

COLUMBIA RIVER BASIN SALMON AND STEELHEAD LONG-TERM RECOVERY SITUATION ASSESSMENT



WASHINGTON STATE UNIVERSITY

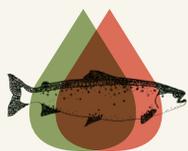
THE
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UNIVERSITY OF WASHINGTON



The assessment team is deeply grateful to the many individuals who gave their time and energy to be interviewed, and to otherwise inform this report.

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EXECUTIVE SUMMARY

In the fall of 2012, after consulting with a wide range of salmon recovery partners, NOAA Fisheries asked Oregon Consensus and the William D. Ruckelshaus Center (university-based, neutral, third-party institutions devoted to promoting collaborative governance and consensus-based public policy) to conduct an independent, impartial situation assessment to explore regional views about how best to approach comprehensive, long-term salmon and steelhead recovery in the Basin. The centers assembled an Assessment Team comprised of practitioners and academics from Washington, Oregon and Idaho.

The Assessment Team conducted 206 semi-structured interviews with individuals selected for their knowledge of, engagement in, and/or concern for salmon recovery planning in the Basin. The overall goal of the assessment and this report is to provide a summary of key themes, issues and perspectives identified from the interviews, and to describe potential process options to better achieve desired outcomes regarding long-term salmon and steelhead recovery in the Basin.

This report begins with an explanation of the assessment process, followed by a brief overview of recovery processes in the Basin. The report then presents a synthesis of information gained through the interviews, focusing on key themes. The last section presents a conceptual framework for assessing the salmon recovery system, along with key findings and process options for improving the system and addressing salmon and steelhead recovery in the long term. Supplemental information is provided in appendices.

The centers are making this assessment available to NOAA Fisheries and all other interested parties, in the hope that it helps inform discussions about long-term salmon and steelhead recovery processes in

the Basin by providing options to consider, updated information, and a “bird’s eye view” of a complex policy environment the team learned few see in its entirety.

It is important to note that this executive summary provides brief overview of the complex assessment. Those who wish a more detailed examination of the many ideas, nuances and important points which arose from the process should read the full report.

▶ KEY THEMES FROM THE INTERVIEWS

Conducting over 200 interviews with a wide range of interests involved in salmon and steelhead recovery on the Columbia resulted in a rich compendium of thoughts, opinions and ideas. Some of those ideas were noteworthy for their recurrence across many interviews. Others were notable for their diversity, uniqueness or originality. It is important to note that how many interviewees mentioned an issue or shared a perspective does not define its legitimacy, importance, or merit.

When the Assessment Team analyzed this input, important themes emerged, as described in the Key Themes section below. That section must be read in its entirety to get a full picture of the assessment themes. But, distilled down to a few central points, they might include the following:

- To be successful in recovering salmon and steelhead, the region needs to get as close as possible to a shared definition of success. That definition should be multidimensional, containing legal, regulatory, ecological, social, cultural and economic elements.
- Success will also require creative, bold and effective leadership at all levels. This includes leadership to convene, take charge, make things happen, communicate, and help the public better understand the issues. That involves local leaders maintaining their oft-complemented efforts to implement recovery plans, as well as leaders with more Basin-wide influence (governors, tribal chairs, elected and appointed officials) providing the impetus and venues for developing the type of shared vision of success described above.

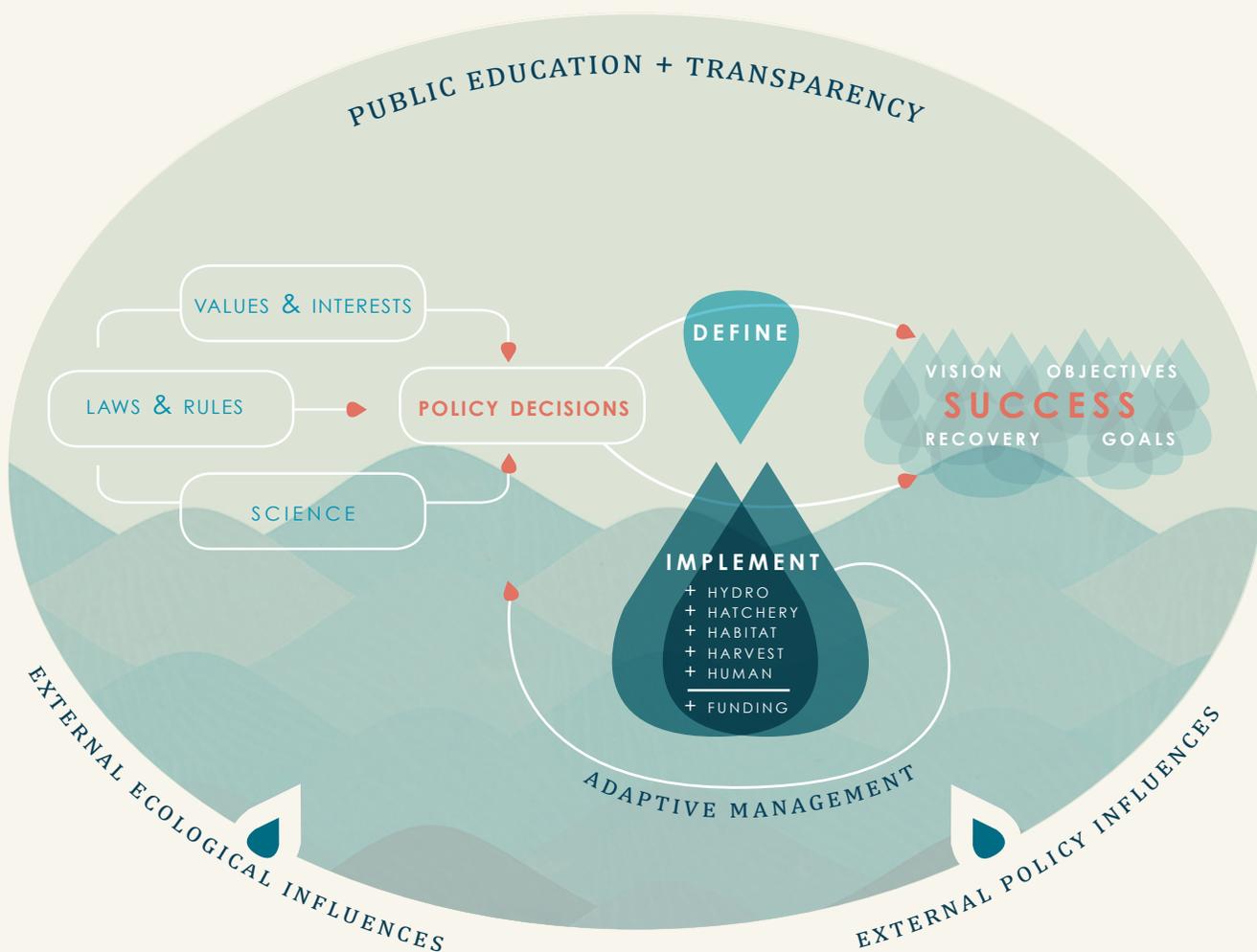
- The most effective processes are the ones that are adequately and appropriately funded, inclusive, transparent, fair, equitable, and based on good science (defined as independent, unbiased, peer-reviewed, appropriately separated from policy-making, and inclusive of monitoring, evaluation and adaptive management).
- Examples of such processes exist both inside and outside the Basin and the salmon recovery process; these are noted in the assessment and can be looked to as models.
- Litigation is a somewhat blunt instrument that does not often directly produce flexible and tailored solutions; frequently creates polarized interactions where parties hold on tightly to positions and predefined solutions rather than exploring interest-based approaches; and does not typically result in durable solutions to fundamental issues in complex policy environments like this one. However, some interviewees suggest that the courts could provide the structure, incentives and resources for getting the parties to work collaboratively to resolve contentious issues. Litigation is likely to persist as long as some parties see it as their most effective means of engaging in elements of the process. It has been the source of incentives for negotiation and settlement in the past and has the potential to play an even greater role in structuring future negotiations among parties.

A wide range of perspectives were expressed about whether current approaches to recovery will achieve success. Some believe the current approach is already successful and salmon are well on their way to recovery. Others were less encouraged but still positive, suggesting that progress has been slow but that the Basin may be turning a corner. Others were frustrated and felt the region was not doing enough, or the right things, to avoid decline and/or extinction. Ongoing and locally driven efforts, ESA recovery boards and plans, and state recovery boards and watershed councils were frequently cited as examples of current success, where strong working relationships and trust have formed, projects have been completed, and fish are responding to recovery efforts.

The scale and complexity of the processes that have evolved to address salmon and steelhead recovery in the Basin was a common theme. Many interviewees suggested that a more holistic basin-wide approach that comprehensively addresses hatcheries, harvest, habitat, hydroelectric, humans, ocean conditions and climate change would improve recovery efforts. However, the size of the Basin and the complexity of issues impede communication and coordination between parties involved in recovery processes and the ability to implement such a basin-wide approach.

CONCEPTUAL FRAMEWORK OF THE RECOVERY SYSTEM

The Assessment Team developed a conceptual framework (see graphic below) to illustrate its understanding of the recovery planning system. The framework attempts to describe at a high level the way laws, authorities, social values and science interact in the decision-making process both to define success and to propel action toward the goal of recovery. This conceptual framework is intended primarily to serve as a guide for assessing opportunities to modify the system or one of its components in order to address concerns raised by the interviewees. The framework is also helpful for assessing how any changes might affect other parts of the system. The components of the framework are described in more detail in the report.



▶ PROCESS OPTIONS TO ENHANCE FUTURE RECOVERY PROCESSES

Given the scale and complexity, there is no one specific, fail-safe way to address all issues surrounding long-term salmon and steelhead recovery in the Basin. The Assessment Team created a matrix to illustrate how multiple process tools can be used to address different components of the system. In the Process Options section of the report, each of the system components is briefly described, along with the process tools that are best suited to addressing interviewee concerns related to that component of the system. Highlighting in the matrix indicates where each of the process options is described in detail. In evaluating the appropriate application of any of the processes, it is important to keep in mind the whole system, as well as the desires expressed by interviewees. It is also important to engage affected parties in shaping the process being used to affect change on any component of the system

	VALUES & INTERESTS (Building a better understanding and reconciling)	LAWS & RULES (Clarifying or adjusting legal mandates)	SCIENCE (Assuring quality and appropriate use, and reconciling differences)	POLICY DECISION MAKING (Improving process, transparency, access and outcomes)	TRANSPARENCY (Improving transparency, access to information, and understanding)	SUCCESS/ RECOVERY (Defining goals and outcomes)
INFORMATION SHARING	Red				White	
LISTENING SESSIONS	Red			White	White	White
DIALOGUE FORUMS	Red			White	White	White
INTEREST SHARING SESSIONS	Red				White	
LEGAL PROCESSES		Red	White	White		
INCENTIVES AND VOLUNTARY		Red				
SCIENCE POLICY WORKSHOPS	White		Red	White	White	White
COLLABORATIVE AGREEMENT AROUND EXPERIMENTATION			Red			
SCIENCE MEDIATION		White	Red			
MINI TRIAL		White	Red			
SCIENCE VALIDATION/ ARBITRATION			Red			
COLLABORATIVE CONSENSUS-BASED	White	White		Red	White	White
TRIBAL CONSULTATION	White			Red	White	White
PFMC-TYPE STRUCTURE			White	Red	White	White
SALMON CZAR			White	Red		White
SYSTEMS MAPPING					Red	
FORUMS WITH SPECIFIC ADVISORY GROUPS					Red	
POLICY FORUMS	White				Red	White

Red highlighting in the matrix indicates where each process option is described in detail in the following text.

CONCLUSIONS

The Assessment Team struggled with how to best characterize the “bounded optimism” it heard from interviewees. Many interviewees were both optimistic about the possibility of making significant progress towards recovery and frustrated at unrealized potential in the Basin. Respondents often said many aspects of the salmon recovery processes are working fairly well now, or working better than they have in the past. But this was usually followed by apprehension over the prospects for long-term success caused by a concern over areas where progress is not being made and/or concern about external policy and ecological drivers that may change conditions and outcomes. Numerous parties are worried recovery is not on the right path.

A key finding of this assessment is that there is currently a strong desire for greater efficiency, certainty, transparency, and predictability; improved relationships; and more durable solutions for salmon and steelhead recovery in the Basin. The Assessment Team also heard shared desires among many interviewees for achieving delisting and rebuilding salmon and steelhead runs throughout the Basin, while minimizing impacts on all parties’ economic and social interests. Respondents believed there are ways recovery processes can work better in that regard, and offered suggestions. But they were also aware that even well-intentioned changes can have adverse, unintended consequences.

Notwithstanding the many challenges that lie ahead, it appears there is a window between now and 2018 – the end date of a number of existing agreements, plans and programs – to lay the groundwork and have discussions about how to improve relationships, clarify where commonalities lie, and plan for or initiate a renewed region-wide conversation on salmon and steelhead recovery. Concurrent to this conversation, process options described in this report could be implemented in the near-term to realize additional benefits from the current approach. These options provide a stepwise approach of short, medium, and long-term tools that build on successes toward a more effective Basin-wide recovery strategy.

There was among interviewees a call for more leadership in the salmon recovery process. But it was also recognized that exercising such leadership is difficult. Various legal and political structures make it difficult for NOAA Fisheries or any of the current players to take an effective overall leadership role. Numerous interviewees mentioned a coalition of the four regional governors as having the authority and stature to champion a fresh direction and a common vision for recovery. Others suggested that a redefined NPCC might play such a role, if its mandate was changed. There was also widespread discussion of the need to have Tribal leaders as part of any “champion,” if such an effort was to succeed.

The Assessment Team was impressed that the people of the Columbia River Basin share a common desire for recovery of these iconic species. While there are differences about how best to define and achieve recovery, this underlying desire is an important foundation that should not be lost in the tangle of bureaucratic complexity, litigation and scientific uncertainty. This report is offered in the hope that parties and the public will gain a better understanding of the challenges and opportunities in salmon and steelhead recovery processes, and of some process options that may address these challenges, while building on past and current progress.



INTRODUCTION

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) has several obligations in the Columbia River Basin (Basin) regarding salmon and steelhead recovery and management. In the fall of 2012, after consulting with a wide range of salmon recovery partners, NOAA Fisheries requested that Oregon Consensus and the William D. Ruckelshaus Center conduct an independent, impartial situation assessment to explore regional views about how best to approach comprehensive, long-term salmon and steelhead recovery in the Basin. A situation assessment is an interview-based process undertaken to better understand and explore relevant issues and interests of involved parties and situation dynamics (see Appendix A for a situation assessment description). Oregon Consensus and the Ruckelshaus Center are university-based, neutral, third-party institutions devoted to promoting collaborative governance and consensus-based public policy (for more information, see www.orconsensus.pdx.edu and www.ruckelshauscenter.wsu.edu). The centers assembled an Assessment Team comprised of practitioners and academics with process expertise from Washington, Oregon and Idaho to conduct the assessment (see list in Appendix B).

The Assessment Team conducted 206 semi-structured interviews with individuals selected for their knowledge of, engagement in, and/or concern for salmon recovery planning in the Basin. The overall goal of the assessment and this report is to provide a summary of key themes, issues and perspectives identified from the interviews, and to describe potential process options to better achieve desired outcomes regarding long-term salmon and steelhead recovery in the Basin.

This report begins with an explanation of the assessment process, followed by a brief overview of recovery processes in the Basin. The report then presents a synthesis of information gained through the interviews, focusing on key themes. In the last section is a conceptual framework and process options for addressing salmon and steelhead recovery in the long term. Supplemental information is provided in appendices.

The centers are making this assessment available to NOAA Fisheries and all other interested parties, in the hope that it helps inform discussions about long-term salmon and steelhead recovery processes in the Basin by providing options to consider, updated information, and a "bird's eye view" of a complex policy environment the team learned few see in its entirety.

This report was prepared by Oregon Consensus and the William D. Ruckelshaus Center, university-based centers whose mission is to serve as neutral resources for collaborative problem solving in the Pacific Northwest. The universities that house these programs support the preparation of this and other independent assessment reports produced by their Centers. However, the findings and conclusions contained in this report are solely those of Oregon Consensus and the William D. Ruckelshaus Center and may not reflect the views or opinions held by their universities or advisory boards.



SITUATION ASSESSMENT PROCESS

► ASSESSMENT CONTEXT

The situation assessment is a reflection of views at a point in time. The circumstances that existed at the time this assessment was being conducted have the potential to impact the perspectives of both interviewees and the Assessment Team about what is important and what is possible in considering options for long-term recovery planning. Below is a brief summary of some of those circumstances. This is not meant to be an exhaustive list, but rather a sample of 2013 events, intended to set the context for the interviewee reflections and potential process options described later in this report.

In 2013, there were changes in leadership within several federal entities involved in salmon and steelhead recovery in the Basin. NOAA Fisheries announced a merger of its Southwest and Northwest Regions, the Northwestern Division of the US Army Corps of Engineers (Corps) changed command and Bonneville Power Administration's (BPA) leadership changed throughout the year. There was also leadership turnover at the Tribal, state and local levels. For example, the assessment coincided with the first year of the administration of Washington Governor Jay Inslee.

A year prior to this assessment, U.S. District Court Judge James A. Redden retired and the lawsuit regarding the Federal Columbia River Power System Biological Opinion (FCRPS BiOp) was reassigned to Judge Michael H. Simon. In 2013, NOAA Fisheries released a Draft Supplemental Federal Columbia River Power System FCRPS BiOp for public comment. The final 2013 Supplemental BiOp was expected to be released in December 2013 consistent with the order of the Court. As

of the completion of this assessment, Judge Simon had yet to make a substantive ruling in the case.

Throughout the assessment, management of fisheries in the Columbia River remained subject to provisions of *United States v. Oregon* (1969) under the continuing jurisdiction of the federal court. During the interview phase of the situation assessment, the Columbia Basin Fish Accords partners reached the five-year mark in their 10-year agreement. Drafting and comment review on the Columbia River Treaty 2014/2024 Review was ongoing as well. NOAA Fisheries published a recovery plan for lower Columbia River salmon and steelhead in July 2013, and, during the same period of time, fall Chinook returns on the Columbia reached higher levels than in recent years, while summer steelhead and coho runs were below the 10-year average. Both results led to continuing debate about the overall trends and contributing factors with respect to recovery.

In 2013, budget sequestration led to automatic federal spending cuts, which affected a number of agencies involved in salmon recovery. In the fall of 2013, the federal government partially shutdown for 16 days when Congress did not agree on an appropriations bill or continuing resolution for the 2014 fiscal year before the September 30 deadline. A continuing resolution was passed about two weeks later and the shutdown ended.

► INTERVIEW PROCESS AND PROTOCOL

From March through August 2013 the Assessment Team conducted 206 semi-structured interviews with individuals representing federal, tribal, state, and local/regional governments across four states, as well as interests representing environmental, energy, fishing (commercial, tribal & recreational), transportation, agriculture, irrigation, academic and consultant perspectives, among others. Many individual interviewees represented more than one perspective (Interviewee names and affiliations are listed in Appendix C).

The process for identifying individuals to interview was incremental. The Assessment Team team began by using

a number of sources, including documents, publications, and online sources, team member discussions, and informed-observer input to develop a broad list of potential interviewees. To develop a list that represented all perspectives, the Assessment Team also used a chain referral recruitment method to identify additional potential interviewees. In accordance with this method, each interviewee was asked to identify individuals, interests or groups that would be important to interview. A subset of interview slots were reserved for interviewees identified via this referral sampling method. **The Assessment Team used the following criteria to develop a representative list of interviewees to be invited to participate: 1) broadly representative of the interests affecting and affected by long-term salmon and steelhead recovery planning in the Columbia River Basin, 2) organizational and/or subject matter expertise and leadership, 3) geographic diversity, 4) representative of the diverse perspectives and views on past and future efforts, 5) varied tenure in Columbia Basin salmon and steelhead recovery efforts. The goal was that all interested parties would have confidence that their perspective was represented on the interview list and in the assessment, whether they themselves were interviewed or not.**

Individuals were contacted to determine their willingness to participate in the assessment and to schedule an interview. Individuals agreed to participate, declined to participate, suggested an alternate interviewee from their organization, or did not respond to the interview invitation. When individuals did not respond, the team extended additional invitations by phone and/or email, including a final invitation near the conclusion of the interview stage of the process.

The directors of the Ruckelshaus Center and Oregon Consensus interacted with elected officials at the federal, state, tribal and local levels in Washington, Oregon, Idaho and Montana, to familiarize them with the assessment, ask how they wanted to be involved, and address questions or concerns. Understanding the critical role that Tribes and treaty and trust rights play in the management of salmon and steelhead in the Basin, the directors sent a

letter and made follow-up calls to the chair of each tribe to seek guidance on how they wanted to be involved in the assessment, address questions or concerns, and ensure they had the opportunity to share their perspectives and priorities. Recognizing the importance of these issues to federal policy-makers, the directors also reached out to members of the Congressional delegation whose districts include the Columbia River Basin, to offer an overview regarding the assessment and answer questions.

Prior to the interview, participants received a brief description of the assessment and a list of interview questions (a copy of the interview questions can be found in Appendix D). An interview guide with the list of questions was used to conduct each interview and interviewees were encouraged to freely express their ideas and provide information they believed to be important. The interview process was completely voluntary; all interviewees were advised that they not only had the opportunity to decline to participate in the interview, but could also opt out of responding to any question(s). Interviews averaged approximately one hour.

Because the interviews involved human subjects, the proposed methodology was submitted to the Washington State University Institutional Review Board (IRB) and the Portland State University Human Subjects Research Review Committee (HSRRC). The review process in both institutions requires assurances that the human subjects (in this case, interviewees) would be protected from undo risk or impact connected with participation in the project. Interviews were conducted on the basis of confidentiality and in accordance with university human subjects research protocols. Interviews were not recorded, and interviewer notes were separated from any personal identifier information used to select or contact the interview subject. The Assessment Team explained to all interviewees that the report would present key issues, perspectives, and themes from the interviews, and that no statements in the report would be attributed to specific individuals. Interview participant responses are presented in this report as aggregate summaries, syntheses and analyses of the information gathered.

▶ DATA ANALYSIS

The situation assessment process is qualitative and the Assessment Team’s analysis involved the identification, organization and interpretation of key findings from the interviews. After each interview, interviewers entered summaries into an anonymous database shared by all Assessment Team members. Analysis began with each member of the team reviewing interviewer notes in the database to assess the results of all interviews, not just those they conducted. Each member analyzed interview results and shared their interpretations with others on the team. The team then convened for analytical discussions regarding observations, key findings, options and successive drafts of this report.



OVERVIEW OF SALMON AND STEELHEAD RECOVERY RELATED PROCESSES

The Columbia River Basin is a vast and diverse landscape, encompassing the Canadian province of British Columbia, several U.S. states, and Indian reservations. The Columbia River is fourth largest in the U.S. by volume and the sixth largest in North America. Its biological diversity spans high deserts to alpine glaciers, and dozens of rare and endangered species call it home, including the region’s iconic native salmon and steelhead. The Basin is a vibrant economic engine for many industries, including large and small manufacturing, sport and commercial fishing, timber, agriculture, recreation, tourism, transportation and many others. It contains one of the world’s largest hydro-electric

generating systems with 56 hydropower and 77 multi-purpose dams; a major transportation system, creating the furthest inland seaport in the U.S.; and one of the world’s largest irrigation systems.

Columbia River Basin salmon and steelhead recovery exists within this dynamic, multidimensional, social-ecological system. A multilayered assortment of treaties, laws, executive orders and court decisions define, guide and impact salmon and steelhead-related activities in the Basin. Multiple plans and programs have been created for recovery-related efforts, influenced by factors often generalized into H’s—harvest, hydropower, habitat and hatchery management. Federal agencies, tribes, state and local governments, regional organizations, private interest groups and private citizens are involved in recovery efforts; at least 60 groups have been created to facilitate coordination and communication among these entities.

While individuals interviewed in this assessment had ample knowledge of the recovery-related processes in which they are directly involved, few understood the current system in its entirety. Many of the individuals interviewed said that a succinct description of the processes that comprise the current salmon and steelhead recovery system would be valuable. Therefore, provided is an illustrative outline and in Appendix E a summary of some of the key elements guiding salmon and steelhead-related activities in the Basin, including major treaties, laws and court decisions, and some programs and planning efforts.

This outline and accompanying summary do not attempt to identify or discuss all of the legal, social, and programmatic processes at play in the Basin. They are meant to serve as a reference guide about some of the processes discussed throughout this report and articulate pieces of this multifaceted system. More information about these processes can be found in Appendix E.

OVERVIEW OF SALMON AND STEELHEAD RECOVERY RELATED PROCESSES

TREATIES, LAWS, AND COURT DECISIONS

TREATIES AND ORDERS

Tribal treaties and orders | Columbia River Treaty | Pacific Salmon Treaty

NATIONAL LAWS

The Clean Water Act | Endangered Species Act | National Environmental Policy Act
Federal Power Act | Magnuson-Stevens Fishery Conservation and Management Act | Federal-Indian laws

COLUMBIA RIVER BASIN SPECIFIC LAWS

Northwest Power Act | Mitchell Act | Columbia River Compact | Fisheries Restoration and Irrigation Mitigation Act

COURT DECISIONS AND PROCEEDING

United States v. Oregon | United States v. Washington

GOVERNMENT ENTITIES

FEDERAL AGENCIES

NOAA Fisheries
USFWS
Bureau of Land Management
U.S. Forest Service
U.S. Army Corps of Engineers
Bureau of Reclamation
Bonneville Power Administration
Bureau of Indian Affairs
Environmental Protection Agency
U.S. Geological Survey
Natural Resources Conservation Service

TRIBES

Cowlitz Indian Tribe
Confederated Tribes of Warm Springs Reservation of Oregon
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Colville Reservation
Burns Paiute Tribe
Confederated Tribes of the Umatilla Indian Reservation
Spokane Tribes of Indians
Fort McDermitt Paiute Shoshone Tribes
Kalispel Tribe of Indians
Coeur d'Alene Tribe
Nez Perce Tribe
Kootenai Tribe of Idaho
Shoshone Paiute Tribe of the Duck Valley Indian Reservation
Confederated Salish and Kootenai Tribes of the Flathead Nation
Shoshone-Bannock Tribes of the Fort Hall Reservation
CRITFC; UCUT; USRT

STATE & LOCAL

Idaho
Oregon
Washington
Montana

PROGRAMS AND PLANS

NORTHWEST POWER AND CONSERVATION COUNCIL

Regional Power Plan | Fish and Wildlife Program

NOAA FISHERIES RECOVERY PLANNING UNDER ESA

Willamette/Lower Columbia | Interior Columbia (Middle, Snake, Upper) | Oregon Coast | Puget Sound

ALL H-MANAGEMENT

HYDROPOWER

FCRPS BiOP
Regional Implementation Oversight Group
Columbia Basin Fish Accords
Columbia River Regional Forum

HARVEST

Pacific Salmon Commission
Pacific Fisheries Management Council
North of Falcon
US v. Oregon

HATCHERY

US v. Oregon
Mitchell Act Hatcheries
Hatchery Scientific Review Group
Hatchery and Genetic Management Plans
Lower Snake River Compensation Plan

HABITAT

Critical Habitat
Essential Fish Habitat
Habitat Conservation Plans
Pacific Coastal Salmon Recovery Fund



KEY THEMES FROM THE INTERVIEWS

The Assessment Team asked interviewees about their visions of success for recovery, how to achieve that success, and what issues need to be addressed along the way. Interviewees were also asked what challenges and opportunities they saw for addressing those issues and about existing and potential model processes that might be useful for addressing recovery in the long-term. Over the course of the interview process, key themes emerged about which many interviewees had thoughts, ideas, opinions or suggestions. Some of those ideas were noteworthy for their recurrence across many interviews. Others were notable for their diversity, uniqueness or originality. It is important to note that how many interviewees mentioned an issue or shared a perspective does not define its legitimacy, importance, or merit. This section of the report is meant to summarize these key themes rather than provide a comprehensive list of issues discussed or attempt a detailed explanation of all the viewpoints shared during the interview process.

▶ LONG-TERM SUCCESS: A MULTIDIMENSIONAL CONCEPT

Interviewees were asked to share their visions for a successful salmon and steelhead recovery process and to identify milestones by which success could be identified. Many viewed success as a multifaceted or multidimensional concept, identified and described by a variety of parameters including legal and regulatory success, ecological success, social/cultural success, and economic success as described below. Some interviewees provided a broad view of success, reflecting on potential shifts in ecosystem health, societal values and cultural

norms, or global scale environmental changes like climate change. Others described a holistic approach to the Basin, from headwaters to the estuary, in which management decisions are based on a multi-species perspective. And many expressed an underlying belief in the intrinsic value of salmon in the region—as a tribal first-food, as an icon of the Northwest, and as an indicator of overall ecosystem health. It was also common for interviewees to articulate their own vision of success but often add that such a vision should be balanced with other interests, including social and economic.

Legal and Regulatory Success: When discussing potential for legal and regulatory success interviewee examples included delisting, meeting tribal treaty obligations, and less litigation. Many interviewees began by articulating a single element of success through the regulatory lens of ESA delisting. Nearly all interviewees stated that meeting the conditions necessary for removal of salmon and steelhead from the list of endangered and threatened species, was a necessary component of success whether referring to all species or a specific population. And for some, delisting would simply provide relief from ESA-driven restrictions or requirements that currently impact the interviewee’s occupation or activities. Others identified reductions in regulation requirements for landowners or improved/streamlined permitting.

Ecological Success: For ecological success interviewees identified goals of increased abundance, productivity, spatial distribution and diversity; predominance of wild (natural origin) fish; reduced dependence on hatcheries; habitat restoration; return of broad ecosystem function and reduction in need for human intervention. Interviewees also named fulfillment of specific goals for topics including smolt-to-adult return rates, annual return rates for specific runs or salmon and steelhead as a whole, return of strong salmon and steelhead runs to a specific local river or watershed, and specific goals related to fish passage. Many interviewees articulated a strong distinction between wild (natural origin) and hatchery-origin fish, suggesting that successful recovery hinges on the recovery of wild populations. Others saw a component of success as the reintroduction of anadromous fish into specific areas of the

species' historic range, particularly above Grand Coulee Dam, Chief Joseph Dam, and Hells Canyon Dam. Some described success as achieving broad ecosystem health necessary to support fish throughout the Basin and to support recovery at all stages of the anadromous fish life cycle including increased cold, clean water; more habitat; controlled development; and the necessary supporting policies. Climate change was also a primary concern for many interviewees who stated that successful recovery will depend on ensuring resiliency in fish stocks and will require a basin-wide plan.

Social/Cultural Success: Interviewees also listed specific visions of social/cultural success including meeting tribal needs; meeting non-tribal harvest and recreational needs; return of salmon to historic spawning grounds; maintenance and enhancement of tribal and non-tribal traditions, cultures and ways of life; improved relations; greater understanding of ecological and other values; and greater understanding of human roles in the system. For some, success would represent a shift in societal values such that people's views about natural resources generally, and salmon in particular, leads them to believe that salmon are worth saving.

Economic Success: Interviewees also commented on views for economic success including meeting resource needs for commercial, sport, and tribal fishing, agriculture and irrigation, transportation, and hydroelectric power generation; reducing the per-fish cost of recovery; and maintaining strong urban and rural economies across the Basin. For some, success meant the continued existence of a thriving hydroelectric system, agricultural production and barge transportation system while others sought to build a "salmon economy" or "restoration economy" in which salmon well-being is considered in all aspects of societal and economic decisions.

CURRENT APPROACHES

There was a wide range of perspectives about whether current approaches to recovery could achieve success. Some interviewees believe the current approach is capable of success, in part due to the commitment and

desire of the many involved parties to see recovery efforts be successful. They often noted that current approaches are not static and will continue to evolve as involved parties work to address challenges as they arise. Similarly, some spoke about the adaptive management capacity of current approaches and continued investment in science as strong reasons why current approaches would continue to contribute to successful recovery. Others were less encouraged but still positive, suggesting that progress has been slow but that the Basin may be turning a corner towards recovery.

Ongoing and local driven efforts, ESA Recovery Boards and Plans, and state recovery boards and watershed councils, were mentioned by interviewees as processes that have been instrumental to, or examples of, success. These efforts were described by many as the places where strong working relationships and trust have formed, projects have been completed, and/or fish are responding to recovery efforts. Many noted success that these recovery boards, sub-Basin and watershed planning processes have had in bringing multiple interests together to decide on the best approach for their area. Below are some of the processes frequently mentioned by interviewees as successful. The list below is not intended to be an exhaustive list of all successful processes in the Basin.

- Habitat improvement efforts in Idaho
- John Day River Basin stream improvement efforts
- Northwest Power and Conservation Council (NPCC)
- Regional Implementation Oversight Group (RIOG)
- Snake River fall Chinook efforts
- The Columbia River Treaty Review Process
- The Pacific Fisheries Management Council (PFMC)
- Umatilla Basin water and recovery efforts
- Upper Columbia hatcheries
- Walla Walla Recovery Planning Process
- Washington State Salmon Recovery Boards
- Yakima Basin Integrated Plan

Commonalities shared by the above processes, as described by interviewees who saw them as examples of success include:

- Support relationship and trust building
- Active leadership, well-supported convening structure, and facilitation
- Integrated and coordinated efforts, including all elements of salmon and steelhead recovery (hydropower, habitat, harvest, hatcheries) and related issues across the geography of the entire Basin
- Solid basis in law, a statutory structure upon which to build, and a commitment of resources
- Inclusive and transparent, including a more integrated role for, and attention to the interests of tribes
- Incorporate both regulatory and voluntary, incentive-based approaches
- Address the role of both science and policy, and include mechanisms for resolving disputes
- Action and implementation focused, with agreed upon goals and understanding of expectations among participants
- Consistent and robust public outreach
- Flexible and adaptable to meet specific needs of an area, including experimentation, adaptive management, and monitoring and evaluation

Despite these examples of success, many interviewees indicated that the long history of work on these issues has led to a palpable process fatigue among many parties. They were concerned that the *perceived* lack of progress and the lack of obvious success stories were contributing to a feeling of exhaustion and disengagement among both the general public and funders. Some explained that many individuals, agencies, tribes, and organizations have been working on salmon recovery for decades and that new or additional processes were not necessary. Interviewees suggested building upon and supporting existing successful processes instead of creating any additional ones.

Other interviewees were less optimistic about the current approach to recovery. Some stated that the current approach will result in localized or expansive losses of wild anadromous stocks, that could potentially result in extinction. The status of wild stocks was of particular concern to many interviewees and some thought the current approach would lead to a continued dependence on hatchery production. Some worried that additional listings or declining runs may lead to increased regulations, which would result in reduced economic opportunity for fishermen, farmers and others. For others, concerns that the current approach would result in diminishing salmon and steelhead runs raised fears about the loss of tribal treaty rights as well as of culture and traditions, both tribal and non-tribal.

Other interviewees felt that although there might continue to be success in the short term, these gains would be overtaken by longer-term trends like climate change, habitat loss, human population growth, and development. Similarly, some interviewees said there would be improvements in localized areas under the current approach but limited or no improvement at the basin-wide scale.

One specific criticism raised by some interviewees was that protections and restoration efforts for salmon and steelhead focused almost exclusively on listed runs and populations and largely ignored runs that are currently strong. They feared that while efforts were made to save threatened populations, the currently strong populations were at risk from the same forces that caused declines elsewhere. They suggested that a comprehensive recovery approach should include better preventative strategies aimed at preserving the integrity of currently thriving populations. (This is sometimes referred to as a “strongholds” approach.)

Some interviewees were concerned that the failure of current approaches to improve species population trends might perpetuate litigation. Interviewees often cited litigation as a negative outcome that would erode crucial relationships, reduce investment in what they perceived to be effective recovery actions, and eliminate situational-

appropriate decisions by subject matter experts and replace them with broad determinations in court. Other interviewees expressed frustration about the inefficiency of current implementation mechanisms for restoration activities. They noted, for example, lengthy planning and permitting processes. One suggestion was to streamline the permitting process by developing a single federal/state permit for restoration projects. Others suggested designating implementation managers at each agency, who would oversee permitting and implementation.

Many interviewees who expressed frustration or concern with current approaches also expressed a desire for using more collaborative approaches for addressing these complex issues that would allow for more candid and direct sharing of interests and options among the full range of interested parties. Some considered collaboration to be a good way to approach long-term recovery planning but expressed the opinion that achieving long-term success necessarily requires addressing specific near-term issues, such as those being addressed in the BiOp, and suggested that those issues could also be addressed through collaborative processes that provide opportunities for involvement and candid discussion among all interested parties. Other interviewees believed that collaborative efforts were unlikely to be effective in addressing more immediate issues that are already caught up in contentious or legal processes (such as the suite of shorter term hydropower operational issues that are being addressed in the FCRPS BiOp process).

Some interviewees took the view that meaningful progress on salmon and steelhead recovery will only be possible when there are significant changes in the political landscape around the issue, and grassroots change in what the region is prepared to ask of itself and the recovery process. But despite a lack of optimism about continued reliance on the current system un-modified (the status quo), many interviewees expressed modest or bounded optimism about the prospects for salmon and steelhead recovery if there were to be some positive changes in the system—and some optimism that such change was possible.

► SCALE AND COMPLEXITY

The scale and complexity of the processes that have evolved to address salmon and steelhead recovery in the Basin was a common theme. Collectively, interviewees articulated three distinct components of the current recovery approach that reflect the complexity of the recovery landscape or architecture:

- The existing system of laws, treaties, regulations and authorities, all backstopped by the judicial process.
- A fabric of institutions and procedures created primarily by agreement and intended to facilitate cooperation, coordination, and understanding.
- Systems and procedures whereby implementation takes place. For example, dam operations, water allocations, monitoring and evaluation, and adaptive management.

Some interviewees noted that the factors affecting environmental, social, and economic conditions vary tremendously across the Basin and suggested that coordination is best achieved at a smaller spatial scale by establishing collaborative forums where fish and human communities share sufficient commonalities to allow for identification of implementable solutions. For others, a more holistic basin-wide approach that comprehensively addresses hatcheries, harvest, habitat, hydropower, humans, ocean conditions and climate change would be the best approach to improving coordination of recovery efforts. However, the size of the Basin and the complexity of issues that exist impede communication and coordination between parties involved in recovery processes and the ability to implement such a basin-wide approach. Interviewees expressed concern that the lack of coordination that currently exists in the Basin has led to inconsistent messaging to the public about the complexity of the salmon lifecycle and various aspects of salmon recovery in the Basin. And that this inconsistent messaging foments concern about possible process gaps or duplications.

Interviewees offered a number of suggestions for addressing scale and complexity issues and improving

coordination between parties involved in recovery efforts. A common suggestion was to establish a forum for setting and achieving Basin-wide goals and to support a coordinated basin-wide recovery approach, including local efforts, recovery plans, BiOps, hatchery management, harvest management, ocean science, climate change and more. Many interviewees suggested designating a single entity to coordinate efforts and NOAA Fisheries was seen as the agency best positioned to either facilitate improved coordination or to convene a group to do so. The Northwest Power and Conservation Council (NPCC) was also suggested as a convening entity. Additional, interviewee suggestions for a coordination forum included:

- A forum of decision makers with authority to decide on a broad range of key issues.
- A sovereigns group, similar to the RIOG, that would address all H's and would include state and federal agencies, tribes and other parties.
- A sovereigns group of federal, tribal, and state governments that would appoint a broadly-representative advisory commission to advise on recovery efforts.
- Integrate salmon recovery goals into riparian ordinances, flood risk, and other regulations.
- Create a coordinating group for tribal input.
- Using the NPCC Independent Economic Advisory Board (IEAB) to achieve better coordination and mechanisms to evaluate cost/benefit.
- Manage the Basin as one watershed, focusing on how the ecosystem functions across jurisdictional boundaries.

▶ LEADERSHIP AND POWER

The topic of leadership and power was of concern to many interviewees. In discussing leadership, many noted concerns about decision-making, authority, vision and other issues and commented on the role of specific organizations. In discussing leadership, interviewees noted in particular, the need for leadership to:

- Make decisions and drive the overall process of salmon and steelhead recovery
- Develop broader public support for recovery efforts
- Convene parties to collaborate on solutions

Interviewees also provided suggestions to overcome identified challenges and improve leadership for salmon and steelhead recovery processes.

Leadership Needs

Some interviewees described a lack of leadership of the overall process of salmon and steelhead recovery in the Columbia Basin. They ascribed this lack to a number of factors, including a risk-averse culture at the federal and state agency level often attributed to the history of litigation, and political and career cycles that lead to loss of consistent vision. Some described a lack of clear regulatory or legal authority; and a lack of clarity about who provides, or should provide, leadership for recovery efforts. Interviewees also suggested that the lack of clear responsibility for basin-wide planning and recovery contributes to fragmentation of recovery efforts within and between local, state, regional, and other levels. Many interviewees indicated that no single entity—federal, tribal, state or local—was currently exercising responsibility or leadership at the basin level. They believe that, under current legal structures, there are a number of such entities that would be capable of assuming responsibility at the basin level, an observation that many tied to the leadership gaps discussed above.

Some interviewees raised concerns about the nature of NOAA Fisheries' leadership and identified the agency as conflict-averse and tentative in its use of regulatory authority. Specifically, many described NOAA Fisheries as lacking clear leadership on issues related to hatcheries and harvest, and failing to consistently integrate hatchery, habitat, hydropower, harvest, and predation management measures into recovery planning. Others felt that only a federal agency with cross-jurisdictional authority can provide the oversight necessary for species that move between jurisdictions and expressed concern about NOAA

Fisheries giving control of the recovery plans to state entities. Some attributed NOAA Fisheries reluctance to lead to the effects of repeated litigation, intra-agency inconsistency, and/or conflicting objectives among various agency subdivisions, as well as a lack of political support. Others criticized NOAA Fisheries for a lack of leadership in setting goals for recovery. Some described the agency as overly focused, at the expense of broader recovery efforts, on Section 7 of the Endangered Species Act which relates to consultation with federal agencies to ensure federal actions do not jeopardize the existence of listed species and result in a NOAA Fisheries Biological Opinion.

Numerous interviewees discussed the role of Bonneville Power Administration (BPA) in the recovery. Some saw BPA as the *de facto* leader of the recovery efforts. Most saw it as the leading funder of recovery. Others described BPA's role in terms of power rather than leadership. They viewed BPA as having outsized power and influence over aspects of the broader recovery efforts, including development of the policies to achieve recovery. A number of interviewees suggested that BPA has exerted its power and influence to shape science to support its views and goals (discussed further in the section on science, below). Some interviewees said that BPA's leadership and influence made the Columbia Basin Fish Accords possible and that the agency should be lauded for its ability to move beyond litigation and towards multi-year commitments and on-the-ground projects. Others were critical of the Accords and characterized them as BPA having used its power and influence to 'divide and conquer' other interests, particularly the tribes.

Interviewee Suggestions

Interviewees provided suggestions to improve identified leadership challenges and had varied opinions on who should provide leadership including NOAA, the President or Vice-President, governors, Congressional delegations, or a federal executive source like the White House Council on Environmental Quality (CEQ). Some saw NOAA Fisheries as the appropriate leader due to its legal responsibilities. Others thought the governors of Idaho, Oregon, Washington, and Montana have the

ability to bring conflicting parties together to articulate a vision for salmon and steelhead recovery that may be helpful to catalyze action at the federal level, as well as provide shared goals for recovery Basin-wide. Many interviewees noted that any gubernatorial effort would be strengthened through engagement of tribal leadership. White House Administration-level leadership was suggested by interviewees given the long history of litigation and regional conflict around anadromous fish issues. The Northwest Forest Plan was frequently cited as a model that might be replicated. Other agencies including the Corps, BOR, EPA, and FWS were seen as having leadership of specific parts of the recovery but were not suggested to lead the overall recovery effort.

A number of interviewees identified the Northwest Power and Conservation Council (NPCC) as a potential source for leadership. The role of NPCC was a topic of considerable discussion among interviewees, with many noting NPCC's success in developing the Sub-basin Plans. Many saw NPCC as an entity with a strong regional, cross-boundary program and knowledgeable staff and therefore as a possible support to NOAA Fisheries' leadership. Through NPCC, they saw the potential for effective public participation across the region, which, they suggested, was needed to build and maintain public support for recovery efforts. However, some think NPCC's influence declined after the Sub basin Plans, and its role shifted to that of a distributor of mitigation funds. Some spoke of NPCC as a "lost opportunity," stating that it does not fully use the authority it has. However, many indicated that NPCC could be a more effective influence on recovery if it were to be reinvigorated, established with a reconstituted scope, and made more inclusive—especially with respect to the tribes. They noted that NPCC's mission and authorities have not been reconsidered since the ESA listings in the Basin.

Other interviewees saw local efforts from around the Basin as the primary driver for efforts to recover species, and basin-wide leadership was therefore less necessary. Although the challenge of reaching alignment among various political elements was often seen as a motivation for national-level engagement, it was also

frequently cited as a motivation for placing leadership at the local level where it would build on the success that local recovery boards, Soil and Water Conservation Districts and watershed councils have had in developing consensus. Still others described the need for a neutral charismatic leader to bring people together to develop consensus. According to interviewees, it was important that such a leader be perceived as independent from any constituent group and should be knowledgeable about politics, science, and processes in order to succeed at bringing people together to reach agreements.

In addition to the suggestions above, interviewees provided specific suggestions related to the identified challenges for NOAA Fisheries. Some thought NOAA Fisheries could exert greater authority to achieve recovery by relying more heavily on evidence-based science to support management decisions. They also recommended NOAA Fisheries provide clarity on outcomes and objectives, guidance on tough or politically sensitive issues, and high-level oversight to mesh the diverse elements of recovery. Some suggested NOAA Fisheries undertake an internal strategic planning and organizational development effort to align what is perceived as conflicting or unaligned objectives among the various elements of the agency.

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FAIRNESS AND EQUITY

The issues of equity and fairness were recurrent in the interviews—with respect to both the impacts of lost salmon runs and the burdens of recovery efforts. Many interviewees expressed that some communities were bearing a disproportionate share of the costs of salmon recovery, dam operations, or other related activities as compared to the benefits they enjoyed, while other communities were experiencing more benefits than costs. For instance, several interviewees spoke from the perspective of tribes whose reservations and “usual and accustomed” fishing locations lie above dams that cut off salmon migration, while others spoke of inequities between upper river and lower river users. Those tribes, they say, have endured the cost of lost

fishing opportunities while the benefits from irrigation and power generation from those same dams have provided economic and lifestyle benefits for other groups.

Some interviewees said the regulatory process itself was an obstacle to salmon and steelhead recovery and that regulatory burdens placed on landowners inhibit understanding and local buy-in. There was concern that some individuals or watersheds may be successful at achieving specific recovery goals, but remain heavily regulated because of the lack of success in other areas. Some interviewees also reported that a narrow regulatory approach is drawing resources only to those salmon and steelhead populations deemed to be most at risk, leaving stocks that are deemed stronger to fend for themselves.

Interviewees provided suggestions to improve on the regulatory approach or provided alternatives, such as replacing regulations with incentives for proactive voluntary action by landowners. Many reported that an incentive approach could complement a regulatory approach, and would allow dedication of resources to salmon and steelhead runs and habitats that are currently strong. One alternative and largely non-regulatory approach suggested by some interviewees was to use a market based or “ecosystem services” type approach to provide incentives for landowners to undertake restoration activities. Under such an approach, ecosystem improvements made by landowners are evaluated for their benefit or “uplift” and assigned a value in the form of a credit. Those credits may then be purchased by others who want or need to make ecosystem improvements or who need to mitigate for negative ecosystem impacts elsewhere in the local or regional watershed. Such a system encourages restoration activities by enabling landowners to benefit financially from their restoration efforts without imposing a regulatory burden.

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► POLARIZED INTERACTIONS

Many interviewees were concerned with the tenor of relationships and advocacy around recovery-related issues in the Basin and expressed a desire for change. They described a long acrimonious history around salmon issues in the Basin, and suggested that this has reinforced a tendency for parties to hold on tightly to positions and predefined solutions, rather than to explore interest-based approaches. Interviewees described this entrenched behavior as a major obstacle to exploring creative opportunities and solutions that may meet all parties' interests. Some interviewees noted that this entrenched dynamic was exacerbated by the existence of multiple forums and powerful interest-specific allies. These interviewees described situations in which parties who did not like a proposed outcome left negotiations to seek recourse in a political or judicial forum.

Many interviewees reflected on the need for improved relationships and trust, which they noted would take considerable time to develop and would be easy to undermine in competitive or adversarial venues. Some said it was time for new people or a new generation to lead the effort to resolve longstanding issues related to salmon recovery. Others saw a need to narrow the number of alternative forums, to prevent "forum shopping." And some suggested the solution process be dealt with at the local level, where there has been success at building relationships and trust among diverse interests.

► LITIGATION

Many, if not all, interviewees made reference to the significant role of litigation and the continuing impact that litigation has on the salmon recovery planning process and the relationships between the various interested parties. Some interviewees thought litigation was the result of a risk-averse culture at the federal and state agency level and reluctance on the part of NOAA Fisheries, to exercise leadership and make decisions about recovery. Others saw litigation as an alternative to other forms of decision-

making and dispute resolution—either because litigation was an effective tool or because no other equally suitable alternatives could be identified. Some suggested that the Federal courts have the potential to play a broader role in providing the motivation, structure and resource to get parties to work together on resolving contentious Columbia Basin issues. The Klamath and San Joaquin River Basins were mentioned by some interviewees as examples where the courts have played this type of role.

Some interviewees expressed satisfaction with the outcomes of various litigations and appreciation that the legal system was available in this arena. However, the Assessment Team heard consistently that litigation was a distraction, an inefficient mechanism, and resulted in ineffective outcomes, which are not well supported and thus subject to challenge or avoidance. Many interviewees noted the negative impact that litigation has had on the relationships between the various parties.

► TRANSPARENCY, PUBLIC UNDERSTANDING AND EDUCATION

Many interviewees spoke of the critical importance of having broad public support for salmon and steelhead recovery efforts if recovery is to be successful in the long-term. To achieve support, interviewees said there is a need to improve public understanding of salmon and steelhead recovery efforts and recovery science and to enhance awareness of previous and ongoing successful recovery efforts. However, many said that a lack of public understanding or awareness exists about the many facets of salmon recovery in the Basin. Better information about the science of salmon recovery, the impacts of human actions to salmon and habitat, and the overall benefits of salmon recovery efforts to the region were some of the key messages that interviewees suggested need to be better communicated. Interviewees suggested better media and outreach efforts at the local and regional level along with more coordinated and robust outreach efforts by NOAA Fisheries and other agencies involved in recovery to better improve public understanding and engagement.

Interviewees also reported a lack of clarity among the

public about the different salmon recovery processes and how they connect to or build upon one another. Some examples provided by interviewees included the role of hatcheries in salmon recovery and the differences and connections between the FCRPS BiOp and recovery planning. Many also referred to specific successful collaborative recovery efforts, particularly within local watersheds and recovery boards. They expressed frustration that these success stories were either not well communicated to the public or are being overshadowed by messages of failed recovery efforts and ongoing litigation.

Interviewees described a lack of transparency in various Basin recovery processes, and believe it has undermined trust among parties and in the outcomes of those processes, particularly for those not directly involved. Some suggested looking at ways to make current processes that limited public involvement be more inclusive. Others suggested developing alternatives, such as webinars, to help people with limited resources participate.

FUNDING

Interviewees discussed funding related to both the overall level of commitment to recovery and the coordination or allocation of resources. With respect to commitment, interviewees spoke about the importance of sustained funding for salmon and steelhead recovery. A number of interviewees expressed concern about what they saw as a decline in federal and state funding and resources for conservation efforts and referred to a number of current fiscal constraints, such as federal budget deficits and sequestration.

Interviewees expressed a variety of views about the allocation of funding for salmon recovery efforts in the Basin. Some commented on the need for greater funding to support habitat restoration projects and local “on the ground” efforts. Others indicated that much of the focus and funding has gone to support habitat- and hatchery-focused projects and have neglected other important components of fishery management, such as harvest and impact of hydropower operations, for

example, upstream and downstream passage.

With respect to on-the-ground resources, the need for better coordination of funding was a recurring theme; however, thoughts as to where better coordination was needed and approaches to addressing this issue varied widely. Many spoke of the need to improve coordination and partnerships with funders and project sponsors to ensure priority recovery actions are addressed and implemented.

Some indicated that the coordination of funding and resources was working relatively well at the local watershed level and within the recovery boards. Others indicated that a more integrated, coordinated approach to selecting and funding projects at the local level was lacking. And others suggested better coordination was needed among state and federal funders to allocate resources more strategically across the Basin. Some suggested that it would be helpful to have a process to distribute mitigation dollars in a transparent but more targeted manner. This would allow for the directed or focused application of resources in locations where they will achieve the greatest impact rather than simply spreading dollars evenly among local groups.

Interviewees also commented on the role of the Bonneville Power Administration (BPA) with respect to funding of salmon and steelhead recovery projects in the Basin. Some saw BPA as having primary power and influence over recovery efforts in the Basin because the agency is required, under the Northwest Power Act, to devote a portion of revenues from power sales to fund the protection, mitigation and enhancement of fish and wildlife. Some interviewees were critical BPA's funding commitments, viewing them as primarily devoted to habitat restoration to meet its mitigation requirements, instead of investing in broader recovery needs of the Basin. Other interviewees spoke approvingly of BPA's continued commitment to “on the ground” restoration projects, viewing this as an essential component to salmon recovery.

► INCLUSIVITY

Interviewees also reported that the complexity of issues and large number of parties involved in recovery presents challenges to managing the size of groups that convene to address issues.

Some indicated that not inviting all parties to participate in discussions in which they may have an interest in has led some to report feeling excluded and, consequently, suspicious of outcomes. Other interviewees thought limiting the size of discussion groups has been crucial to achieving results, especially in a timely manner.

Both tribal and non-tribal interviewees expressed a certain level of dissatisfaction with the degree of influence the Tribes have on agency policy decisions. During the interviews, concern was expressed that tribal priorities do not rise to the top, even if they are in the processes, and they often find it difficult to participate, with limited resources, in all the multiple and complex processes going on. Some non-sovereign interests assert that government-to-government decision-making leads to “closed-door” processes, where these interests are unable to discern or understand the basis for policy decisions.

► SCIENCE

During the interviews, participants were asked about how science could best be incorporated into the recovery planning process. In general, interviewees acknowledged that science is critical to the recovery planning process. Many spoke at length about the role of science, expressing thoughts related both to the process of bringing science to bear on recovery issues and on content. Many of the comments from interviewees focused on the process surrounding the development of science and its application to the decision-making process.

Using Independent Science and Resolving Differences

Many interviewees discussed the need for using “good” science. While “good” was sometimes a reference to the substance or content for example, using the latest

research on a particular subject, for many the concern was for the neutrality or independence of the science, and how to validate science when there is conflict or uncertainty. Interviewees said the science used to inform or support policy decisions should be unbiased, independent, credible, transparent, rigorous and robust. When speaking of independent science, interviewees clarified that science relevant to a particular decision should not be coming from entities who have a stake in or who are proponents of a particular outcome because those impart a perception of bias. And interviewees articulated a need for greater transparency in how state and federal agency science is done—again because of the issue of bias and because greater transparency might improve both understanding and validity. Many also noted that all science should be third-party or peer-reviewed.

Interviewees articulated three distinct roles or components of the production of science in support of salmon recovery decision-making: (1) good sources, (2) good review, and (3) a neutral arbiter. Interviewees offered up a number of suggestions for good sources of science including, NOAA Fisheries scientists, the Tribes, and the United States Army Corps of Engineers, with some calling for a recognition of traditional knowledge as a form of science for inclusion in decision-making. Others were less confident of the neutrality or quality of some sources. To some degree, neutrality seemed to be in the eye of the beholder—some entities are perceived to be neutral sources of good science to some interviewees while distinctly not to others.

In terms of review, many interviewees spoke highly of the Independent Science Advisory Board (ISAB) and Independent Science Review Panel (ISRP) as actual or potential places to seek independent peer review of science. Some viewed the ISAB in particular as a good model and a robust process component, but others were not as enthusiastic.

Finally, some interviewees articulated a specific need for a neutral interpreter or arbiter of science to determine what the “best” science is and resolve situations where the science on a particular issue is inconsistent, conflicting, competing or disputed. By way of example, some

interviewees suggested that the science panel utilized by the court in *U.S. v Oregon* was possibly a good model. They suggested that a similar court-mandated process might be useful in resolving disputed science, but others thought that panel was not really neutral. Suggestions for entities that could act as a neutral arbiter of salmon/steelhead science included the National Academy of Science, the National Science Foundation, the American Fisheries Society, and the United States Geological Survey, as well as the Independent Scientific Review Team (ISRT). It was suggested that these entities could either resolve disputes themselves, or assist with assembling a panel of experts to act as arbiter.

There were mixed opinions on whether more science was needed, and if so, how much and what sort. Some interviewees indicated there was plenty of science already available to answer many key questions or to suggest appropriate actions. Others suggested that there were still a number of areas where additional science and research was much needed, including the effects of hatcheries on recovery efforts or the impact of ocean conditions. Some interviewees also suggested that current scientific efforts should take advantage of traditional knowledge, which they described as applied science learned over hundreds of years. They stressed the value and applicability of traditional knowledge and their perception that its utility is often under-recognized. Other interviewees suggested that there was a need for greater attention to the economic or other social sciences in order to address diverse visions of recovery or success.

The Science-Policy Interface

Many interviewees offered observations or suggestions about the role of science in decision-making. The underlying theme for many was distinguishing and separating scientific conclusions from policy decisions. Most interviewees described the role of science as a source of information useful in making decisions but not necessarily a source for answers to policy questions. Some indicated that science is one factor among others, such as community needs, economic

considerations, or acceptable levels of risk that must be considered by decision makers. Other interviewees saw a more direct role for science in that science should guide decision-making or drive policy choices.

Some interviewees said that while science is critical to decision making, a lack of science and/or scientific uncertainty should not be used as a reason to not take action. They stated that the risk of inaction has to be balanced against the risk of acting where there is uncertainty about the potential outcomes or consequences from a proposed action. This balancing is an inherent component of policy decisions. For many, this provided an unrealized opportunity for deliberate experimentation which would take advantage of the scale of the Basin to develop focused implementation experiments which could be assessed against quasi-control comparisons to build understanding and a stronger scientific component for future policy and implementation decisions.

Many interviewees expressed an underlying concern that there has been, and continues to be, inappropriate influence on salmon and steelhead science from nonscientific sources such as powerful parties or politics in general. These views were very specific to the scientific processes associated with salmon recovery efforts and were separate and distinct from opinions offered about the influence of politics on the overall recovery policy planning process or system.

These interviewees suggested that past efforts to produce a sound scientific foundation for decision-making have been thwarted or influenced because powerful interests did not like the direction or outcomes of the unbiased scientific process. They suggest influence or political pressure has come from BPA as well as private industry with an interest in sustaining the current approach to how the FCRPS is managed and operated. Many interviewees mentioned

the Plan for Analyzing and Testing Hypotheses (PATH) process as an example of a robust scientific effort they saw as suppressed or derailed by influence or politics because powerful players did not like the direction it was heading.

According to interviewees, influence on science took a variety of forms and came from a variety of sources. Some interviewees asserted that agency scientists were discouraged from saying what they really thought for fear of losing their jobs; and agencies were pressured into ignoring new science that would suggest or support the idea that different recovery strategies were needed. One example mentioned was science suggesting that higher levels of spill would improve passage and survival. These interviewees expressed the opinion that undue influence over science is aided by an unwillingness or inability of NOAA Fisheries or other agencies to stand up to political pressure and use its own good science or that being produced by others. Interviewees also suggested that there is a substantial salmon science industry that has its own unique interests.

Coordination, Access and Transparency

Interviewees shared a variety of thoughts and ideas related to providing better coordination of and access to science or, more generally, transparency of the science process. For example, interviewees spoke of the need to promote better communication and coordination among Tribal, state and federal scientific personnel and efforts. Better coordination, they suggested, will help prevent duplication of efforts or unintended consequences.

Interviewees also spoke about the need for better access to science by researchers and the public. For the benefit of public understanding, interviewees also suggested that there need to be mechanisms to communicate complicated science more understandably and effectively to the public. Overall, interviewees expressed the need for transparency—both with respect to the process and the content of salmon and steelhead science.

Monitoring and Evaluation

Many interviewees noted the need for more emphasis/effort on doing monitoring and evaluation (M&E) to assess progress/success. They noted that while goals are well established by NOAA Fisheries and existing science, more robust M&E is needed to determine whether goals/targets/criteria for recovery are being met through ongoing recovery efforts. Some interviewees suggested that although there is a lot of money being spent on M&E, it is not well designed to determining the effectiveness of restoration and other recovery activities and not calculated to allow adaptation and mid-course correction. On the other hand, interviewees also observed that there is a reluctance to spend money for M&E that could be put into more on-the-ground activities.

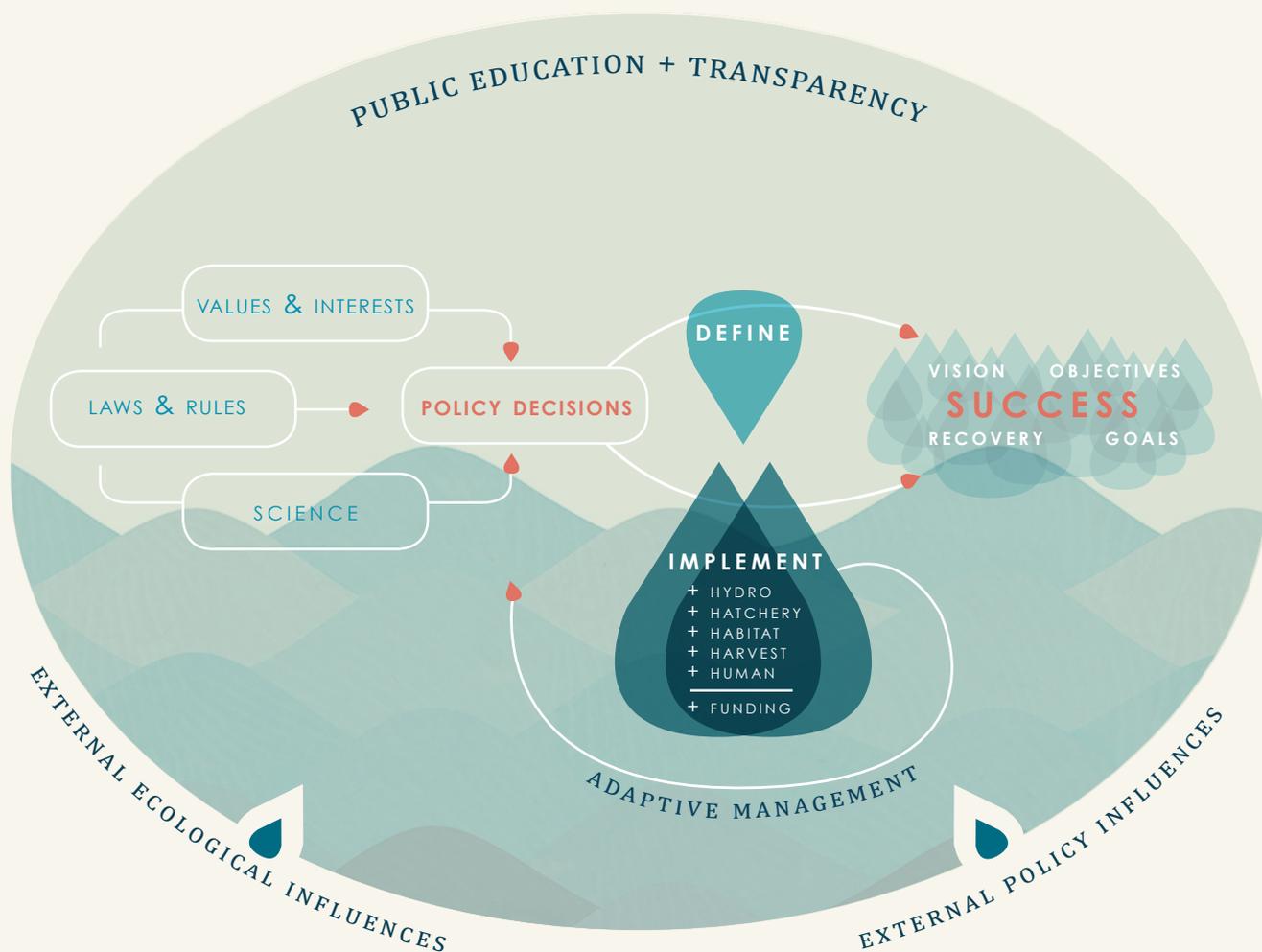
Adaptive Management and Experimentation

Many interviewees expressed the importance of using adaptive management approaches, including experimentation and evaluation, to assess and identify effective approaches. These interviewees felt that the region could do adaptive management more formally and effectively and could use such a program to address key areas of uncertainty. They advocated using experimentation with adaptive management to test new ideas such as a regimen to test different levels of spill. This was one area where some interviewees thought an empowered neutral science forum or body could direct an experimental regime and adapt approaches as appropriate when the outcomes are determined.



CONCEPTUAL FRAMEWORK OF THE RECOVERY SYSTEM

The Assessment Team was asked to explore regional views about how best to approach comprehensive, long-term salmon and steelhead recovery and to offer process options for how the region might move forward with recovery efforts in the long term. As a first step, it was important for the Assessment Team to develop a conceptual understanding of how the current recovery planning, decision-making and implementation system operates. The interconnectedness and interdependence of these multiple components makes it challenging to address specific elements of the system without affecting the others. Without a basic understanding of the complexity of the existing system and the interplay of interests and forces that shape its operation and outcomes, it is impossible to begin to understand how an adjustment or change in one element of the system could affect other elements.



The Assessment Team developed the conceptual framework that follows to illustrate its understanding of the recovery planning system. It attempts to describe at a high level the way laws, authorities, social values and science interact in the decision-making to propel action toward the goal of recovery. The Assessment Team understands that the image that emerged—while depicted simply here—represents a multiplicity of interacting systems and structures where each component may itself be a dynamic interaction of social, political, economic and ecological influences.

► CONCEPTUAL FRAMEWORK DESCRIPTION

The conceptual framework illustrates the dynamics of policy planning and decision making as it exists with respect to salmon and steelhead recovery in the Columbia Basin. *In the description that follows, terms from the diagram are highlighted.*

Salmon and steelhead recovery in the Basin is driven by a complex, dynamic interaction among **science, laws and rules**, and societal **values and interests**—all of which intermix in the development of **policy decisions**. The lines and arrows on the diagram illustrate how values and interests, along with science, each have an influence on the formulation of laws and rules as well as directly on policy decision-making. Those policy decisions, in turn, both define the goals of the system and direct the processes by which it is implemented.

Policy decisions **define** the **goals** or **objectives** of the system, often referred to as **recovery** for salmon and steelhead, but, as discussed above, **success** in this recovery process means, for most interviewees, reaching multifaceted goals or achieving a vision that is not narrowly prescribed by outcomes for anadromous fish.

Policy decisions also prescribe or direct how to **implement** actions on the path toward “Recovery.” The policy decision and implementation path is often described in terms of the four “H’s” of **hydropower** operations, **hatchery** operations, **habitat** restoration, and **harvest** management. Decisions

in each of these areas help achieve the overall system goals. An additional “H” has been included to represent the category of “**human**” interests affected by decisions related to salmon and steelhead recovery. While decisions about implementation with respect to each of the H’s may be focused overtly on outcomes for anadromous fish, there are associated effects on the more human-related components of recovery (social, cultural or economic goals associated with successful recovery). While these “H’s” are an efficient way to categorize decisions, they are not isolated silos; decisions about one H often affect others. The diagram also depicts that policy decisions are made with respect to **funding** for recovery processes and those decisions can affect all aspects of implementation.

The diagram indicates that implementation actions, even if they do not achieve complete success, will result in new information and knowledge that feed back into the science and the policy decision making for future actions through an **adaptive management** process. The diagram also suggests that the entire recovery process lies within a sphere of public understanding by involved parties and the broader public that depends on the relative **transparency** of the process, including **public education** and access to information about all parts of the process.

Finally, the diagram illustrates influences that are outside the control of the recovery planning system, but which affect the system. These influences may be **external ecological influences** such as climate change and ocean conditions. They may also be **external policy influences** such as competing priorities for resources, government shutdowns, or other extraordinary social, political or economic forces. Even if all parts of the system are working well together, the system may be affected by these external policy and ecological influences that it cannot control, and these have at least the potential to hamper or prevent full recovery.

This conceptual framework is a guide for assessing opportunities to modify the system or one of its components in order to address concerns raised by the interviewees. The framework is also helpful for assessing how any changes might affect other parts of the system.

Of course there are any number of additional mechanisms or concepts that could be included in the framework to illustrate the complexity of the system's dynamics. For example, the judicial system (courts) and litigation have been used by some parties who have felt either excluded from decision making or dissatisfied with the outcomes to directly influence the outcomes of decision making. The framework could depict the courts, then, as an alternative, but parallel, pathway blending laws and values and science to achieve an outcome. It could even indicate an indirect influence on policy decision making resulting from the mere threat of potential litigation. And there are other complexities of the system that could be illustrated, but for the purposes of this assessment, the team believes the framework as depicted is adequate to inform and provide a structure for analysis of process options.



PROCESS OPTIONS TO ENHANCE FUTURE RECOVERY PROCESSES

In the preceding sections of this report the Assessment Team summarized what it heard and learned from the interviewees about their perspectives on the current approach and their visions for a successful recovery effort. The Assessment Team found a broad diversity of values, interests, perspectives and opinions regarding both the current situation and prospects and directions for long term recovery. There also emerged a mosaic of concurrent programs and projects—large and small, regional and local—that are actively addressing the task of achieving salmon and steelhead recovery. And, there is a diversity of views regarding their efficacy.

What emerged was not a single picture but a series of pictures of the same subject taken from

different vantage points using differing lenses. However, important commonalities emerged:

- A desire to achieve “success”, however defined and in all of its complexities, and move on.
- A desire to be heard, to know how decisions are being made and to participate in the decision-making process.
- A process that is more integrated, efficient, understandable and transparent
- A reduction in the discord and divisiveness and finding common purpose at the local and regional levels
- A minimized adverse impact on activities and life in the Basin.

Given the scale and complexity, there is no one specific, fail-safe way to address all issues surrounding long-term salmon and steelhead recovery in the Basin. Any process option considered must take into account recovery and elements of science, policy, law and values at the basin-wide scale, while also dealing—directly or indirectly—with sub-basin issues and activities. The decades-long quest for more effective solutions to salmon and steelhead recovery has been periodically assessed resulting in similar observations and ideas to those contained in this report. But, it is clear from this assessment that there is currently considerable support for an effort to deal with the complexities of the salmon recovery arena in a more coherent, integrated and efficient way and a desire for efficiency, certainty, predictability, better relationships, and durable solutions for effective salmon recovery.

► PROCESS OPTION MATRIX

The Assessment Team created a matrix to illustrate how multiple process tools can be used to address different components of the system. Below the matrix, each of the system components is briefly described, along with the process tools that are best suited to addressing interviewee concerns related to that component of the system. Highlighting in the matrix indicates where each process option is described in detail. The Assessment Team is aware that an argument could be made for

applying any of the suggested process options in perhaps many more contexts than are indicated in the matrix, but the grid below represents the team’s best judgment about the situations where application of each tool might have the most value based on the what was heard from interviewees. In evaluating the appropriate application of any of the processes it is important to keep in mind the whole system, as well as the desires expressed by interviewees. It is also important to engage affected parties in shaping the process being used to effect change on any component of the system.

	VALUES & INTERESTS (Building a better understanding and reconciling)	LAWS & RULES (Clarifying or adjusting legal mandates)	SCIENCE (Assuring quality and appropriate use, and reconciling differences)	POLICY DECISION MAKING (Improving process, transparency, access and outcomes)	TRANSPARENCY (Improving transparency, access to information, and understanding)	SUCCESS/ RECOVERY (Defining goals and outcomes)
INFORMATION SHARING	Red				White	
LISTENING SESSIONS	Red			White	White	White
DIALOGUE FORUMS	Red			White	White	White
INTEREST SHARING SESSIONS	Red				White	
LEGAL PROCESSES		Red	White	White		
INCENTIVES AND VOLUNTARY		Red				
SCIENCE POLICY WORKSHOPS	White		Red	White	White	White
COLLABORATIVE AGREEMENT AROUND EXPERIMENTATION			Red			
SCIENCE MEDIATION		White	Red			
MINI TRIAL		White	Red			
SCIENCE VALIDATION/ ARBITRATION			Red			
COLLABORATIVE CONSENSUS-BASED	White	White		Red	White	White
TRIBAL CONSULTATION	White			Red	White	White
PFMC-TYPE STRUCTURE			White	Red	White	White
SALMON CZAR			White	Red		White
SYSTEMS MAPPING					Red	
FORUMS WITH SPECIFIC ADVISORY GROUPS					Red	
POLICY FORUMS	White				Red	White

 Red highlighting in the matrix indicates where each process option is described in detail in the following text.

▶ VALUES AND INTERESTS

People's interests and values shape their definitions of recovery and what they see as the best way to achieve that success. The salmon recovery system reflects multiple efforts to put into practice those societal interests and values of the time. However, competing views of the use and management of Columbia Basin resources have existed at least since the arrival of non-native settlers and perhaps even longer. These competing views are based on diverse interests and values, and continue to be expressed by the various sectors with an interest in the Basin today.

Most often, what parties express publicly about the Basin reflects their *positions on the issues, that is, what they say they want in terms of policy actions or outcomes*. Parties less often share *why they want a particular outcome*. The answer to this question reflects the party's *interests, that is, what they really need*. These interests may be underpinned by a party's core values, which define their interests across many situations.

Interviewees reported that, although they have opportunities to express their positions on salmon recovery issues, they have fewer opportunities to share their interests, let alone their values, with other parties. They reported that, consequently, they feel unheard or undervalued by other parties. Providing venues to both share interests *and really hear the interests of others, person-to-person, may reveal real opportunities to find solutions that align or reconcile diverse interests and do not negate anyone's values or interests, even where they appear incompatible on the surface when expressed as positions*. This is the theory that underlies collaborative governance, conflict resolution and collaborative policy-making. Communicating and developing a common understanding of interests and values, whether or not one agrees with them all, is a necessary first step to better addressing them in policy decision-making processes. Values and interests are surfaced in most effective processes, and there are many identified in the matrix; however, the following process options are aimed directly at surfacing interests.

Information-sharing forums – Information sharing forums are useful in situations where some parties are participants in decisions, but others are not. These would typically be public forums to share information with others. They can be held for specific groups or for the public at large. The Pacific Fishery Management Council (PFMC) processes discussed below was often suggested as a good model for this type of public information sharing.

Dialogue forum – A dialogue forum is a structured process that allows participants with widely differing views or strongly held values and opinions on an issue to come together to hear and understand the other, without the intention or commitment to seek an agreement. In a policy decision making context, the outcomes of such dialogue processes could include: increased understanding among those with differing views; a sense of engagement with the decision-makers; and better informed policy decision-makers. For example, such a process might be used following a “science mediation” (described below) on an issue where scientists differ. In such a case, policy decision-makers must look at the reasons they differ, and balance the risks in choosing the actions based on the science. A dialogue forum engaging interested participants with diverse interests could be helpful in making that decision or in developing creative approaches. Again, such a process would need to be well designed, facilitated and structured to achieve the goal.

Listening sessions – Listening sessions are well-publicized public meetings in which a facilitator leads a group or community through a discussion of an issue or topic of interest. In such a venue decision makers come to a community and interest groups and members of the public come to listen and learn from one another. Listening sessions might be organized on a regular basis and have potential to increase coordination across the Basin as well as to build public awareness and understanding. These sessions could provide an opportunity to describe achievements, lessons learned, challenges, and opportunities, as well as to share various interests.

Interest sharing sessions – Structured, facilitated sessions in which representatives of differing interests have been asked to come and present their interest’s perspective on particular issues can be very helpful in educating each other and the broader public about the differing values and visions in the region. Such sessions often serve to clear up misunderstandings and false assumptions, change stereotypical views and build a broader sense and acceptance of the diversity in the community.

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LAWS AND RULES

Laws codify societal values of the majority as they exist at the time the laws are passed. These laws then impose those values on future activities. Often, in the area of natural resource management, law and rule development is informed not only by values, but also by the science available at the time. Some interviewees suggested laws or rules might be changed in order to make the recovery process work more effectively. However, it is not within the scope of this assessment to consider changes to the existing legal framework. Discussed below are process options that are either closely associated with laws and rules (like litigation to enforce laws) or provide alternative frameworks for decision-making and implementation (like the use of voluntary approaches).

Legal Processes – As noted earlier, court processes (litigation) have been used to challenge decisions related to some aspects of salmon and steelhead management and thereby gain influence over those decisions. For example, the litigation option has been used in defining outcomes with respect to both harvest (U.S. v Oregon) and hydropower operations (the FCRPS BiOp process). In each case, the effective outcome of the legal process tool has been different—each with its own pros and cons. The US v Oregon process is the ongoing process for harvest management on the Columbia, and has a built-in dispute resolution process of its own. On the other hand, the BiOp litigation is ongoing, and has not resolved all the issues related to FCRPS operations and the impact of those operations on efforts to protect and

recover salmon and steelhead. It has, however, at various points been the catalyst for other collaborative efforts.

Given the history of conflict and the currently polarized interests surrounding Columbia Basin salmon and steelhead recovery efforts, court challenges may continue. However, the availability of legal processes to advance interests related specifically to long-term recovery planning for ESA-listed salmon and steelhead may be somewhat limited. While the ESA contains a clear mandate to develop and implement recovery plans for listed species, the ability to influence the content of those plans using litigation is less clear and the content of recovery plans is likely within the discretion of the responsible agency. In any case, given the cultural, scientific, and spiritual underpinnings of the salmon recovery topic, the courtroom may not be the best venue for resolving long-term salmon and steelhead recovery topics unless the courts take on a more proactive role in providing a neutral forum for collaborative settlement negotiations as some have suggested. Judicial resolution may limit the potential for adaptive management by allowing for less flexibility in both objectives and strategies. Adaptive management was an approach that many interviewees viewed as important to long-term success.

Voluntary Approaches – A process approach that might be considered as an alternative to regulatory approaches rooted in statutes and regulations is developing voluntary or incentive-based approaches for achieving the same goals as other mechanisms. An example raised by some interviewees (and discussed above) is using market-based or ecosystems services types of programs to encourage on-the-ground restoration activities in addition to or instead of regulatory approaches. Incentives for voluntary action may encourage additional buy-in and support for salmon recover efforts at the local level, particularly if participation offered the potential to reduce regulatory requirements if, for example, agreed-to benchmarks were met.

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SCIENCE

Interviewees almost universally recognized science as an important component of the recovery planning process.

There were a number of articulated concerns about science in the salmon and steelhead recovery process. These are described in more depth in the Key Themes from Interviews section, but some of the key overarching concerns can be summarized as follows:

- How to best use science in the policy decision making process; the interface of science and policy
- How to determine whether the science used in decision-making is “good” and/or the most up to date science
- How to prevent inappropriate influence over science; or the effect of politics on science
- How to address conflicting scientific opinions

The alignment among interviewees around the importance of science to the overall process and the needs described above represents a significant opportunity to build processes that develop clarity and confidence about the science. There are several process approaches described below, including several suggested by interviewees, that could be helpful in clarifying the role of science in the decision-making process, settling scientific conflicts, reducing uncertainties, or in removing inappropriate influences.

Science/Policy Workshop(s) – A science/policy workshop aims to create a forum to clearly articulate areas of scientific agreement and disagreement with the explicit goal of informing policy makers on the topics by bringing scientists and policymakers together. Science/Policy workshops are typically organized in a multi-day format with the first half of the workshop dedicated exclusively to discussion by the scientists, articulation of areas of agreement and disagreement, and areas that need additional investigation. For topics requiring additional information, the scientists should identify recommended approaches, such as ways to fill the data gaps, or ways to use experimentation on certain operations, for

example. Halfway through the workshop, policymakers join and are briefed by the scientists on their results, and may have discussion to understand the science. At this point policymakers negotiate policy approaches for addressing the areas of scientific discussion. Scientists remain to answer questions but are not direct participants in the policy discussion. Such an approach provides a streamlined format to bring diverse parties together, clearly articulate the state of the science, and, when necessary, make policy decisions informed by the best available science, with an understanding of the level of uncertainty. The condensed timeline for these workshops can often prove a catalyst to resolving difficult issues, but for some, raises questions about whether all the available information can be brought to bear. It is crucial, and often challenging, that the parties agree on the appropriate scientists and the policy makers who should participate in the workshop. Such agreement encourages buy-in from parties on the workshop decisions or recommendations.

Collaborative Agreements around

Experimentation – Agreements around scientific experimentation could be used as a process option that would allow for and encourage experimentation in ways and on levels that are not widely encouraged or tolerated. Scientific experimentation could be implemented in various geographic and program areas of recovery, allowing for truth-testing to better understand consequences of current program implementation by comparing actual outcomes and impacts with those that were planned for or anticipated. Findings of experimentation processes would then be the basis for ongoing adaptive management. Agreement on the processes and the adaptation steps would provide the freedom from challenges to the decisions that often inhibit the use of and flexibility in experimentation. This would be a specific kind of collaborative agreement seeking process, using the process described earlier below under policy decision-making. The components of scientific experimentation: testing, controlling, monitoring, adapting and repeating the process could lead to more effective programs that could then be replicated in other areas of the Columbia River Basin.

Science “Mediation” – Science mediation is not really mediation for reaching an agreement or for resolving science issues. It is a process, facilitated by a neutral that brings together scientists with differing points of view on a particular topic. With the help of this “mediator,” the scientists clarify their areas of agreement and of disagreement and write a joint paper to explain. The mediator works to foster dialogue and identify and clarify areas of agreement and disagreement. The scientists articulate the areas of agreement and disagreement and, in areas of disagreement, jointly describe *why* they disagree. This process helps foster scientific understanding and illuminates personal biases. When the paper is complete, it is presented to a decision-making body or agency for consideration in setting policy. It could also be presented in a public forum, so as to foster understanding and discussion of areas of agreement *and* the reasons for differing viewpoints. Such a process might be useful in resolving, or at least clarifying, fundamental scientific disputes that undergird many issues in Columbia River Basin salmon and steelhead recovery efforts. Clarity on where genuine scientific disputes lie would be helpful for decision makers and the public alike, and may provide an indication of what long term processes are needed to improve the scientific understanding. Working together in such a process may also help scientists discover areas of agreement they didn’t think they had, or see new possibilities.

Mini-Trial – A mini-trial is not a legal trial, but rather an alternative dispute resolution method for resolving a particular factual or legal dispute. It is a settlement process where parties present their cases to a panel of officials who represent each party plus a “neutral” official, and who have the authority to settle the dispute or make a determination that will be used in a decision-making process. While a mini-trial could provide a clear decision-making mechanism, it would limit involvement in the process and outcomes to the involved parties. It is most useful when there is a clearly defined and fairly narrow area of dispute, when there is a need for a clear and immediate decision, and where no one entity has the power to make and implement the decision on its own.

Science Validation Processes – One process that has been considered, and attempted on some levels is the concept of a neutral scientific body comprised of expert scientists, that would review scientific opinions and serve as a resource to assist in resolving scientific disputes surrounding salmon recovery. Current entities such as the ISAB and the ISRP, mentioned in many interviews could be reconstituted, or a new body could be formed to distinguish itself from previous entities. This entity would have to be comprised of sources that are well known, respected in the field and from areas representing a diverse set of experiences as scientists. This new entity would have to be recognized as impartial and interested only in the best available science. Unresolved scientific disputes would be brought before this board of peer reviewers and would serve as the last resort in scientific decision-making. Some sort of collaborative process would need to be convened to develop consensus around the process in order to make this an effective tool.

► POLICY DECISION-MAKING

Policy decision-making is a key driver of the system. At this point in the process, interests and values are weighed, science and information are considered, and laws are interpreted to yield a decision on a course of action. Interviewees expressed a number of concerns related to the various policy decision-making processes around salmon and steelhead recovery. In addition, the continual use of litigation to challenge policy decisions is an indication that not all interested parties are satisfied with the way the policy decision-making system is working. Interviewee issues can be grouped into four main areas of concern:

- 1. Transparency.** Is there adequate transparency and information communication with interested parties and the public?
- 2. Decision Factor Processing.** How are societal and cultural *values and interests* weighed, *science* considered, and *laws and rules* applied in making decisions?

3. Access/Inclusivity. Who gets to influence or participate in government policy decisions?

4. Integration/Coordination. Are policy decisions and implementation actions integrated and coordinated into a focused effort to achieve recovery?

The processes described below, along with others identified in the matrix and described elsewhere, each helps to address one or more, and sometimes all, of these areas of concern.

Collaborative, Consensus-Based Agreement-Seeking Processes – At Various Levels –

When various groups are feeling that they are not being heard in the decision-making process, one way to address that concern is by including them, and all interested parties in a collaborative agreement-seeking process. A consensus-based collaborative process is an inclusive effort that involves those with a significant interest in the issues to explore whether solutions can be developed that can receive the support of all involved. The purpose is to identify a decision or set of decisions that all participants can commit to making or supporting, depending upon their roles and responsibilities. Because the decision is based upon consensus and any participant may choose to disagree (as explicitly defined by agreement of the participants), no individual, group or government cedes any authority but maintains their rights to make appropriate decisions.

This approach has proven successful in situations that engage large numbers of public, private and governmental agencies and that address difficult and inter-related issues over a large geographic area. Indeed, the quality of agreements reached can be enhanced by bringing together all of the issues, perspectives and authorities in a single forum, providing a basis for integrated solutions and coordinated implementation. However, collaborative agreement-seeking processes may be used at any level—large scale and broad based, or small scale and narrowly focused—to assist in reducing conflict over and developing support to implement policy decisions.

One strength of the process is the engagement of those involved in designing the specific structure and provisions of the process, based upon their own experiences, with access to the insights of those who have successfully applied and participated in such a process. This helps to ensure that it is tailored to the precise realities of the situation and that ownership of and responsibility for the process resides in its participants. By bringing all of the issues into a single forum, it is possible to discuss issues and craft agreements where all of the issues can be addressed simultaneously and with an understanding of their consequences, one for the other. In a context like salmon recovery planning, where long term success is a multifaced or multidimensional concept, the capacity of collaborative processes to accommodate discussion of diverse issues and to craft complex solutions that address multiple interests (economic, environmental, and social) can be a powerful tool.

A consensus-based collaborative process will often provide the venue for understanding and reconciling the scientific understanding of issues. It may also take responsibility for sponsoring information sharing forums.

The successful application of such a process can take time to convene and to successfully complete and may not, therefore, be well suited to addressing immediate crisis. Where successful, the commitment of all of those significantly involved in agreed upon outcomes greatly facilitates the speed and certainty of implementation.

Pacific Fisheries Management Council (PFMC)-Type Structure –

There are processes in place currently that function at, or near, the full basin scale and a number of existing recovery plans, programs and locally led efforts. A number of interviewees spoke about successful locally-led collaborative processes and the importance of integration and coordination across the Basin to sustain and build upon the progress being made in those areas. The structure of the PFMC could serve as a model for a large-scale effort to foster coordination and integration across the Basin. A PFMC type process is a bottom-up process composed of PFMC members, staff, advisory bodies, and the public, which participates in the Council

decision-making both directly and indirectly. It is made of voting representatives from Oregon, Washington, California, and Idaho. Some represent state or tribal fish and wildlife agencies and some are private citizens knowledgeable about recreational or commercial fishing or marine conservation. The PFMC decision-making process includes several types of advisory bodies, and meetings are open to the public. There are subpanels that advise the PFMC from the perspective of the commercial and recreational fishing industry, the conservation community, and the public. There are also a number of committees, including a Scientific and Statistical Committee composed of scientists from tribal, state, and federal agencies, academic institutions, and other sources that provide multidisciplinary peer review for the PFMC. Members of the public participate by commenting on decisions and processes, serving on advisory bodies, and attending PFMC and advisory body meetings.

Tribal Consultation Forums – To address concerns held by tribal representatives, government-to-government consultations are a means of communication. The Assessment Team did not ask about concerns with the historical process of tribal-federal consultations. It is listed here only to note generally that though tribal representatives could and should certainly participate in any of the other forums that are appropriate for them, the primary way their concerns on specific issues will be addressed appears to be via consultations and co-management sovereigns processes such as the Columbia River Regional Implementation Oversight Group (RIOG). The process principles that have been noted above as generally desirable could also be designed into or enhanced in Tribal consultations processes if desired.

Salmon Czar – To address concerns about decision-making and system efficiencies a number of interviews suggested the appointment a single individual with authority as a “salmon czar” to coordinate all salmon recovery policy and activities. How that individual would interact with the many agencies and entities that have authority or responsibility is an open question. In addition, this option offers limited opportunities for parties to directly engage in policy decisions.

► TRANSPARENCY AND PUBLIC UNDERSTANDING

When policy decisions are made within an agency, a set of agencies or other entities, or a court process that does not include all interested parties, the decision-making process, and the factors or influences that affect the outcomes, may not be clear to those outside the process. Unless proactive steps are taken to provide transparency outsiders cannot see how their interests, relevant science, and other factors are being weighed and balanced in reaching decisions. Consequently, when the process lacks transparency, it may promote skepticism or distrust of the outcomes among those excluded as well as a belief that factors or interests important to them were not considered.

The process options described below, in addition to others indicated in the matrix, are helpful in sharing information, improving understanding among the parties, and providing greater overall transparency within and around the system.

System Mapping Process – Interviews revealed limited overall understanding of the web of processes that contribute to salmon and steelhead recovery. People’s familiarity with recovery efforts that most directly affect them may limit their view of the Basin as a whole, discourage understanding between diverse parties, and impede coordination of efforts. This report provides a high-level synthesis of many views about how the system functions. There are other ways the system can be understood; therefore involved parties may benefit from a collaborative systems mapping exercise.

A systems map would visually represent the purpose, involved parties, decision-making processes, and interconnections between recovery efforts across the Basin. Potential outcomes of system mapping would extend beyond the creation of the map itself, and would include the following:

- Shared understanding of values and interests
- Synergy and opportunities for leveraging successes and identifying creative approaches for improving recovery

- Improved trust in decision makers and the basis for decisions
- Better buy-in to identified solutions
- Improved coordination of efforts

A systems mapping process is most effective when designed and facilitated by someone with expertise in systems mapping and collaborative consensus decision making. Mapping could be accomplished in a symposium setting, in one or two full-day meetings or during a series of shorter meetings. Participants may self-select; however it would be beneficial to include people who are knowledgeable about each of the recovery processes, or a group of people who are knowledgeable about the entire system of recovery basin-wide.

Forums With Specific Interests Or Advisory Groups –

Decision-makers sometimes conduct targeted forums for selected parties with a focused set of interests. In contrast to broadly-inclusive agreement-seeking processes, these forums strive for mutual understanding, not agreement on decisions. Such forums may be ad hoc and based on narrow issues. Or, they may be ongoing venues for addressing a broad range of issues that arise. One such ongoing forum is the RIOG, which allows federal agencies, states and tribes to track issues and share information.

The value of these targeted forums is that they allow in-depth consideration of a narrow range of issues presented by people with expertise in the issue. The meetings foster a sense of inclusion, and provide a testing ground for proposed policies. However, since these forums are not representative of all parties, they do not tend to foster understanding of all interests, and they may inhibit trust between decision makers and excluded parties. Also, since they are not agreement-seeking processes, participants may not necessarily feel their interests have been addressed.

Policy Forums: A policy forum is a structured, facilitated collaborative process in which parties with differing

interests in a potential policy are brought together to discuss in a collaborative manner, but without a commitment to reaching consensus, the differing possibilities for balancing such interests and the effects of various policy scenarios on different interests. The potential outcomes of such a process are shared understanding of various impacts among the parties and more in depth information for the decision-maker. Such a process has the potential to bring out a level of creativity and new ways to look at the interactions.

SUCCESS/RECOVERY

“Recovery”—or more broadly speaking, “Success”—is the focus of the entire salmon recovery and management system. It is described and defined by the same combination of values, interests, science and laws that drives policy decisions on implementation. But one of the central issues identified in the assessment was the multidimensional aspect and diverse views on the meaning of “success” or “recovery” when speaking of the entirety of the recovery planning effort. For participants, the success of the system is measured by the extent to which the pieces have come together to achieve that multifaceted outcome. The people interviewed were at once eloquent with respect to the need for a multidimensional approach to success and critical of the way in which those diverse facets of success are currently regarded in the recovery process.

Perspectives on what salmon and steelhead recovery means, and how to get there, are a reflection of how people relate to salmon in their personal and professional lives. Some interviewee’s spoke of recovery in terms of ecological successes, others spoke of socio-economic and cultural successes, and some spoke of regulatory successes. For many, recovery is a combination of several of these concepts and at its core is an expression of the interviewees’ values about the fish and their place in the broader ecological and socioeconomic landscape. Creating opportunities to explore the multiple dimensions of success is therefore connected strongly with the opportunities to promote a better understanding of the diversity of

interests and values among all the participants in the system. Consequently, the same types of process options that would help participants learn about each other's values and interests will help participants understand each other's visions for success and "recovery."

While a shared understanding of diverse visions of success is crucial to inform "recovery," it is not sufficient by itself. A complex policy decision-making system such as that for salmon and steelhead recovery will function better if all are aligned to the greatest degree possible on the desired outcomes. Only then can potential policy options be evaluated against their ability to achieve those outcomes. Consequently, diverse visions must be processed along with relevant science and the mandates of current laws, and articulated as a clear set of desired outcomes. To achieve this, many of the process options described above in the policy decision-making section (including both collaborative and top-down approaches) may be helpful in bringing clarity to the definition of recovery or success.

PROCESS ROLES AND LEADERSHIP

For many interviewees a key element to achieving a long-term success at salmon recovery was leadership. While not a process option per se, leadership is an essential element to implementing almost any process option. Each of the process options described above would require leadership in one or more roles in order to make it happen.

Interviewees had many concerns about and ideas for leadership in the recovery process. As noted in the section on Key Themes, there was a desire for leadership to:

- Take charge, make decisions and push ahead to achieve overall salmon and steelhead recovery
- Convene parties to develop consensus or resolve issues
- Develop broader public support for recovery efforts

In considering each of the process options that could achieve the desired outcomes, it is important to consider the leadership that would be needed to initiate, convene

and champion the process. Leadership could come from several potential sources, and each of those could initiate more than one of the process options suggested. For example, the same leaders could initiate a top down decision-making process, a collaborative consensus process or a public education process.

As seen by the complex web of legal, policy, political, plans and program structures, the system itself contains many factors that inhibit the exercise of overall leadership. There are significant legal and political ramifications of stepping beyond traditional roles. The first bullet above recognizes the desire for a top down kind of leadership that is difficult to exercise within currently prescribed and limited powers, unless there was a change in the statutory and/or political framework.

In the areas of convening specific parties to develop consensus or resolve issues and of reaching out to the public, potential sources of leadership might come from the following levels:

Governors – Alongside each other, the governors of the states of Idaho, Montana, Oregon, and Washington are well positioned to provide leadership at the regional level. They hold the decision-making authority and leadership necessary to bring significant portions of society together and the political power to lead towards a shared vision. They could work with Tribal leaders to develop a long-term vision for recovery in the Basin. This leadership and agreement on a broad overarching vision and goal to shape long-term salmon and steelhead recovery efforts holds the potential to catalyze and unify actions at the local, state, regional, and watershed level. This leadership effort could be focused in a number of ways. The Governors, working with Tribal Leaders could:

- Undertake their own agreement-seeking process to develop a shared vision, then use it to reach out to others in the region.
- Jointly convene a large-scale collaborative process to bring all interests in the Basin into a consensus-based process.

- Initiate a region-wide public outreach and education effort to build a broader interest in and support for salmon recovery
- Create a sovereigns process and an ongoing system for integrating and coordinating the salmon recovery process. They might champion the revitalization of the NPCC, or creation of another entity as a potential region-wide support structure for the ongoing system.

National Political Leadership – The President or Vice-President could convene a process to focus the recovery efforts. This might be something on the order of the Northwest Forest process held in the early 1990’s, which brought together science and policy people with a specific mandate to complete an integrated plan. Or such national level leadership could be exercised to align, focus and direct the federal agencies, perhaps coordinated through the Council of Environmental Quality (CEQ). Most interviewees perceive this as less likely in the current political climate, and many thought it better to keep the leadership at the local and regional level.

NOAA Fisheries: Because NOAA is the lead agency on salmon and steelhead recovery, many interviewees saw the agency as needing to take even more of a leadership role to direct integration and coordination, make and enforce decisions, and see that implementation of recovery plans moved forward. In reflecting on the mix of desires, as well as the web of legal, political and program structures, it is clear that NOAA Fisheries cannot, by itself, accomplish the top down decision-making and directedness some interviewees desired.

However, in looking at the various process options identified, NOAA Fisheries could be an effective leader in exploring the application of these process options to existing processes or potential future processes. NOAA Fisheries could initiate an exploration of which processes could be utilized in the short-term and ones to explore in the future. Though NOAA Fisheries would play a key role in any process related to recovery, it is unlikely the agency would be seen as a neutral convener for many of these processes including a large-scale collaborative process, or broad based-based public education and awareness building. However, NOAA Fisheries could take on a leadership role to begin conversations about such processes, and could sponsor technical assistance to assist in securing a neutral forum where needed and in the overall convening of any particular process.

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CONCLUSION

What emerged from this situation assessment of Columbia River Basin salmon and steelhead recovery processes was a picture of a complex but loosely integrated human-made system overlaid on a similarly complex but highly-interconnected ecological system. Everyone interviewed knew his or her own area of focus well, but few had a comprehensive view of the entire system and its components—national and international laws, two countries, four states, multiple tribes and local governments, layers of interagency and multi-party entities, numerous interest groups, and management systems for each of the “H’s.” Many interviewees said that providing a better picture of that whole system would in itself be a valuable outcome of this assessment. The appendix includes an outline of the current processes referenced in the report; although only a partial list of all the efforts in the Basin, it may serve as a resource to a more comprehensive system mapping process.

The Assessment Team struggled with how to best characterize the “bounded optimism” it heard from interviewees. Many interviewees were both optimistic about the possibility of making significant progress towards recovery and frustrated at unrealized potential in the Basin. Respondents often said many aspects of the salmon recovery processes are working better than they have in the past. However, this was usually followed by concern over the prospects for long-term success, due to areas where progress is not being made and/or concern about external policy and ecological drivers that may change conditions and outcomes. Numerous parties are worried recovery is not on the right path.

A key finding of this assessment is that there is currently a strong desire for greater efficiency, certainty, transparency, and predictability; improved relationships;

and more durable solutions for salmon and steelhead recovery in the Basin. The Assessment Team also heard shared desires among many interviewees for achieving delisting and rebuilding salmon and steelhead runs throughout the Basin, while minimizing impacts on all parties’ economic and social interests. Respondents believed that there are ways recovery processes can work better, and offered suggestions, but were also aware that even well-intentioned changes can have adverse, unintended consequences. In summation, any changes need to be well-considered.

Notwithstanding the many challenges that lie ahead, it appears there is a window between now and 2018—the end date of a number of existing plans and programs—to make progress towards improving relationships, clarifying where commonalities exist, and planning for or initiating a renewed region-wide conversation on salmon and steelhead recovery. Concurrent to this conversation, there are process options provided in this report that could be implemented in the near term to realize additional benefits from the current approach. These options can provide a stepwise approach using short, medium, and long-term tools that build on successes toward a more effective and more collaborative Basin-wide recovery strategy.

As reported throughout this assessment, there was a widely stated call for more “leadership” in the salmon recovery process. But it was also recognized that the current reality of diverse management and regulatory authority, and the continuing oversight of the courts, make exercising such leadership difficult. The various legal and political structures related to recovery that operate in the Basin make it difficult for NOAA Fisheries or any other of the current players to effectively take an overall leadership role, and especially in one that would engage the public at-large and align the various players in the region. Such an effort usually needs one or more public figures as a “champion,” to provide vision and leadership and assemble the resources to move forward.

Numerous interviewees mentioned a coalition of the four regional governors as having the authority and stature to champion a fresh direction and a common vision for

recovery. Whether, when and/or how the governors or other political leaders or public figures would be willing to become such champions is one of the conversations that needs to happen. Others suggested that a redefined NPCC might play such a role even in its current status, but more so if its mandate was changed. There was also widespread discussion of the need to have Tribal leaders as part of any “champion,” if such an effort was to succeed.

It would be timely to recognize the salmon and steelhead recovery achievements that have been attained, and to celebrate them with all who have helped make them possible. Every sector has made a contribution towards the goal of recovery. Building on that recognition, it would be important to also recognize the need for long-term efforts and to initiate a unified push forward, with a call for all sectors to continue working toward a recovery outcome that works for all in the Basin.

The Assessment Team was impressed that the people of the Columbia River Basin share a common desire for recovery of these iconic species. While there are differences about how best to achieve recovery, this underlying desire is an important foundation that should not be lost in the tangle of litigation and scientific uncertainty. This report is offered in the hope that parties will gain a better understanding of the challenges and opportunities in salmon and steelhead recovery processes, and of some process options that may address these challenges, while building on past and current success.

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APPENDIX A:

► SITUATION ASSESSMENT DESCRIPTION

A situation assessment is an interview-based information-gathering process undertaken to better understand issues and interests of involved parties and situation dynamics related to a complex public policy issue. Information gathered may include:

- ▶ What are the issues and opportunities?
- ▶ Who are the key parties and what are their interests?
- ▶ What are the current processes and avenues for addressing those issues and interests?
- ▶ What options could be helpful to address those interests and what parameters would help ensure the greatest likelihood for success?

Typically, such an assessment involves a neutral, third-party who interviews a range of affected and potentially affected individuals to understand the interests and substantive issues that need to be addressed, as well as the likely challenges, barriers and opportunities for moving forward.

The third party uses information from interviewees to identify cross-cutting themes, challenges and opportunities. Information gained is given freely and analyzed without bias. All interviews are confidential and no input is attributed to interviewees by name or affiliation.

At the conclusion of the interviews, the neutral third party provides a summary report that identifies key issues, themes and options that might be useful in the long term. This report will be available to everyone who participated in the assessment and other interested parties. The procedural options that are identified by a situation assessment are meant to inform, rather than dictate a particular course of action. While the assessment will include a list of who was interviewed, specific statements and key themes will not be attributed to individual interviewees.

APPENDIX B:

► BACKGROUND ON CENTERS AND ASSESSMENT TEAM

Oregon Consensus and the William D. Ruckelshaus Center

Oregon Consensus is part of the Oregon Solutions Network and serves as Oregon's official program established to promote effective, collaborative approaches for public decision-making in the state. OC provides assessment, facilitation, mediation and other alternative dispute resolution services to public entities and their stakeholders throughout Oregon. Oregon Consensus is located in Portland State University's Hatfield School of Government and offers federal and state agencies, local governments and the public a neutral forum and neutral services in support of collaborative governance.

The William D. Ruckelshaus Center is a neutral resource for collaborative problem solving in the State of Washington and the Pacific Northwest. It is a joint effort of Washington's two research universities and is dedicated to assisting public, private, tribal, non-profit and other community leaders in their efforts to build consensus and resolve conflicts around difficult public policy issues. The Center is hosted at the University of Washington (UW) by the Daniel J. Evans School of Public Affairs and at Washington State University (WSU) by WSU Extension.

Assessment Team Members

Erica Bates, William D. Ruckelshaus Center

Jessie Conover, Oregon Consensus

Gerald (Jerry) Cormick, Ruckelshaus Center senior affiliated practitioner, UW Foster School of Business, CSE Group

Barb Cosens, University of Idaho

Mike Gaffney, William D. Ruckelshaus Center, WSU Division of Governmental Studies and Services

Elaine Hallmark, Oregon Consensus

Peter Harkema, Oregon Consensus

Lorie Higgins, University of Idaho

Jenna Kay, Oregon Consensus affiliated practitioner, Kearns & West

Michael Kern, William D. Ruckelshaus Center

Assessment Team Members cont.

Amanda Murphy, William D. Ruckelshaus Center

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affiliated practitioner, Kearns & West

Turner Odell, Oregon Consensus

Christina Sanders, William D. Ruckelshaus Center,
WSU Division of Governmental Studies and Services

Laurel Singer, Oregon Consensus

APPENDIX C:

► INTERVIEWEE NAMES AND AFFILIATIONS

Dale Kelley	Alaska Trollers Association
Jim Lichatowich	Alder Fork Consulting
Michael Garrity	American Rivers
Brett Swift	American Rivers
Thomas O'Keefe	American Whitewater
Terrence "Rock" Salt	Assistant Secretary of the Army (Civil Works)
Emily Ackland	Association of Oregon Counties
Mike McArthur	Association of Oregon Counties
Gary Chandler	Association of Washington Business
Paul Kimmel	Avista
Jim Martin	Berkley Conservation Institute
Greg Guthrie	BNSF Railway Company
Angus Duncan	Bonneville Environmental Foundation
Lorri Bodi	Bonneville Power Administration
Bill Drummond	Bonneville Power Administration
Sarah McNary	Bonneville Power Administration
Jason Kesling	Burns Paiute Tribe
Steve Johnson	Central Oregon Irrigation District
Ron Walter	Chelan County Commissioner (Washington)
Kirk Hudson	Chelan PUD
Keith Truscott	Chelan PUD
Steve Wright	Chelan PUD
Dustin Aherin	Citizens for Progress; Idaho River Adventures
Heith Heikkila	Coastal Conservation Association
Andy Marks	Coastal Conservation Association
Doug DeHart	Coffee Creek Bioscience
Tom Iverson	Columbia Basin Fish and Wildlife Authority
Rob Lothrop	Columbia River Inter-Tribal Fish Commission
Paul Lumley	Columbia River Inter-Tribal Fish Commission
Paul Amos	Columbia River Pilots
Darryll Olsen	Columbia-Snake River Irrigators Association
Brian Lipscomb	Confederated Salish and Kootenai Tribes
John Marsh	Confederated Salish and Kootenai Tribes
Gerald Lewis	Confederated Tribes and Bands of the Yakama Nation

Steve Parker	Confederated Tribes and Bands of the Yakama Nation
John Sirois	Confederated Tribes of the Colville Reservation
Kat Brigham	Confederated Tribes of the Umatilla Indian Reservation
Brent Hall	Confederated Tribes of the Umatilla Indian Reservation
Gary James	Confederated Tribes of the Umatilla Indian Reservation
Armand Minthorn	Confederated Tribes of the Umatilla Indian Reservation
John Ogan	Confederated Tribes of the Warm Springs Reservation
Taylor Aalvik	Cowlitz Indian Tribe
Mike Iyall	Cowlitz Indian Tribe
Lars Mobrand	D.J. Warren & Associates
Steve Jenkins	Douglas County Commissioner (Washington)
Shane Bickford	Douglas County PUD
Meaghan Vibbert	Douglas County PUD
Steve Mashuda	Earthjustice
Todd True	Earthjustice
Bill Redman	Federation of Flyfishers
Michele DeHart	Fish Passage Center
Don Chapman	Fisheries consultant
Christine Gregoire	Former Governor, State of Washington
Bob Nichols	Formerly Office of the Governor, State of Washington
John Kitzhaber	Governor, State of Oregon
Bonnie Butler	Governor's Office, State of Idaho
Brett Brownscombe	Governor's Office, State of Oregon
Jeff Oveson	Grande Ronde Model Watershed
Russell Langshaw	Grant County PUD
Seth Grigg	Idaho Association of Counties
Wyatt Prescott	Idaho Cattle Association
Justin Hayes	Idaho Conservation League
Virgil Moore	Idaho Department of Fish and Game
Charlie Petrosky	Idaho Department of Fish and Game
Michael Edmondson	Idaho Governor's Office of Species Conservation
Chris Randolph	Idaho Power Company
James Tucker	Idaho Power Company
Bill Sedivy	Idaho Rivers United
Norm Semanko	Idaho Water Users Association
Jim Norton	Idaho-based river guide and filmmaker
Deane Osterman	Kalispel Tribe of Indians
William Barquin	Kootenai Tribe of Idaho
Ken Stinson	Latah Soil and Water Conservation District
Robert Cope	Lemhi County Commissioner (Idaho)
Jim Litchfield	Litchfield Consulting Group
Deb Marriott	Lower Columbia Estuary Partnership
Jeff Breckel	Lower Columbia Fish Recovery Board
Bill Ruckelshaus	Madrona Venture Group, Shared Strategy for Salmon Recovery in Puget Sound, William D. Ruckelshaus Center

John Youngberg	Montana Farm Bureau Federation
Brian Marotz	Montana Fish, Wildlife and Parks
Bruce Farling	Montana Trout Unlimited
John Kostyack	National Wildlife Federation
Dan Siemann	National Wildlife Federation
Bill Bakke	National Wildlife Federation
Bill White	Natural Resources Conservation Service
Bobby McEnaney	Natural Resources Defense Council
Thomas Cooney	NOAA Fisheries
Mark Eames	NOAA Fisheries
Nate Mantua	NOAA Fisheries
William Stelle	NOAA Fisheries
Barry Thom	NOAA Fisheries
Bob Turner	NOAA Fisheries
Michelle McClure	NOAA Fisheries, Northwest Fisheries Science Center
Sara Patton	Northwest Energy Coalition
Bob Rees	Northwest Guides Association
John Shurts	Northwest Power and Conservation Council
Bill Booth	Northwest Power and Conservation Council Member (Idaho)
Jim Yost	Northwest Power and Conservation Council Member (Idaho)
Jennifer Anders	Northwest Power and Conservation Council Member (Montana)
Pat Smith	Northwest Power and Conservation Council Member (Montana)
Bill Bradbury	Northwest Power and Conservation Council Member (Oregon)
Henry Lorenzen	Northwest Power and Conservation Council Member (Oregon)
Tom Karier	Northwest Power and Conservation Council Member (Washington)
Phil Rockefeller	Northwest Power and Conservation Council Member (Washington)
Terry Flores	Northwest RiverPartners
Liz Hamilton	Northwest Sportfishing Industry Association
Richard Whitman	Office of the Governor, State of Oregon
Craig Nelson	Okanogan Conservation District
Peter Mohr	Oregon Business Association
Pat Larson	Oregon Cattlemen's Association
Ray Jaendl	Oregon Department of Agriculture
Greg Aldrich	Oregon Department of Environmental Quality
Ed Bowles	Oregon Department of Fish and Wildlife
Rich Carmichael	Oregon Department of Fish and Wildlife
Ken Cannon	Oregon Department of Transportation
Jane Lubchenco	Oregon State University; formerly NOAA
April Snell	Oregon Water Resources Congress
Tom Byler	Oregon Watershed Enhancement Board
Glen Spain	Pacific Coast Federation of Fishermen's Associations
Donald McIsaac	Pacific Fishery Management Council
Dave Ortmann	Pacific Fishery Management Council
Herb Pollard	Pacific Fishery Management Council
Bill Newbry	Pacific Northwest Farmers Cooperative
Shauna McReynolds	Pacific Northwest Utilities Conference Committee

Kristin Meira	Pacific Northwest Waterways Association
Joel Kawahara	Pacific Trollers Association, Washington Trollers Association
Todd Olson	PacifiCorp
Nicole Cordan	Pew Charitable Trusts
John Prescott	PNGC Power
Robert Cox	Pomeroy Grain Growers
David Doeringsfeld	Port of Lewiston
Randy Hayden	Port of Pasco
Jim Toomey	Port of Pasco
Eric Burnette	Port of Portland
Rick Finn	Port of Portland
Julie Keil	Portland General Electric
Scott Corwin	Public Power Council
J. Rachel Shimshak	Renewable Northwest Project
Bob Lohn	Retired; formerly NOAA Fisheries
Witt Anderson	Retired; formerly US Army Corps of Engineers
Bill Shake	Retired; formerly US Fish and Wildlife Service
Eric (Rick) Mogren	Retired; formerly with US Army Corps of Engineers
Bill McDonald	Retired; formerly with US Department of the Interior, Bureau of Reclamation
Dan Diggs	Retired; formerly with US Fish & Wildlife Service
Rod Sando	Rod Sando and Associates
Hobe Kytr	Salmon For All
Irene Martin	Salmon For All
Joseph Bogaard	Save Our Wild Salmon
Pat Ford	Save Our Wild Salmon
Gilly Lyons	Save Our Wild Salmon
Brian Stradley	Sherman County Soil and Water Conservation District
Claudeo Broncho	Shoshone-Bannock Tribes
Bill Arthur	Sierra Club
Steve Martin	Snake River Recovery Board
Matt Wynne	Spokane Tribe of Indians
Lawrence Schwabe	The Confederated Tribes of Grand Ronde
Joe Whitworth	The Freshwater Trust
Roy Sampsel	The Institute for Tribal Government, Portland State University
Curt Smitch	Thompson and Smitch Consulting Group
Carol Bua	Tidewater Barge Lines
Andy Stephens	Tidewater Barge Lines
Peter Heide	TKG Forestry
Rob Masonis	Trout Unlimited
Steve Eldridge	Umatilla Electric Cooperative
Tom Demianew	Umatilla Soil and Water Conservation District
Pete Bisson	United States Forest Service
Jim Anderson	University of Washington
Julie Morgan	Upper Columbia Salmon Recovery Board
D R Michele	Upper Columbia United Tribes
Bob Austin	Upper Snake River Tribes

Rock Peters	US Army Corps of Engineers
Matt Rea	US Army Corps of Engineers
Kate Puckett	US Bureau of Reclamation
Keith Hatch	US Department of the Interior, Bureau of Indian Affairs
Lorri Lee	US Department of the Interior, Bureau of Reclamation
Mary Lou Soscia	US Environmental Protection Agency
Mike Carrier	US Fish and Wildlife Service
Howard Schaller	US Fish and Wildlife Service, Columbia River Fisheries Program Office
Russ Thurow	US Forest Service
Linda Ulmer	US Forest Service
Brian Wolcott	Walla Walla Watershed Council
Jack Field	Washington Cattlemen's Association
Bud Hover	Washington Department of Agriculture
Derek Sandison	Washington Department of Ecology
Phil Anderson	Washington Department of Fish and Wildlife
Dennis Beich	Washington Department of Fish and Wildlife
Guy Norman	Washington Department of Fish and Wildlife
Jim Scott	Washington Department of Fish and Wildlife
Bill Tweit	Washington Department of Fish and Wildlife
John Stuhlmiller	Washington Farm Bureau
Scott Yates	Washington Grain Commission
Eric Johnson	Washington State Association of Counties
Brian Abbott	Washington State Recreation and Conservation Office
Kaleen Cottingham	Washington State Recreation and Conservation Office
Lloyd Moody	Washington State Recreation and Conservation Office, Governor's Salmon Recovery Office
Ken Casavant	Washington State University
Tom Myrum	Washington State Water Resources Association
Joe Dazey	Washington Trollers Association
Mark Cedergreen	Westport Charter Boat Association
Bob Bilby	Weyerhaeuser
Sara Kendall	Weyerhaeuser
Kevin Godbout	Weyerhaeuser
Mark Trenholm	Wild Salmon Center
Bob Margulis	Wild Steelhead Coalition
Alex Conley	Yakima Basin Fish & Wildlife Recovery Board
Mike Leita	Yakima County Commissioner (Washington)

APPENDIX D:

▶ ASSESSMENT INTERVIEW QUESTIONS

NOAA Fisheries has several obligations in the Columbia River Basin regarding salmon and steelhead recovery and management including requirements for Endangered Species Act (ESA), Tribal treaty and trust responsibilities, and other federal obligations. In order to address these multiple mandates over the long term, NOAA Fisheries would like to better integrate existing and future recovery plans with Basin-wide strategies to address habitat, hydropower, harvest, hatchery and other elements of recovery. Given the large number of parties involved in the Columbia Basin recovery effort, a high level of planning, coordination and collaboration is necessary. NOAA Fisheries has requested that our University-based centers conduct a situation assessment to explore regional views about what the processes for salmon and steelhead recovery in the Columbia River Basin might look like over the long term. The Oregon Consensus Program, located at Portland State University; and the William D. Ruckelshaus Center, a joint program of Washington State University and University of Washington, are both neutral forums for resolving public issues. The Centers will be conducting interviews with representative parties from throughout the Basin with the goal of identifying the range of issues and perspectives and to discover potential processes to achieve desired outcomes.

1. Please tell us about your background, affiliation, involvement and interests with respect to Columbia Basin salmon recovery. Have you been involved in any existing recovery planning efforts?
2. How will you know Columbia Basin salmon recovery process has been successful? What outcomes will you see? What will have happened/ not happened 25, 50 or 75 years from now?
3. What do you see as the major issues that need to be addressed in a comprehensive, effective basin-wide recovery plan? How should Basin-wide priorities be considered and discussed with parties?
4. What are the challenges or barriers to addressing these issues?
5. How might these challenges or barriers be overcome? Do you have suggestions for approaches or processes that would be most useful in addressing the above topics and why?
6. What changes if any to the existing processes might you recommend for addressing salmon recovery in the long term? ? What do you think will happen if the “status quo” continues?
7. Are you aware of, or have you participated in, any processes that you think could in some way serve as a model?
8. How can science best be incorporated into recovery planning?
9. Is there anyone else you think we should be interviewing? Why is it important to speak to him/ her?
10. What should we have asked that we did not?
11. Do you have any questions for us?

APPENDIX E:

OVERVIEW OF SALMON AND STEELHEAD RECOVERY RELATED PROCESSES

This outline and accompanying summary do not attempt to identify or discuss all of the legal, social, and programmatic processes at play in the Basin. It is meant to serve as a reference guide for the additional information about some of the processes discussed throughout this report and is the Assessment Team's attempt to capture and articulate pieces of this multifaceted system.



TREATIES, LAWS, AND COURT DECISIONS TREATIES AND ORDERS

Under Article Six, Section Two of the United States Constitution, treaties are listed with the Constitution itself and federal laws as the “supreme Law of the Land.” Many of the tribes resident in the Columbia Basin trace their current relationship with the federal government to treaties (many executed in 1855) which include recognition of tribal rights to hunt, fish and gather in their “usual and accustomed” places. In 1871 Congress passed a statute ending the making of treaties with tribes. Therefore, presidential executive orders were used by the U.S. government to reserve lands for some of the tribes in the Basin. Tribal hunting and fishing rights have consistently, since the mid 1970’s, been found to include the right to harvest salmon, with an accompanying claim that federal trust responsibilities include assuring that salmon are available for such harvest. Government-to-government relations between the tribes and federal and state governments are an important function to protect tribal sovereignty. Many tribes, and tribal organizations,

exercise co-management responsibility and authority for salmon planning, hatcheries, and harvest.

Presidential executive orders and presidential memoranda provide guidance to federal agencies in their intergovernmental relationships with tribes and agencies have internal orders and memorandums that guide their actions with tribes.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments:

Requires executive agencies to respect Indian tribal self governance and sovereignty, honor tribal treaty and other rights, and strive to meet the responsibilities that arise from the unique legal relationship between the federal government and tribal governments. Each agency is to have an accountable process to ensure meaningful and timely tribal input in the development of regulatory policies that have tribal implications.

Memorandum for the Heads of Executive Departments and Agencies, Government to Government Relations with Native American Tribal Governments:

Requires, among other things, that executive agencies operate within a government-to-government relationship with federally recognized tribal governments; consult to the greatest extent possible with tribal governments before taking actions that affect tribal governments; and agencies assess the impact of federal government plans, projects, programs, and activities on tribal trust resources and ensure that tribal rights and concerns are considered in developing them.

Executive Order 12866, Regulatory Planning and Review:

Establishes a program to reform and make more efficient the regulatory process, including making the process more accessible and open to the public. Wherever feasible, agencies are required to seek the views of appropriate state, local and tribal officials before imposing regulatory requirements that might significantly or uniquely affect them.

Executive Order 12875, Enhancing the

Intergovernmental Partnership: Prohibits executive agencies, to the extent feasible, from promulgating any regulation not required by statute that creates a mandate upon a state, local, or tribal government, unless funds necessary for direct costs of the mandate are provided by the federal government or the agency has consulted with affected state, local, or tribal government. Requires agencies to develop effective processes to permit state, local, and tribal representatives to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.

Secretarial Order 3206, American Indian Tribal Rights, Federal-Tribal Trust Responsibilities,

and the Endangered Species Act: Jointly issued by the Secretary of the Interior and Secretary of Commerce to clarify and harmonize the responsibilities of the departments and their federal trust responsibility to tribes in implementing the ESA.

In addition to tribal treaty rights, treaties between the United States and Canada also impact salmon recovery planning and activities.

The Columbia River Treaty: The Columbia River Treaty is an international agreement between Canada and the U.S. for the cooperative development and operation of the water resources of the Columbia River Basin for the benefit of flood control and power. The Columbia River Treaty 2014/2024 Review is a multi-year effort working to provide information on the value of Treaty benefits to the region. The U.S. Entity (created by the President, consists of the Administrator of the Bonneville Power Administration and the Northwestern Division Engineer of the U.S. Army Corps of Engineers) consults with the Sovereign Review Team, comprised of representatives of the four Northwest states, 15 tribal governments and 11 federal agencies. Supporting the Sovereign Review Team is the Sovereign Technical Team responsible for completing the technical work that informs the Sovereign Review Team and the U.S. Entity. The Treaty also established the Permanent Engineering Board (PEB), set up by the two governments to monitor and report on the results being achieved under the Treaty.

The Pacific Salmon Treaty: A treaty between Canada and the U.S. to carry out salmon fisheries and enhancement programs so as to prevent over-fishing and provide for optimum production, and to ensure that both countries receive benefits equal to the production of salmon originating in their waters. The Pacific Salmon Commission is the body formed by the governments of Canada and the United States to implement the Pacific Salmon Treaty.

► NATIONAL LAWS

There are a number of laws at the national level that guide and impact salmon and steelhead activities in the Basin. Key among those identified during this assessment include the following:

The Clean Water Act: The purpose of the Clean Water Act (CWA) is to “restore and maintain the chemical, physical and biological integrity of the nation’s waters.” While it is a federal law administered through the Environmental Protection Agency (EPA), it allows for delegation of specific enforcement and regulatory authority to the states and to tribes.

Endangered Species Act: The U.S. Congress passed the Endangered Species Act (ESA) to conserve threatened and endangered species and their ecosystems. A species is considered endangered if it is in danger of extinction throughout all or a significant portion of its range and threatened if it is likely to become endangered in the future. NOAA Fisheries and the U.S. Fish and Wildlife Service (FWS) share regulatory responsibilities for implementing the ESA. NOAA Fisheries has responsibility for ocean going fish, which includes salmon and steelhead. Once a species is listed, the ESA requires that efforts be taken to allow the species to recover and provides for different programs to do so:

- Listing (Section 4)
- Critical Habitat (Section 4)
- Recovery (Section 4) (*Recovery Plans are issued under Section 4*)

- Cooperation with States (Section 6)
- Interagency Cooperation (Section 7) (*Biological Opinions are issued under Section 7*)
- International Cooperation (Section 8)
- Enforcement of the ESA (Section 9)
- Permits & Habitat Conservation Plan (Section 10)

National Environmental Policy Act: NEPA requires federal agency decision-makers, in carrying out their duties to consider all reasonably foreseeable environmental effects of their proposed actions and to involve and inform the public in the decision-making process. This Act also established the Council on Environmental Quality (CEQ) in the Executive Office of the President to formulate and recommend national policies that ensure that the programs of the federal government promote improvement of the quality of the environment.

Federal Power Act: Authorizes the Federal Energy Regulatory Commission (FERC) to issue licenses to construct and operate certain nonfederal hydroelectric projects. The act requires FERC to include license conditions requiring fish passage and must also include conditions for the protection, mitigation, and enhancement of fish and wildlife, which FERC must generally base on recommendations made by federal and state fish and wildlife agencies.

Magnuson-Stevens Fishery Conservation and Management Act: Requires federal agencies, in consultation with NOAA Fisheries, to promote the protection of essential fish habitat. NOAA Fisheries provides conservation recommendations for any federal or state activity that may adversely affect essential fish habitat.

A number of laws create federal responsibilities to Indian tribes and guide federal agency activities that affect the tribes of the Columbia River Basin. Federal laws, such as the Indian Reorganization Act, Self-Determination and Education Assistance Act and the Snyder Act, create a responsibility for

federal agencies to support tribal self-government, facilitate tribal participation in federal activities, and assist in the management of tribal resources.

► COLUMBIA RIVER BASIN SPECIFIC LAWS

There are a number of laws at the Basin level that guide and impact fish and wildlife activities. Some key Basin-specific laws that impact salmon and steelhead recovery include the following:

Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act): Authorized an interstate compact among Oregon, Washington, Idaho and Montana to form the Northwest Power and Conservation Council (NPCC) and directs it to develop the Columbia River Basin Fish and Wildlife Program to protect, mitigate, and enhance the fish and wildlife of the Columbia River Basin. Under the Act, the Bonneville Power Administration (BPA) is required to use its funding authorities to protect, mitigate, and enhance fish and wildlife affected by the development and operation of the Federal Columbia River Power System (FCRPS).

Mitchell Act: Enacted to provide for the conservation of salmon and steelhead fishery resources of the Columbia River. The program has evolved into three primary components: (1) Operation of 17 fish hatcheries in Oregon, Washington, and Idaho; (2) Construction, operation and maintenance of fish screens at irrigation diversions to protect juvenile salmon and steelhead; and (3) Ongoing operations and maintenance of fishways enhancing adult fish passage. In FY 2010 Congress provided new funding for improving Mitchell Act hatchery programs to ensure that both conservation and harvest goals are met.

Columbia River Compact: In 1918, the U.S. Congress ratified a compact between Oregon and Washington covering concurrent jurisdiction of Columbia River fisheries. The Compact comprises the Washington Fish and Wildlife Commission (WFWC) and the Oregon Fish and Wildlife Commission (OFWC). Both Commissions have delegated decision-making authority

to its state fish and wildlife agency. The Columbia River treaty tribes have authority to regulate treaty Indian fisheries. When addressing commercial seasons for salmon, steelhead, and sturgeon, the Compact must consider the effect of the commercial fishery on escapement, treaty rights, and sport fisheries, as well as the impact on species listed under the ESA.

Fisheries Restoration and Irrigation Mitigation

Act: Created a voluntary, cost-shared fish screen installation and diversion dam correction program for water withdrawal projects in those portions of Idaho, Oregon, Washington, and western Montana which drain into the Pacific Ocean. It is implemented by the US Fish and Wildlife Service in cooperation with state and tribal partners within the Northwest.

COURT DECISIONS AND PROCEEDINGS

In the Basin, two significant court cases that define tribal treaty fishing rights—United States v. Oregon and United States v. Washington. In United States v. Oregon, Judge Robert C. Belloni ruled that state regulatory power over Indian fishing is limited because treaties between the United States and the Nez Perce, Umatilla, Warm Springs and Yakama tribes in 1855 reserved the tribes’ exclusive rights to fish in waters running through their reservations and at “all usual and accustomed places, in common with the citizens of the United States [or citizens of the territory]. Judge George Boldt later ruled in United States v. Washington that the treaty language “in common with the citizens of the United States [or citizens of the territory]” meant 50% percent of all the harvestable fish destined for the tribes’ traditional fishing places. The following year, Judge Belloni applied the 50/50 standard to United States v. Oregon and the Columbia River.

Fisheries in the Basin have subsequently been managed subject to provisions of United States v. Oregon under the continuing jurisdiction of the federal court. The 2008-2017 United States v. Oregon Management Agreement provides the current framework for managing fisheries and hatchery programs in much of the Columbia River Basin. The parties to U.S. v. Oregon include: the states

of Washington, Oregon, Idaho; the United States; the Shoshone-Bannock Tribes, the Confederated Tribes of the Warm Springs of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation. Other Basin tribes have treaties or executive orders that guide salmon management in the Columbia Basin.



GOVERNMENT ENTITIES

FEDERAL AGENCIES

Multiple federal agencies operate in the Basin, all of which have affirmative obligations under section 7(a) (1) of the Endangered Species Act to “use their existing authorities to conserve threatened and endangered species.” The regional executives from a number of those agencies established the Columbia Basin Federal Caucus through a memorandum of understanding (MOU) first signed in 2000 and revised in 2008. Currently, ten agencies are signatories to that MOU. These agencies work through the Caucus to coordinate their efforts to recover anadromous and resident fish, improve aquatic ecosystem health, and execute federal trust and treaty responsibilities to Basin tribes.

NOAA Fisheries and the U.S. Fish and Wildlife Service (FWS) share regulatory responsibilities for implementing the ESA. In the Columbia Basin, NOAA Fisheries is responsible for leading the recovery efforts for salmon and steelhead and FWS develops and implements recovery plans for resident bull trout and Kootenai River white sturgeon. Under the ESA, both agencies have three basic missions: (1) Identify and list species, (2) develop and implement recovery plans, and (3) consult with other agencies to prevent and enforce against harm to the species and their habitats.

The U.S. Army Corps of Engineer (Corps) and the Department of the Interior’s Bureau of Reclamation (BoR) are responsible for operating the Columbia River Basin dams. The Department of Energy’s Bonneville Power Administration (BPA) is responsible for providing transmission services and marketing the electric power generated by the dams in the Federal Columbia River Power System (FCRPS). In doing so, BPA is to provide equitable treatment to fish and wildlife and other purposes as stated by the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act). These three agencies are known collectively as the “Action Agencies”.

The FWS, the Bureau of Land Management (BLM) and the U.S. Forest Service all manage natural resources, which include habitat for salmon and steelhead, for multiple purposes. In addition implementing the ESA for resident bull trout and Kootenai River white sturgeon the FWS operates or funds hatchery facilities and fish health centers in the Basin. BLM and the Forest Service must ensure, under the ESA, that their actions do not jeopardize the existence of listed salmon and steelhead populations. BLM manages about 10 percent and the Forest Service over 50 percent of the available spawning and rearing habitat for salmon and steelhead within the Basin.

The Bureau of Indian Affairs (BIA), Environmental Protection Agency (EPA), U.S. Geological Survey (USGS), and Natural Resources Conservation Service (NRCS) carry out a multitude of actions that directly affect salmon and steelhead in the Basin. BIA encourages and assists American Indians to manage their own affairs under the trust relationship with the federal government. It develops forestlands, leases assets on these lands, directs agricultural programs, protects water and land rights, and undertakes other responsibilities in cooperation with the tribes. EPA protects human health and safeguards the natural environment by protecting the air, water, and land, and administers the Clean Water Act and Clean Air Act. USGS conducts scientific studies and provides information to address natural resources, geologic hazards, and the effects of environmental conditions

on human and wildlife health. NRCS assists farmers, ranchers, and other landowners in developing and carrying out voluntary efforts to protect natural resources.

COLUMBIA RIVER BASIN TRIBES

- Cowlitz Indian Tribe
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Colville Reservation
- Burns Paiute Tribe
- Confederated Tribes of the Umatilla Indian Reservation
- Spokane Tribe of Indians
- Fort McDermitt Paiute Shoshone Tribes
- Kalispel Tribe of Indians
- Coeur d’Alene Tribe
- Nez Perce Tribe
- Kootenai Tribe of Idaho
- Shoshone Paiute Tribe of the Duck Valley Indian Reservation
- Confederated Salish and Kootenai Tribes of the Flathead Nation
- Shoshone-Bannock Tribes of the Fort Hall Reservation

Tribal Coalitions: The Columbia River Inter-Tribal Fish Commission (CRITFC) coordinates management policy and provides fisheries technical services for the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes and Bands of the Yakama Nation, and Nez Perce Tribe. The Upper Columbia United Tribes (UCUT) organization was formed to facilitate intertribal efforts around natural resource issues and includes the Coeur d’Alene, Kalispel, Kootenai, Spokane, and Colville tribes. The Upper Snake River

Tribes is a compact formed in 2006 by the Shoshone Paiute Tribes and the Shoshone-Bannock Tribes, both of Idaho, and the Burns Paiute Tribe of Oregon, addressing issues related to the Upper Snake River Basin.

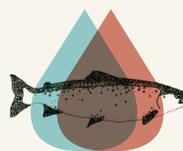
► STATE & LOCAL

Idaho: The Governor’s Office of Species Conservation administers the State’s actions to preserve, protect and restore species listed as threatened and endangered under the ESA. This work is done through coordination with the State natural resource agencies and with the input of the citizens of Idaho.

Oregon: In 1997 the Oregon Legislature and Governor established the Oregon Plan for Salmon and Watersheds. The Oregon Plan organizes specific actions - called “measures” - around harvest, hatchery, habitat, and hydro, and landowners and other private citizens, community organizations, interest groups, and all levels of government come together to organize, fund, and implement these measures. State agencies support plan implementation and the Oregon Watershed Enhancement Board (OWEB) provides coordination and administers a restoration grant program for voluntary restoration efforts.

Washington: In 1998, the Washington State Legislature passed the Salmon Recovery Act, establishing The Governor’s Salmon Recovery Office, charged with coordinating a statewide approach to salmon recovery. The State also established eight regions to respond to ESA salmon and steelhead listings and seven regional organizations formed, made up of local, state, and federal agencies; tribes; citizens; and others, to coordinate and work with the local watershed groups to develop recovery plans. Regional organizations coordinate their work through the Council of Regions. Recovery plans have been approved by NOAA in seven of the recovery regions and implementation has begun. The Salmon Recovery Funding Board administers funding for habitat restoration and protection projects based on the regional recovery plans.

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PROGRAMS AND PLANS GUIDING SALMON AND STEELHEAD RECOVERY ACTIVITIES

A multitude of programs and plans guide salmon and steelhead recovery efforts in the Basin, most of which are driven by responsibilities created under the Northwest Power Act and the ESA. A number of factors often generalized into H’s—harvest, hydropower, habitat, and hatcheries influence and are influenced by recovery efforts.

► NORTHWEST POWER AND CONSERVATION COUNCIL (NPCC)

Under the Northwest Power Act, the Northwest Power and Conservation Council (NPCC) (1) develops a regional power plan to assure the Northwest an adequate, efficient, economical, and reliable power supply; (2) develops a fish and wildlife program as part of the power plan to protect, mitigate, and enhance fish and wildlife affected by the development and operation of hydroelectric dams in the Basin, and make annual funding recommendations to BPA for projects to implement the program; and (3) encourage broad public participation in these processes and inform the public about regional issues. The NPCC is made up of two representatives appointed by the governors of each of the four states. The NPCC’s Columbia Basin Fish and Wildlife Program guides BPA’s funding and must be taken into account by all Federal agencies that manage, operate, or regulate hydropower dams in the Basin.

The Independent Scientific Advisory Board (ISAB) was established by the NPCC and NOAA Fisheries to provide independent scientific advice and recommendations on issues related to regional fish and wildlife recovery programs under the Northwest Power Act and the

Endangered Species Act. The ISAB is designed to foster a scientific approach to fish and wildlife recovery and ensure the use of sound scientific methods in the planning and implementation of research and recovery strategies related to these programs. The Independent Scientific Review Panel (ISRP) is comprised of scientists that reviews individual fish and wildlife projects funded by Bonneville Power Administration and makes recommendations on matters related to those projects.

▶ NOAA FISHERIES RECOVERY PLANNING UNDER THE ENDANGERED SPECIES ACT

The ESA requires NOAA Fisheries to develop recovery plans for listed salmon and steelhead species. Recovery plans are not regulatory documents, but serve as an organizing tool for guiding and coordinating recovery efforts. NOAA Fisheries delineated four geographic recovery planning areas, for the salmon and steelhead populations listed in the Northwest and within these domains, several management units exist.

- ▶ Willamette/Lower Columbia
- ▶ Interior Columbia (which has three sub-domains of the Middle Columbia, Snake, and Upper Columbia)
- ▶ Oregon Coast
- ▶ Puget Sound (which includes Hood Canal and Lake Ozette).

NOAA Fisheries defines “management units” based on jurisdictional boundaries, as well as areas where local planning efforts are underway. In Washington State, NOAA Fisheries works with state recovery boards to develop and implement recovery plans. In Oregon the local watershed councils are actively participating in recovery planning. NOAA Fisheries works with the State of Idaho to facilitate tribal and local involvement in recovery planning and implementation.

Teams of biologists and salmon experts, collectively known as technical recovery teams (TRTs), were tasked with identifying independent populations, providing scientifically sound biological recovery criteria, analyzing alternative recovery strategies, and providing scientific review of draft recovery plans.



ALL-H MANAGEMENT

▶ HYDROPOWER MANAGEMENT

Federal Columbia River Power System Biological Opinion (FCRPS BiOp): The operation of the FCRPS affects species of Columbia River Basin salmon and steelhead listed for protection under the ESA. The ESA requires the agencies that operate the FCRPS (FCRPS Action Agencies), to ensure that their actions are not likely to jeopardize the listed species, nor result in the destruction or adverse modification of habitat designated as critical to its conservation. The FCRPS BiOp guides the federal agencies in operating the FCRPS and requires a series of mitigation measures, called Reasonable and Prudent Alternatives (RPAs).

The Regional Implementation Oversight Group (RIOG): Regional, state and Tribal entities oversee the implementation of the FCRPS Biological Opinion through the Regional Implementation Oversight Group. The RIOG was established in 2008 to provide a high-level policy forum for discussion and coordination of the implementation of the FCRPS and related BiOps. Its purpose is to inform the federal, state and tribal agencies that are actively engaged in salmon recovery efforts regarding implementation issues from each sovereign’s perspective. For FCRPS hydro system implementation issues, the RIOG Senior Policy Group (RIOG) is supported by a Senior Hydro Technical Team (Senior Hydro Team), which in turn is supported by

the Technical Management Team (TMT), the System Configuration Team (SCT), and other technical teams.

Columbia Basin Fish Accords: Designed to supplement the FCRPS BiOp and the NPCC Fish and Wildlife Program. Today, three Northwest States and seven tribal partners are collaborating with the federal agencies under the Columbia Basin Fish Accords. They provide commitments to hydro, habitat and hatchery actions and secure funding for 10 years (expiring in 2018) to each of the parties.

Columbia River Regional Forum: The Regional Forum process was developed in 1995 to support coordination and implementation of NOAA fisheries first FCRPS BiOp. It was broadened by NOAA Fisheries to include regional sovereigns to discuss and make real-time decisions regarding the physical operations of the FCRPS in order to implement the FCRPS BiOp and ESA provisions for protection and recovery of listed salmon species. Members include: state and tribal sovereigns with management authority over fish and wildlife resources and water quality in the Basin, and federal agencies, including NOAA Fisheries, FWS, BPA, Corps, EPA, and BOR. Other agencies and regional interests, such as the NPCC, the Idaho Power Company and the Mid-Columbia Public Utility Districts, and the public also attend. The Regional Forum consists of several technical workgroups such as the Technical Management Team (TMT), the System Configuration Team (SCT), the Studies Review Work Group (SRWG), and the Fish Passage Operations and Maintenance (FPOM) workgroup. (Note: The Regional Forum technical teams were merged into the RIOG in 2008—although many still refer to these teams as Regional Forum teams)

HARVEST MANAGEMENT

NOAA Fisheries is responsible for determining whether harvest regimes jeopardize listed stocks of ocean going salmon and steelhead and issuing biological opinions for fisheries. NOAA Fisheries works in cooperation with federal, state, tribal, and Canadian officials to manage these fisheries through several forums.

Pacific Salmon Commission: The US and Canadian governments work with tribes, states, and sport and commercial fishing groups to provide for shared conservation and harvest objectives. These proceedings are guided by the 1985 Pacific Salmon Treaty and implemented through the Pacific Salmon Commission. The current agreement applies to fisheries from 2009 through 2018, except for the chapter that applies to Fraser River sockeye and pink salmon, which extends through 2013. The Commission does not regulate salmon fisheries, but instead provides regulatory recommendations and a forum through which the two countries are able to reach mutually beneficial agreements. NOAA Fisheries reviews the recommendations and approves them through its regulatory channels under the ESA and Magnuson-Stevens Fishery Conservation and Management Act. Provisions that apply to areas off Washington, Oregon, and California coasts are subject to regulation by the Pacific Fishery Management Council and NOAA Fisheries.

Pacific Fishery Management Council (PFMC):

PFMC is one of eight regional fishery management councils established by Congress in the Magnuson Fishery Conservation and Management Act. The PFMC is a nonprofit organization that recommends fishery management measures to the Secretary of Commerce, through NOAA Fisheries. The PFMC process is a bottom-up process composed of PFMC members, staff, advisory bodies who advise the PFMC, and the public, which participates in decision-making both directly and indirectly. It is made of voting representatives from Oregon, Washington, California, and Idaho. Some members represent state or tribal fish and wildlife agencies and some are private citizens knowledgeable about recreational or commercial fishing or marine conservation.

North of Falcon: Folded into the PFMC process is a parallel public process referred to as North of Falcon. The North of Falcon process integrates management of ocean fisheries between Cape Falcon (on the north Oregon coast) and the Canadian border, including fisheries in the Columbia River, Puget Sound, and inland Washington coastal waters. Columbia River fisheries are a significant component of the North of Falcon process. In this public

process, there are allocation agreements reached between Oregon and Washington ocean and freshwater commercial and sport fisheries, as well as mandated allocation agreements between the states and treaty Indian tribes.

United States v. Oregon Management Agreement:

Fisheries in the Basin have subsequently been managed subject to provisions of United States v. Oregon under the continuing jurisdiction of the federal court. The 2008-2017 United States v. Oregon Management Agreement provides the current framework for managing fisheries and hatchery programs in much of the Columbia River Basin.

HATCHERY MANAGEMENT

The Federal Action Agencies (BPA, Corps and BOR) and NOAA Fisheries fund hatchery programs to mitigate for the impacts to fish resulting from the construction and operation of the federal dams. The USFWS has the authority to manage and operate hatcheries. Mitchell Act Hatcheries are intended to partially compensate for fish and habitat losses caused by the construction of dams within the Federal Columbia River Power System. NOAA Fisheries 2008 FCRPS Biological Opinion calls on the Action Agencies to develop criteria for funding ongoing or new hatchery programs within the Basin to ensure that hatchery programs that receive FCRPS funding do not impede, and where possible assist, in recovery of ESA-listed salmon and steelhead.

Hatchery Scientific Review Group (HSRG): The Congressionally-established HSRG, an independent scientific review panel, was initially charged with reviewing all state, tribal and federal hatchery programs in Puget Sound and Coastal Washington, as part of a comprehensive hatchery reform effort. In 2005, Congress directed NOAA Fisheries to replicate the project in the Columbia River Basin. The scientific review, conducted by the HSRG, gathered and analyzed information relevant to the evaluation of hatchery programs in the Columbia River Basin. An independent facilitation team was responsible for project management, budgets, contracting, meeting preparation, and coordination of work products. A policy coordination team provided

a communications link between the HSRG and the federal, state and tribal managers of the hatchery system at the policy level. A System-Wide Report concluded a comprehensive review and analysis of all hatchery programs in the Columbia River Basin.

Hatchery and Genetic Management Plans (HGMP):

HGMPs are technical documents that describe the composition and operation of individual hatchery programs. NOAA Fisheries uses the information provided by HGMPs to evaluate impacts on salmon and steelhead listed under the ESA. Completed HGMPs may also be used for regional fish production and management planning by federal, state and tribal resource managers.

HABITAT MANAGEMENT

The ESA and Magnuson-Stevens Act direct NOAA Fisheries to protect, conserve, and restore freshwater and marine habitats. NOAA Fisheries reviews Federal proposals for land and water development to ensure the activities do not further degrade habitat or protected species and supports restoration actions to improve habitat quality through technical assistance and funding.

Critical Habitat: ESA requires Federal agencies to ensure that any activities they authorize, fund or carry out are not likely to destroy or adversely modify the designated critical habitat of a listed species. NOAA Fisheries designates critical habitat by determining the conservation value of particular areas and balancing the benefits of designation against its impacts. The proposed designation then goes through a period of public comment before the final rule is published and critical habitat is designated.

Essential Fish Habitat: The Magnuson-Stevens Fishery Conservation and Management Act established a number of provisions to identify, conserve, and protect essential fish habitat or EFH. EFH refers to waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Regional Fishery Management Councils are required to identify and describe EFH for all species managed under their fishery management plans, minimize to the extent practicable adverse effects on EFH

caused by fishing, and identify other actions to encourage the conservation and enhancement of EFH. Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, that are authorized, funded, or undertaken by the agency that may adversely affect EFH. In turn NOAA Fisheries provides recommendations to federal and state agencies on such activities to conserve EFH. These recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from the proposed action.

Habitat Conservation Plans: ESA Section 10 allows for the development of Habitat Conservation Plans, which result in permits that give exceptions to the prohibition against “take” of a listed species. These permits are most commonly issued to entities such as municipal water utilities, as their activities support long-term survival and recovery of listed species and benefit from stable, long-term regulations. To obtain a Section 10 permit, a non-federal applicant develops and submits a Habitat Conservation Plan to NOAA Fisheries and the U.S. Fish and Wildlife Service for technical assistance and for National Environmental Policy Act and public review. Once all reviews are completed, the HCP is final, and all parties sign it. NOAA Fisheries and USFWS then issue Incidental Take permits that cover their respective species.

Pacific Coastal Salmon Recovery Fund (PCSRF): Congress established the PCSRF to protect, restore, and conserve Pacific salmon and steelhead populations and their habitats. NOAA Fisheries manages the PCSRF program and provides funding to states and tribes to implement restoration projects in the Pacific Coast region. In addition to the PCSRF federal funds, states provide significant matching funds through their grant allocation processes and state project dollars are further supplemented by private and local contributions.

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The assessment team is deeply grateful to the many individuals who gave their time and energy to be interviewed, and to otherwise inform this report.



Report design: **Co-CREATIVE** at Portland State University

