



Coastal Lead Entities Needs Assessment

WHITE PAPER

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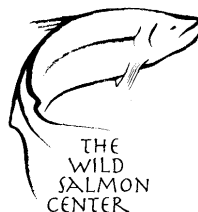


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Executive Summary

In preparation of developing a regional salmon sustainability strategy, the Washington Coast Salmon Recovery Region conducted a regional gap analysis to assess the availability and accessibility of research relating to salmonid populations, habitat, hatcheries, harvest, and hydropower in Water Resource Inventory Areas (WRIAs) 20, 21, 22, 23, and 24.

The project approach entailed 1) collecting related electronically accessible documents from the region and collating them into web-based library; and 2) holding workshops with WRIA Lead Entities members and other state, federal, and tribal representatives to identify and make recommendations for addressing local and regional data needs.

Project Background

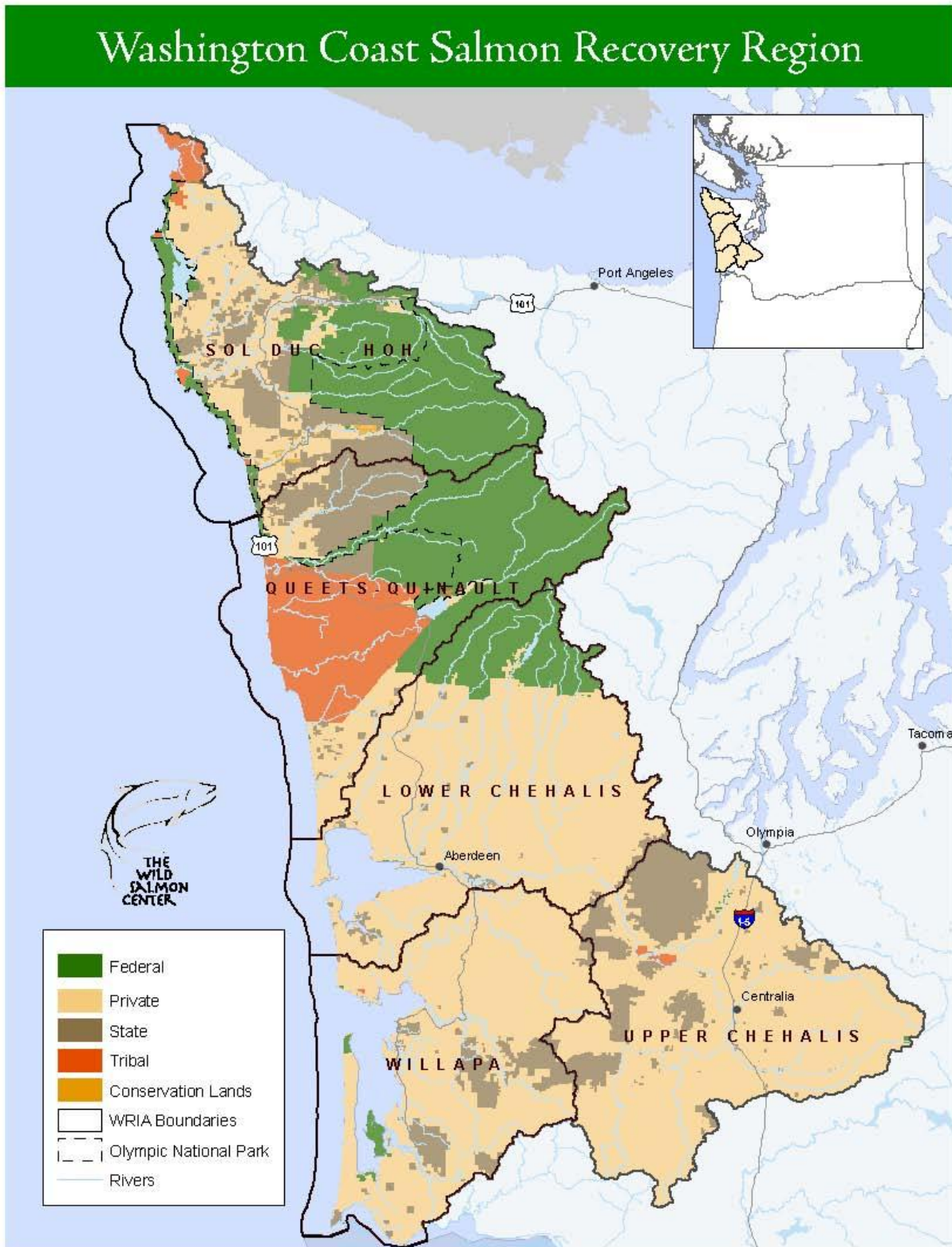
The Coastal Needs Assessment project was made possible by a grant from the Grays Harbor County Community Salmon Fund Creative Partnerships Program, established by the National Fish and Wildlife Foundation and the Salmon Recovery Funding Board. The project was designed to identify regional needs and data gaps as described in the “Report on Consideration of Forming a Coastal Regional Governance Unit for Salmon Sustainability” authored June 20, 2007, to prepare resource and conservation planners for development of a forthcoming regional salmon plan. The effort served to inventory existing data and assess data needs within four Washington Coast Lead Entities regarding the status of salmonid populations and the recovery efforts needed within each lead entity. The four coastal Lead Entities encompass five Water Resource Inventory Areas (WRIAs): Sol Duc-Hoh (20), Queets-Quinault (21), Lower Chehalis (22), Upper Chehalis (23), and Willapa (24) as shown in Figure 1. This area includes all or parts of seven counties and six tribal governments.¹

The study assists two organizations currently involved in planning activities: the [North American Salmon Stronghold Partnership](#) (Stronghold Partnership) and the [Washington Coast Sustainable Salmon Partnership](#) (WCSSP).

The Stronghold Partnership is a public-private partnership that focuses on protecting the healthiest remaining Pacific salmon ecosystems in North America. After a rigorous two-year process, the Stronghold Partnership conferred status to the first nine stronghold areas in the

¹ Clallam County, Jefferson County, Grays Harbor County, Thurston County, Mason County, Lewis County, Pacific County, Makah Nation, Quileute Indian Tribe, Hoh Indian Tribe, Quinault Indian Nation, the Confederated Tribes of the Chehalis, and the Shoalwater Bay Indian Tribe.

Figure 1: Washington Coast Salmon Recovery Region



Pacific Northwest. One of these Strongholds includes the Quinault/Queets Basins in WRIA 21. It was during this stronghold conferment process that participating scientists realized that information about salmonid populations in the four Coastal Lead Entities was not readily accessible, incomplete, or nonexistent. The Stronghold Partnership is interested in entertaining additional Stronghold requests in the coastal region, but there remains a need for more information before further action can take place.

At the same time, WCSSP, a recently formed regional organization to serve the needs of the four Coastal Lead Entities, has initiated a regional salmon sustainability planning effort. The purpose of this plan is to lay out a strategy to ensure the long-term sustainability of salmonids from an all-inclusive approach addressing habitat, harvest, hatchery, and hydropower. The first step in developing the plan was to collate known data about salmonid populations and recovery needs within each lead entity. It also sought to identify data gaps and approaches for overcoming them.

Given the similar data needs for both the Stronghold Partnership and WCSSP efforts, the Wild Salmon Center decided to commission a project that would achieve three objectives:

- Collect from each coastal Lead Entity pertinent electronic reports or studies on salmonids relating to population status, habitat, hatcheries, harvest, and hydropower and compile them into an electronic coastal salmonid library that would be readily available to the public
- Have each lead entity technical committee identify key documents and data gaps from an individual WRIA-wide perspective
- Have technical representatives from throughout the region pinpoint data needs held in common by all four lead entities

There were two additional benefits to this project. One was to build a sense of “community” among the four Coastal Lead Entities by engaging the participants in a short-term, collaborative project. The other outcome was to begin building a regional technical team consisting of experts within and beyond the region who could contribute to both the Stronghold Partnership and WCSSP planning processes.

Individual Lead Entity Needs Assessment Workshops

The Wild Salmon Center held a workshop with each of the Lead Entities during the months of June and July 2009 to satisfy the first two objectives of the project. The format of the workshops asked three questions:

- Which existing documents would you identify as containing essential data for understanding the status of salmonids and the efforts needed for their recovery within your Lead Entity?
- If you had a “wish list” for new data that would help you better understand the status of salmonids and the efforts needed for their recovery within your Lead Entity, what would be on that list?
- Looking at your wish list, what would be the priority or sequencing of filling these data gaps?

The intent of the first question was to have each Lead Entity think about what data was available for their Lead Entity and then to prioritize its relevance in educating regional planners about local, fully integrated salmon sustainability/recovery issues.

The intent of the next two questions was to 1) get workshop participants to consider when existing data was insufficient or nonexistent, and 2) assign priority to resolving data needs.

The workshops revealed many similarities and a few differences between the four Coastal Lead Entities. Below is a summary of each workshop by Lead Entity.

WRIA 20: North Pacific Coast Lead Entity



The North Pacific Coast Lead Entity identified a number of key documents as essential for understanding population status and recovery needs for salmonids in their region. These were the:

- Lake Ozette Limiting Factors Analysis
- Lake Ozette Recovery Plan and associated documents
- Watershed analyses prepared by the US Forest Service, the Quileute Indian Tribe, and the Makah Nation
- WRIA 20 Watershed Management Plan (2009)
- State of Our Watershed (SSHIAP), Northwest Indian Fisheries Commission

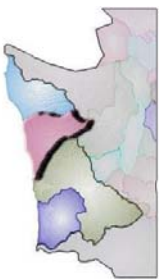
The primary focus of the WRIA 20 technical committee was to acquire those tools that would facilitate the completion of other projects, such as an updating salmonid limiting factors analyses. The top three data needs identified by this group were:

1. Acquiring [NetMap](#) for further in-depth watershed analyses
2. Collaborating with the co-managers to update the Salmonid Stock Inventory (SaSI) using a neutral third party
3. Conducting a complete channel migration study using LIDAR

Other identified data needs for the WRIA are:

- Updating the original limiting factors analysis
- Analyzing urban development impacts along the Pacific Coastline
- Carrying out a genetic inventory of salmonids within rivers and along the Pacific coastline
- Completing culvert assessments for those areas not already completed
- Selecting and applying an ecosystem valuation model to habitat within the WRIA
- Adding staffing for data stewardship and GIS management

WRIA 21: Quinault Indian Nation Lead Entity



Members of the Quinault Indian Nation Lead Entity technical group chose not to identify key documents; however, several key documents were identified based upon recommendations from regional technical advisors. Quinault staff reported that the majority of studies currently available consist of level-one assessments that either lack sufficient detail or are very site-specific. In addition, the studies used differing methodologies that make forming general conclusions about population status and recovery issues difficult on a watershed scale. Representatives of the Quinault Indian Nation in particular did not support the findings contained within the 2002 Salmonid Stock Inventory (SaSI).

The group did clearly state their desire to fill large-scale data gaps by preparing Level III watershed assessments for the entire WRIA. Recognizing the immensity of this task, the Lead Entity suggested phasing the assessments in by starting with the major systems and gradually progressing towards the smaller tributaries. For example, WRIA 21 would first focus on the Quinault, then the Queets, the Raft, the Copalis, and so on.

These watershed studies would involve sampling of streams for populations/fish use, fish distribution studies, noxious weeds assessment, surveys conducted on the ground (aerial photograph inventories are ineffective), measure human impacts in the watershed, inventory hard armoring along rivers,

inventory culvert and other barriers on County, state, and private lands, LIDAR flyovers, mapping stream connectedness and channel migration zones in relationship to land-use and historic disturbances.

However, the technical group members emphasized that any assessments completed within the Lead Entity should use standardized, repeatable methodologies to create a uniform baseline of information.

Other data needs identified by WRIA 21 participants included:

- Acquiring a data steward to collate non-published documents and raw data resources that could provide valuable information if made accessible
- Developing and applying water quality standards, especially for sediment and temperature, that provide a greater array of analysis than current state standards
- Implementing quality long-term monitoring, including monitoring temperature

WRIAs 22-23: Grays Harbor Lead Entity



The Grays Harbor Lead Entity workshop participants indicated that the key published documents and websites for their Lead Entity were:

- The Chehalis Basin Salmon Restoration and Preservation Work Plan
- Assessment of Salmon and Steelhead Performance in the Chehalis River Basin in Relation to Habitat Conditions and Strategic Priorities for Conservation and Recovery Actions
- Growth Management Act development regulations for each jurisdiction
- [Washington Department of Natural Resources Water Typing](#)

Technical group members added that there are several raw data sources important for planning within the Lead Entity. These include annual escapement goals and data for subbasins within the WRIA.

The WRIA 22-23 Lead Entity data needs reflect the desire to fine-tune existing resources or else add new dimensions to local knowledge about populations and conditions. The top priority data needs include:

1. Expanding habitat diagnosis tools, such as EDT, or integrating new models into planning processes, such as SSHIAP, SHIRAZ, and NetMap (staffing to keep the models up-to-date and consistent data were mentioned as critical to making this happen)

2. Developing a limiting factors analysis and EDT model for marine and estuarine areas, including determining the carrying capacity of the marine areas
3. Conducting an ecosystem valuation for the entire Chehalis Basin
4. Improving/updating information about stock status, historic stock use within the basin, and determining the carrying capacity of the basin

The group had a wide range of additional data needs that include:

- Evaluating fish use before and after a project to determine the efficacy of restoration projects
- Assessing the impacts of local land use policies on habitat
- Expanding the knowledge base about function and contribution of the estuary to life history cycles of salmonids
- Studying local stream conditions to identify and locate prime spawning areas and use this information to target fish barrier projects that will yield high results
- Determining salmonid influences on Orca populations in Pacific marine waters

WRIA 24: Pacific County Lead Entity



The two key documents for understanding salmonid population status and recovery needs within the Pacific County Lead Entity area are the limiting factors analysis and the Lead Entity strategy.

The Lead Entity technical group intends to update both of these documents in the future, but the quality of that effort will depend on increasing the number of “tools” available to them. While group members mentioned there they have strong anecdotal knowledge about local habitat conditions, they also recognize their inability to “quantify” their data into a useable format. Therefore, the priority data needs of the Lead Entity are to acquire “data tools” such as EDT, SSHIAP, and NetMap. LIDAR was another data set group members felt would be useful.

The Lead Entity also expressed their desire for more complete population status information beyond SaSI, including the ability to identify populations genetically. Accompanying this need was fish distribution data beyond Washington Department of Natural Resource stream typing; the data should undergo ground truthing to ensure accuracy.

Regional Needs Assessment Workshop

Technical representatives from each of the Coastal Lead Entities and other organizations and agencies convened on July 22, 2009 to provide a regional interpretation to the data needs assessment. These participants:

- Analyzed the similarities in the data needs of the Coastal Lead Entities,
- Discussed data gaps from a regional standpoint, and
- Laid out an approach for resolving regional data needs

Common Data Needs among the Lead Entities

Clearly, the Coastal Lead Entities all have unique identities and needs. However, they also recognize that their linked Pacific Coast ecosystems make it sensible to work together to their mutual benefit. This concept naturally surfaced when regional workshop participants examined the prioritized data needs of individual Lead Entities. They discovered several strong commonalities among the Lead Entities in relation to data needs that include:

- Selecting, acquiring, and applying common data tools that assess habitat conditions within WRIsAs and across the region
- Ground-truthing assessments to ensure accuracy and to improve future models
- Expanding the general knowledge base of regional planning participants on habitat, harvest, hatchery, and hydropower issues and their integration at an ecosystem level
- Completing culvert / fish barrier inventories
- Completing noxious weed assessments
- Conducting assessments along the estuaries and marine coastline
- Updating and expanding the Salmonid and Stock Inventory (SaSI) data on populations
- Analyzing land use practices that impact habitat along the Pacific Coastline
- Documenting water quantity within Lead Entities
- Preparing ecosystem valuations

Regional Gap Analysis

Regional workshop participants added several of their own unique data gaps from a coastwide perspective.

- There are multitudes of databases within the region (and state) that are not compatible with one another. This makes integrating data sharing difficult if not impossible. Data assimilation through systems like NetMap could address much of this problem.
- The region needs to design a uniform approach for ground-truthing projects to prove and demonstrate their efficacy.
- Large private landowners in the region, such as the timber holding companies, have substantial data currently inaccessible to salmon sustainability efforts. The Lead Entities need to show these landowners that improving access to this data will prove beneficial to all parties.
- Standardized methodologies for assessments and ground-truthing will encourage approaches that benefit both individual Lead Entities and the region.
- There is a need for hatchery genetic management plans (HGMPs) within the region.

Establishing Priority Data Needs within the Region

Workshop participants prioritized four main thrusts for addressing data needs within the coast region. These priorities are integral to one another and serve as the basis for any planning effort aimed at sustaining salmon populations along the Washington Coast.

1. Update Data on Coastal Lead Entity Salmonid Populations

Individual Lead Entity and regional workshop participants agree that SaSI needs significant updating to provide a more accurate assessment of the status of salmonids in the coastal area. Resolving this data gap needs to include identifying the number of distinct populations in the region and assessing their relative health. This information will be critical for making informed decisions about project design and implementation as described through WCSSP planning process.

The group proposes initiating discussion with the co-managers in revisiting SaSI for the coast region. It may prove helpful for a neutral, third party to facilitate this effort.

2. Analytical Tools

The Coastal Lead Entities need access to effective analytical tools throughout the region to fully assess and plan for habitat that sustains salmon. Regional workshop participants see distinct advantages in collaborating in the selection and use of common assessment tools throughout the four WRIsAs.

- Economies of scale suggest it would be more cost effective in acquiring one system or methodology as opposed to four different ones.
- It would prove more cost-effective for the Coastal Lead Entities to share staff expertise.
- Using common assessment tools would allow the Coastal Lead Entities to evaluate their ecosystems independently and on a larger regional basis. Collaboration in this way will tie recovery planning to an ecosystem-wide approach rather than an isolated watershed focus. Having common analytical tools may forge a more regional identity for the four Lead Entities, a collaboration that will reap improved planning and access to project funding.

Moving forward with the common analytical tools approach begins with evaluating and selecting which methodologies are appropriate for the region (Appendix 1.). Preliminary discussions suggest LIDAR imaging, NetMap, and EDT as tools of interest. A planning subcommittee should compare and contrast the variety of methodologies, examine local needs and resources, and make a recommendation on which tools the Coastal Lead Entities should select for common use. Once completed, the Coastal Lead Entities can pursue funding options.

3. Broad-scale Habitat Assessments

A recurring theme throughout the Lead Entities focused on the need for more advanced watershed and limiting factors analyses. Lead entities also recognized that current habitat assessments in the region use different methodologies and vary in detail. The combination of these factors makes it difficult to assess conditions accurately on either a watershed or landscape scale.

The regional group recognizes that completing more thorough habitat assessments within each Lead Entity is a regional priority. If done using standardized methodologies and common analytical tools, recovery planning will move from simply a watershed level to a landscape-scale. This approach in turn may improve overall watershed health and will

increase the likelihood of funding opportunities over the long-term by elevating the four Coastal Lead Entities into a regional force on par with the Lower Columbia and Puget Sound.

4. Data Stewardship

Tracking data throughout the four Coastal Lead Entities is a major task currently left undone. Until now, there has been no central depository for published data in the Coast region; the library collated during this needs assessment will continue to grow and will need maintenance to be of use to those individuals doing research or projects. There are also large numbers of critical documents that remain inaccessible because of limited copies available in paper format in isolated locations. These documents could prove essential if made available on-line in electronic format.

There is also the need to collate, organize, and distribute reportedly large quantities of unpublished data. Workshop participants indicate that agencies and organizations within the region collect specific data that never makes its way into a document, or at least in a timely fashion. Making this data accessible for those within each Lead Entity and throughout the region will be important for upcoming planning processes and long into the future.

As a result, a data stewardship program is high on the region's needs assessment list. Workshop participants felt that the development of this program ties closely with decisions regarding analytical tools.

Conclusion

Closing the needs assessment gap in the Washington Coast Salmon Recovery Region will require securing a level of resources far and beyond those currently allocated to it. To this end, the local Lead Entities, joined by those state, federal, tribal, and nonprofit agencies and organizations engaged in coastal salmon recovery, need to continue communicating and planning strategically as a single entity to increase the awareness of public and nonprofit funders to recognize the importance of sustaining coastal salmon populations.

Appendix 1. Decision Support for Addressing Regional Needsⁱ

COMMON REGIONAL NEEDS	SOURCE					Pros	Cons
	North Pacific Coast Lead Entity	Quinault Indian Nation Lead Entity	Grays Harbor Lead Entity	Pacific County Lead Entity	Regional		
1) Standard Analytical Tools	T ⁱⁱ	T	T	T	T		
Salmon and Steelhead Habitat Inventory and Assessment Project (SSHIAP)			T	T	N ⁱⁱⁱ	Comprehensive analytical tool that integrates a multitude of databases; spatially related database; incorporates survey data; integrates LFA's; NWIFC GIS office may be able to provide support; strengthens working relationship with NWIFC; maps are a good medium for public engagement	Data not available for WRIA 24; relies on extant data making some cross WRIA comparisons problematic; not cross-talk capable; NWIFC has limited capacity; does not offer query functions for laymen; not readily or publically accessible; does not offer analysis of ecosystem processes; requires Aquascape software to operate; WDFW lacks adequate funding to maintain and improve; relies on LFA's

INTERFACE WITH REGIONAL SALMON PLANNING: 3 to 8 months to complete WRIA 24; comprehensive baseline for determining limiting factors; GIS tools can be used for general mapping; science-based means to prioritize recovery actions

COST ESTIMATE: ~\$30K - \$80K to complete WRIA 24 (\$0.04/acre - \$0.10/acre); 1 FTE to operate and update over time (~\$50K - \$60K/yr)

COMMENTS: NWIFC may be able to provide ongoing GIS support; other potential sources for GIS support include in-house staffing, UW or other local colleges

<p>Ecosystem Diagnosis and Treatment (EDT)</p>			<p>T</p>	<p>T</p>	<p>T</p>	<p>Serves as a base tool for conducting the All-H Analyzer--modeling of harvest and hatchery reform impacts on the landscape; detailed analytical tool; diagnoses current condition and estimates historic potential of a given watershed</p>	<p>High cost of implementation and management; not a spatial tool it is a dataset; specialist required to operate; not cross-talk capable; only 2 major watersheds covered in WCSSP planning area; data manager frequently changed; steady state model</p>
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INTERFACE WITH REGIONAL SALMON PLANNING: 1 year to create a baseline EDT model for entire coast; index rivers would be established rather than providing full coverage of all rivers due to budget limitations

COST ESTIMATE: ~\$250K to create baseline for coast (\$0.06/acre); .25 FTE tool Specialist for every 1-4 watersheds (~\$20k - \$25K/yr)

COMMENTS: WDFW indicated interest in using EDT for coast to facilitate development of hatchery plans

<p>NetMap (Earth Systems Institute)</p>	<p>T</p>		<p>T</p>	<p>T</p>	<p>T</p>	<p>Umbrella tool with common language for entire region; enables analysis of ecosystem process; cross-talk capable; easily accessible and updatable on web; standard data sources and analyses for spatial prioritizations; able to integrate and "learn" from spatial databases from SSHIAP, survey data and climate change research; cutting-edge; maps are a good medium for public engagement; most cost effective and standardized per acre</p>	<p>Requires interim experts to conduct pilot analyses until stakeholder training completed; purchase 30% of 4 million acres of NetMap coverage for WCSSP area; requires GIS software to conduct analyses; not suitable for determining extinction risks of a given population</p>
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INTERFACE WITH REGIONAL SALMON PLANNING: 2 months to acquire all 4 million acres of standard map coverage, watershed databases, and full suite of analytical tools; 1 to 8 months to complete analyses (one-time/long-term options); science-based means to spatially prioritize recovery actions; integrate with CAP to spatially identify key ecosystem processes, threats and/or historic potential for a suite of species

COST ESTIMATE: ~\$25K to purchase remainder of full NetMap database (\$0.02/acre) (see comments); .4 FTE interim Specialist(s) to implement analyses for planning (~\$33K); Lead Entity Coordinators and/or technical staff can readily use over long-term

COMMENTS: Significant matching resources available in 2010 (Pacific Northwest Research Station USFS, Earth Systems Institute, Wild Salmon Center ~\$80 - \$100K); expertise and capacity available through WSC; PNRS currently funded to map all federal lands coterminous with WCSSP planning area (<http://www.fs.fed.us/pnw/>); free training available (winter 2010)

<p>LiDAR</p>	<p>T</p>	<p>T</p>		<p>T</p>	<p>T</p>	<p>Specialized, fine resolution tool for analyzing geomorphic features/processes and making informed land use decisions and for spatially prioritizing areas for protection and restoration</p>	<p>Highest cost of implementation; few watersheds covered in WCSSP planning area to make relevant for regional plan</p>
<p><u>INTERFACE WITH REGIONAL SALMON PLANNING:</u> Science-based approach to improve land use planning.</p> <p><u>COST ESTIMATE:</u> ~\$3.5M - \$8M to acquire LiDAR coverage for entire coast (\$0.87 - \$2/acre); 1 FTE Spatial Analyst (\$80K/yr)</p> <p><u>COMMENTS:</u> Quinault staff are currently pursuing partnership and LiDAR consortium opportunities for the coast (similar to a Puget Sound model)</p>							
<p>Expand level III watershed assessments</p>		<p>N</p>			<p>N</p>	<p>Detailed, comprehensive analysis of watershed conditions and status over time; establishes exhaustive baseline for long-term trend analysis; greatly improves informed decision-making and certainty of success related to recovery actions</p>	<p>Expensive to implement across entire coast; most often implemented on a watershed by watershed basis; limited resources available to conduct assessments</p>
<p><u>INTERFACE WITH REGIONAL SALMON PLANNING:</u> Basins with completed assessments will enable deeper examinations of problems and strategies for recovery in the Plan</p> <p><u>COST ESTIMATE:</u> ~\$150K - \$500K contingent upon project design and scope</p> <p><u>COMMENTS:</u> WCSSP could create a prioritized list and schedule for watersheds in imminent need of a level III assessment</p>							

Ecosystem valuations	N	T	T		N	Provides quantitative economic analysis of an ecosystem where its values are equivalent to its ecological yield valued as it would be on commodity markets; addresses values at varying levels of use/development; puts a price tag on the natural capital of an ecosystem ("externalities"); creates a common language	Puts a price tag on the natural capital of an ecosystem; requires strategic dissemination and additional public outreach to clarify the conceptual meaning of the analysis
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INTERFACE WITH REGIONAL SALMON PLANNING: 6 months to 1 year to complete; provides an alternate means of valuing intact ecosystems, but requires specialized economists to implement; possible supplement to Plan, but unlikely to be completed prior to Plan's completion; could serve as a supplement (or Appendix) to Plan

COST ESTIMATE: ~\$30K - \$200K contingent upon project design and scope; .10 - .4 FTE contracting Environmental Economist

COMMENTS: Earth Economics (Seattle NGO) is particularly interested in conducting an analysis for the coast and recently finished an analysis for Puget Sound (http://www.eartheconomics.org/A_New_View_of_the_Puget_Sound_Economy.pdf)

<p>2) Update Salmonid Stock Inventory</p>	<p>T</p>	<p>N</p>	<p>T</p>	<p>N</p>	<p>T</p>		
<p>Reassess coastal salmonid populations</p>	<p>T</p>	<p>N</p>	<p>T</p>	<p>N</p>	<p>T</p>	<p>Improves baseline knowledge of salmon and steelhead populations and trends which improves quality of informed decision making; may fill large data gaps for "unknown" populations</p>	<p>Requires extensive co-manager consultation, negotiation, and on-the-ground assessment/validation; unlikely to be available to inform the forthcoming regional salmon plan</p>
<p><u>INTERFACE WITH REGIONAL SALMON PLANNING:</u> 1 to 3 year process not currently initiated; Plan should address the need for updated and improved stock information; Plan should address updates through adaptive management</p> <p><u>COST ESTIMATE:</u> TBD, estimated at \$180K - \$300K including 2 FTE's and GIS support</p> <p><u>COMMENTS:</u> Dr. Dayv Lowry is current contact at WDFW for SaSI work (Dayv.Lowry@dfw.wa.gov).</p>							

<p>3) Broad-scale Habitat Assessments</p>	<p>N</p>	<p>N</p>	<p>T</p>		<p>T</p>		
<p>Improve Limiting Factors Analyses</p>	<p>N</p>		<p>T</p>		<p>T</p>	<p>Updates could be finished within 1 year, if funding was in hand and priorities were clearly established; an estuarine and sediment delivery analysis could be done within 2 years; highly regarded process and effective means to collate data critical to the understanding of salmonid recovery and protection; basis for a suite of databases (e.g., SSHIAP)</p>	<p>Lack of legislative support to implement project (ESHB 2496); not previously identified as a top priority by local stakeholders</p>
<p><u>INTERFACE WITH REGIONAL SALMON PLANNING</u>: 1 to 2 years to complete; clearly documented as a priority need for WCSSP in "Needs Assessment" report; available to supplement Plan, but not available to inform the first draft; critical information to integrate into Plan through adaptive management</p> <p><u>COST ESTIMATE</u>: \$234,100 including 1 FTE Coordinator and supporting GIS consultants</p> <p><u>COMMENTS</u>: Dr. Carol Smith has a proposal ready to go that could be amended to meet the needs of WCSSP. However, this project would require additional match not yet identified.</p>							

4) Data Stewardship	N	N	N		T		
Institute data stewardship	N	N	N		T	Improves quality and quantity of technical information available to WCSSP and its stakeholders for informed decision-making; maintains and improves access to the central repository for published data in the Coast region (E-Library)	Mechanism for comprehensive data stewardship not clearly defined by WCSSP at this time; may require additional staffing (1 FTE) to assure priority tasks are accomplished for WCSSP's scope, vision and mission

INTERFACE WITH REGIONAL SALMON PLANNING: Data stewardship options include in-house staffing, interim outsourcing, or long-term outsourcing. Due to an expedited planning process, the interim outsourcing option may be a good option for achieving the goals of the Plan since hiring new staff requires additional administrative duties that may delay the planning process. However, upon the Plan's completion, WCSSP may have more clearly defined needs, funding sources and partnerships to facilitate long-term data stewardship

COST ESTIMATE: 1 FTE (~\$40-\$90K, depending on skill set desired); .10 - 3 FTE in match from partner organizations

COMMENTS: Data Stewardship can be addressed in a variety of ways. Options include: 1) leverage resources and services through WCSSP partners; 2) establish formal partnership with an appropriate institution (e.g., academic, governmental, non-governmental); 3) in-house staffing with 1 FTE. The responsibility of the Data Steward may include the following tasks: synthesize and manage existing data; cultivate technical partnerships that advance WCSSP's mission; implement analyses using standardized spatial tools; populate and manage regional E-library; serve as liaison to WCSSP's technical representatives

ⁱ Table developed at recommendation of WCSSP Interim Advisory Committee (October 21, 2009) to supplement Needs Assessment report. Table serves as a decision support tool for allocating technical funds to support regional salmon plan development. Compiled with direction from Ad-Hoc Technical Allocations Committee by Devona Ensmenger (December 7, 2009). **Ad-Hoc Technical Allocations Committee:** Phil Miller, Katie Krueger, Key McMurry, Ed Bowen, Rich Osborne, Devona Ensmenger, Dana Dietz, Mile Batchelder (meeting held at Port of Grays Harbor, November 18, 2009). **Resources Consulted:** Dr. Carol Smith (WA Conservation Commission), Bruce Jones (NWIFC), Greg Blair (ICF Jones and Stokes), Dr. Gordon Reeves (USFS-PNRS), Mindi Sheer (NOAA-Fisheries), Dr. Jeff Baumgartner (Wild Salmon Center)

ⁱⁱ **TOP NEED:** identified in regional workshop convened on July 22, 2009 and documented in Coastal Lead Entities Needs Assessment report drafted by Creative Community Solutions (October, 2009)

ⁱⁱⁱ **NEED:** identified in regional workshop convened on July 22, 2009 and documented in Coastal Lead Entities Needs Assessment report drafted by Creative Community Solutions (October, 2009)