

# The Regional Mark Processing Center's Future Role in Providing GSI Data for Fisheries Resource Management on the Pacific Coast

Presenter:

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# A Brief History of the RMPC

- Originally formed in Oregon in 1970 through the Anadromous Fish Act.
- In 1977 the RMPC was transferred to the PMFC and its role expanded from just data management to include regional coordination.
- In 1987 the Pacific Salmon Commission, formed by the Pacific Salmon Treaty, selected the RMPC as the site to maintain the primary coded wire tag database to expedite data exchange between the U.S. and Canada. This led to the standardization of all CWT data using the PSC format standards.
- Since then, there have been several data format upgrades (Version 4.0 is the current PSC standard). RMPC computers and data access methods have been upgraded over time to the current state of the art systems.
- Funding for the RMPC is provided by NOAA Fisheries, BPA, USFWS & the PSMFC.





# The RMPC's Mission

The RMPC uniquely exists to provide essential services to international, state, federal, tribal and other fisheries organizations. These services include:

- Regional coordination of salmonid tagging and fin marking programs.
- Direction and management of region wide databases of information relating to the marking and coded-wire tagging of salmonids.
- Development and maintenance of online computer applications for querying and reporting from the databases known collectively as the Regional Mark Information System (RMIS).
- Supporting and facilitating the ongoing needs of:
  - the member states of Pacific States Marine Fisheries Commission
  - the Regional Committee on Marking and Tagging (Mark Committee)
  - the Pacific Salmon Commission (PSC)



# Regional Mark Processing Center (RMPC)

Operates at the service of two principal entities:

- **Regional Mark Committee**

- Members include: Western Coastal River States and Provinces, USFWS, NWIFC, and other US and Tribal agencies.
- Coordinate fin-marking and fish tagging activities on the West Coast.

- **Pacific Salmon Commission**



- Gives regulatory advice and recommendations to the United States and Canada regarding the management of Pacific salmon.
- Provides a forum to allocate harvest so that each country reaps the benefits of its investment in salmon production and management.
- Technical Committee on Data Sharing
- Data Standards Work Group



# Purposes of Coded-Wire Tagging and Genetic Stock Identification

- **Management**
  - Contribution of stocks to various fisheries
  - Critical information to protect stocks in trouble
- **Hatchery Evaluation**
  - Distribution and contribution of hatchery stocks
- **Experimental Marking**
  - Evaluate effects of various hatchery treatments (diet, time of release, release sites, etc.)
- **Habitat Evaluation**
  - Evaluate impact of habitat improvements on productivity of wild stocks

# Major Components of the CWT and Future GSI Programs

- Management/Coordination
- Marking, Tagging, and Release
- Recovery
- Data Management
- Data Analysis



# Scale of Coastwide CWT Recovery Program

- Large scale ocean and freshwater sampling and recovery programs are conducted by ADFG, CDFO, WDFW, ODFW and CDFG
- Minor recovery programs maintained by IDFG, USFWS, NMFS, NWIFC and CRITFC member tribes, and other tribal entities
- 150,000 - 310,000 tags are recovered yearly from commercial and sport fisheries plus escapement

GSI sampling could easily piggy-back on these CWT sampling efforts & some funding

# West Coast N. America Salmon Hatcheries





# GSI Data Standardization

- PSC support
- Formation of a GSI Data Standards Work Group
  - Agreed upon data elements
  - Data format
  - Validation process for data submitted
  - Standardized reporting procedures
- Centralized data storage and access (PSMFC)

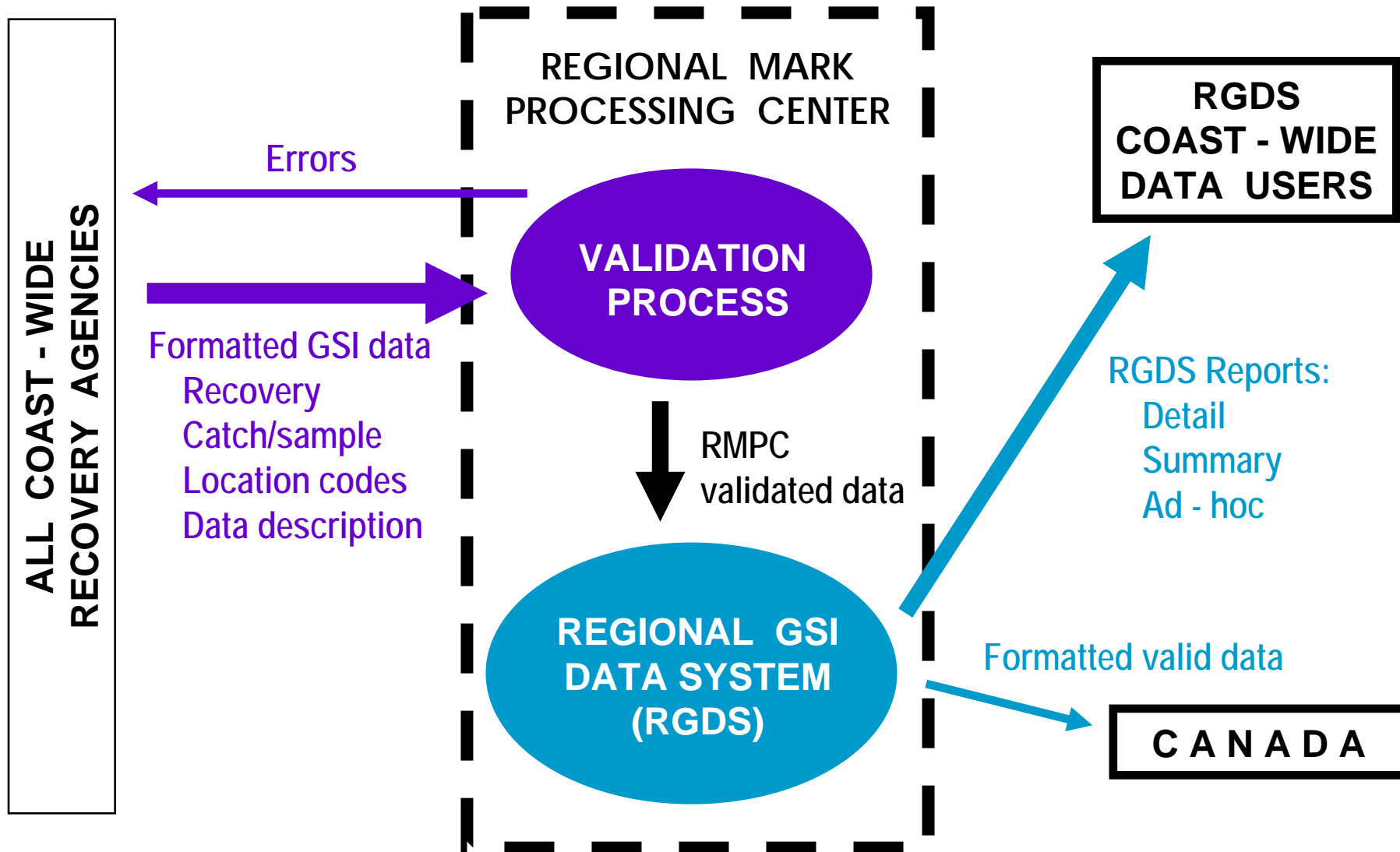




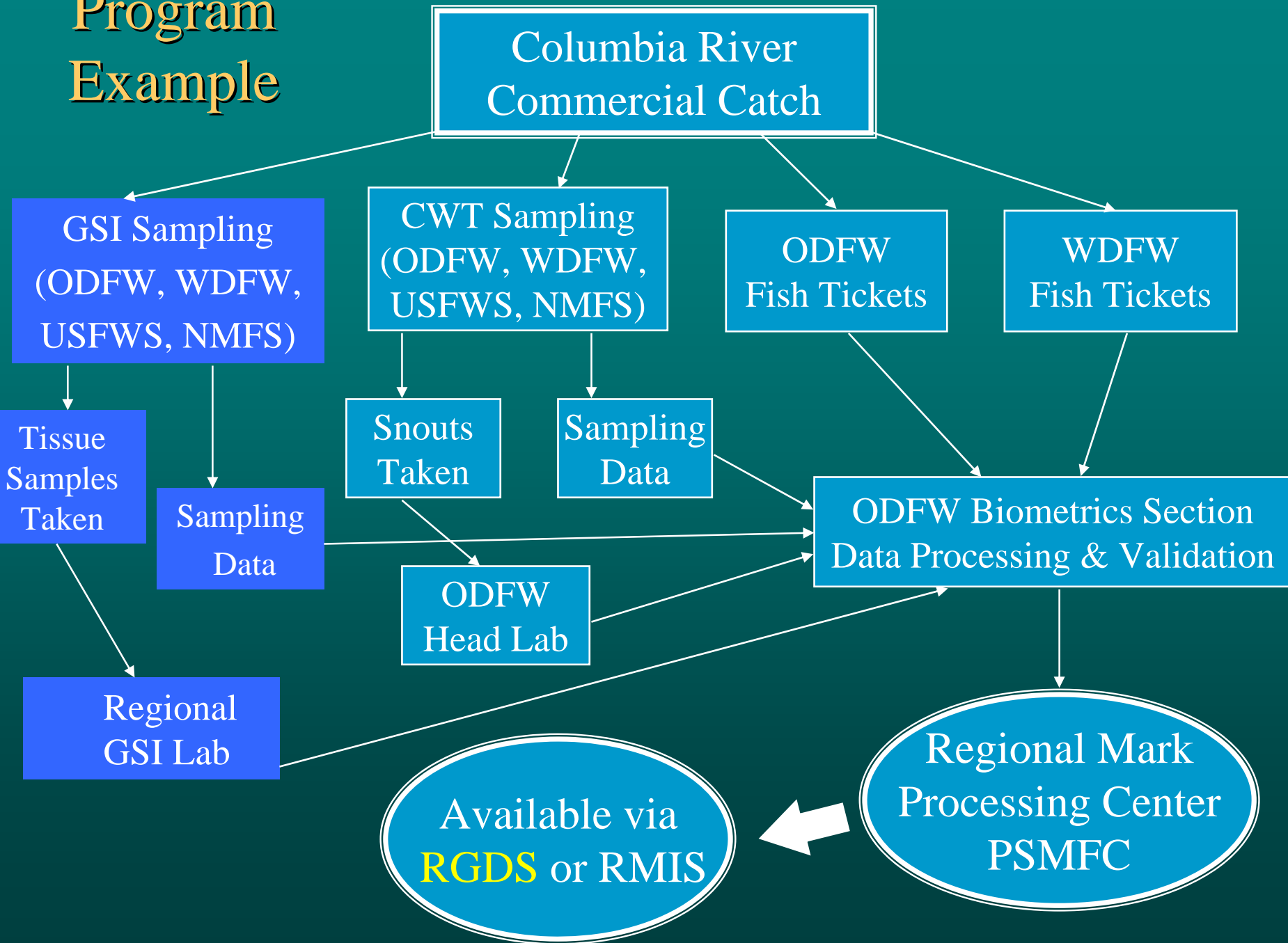
# Regional Mark Processing Center (RMPC)

- GSI fishery data forwarded to the RMPC where it is loaded and validated against an extensive set of checks
  - Data is in the proper csv (comma separated values) format
  - Required data fields are present and completed
  - Valid data is in each field
- Once validated, the data are moved into a relational database (Oracle) accessible through the new RGDS (via the internet or by special request)
- Data accessible in either PSC exchange format, csv format or various summary & analysis reports

# GSI Fishery Data Flowchart



# Program Example



# Website Homepage: <http://www.rmpec.org>

Regional Mark Processing Center - Homepage - Mozilla Firefox


File Edit View History Bookmarks Tools Help

http://www.rmpec.org/


Getting Started Latest Headlines

The Pacific States Marine Fisheries Co... Regional Mark Processing Center...


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## REGIONAL MARK PROCESSING CENTER



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**FLASH** [Symposium on Anadromous Salmonid Identification Techniques in the Greater Pacific Region](#)

The ongoing challenges of salmonid identification and fisheries management now exist in a world of multiple marking technologies. This symposium will identify the key marking technologies and illustrate the strengths of each. It will also explore ways in which these technologies are being used to meet diverse needs including harvest management, stock identification, hatchery evaluation, hatchery contribution, fish passage within river systems, and assessment of stock restoration efforts.


Additional information about the RMPC project can be found in the [RMPC Strategic Plan](#).

**RMIS Standard Reporting**




Query the CWT database and run reports of Releases, Recoveries, Catch/Sample, or Location Codes.

**RMIS Analysis Reporting**



Query the CWT database and run Recovery reports based on Tag Code and/or Management Fishery.

**RMIS Catch & Effort Reporting**



Query the Catch & Effort database and run reports of C&E (raw datasets) or Location Codes.

Done

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# The Regional GSI Data System (RGDS)

Some RGDS features for users would include:

- Maintain current GAPS baselines for Chinook, coho, sockeye, etc. (GSI Labs would maintain mirrors of the baselines)
- Maintain the fishery sampling GSI data for public access
- Auto-build lists of GSI stocks , edit them, and then query for recoveries
- Data retrieval by fishery, location, stock origin, etc.
- User customized report formats
- Information about current status of datasets
- Pertinent documents available for users via website
- News updates for changes in data or the system
- Discussion forum for data issues



# GSI Database Costs PSMFC

## Regional Mark Processing Center

- Total 1<sup>st</sup> year (2008) estimate: \$316,400
  - Personnel - \$140,000
  - Capital Outlay - \$87,000
  - S&S - \$26,500    Contracts - \$22,500
  - Travel - \$4,000    Overhead - \$36,400
- 2<sup>nd</sup> year estimate: \$220,000
- 3<sup>rd</sup> year estimate: \$230,000
- Contingent upon continuation of CWT Database program and funding



# RMPC = Quality Data

