Northwest Power and Conservation Council

June 28, 2007

MEMORANDUM

TO: Council members

FROM: Peter Paquet, Manager Wildlife and Resident Fish

SUBJECT: Update on the comprehensive data management strategy

BACKGROUND

The Council and its regional partners are working to improve data management in the region. Establishing a coordinated data management system with clearly described standards is an important goal. The Council's project funding recommendations for data management projects are interim, ahead of comprehensive recommendations.

> Northwest Power and Conservation Council
> Fish and Wildlife Project Funding Recommendations
> for Fiscal Years 2007 through 2009

In a review of the Council's Fish and Wildlife Program, the Independent Scientific Review Panel (ISRP), has recommended more standardized and consistent data management for fish, wildlife and habitat [1,2]. The Council, working with NOAA-Fisheries, completed a detailed analysis of information needs for the Fish and Wildlife Program including recommendations for imporvement[3]. The ISRP also recommended that the fish and wildlife program elements be fully integrated in the development of Subbasin Plans[4]. Lastly, the Council reviewed their fish and wildlife data management programs[5], and called for increased support for information management systems and information management tools.

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[1] ISRP Database Review, Report No. 2000-3
[2] ISRP Preliminary Review of 2007-09 Proposals, Report No. 2006-4
[3] Science Applications International Corporation, May 2003. Recommendations for a Comprehensive and Cooperative Columbia River Information System. Report to the North West Power and Conservation Council.
[4] ISRP Retrospective Report, Report No. 2005-14
[5] Data Management in Support of the Fish and Wildlife Program;, Schmidt, B., J. Anderson, B. Butterfield, C. Cooney, and P. Roger. 2002

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370

As a result of these various reviews, the Council supported the development of the Northwest Environmental Data network. The history of information system development in the Pacific Northwest region is, for the most part, ad-hoc. Typically, as different agencies, institutions or projects needed to manage information they mostly went about it independently, creating for example, their own databases, collection methods and reports. While there have been some efforts at consolidation or standardization they have not succeeded or been sustained across the basin as a whole. These individual information systems are called disparate systems because they often don't share the same operating system or language, don't collect data of uniform quality or description and usually cannot "talk" directly to each other. The Northwest Environmental Data Network (NED) has worked cooperatively on actions and joint activities to improve the collection, management and sharing of environmental data and information in the Pacific Northwest region[6].

Developing an Information Framework through the Northwest Environmental Data-Network:

A workgroup has been created within the Northwest Environmental Data-Network (NED) to support improved data management for the Fish and Wildlife Program. The workgroup is modeling its work on the Federal Enterprise Architecture (FEA) framework developed by the Chief Information Officers Council[7] and will use it for coordinating and updating information management practices and organization for the Fish and Wildlife Program.
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The FEA framework was designed to allow critical components to be developed individually and still fit together. The architecture will facilitate the efficient and effective coordination of common business processes, information flows, systems, and investments for Columbia River fish, wildlife, and habitat data.

The initial NED workplan identified several gaps in the current data management structure for the Fish and Wildlife Program, including the views of entities responsible for recovery planning, FCRPS BiOp development, and the Status of the Resource Report. The NED workplan identifies priority actions to fill the highest priority needs and pilot projects to address the next priorities. These include: a NED Portal channel steward for the Fish and Wildlife Program to improve access to data, services to develop access to tribal and resident fish data, a pilot effort to provide web supported data integration for data providers, a pilot effort to develop best practices guidance for quality assurance and quality control of data, and a pilot effort to improve our ability to locate monitoring.

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[6] See Northwest Environemental Data-network http://www.nwcouncil.org/ned

[7] Federal Enterprise Architecture Framework. Version 1.1. September 1999. Developed by the Chief Information Officers Council. http://www.cio.gov/Documents/fedarch1.pdf

Fish and Wildlife Agencies & Tribes:

For the FY2007-2009 project funding review, the CBFWA facilitated the Mainstem Systemwide Review Team (MSRT) to review projects that did not fall within the Council's geographic provinces. The MSRT provided some funding recommendations for data management projects – but not at a level that supported a comprehensive data management system. The MSRT recommended that StreamNet develop a hierarchical geographic data structure that supports subbasin planning and recovery planning, that the Northwest Habitat Institute (IBIS) focus on hierarchical mapping of wildlife habitats to support subbasin planning, that Status Of The Resources, CSMEP and PNAMP address data content priorities and identify data gaps, while NED should focus on overall data systems

On September 20-21, 2006 CBFWA hosted a workshop to discuss data management needs for adaptive management for the Fish and Wildlife Program, and to identify StreamNet and Northwest Habitat Institute's Habitat and Biodiversity Information System functions. The workshop included key management questions and how data can be managed to address these questions.

The workshop recommendations to StreamNet and Interactive Biological Information System (IBIS) were to address data gaps, improve timeliness of data sharing, focus on data priorities, improve QA/QC practices and develop more efficient data systems. The results of the workshop were not, however, sufficiently detailed to support new statements of work.

In January, 2007, CBFWA created a subcommittee to provide short term guidance to StreamNet on data priorities for FY 2007. The committee concluded that StreamNet should transition to support regional data needs at the population scale. The committee was then continued to develop Program reporting (SOTR), was named the Data Management Framework Subcommittee (DMFS), and was also directed by CBFWA to develop FY2008-2009 funding recommendations for data management projects.

To avoid duplication, the CBFWA DMFS was combined with NED to develop a consistent strategy and make project recommendations for 08-09. The workgroup relies on NED member's data management expertise and the CBFWA data requirements knowledge to formulate their strategy.

STATUS OF THE PLAN

A Strategy for Managing Fish, Wildlife, and Habitat Data for the Columbia River Fish and Wildlife Program is in draft and should be completed in late July. The workgroup is expecting NED and CBFWA endorsement by early August. The plan will identify project funding recommendations for ongoing projects to meet SOTR and NED goals for both the near term and through pilot studies, for the longer term. The Plan may also be used to inform 2010 project funding.

The NED steering committee will make a presentation to the Council in July to summarize the draft outline of the data management strategy. In August, the Strategy for Managing Fish, Wildlife, and Habitat Data for the Columbia River Fish and Wildlife Program will be completed, including project funding recommendations for FY2008-2009.