

**Southern Boundary  
Restoration & Enhancement Fund**

**Call for Project Concepts for the  
2020 Project Year**

The Southern Fund Committee (SFC) has reviewed investment performance and has determined that approximately U.S. \$3 million may be available for project funding in 2020. Given that the guarantee of income from investments on the endowment fund is not assured, the actual amount will depend on fund performance over the next nine months.

The Committee wishes to draw attention to the fact that this 2020 Call for Proposals is a general Call **consistent with the Strategic Goals and Objectives of the Southern Fund** as identified in the [2008 Southern Boundary Restoration and Enhancement Fund Strategic Plan](#).

In addition, the Committee will give special consideration to those proposals that are not only consistent with the vision and mission statements of the Fund as articulated in the Plan but that are also directly responsive to the specific priorities of the PSC's Fraser River and Southern Panels listed below.

It is not likely that any funding will be available for projects that address purposes outside the Goals identified in the Strategic Plan or the stated Panel priorities. Proponents of such projects are cautioned to carefully weigh their costs of proposal preparation against the stiff competition they will face. The Committee are not inclined to support ongoing monitoring activities unless the project is designed to address gaps in the understanding of key mechanisms or relationships, or improve the approach to management over the long term.

**NEW FOR 2020.** Proponents of projects who are seeking follow-up funding in 2020 for another annual grant in support of a multi-year project should be aware that Committee approval of work in any succeeding year will depend on consideration of a new Project Concept proposal **and** demonstrated progress on key elements of the work that was described in the prior years' proposal. A progress report on the key deliverables should be included in the stage 2 proposal.

## **Fraser River Panel priorities.**

### **1) Additional Fraser sockeye salmon juvenile assessments.**

Two types of projects addressing one or both of the two elements below are desired: (a) assessment of juvenile sockeye in upstream locations in the Fraser watershed including either out-migrating smolts or lake surveys, and (b) assessment of juvenile salmon in lower Fraser locations. Projects that evaluate the stock composition of out-migrating sockeye, which are expected to return as adults in 2022, are of special interest due to the use of these data for in-season stock assessment purposes (in particular in-season predictions of Late Shuswap abundance).

### **2) Examination of mechanisms affecting survival of Fraser River sockeye salmon.**

Depending on available funds, we believe these projects could be restricted to either analyses of existing datasets and/or additions to existing field projects which are addressing freshwater and marine survival mechanisms which would include projects about en-route loss.

### **3) Improvement of species composition estimates in the Fraser River during sockeye salmon migration.**

Given the low returns of Fraser River sockeye salmon in 2016 and 2017, the prospects for large sockeye returns in 2020 and 2021 are poor. Therefore, species composition estimates and the possible bias they may create for both the daily and total sockeye abundance estimates require additional scrutiny. Proposals could include methods to improve the in-season assessment of the daily abundance of other salmon species co-migrating with sockeye salmon within the Fraser River or methods to improve species composition estimates derived from test fishery data.

### **4) Further work to follow-up on the Test Fishery Workshop report's five recommendations.**

2020 will be the seventh year of a return to 'use of fish' to fund test fishery programs used to assess the return abundance, timing and diversion rate of Fraser River sockeye and pink salmon. This change increased the quantities of fish required relative to the 2007-2012 period when the majority of funds came from agencies (largely DFO). We greatly appreciated SEFC support of a two-year project to conduct two workshops related to this topic. This project resulted in a technical report available at this link: <http://www.psc.org/download/33/psc-technical-reports/10620/psc-technical-report-no-40.pdf>. The Panel supports proposals to conduct work in support of the report's five recommendations.

### **5) Exploration of alternative methods for making pre-season forecasts of northern diversion rate for Fraser River sockeye and pink salmon.**

In recent years Fraser sockeye northern diversion rates have fluctuated between less than 20% in 2008 to more than 95% in 2014. Forecasts of northern diversion rate impact pre-season fisheries planning, and in-season diversion rates affect the implementation of fisheries designed to achieve agreed international shares of the TAC. In-season fluctuations

in diversion rate have not typically been forecast pre-season. Consequently, the Fraser River Panel is interested in exploring alternative forecast methods for both Fraser sockeye and pink salmon diversion rates and in evaluating the relative performance of new and existing forecasts models.

**6) Work to restore salmon habitat that would be of benefit to Fraser River Sockeye populations (and possibly also other salmon species).**

Over the past decade or more a number of Fraser River sockeye stocks which used to contribute to important fisheries have experienced significant declines, and despite large reductions in fishing pressure, have not recovered. Consequently, fishing opportunities for the two countries have been affected. While marine survival is likely a factor, changes to freshwater habitats may also be contributing to conservation challenges. The Fraser River Panel is therefore interested in opportunities to restore sockeye habitat, with the objective of taking action to address persistent limitations to sockeye productivity in freshwater spawning and rearing habitats.

**Southern Panel priorities.**

**1) Coho Data Inputs**

- Development of methods to improve estimates of escapement for the Lower Fraser River Management Unit.
- Improvements in Canadian recreational catch estimates, including further development of iREC (calibration, non-response bias, etc)
- Evaluation of the representativeness of the Black Creek (Vancouver Island) stock as a wild escapement indicator for the new Strait of Georgia Management Unit.

**2) Coho FRAM Model Improvements**

- Improvements in abundance forecasting, including a better understanding of the impacts of environmental variability and uncertainty particularly with respect to freshwater survival for Interior Fraser River and Lower Fraser River Management Units.
- Incorporate uncertainty in the model (input and output); may require new model framework.

**3) Coho Biological Studies**

- Studies of the implications of environmental change in freshwater and marine environments for Southern Coho based on current knowledge e.g. literature reviews, databases that can help interpret impacts, etc.

**4) Chum salmon run reconstruction model and biological database. (ChumGEM Model: Chum salmon Genetic and Environmental management Model)**

- Continued development of the existing run reconstruction model and biological database for Southern BC and Washington Chum salmon is needed. A central

component of the Southern Chum Salmon Strategic Plan is to develop a model that incorporates genetic, escapement, fishery and environmental components.

**5) Southern BC and Washington Single Nucleotide Polymorphism (SNP) baseline implementation.**

- The Chum Technical Committee supports the development of and augmentation of the Joint Canadian and U.S. Southern B.C. and Washington State Chum SNP baseline for stock identification in mixed stock fisheries.

**6) Genetic stock identification sampling of Chum in fisheries of undetermined stock composition.**

- Continued support is required to evaluate stock composition variability.

**7) Establish a Chum salmon assessment program in the Strait of Juan de Fuca.**

- A significant gap exists in our current understanding of the temporal and spatial distribution of Southern BC and Washington State Chum that migrate through the Strait of Juan de Fuca.

**8) Improve Chum salmon escapement assessments**

- The Chum Technical Committee needs continued support to evaluate the feasibility of using alternate assessment approaches to increase coverage and improve estimates of spawning escapement for Southern BC and Washington Chum salmon.

## **Application Process**

The SFC uses a two-stage submission and review process. The initial review stage is designed primarily to evaluate the proposal's relevance and significance to the Pacific Salmon Treaty and the priorities outlined in the Strategic Plan and this Call for Proposals. As such, project proponents should focus on providing a clear description of project objectives and benefits in this first round concept stage, rather than on the development of detailed project implementation and budget information. That information will need to be provided in greater detail later, but only for those project concepts selected for second stage review.

The two-page "Project Concept" form that accompanies this Call for Proposals is the format that must be used by all proponents. The use of this format allows the SFC to conduct its first-round review of submissions in as fair and expeditious a manner as practicable. Completed forms must be returned to the Fund Manager at the Pacific Salmon Commission offices in Vancouver, BC in electronic format only by **midnight (24:00) on Monday, September 2<sup>nd</sup>, 2019** at the following e-mail address: [southfund@psc.org](mailto:southfund@psc.org).

The first-round review of all Project Concept proposals by the SFC will take place in September, 2019. Those proponents who's Project Concepts appear to best match the stated objective of this Call for Proposals will be invited to prepare a more detailed proposal for submittal to stage two of the process. Projects approved to move to the second stage will have

until November 3<sup>rd</sup>, 2019 to submit final, detailed applications on a form that will be provided. The detailed applications will be subject to an in-depth technical review. The SFC will make its final funding decisions in February, 2020.

### **Deadlines**

Project Concept forms must be in electronic format and must be received, preferably by e-mail, at the following address: [southfund@psc.org](mailto:southfund@psc.org) by **midnight on Monday, September 2<sup>nd</sup>, 2019**.

### **Contact Information**

More information and “Project Concept” forms may be accessed online at [www.psc.org](http://www.psc.org). Questions or points of clarification should be directed to the Fund Manager, Angus Mackay or the Fund Assistant, Victor Keong via phone at (604) 684-8081, or email at [Mackay@psc.org](mailto:Mackay@psc.org) or [Keong@psc.org](mailto:Keong@psc.org)

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