# MEETING SUMMARY

## "Sharing Information to Improve Decisions" Executive Summit

Tuesday, October 02, 2007 8:30-12:30 PT
Ambridge Event Center
300 N.E. Multnomah St.
Portland, Oregon 97232

## Synopsis of the Meeting

### Purpose

Senior leaders of federal, state, and tribal agencies and other organizations convened to discuss ideas about information sharing and decision-making in the Pacific Northwest. The staff and leaders of the Pacific Northwest Aquatic Monitoring Partnership (PNAMP), the Northwest Environmental Data-network (NED), and the Pacific Northwest Regional Geographic Information Council (PNW-RGIC) defined the need for the Summit as a means to raise awareness and commitments among regional executives. The executives outlined their on-going interests, critical needs and potential next steps. Major interests focused on ecosystem and watershed condition, fish population status and trends, and water quality.

### Attendees

The Summit was attended by approximately 60 individuals representing executives and their staff from more than 38 different organizations.

### Actions

The following actions will be carried out in the next few months to develop options for consideration by executives, likely at another meeting in early 2008. These will be outlined in more detail by the executive leads (Barry Thom - NOAA, John Stein- NWFSC, and Tom Karier - NWPPC) and distributed to Summit attendees for review prior to work being initiated.

1. Develop a vision statement.
   Responsibilities: Executive lead (TBD), with assistance from NED, PNAMP and PNW-RGIC
2. Develop a pilot project for salmon population status and trend data.
   Responsibilities: Executive lead Barry Thom (NOAA) with assistance from CBFWA.
3. Outline an approach for assessing watershed and ecosystem health
   Responsibilities: Executive lead John Stein (NWFSC) with assistance from Josh Baldi (WA Dept. of Ecology)
4. Begin exploration of data management and technology approaches.
   Responsibilities: Executive lead (TBD), with assistance from PNAMP, NED and PNW-RGIC.

## Meeting Details

### Introductions and Agenda Review

Barry Thom (National Oceanographic and Atmospheric Administration, Northwest Regional Office), Tom Karier (Northwest Power and Conservation Council), and John Stein (National Oceanographic and Atmospheric Administration, Northwest Fisheries Science Center) thanked the participants and provided a brief review on the steps leading to the Summit. Each indicated their agency's commitment to a regional effort to promote more effective use and sharing of data and information.

Nancy Tosta (Ross & Associates) reviewed the agenda and Summit background materials and provided an outline of the Summit goals and objectives. The goals for the Summit are to develop an agreement to work together, to identify specific activities to work on together, and to explore ideas on how to work together. The agenda was set to clarify and focus on the following questions:

- How do we commit to each other that we are willing to have this conversation?
    - What is the appropriate forum?
    - What are the critical factors for success?
    - What steps are needed to move the process forward?
- Discuss the critical tasks necessary for an efficient data sharing network.
    - Is there a specific domain or issue that could be used to start the process?
    - How can we demonstrate that it is possible to bring diverse agencies with diverse data needs together?
- What are the next steps for this group?
    - Should another executive meeting occur in the next 4 to 6 months?
    - What are the specific tasks for staff?
    - Is there a small group of executives willing to work on data sharing in more detail (e.g., an Executive Steering Committee)?
    - What direction is needed for existing groups (e.g. PNAMP, NED PNW-RGIC)?
    - What additional or alternative teams or groups are needed to address regional needs?

### Executive Commitment to Regional Information Sharing

Participants discussed their commitment to regional information sharing and acknowledged the positive outcomes and specific challenges found in past efforts. Executives identified required steps for success, the specific steps they are willing to commit to now, and how the process could fit their particular agency needs. Executives from NOAA and the NPCC agreed to offer support and direction as initial co-chairs and work at the executive level to form an executive steering group to provide overall focus, direction and forward momentum to the process. Agencies highlighted the following perspectives on their willingness to participate in an effort to promote improved access to information across the Northwest Region.

### Oregon Department of Fish and Wildlife (ODFW)

ODFW (as a data producer) is willing to commit to the larger picture of data sharing. They would like to see uniformity in how data are collected to reduce redundancy and increase overall data efficiency. They have been involved in data sharing activities in the past with differing levels of success due to lack of resources and a clearly defined direction. There is a concern that the details of how a regional data sharing network is implemented may be a stumbling block and that the first step in building a network is to know that it will work for the broader collective while not compromising individual agency needs (both bottom-up and top down approach). They support the concept of regional monitoring strategy versus simply monitoring projects.

### U.S. Fish and Wildlife Service (USFWS)

There have been many noble efforts to share data. USFWS is willing to commit to the overall idea and would like to engage in an effort that continues to discuss how to move this process forward. A helpful task would be to define the realm of what is possible for each agency within the bounds of their particular data needs. USFWS does not envision a centralized data warehouse but a system that integrates data across each of the participating agencies and provides improved data access for everyone. Not every agency will want to or have a need to participate over the long-term.

### Environmental Protection Agency (EPA)

EPA feels that regional data sharing is an important topic that could help them provide detailed information to state funders and Congress on project effectiveness. EPA highlighted the concern that the process not repeat work that has already been done. They have provided a large amount of money for water quality data and feel that this is an area where some progress has been made (easiest to come to agreement on). Habitat and fish abundance data require more subjective decisions and may be harder topic areas to address.

### Oregon Department of Environmental Quality (ODEQ)

ODEQ is interested in the “motherhood and apple pie” commitment as well but would like to examine the reasons particular data are collected. They think it is important to understand why data are being collected. Understanding this would help ODEQ collect and share their data in a useful manner with other agencies. Oregon DEQ and DFW already coordinate data collection and have infrastructure in place to encourage data sharing. A suggestion was made to jointly develop a process to facilitate similar arrangements and set-up relationships between other entities.

### U.S. Geological Society (USGS)

USGS is willing to commit to and participate in a data sharing network that will contribute to “outcome based management” and believes that an executive oversight group would be helpful in guiding the process.

### Northwest Habitat Institute (NHI)

The NHI reiterated the fact that each agency comes to the table with a different understanding of what needs to happen to share data effectively. They highlighted the Spotted Owl effort and the follow-up debriefing that occurred to discuss how the process

could be done differently to guide future endangered species efforts. An outcome of that process was the need for a common language between agencies to fully understand the data collected.

### Oregon Watershed Enhancement Board (OWEB)

Oregon has improved collaboration across state agencies as a result of the "Oregon Plan". There has also been a positive experience and lessons from working on the management of Coastal Coho information.

### U.S. Army Corps of Engineers (USACE)

One way to approach this process is for each agency to define the data needed for specific decisions and then identify programs currently in place to acquire those datasets and identify areas where datasets and resources are lacking. Once each agency does this the group will discover areas of overlap and can begin to discuss standardizing the collection of those data (i.e., collection format, reporting and how the data are shared). USACE is willing to commit to participating in sharing data collected with public funds and working towards the standardization of those data.

### Oregon Department of Transportation (ODOT)

ODOT highlighted the fact that while the process is not perfect there has not been a complete failure in regional data sharing. The region is in better shape now then it was a few years ago but could still use improvement. Regional data sharing is similar to a library in that the region needs a centralized place to go and discover what data exist and who collects those data. It is also similar because many of the "books" in the library will be in different languages. When needs are identified it may be possible to determine if there a need to translate data collected in different formats into a single format digestible by multiple agencies.

### Pacific States Marine Fisheries Commission (PSMFC)

The PSMFC currently works on making their data available and suggested that since many Summit participants have been working on data sharing for 20+ years that this Summit is the next step to identify the ways the group can work together efficiently while not repeating work already done. PSMFC emphasized the need for agencies to commit to this process for the long-term and identified stopping and starting as a barrier to past efforts. They also noted that the agencies present at the Summit were showing a commitment to the process just by showing up.

### Bonneville Power Administration (BPA)

There is overall dissatisfaction with current efforts and a need to define/identify what an efficient data network looks like. BPA does not think it's possible to gather basic regional abundance data from other agencies without extensive effort and staff resources. They are committed to the process and willing to participate. A better idea of the overall organizing structure of the network would help define the steps necessary for implementation. They described having the pieces of the puzzle without the picture on the front of the puzzle box. They also noted that BPA's primary focus is on resource management and that information

technology is not their core competency and they would like to build on expertise of other agencies.

### U.S. Forest Service (USFS)

The USFS does not think a specific objective for common data management questions has been identified. They are currently focused on internal data collection and standardization efforts and need all of their resources for current projects. They are making large investments in internal programs such as the Natural Resource Information System (NRIS) and migrating central data management to St Louis. The USFS believes that regional data sharing is important and are willing to provide the data they currently have but do not have the ability to invest in changing their processes for a regional network. They would like to stay informed of the process for future involvement.

### Washington Department of Fish and Wildlife (WDFW)

WDFW is committed to participating and identified Puget Sound efforts and the Washington Monitoring Forum as two current efforts that can contribute to and be a part of this process. There is a need to clarify the value of and need for a regional data sharing network and how to best communicate those benefits to the public.

### Oregon Department of Administrative Services (ODAS)

Typically, data standards for any given project are driven by funding availability, speed and the project mission. An agency crosswalk for data sharing could interfere with individual agency needs and project timing. ODAS would like to see a framework and an overarching strategic plan developed with specific objectives to meet the network's ultimate goal which is not yet identified. An executive oversight committee is a good way to start developing an overall plan. The Oregon Plan provided the strategy and impetus to provoke data sharing in Oregon.

### Idaho Department of Fish and Game (IDFW)

The IDFW is committed to the concept of regional data sharing. They would like to see a system that addresses raw data and methods for scaling those data geographically and temporally.

### Columbia Basin Fish and Wildlife Authority (CBFWA)

The CBFWA is generally supportive of regional information sharing and would like to see a strategy that limits duplicative data collection across the Pacific Northwest.

### British Columbia Integrated Land Management Bureau

BC is supportive of any opportunity to share and exchange environmental information. All of the Canadian provinces were required to develop land use plans that "forced" data sharing among them. Now the ministries are working on the requirements for a First Nations Treaty for sharing data between the government and the Tribes. The Environmental Land Use Commission is the central coordinating office with a range of ministries involved. Current issues include identifying "at risk species" and the effects of climate change. BC could participate once the highest priority datasets for sharing are identified. BC has created a centralized data warehouse.

### Washington Recreation and Conservation Office (WA RCO)

The WA RCO is committed to regional data sharing and has a dedicated staff person working with PNAMP, NED and PNW-RGIC. WA RCO stressed the need for a clearly articulated focus that can be understood by a broad audience. Executive commitment to the process is dependent upon a clear and concise message from the data coordinators.

### Washington State Conservation Commission (WSCC)

The WSCC supported the idea of an executive steering committee to provide a forum for dealing with new challenges and changing technology. Developing a network is not an easy task and agencies may be collecting similar data in different "languages." They identified the following potential challenges with sharing data: priority data not collected, incompatible storage systems, unwillingness to share data between agencies, etc.

### Washington Governor's Salmon Recovery Office (GSRO)

The Washington GSRO is a consumer of data and they are interested in anything they can do at a high level to help organize regional data sharing. Their focus is the ability to inform Congress if they are making progress on salmon recovery and using funds appropriately.

### Bureau of Land Management (BLM)

BLM actively participates in regional data activities and is committed to continuing this effort.

### Colville Confederated Tribes

The Colville Tribes are interested in further collaboration between regional entities. They would like to focus and take advantage of current resources and available infrastructure. They also suggested examining new infrastructure needed to accomplish data management goals.

### Washington Department of Ecology (DOE)

The DOE is committed to a regional data sharing effort but does not want a single data warehouse created. DOE suggested that an MOU or other overarching plan would give the process a roadmap for issues like governance and how PNAMP, NED and PNW-RGIC fit into the overall process. Building on and promoting other successful data sharing projects such as the EPA Exchange Network is important. DOE has a high interest in the status of and trends in watershed health – and how management strategies such as those of the USFS and Washington agencies working in upland and lowland environments can fit together.

### U.S. Bureau of Reclamation (USBOR)

The USBOR is willing to commit at an executive level but cautioned against trying to develop a "one-size fits all" network that may become to large for anyone to use effectively.

### Oregon Institute for Natural Resources (OINR)

The OINR is focused on the public and using the university system, they are interested in participating as a neutral entity that could facilitate data sharing efforts. It is difficult to sell the value of inter-agency data sharing systems to Congress because there is not an obvious public use (i.e., farmers and ranchers are not the primary network users). The OINR is supportive of an executive steering committee but would like the group to think about the committee from a strategic political position. They identified the need to clearly articulate the audience for this effort.

### Oregon Governor's Office (OR Gov Office)

Better coordination and improved access are important, but at this point the OR Gov Office is unwilling to commit to anything that creates new regional governance. They will reserve commitment until the specifics have been identified.

Barry Thom concluded the discussion and reiterated the need to define the overall network vision in either a simple statement or more detailed strategic plan. There was a general feeling that participants were committed to the process with some caveats.
Several agencies highlighted the need to develop an overall framework and broad vision statement as the next logical step. Executives emphasized the need to quickly move forward with clearly articulated goals and willingness from participants to change those goals as the process moves forward.

## Critical Needs

Executives were asked to identify a few issues of most concern to their agency relative to data and information needs. Agencies have many issues in addition to the ones shown in Table 1 below. These, however, represent many that cross agency boundaries. The issues range from standard protocols to specific datasets with legislative mandates. In some cases slightly different terms were used to describe approximately the same information need.

**Table 1: Critical Needs Identified by Agency**

| Critical Need: | NPCC | NWFSC | PSMFC | WSCC | CBFWA | ODFW | USFWS | BPA | USGS | ODEQ | EPA | WA GRSO | WDFW | OWEB | WA ECY | USACE | ONRI | ODAS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Regional effectiveness monitoring to determine if projects are meeting their goals (including habitat modifications and restoration). | X | X | | X | | | | | | | | | | X | | X | | |
| Consistent status and trends data for listed (and other) species | X | | | | X | X | X | | | | | | | | X | | | X |
| Species abundance data | X | | | | | | | | | | | | X | X | X | | | X |
| General knowledge of the types of data collected, data gaps and status of datasets. | X | | | | | | | | X | | X | | | | | | | |
| Baseline habitat health data | X | | | X | | | | | | | | | | | | | | |
| Information on watershed/ecosystem health (including water quality and quantity) | | | | X | | | | | | | X | X | | X | X | | | |

| **Critical Need:** | NPCC | NWFSC | PSMFC | WSCC | CBFWA | ODFW | USFWS | BPA | USGS | ODEQ | EPA | WA GRSO | WDFW | OWEB | WA ECY | USACE | ONRI | ODAS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hatchery production and condition dataset – create a standard baseline dataset for production information. | x | | | | | | | x | | | | | | | | | | |
| Salmon population-level data that can be rolled-up to other spatial scales as necessary (e.g., ESU) for various audiences (Congress or the public). | | | | | | x | | | | | | x | x | | | | | |
| Integrated physical (e.g., land use/coverage and water quality/quantity) and biological datasets (e.g. status and trends and abundance data). | | | | | x | | | | | | | | x | | | x | x | |
| Toxics data to better understand the relationship between public and fish health | | | | | | | | | | x | | | | | x | | | |
| Partnerships to promote standard base geospatial map layers (e.g., roads, rivers, population). | | | | | | | | | x | | | | | | | | | x |
| Integrated invasive species data across state and federal agencies. | | | x | | | | | | | | | | | | | x | | |
| Development of a “strategic habitat conservation” plan to determine the highest priority habitat projects. | | | | | | | x | | | | | | | | | | | |
| Assessment of current resource allocations to help prioritize funding of value-added projects (both type and location of project). | | | | | | | x | | | | | | | | | | | |
| Data standards to ensure cross-agency integration and accessibility. | | | | | | | | | x | | | | | | | | | |
| Information to facilitate the full understanding of beneficial uses of water (e.g., cold/warm water fish populations). | | | | | | | | | | x | | | | | | | | |
| Integrated fresh and marine habitat information for fish survival. | | | | | | | | | | | | | x | | | | | |
| Standard field and remote sensing protocols and link to fish abundance data. | | | | | | | | | | | | | x | | | | | |
| Mitigation and adaptation to climate change strategies and fire management data as components of ecosystem health. | | | | | | | | | | | | | | | | | x | |

Within the broad range of needs discussed, several were identified by multiple participants, including the need for status and trend data for listed populations, assessments of health of watersheds/ecosystems, and the ability assess the effectiveness of investments in species recovery.

## Challenges

During the course of discussion about data needs and the subsequent discussion on next steps, several challenges for data sharing were identified by the Executives.

- Requirements for varying temporal and spatial scales;
- Means to accommodate multiple needs for data when collecting data specific to meet agency mandates.
- Ability to integrate physical and biological data to understand status and trends of populations and ecosystems
- Making data accessible for multiple audiences.
- Lack of consistent framework of GIS data and standard geospatial referencing systems across the region.
- Ability to manage data for multiple purposes when no one wants a single centralized data warehouse.
- Lack of and challenges in creating common protocols for data collection (especially when funding to do things differently is lacking).
- Limited funding and commitment for long-term regional monitoring (vs short-term project monitoring)
- Lack of clarity on best approaches to bring multiple agencies together at the state, federal, local and tribal level.

## Next Steps

Executives were asked to identify next steps they deemed necessary to further the development of more effective means to share and use regional information. The following suggestions were offered.

- Define approaches for an executive group to make decisions over the next year.
    - Determine the necessity of a formal governance structure for the process that will not slow down progress and allows agencies to act on their data as needed and required by state and federal legislation.
    - Develop an overall agreement from participants that this can continue on an informal basis to maintain forward momentum.
    - Use the West Coast Governor's Forum as a template

- PNAMP, NED and PNW-RGIC staff members see multiple paths forward and want executive level guidance on the context for their work.
    - Should the commitment to these groups be renewed?
    - Should other agencies engage?
    - Is there a more efficient organization of these groups to accomplish regional data sharing?
    - There is a concern that there is dissatisfaction with the "status quo" and the current structure of these groups may not be the most effective. The executives would like to see clearly articulated options and implications for how the three groups address the regional needs (e.g., outlined previously).
    - Should these or other groups be charged to address different tasks?

- The staff would like to see alignment at the executive level on the highest priority decisions and issues within the region to provide direction to current activities within PNAMP, NED and RGIC.
    - The staff can field test habitat protocols to determine if data collect by different agencies is comparable.
    - They require authorization from the executive level and the ability to involve additional staff in PNAMP activities (currently this is primarily an in-kind service).
    - Examples include:
        - Definition of a juvenile fish;
        - Definition of adult fish;
        - Can information systems such as PISCES (BPA Project System) talk to PACFISH?

- Clearly articulate to staff the organizational and executive arrangements to ensure everyone knows who they are reporting to and accountable to and for what reason.

- Staff knows what needs to be done but requires the appropriate resources to build an infrastructure to support data sharing and explore potential duplication. Empower staff on the ground and provide resources to "get things right" – bottom level commitments to collecting better data with executive commitment to that idea.

- To move from a project oriented approach to a regional monitoring related approach will necessitate significant changes in proposed project designs. Before moving to this step it would be helpful to identify the specific executive level requirements for data sharing and ask the information management (IM) and technical staff to provide input on the resource and IT implications.

- Describe the executive perceptions of business needs and requirements for regional data sharing.

- Develop a first step assignment for the technical staff to explore abundance data. NOAA and NPCC could begin to develop this assignment and bring it back to the larger group for additional guidance.

- Develop a pilot project to move the process forward and organize a small workgroup from the larger executive council to define data needs, quality and existing data gaps for a common issue. Species abundance data and habitat/ecosystem health were the most common issues between participating agencies and might form good examples.

- Estimate what it would take region wide to fill in the highest priority data gaps.

- Utilize Puget Sound activities to track what occurs at the executive level and build upon their experience.

- Identify the methods for defining and coordinating watershed and ecosystem health information and have the technical staff explore the potential for consolidating data (water quality, quantity, toxics, etc.) to enable agencies to develop a broader picture of watershed health.

- Develop watershed health indicators and a method for collecting overall watershed health data. Define the relationship between watershed and ecosystem health using Puget Sound as a pilot

- Separate data management from monitoring and clarify these two tracks within the overall process. Determine which datasets are necessary for the major regional reports (i.e., the Oregon Plan, PCSRF Report to Congress, State of the Salmon) and areas where those data can be standardized (both in collection and how they are accessed).

- Explore options for building effective data portals on the ground to provide simplified and broad access to these data.

- Provide information to land managers and request input on protocols that do not make sense at the landscape level.

- Highlight geospatial data and the need for good project maps for reporting. Find a way to make data easily consumable in an online geospatial format (ORDAS will assist).

- Articulate a draft vision statement for the “motherhood and apple pie” idea to guide groups as they move forward and develop a sign-on statement for executive level buy-in. Assign the staff through PNAMP, NED and PNW-RGIC to provide a first draft for review by the executive steering committee and the larger executive group.

- Work with the agencies funding monitoring initiatives to determine the best way to fund monitoring over the long-term.

- Assess the availability, quality and consistency of data as part of an abundance data pilot project to improve the overall understanding of the diversity of issues within this particular data set. Identify the research needs that require multiple agencies to collect the necessary data.

- Consider whether the region needs to create a Center for Environmental Statistics to help agencies move from monitoring for projects to monitoring protocols for the region.

## Wrap-up and Review of Next Steps

Nancy Tosta quickly summarized the various suggestions and outlined a few activities as assignments from the meeting. Executives agreed to meet again in 4-6 months to review options to be developed as a result of these activities. Other activities identified above may be pursued over time. Leads were identified or solicited for each of the following assignments. Before the assignments are initiated, they will be outlined in more detail by Barry Thom, John Stein, and Tom Karier for review by the executives. These three will seek additional executives to form a working group to oversee development of these activities.

### Assignments

1. Develop a one-page "motherhood and apple pie" vision statement for agencies to sign on to. (This will be done within the short term and circulated to Executives for their review.)
   Responsibilities: Executive lead (TBD), with assistance from NED, PNAMP and PNW-RGIC
2. Develop a pilot project for salmon population status and trends data. Identify and understand existing protocols and potential approaches to development of a regional monitoring strategy data across the agencies and the required steps to define a regional monitoring protocol.
   Responsibilities: Executive lead Barry Thom (NOAA) with assistance from CBFWA.
3. Outline an approach for assessing watershed and ecosystem health
   Responsibilities: Executive lead John Stein (NWFSC) with assistance from Josh Baldi (WA Dept. of Ecology)
4. Begin exploration of means to organize existing data through various management and technology approaches such as development of data portals for distributed access.
   Responsibilities: Executive lead (TBD), with assistance from PNAMP, NED and PNW-RGIC.

## Participants (by Agency)

| *Name* | *Agency* |
|---|---|
| Greg Delwiche | Bonneville Power Administration |
| Jim Geiselman | Bonneville Power Administration |
| Larry Buttress | Bonneville Power Administration |
| Evert Kenk | British Columbia Integrated Land Management Bureau |
| Brian Lipscomb | Columbia Basin Fish & Wildlife Authority |
| Tom Iverson | Columbia Basin Fish & Wildlife Authority |
| Ken MacDonald | Columbia Basin Fish & Wildlife Authority |
| Michele Dailey | Columbia River Gorge Commission |
| Phil Roger | Columbia River Inter-Tribal Fish Commission |
| Bill Towey | Colville Confederated Tribes |
| John Arterburn | Colville Confederated Tribes |
| Cathy Kellon | Ecotrust |
| Rick Mogren | Federal Caucus |
| Bart Butterfield | Idaho Department of Fish and Game |
| Keith Wolf | KWA |
| Janet Hess-Herbert | Montana Fish, Wildlife & Parks (phone) |
| Craig Dalby | National Park Service |
| Danny Burgett | Natural Resources Conservation Service |
| Barry Thom | NOAA Fisheries, Northwest Region |
| Kim Kratz | NOAA Fisheries, Northwest Region |
| John Stein | Northwest Fisheries Science Center |
| Stewart Toshach | Northwest Fisheries Science Center |
| Tom O'Neil | Northwest Habitat Institute |
| Amber Johnson | Northwest Habitat Institute |
| Bruce Jones | Northwest Indian Fisheries Commission |
| Tom Karier | Northwest Power and Conservation Council |
| Peter Paquet | Northwest Power and Conservation Council |
| Melinda Eden | Northwest Power and Conservation Council |
| Mike Carrier | Office of Governor Ted Kulongoski |
| Scott Smith | Oregon Department of Administrative Services |
| Cy Smith | Oregon Department of Administrative Services |
| Ed Arabas | Oregon Department of Administrative Services |
| Dick Pedersen | Oregon Department of Environmental Quality |
| Aaron Borisenko | Oregon Department of Environmental Quality |
| Ed Bowles | Oregon Department of Fish and Wildlife |
| Cedric Cooney | Oregon Department of Fish and Wildlife |
| Roy Elicker | Oregon Department of Fish and Wildlife |

| ***Name*** | ***Agency*** |
|---|---|
| Doug Tindall | Oregon Department of Transportation |
| Gail Achterman | Oregon Institute for Natural Resources |
| Randy Dana | Oregon Ocean-Coastal Management Program |
| Tom Byler | Oregon Watershed Enhancement Board |
| Stan Allen | Pacific States Marine Fisheries Commission |
| Doug Taki | Shoshone-Bannock Tribes |
| Witt Anderson | U.S. Army Corps of Engineers |
| Rock Peters | U.S. Army Corps of Engineers |
| Mike Mottice | U.S. Bureau of Land Management |
| Duane Dippon | U.S. Bureau of Land Management |
| Karl Wirkus | U.S. Bureau of Reclamation |
| Michael Newsom | U.S. Bureau of Reclamation |
| Tom Eaton | U.S. EPA Region 10 |
| Dave Tetta | U.S. EPA Region 10 |
| Linda Ulmer | U.S. Forest Service |
| Deborah Konnoff | U.S. Forest Service |
| Dru Burks | U.S. Geological Survey |
| Sheri Schneider | U.S. Geological Survey |
| Alan Mikuni | U.S. Geological Survey |
| Jen Bayer | U.S. Geological Survey, PNAMP |
| Jacque Schei | U.S. Geological Survey, PNAMP |
| Dan Diggs | USFWS Region 1 - Pacific |
| Mark Bagdovitz | USFWS Region 1 - Pacific |
| Josh Baldi | Washington Department of Ecology |
| Ken Dzinbal | Washington Department of Ecology |
| Erik Neatherlin | Washington Department of Fish and Wildlife |
| Chris Drivdahl | Washington Governor's Salmon Recovery Office |
| Steve Leider | Washington Governor's Salmon Recovery Office |
| Rachael Langen | Washington Recreation & Conservation Office |
| Jim Fox | Washington Recreation & Conservation Office |
| Bruce Crawford | Washington Recreation & Conservation Office |
| Carol Smith | Washington State Conservation Commission |
| Nancy Tosta | Ross & Associates Environmental Consulting, Ltd. |
| Kristen Durance | Ross & Associates Environmental Consulting, Ltd. |