.07 | 0.00 | 0.23 | 0.06 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 |

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Table I.1. Page 2 of 2 (stock groups 16-30).

| Year | Stillaguamish Wild | Snohomish Wild | WA <br> Coastal Hat | UpRiver Brights | Spring Creek Hat | $\qquad$ | Fall Cowlitz Hat | Lewis R Wild | Willamette R Hat | Spr Cowlitz <br> Hat | Col R <br> Summer | Oregon Coast | WA Coastal Wild | Lyons <br> Ferry | Mid Col R Brights | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.00 | 0.00 | 0.03 | 0.18 | 0.00 | 0.00 | 0.03 | 0.02 | 0.02 | 0.00 | 0.04 | 0.23 | 0.03 | 0.00 | 0.00 | 0.96 |
| 1980 | 0.00 | 0.00 | 0.03 | 0.14 | 0.00 | 0.00 | 0.03 | 0.02 | 0.03 | 0.00 | 0.04 | 0.17 | 0.04 | 0.00 | 0.00 | 1.02 |
| 1981 | 0.00 | 0.00 | 0.02 | 0.10 | 0.00 | 0.00 | 0.03 | 0.02 | 0.03 | 0.01 | 0.03 | 0.16 | 0.04 | 0.00 | 0.01 | 0.92 |
| 1982 | 0.00 | 0.00 | 0.02 | 0.06 | 0.00 | 0.00 | 0.03 | 0.01 | 0.03 | 0.00 | 0.02 | 0.20 | 0.03 | 0.00 | 0.01 | 1.10 |
| 1983 | 0.00 | 0.00 | 0.02 | 0.09 | 0.00 | 0.00 | 0.03 | 0.01 | 0.04 | 0.00 | 0.03 | 0.25 | 0.03 | 0.00 | 0.02 | 1.29 |
| 1984 | 0.00 | 0.00 | 0.02 | 0.20 | 0.00 | 0.00 | 0.03 | 0.01 | 0.04 | 0.00 | 0.03 | 0.35 | 0.03 | 0.00 | 0.02 | 1.45 |
| 1985 | 0.00 | 0.00 | 0.02 | 0.23 | 0.00 | 0.00 | 0.03 | 0.01 | 0.03 | 0.00 | 0.02 | 0.33 | 0.04 | 0.00 | 0.01 | 1.31 |
| 1986 | 0.00 | 0.00 | 0.02 | 0.34 | 0.00 | 0.00 | 0.03 | 0.01 | 0.04 | 0.00 | 0.03 | 0.36 | 0.05 | 0.00 | 0.02 | 1.49 |
| 1987 | 0.00 | 0.00 | 0.04 | 0.48 | 0.00 | 0.00 | 0.03 | 0.02 | 0.05 | 0.01 | 0.03 | 0.40 | 0.06 | 0.00 | 0.07 | 1.73 |
| 1988 | 0.00 | 0.00 | 0.05 | 0.51 | 0.00 | 0.00 | 0.14 | 0.04 | 0.06 | 0.00 | 0.03 | 0.38 | 0.07 | 0.00 | 0.13 | 2.12 |
| 1989 | 0.00 | 0.00 | 0.06 | 0.32 | 0.00 | 0.00 | 0.05 | 0.04 | 0.06 | 0.00 | 0.03 | 0.30 | 0.08 | 0.00 | 0.12 | 1.84 |
| 1990 | 0.00 | 0.00 | 0.05 | 0.24 | 0.00 | 0.00 | 0.02 | 0.02 | 0.07 | 0.00 | 0.02 | 0.31 | 0.07 | 0.00 | 0.08 | 1.87 |
| 1991 | 0.00 | 0.00 | 0.05 | 0.13 | 0.00 | 0.00 | 0.01 | 0.01 | 0.05 | 0.00 | 0.02 | 0.29 | 0.06 | 0.00 | 0.05 | 1.79 |
| 1992 | 0.00 | 0.00 | 0.05 | 0.10 | 0.00 | 0.00 | 0.02 | 0.01 | 0.03 | 0.00 | 0.02 | 0.26 | 0.05 | 0.00 | 0.04 | 1.67 |
| 1993 | 0.00 | 0.00 | 0.05 | 0.18 | 0.00 | 0.00 | 0.01 | 0.01 | 0.03 | 0.00 | 0.02 | 0.25 | 0.05 | 0.00 | 0.05 | 1.66 |
| 1994 | 0.00 | 0.00 | 0.05 | 0.21 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.02 | 0.27 | 0.05 | 0.00 | 0.05 | 1.56 |
| 1995 | 0.00 | 0.00 | 0.04 | 0.12 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.01 | 0.21 | 0.04 | 0.00 | 0.04 | 1.05 |
| 1996 | 0.00 | 0.00 | 0.04 | 0.13 | 0.00 | 0.00 | 0.02 | 0.01 | 0.02 | 0.00 | 0.02 | 0.17 | 0.04 | 0.00 | 0.05 | 0.93 |
| 1997 | 0.00 | 0.00 | 0.03 | 0.18 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.02 | 0.20 | 0.04 | 0.00 | 0.09 | 1.23 |
| 1998 | 0.00 | 0.00 | 0.02 | 0.12 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.02 | 0.16 | 0.04 | 0.00 | 0.06 | 1.19 |
| 1999 | 0.00 | 0.00 | 0.02 | 0.21 | 0.00 | 0.00 | 0.01 | 0.00 | 0.02 | 0.00 | 0.02 | 0.16 | 0.03 | 0.00 | 0.06 | 1.09 |
| 2000 | 0.00 | 0.00 | 0.02 | 0.18 | 0.00 | 0.00 | 0.01 | 0.01 | 0.03 | 0.00 | 0.04 | 0.13 | 0.03 | 0.00 | 0.05 | 0.97 |
| 2001 | 0.00 | 0.00 | 0.02 | 0.20 | 0.00 | 0.00 | 0.01 | 0.01 | 0.03 | 0.00 | 0.07 | 0.19 | 0.03 | 0.00 | 0.07 | 1.16 |
| 2002 | 0.00 | 0.00 | 0.03 | 0.31 | 0.00 | 0.00 | 0.02 | 0.02 | 0.07 | 0.00 | 0.10 | 0.27 | 0.03 | 0.00 | 0.16 | 1.73 |
| 2003 | 0.00 | 0.00 | 0.03 | 0.45 | 0.00 | 0.00 | 0.05 | 0.02 | 0.05 | 0.00 | 0.10 | 0.36 | 0.04 | 0.00 | 0.22 | 2.18 |
| 2004 | 0.00 | 0.00 | 0.04 | 0.37 | 0.00 | 0.00 | 0.03 | 0.02 | 0.06 | 0.00 | 0.09 | 0.39 | 0.04 | 0.00 | 0.16 | 2.04 |
| 2005 | 0.00 | 0.00 | 0.04 | 0.37 | 0.00 | 0.00 | 0.03 | 0.01 | 0.02 | 0.00 | 0.09 | 0.32 | 0.04 | 0.00 | 0.13 | 1.80 |
| 2006 | 0.00 | 0.00 | 0.04 | 0.26 | 0.00 | 0.00 | 0.02 | 0.02 | 0.03 | 0.00 | 0.08 | 0.20 | 0.04 | 0.00 | 0.11 | 1.51 |
| 2007 | 0.00 | 0.00 | 0.03 | 0.12 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.07 | 0.12 | 0.03 | 0.00 | 0.08 | 1.15 |
| 2008 | 0.00 | 0.00 | 0.03 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.06 | 0.05 | 0.03 | 0.00 | 0.09 | 0.88 |
| 2009 | 0.00 | 0.00 | 0.03 | 0.22 | 0.00 | 0.00 | 0.02 | 0.01 | 0.02 | 0.00 | 0.08 | 0.08 | 0.03 | 0.00 | 0.11 | 1.04 |
| 2010 | 0.00 | 0.00 | 0.03 | 0.23 | 0.00 | 0.00 | 0.02 | 0.01 | 0.05 | 0.00 | 0.09 | 0.12 | 0.03 | 0.00 | 0.09 | 1.16 |
| 2011 | 0.00 | 0.00 | 0.03 | 0.41 | 0.00 | 0.00 | 0.04 | 0.01 | 0.04 | 0.00 | 0.11 | 0.19 | 0.04 | 0.01 | 0.13 | 1.62 |
| 2012 | 0.00 | 0.00 | 0.04 | 0.40 | 0.00 | 0.00 | 0.03 | 0.01 | 0.05 | 0.00 | 0.12 | 0.19 | 0.04 | 0.01 | 0.13 | 1.52 |
| Average | 0.00 | 0.00 | 0.03 | 0.23 | 0.00 | 0.00 | 0.03 | 0.01 | 0.04 | 0.00 | 0.05 | 0.24 | 0.04 | 0.00 | 0.07 | 1.41 |

Table I.2. Abundance indices (AIs) for the Northern BC troll fishery by stock and year (stock groups 1-15 this page; 16-30 on following page ), from CLB 1209. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

| Year | Alaska South SE | North/Centr | Fraser Early | Fraser Late | WCVI <br> Hatchery | WCVI <br> Natural | Georgia St. Upper | Georgia St. Lwr Nat | Georgia St. Lwr Hat | Nooksack Fall | Pgt Sd Fing | Pgt Sd <br> NatF | Pgt Sd <br> Year | Nooksack Spring | Skagit Wild | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.00 | 0.08 | 0.07 | 0.01 | 0.04 | 0.05 | 0.06 | 0.02 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 1.03 |
| 1980 | 0.00 | 0.08 | 0.06 | 0.01 | 0.05 | 0.07 | 0.05 | 0.02 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.97 |
| 1981 | 0.00 | 0.09 | 0.05 | 0.01 | 0.06 | 0.08 | 0.06 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.94 |
| 1982 | 0.00 | 0.10 | 0.04 | 0.01 | 0.12 | 0.11 | 0.05 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.06 |
| 1983 | 0.00 | 0.11 | 0.05 | 0.01 | 0.17 | 0.08 | 0.04 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.21 |
| 1984 | 0.00 | 0.12 | 0.06 | 0.02 | 0.15 | 0.05 | 0.05 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.37 |
| 1985 | 0.00 | 0.13 | 0.07 | 0.01 | 0.08 | 0.03 | 0.06 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.29 |
| 1986 | 0.00 | 0.14 | 0.09 | 0.01 | 0.06 | 0.02 | 0.06 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.46 |
| 1987 | 0.00 | 0.15 | 0.08 | 0.01 | 0.07 | 0.02 | 0.07 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.72 |
| 1988 | 0.00 | 0.16 | 0.08 | 0.01 | 0.12 | 0.03 | 0.05 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.83 |
| 1989 | 0.00 | 0.17 | 0.08 | 0.01 | 0.19 | 0.04 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.66 |
| 1990 | 0.00 | 0.17 | 0.08 | 0.01 | 0.27 | 0.06 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.63 |
| 1991 | 0.00 | 0.17 | 0.08 | 0.01 | 0.32 | 0.07 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.52 |
| 1992 | 0.00 | 0.17 | 0.07 | 0.01 | 0.30 | 0.07 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.40 |
| 1993 | 0.00 | 0.16 | 0.07 | 0.01 | 0.28 | 0.07 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 |
| 1994 | 0.00 | 0.16 | 0.08 | 0.00 | 0.20 | 0.05 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 |
| 1995 | 0.00 | 0.15 | 0.08 | 0.00 | 0.07 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.96 |
| 1996 | 0.00 | 0.15 | 0.09 | 0.01 | 0.04 | 0.01 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 |
| 1997 | 0.00 | 0.16 | 0.11 | 0.01 | 0.11 | 0.03 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.10 |
| 1998 | 0.00 | 0.16 | 0.10 | 0.01 | 0.13 | 0.03 | 0.04 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| 1999 | 0.00 | 0.16 | 0.09 | 0.01 | 0.07 | 0.01 | 0.05 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 |
| 2000 | 0.00 | 0.16 | 0.08 | 0.01 | 0.03 | 0.00 | 0.06 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.93 |
| 2001 | 0.00 | 0.17 | 0.09 | 0.01 | 0.06 | 0.01 | 0.07 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 |
| 2002 | 0.00 | 0.17 | 0.11 | 0.01 | 0.14 | 0.02 | 0.07 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.68 |
| 2003 | 0.00 | 0.17 | 0.12 | 0.01 | 0.19 | 0.02 | 0.08 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.90 |
| 2004 | 0.00 | 0.18 | 0.11 | 0.01 | 0.20 | 0.02 | 0.08 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.78 |
| 2005 | 0.00 | 0.17 | 0.10 | 0.01 | 0.14 | 0.01 | 0.08 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.54 |
| 2006 | 0.00 | 0.16 | 0.11 | 0.01 | 0.14 | 0.02 | 0.08 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 1.23 |
| 2007 | 0.00 | 0.15 | 0.10 | 0.00 | 0.11 | 0.01 | 0.06 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 |
| 2008 | 0.00 | 0.13 | 0.10 | 0.00 | 0.07 | 0.01 | 0.05 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.80 |
| 2009 | 0.00 | 0.12 | 0.10 | 0.00 | 0.05 | 0.01 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 |
| 2010 | 0.00 | 0.12 | 0.11 | 0.01 | 0.08 | 0.01 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 |
| 2011 | 0.00 | 0.12 | 0.12 | 0.01 | 0.12 | 0.01 | 0.06 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 |
| 2012 | 0.00 | 0.11 | 0.12 | 0.01 | 0.06 | 0.01 | 0.07 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.32 |
| Average | 0.00 | 0.14 | 0.09 | 0.01 | 0.13 | 0.03 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.28 |

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Table I.2. Page 2 of 2 (stock groups 16-30).

| Year | Stillaguamish Wild | Snohomish Wild | WA <br> Coastal <br> Hat | UpRiver <br> Brights | Spring Creek Hat | Lwr Bonneville Hat | Fall Cowlitz Hat | Lewis R Wild | Willamette R Hat | Spr Cowlitz Hat | Col R <br> Summer | Oregon Coast | WA <br> Coastal Wild | Lyons <br> Ferry | Mid Col <br> R Brights | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.00 | 0.01 | 0.04 | 0.12 | 0.00 | 0.00 | 0.02 | 0.01 | 0.06 | 0.01 | 0.02 | 0.30 | 0.05 | 0.00 | 0.00 | 1.03 |
| 1980 | 0.00 | 0.01 | 0.04 | 0.09 | 0.00 | 0.00 | 0.02 | 0.01 | 0.06 | 0.01 | 0.02 | 0.25 | 0.06 | 0.00 | 0.00 | 0.97 |
| 1981 | 0.00 | 0.00 | 0.04 | 0.06 | 0.00 | 0.00 | 0.02 | 0.01 | 0.07 | 0.01 | 0.02 | 0.24 | 0.06 | 0.00 | 0.01 | 0.94 |
| 1982 | 0.00 | 0.00 | 0.03 | 0.04 | 0.00 | 0.00 | 0.02 | 0.01 | 0.08 | 0.01 | 0.02 | 0.30 | 0.06 | 0.00 | 0.01 | 1.06 |
| 1983 | 0.00 | 0.00 | 0.03 | 0.07 | 0.00 | 0.00 | 0.02 | 0.01 | 0.09 | 0.01 | 0.02 | 0.39 | 0.06 | 0.00 | 0.02 | 1.21 |
| 1984 | 0.00 | 0.00 | 0.03 | 0.14 | 0.00 | 0.00 | 0.02 | 0.01 | 0.09 | 0.01 | 0.02 | 0.49 | 0.06 | 0.00 | 0.01 | 1.37 |
| 1985 | 0.00 | 0.00 | 0.03 | 0.16 | 0.00 | 0.00 | 0.02 | 0.01 | 0.08 | 0.00 | 0.02 | 0.46 | 0.06 | 0.00 | 0.01 | 1.29 |
| 1986 | 0.00 | 0.00 | 0.05 | 0.24 | 0.00 | 0.00 | 0.02 | 0.01 | 0.10 | 0.01 | 0.02 | 0.49 | 0.08 | 0.00 | 0.02 | 1.46 |
| 1987 | 0.00 | 0.00 | 0.07 | 0.33 | 0.00 | 0.00 | 0.03 | 0.02 | 0.13 | 0.01 | 0.02 | 0.53 | 0.10 | 0.00 | 0.05 | 1.72 |
| 1988 | 0.00 | 0.00 | 0.09 | 0.32 | 0.00 | 0.00 | 0.08 | 0.02 | 0.14 | 0.01 | 0.02 | 0.47 | 0.12 | 0.00 | 0.09 | 1.83 |
| 1989 | 0.00 | 0.00 | 0.09 | 0.20 | 0.00 | 0.00 | 0.02 | 0.01 | 0.14 | 0.01 | 0.02 | 0.40 | 0.12 | 0.00 | 0.07 | 1.66 |
| 1990 | 0.00 | 0.00 | 0.08 | 0.15 | 0.00 | 0.00 | 0.01 | 0.01 | 0.14 | 0.00 | 0.01 | 0.39 | 0.11 | 0.00 | 0.05 | 1.63 |
| 1991 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.10 | 0.00 | 0.01 | 0.37 | 0.10 | 0.00 | 0.03 | 1.52 |
| 1992 | 0.00 | 0.00 | 0.09 | 0.07 | 0.00 | 0.00 | 0.01 | 0.01 | 0.07 | 0.01 | 0.01 | 0.34 | 0.09 | 0.00 | 0.03 | 1.40 |
| 1993 | 0.00 | 0.00 | 0.08 | 0.12 | 0.00 | 0.00 | 0.01 | 0.00 | 0.06 | 0.00 | 0.01 | 0.36 | 0.08 | 0.00 | 0.03 | 1.41 |
| 1994 | 0.00 | 0.00 | 0.07 | 0.13 | 0.00 | 0.00 | 0.00 | 0.01 | 0.05 | 0.00 | 0.01 | 0.32 | 0.07 | 0.00 | 0.03 | 1.23 |
| 1995 | 0.00 | 0.00 | 0.07 | 0.08 | 0.00 | 0.00 | 0.01 | 0.01 | 0.04 | 0.00 | 0.01 | 0.29 | 0.07 | 0.00 | 0.03 | 0.96 |
| 1996 | 0.00 | 0.00 | 0.06 | 0.09 | 0.00 | 0.00 | 0.01 | 0.01 | 0.04 | 0.00 | 0.01 | 0.24 | 0.07 | 0.00 | 0.04 | 0.92 |
| 1997 | 0.00 | 0.00 | 0.05 | 0.12 | 0.00 | 0.00 | 0.01 | 0.00 | 0.05 | 0.00 | 0.01 | 0.26 | 0.07 | 0.00 | 0.06 | 1.10 |
| 1998 | 0.00 | 0.00 | 0.03 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.02 | 0.22 | 0.05 | 0.00 | 0.04 | 1.00 |
| 1999 | 0.00 | 0.00 | 0.03 | 0.14 | 0.00 | 0.00 | 0.01 | 0.00 | 0.06 | 0.00 | 0.02 | 0.19 | 0.04 | 0.00 | 0.04 | 0.95 |
| 2000 | 0.00 | 0.00 | 0.03 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.04 | 0.23 | 0.04 | 0.00 | 0.03 | 0.93 |
| 2001 | 0.00 | 0.00 | 0.03 | 0.15 | 0.00 | 0.00 | 0.01 | 0.01 | 0.11 | 0.00 | 0.05 | 0.30 | 0.04 | 0.00 | 0.05 | 1.20 |
| 2002 | 0.00 | 0.00 | 0.04 | 0.22 | 0.00 | 0.00 | 0.02 | 0.01 | 0.15 | 0.00 | 0.06 | 0.44 | 0.05 | 0.00 | 0.11 | 1.68 |
| 2003 | 0.00 | 0.00 | 0.05 | 0.29 | 0.00 | 0.00 | 0.03 | 0.01 | 0.13 | 0.01 | 0.06 | 0.51 | 0.06 | 0.00 | 0.14 | 1.90 |
| 2004 | 0.00 | 0.00 | 0.06 | 0.24 | 0.00 | 0.00 | 0.01 | 0.01 | 0.10 | 0.01 | 0.06 | 0.49 | 0.07 | 0.00 | 0.10 | 1.78 |
| 2005 | 0.00 | 0.00 | 0.06 | 0.24 | 0.00 | 0.00 | 0.02 | 0.01 | 0.06 | 0.00 | 0.05 | 0.39 | 0.07 | 0.00 | 0.08 | 1.54 |
| 2006 | 0.00 | 0.00 | 0.06 | 0.16 | 0.00 | 0.00 | 0.01 | 0.00 | 0.05 | 0.01 | 0.05 | 0.23 | 0.06 | 0.00 | 0.07 | 1.23 |
| 2007 | 0.00 | 0.00 | 0.05 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.05 | 0.13 | 0.05 | 0.00 | 0.05 | 0.92 |
| 2008 | 0.00 | 0.00 | 0.04 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.05 | 0.08 | 0.04 | 0.00 | 0.06 | 0.80 |
| 2009 | 0.00 | 0.00 | 0.05 | 0.15 | 0.00 | 0.00 | 0.01 | 0.00 | 0.08 | 0.00 | 0.05 | 0.13 | 0.05 | 0.00 | 0.07 | 0.95 |
| 2010 | 0.00 | 0.00 | 0.05 | 0.17 | 0.00 | 0.00 | 0.01 | 0.00 | 0.10 | 0.00 | 0.06 | 0.20 | 0.05 | 0.01 | 0.06 | 1.13 |
| 2011 | 0.00 | 0.00 | 0.06 | 0.27 | 0.00 | 0.00 | 0.02 | 0.01 | 0.10 | 0.00 | 0.07 | 0.25 | 0.06 | 0.01 | 0.09 | 1.41 |
| 2012 | 0.00 | 0.00 | 0.06 | 0.26 | 0.00 | 0.00 | 0.02 | 0.01 | 0.11 | 0.00 | 0.08 | 0.23 | 0.07 | 0.01 | 0.09 | 1.32 |
| Average | 0.00 | 0.00 | 0.05 | 0.15 | 0.00 | 0.00 | 0.02 | 0.01 | 0.08 | 0.00 | 0.03 | 0.32 | 0.07 | 0.00 | 0.05 | 1.28 |

Table I.3. Abundance indices (AIs) for the WCVI troll fishery by stock and year stock groups 1-15 this page; 16-30 on following page), from CLB 1209. Numbers shown represent the portion of the AI total estimated for each model stock; the summation across all 30 stock groups equals the AI total for each calendar year.

| Year | Alaska South SE | North/Centr | Fraser Early | Fraser Late | WCVI <br> Hatchery | WCVI <br> Natural | Georgia St. Upper | Georgia <br> St. Lwr <br> Nat | Georgia <br> St. Lwr <br> Hat | Nooksack Fall | Pgt Sd Fing | Pgt Sd <br> NatF | Pgt Sd <br> Year | Nooksack Spring | Skagit Wild | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.00 | 0.00 | 0.01 | 0.27 | 0.01 | 0.02 | 0.00 | 0.01 | 0.01 | 0.08 | 0.05 | 0.03 | 0.03 | 0.00 | 0.02 | 1.11 |
| 1980 | 0.00 | 0.00 | 0.01 | 0.20 | 0.02 | 0.02 | 0.00 | 0.01 | 0.01 | 0.09 | 0.05 | 0.02 | 0.03 | 0.00 | 0.02 | 0.96 |
| 1981 | 0.00 | 0.00 | 0.00 | 0.23 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.09 | 0.05 | 0.02 | 0.03 | 0.00 | 0.02 | 0.93 |
| 1982 | 0.00 | 0.00 | 0.00 | 0.25 | 0.04 | 0.03 | 0.00 | 0.00 | 0.00 | 0.09 | 0.05 | 0.02 | 0.02 | 0.00 | 0.01 | 1.00 |
| 1983 | 0.00 | 0.00 | 0.01 | 0.22 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.10 | 0.06 | 0.03 | 0.02 | 0.00 | 0.01 | 0.93 |
| 1984 | 0.00 | 0.00 | 0.01 | 0.24 | 0.04 | 0.01 | 0.00 | 0.00 | 0.01 | 0.12 | 0.06 | 0.02 | 0.02 | 0.00 | 0.02 | 0.99 |
| 1985 | 0.00 | 0.00 | 0.01 | 0.28 | 0.03 | 0.01 | 0.00 | 0.00 | 0.01 | 0.11 | 0.06 | 0.02 | 0.01 | 0.00 | 0.01 | 0.97 |
| 1986 | 0.00 | 0.00 | 0.01 | 0.22 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.09 | 0.06 | 0.02 | 0.01 | 0.00 | 0.01 | 1.02 |
| 1987 | 0.00 | 0.00 | 0.01 | 0.11 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.06 | 0.08 | 0.03 | 0.01 | 0.00 | 0.01 | 1.19 |
| 1988 | 0.00 | 0.00 | 0.01 | 0.07 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.05 | 0.09 | 0.03 | 0.01 | 0.00 | 0.01 | 1.14 |
| 1989 | 0.00 | 0.00 | 0.01 | 0.18 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.07 | 0.10 | 0.03 | 0.02 | 0.00 | 0.01 | 0.99 |
| 1990 | 0.00 | 0.00 | 0.01 | 0.21 | 0.09 | 0.02 | 0.00 | 0.00 | 0.00 | 0.07 | 0.09 | 0.03 | 0.01 | 0.00 | 0.01 | 0.90 |
| 1991 | 0.00 | 0.00 | 0.01 | 0.16 | 0.09 | 0.02 | 0.00 | 0.00 | 0.00 | 0.05 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.76 |
| 1992 | 0.00 | 0.00 | 0.01 | 0.21 | 0.09 | 0.02 | 0.00 | 0.00 | 0.00 | 0.03 | 0.06 | 0.02 | 0.01 | 0.00 | 0.00 | 0.79 |
| 1993 | 0.00 | 0.00 | 0.01 | 0.17 | 0.08 | 0.02 | 0.00 | 0.00 | 0.00 | 0.03 | 0.06 | 0.02 | 0.01 | 0.00 | 0.00 | 0.70 |
| 1994 | 0.00 | 0.00 | 0.01 | 0.09 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.02 | 0.01 | 0.00 | 0.00 | 0.53 |
| 1995 | 0.00 | 0.00 | 0.01 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.08 | 0.02 | 0.01 | 0.00 | 0.00 | 0.41 |
| 1996 | 0.00 | 0.00 | 0.01 | 0.07 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.02 | 0.01 | 0.00 | 0.00 | 0.50 |
| 1997 | 0.00 | 0.00 | 0.01 | 0.17 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.03 | 0.07 | 0.02 | 0.01 | 0.00 | 0.01 | 0.60 |
| 1998 | 0.00 | 0.00 | 0.01 | 0.18 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.07 | 0.02 | 0.01 | 0.00 | 0.00 | 0.57 |
| 1999 | 0.00 | 0.00 | 0.01 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.08 | 0.02 | 0.01 | 0.00 | 0.01 | 0.51 |
| 2000 | 0.00 | 0.00 | 0.01 | 0.12 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.08 | 0.02 | 0.01 | 0.00 | 0.01 | 0.52 |
| 2001 | 0.00 | 0.00 | 0.01 | 0.11 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.09 | 0.03 | 0.01 | 0.00 | 0.01 | 0.80 |
| 2002 | 0.00 | 0.00 | 0.01 | 0.19 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.04 | 0.09 | 0.02 | 0.01 | 0.00 | 0.01 | 1.16 |
| 2003 | 0.00 | 0.00 | 0.01 | 0.23 | 0.06 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.09 | 0.02 | 0.01 | 0.00 | 0.01 | 1.22 |
| 2004 | 0.00 | 0.00 | 0.01 | 0.15 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.09 | 0.02 | 0.02 | 0.00 | 0.01 | 1.02 |
| 2005 | 0.00 | 0.00 | 0.01 | 0.09 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.10 | 0.02 | 0.02 | 0.00 | 0.01 | 0.83 |
| 2006 | 0.00 | 0.00 | 0.01 | 0.10 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.11 | 0.02 | 0.02 | 0.00 | 0.01 | 0.65 |
| 2007 | 0.00 | 0.00 | 0.01 | 0.07 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.12 | 0.02 | 0.03 | 0.00 | 0.01 | 0.52 |
| 2008 | 0.00 | 0.00 | 0.01 | 0.08 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.09 | 0.02 | 0.02 | 0.00 | 0.01 | 0.56 |
| 2009 | 0.00 | 0.00 | 0.01 | 0.06 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.08 | 0.01 | 0.02 | 0.00 | 0.00 | 0.56 |
| 2010 | 0.00 | 0.00 | 0.01 | 0.14 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.08 | 0.01 | 0.02 | 0.00 | 0.00 | 0.80 |
| 2011 | 0.00 | 0.00 | 0.01 | 0.14 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.09 | 0.01 | 0.02 | 0.00 | 0.00 | 0.90 |
| 2012 | 0.00 | 0.00 | 0.01 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.10 | 0.01 | 0.02 | 0.00 | 0.01 | 0.89 |
| Average | 0.00 | 0.00 | 0.01 | 0.15 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.05 | 0.08 | 0.02 | 0.01 | 0.00 | 0.01 | 0.82 |

-continued-

Table I.3. Page 2 of 2 (stock groups 16-30).

| Year | Stillaguamish Wild | Snohomish Wild | WA <br> Coastal Hat | UpRiver <br> Brights | Spring Creek Hat | Lwr Bonneville Hat | Fall Cowlitz Hat | Lewis R Wild | Willamette R Hat | Spr Cowlitz Hat | Col R <br> Summer | Oregon Coast | WA Coastal Wild | Lyons <br> Ferry | Mid Col R Brights | AI Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.00 | 0.01 | 0.01 | 0.06 | 0.17 | 0.13 | 0.09 | 0.01 | 0.01 | 0.01 | 0.02 | 0.04 | 0.01 | 0.00 | 0.00 | 1.11 |
| 1980 | 0.00 | 0.01 | 0.01 | 0.04 | 0.14 | 0.10 | 0.08 | 0.01 | 0.01 | 0.02 | 0.02 | 0.04 | 0.01 | 0.00 | 0.00 | 0.96 |
| 1981 | 0.00 | 0.01 | 0.01 | 0.03 | 0.12 | 0.09 | 0.07 | 0.01 | 0.02 | 0.01 | 0.02 | 0.04 | 0.01 | 0.00 | 0.00 | 0.93 |
| 1982 | 0.00 | 0.01 | 0.01 | 0.03 | 0.13 | 0.10 | 0.09 | 0.01 | 0.02 | 0.01 | 0.01 | 0.04 | 0.01 | 0.00 | 0.01 | 1.00 |
| 1983 | 0.00 | 0.01 | 0.01 | 0.05 | 0.04 | 0.09 | 0.08 | 0.01 | 0.02 | 0.01 | 0.02 | 0.06 | 0.01 | 0.00 | 0.01 | 0.93 |
| 1984 | 0.00 | 0.01 | 0.01 | 0.07 | 0.05 | 0.08 | 0.07 | 0.01 | 0.02 | 0.01 | 0.02 | 0.07 | 0.01 | 0.00 | 0.00 | 0.99 |
| 1985 | 0.00 | 0.01 | 0.01 | 0.10 | 0.03 | 0.07 | 0.08 | 0.01 | 0.02 | 0.01 | 0.01 | 0.07 | 0.01 | 0.00 | 0.00 | 0.97 |
| 1986 | 0.00 | 0.00 | 0.01 | 0.15 | 0.02 | 0.12 | 0.09 | 0.01 | 0.02 | 0.01 | 0.02 | 0.07 | 0.02 | 0.00 | 0.01 | 1.02 |
| 1987 | 0.00 | 0.00 | 0.02 | 0.18 | 0.01 | 0.25 | 0.18 | 0.02 | 0.03 | 0.01 | 0.02 | 0.07 | 0.02 | 0.00 | 0.04 | 1.19 |
| 1988 | 0.00 | 0.00 | 0.02 | 0.14 | 0.03 | 0.12 | 0.27 | 0.02 | 0.03 | 0.01 | 0.02 | 0.07 | 0.03 | 0.00 | 0.04 | 1.14 |
| 1989 | 0.00 | 0.00 | 0.02 | 0.09 | 0.04 | 0.05 | 0.13 | 0.01 | 0.03 | 0.01 | 0.01 | 0.06 | 0.03 | 0.00 | 0.03 | 0.99 |
| 1990 | 0.00 | 0.00 | 0.02 | 0.06 | 0.04 | 0.03 | 0.06 | 0.01 | 0.03 | 0.01 | 0.01 | 0.06 | 0.02 | 0.00 | 0.02 | 0.90 |
| 1991 | 0.00 | 0.00 | 0.02 | 0.04 | 0.05 | 0.05 | 0.04 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | 0.02 | 0.00 | 0.01 | 0.76 |
| 1992 | 0.00 | 0.00 | 0.02 | 0.05 | 0.04 | 0.06 | 0.05 | 0.01 | 0.01 | 0.01 | 0.01 | 0.05 | 0.02 | 0.00 | 0.01 | 0.79 |
| 1993 | 0.00 | 0.00 | 0.02 | 0.06 | 0.02 | 0.03 | 0.04 | 0.00 | 0.01 | 0.00 | 0.01 | 0.05 | 0.02 | 0.00 | 0.02 | 0.70 |
| 1994 | 0.00 | 0.00 | 0.01 | 0.05 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 0.01 | 0.05 | 0.01 | 0.00 | 0.01 | 0.53 |
| 1995 | 0.00 | 0.00 | 0.01 | 0.04 | 0.02 | 0.02 | 0.03 | 0.00 | 0.01 | 0.00 | 0.01 | 0.04 | 0.01 | 0.00 | 0.01 | 0.41 |
| 1996 | 0.00 | 0.00 | 0.01 | 0.06 | 0.03 | 0.02 | 0.04 | 0.00 | 0.01 | 0.00 | 0.01 | 0.04 | 0.01 | 0.00 | 0.02 | 0.50 |
| 1997 | 0.00 | 0.00 | 0.01 | 0.05 | 0.02 | 0.02 | 0.03 | 0.00 | 0.01 | 0.00 | 0.01 | 0.03 | 0.01 | 0.00 | 0.03 | 0.60 |
| 1998 | 0.00 | 0.00 | 0.01 | 0.05 | 0.02 | 0.02 | 0.02 | 0.00 | 0.01 | 0.00 | 0.01 | 0.03 | 0.01 | 0.00 | 0.02 | 0.57 |
| 1999 | 0.00 | 0.00 | 0.01 | 0.07 | 0.03 | 0.01 | 0.02 | 0.00 | 0.01 | 0.00 | 0.01 | 0.03 | 0.01 | 0.00 | 0.02 | 0.51 |
| 2000 | 0.00 | 0.00 | 0.01 | 0.06 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 0.03 | 0.03 | 0.01 | 0.00 | 0.02 | 0.52 |
| 2001 | 0.00 | 0.00 | 0.01 | 0.09 | 0.10 | 0.06 | 0.04 | 0.01 | 0.03 | 0.00 | 0.04 | 0.05 | 0.01 | 0.01 | 0.04 | 0.80 |
| 2002 | 0.00 | 0.00 | 0.01 | 0.13 | 0.18 | 0.07 | 0.07 | 0.01 | 0.03 | 0.01 | 0.06 | 0.07 | 0.01 | 0.01 | 0.06 | 1.16 |
| 2003 | 0.00 | 0.00 | 0.01 | 0.13 | 0.18 | 0.06 | 0.11 | 0.01 | 0.03 | 0.01 | 0.05 | 0.08 | 0.01 | 0.01 | 0.06 | 1.22 |
| 2004 | 0.00 | 0.00 | 0.01 | 0.12 | 0.17 | 0.04 | 0.08 | 0.01 | 0.02 | 0.01 | 0.05 | 0.07 | 0.01 | 0.01 | 0.05 | 1.02 |
| 2005 | 0.00 | 0.00 | 0.01 | 0.11 | 0.10 | 0.02 | 0.08 | 0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.01 | 0.01 | 0.04 | 0.83 |
| 2006 | 0.00 | 0.00 | 0.01 | 0.07 | 0.03 | 0.01 | 0.04 | 0.00 | 0.01 | 0.01 | 0.05 | 0.03 | 0.01 | 0.01 | 0.03 | 0.65 |
| 2007 | 0.00 | 0.00 | 0.01 | 0.04 | 0.02 | 0.01 | 0.02 | 0.00 | 0.01 | 0.00 | 0.04 | 0.02 | 0.01 | 0.01 | 0.03 | 0.52 |
| 2008 | 0.00 | 0.00 | 0.01 | 0.07 | 0.06 | 0.02 | 0.02 | 0.00 | 0.01 | 0.00 | 0.04 | 0.01 | 0.01 | 0.01 | 0.03 | 0.56 |
| 2009 | 0.00 | 0.00 | 0.01 | 0.08 | 0.04 | 0.01 | 0.04 | 0.00 | 0.02 | 0.00 | 0.05 | 0.02 | 0.01 | 0.01 | 0.03 | 0.56 |
| 2010 | 0.00 | 0.00 | 0.01 | 0.11 | 0.10 | 0.02 | 0.06 | 0.00 | 0.02 | 0.00 | 0.05 | 0.03 | 0.01 | 0.01 | 0.04 | 0.80 |
| 2011 | 0.00 | 0.00 | 0.01 | 0.14 | 0.08 | 0.03 | 0.09 | 0.01 | 0.02 | 0.00 | 0.06 | 0.04 | 0.01 | 0.02 | 0.04 | 0.90 |
| 2012 | 0.00 | 0.00 | 0.01 | 0.14 | 0.08 | 0.07 | 0.08 | 0.01 | 0.02 | 0.00 | 0.07 | 0.03 | 0.01 | 0.02 | 0.05 | 0.89 |
| Average | 0.00 | 0.00 | 0.01 | 0.08 | 0.06 | 0.06 | 0.07 | 0.01 | 0.02 | 0.01 | 0.03 | 0.05 | 0.01 | 0.00 | 0.02 | 0.82 |

Appendix J Fishery exploitation rate indices by stock, age and fishery, based on CWT data, 1975-2009.

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Table J.1. Alaska troll Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

| YEAR | SPFI | WIN/SPR | JUNE IN | JUNE OUT | JULY IN | JULY OUT | FALL | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.8217 | 1.1327 | 0.5079 | 1.0756 | 0.3919 | 0.7931 | 0.7931 | Alaska Southeast | Age 4 | Age 5 | Age 6 |
| 1980 | 1.2859 | 0.6394 | 1.4575 | 0.9441 | 1.8553 | 1.5482 | 1.5482 | Quinsam | Age 4 | Age 5 |  |
| 1981 | 1.0973 | 1.2229 | 0.9157 | 1.0658 | 0.8571 | 1.0523 | 1.0523 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1982 | 0.7951 | 1.0051 | 1.1189 | 0.9144 | 0.8957 | 0.6065 | 0.6065 | Salmon River Hatchery | Age 4 | Age 5 |  |
| 1983 | 0.8692 | 1.0500 | 0.6848 | 0.6091 | 0.7926 | 1.2132 | 1.2132 | Columbia Upriver Brights | Age 4 | Age 5 |  |
| 1984 | 0.6142 | 0.3622 | 1.1702 | 0.9501 | 0.2709 | 0.5149 | 0.5149 | Willamette Spring Hatchery | Age 4 | Age 5 |  |
| 1985 | 0.6709 | 0.4405 | 0.9098 | 0.6052 | 0.6927 | 0.8081 | 0.8081 |  |  |  |  |
| 1986 | 0.4743 | 0.4242 | 0.4404 | 0.1753 | 0.5219 | 1.1742 | 1.1742 |  |  |  |  |
| 1987 | 0.5001 | 0.5858 | 0.6023 | 0.1879 | 1.2764 | 0.6490 | 0.6490 |  |  |  |  |
| 1988 | 0.4158 | 1.3603 | 0.1451 | 0.0015 | 1.1380 | 0.6424 | 0.6424 |  |  |  |  |
| 1989 | 0.4713 | 0.8340 | 0.4775 | 0.1144 | 0.4959 | 0.5589 | 0.5589 |  |  |  |  |
| 1990 | 0.6927 | 0.6362 | 0.9294 | 0.1141 | 1.0489 | 1.1042 | 1.1042 |  |  |  |  |
| 1991 | 0.5906 | 1.3477 | 0.9623 | 0.2230 | 0.4851 | 0.7459 | 0.7459 |  |  |  |  |
| 1992 | 0.3800 | 1.0232 | 0.5441 | 0.0675 | 0.2021 | 0.3829 | 0.3829 |  |  |  |  |
| 1993 | 0.4258 | 0.7383 | 0.3057 | 0.0156 | 0.2411 | 0.8702 | 0.8702 |  |  |  |  |
| 1994 | 0.3991 | 0.6585 | 0.1183 | 0.0376 | 0.1495 | 0.6476 | 0.6476 |  |  |  |  |
| 1995 | 0.4893 | 0.4584 | 0.3309 | 0.0508 | 0.8574 | 0.7644 | 0.7644 |  |  |  |  |
| 1996 | 0.4150 | 0.5250 | 0.6925 | 0.0890 | 0.4619 | 0.5274 | 0.5274 |  |  |  |  |
| 1997 | 0.5917 | 0.6211 | 0.6382 | 0.1425 | 0.0783 | 1.4580 | 1.4580 |  |  |  |  |
| 1998 | 0.4007 | 0.7960 | 0.1745 | 0.0544 | 0.3717 | 0.9491 | 0.9491 |  |  |  |  |
| 1999 | 0.5816 | 0.7806 | 0.2793 | 0.1142 | 0.1074 | 0.9631 | 0.9631 |  |  |  |  |
| 2000 | 0.4184 | 0.8811 | 0.1010 | 0.0819 | 0.0536 | 1.4040 | 1.4040 |  |  |  |  |
| 2001 | 0.3620 | 0.5676 | 0.1297 | 0.0742 | 0.1242 | 0.6295 | 0.6295 |  |  |  |  |
| 2002 | 0.5021 | 0.4210 | 0.1106 | 0.0621 | 0.1451 | 1.1326 | 1.1326 |  |  |  |  |
| 2003 | 0.4748 | 0.6978 | 0.1290 | 0.0696 | 0.2985 | 0.8728 | 0.8728 |  |  |  |  |
| 2004 | 0.4225 | 0.8177 | 0.1950 | 0.0722 | 0.2788 | 0.9223 | 0.9223 |  |  |  |  |
| 2005 | 0.4745 | 0.9143 | 0.2271 | 0.1215 | 0.4002 | 1.2172 | 1.2172 |  |  |  |  |
| 2006 | 0.6260 | 1.4872 | 0.8274 | 0.1267 | 0.1098 | 1.3638 | 1.3638 |  |  |  |  |
| 2007 | 0.5922 | 1.2334 | 1.0675 | 0.1390 | 0.1733 | 1.1102 | 1.1102 |  |  |  |  |
| 2008 | 0.4208 | 0.8207 | 0.8155 | 0.0715 | 0.0856 | 0.6700 | 0.6700 |  |  |  |  |
| 2009 | 0.5694 | 0.6906 | 0.3780 | 0.1498 | 0.1436 | 1.0491 | 1.0491 |  |  |  |  |
| 2010 | 0.3650 | 1.0891 | 0.3112 | 0.0471 | 0.0797 | 0.7000 | 0.7000 |  |  |  |  |

Table J.2. Alaska troll Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

| YEAR | SPFI | WIN/SPR | JUNE IN | JUNE OUT | JULY IN | JULY OUT | FALL | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.7982 | 1.0909 | 0.4960 | 1.0667 | 0.3893 | 0.7618 | 0.7618 | Alaska Southeast | Age 4 | Age 5 | Age 6 |
| 1980 | 1.2144 | 0.6407 | 1.4765 | 0.9086 | 1.7594 | 1.4025 | 1.4025 | Quinsam | Age 4 | Age 5 |  |
| 1981 | 1.0964 | 1.2165 | 0.8845 | 1.0961 | 0.8054 | 1.0635 | 1.0635 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1982 | 0.8910 | 1.0519 | 1.1430 | 0.9286 | 1.0458 | 0.7723 | 0.7723 | Salmon River Hatchery | Age 4 | Age 5 |  |
| 1983 | 0.9832 | 1.0140 | 0.7336 | 0.6208 | 0.7217 | 1.6246 | 1.6246 | Columbia Upriver Brights | Age 4 | Age 5 |  |
| 1984 | 0.6503 | 0.3685 | 1.1472 | 0.9458 | 0.4180 | 0.6054 | 0.6054 | Willamette Spring Hatchery | Age 4 | Age 5 |  |
| 1985 | 0.7723 | 0.4564 | 0.8678 | 0.5873 | 0.6725 | 1.0564 | 1.0564 |  |  |  |  |
| 1986 | 0.5338 | 0.4733 | 0.4487 | 0.1712 | 0.5993 | 1.3615 | 1.3615 |  |  |  |  |
| 1987 | 0.5686 | 0.5977 | 0.5500 | 0.1766 | 1.6730 | 0.7763 | 0.7763 |  |  |  |  |
| 1988 | 0.4275 | 1.2815 | 0.1566 | 0.0067 | 1.2275 | 0.6543 | 0.6543 |  |  |  |  |
| 1989 | 0.5261 | 0.8036 | 0.4615 | 0.1176 | 0.5702 | 0.6362 | 0.6362 |  |  |  |  |
| 1990 | 0.8651 | 0.7917 | 0.9852 | 0.1292 | 1.0295 | 1.4285 | 1.4285 |  |  |  |  |
| 1991 | 0.6121 | 1.2662 | 0.8870 | 0.2100 | 0.6101 | 0.7806 | 0.7806 |  |  |  |  |
| 1992 | 0.4341 | 0.9720 | 0.5038 | 0.0638 | 0.2094 | 0.5470 | 0.5470 |  |  |  |  |
| 1993 | 0.4695 | 0.7067 | 0.2790 | 0.0165 | 0.2427 | 1.0163 | 1.0163 |  |  |  |  |
| 1994 | 0.4757 | 0.6355 | 0.1452 | 0.0376 | 0.1962 | 0.8353 | 0.8353 |  |  |  |  |
| 1995 | 0.5913 | 0.4623 | 0.3462 | 0.0523 | 0.8726 | 0.9551 | 0.9551 |  |  |  |  |
| 1996 | 0.4961 | 0.5263 | 0.6522 | 0.0934 | 0.4852 | 0.6523 | 0.6523 |  |  |  |  |
| 1997 | 0.5853 | 0.6103 | 0.5839 | 0.1415 | 0.0960 | 1.4039 | 1.4039 |  |  |  |  |
| 1998 | 0.3826 | 0.7708 | 0.1714 | 0.0540 | 0.3249 | 0.8910 | 0.8910 |  |  |  |  |
| 1999 | 0.6336 | 0.7706 | 0.2649 | 0.1105 | 0.1450 | 1.0677 | 1.0677 |  |  |  |  |
| 2000 | 0.4379 | 0.8828 | 0.1041 | 0.0880 | 0.0812 | 1.4561 | 1.4561 |  |  |  |  |
| 2001 | 0.3773 | 0.5508 | 0.1207 | 0.0712 | 0.1533 | 0.6609 | 0.6609 |  |  |  |  |
| 2002 | 0.4928 | 0.4486 | 0.1105 | 0.0647 | 0.1607 | 1.0683 | 1.0683 |  |  |  |  |
| 2003 | 0.4603 | 0.7110 | 0.1245 | 0.0705 | 0.2725 | 0.8194 | 0.8194 |  |  |  |  |
| 2004 | 0.4135 | 0.8053 | 0.1820 | 0.0730 | 0.2764 | 0.8817 | 0.8817 |  |  |  |  |
| 2005 | 0.4894 | 1.0001 | 0.2934 | 0.1256 | 0.3713 | 1.1961 | 1.1961 |  |  |  |  |
| 2006 | 0.6256 | 1.4400 | 0.8106 | 0.1269 | 0.1170 | 1.3453 | 1.3453 |  |  |  |  |
| 2007 | 0.5857 | 1.2085 | 1.0607 | 0.1350 | 0.1636 | 1.0839 | 1.0839 |  |  |  |  |
| 2008 | 0.4328 | 0.7851 | 0.7474 | 0.0740 | 0.1088 | 0.6939 | 0.6939 |  |  |  |  |
| 2009 | 0.5851 | 0.7000 | 0.3631 | 0.1439 | 0.1668 | 1.0683 | 1.0683 |  |  |  |  |
| 2010 | 0.3773 | 1.0197 | 0.2888 | 0.0453 | 0.1156 | 0.7313 | 0.7313 |  |  |  |  |

Table J.3. Landed catch exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-
1982.

| Year | AKS Age 4 | $\begin{gathered} \text { QUI } \\ \text { Age } 3 \end{gathered}$ | $\begin{gathered} \text { QUI } \\ \text { Age } 4 \end{gathered}$ | $\begin{aligned} & \text { RBT } \\ & \text { Age } 3 \end{aligned}$ | $\begin{aligned} & \text { RBT } \\ & \text { Age } 4 \end{aligned}$ | $\begin{gathered} \text { RBT } \\ \text { Age } 5 \end{gathered}$ | $\begin{gathered} \text { SRH } \\ \text { Age } 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { SRH } \\ \text { Age } 4 \end{gathered}$ | $\begin{gathered} \text { SRH } \\ \text { Age } 5 \\ \hline \end{gathered}$ | $\begin{gathered} \text { URB } \\ \text { Age } 3 \end{gathered}$ | $\begin{gathered} \text { URB } \\ \text { Age } 4 \end{gathered}$ | $\begin{gathered} \text { URB } \\ \text { Age } 5 \end{gathered}$ | $\begin{aligned} & \text { WSH } \\ & \text { Age } 4 \\ & \hline \end{aligned}$ | Fishery Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 |  | 0.5518 | 0.8708 | 1.1532 | 0.8274 | 0.4793 | 1.1602 |  |  | 0.4649 | 1.1919 |  | 0.6465 | 0.8212 |
| 1980 |  | 0.7998 | 0.979 | 1.0493 | 0.8534 | 0.7707 |  | 0.9276 |  | 1.1057 | 0.9895 | 1.2716 | 1.1844 | 0.9474 |
| 1981 |  | 1.7668 | 1.4495 | 0.853 | 1.0407 | 1.75 | 1.287 |  | 1 |  | 1.1507 | 1.3125 | 1.5276 | 1.2611 |
| 1982 | 1 | 0.8816 | 0.7006 | 0.9444 | 1.2784 |  | 0.5528 | 1.0724 |  | 1.4293 | 0.6679 | 0.4158 | 0.6416 | 0.8622 |
| 1983 | 1.5937 | 1.2301 | 1.4693 | 0.9825 | 0.7329 | 0.7472 | 0.5573 | 1.1766 | 0.2433 | 1.777 | 1.3026 |  | 1.2694 | 0.8204 |
| 1984 | 1.1163 | 0.2514 | 0.4964 | 0.387 | 1.3659 | 1.6741 |  | 1.4001 | 1.2846 | 1.0354 | 2.109 |  | 0.4581 | 1.2096 |
| 1985 | 0.7696 | 0.2513 | 0.5798 | 0.9468 | 1.865 | 1.6956 | 0.383 |  | 1.1846 | 1.4071 | 1.7151 | 1.68 | 0.201 | 1.2123 |
| 1986 | 0.7139 | 0.9403 | 0.8435 |  | 0.9164 |  | 0.1114 | 1.1439 |  | 1.0944 | 1.3846 | 1.9971 |  | 1.0272 |
| 1987 | 0.5981 | 0.3493 | 0.6247 | 0.4502 |  |  | 0.2007 | 0.7982 | 1.0153 | 1.2247 | 1.7667 | 2.8948 |  | 1.0212 |
| 1988 | 1.9941 | 0.186 | 0.6978 | 0.3025 | 0.6207 |  |  | 0.6551 | 0.336 | 0.3801 | 1.0793 | 2.3581 | 0.7892 | 0.6892 |
| 1989 | 0.9055 | 0.4342 | 0.4501 | 0.3696 | 0.8734 | 1.052 | 0.1335 | 0.5667 | 0.999 |  | 1.0354 | 4.2165 | 0.366 | 0.9793 |
| 1990 | 1.9084 | 0.3567 | 0.9621 | 0.2807 | 0.7122 | 0.5506 | 0.1745 | 0.5078 | 0.9293 |  | 1.2429 | 2.3816 | 0.3033 | 0.7986 |
| 1991 | 0.6355 | 0.4232 | 0.6661 | 0.3518 | 0.7112 | 1.0945 | 0.1327 | 0.845 | 0.9557 |  |  |  | 0.2776 | 0.7435 |
| 1992 | 0.1138 |  | 1.8674 | 0.2696 | 0.5727 | 0.6315 | 0.1205 | 0.519 | 0.4484 |  |  |  | 0.1004 | 0.5753 |
| 1993 | 0.2668 |  |  | 0.1493 | 0.6254 | 0.8366 | 0.1306 | 1.1336 | 1.0304 | 0 | 1.1507 |  | 0.2093 | 0.7591 |
| 1994 | 0.0498 |  |  | 0.2863 | 0.7591 | 0.8564 | 0.2168 | 1.117 | 0.9365 |  | 0.9339 | 2.0321 | 0.1175 | 0.8592 |
| 1995 | 0 |  |  |  | 0.409 | 0.2344 | 0.125 | 0 | 0.3983 |  |  | 0.5655 | 0.1516 | 0.299 |
| 1996 | 0 |  |  | 0 |  |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 |
| 1997 |  | 0.3478 | 0.3966 | 0.1976 | 0.3957 |  | 0.1439 | 0.2407 | 0.2061 |  | 0.676 |  | 0.2681 | 0.299 |
| 1998 | 0 |  | 0 |  | 0.5627 |  | 0.0866 | 1.1411 | 0.5826 | 0 |  | 1.6437 | 0 | 0.5843 |
| 1999 | 0 | 0.1634 | 0.192 |  | 0.3378 | 0.5523 | 0.1038 | 0.4051 | 0.1927 |  | 1.1934 |  | 0 | 0.3457 |
| 2000 | 0 | 0 | 0.0619 |  |  |  | 0.0484 | 0.5739 | 0.1575 |  | 0 | 0 | 0.0137 | 0.1392 |
| 2001 |  | 0 | 0.0148 | 0 |  |  | 0.0473 | 0.3591 | 0.4181 | 0 | 0 |  | 0.0209 | 0.1957 |
| 2002 | 0.4654 |  | 0.1399 | 0 | 0.4623 |  | 0.1877 | 0.6242 | 0.7008 | 0.1041 | 0.1935 |  | 0.1862 | 0.4179 |
| 2003 | 0 | 0 | 0 | 0.0433 | 0.0506 | 0 | 0.0504 | 0.6201 | 0.2478 |  | 0.7616 | 0.8812 | 0.0525 | 0.2331 |
| 2004 | 0.9039 | 0 | 0.0553 | 0.0832 | 0.1943 | 0.4134 | 0.0921 | 0.5321 | 0.438 | 0 | 0.745 | 1.3773 | 0.191 | 0.3881 |
| 2005 | 0.1788 | 0.074 | 0.0424 | 0.0309 | 0.3207 | 0.1037 | 0.1119 | 0.953 | 0.4535 | 0.1214 | 1.4943 | 1.0619 | 0.0958 | 0.4229 |
| 2006 | 0.3733 | 0.0812 | 0.0669 | 0.0942 | 0.2574 | 0.2664 | 0.0375 | 1.0014 | 0.7268 |  | 1.4046 | 1.518 | 0.048 | 0.5366 |
| 2007 | 0.0884 |  | 0.4418 |  | 0.485 | 0.4941 | 0 | 0.5967 | 0.6645 |  |  |  | 0 | 0.48 |
| 2008 | 0.1031 |  |  | 0.0801 | 0.6195 | 0.1895 | 0.0737 | 0.6962 |  | 0.5347 |  |  | 0.0493 | 0.3409 |
| 2009 | 0.8652 |  | 0.1065 | 0.1846 | 0.204 |  | 0.0133 | 1.3452 | 0.9572 |  | 1.9267 |  | 0.0378 | 0.688 |
| 2010 | 0.1846 | 0 |  | 0.1713 | 0.0855 |  | 0.0615 | 1.0235 | 0.4202 | 0.1183 |  |  | 0.1427 | 0.327 |

[^5]URB $=$ COLUMBIA UPRIVER BRIGHT $\quad$ WSH $=$ WILLAMETTE SPRING

Table J.4. NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

| YEAR | SPFI | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.9525 | Alaska Southeast | Age 4 |  |  |
| 1980 | 0.8037 | Quinsam | Age 3 | Age 4 |  |
| 1981 | 1.2622 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1982 | 0.9816 | Salmon River Hatchery | Age 3 | Age 4 | Age 5 |
| 1983 | 0.9336 | Columbia Upriver Brights | Age 3 | Age 4 | Age 5 |
| 1984 | 0.9222 | Willamette Spring Hatchery | Age 4 |  |  |
| 1985 | 0.9341 |  |  |  |  |
| 1986 | 0.7649 |  |  |  |  |
| 1987 | 0.7770 |  |  |  |  |
| 1988 | 0.6515 |  |  |  |  |
| 1989 | 0.6537 |  |  |  |  |
| 1990 | 0.5723 |  |  |  |  |
| 1991 | 0.6323 |  |  |  |  |
| 1992 | 0.4369 |  |  |  |  |
| 1993 | 0.4987 |  |  |  |  |
| 1994 | 0.6056 |  |  |  |  |
| 1995 | 0.2632 |  |  |  |  |
| 1996 | 0.0000 |  |  |  |  |
| 1997 | 0.2207 |  |  |  |  |
| 1998 | 0.4289 |  |  |  |  |
| 1999 | 0.2990 |  |  |  |  |
| 2000 | 0.0849 |  |  |  |  |
| 2001 | 0.0783 |  |  |  |  |
| 2002 | 0.2988 |  |  |  |  |
| 2003 | 0.2061 |  |  |  |  |
| 2004 | 0.2743 |  |  |  |  |
| 2005 | 0.3942 |  |  |  |  |
| 2006 | 0.3830 |  |  |  |  |
| 2007 | 0.3348 |  |  |  |  |
| 2008 | 0.2606 |  |  |  |  |
| 2009 | 0.5348 |  |  |  |  |
| 2010 | 0.2393 |  |  |  |  |

Table J.5. Total mortality exploitation rate indices by stock and age in the NBC troll fishery, based on CWT data. Base period is 1979-
1982.

| Year | AKS <br> Age 4 | $\begin{gathered} \hline \text { QUI } \\ \text { Age } 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { QUI } \\ \text { Age } 4 \\ \hline \end{gathered}$ | $\begin{gathered} \text { RBT } \\ \text { Age } 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { RBT } \\ \text { Age } 4 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { RBT } \\ & \text { Age } 5 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { SRH } \\ \text { Age } 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { SRH } \\ \text { Age } 4 \\ \hline \end{gathered}$ | SRH <br> Age 5 | URB <br> Age 3 | URB <br> Age 4 | $\begin{aligned} & \text { URB } \\ & \text { Age } 5 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { WSH } \\ & \text { Age } 4 \\ & \hline \end{aligned}$ | Fishery Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 |  | 0.5679 | 0.8589 | 1.1627 | 0.8328 | 0.4758 | 1.1633 |  |  | 0.5384 | 1.197 |  | 0.6285 | 0.8272 |
| 1980 |  | 0.808 | 0.9829 | 1.0242 | 0.8544 | 0.7651 |  | 0.9342 |  | 1.0822 | 0.989 | 1.2681 | 1.1462 | 0.9456 |
| 1981 |  | 1.7527 | 1.4498 | 0.8497 | 1.0357 | 1.7592 | 1.2731 |  | 1 |  | 1.1568 | 1.3243 | 1.5233 | 1.2611 |
| 1982 | 1 | 0.8715 | 0.7083 | 0.9634 | 1.2771 |  | 0.5636 | 1.0658 |  | 1.3794 | 0.6572 | 0.4076 | 0.7021 | 0.8641 |
| 1983 | 1.6376 | 1.2113 | 1.4788 | 0.9748 | 0.7342 | 0.7555 | 0.6029 | 1.1764 | 0.2398 | 1.7175 | 1.2817 |  | 1.2502 | 0.8281 |
| 1984 | 1.1254 | 0.2619 | 0.5065 | 0.4902 | 1.3668 | 1.6856 |  | 1.4044 | 1.2857 | 1.0496 | 2.127 |  | 0.4596 | 1.2062 |
| 1985 | 0.8017 | 0.2742 | 0.5807 | 1.0926 | 1.8601 | 1.7214 | 0.4295 |  | 1.1854 | 1.3483 | 1.7179 | 1.6467 | 0.193 | 1.2095 |
| 1986 | 0.7312 | 0.9472 | 0.832 |  | 0.9138 |  | 0.16 | 1.1408 |  | 1.0984 | 1.3931 | 1.9575 |  | 1.0174 |
| 1987 | 0.6565 | 0.4607 | 0.6698 | 0.4826 |  |  | 0.3101 | 0.8307 | 1.0191 | 1.7427 | 1.8234 | 2.9208 |  | 1.0591 |
| 1988 | 2.1403 | 0.2657 | 0.7185 | 0.3376 | 0.6361 |  |  | 0.6785 | 0.3311 | 0.8629 | 1.1263 | 2.3892 | 0.8676 | 0.7201 |
| 1989 | 0.9552 | 0.5007 | 0.4756 | 0.4402 | 0.8808 | 1.0623 | 0.291 | 0.6068 | 1.0104 |  | 1.0898 | 4.2227 | 0.3829 | 0.9987 |
| 1990 | 2.2261 | 0.4776 | 1.0083 | 0.3558 | 0.7304 | 0.5642 | 0.2947 | 0.538 | 0.9486 |  | 1.2785 | 2.4381 | 0.3206 | 0.8292 |
| 1991 | 0.7387 | 0.5522 | 0.6869 | 0.4566 | 0.7248 | 1.1131 | 0.291 | 0.8728 | 0.965 |  |  |  | 0.3047 | 0.7728 |
| 1992 | 0.1838 |  | 1.9423 | 0.3768 | 0.5925 | 0.6513 | 0.1711 | 0.5402 | 0.4603 |  |  |  | 0.1102 | 0.5975 |
| 1993 | 0.2463 |  |  | 0.3003 | 0.6456 | 0.8591 | 0.271 | 1.1591 | 1.0472 | 0.2864 | 1.1741 |  | 0.2256 | 0.7902 |
| 1994 | 0.1149 |  |  | 0.5021 | 0.781 | 0.8742 | 0.3889 | 1.142 | 0.9438 |  | 0.9729 | 1.9918 | 0.1312 | 0.8869 |
| 1995 | 0.0518 |  |  |  | 0.4263 | 0.2437 | 0.185 | 0 | 0.4202 |  |  | 0.6047 | 0.1771 | 0.3184 |
| 1996 | 0.1292 |  |  | 0.0674 |  |  | 0.0777 | 0.0277 | 0.0279 | 0.3255 | 0.0656 |  | 0.0562 | 0.0565 |
| 1997 |  | 0.3795 | 0.3912 | 0.2553 | 0.3983 |  | 0.1702 | 0.2444 | 0.2031 |  | 0.6841 |  | 0.2517 | 0.3052 |
| 1998 | 0 |  | 0 |  | 0.5725 |  | 0.2108 | 1.1492 | 0.5855 | 0.0948 |  | 1.6111 | 0 | 0.5903 |
| 1999 | 0 | 0.1824 | 0.1894 |  | 0.3301 | 0.559 | 0.1355 | 0.4096 | 0.1899 |  | 1.2106 |  | 0 | 0.3451 |
| 2000 | 0 | 0 | 0.0611 |  |  |  | 0.0713 | 0.5712 | 0.1552 |  | 0 | 0 | 0.014 | 0.1383 |
| 2001 |  | 0 | 0.0146 | 0 |  |  | 0.0694 | 0.3631 | 0.412 | 0 | 0 |  | 0.0201 | 0.1899 |
| 2002 | 0.6014 |  | 0.138 | 0.0311 | 0.4722 |  | 0.2391 | 0.6341 | 0.7093 | 0.1567 | 0.1999 |  | 0.212 | 0.4263 |
| 2003 | 0.0804 | 0 | 0 | 0.0443 | 0.0529 | 0 | 0.1018 | 0.632 | 0.2499 |  | 0.7859 | 0.8957 | 0.0576 | 0.2381 |
| 2004 | 1.0013 | 0 | 0.0545 | 0.1276 | 0.2072 | 0.432 | 0.1692 | 0.5597 | 0.4584 | 0.1511 | 0.7612 | 1.431 | 0.2075 | 0.4086 |
| 2005 | 0.231 | 0.0661 | 0.0418 | 0.0632 | 0.3297 | 0.1029 | 0.226 | 0.9868 | 0.4668 | 0.5583 | 1.5631 | 1.1151 | 0.0981 | 0.4489 |
| 2006 | 0.4738 | 0.0725 | 0.066 | 0.1342 | 0.2591 | 0.2644 | 0.1344 | 0.9996 | 0.7294 |  | 1.4421 | 1.5115 | 0.0615 | 0.5392 |
| 2007 | 0.1142 |  | 0.4358 |  | 0.489 | 0.4905 | 0.043 | 0.6025 | 0.6805 |  |  |  | 0 | 0.4817 |
| 2008 | 0.0952 |  |  | 0.1229 | 0.641 | 0.1881 | 0.1257 | 0.7004 |  | 0.6559 |  |  | 0.0561 | 0.3562 |
| 2009 | 0.917 |  | 0.105 | 0.1943 | 0.1993 |  | 0.0656 | 1.3476 | 0.9635 |  | 1.9556 |  | 0.0323 | 0.6831 |
| 2010 | 0.2045 | 0 |  | 0.2048 | 0.0835 |  | 0.0886 | 1.0196 | 0.4256 | 0.1608 |  |  | 0.1366 | 0.3271 |

Stock Identifiers: AKS = ALASKA SPRING,QUI = QUINSAM,RBT = ROBERTSON CREEK,SRH = SALMON RIVER HATCHERY, URB = COLUMBIA UPRIVER BRIGHT, WSH $=$ WILLAMETTE SPRING

Table J.6. NBC troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

| YEAR | SPFI | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 0.9512 | Alaska Southeast | Age 4 |  |  |
| 1980 | 0.7901 | Quinsam | Age 3 | Age 4 |  |
| 1981 | 1.2723 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1982 | 0.9864 | Salmon River Hatchery | Age 3 | Age 4 | Age 5 |
| 1983 | 0.9414 | Columbia Upriver Brights | Age 3 | Age 4 | Age 5 |
| 1984 | 0.9103 | Willamette Spring Hatchery | Age 4 |  |  |
| 1985 | 0.9351 |  |  |  |  |
| 1986 | 0.7530 |  |  |  |  |
| 1987 | 0.8310 |  |  |  |  |
| 1988 | 0.6872 |  |  |  |  |
| 1989 | 0.7270 |  |  |  |  |
| 1990 | 0.6254 |  |  |  |  |
| 1991 | 0.6335 |  |  |  |  |
| 1992 | 0.4709 |  |  |  |  |
| 1993 | 0.5297 |  |  |  |  |
| 1994 | 0.5860 |  |  |  |  |
| 1995 | 0.2724 |  |  |  |  |
| 1996 | 0.0000 |  |  |  |  |
| 1997 | 0.2086 |  |  |  |  |
| 1998 | 0.4084 |  |  |  |  |
| 1999 | 0.2904 |  |  |  |  |
| 2000 | 0.1000 |  |  |  |  |
| 2001 | 0.0971 |  |  |  |  |
| 2002 | 0.3201 |  |  |  |  |
| 2003 | 0.2180 |  |  |  |  |
| 2004 | 0.2971 |  |  |  |  |
| 2005 | 0.3964 |  |  |  |  |
| 2006 | 0.3785 |  |  |  |  |
| 2007 | 0.3418 |  |  |  |  |
| 2008 | 0.2879 |  |  |  |  |
| 2009 | 0.5267 |  |  |  |  |
| 2010 | 0.2439 |  |  |  |  |

Table J.7. Landed catch exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

| Stock Identifiers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CWF | GAD | GAD | LRH | LRH | LRW | RBT | RBT | RBT | SAM | SAM | SAM | SPR | SPR | SPS | SPS | SRH | SRH | SUM | URB | URB | UWA | UWA | WSH | Fishery |
| Year | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Age 3 | Age 4 | Age 5 | Age 3 | Age 4 | Age 5 | Age 3 | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Index |
| 1979 |  |  |  | 1.1104 |  |  | 1.1699 | 1.2538 |  |  | 1 | 1 | 0.9531 | 0.8254 |  | 1.1326 | 1.5652 |  |  | 1.4007 | 1.7463 | 0.6998 | 1.2158 | 1.022 | 1.0519 |
| 1980 |  |  |  | 0.5599 | 1.0008 |  | 1.4137 | 1.4316 |  |  |  |  | 1.1792 | 1.4073 |  |  |  | 1.0912 | 0.689 | 1.3379 | 0.9398 | 1.3881 | 0.8622 | 1.1095 | 1.0446 |
| 1981 | 0.7952 | 0.7113 |  | 1.1596 | 0.7525 | 0.8449 | 0.6691 | 0.5843 | 1 |  |  |  | 0.946 | 0.635 | 0.7165 |  | 0.4348 |  | 1.311 | 0.1996 | 0.891 | 0.8456 | 0.8862 | 0.6284 | 0.8532 |
| 1982 | 1.2048 | 1.2887 | 1 | 1.1701 | 1.2467 | 1.1551 | 0.7473 | 0.7304 |  | 1 |  |  | 0.9217 | 1.1322 | 1.2835 | 0.8674 |  | 0.9088 |  | 1.0618 | 0.4229 | 1.0666 | 1.0358 | 1.2401 | 1.0498 |
| 1983 | 1.3681 |  | 1.4117 | 1.67 | 1.6011 | 0.9588 | 0.4161 | 0.8449 | 1.8294 |  | 0.9585 |  | 1.4644 | 0.9302 | 1.6393 | 0.8863 | 1.4876 |  |  | 0.3814 | 0.4347 | 0.7071 | 1.0787 | 0.2726 | 1.1724 |
| 1984 | 1.2992 | 2.053 |  | 2.1471 | 2.734 |  | 1.3102 | 1.1108 | 1.0411 |  |  | 1.0865 | 1.3146 | 1.3687 | 1.6061 | 0.9605 |  | 0.3897 |  | 0.8753 | 1.2686 | 1.7457 | 0.7334 | 0.6415 | 1.4097 |
| 1985 | 0.8918 |  | 0.8411 | 1.221 | 1.0733 |  | 0.4974 | 0 |  |  |  |  | 0.5308 | 0.944 | 0.811 | 0.6527 |  |  |  | 0.7549 | 1.0273 | 0.8028 | 1.0099 | 0.4086 | 0.8521 |
| 1986 | 1.2739 |  |  | 1.2636 | 1.1619 | 0.4677 |  | 1.1007 |  |  |  |  | 1.1759 | 0.993 | 0.8867 | 1.066 |  | 0.183 |  | 1.464 | 0.7212 | 0.8526 | 1.0935 |  | 1.0522 |
| 1987 | 0.855 |  |  | 0.9421 |  | 1.4473 | 0.2716 |  |  |  |  |  | 0.4545 |  | 0.749 | 0.5034 | 0.2611 | 0.2167 | 0 | 0.9984 | 0.7876 | 0.3693 | 0.4044 |  | 0.5747 |
| 1988 | 0.8419 | 0.4247 |  | 1.1366 | 1.3038 | 1.0511 | 0.4442 | 0.576 |  | 0.6037 |  |  | 0.9897 |  | 0.2964 | 0.6813 |  | 0.6401 | 1.1543 | 0.0874 | 1.8871 |  | 0.7719 | 0.8661 | 0.9016 |
| 1989 | 0.5264 | 0.2499 | 0.4869 | 0.284 | 0.5362 | 0.5635 | 0.2187 | 0.3395 | 0 | 0.2089 | 0.5982 |  | 0.5792 | 0.3915 | 0.3455 | 0.3767 | 0.3351 |  | 0.7596 |  | 0.8919 |  |  | 0.541 | 0.4724 |
| 1990 | 0.7142 | 1.0829 | 0.9348 | 1.1499 | 0.3956 | 1.2067 | 0.6715 | 0.5141 | 1.4889 | 0.4082 | 0.8536 |  | 0.9194 | 0.7173 | 0.7373 | 0.8105 | 0.7062 | 0.4311 | 1.4837 |  | 1.6097 |  |  | 0.8327 | 0.8641 |
| 1991 |  |  | 0.9362 | 0.8045 |  | 0.7404 | 0.5913 | 0.5326 | 1.3599 | 0.2503 | 0.5661 | 1.0937 | 0.591 | 0.6218 | 0.4207 | 0.5213 | 0.9066 | 0.3555 | 0.4816 |  |  |  |  | 0.0782 | 0.6802 |
| 1992 | 1.1432 |  | 0.452 | 0.6551 |  | 0.3197 | 1.5342 | 2.4207 | 5.0713 | 1.0459 | 0.2631 |  | 0.4297 | 0.7339 | 0.7284 | 0.7163 | 1.2197 | 2.4894 | 0.7517 |  |  |  |  | 0.1696 | 0.8067 |
| 1993 |  |  |  | 1.1004 | 0.6425 |  | 1.1209 | 2.2779 | 2.4185 | 1.1194 | 0.421 |  | 0.5361 | 0.9909 | 1.0364 | 0.5145 | 1.1918 | 1.0802 |  | 0.6201 | 1.943 |  |  | 0.4396 | 0.8527 |
| 1994 | 0.1173 |  |  |  |  | 0.2234 | 0.5742 | 0.69 | 1.2765 | 0.0573 | 0.6989 |  | 0.8209 | 0.6289 | 0.2193 | 0.4576 |  | 0.3848 |  |  | 0.9391 |  |  | 0.254 | 0.5308 |
| 1995 |  | 0.2209 |  |  |  | 0.4315 |  | 0.4377 | 0.3239 | 0.159 | 0.3773 |  | 0.3549 | 0.3473 | 0.2772 | 0.2567 | 0.0366 |  |  |  |  |  |  | 0.118 | 0.3188 |
| 1996 | 0 | 0 | 0 | 0 |  |  | 0 |  |  | 0 | 0 |  | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  | 0 | 0 |
| 1997 | 0.3396 |  | 0.221 | 0.7637 |  |  | 0 | 0.0641 |  | 0.035 | 0.2558 |  | 0.5031 | 0.4841 | 0.0354 | 0.2915 | 0 | 0.0361 | 0.0744 |  | 0.1101 |  |  | 0 | 0.3146 |
| 1998 |  |  |  |  |  |  |  | 0 |  |  | 0.0768 |  | 0.0448 | 0 | 0 | 0.0302 | 0 | 0 | 0 | 0.0152 |  |  |  | 0.0352 | 0.0272 |
| 1999 |  | 0.0475 |  | 0.0955 |  |  |  |  | 0 |  | 0.0731 |  | 0.0156 |  | 0.0201 | 0.0546 | 0 | 0 | 0.0261 |  | 0 |  |  | 0 | 0.0455 |
| 2000 |  |  | 1.2175 | 0.0958 | 1.8352 |  |  |  |  |  | 1.1001 |  | 0.0455 | 0.7574 | 0.035 | 0.7097 | 0 | 0 | 0.2148 | 0.1181 | 0.5096 |  |  | 0.0768 | 0.7194 |
| 2001 |  | 0.7074 | 1.2249 | 0.3038 |  | 0.7163 | 0 |  |  | 0.367 | 0.369 |  | 0.1439 | 0.5957 | 0.4479 | 0.5357 | 0 | 0.0544 | 0.4423 | 0.063 | 0.1686 |  |  | 0.1782 | 0.4939 |
| 2002 | 0.6071 | 0.1695 | 0.6693 | 0.3599 | 0.4891 |  | 0.016 | 0 |  | 0.2742 | 0.4155 |  | 0.2942 | 0.7487 | 0.437 | 0.5555 | 0 | 0 | 0.5317 | 0.0894 | 0.2113 |  |  | 0.3381 | 0.4617 |
| 2003 | 0.5538 | 0.1145 | 0.7321 | 0.3051 | 0.916 | 0.1243 | 0 | 0 |  |  | 0.5989 |  | 0.2989 | 0.589 | 0.3751 | 0.564 | 0 | 0 | 0.6017 | 0.1758 | 0.1059 |  |  | 0.5876 | 0.4971 |
| 2004 |  | 0.0781 | 1.1777 | 0.4082 | 1.0566 | 0.124 | 0.0328 | 0.021 | 0 | 0.1827 | 0.5416 |  | 0.3467 | 0.7962 | 0.351 | 0.8223 | 0.1798 | 0.2528 | 0.2579 | 0.1615 | 0.4899 |  |  | 2.1817 | 0.6045 |
| 2005 | 0.3036 | 0.7455 | 0.9615 | 0.7424 | 1.7719 | 0.123 | 0 | 0 |  | 0.1165 | 0.7946 |  | 0.8701 | 1.1755 | 0.5709 | 0.762 | 0.1639 | 0.2313 | 0.494 | 0.1302 | 0.4547 |  |  | 1.2461 | 0.7854 |
| 2006 |  | 0.2695 | 0.9305 |  |  | 0.4633 | 0 | 0 | 0 | 0.3782 | 0.7709 |  | 0.5622 | 1.3788 | 0.5246 | 0.7215 | 0.1645 | 0.2827 | 0.3318 |  | 0.7251 |  |  | 1.4556 | 0.6978 |
| 2007 |  | 0.9876 | 0.7962 | 0.7876 |  |  |  | 0.0184 |  | 1.2503 | 0.5671 |  | 0.6109 | 0.9249 | 1.0003 | 0.6912 | 0 | 0 | 0.4641 |  | 0.1331 |  |  | 0.2234 | 0.6739 |
| 2008 |  | 0.4674 | 0.3836 | 0.4508 |  |  | 0 |  | 0 | 0.7011 | 0.3359 |  | 0.2094 |  | 0.4941 | 0.3201 | 0.2375 | 0 | 0.0904 | 0.306 |  |  |  | 0.1701 | 0.312 |
| 2009 | 0 | 0.3064 | 0.5146 | 0.229 | 0.2374 |  | 0 | 0 |  | 0.6593 | 0.1567 |  | 0.1923 | 0.0542 | 0.5417 | 0.1856 | 0.0389 | 0.0384 | 0.362 |  | 0.1156 |  |  | 0.1119 | 0.2173 |
| 2010 | 0.1357 | 0.589 | 0.456 | 0.3234 |  |  | 0.0491 | 0.2541 |  | 0.9356 | 0.1339 |  | 0.3059 |  | 0.5248 | 0.1155 | 0 | 0 | 0.1329 | 0.119 |  |  |  | 0.2366 | 0.2595 |

Stock Identifiers
CWF = COWLITZ FALL TULE
GAD = G ADAMS FALL FING
LRH = LOWER RIVER TULE
LRW = LEWIS RIVER WILD

RBT = ROBERTSON CREEK
SAM = SAMISH FALL FING
SPR = SPRING CREEK TULE
SPS = SO SOUND FALL FING

SRH = SALMON RIVER HATCHERY
SUM = COL RIVER SUMMERS
URB $=$ COLUMBIA UPRIVER BRIGHT
UWA = U OF W FALL ACCEL

WSH = WILLAMETTE SPRING
CHI = CHILLAWACK

Table J.8. WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as landed catch, based on CWT data.

| YEAR | SPFI | FALL/WIN | SPRING | SUMMER | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 1.0973 | 1.1609 | 1.1213 | 1.0173 | Cowlitz Fall Tule | Age 4 |  |  |
| 1980 | 1.1336 | 0.8915 | 1.3077 | 1.1521 | George Adams | Age 3 | Age 4 |  |
| 1981 | 0.8682 | 1.3963 | 0.7101 | 0.7979 | Lower River Hatchery | Age 3 | Age 4 |  |
| 1982 | 0.9010 | 0.5514 | 0.8609 | 1.0328 | Lewis River Wild | Age 4 |  |  |
| 1983 | 1.0120 | 1.1430 | 0.7345 | 1.1129 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1984 | 1.3512 | 0.8999 | 0.9080 | 1.6367 | Samish | Age 3 | Age 4 |  |
| 1985 | 1.1860 | 0.0000 | 0.5109 | 1.3995 | Spring Creek | Age 3 | Age 4 |  |
| 1986 | 0.8184 | 0.1124 | 0.4866 | 1.2954 | South Puget Sound Fingerling | Age 3 | Age 4 |  |
| 1987 | 1.3684 | 0.0000 | 0.0000 | 1.4037 | Salmon River Hatchery | Age 3 | Age 4 | Age 5 |
| 1988 | 1.6863 | 0.0000 | 0.0000 | 1.7298 | Columbia River Summers | Age 4 |  |  |
| 1989 | 0.8071 | 0.0000 | 0.0000 | 0.8279 | Columbia Upriver Brights | Age 3 | Age 4 |  |
| 1990 | 1.1152 | 0.0000 | 0.0487 | 1.6231 | University of Washington | Age 3 | Age 4 |  |
| 1991 | 0.5898 | 0.0000 | 0.0295 | 1.1092 | Willamette Spring Hatchery | Age 4 |  |  |
| 1992 | 1.6587 | 0.2397 | 0.0000 | 1.9950 | Chilliwack | Age 3 | Age 4 |  |
| 1993 | 0.7369 | 0.0445 | 0.0000 | 1.9562 |  |  |  |  |
| 1994 | 0.5209 | 0.0415 | 0.0000 | 1.1310 |  |  |  |  |
| 1995 | 0.5842 | 0.0000 | 0.0000 | 0.5993 |  |  |  |  |
| 1996 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |  |  |  |
| 1997 | 0.4103 | 0.0000 | 0.0000 | 0.4208 |  |  |  |  |
| 1998 | 0.0172 | 0.0095 | 0.0546 | 0.0000 |  |  |  |  |
| 1999 | 0.1778 | 0.2562 | 0.0000 | 0.0000 |  |  |  |  |
| 2000 | 0.7161 | 2.1292 | 0.0662 | 0.0000 |  |  |  |  |
| 2001 | 0.1723 | 0.8031 | 0.3891 | 0.0533 |  |  |  |  |
| 2002 | 0.2269 | 0.3026 | 0.7523 | 0.0251 |  |  |  |  |
| 2003 | 0.5654 | 0.4883 | 0.6100 | 0.0000 |  |  |  |  |
| 2004 | 0.3950 | 1.1496 | 0.4522 | 0.1326 |  |  |  |  |
| 2005 | 0.6138 | 2.6813 | 0.3806 | 0.1231 |  |  |  |  |
| 2006 | 0.4169 | 1.8711 | 0.3497 | 0.1595 |  |  |  |  |
| 2007 | 0.3779 | 1.5426 | 0.7839 | 0.0373 |  |  |  |  |
| 2008 | 0.3851 | 0.4609 | 0.2990 | 0.3898 |  |  |  |  |
| 2009 | 0.1272 | 0.3230 | 0.3470 | 0.0330 |  |  |  |  |
| 2010 | 0.1071 | 0.0162 | 0.5828 | 0.0435 |  |  |  |  |

Table J.9. Total mortality exploitation rate indices by stock and age in the WCVI troll fishery, based on CWT data. Base period is 1979-1982.

| Stock Identifiers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CWF | GAD | GAD | LRH | LRH | LRW | RBT | RBT | RBT | SAM | SAM | SAM | SPR | SPR | SPS | SPS | SRH | SRH | SUM | URB | URB | UWA | UWA | WSH | Fishery |
| Year | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Age 3 | Age 4 | Age 5 | Age 3 | Age 4 | Age 5 | Age 3 | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Age 3 | Age 4 | Age 3 | Age 4 | Age 4 | Index |
| 1979 |  |  |  | 1.1011 |  |  | 1.2034 | 1.2541 |  |  | 1 | 1 | 0.9489 | 0.8274 |  | 1.1332 | 1.5304 |  |  | 1.3672 | 1.7543 | 0.6842 | 1.2229 | 1.0009 | 1.0477 |
| 1980 |  |  |  | 0.5665 | 0.9854 |  | 1.3823 | 1.4242 |  |  |  |  | 1.1609 | 1.4054 |  |  |  | 1.1006 | 0.6875 | 1.3153 | 0.9487 | 1.3453 | 0.8633 | 1.0966 | . 1.0382 |
| 1981 | 0.786 | 0.7196 |  | 1.1513 | 0.741 | 0.8505 | 0.6631 | 0.5977 | 1 |  |  |  | 0.9272 | 0.632 | 0.7331 |  | 0.4696 |  | 1.3125 | 0.2667 | 0.8833 | 0.8158 | 0.8556 | 0.6364 | . 0.8453 |
| 1982 | 1.214 | 1.2804 | 1 | 1.1811 | 1.2736 | 1.1495 | 0.7512 | 0.724 |  | 1 |  |  | 0.963 | 1.1352 | 1.2669 | 0.8668 |  | 0.8994 |  | 1.0508 | 0.4138 | 1.1547 | 1.0583 | 1.2662 | 1.0646 |
| 1983 | 1.3803 |  | 1.4051 | 1.6539 | 1.6184 | 0.9652 | 0.4496 | 0.8354 | 1.874 |  | 0.9571 |  | 1.411 | 0.9255 | 1.5805 | 0.8868 | 1.3994 |  |  | 0.3774 | 0.4253 | 0.6698 | 1.0638 | 0.3024 | 1.1629 |
| 1984 | 1.3152 | 1.893 |  | 2.1055 | 2.7623 |  | 1.3119 | 1.1108 | 1.0796 |  |  | 1.0844 | 1.2499 | 1.3293 | 1.5712 | 0.9643 |  | 0.3856 |  | 0.8546 | 1.2738 | 1.5704 | 0.7395 | 0.6399 | 1.3927 |
| 1985 | 0.9153 |  | 0.8355 | 1.2495 | 1.0946 |  | 0.4912 | 0 |  |  |  |  | 0.5583 | 0.9169 | 0.8114 | 0.6547 |  |  |  | 0.7659 | 1.0337 | 0.7307 | 1.014 | 0.4335 | 0.8531 |
| 1986 | 1.3181 |  |  | 1.1803 | 1.1441 | 0.4744 |  | 1.0956 |  |  |  |  | 1.1737 | 0.9874 | 0.9098 | 1.0586 |  | 0.1811 |  | 1.4294 | 0.7346 | 0.7953 | 1.0737 |  | 1.039 |
| 1987 | 0.8915 |  |  | 1.2161 |  | 1.4895 | 0.2974 |  |  |  |  |  | 0.4568 |  | 0.915 | 0.5212 | 0.3462 | 0.2502 | 0 | 1.1781 | 0.851 | 0.4162 | 0.427 |  | 0.6374 |
| 1988 | 0.9141 | 0.5066 |  | 1.3421 | 1.4365 | 1.0933 | 0.484 | 0.5913 |  | 0.7294 |  |  | 0.9962 |  | 0.387 | 0.7062 |  | 0.6877 | 1.2036 | 0.493 | 2.021 |  | 0.7945 | 0.9363 | 0.9728 |
| 1989 | 0.5549 | 0.3965 | 0.4996 | 0.3328 | 0.5866 | 0.5922 | 0.2386 | 0.3376 | 0 | 0.3766 | 0.6123 |  | 0.6329 | 0.4003 | 0.4198 | 0.3875 | 0.3949 |  | 0.7851 |  | 0.9621 |  |  | 0.564 | 0.505 |
| 1990 | 0.7647 | 1.1692 | 0.9488 | 1.1992 | 0.4545 | 1.2403 | 0.7132 | 0.5327 | 1.5462 | 0.5146 | 0.8637 |  | 0.9451 | 0.7402 | 0.9911 | 0.8438 | 0.81 | 0.4655 | 1.504 |  | 1.6799 |  |  | 0.9009 | . 0.9088 |
| 1991 |  |  | 0.978 | - 0.7667 |  | 0.7711 | 0.6637 | 0.5545 | 1.4031 | 0.4575 | 0.5858 | 1.0913 | 0.6237 | 0.6409 | 0.5631 | 0.5397 | 0.9539 | 0.3853 | 0.4849 |  |  |  |  | 0.0877 | . 0.7029 |
| 1992 | 1.1689 |  | 0.4765 | 0.7841 |  | 0.3366 | 1.8985 | 2.5093 | 5.2393 | 1.0151 | 0.2729 |  | 0.5164 | 0.762 | 0.8159 | 0.7306 | 1.4156 | 2.5565 | 0.808 |  |  |  |  | 0.2475 | . 0.8545 |
| 1993 |  |  |  | 1.253 | 0.7285 |  | 1.4899 | 2.3606 | 2.5348 | 1.2261 | 0.4435 |  | 0.6104 | 1.0195 | 1.1647 | 0.5291 | 1.5302 | 1.1677 |  | 0.941 | 2.0197 |  |  | 0.4677 | [ 0.9329 |
| 1994 | 0.1159 |  |  |  |  | 0.2443 | 0.6963 | 0.7294 | 1.3286 | 0.2687 | 0.7102 |  | 0.8664 | 0.6544 | 0.2584 | 0.4595 |  | 0.415 |  |  | 0.9869 |  |  | 0.276 | . 0.5601 |
| 1995 |  | 0.2794 |  |  |  | 0.4839 |  | 0.4698 | 0.3599 | 0.2441 | 0.4158 |  | 0.4048 | 0.3823 | 0.3221 | 0.2778 | 0.0808 |  |  |  |  |  |  | 0.1377 | . 0.3567 |
| 1996 | 0.0339 | 0.0766 | 0.0256 | 0.0619 |  |  | 0.0361 |  |  | 0.0683 | 0.0155 |  | 0.0428 |  | 0.0699 | 0.0213 | 0.0579 | 0.0123 | 0.0286 | 0.093 | 0.0619 |  |  | 0.0291 | . 0.0378 |
| 1997 | 0.3357 |  | 0.2298 | 0.8909 |  |  | 0.0051 | 0.062 |  | 0.0994 | 0.2591 |  | 0.5809 | 0.5266 | 0.1345 | 0.305 | 0 | 0.0357 | 0.0791 |  | 0.1077 |  |  |  | . 0.3502 |
| 1998 |  |  |  |  |  |  |  | 0 |  |  | 0.0747 |  | 0.0405 | 0 |  | 0.0294 | 0 |  |  | 0.0135 |  |  |  | 0.0316 | . 0.0259 |
| 1999 |  | 0.0401 |  | 0.0861 |  |  |  |  | 0 |  | 0.0711 |  | 0.0142 |  | 0.0173 | 0.0532 | 0 | , | 0.0254 |  | 0 |  |  |  | . 0.0427 |
| 2000 |  |  | 1.2131 | -0864 | 1.8573 |  |  |  |  |  | 1.0697 |  | 0.0493 | 0.7356 | 0.0302 | 0.7043 | 0 | 0 | 0.2085 | 0.1052 | 0.4985 |  |  | 0.069 | 0.6967 |
| 2001 |  | 0.6071 | 1.2636 | 0.2775 |  | 0.6962 | 0 |  |  | 0.3244 | 0.3588 |  | 0.1339 | 0.5786 | 0.3962 | 0.53 | ${ }^{1}$ | 0.0538 | 0.4366 | 0.0655 | 0.1649 |  |  | 0.1636 | 0.4769 |
| 2002 | 0.6182 | 0.1571 | 0.662 | 0.3314 | 0.4949 |  | 0.0143 | 0 |  | 0.2339 | 0.4108 |  | 0.2722 | 0.7384 | 0.3906 | 0.5506 | 0 | 0 | 0.5252 | 0.0796 | 0.2157 |  |  | 0.3122 | . 0.4476 |
| 2003 | 0.5474 | 0.0965 | 0.7238 | 0.2825 | 0.9161 | 0.1272 | 0 | 0 |  |  | 0.5823 |  | 0.277 | 0.5817 | 0.3298 | 0.5591 | 0 | 0 | 0.5933 | 0.1566 | 0.1036 |  |  | 0.5375 | . 0.4802 |
| 2004 |  | 0.0658 | 1.1726 | 0.3819 | 1.0592 | 0.1206 | 0.0293 | 0.0203 | 0 | 0.1558 | 0.5266 |  | 0.322 | 0.7873 | 0.3125 | 0.8155 | 0.1702 | 0.2542 | 0.2549 | 0.1439 | 0.4793 |  |  | 2.0048 | 0.5836 |
| 2005 | 0.3 | 0.6567 | 0.9579 | 0.6984 | 1.7718 | 0.1195 | 0 | 0 |  | 0.0994 | 0.7857 |  | 0.806 | 1.16 | 0.502 | 0.7521 | 0.1448 | 0.236 | 0.4888 | 0.116 | 0.4516 |  |  | 1.1441 | - 0.761 |
| 2006 |  | 0.2386 | 0.9275 |  |  | 0.4503 | 0 | 0 | 0 | 0.3461 | 0.7496 |  | 0.5222 | 1.3823 | 0.4665 | 0.7132 | 0.1454 | 0.2798 | 0.3264 |  | 0.7094 |  |  | 1.3387 | 0.6763 |
| 2007 |  | 0.8571 | 0.7915 | 0.71 |  |  |  | 0.0178 |  | 1.0869 | 0.5611 |  | 0.5526 | 0.8983 | 0.88 | 0.6856 | 0 |  | 0.4569 |  | 0.1302 |  |  | 0.2005 | . 0.6434 |
| 2008 |  | 0.394 | 0.3754 | 0.4273 |  |  | 0 |  | 0 | 0.6176 | 0.3266 |  | 0.1929 |  | 0.4392 | 0.3119 | 0.2098 | 0 | 0.0878 | 0.2725 |  |  |  | 0.1527 | 0.2969 |
| 2009 | , | 0.2767 | 0.5037 | 0.2202 | 0.2337 |  | 0 | 0 |  | 0.5623 | 0.1524 |  | 0.1739 | 0.0527 | 0.4821 | 0.1808 | 0.0344 | 0.038 | 0.3556 |  | 0.1131 |  |  | 0.1005 | 0.209 |
| 2010 | 0.1341 | 0.5085 | 0.4463 | 0.2975 |  |  | 0.0439 | 0.2455 |  | 0.8184 | 0.1302 |  | 0.2832 |  | 0.4637 | 0.1125 | 0 | , | 0.1408 ; | 0.106 |  |  |  | 0.2124 | . 0.2484 |


| CWF $=$ COWLITZ FALL TULE | RBT $=$ ROBERTSON CREEK | SRH $=$ SALMON RIVER HATCHERY | WSH $=$ WILLAMETTE SPRING |
| :--- | :--- | :--- | :--- |
| GAD $=$ G ADAMS FALL FING | SAM $=$ SAMISH FALL FING | SUM $=$ COL RIVER SUMMERS |  |
| LRH $=$ LOWER RIVER TULE | SPR $=$ SPRING CREEK TULE | URB $=$ COLUMBIA UPRIVER BRIGHT |  |
| LRW $=$ LEWIS RIVER WILD | SPS $=$ SO SOUND FALL FING | UWA $=$ U OF W FALL ACCEL |  |

Table J.10. WCVI troll fishery Stratified Proportion Fishery Index (SPFI) values as total mortality, based on CWT data.

| YEAR | SPFI | FALL/WIN | SPRING | SUMMER | ER Stock Identifiers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1979 | 1.0825 | 1.1275 | 1.1059 | 1.0108 | Cowlitz Fall Tule | Age 4 |  |  |
| 1980 | 1.1222 | 0.8729 | 1.3004 | 1.1410 | George Adams | Age 3 | Age 4 |  |
| 1981 | 0.8805 | 1.4070 | 0.7286 | 0.8055 | Lower River Hatchery | Age 3 | Age 4 |  |
| 1982 | 0.9148 | 0.5925 | 0.8650 | 1.0427 | Lewis River Wild | Age 4 |  |  |
| 1983 | 0.9837 | 1.1007 | 0.7110 | 1.0876 | Robertson Creek | Age 3 | Age 4 | Age 5 |
| 1984 | 1.3436 | 0.8812 | 0.9017 | 1.6299 | Samish | Age 3 | Age 4 |  |
| 1985 | 1.1675 | 0.0000 | 0.4979 | 1.3790 | Spring Creek | Age 3 | Age 4 |  |
| 1986 | 0.8049 | 0.1040 | 0.4714 | 1.2801 | South Puget Sound Fingerling | Age 3 | Age 4 |  |
| 1987 | 1.5272 | 0.0000 | 0.0000 | 1.5649 | Salmon River Hatchery | Age 3 | Age 4 | Age 5 |
| 1988 | 1.7456 | 0.0000 | 0.0000 | 1.7886 | Columbia River Summers | Age 4 |  |  |
| 1989 | 0.9314 | 0.0000 | 0.0000 | 0.9544 | Columbia Upriver Brights | Age 3 | Age 4 |  |
| 1990 | 1.1413 | 0.0000 | 0.0476 | 1.6607 | University of Washington | Age 3 | Age 4 |  |
| 1991 | 0.6327 | 0.0000 | 0.0288 | 1.1922 | Willamette Spring Hatchery | Age 4 |  |  |
| 1992 | 1.7017 | 0.2433 | 0.0000 | 2.0448 | Chilliwack | Age 3 | Age 4 |  |
| 1993 | 0.7559 | 0.0412 | 0.0000 | 2.0101 |  |  |  |  |
| 1994 | 0.5256 | 0.0384 | 0.0000 | 1.1430 |  |  |  |  |
| 1995 | 0.6550 | 0.0000 | 0.0000 | 0.6711 |  |  |  |  |
| 1996 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |  |  |  |  |
| 1997 | 0.3904 | 0.0000 | 0.0000 | 0.4000 |  |  |  |  |
| 1998 | 0.0158 | 0.0088 | 0.0504 | 0.0000 |  |  |  |  |
| 1999 | 0.1673 | 0.2419 | 0.0000 | 0.0000 |  |  |  |  |
| 2000 | 0.6700 | 2.0008 | 0.0610 | 0.0000 |  |  |  |  |
| 2001 | 0.1615 | 0.7553 | 0.3661 | 0.0497 |  |  |  |  |
| 2002 | 0.2131 | 0.2849 | 0.7064 | 0.0236 |  |  |  |  |
| 2003 | 0.5301 | 0.4583 | 0.5726 | 0.0000 |  |  |  |  |
| 2004 | 0.3709 | 1.0837 | 0.4245 | 0.1241 |  |  |  |  |
| 2005 | 0.5759 | 2.5263 | 0.3565 | 0.1149 |  |  |  |  |
| 2006 | 0.3906 | 1.7564 | 0.3293 | 0.1488 |  |  |  |  |
| 2007 | 0.3535 | 1.4467 | 0.7350 | 0.0343 |  |  |  |  |
| 2008 | 0.3606 | 0.4261 | 0.2816 | 0.3645 |  |  |  |  |
| 2009 | 0.1187 | 0.2987 | 0.3239 | 0.0313 |  |  |  |  |
| 2010 | 0.1003 | 0.0150 | 0.5469 | 0.0405 |  |  |  |  |

Appendix K Issues with ERA and model calibration

## Issues with CWT Data

## Alaska Spring

- As in previous years, the rack return, cost-recovery, personal use and stray recoveries for AKS were imported as auxiliary data.


## Chilkat, Unuk and Taku Spring

- The escapement and stray recoveries for CHK, UNU and TAK were imported as auxiliary data.


## Canadian Stocks

- As in previous years, the escapement, rack return and stray recoveries for ATN, ATS, BQR, CHE, CHI, COW, DOM, HAR, KLM, NAN, NIC, PPS, QUI, RBT and SHU were imported as auxiliary data. Also, 2012 is the first year in which a complete time series of ERA results is provided for the Atnarko (ATN) stock. Given this, a narrative describing the steps taken in order to make ATN data useable in the ERA is provided at the end of this appendix.


## Elk River

- Corrections to the terminal sport recoveries from 1979 through 1996 for ELK were imported as auxiliary data.
Salmon River Hatchery
- Corrections to the escapement recoveries from 1979 through 1983 for SRH were imported as auxiliary data.


## Changes from Previous Calibration Procedures

## Changes to the Input Data for the Chinook Model calibration.

## CNR File

SEAK Troll - SEAK troll catch estimates from 1985-2010 were changed to treaty catch instead of total catch. SEAK troll encounter estimates from 1985-2010 were changed to treaty catch by multiplying by the SEAK troll treaty catch to total catch ratio.

SEAK Net - SEAK net catch estimates from 1985-2010 were changed to treaty catch instead of total catch. SEAK net encounter estimates from 1985-2010 were changed to treaty catch by multiplying by the SEAK net treaty catch to total catch ratio.

## CEI File

SEAK Troll, Net, and Sport - SEAK treaty catch estimates from 2005-2010 were changed because terminal exclusion is now calculated only for statistical weeks 17-29 and the sport terminal exclusions are now calculated using GSI instead of CWTs.

## Maturation and Adult Equivalent (MATAEQ DAT) File

Fraser Late Maturation Rates and AEQ Values - The age 3 and age 4 FRL maturation rates for incomplete broods were changed from the recent 5 year average to the long-term average so that the rates for FRL were consistent with those of the other stocks in the MATAEQ file. This resulted in new age 3 and age 4 adult equivalent values for the incomplete FRL broods as well.

## Additional Notes or Comments on the Current ERA and Model Calibration

Narrative on Atnarko Exploitation Rate Indicator Stock
Although Atnarko Chinook have been CWTed since 1976, this is the first year that distribution tables for Atnarko Summer Chinook are included in a CTC Exploitation Rate Analysis and Model Calibration report. Despite the Bella Coola River watershed having had the most intensive Chinook stock assessments in central British Columbia, including the most thorough escapement assessment in the region, significant issues prevented the inclusion of this population as a CWT indicator stock in PSC assessments: (i) a need for validation of the quality of estimates of total escapement; (ii) the need for adequate sampling allowing estimation of freshwater CWT recoveries; (iii) data coordination reporting problems; and, (iv) limitations of funds to conduct robust and effective sampling and analysis. A recent investigation by Vélez-Espino et al. (2011) compiled reliable CWT data and generated crucial information about the exploitation history of Atnarko Chinook salmon, including: (i) filtering CWT recoveries by release type and site; (ii) validating and calibrating escapement estimates from a time period exhibiting a consistent methodology; (iii) developing methods to generate catch sampling fractions for First Nations and recreational fisheries; and, (iv) developing methods to generate CWT pseudo-
recoveries from recent years for the commercial net fishery in the Bella Coola
River, and for the escapement for brood years 1976-1978 that contribute to the base period 19791982. These steps enabled the incorporation of Atnarko Summer Chinook as an exploitation rate indicator stock in current PSC assessments. Although significant effort had been placed on maintaining Atnarko Chinook escapement estimation procedures (see Vélez-Espino et al. 2010) and CWT release and recovery programs, only now have escapement estimates been validated and missing data for freshwater CWT recoveries been addressed to allow successful cohort analyses of this stock.

Vélez-Espino, L.A., Mullins, G., Willis, J., Krimmer, A., and Levesque, W. 2010. Markrecapture experiment for the 2009 Chinook salmon spawning escapement in the Atnarko River. Can. Manuscr. Rep. Fish. Aquat. Sci. 2930: xii +51 p.

Vélez-Espino, L.A., Willis, J., Parken, C.K., and Brown, G. 2011. Cohort analyses and new developments for coded wire tag data of Atnarko River Chinook salmon. Can. Manuscr. Rep. Fish. Aquat. Sci. 2958: xiii + 68 p.


[^0]:    ${ }^{1}$ Not available (NA) because of insufficient data (lack of stock specific tag codes, base period CWT recoveries, etc).
    ${ }^{2}$ Stock or stock group with a CTC agreed escapement goal.
    ${ }^{3}$ Stock group listed in Annex 4, Chapter 3, Attachment V.
    ${ }^{4}$ An inconsistency was discovered between the approaches used to calculate the model-based and CWT-based

[^1]:    ${ }^{1}$ The lower value resulted from subtracting a disputed terminal exclusion catch for the Stikine River in 2004. Catch accounting has since been defined in the Transboundary Agreement.
    ${ }^{2}$ This is the first catch year in which fisheries operated under the provisions of the 2009 agreement; cumulative deviations span the entire record that is displayed.

[^2]:    ${ }^{1}$ Escapement, ${ }^{2}$ Terminal Run; **Note that model forecasts are from separate yearly calibrations, not a time series from the recent calibration**

[^3]:    ${ }^{1}$ Project to be funded with remaining FY11 funds.
    ${ }^{2}$ Wands will be purchased through WDFW; \$401,521 in total for 26 SEAK wands @ 3,465 ea (\$90,085 total), 30
    ODFW wands @ \$2,690 ea (\$80,710 total) and 85 WDFW wands @ $\$ 2,690$ ea ( $\$ 230,726$ total).

[^4]:    ${ }^{1}$ 'NA' denotes a hatchery stock; 'Not represented' denotes a wild stock without an escapement indicator.

[^5]:    Stock Identifiers:
    AKS = ALASKA SPRING QUI = QUINSAM RBT = ROBERTSON CREEK
    SRH = SALMON RIVER HATCHERY

