REGIONAL MARK PROCESSING CENTER

Strategic Plan 2010 - 2015

Purpose:

The purpose of this strategic plan is to describe the identity, goals, strategies, and activities of the Pacific States Marine Fisheries Commission (PSMFC) Regional Mark Processing Center (RMPC). This plan is focused on the near term (~5 years) and will be revised as technology, agency needs, or other external factors change.

Comments or suggestions may be submitted to any RMPC staff member and will be evaluated by Project Manager George Nandor (503-595-3100 george_nandor@psmfc.org).

Mission Statement:

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:
    o the member states of Pacific States Marine Fisheries Commission
    o the Regional Committee on Marking and Tagging (Mark Committee)
    o the Pacific Salmon Commission (PSC)

Vision Statement:

Our vision of who we are:
- The RMPC is the central repository for all coded wire tagged and otherwise associated release, catch, sample, and recovery data regarding anadromous salmonids in the greater Pacific Coast Region of the Unites States of America.

- We recognize this strategic role as established by international coast wide agreement and by the Pacific Salmon Treaty.
- We also recognize that new opportunities arise that will enable us to better serve resource management entities.

Our vision of our future:
- The RMPC personnel will strive to more effectively communicate and cooperate at all levels utilizing technologies to support various agencies in their efforts to make timely and adaptive decisions.
- We seek to continually improve the effectiveness of coded wire tags and related data management and data exchange.
- We seek to expand our services to include new tagging, marking and other fish identification technologies such as genetic stock identification as they emerge and become adopted.

Operating Philosophy:

RMPC staff strives to maintain logical, open, harmonious, and proactive relationships with all projects, agencies, and the general public in order to best serve our mission.

RMPC is committed to assisting the fish management agencies in developing local data systems to expedite and simplify entry and flow of all fisheries data relevant to coast wide needs.

RMPC places high value on maintaining and reporting objective scientific information suitable for guiding, planning, researching, monitoring, managing, evaluating and policy making related to anadromous salmonids. The project believes that the data should be maintained independently from analysis and interpretation, and the project does not attempt to draw conclusions or make recommendations.

RMPC values a regional approach to data sharing and research and is committed to applying its existing database systems and expertise to collectively warehouse agency datasets and render them publicly available.

RMPC personnel are committed to serving our constituents and the public in a responsive, timely, and ethical manner.

Principles:

The RMPC follows a number of best practices data management principles. The RMPC also wishes to develop a consistent policy related to data collected or developed within the framework of the Pacific States Marine Fisheries Commission, Pacific Salmon Commission (US-Canada), and other agencies involved in data exchange. Furthermore,

the RMPC encourages other resource and data management entities to consider similar principles.

- Fisheries data collected with public funds and provided to the RMPC are considered publicly owned and will be made available.
- A regionally agreed upon core set of quality assurance and quality control principles is necessary to assure data accuracy.
- Data collected for management purposes are important. Agencies should strive to make them available well before the next cycle of management decisions or actions.
- Timeliness of processing and exchange of agency datasets is of great importance.
- Costs should be conserved by facilitating sharing of staff expertise, time and system resources among programs both internal and external to the Pacific States Marine Fisheries Commission.

Key External Factors:

Return rate and source stock data provided by coded wire tags are used in a wide variety of fishery stock assessments, fishery management, and research applications that address hatchery practices, distribution, fishery contribution, fishery impact rates, hatchery/wild interactions, straying, and natural population status.

Coded wire tag information is a crucial component of the Pacific Salmon Commission, Pacific Fishery Management Council, Columbia River Fish Management Plan, Federal Endangered Species Act, Hatchery Scientific Review Groups, Northwest Power and Conservation Council, and Bonneville Power Administration programs and processes.

The introduction of mass marking and mark selective fisheries (beginning 1996) has changed the methods of detecting coded wire tags, requiring increased use of electronic detection systems. New technologies have also emerged, causing resource agencies to evaluate other marking technologies, including Genetic Stock Identification (GSI) and Radio Frequency Identification (RFID) technologies for fish identification purposes.

Efforts to protect threatened and endangered stocks has resulted in "weak stock" harvest management in mixed stock fisheries, resulting in the need for greater stock assessment information in continually shorter time frames.

Ongoing changes in resource management policies and fish marking practices demand continual changes in data reporting requirements.

External constituents' and Pacific States Marine Fisheries Commission's expectations for RMPC accountability increase existing emphasis on responsive, efficient, cost-effective operations. Partner agencies and private groups rely increasingly on RMPC staff to provide organization and leadership, and to address data management and regional coordination issues in a timely, professional, and effective manner.

Following the 1985 Pacific Salmon Treaty, the Pacific Salmon Commission designated the RMPC as the single U.S. site to exchange all coded wire tag information with Canada in a standardized PSC agreed upon format on a regular and timely basis. Canada likewise forwards all of its CWT data to the RMPC where it is validated and then merged into the regional database.

Goals and Strategies:

The following goals and strategies for the RMPC project are intended to guide the project over the five years. As information technology improves, and as data collection agencies adopt and implement newer technology, these goals will be adjusted to take advantage of the increased capabilities.

Data Management

Goals:
- Maintain and improve the integrity of all data elements within the RMPC databases.
    - Identify data issues in a timely manner and provide measures for correcting the discrepancies
    - Create data integrity reports when issues are identified and make reports available for data providing agencies and members of the Pacific Salmon Commission's Data Standards Working Group (DSWG) to review.
    - Identify consistent offenders of the Pacific Salmon Commission data standards to the Data Standards Working Group for assistance in correcting chronic data issues.
    - Assist the "PSC CWT Working Group" on addressing and resolving data inconsistencies and reporting problems identified in the *Report of the Expert Panel on the Future of the Coded Wire Tag Recovery Program for Pacific Salmon* (November 2005).
    - Implement the recommendations for the RMPC and assist member states in implementing their recommendations as documented in *An Action Plan in Response to Coded Wire Tag (CWT) Expert Panel Recommendations* (March 2008).
- Maintain and upgrade the international database for all CWT releases, recoveries, and related datasets.
    - Assign highest priority to rigorous error checking and loading datasets into the permanent online database as data are made available from the States and other agencies.
    - Ensure timeliness of data processing.
    - Support the Data Standards Working Group in the development and ongoing revision of CWT data exchange formats.

- Serve as the official United States of America site for Pacific Coast CWT data exchange with Canada, using the standardized PSC format.
  - Post U.S. datasets to the Canadian Department of Fisheries and Oceans (CDFO) as they are validated.
  - Provide Canadian data sets to U.S. agencies on a request basis.
  - Host an Internet based forum for discussions and decisions directed to the maintenance and upgrade of the Pacific Salmon Commission data exchange specifications.
  - Work with the PSC Data Sharing Committee and the Data Standards Work Group to maintain and upgrade the Pacific Salmon Commission data exchange specifications documentation.
- Assist agencies in the collection and reporting of fish identification data pertinent to the RMPC mission.
  - Provide data reporting applications for agencies with limited resource capabilities.
  - Provide onsite assistance as needed for agencies struggling with data reporting issues, some of which have become critical to resource management.
  - Accommodate new data management needs as new fish marking technologies (such as GSI) become regionally adopted.
- Embrace and utilize geographic representation of data.
  - Acquire the necessary spatial data elements to enable development of geographical query systems.
- Maintain and enhance the RMPC system environment by utilizing the best available hardware and software technologies.
  - Regularly monitor system database activities, and maintain a backup and recovery procedure for the RMPC computer systems and databases.
  - Periodically undertake evaluation and capacity planning of system hardware needs, backup and recovery requirements, and database management software needs.
  - Implement new information and technologies found most beneficial for enhancement.
  - Acquire, install, and configure new equipment as required for RMPC database operation needs.

Regional Coordination

Goals:
- Provide Pacific Coast-wide coordination and serve on regional committees that include involvement with both fin marking and coded wire tags.
  - Participate in the Pacific Salmon Commission's Data Sharing Committee in the ongoing evaluation of the international data exchange requirements.
  - Organize and chair the annual "Mark Meeting" to address current issues on new or revised regional marking agreements.

- Increase communication and assistance to the various agencies providing data to the coded wire tag system through proactive interaction.
    o Contact each reporting agency at least twice a year to offer assistance regarding any data reporting problems that may arise.
    o Continually assess new needs for reporting based on current information management and usage.
- Increase communication and proactively assist various data users relying on coded wire tag data for making informed decisions.
    o Work directly with data managers, researchers, and other various data users as needed to identify their data requirement needs.
    o Facilitate improved coordination and quality of salmonid marking studies by distributing new information on experimental and sampling design, estimation and statistical procedures, and stock identification procedures.
- Enhance awareness of new and existing marking technologies and maintain engagement with the regional forums in which they are researched, evaluated and made available.
    o Identify new marking technologies as they become known and available.
    o Attend meetings region-wide regarding new and existing marking technologies pertinent to the RMPC mission at all levels and assertively present RMPC services and capabilities as opportunities arise.
    o Assist in organizing and convening meetings and workshops on various aspects of fish marking technologies and data management issues.

Application Development and Enhancement

Goals:
- Maintain and enhance the online query applications targeted toward meeting the needs of data users. These tools comprise the Regional Mark Information System (RMIS) suite of user applications.
    o Continually seek input from region wide fishery data users as well as the general public in order to improve the application to meet their data needs.
    o Provide quality help documentation and in-person training (off site instruction when necessary) for RMIS users as needed to facilitate optimal use of RMIS.
- Maintain and enhance the RMIS Data Exchange (RDE) application to assist data reporting agencies to prepare and submit relevant data sets to the RMPC in standardized formats on a regular basis.
    o Continually seek input from region-wide data reporting agencies to improve the application to meet their data reporting needs.
    o Provide quality help documentation and in-person training (off site instruction when necessary) for RDE users as needed to facilitate optimal use of RDE.
- Maintain an up-to-date Web presence for the RMPC project.
    o Update and expand Web site content on a regular basis as information changes pertinent to the RMPC.

- o Conduct yearly review of the overall RMPC Web site for consistency of information, content, and layout as it relates to the Pacific States Marine Fisheries Commission and other commission project Web sites.
- Introduce a multi-resolution Geographical Information System (GIS) mapping application to query the CWT database of all release and recovery data sets and retrieve subsets of these data from RMIS.
  - o Survey RMIS users to ascertain their view of the value of a mapping query application.
  - o Acquire and develop data elements necessary for geo-referencing coast wide datasets pertinent to the RMPC mission.
  - o Obtain core GIS components including maps and layers that are consistent in scale and attributes coast wide and in Canada.
  - o Work with StreamNet staff in a collaborative effort to achieve project tasks.

Employee Development

Goals:
- Increase employee awareness of current issues and technologies.
  - o Identify new marking technologies as they become known and available.
  - o Study fisheries research literature and periodically query peers for information on fisheries issues and upcoming events.
  - o Monitor key trade journals and agency press releases pertaining to fisheries issues and events. These publications include (but are not limited to):
    - PSMFC Website – Upcoming meetings;
    - National Oceanic and Atmospheric Administration (NOAA) Fisheries "FishNews" wire;
    - NOAA: Northwest Regional Office;
    - NOAA: Northwest Fisheries Science Center;
    - American Fisheries Society (AFS) journal: "Transactions of the American Fisheries Society";
    - AFS journal: "North American Journal of Fisheries Management";
    - PSC – Events and Conferences;
    - California Department of Fish and Game – Events.
  - o Attend meetings region wide regarding new marking technologies pertinent to the RMPC mission at the federal, state, and local levels. These may include:
    - American Fisheries Society meetings and symposiums;
    - The Northwest Fish Culture Conference;
    - World Aquaculture Society meetings;
    - Other regional conferences, meetings and symposiums.
- Provide and encourage personal and professional training opportunities.
  - o Assess employee strengths and weaknesses relative to computer programming languages and tools currently used by the RMPC project and provide training as required.

- o Provide advanced training to staff as appropriate for their technical areas of responsibility.
- o Identify and attend computing technology related classes, seminars, or trade shows as deemed relevant to RMPC needs.
- o Divide tasks among staff to optimize RMPC productivity and relative use of skill sets.
- o Provide cross training as necessary to ensure consistent back-up support of all areas of technical responsibility.
- Promote a customer focused environment both internal and external to the RMPC.
  - o Maintain staff participation in Pacific States Marine Fisheries Commission's Information Technology meetings.
  - o Regularly hold focused RMPC internal staff meetings pertinent to all active projects and tasks, including incidental user requests.
  - o Commit staff efforts to timely response of user requests.

Budget Development and Monitoring

Goals:
- Seek new funding sources for the RMPC project.
  - o Partner with other project managers to develop a strategy for identifying and obtaining new funding.
  - o Identify potential federal and other available grants.
  - o Develop proposals to seek potential funds through identified fund sources.
- Review and analyze the RMPC budget monthly to maintain an awareness of budget surpluses or shortfalls, and the need to modify operating practices accordingly.
  - o RMPC manager will adequately review the "Monthly Budget Status Reports of Expenditures."
  - o RMPC manager will seek Pacific States Marine Fisheries Commission fiscal department assistance and training toward understanding and evaluating the budget statements.
  - o Maintain an awareness of the RMPC computer system resource needs and requirements in order to plan for future growth.

These goals and strategies will be used and referred to on an ongoing basis by the RMPC staff to direct projects and activities, and guide related statements of work and other documentation. For an in depth review of the coded wire tag program on the Pacific coast see: *Overview of the Coded Wire Tag Program in the Greater Pacific Region of North America*, 2009 George F. Nandor, James R. Longwill and Daniel L. Webb, available on the publications page of the RMPC website at: http://www.rmpc.org/