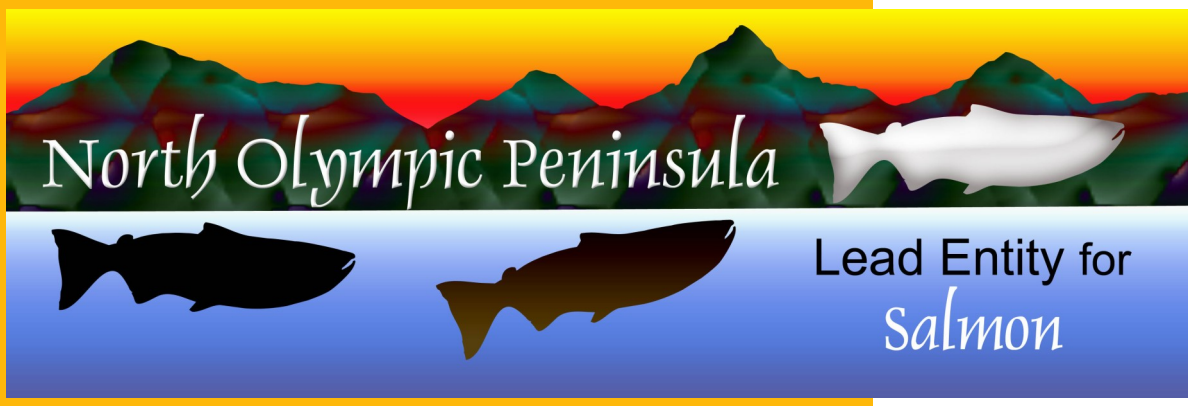
# North Olympic Peninsula Lead Entity for Salmon




# 2011
# Salmon Recovery Strategy

**NOPLE**

**This report is a result of the collaborative work of the North Olympic Lead Entity for Salmon, its members, stakeholders, consultant and staff. It builds on previous work accomplished by Walter H. Pearson, Ph.D. of Peapod Research and Sam Gibboney of ISE Consultants.**

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**http://hws.ekosystem.us/**

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**Abbreviations**

AHA = All - H Analysis

EDT = Ecosystem Diagnostic Team

ESA = Endangered Species Act

LEG = Lead Entity Group

LWD = Large Woody Debris

NOPLE = North Olympic Peninsula Lead Entity

PSP = Puget Sound Partnership

TBD = To be determined

TRG = Technical Review Group

VSP = Viable Salmonid Population

WRIA = Water Resource Inventory Areas

# PREFACE

**Results of the 2010 Salmon Recovery Strategy Retreat**

On October 20 & 21, 2010, NOPLE held the 2010 Salmon Recovery Strategy Retreat with the intention of reviewing and updating NOPLE goals and objectives, process and criteria, and watershed priorities. NOPLE preparation for adaptive management and the maintenance of a strategic approach to salmon recovery were also topics of discussion. Participants at this Retreat included TRG & LEG members.

**Goals and Objectives**

Retreat participants affirmed the original 2008 NOPLE Strategy goals and only fined tuned a few of the original objectives. Changes to measurable objectives derived from the five NOPLE goals are reflected in the updated objective summary Tables B - F (pgs. 24 to 30).

**Watershed Priorities**

Retreat facilitators asked participants to review the stock status & trends and watershed current and historic productivity data (Appendix B) and the algorithm used to determine watershed priorities. Data was determined to be the same as in 2008. Participants recognized a need to refine the watershed priority algorithm, but time was not available for participants to do so at the Retreat. They decided to retain the four criteria and weights for watershed priorities from the NOPLE 2008 Strategy Workshop. A technical subcommittee will be appointed to examine the "Historic Productivity" and "Current Productivity" criteria and to consider an additional "progress" or "gap" criterion, such as summer base flow, miles of accessible habitat, and miles of treated or protected habitat.

**Project Prioritization Criteria**

Major changes were made to the criteria for prioritizing projects in the NOPLE 3-year work plan and project proposals. Four criteria for ranking capital projects were reworded for clarification. In efforts to make NOPLE more strategic, two new criteria were added for ranking capital projects that address a project's "readiness" to proceed and its "spatial and temporal scale of influence". Project management criteria were added for ranking non-capital projects.

Retreat Participants decided that criteria 1 to 8 inclusive are to be used to judge capital projects for the 3-year work plan, while criteria 1 to 13 are to be used for capital project proposals. Criteria 1 to 9 inclusive are to be used to rank non-capital projects for the 3-year work plan, and criteria 1 to 12 are to be used for non-capital project proposals. New and revised capital and non-capital criteria and weights for ranking projects are listed in Appendix C.

**Adaptive Management**

A technical subcommittee will be formed in the near future to prepare for the development of an Adaptive Management Plan for NOPLE.

The following document is the updated 2008 NOPLE Salmon Recovery Strategy.

## INTRODUCTION

While there are many different organizations in Clallam County, Washington working on saving salmon and ecosystem restoration, the North Olympic Peninsula Lead Entity is unique in its big picture approach. The North Olympic Peninsula Lead Entity (NOPLE) is the umbrella organization that brings representatives from most of the different stakeholder groups together to coordinate salmon recovery efforts across the North Olympic Peninsula.

NOPLE members include representatives of: the Jamestown S'Klallam, Elwha Klallam and Makah Tribes, Clallam County, the Cities of Port Angeles and Sequim, Olympic National Park, Clallam Conservation District, Clallam Marine Resources Committee, North Olympic Salmon Coalition, Coastal Watershed Institute, Streamkeepers, North Olympic Land Trust, the Washington Department of Fish and Wildlife, and the Puget Sound Partnership.

There are citizen members who participate with NOPLE, as well as through their work with the Dungeness River Management Team, the Elwha Morse Management Team and the WRIA 19 Planning Group. There is also participation and coordination with the North Olympic Land Trust and the Wild Fish Conservancy, as well as with members with ties to sports fishing, harvest, and hatchery.

In 1998, the Washington State Legislature passed the Salmon Recovery Act (HB 2496, now codified along with several amendments under RCW 77.85) to address the decline of salmon in this state. The Salmon Recovery Act set up the Salmon Recovery Funding Board (SRFB) and the Lead Entity Program.

Washington State is one of the recipients of the yearly-allocated federal Pacific Coastal Salmon Recovery Fund. The Washington State legislature allocates a portion of these funds, plus additional state dollars, to the SRFB. The SRFB allocates these funds to salmon habitat recovery projects based on a competitive process that is coordinated locally by the respective lead entities. Each lead entity is responsible for coordinating the process of identifying and prioritizing salmon recovery projects within certain geographical boundaries. The North Olympic Peninsula Lead Entity Group (NOPLE) is one of these lead entities.

## SALMON RECOVERY FUNDING BOARD

The SRFB is made up of five Governor-appointed citizens and representatives from five state agencies. There are eight types of projects that can be submitted by applicants through the Lead Entity for funding consideration: acquisition, in-stream diversion, in-stream passage, in-stream habitat, riparian habitat, upland habitat, estuarine/marine nearshore, and assessments or studies.

## 2008 UPDATE OF STRATEGY

NOPLE is updating its strategy for several reasons. Explanations of those reasons are described as follows:

## GEOGRAPHIC SCOPE

First, the geographic scope has changed. Previously, NOPLE's geographic range spanned from Sequim Bay west through Cape Flattery and from Cape Flattery south through the Hoh River. It encompassed two unique coastal systems (Strait of Juan de Fuca and the Pacific Ocean) and over 2,330 square miles. Its management included two counties, three cities, five native tribes and 3.5 Watershed Resource Inventory Areas (WRIAs). In 2007, WRIA 20 formed its own Lead Entity Group and is no longer a part of NOPLE. The new NOPLE area spans the Strait of Juan de Fuca from Sequim Bay to Cape Flattery and includes WRIA 18 and 19 and part of 17. Please see Figure 1 below.

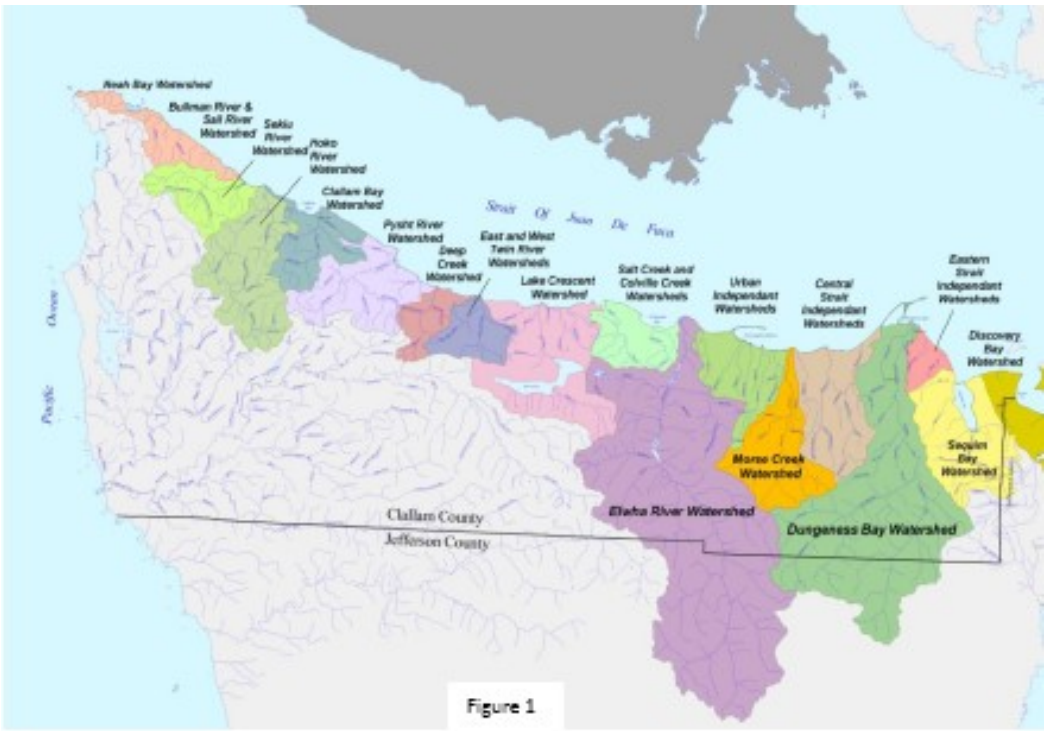

Figure 1

## PUGET SOUND PARTNERSHIP

Another recent development also spurred NOPLE to update its strategy. That is the formation of the Puget Sound Partnership (PSP or Partnership). The Partnership was formed in May 2007 (SB5372) and was charged to create an action agenda that leads to a healthy Puget Sound. The mission of the

Puget Sound Partnership is ecosystem restoration and is not limited to salmon recovery, though many would argue that the two are inextricably intertwined.

NOPLE relates to the Puget Sound Partnership in two ways. First, the lead entity groups throughout Puget Sound are being asked how their strategies and work plans are integrated with the ecosystem recovery objectives of the Puget Sound Partnership (see Appendix A). Second, the Puget Sound Partnership has replaced the organization Shared Strategy as the Regional Recovery Organization for recovery of species listed as threatened under the federal Endangered Species Act (ESA). The ESA requires that a recovery plan for listed species be developed and that one organization become the responsible agency. The Partnership is looking to NOPLE to be the local implementer of these ESA recovery efforts.

## ESA SPECIES RECOVERY

Four species found within NOPLE's geographic area areas listed as threatened under the Endangered Species Act:

1. Puget Sound Chinook
2. Hood Canal and Eastern Strait of Juan de Fuca (HCES) summer Chum
3. Olympic Peninsula Steelhead
4. Coastal/Puget Sound Bull Trout

As stated above, each listed species requires a recovery plan and a recovery organization. The Puget Sound Partnership is the Regional Recovery Organization for Puget Sound Chinook and Puget Sound Steelhead as well as a portion of the Coastal/Puget Sound Bull Trout. However, the Hood Canal Coordinating Council, another Lead Entity, is the Regional Recovery Organization for HCES summer chum.

In addition, listed Chinook have been found in the WRIA 19 nearshore during the 2008 juvenile fish use assessment. That information has been forwarded to NOAA for review. A draft review salmon recovery plan has been recently completed, which is expected to be part of the Chinook Recovery Plan. WRIA 19 is currently assessing the salmon stocks within that geographic area which is widely expected to result in the need for an additional ESA recovery plan.

## RECOVERY PLAN INTEGRATION

NOPLE has been given clear direction to coordinate and integrate their efforts with the wider regional plans. Specifically, it has been asked to demonstrate how NOPLE's recommended projects support and integrate with the recovery goals of the Puget Sound Chinook, HCES summer chum, and

steelhead recovery plans. However, it has also been asked to demonstrate how its recommended projects support the ecosystem recovery plan of the Puget Sound Partnership. This latter responsibility relationship is challenging as the action agenda of the Partnership is still being developed. This strategy intends to be flexible enough so that as parameters change and a more refined Partnership agenda develops, they can easily be incorporated into the work plan.

## ALL H INTEGRATION

In salmon recovery, the issues of habitat, hatcheries, harvest, and hydropower are frequently referred to as the 4 H's. The Puget Sound Technical Review Team (TRT), the group tasked with providing technical guidelines to the lead entity groups, also requested that NOPLE demonstrate how its strategy integrates with other management strategies. For example, there may be efforts underway to address high harvest rates of a specific run. Including this information within the evaluation of work plan actions is critical. This is not to say that NOPLE will become responsible for management of all four H's. Rather, it is expected to make decisions and document such consideration with full regard for other management strategies and actions.

## PROGRESS MEASUREMENT

The Washington State Legislature, in authorizing both the Salmon Recovery Planning Act and the Puget Sound Partnership, has requested that implementing agencies clearly demonstrate progress towards their goals. Demonstration of progress towards goals can be addressed both programmatically and empirically. For programmatic progress, a method of tracking implementation of actions and projects and reporting their status is required.

For example, the TRT notes:

Projects are still listed for stock assessments and enforcement, but no status update is provided (i.e. have they been proposed, funded or implemented? Are the base level programs being built upon still intact?)

Collection of empirical data can assist with two processes. First, the data can be supplied to regional recovery efforts to help assess their progress. Second, such data can be used as part of an adaptive management program. Adaptive management is addressed later in this document.

## FUNDING

Up to this point, NOPLE has been an organization focused on the process of prioritizing projects and actions for recommendation for funding from the SRFB and the Community Salmon Fund. However, NOPLE is an organization in transition. The TRT has specifically noted that "increasing

and diversifying project funding sources will enable the team to implement the work plan more aggressively." NOPLE is being asked to develop clear goals and objectives with success metrics that could attract funding from additional sources.

## PURPOSE OF THE STRATEGY

The NOPLE 2008 Strategy is intended to provide clear and concise direction to NOPLE's activities, programs and projects, and more specifically, to form the basis for the rolling 3-year Work Plan. This updated strategy is not meant to be an exhaustive and detailed list of assessments or projects. Rather, the strategy is meant to provide guidance that is:

- Robust to changing circumstances and enduring over long-term
- Able to accept and apply new knowledge
- Inclusive of topics, groups and perspectives

Specific objectives for this updated strategy are to provide:

- Explicit statements of NOPLE's mission, vision and goals.
- The basis to develop objectives under each goal that are:
    - o Measurable
    - o Conducive to forming metrics of progress and success
- Re-examination and refinement of the procedures that enable NOPLE to make informed decisions concerning its activities and the prioritization of its projects (RCW 77.85.130) in light of emerging needs and the changed NOPLE area
- The basis for the Work Plan (Habitat Project List under RCW 77.85.060)
- An approach to developing an Adaptive Management Plan and associated monitoring activities (RCW 77.85.005).

## EXISTING STRUCTURE AND STRATEGY

### STRUCTURE

Since NOPLE's geographic area has changed, there has also been a change in membership. The following describes the existing structure:

NOPLE consists of two organizational groups:

Lead Entity Group

Technical Review Group

And three citizen groups:

Dungeness River Management Team

Elwha Morse Management Team

WRIA 19 Citizens Group

LEAD ENTITY GROUP

The Lead Entity Group (LEG) is a policy group composed of government staff appointees. Each of the individuals in the LEG is appointed by one of the entities that make up NOPLE. The Lead Entity Initiating Government include:

Clallam County

Jamestown S'Klallam Tribe

Lower Elwha Klallam Tribe

Makah Tribe

City of Sequim

City of Port Angeles

The LEG meets monthly and uses scientific recommendation as well as socio-political and community interest as criteria. These factors are used when considering recommendations from the Technical Review Group (TRG) and Citizen Facilitation Group (CFG). It also uses the same criteria when considering TRG and CFG scores, ranks and comments when finalizing the prioritized project list to be submitted to the SRFB.

## TECHNICAL REVIEW GROUP

The Technical Review Group is composed of scientists or people with extensive knowledge of local salmon and their habitat. The TRG meets monthly to assess new information and scientific understanding of how that might affect the strategy and recovery and habitat restoration actions. The TRG is involved with updating the 3-year Work plan which guides recovery efforts. The TRG is also responsible for updating the status and trends of area fish stocks. The TRG also provides technical assistance and feedback to applicants applying for SRFB, Community Salmon, Puget Sound Estuary and Salmon Restoration Program Funding and Puget Sound Acquisition and Restoration Funds. The TRG then provides the Citizen Facilitation Groups and Lead Entity Group with scores, ranks and comments on proposed SRFB projects.

## CITIZEN FACILITATION GROUPS

The Citizen Facilitation Groups are composed of people who have general interests in salmon recovery or who have specific knowledge of local projects or streams. As residents, they are often the most aware of specific stream or river conditions and can propose projects that would enhance the life cycle of salmon. There are currently three CFGs, one for WRIA 19, which is the Watershed Planning Group, and two for WRIA 18, which are the Dungeness River Management Team (DRMT) and the Elwha Morse Management Team (EMMT). They provide the LEG with scores, ranks and comments on proposed SRFB projects within their geographic area.

Stakeholders, as defined by the LEG, are those that have a direct interest or responsibility in a watershed or nearshore area. They include landowners, fish interest organizations, governments, co-managers (tribes and Washington Department of Fish and Wildlife), individual fish experts and project sponsors. Stakeholders can participate in the development of project lists by submitting project ideas and/or reviewing draft projects lists.

## PROJECT SPONSORS

A final group participates in the NOPLE project selection process; the group is composed of agencies, groups and/or individuals that propose projects. Potential project sponsors can use the Lead Entity Strategy as a tool to identify and propose salmon habitat restoration and protection projects. Project sponsors typically are public and private groups and individuals. They include groups such as Regional Fisheries Enhancement Groups (RFEG), city, county, tribal, and state governmental agencies, community groups and non-government organizations.

Project applicants fill out a project application and submit it to the Lead Entity for consideration. To ensure the success of projects funded through the Lead Entity process, project applicants are required to submit letters of support from affected landowners. The Lead Entity then applies its strategy through its local technical and citizens committees to evaluate and prioritize the projects in its unique but consistent process.

## STRATEGY

Each Lead Entity develops a recovery strategy to guide its selection and ranking of projects. The strategy prioritizes geographic areas and types of restoration and protection activities. They identify salmon species needs, as well as identify local socio-economic and cultural factors as they relate to salmon recovery. These strategies can increase effective decision- making by Lead Entities and define and clarify roles between Lead Entities and the broader salmon recovery planning environment.

## CURRENT FUNDING

NOPLE is funded by a two-year biennial grant from the Washington Department of Fish & Wildlife (WDFW), which oversees the lead entity programs statewide. WDFW contracts with Clallam County for this grant on behalf of the Lead Entity.

During this biennial budget period, the Lead Entity has received additional bonus capacity monies from WDFW, plus funding from the Puget Sound Acquisition & Restoration (PSAR), which are state funds approved during last year's legislative session.

In this past round, the Lead Entity was responsible for submitting grant requests to the SRFB and to Shared Strategy for legislative funds. This year it is expected that the Lead Entity will recommend projects for SRFB funding. Some NOPLE stakeholders are also expected to participate in a joint process along with the Hood Canal Coordinating Council to prioritize a list of summer chum projects to be funded.

The Lead Entity also interfaces with the Puget Sound Estuary and Salmon Restoration Program and the Community Salmon Fund.

The Puget Sound Estuary & Salmon Restoration Program (ESRP) is sponsored by the Puget Sound Nearshore Partnership (Nearshore Partnership). The Nearshore Partnership has run two funding rounds thus far. Although NOPLE submitted a project for a sponsor during the first round, NOPLE encourages individual project sponsors to apply directly to the Partnership for funds. In the second round, NOPLE provided technical assistance to applicants to help them improve their chance of success. Two projects on the North Olympic Peninsula were approved to receive funding.

The Community Salmon Fund generally funds two $50,000 restoration projects annually on the North Olympic Peninsula. That funding comes from the National Fish & Wildlife Foundation and the SRFB. NOPLE generally helps to publicize this funding opportunity and then coordinates TRG members to review those projects and make funding recommendations.

## 2008 STRATEGY AND RESULTS OF WORKSHOP

To update the strategy, NOPLE held workshops on February 20th and 21st, 2008. Participants at these workshops included members of the LEG, the TRG and representatives of project proponents. At the February 20th and 21st, 2008 workshops, facilitators helped the participants refresh NOPLE's mission statement, vision and goals. The facilitators also gathered preliminary input concerning objectives, decision-making procedures and an Adaptive Management Plan. The decision-making procedures for prioritization of projects were examined by the participants in a March 5th workshop. This document is the result of those workshops and consideration of guidelines, previous Technical Review Team Comments, and the enabling legislation.

## STRATEGIC APPROACH

This plan uses a strategic approach model for prioritizing activities and tasks and evaluating their effectiveness. This strategic approach is described graphically in Figure 2 (pg 15). In summary, development of a vision leads to goals necessary to achieve that vision. Measurable objectives and their corresponding success metrics are derived from the goals. Assessments of existing conditions lead to strategies for achieving objectives. Strategies identify tasks and these tasks must be prioritized according to criteria that are derived from the success criteria. Tasks are commonly referred to as projects and will appear in the work plan. The work plan, with prioritized tasks or projects, helps guide the group in seeking funding and implementing recovery efforts. Of course, in order for the efforts to be truly effective they must be monitored at both the project and regional level. Therefore, Figure 2 depicts monitoring and adaptive management as iterative steps that lead to evaluation and adjustment of efforts.

The following page (Figure 2) describes the development of NOPLE's vision, goals, and objectives.

## VISION

The workshop participants articulated the following vision:

NOPLE envisions a future for the North Olympic Peninsula in which the human population achieves and maintains a healthy Puget Sound ecosystem within which healthy salmon populations supports ceremonial, subsistence, recreational, and commercial fisheries.

## GOALS

The workshop participants also articulated the following goals:

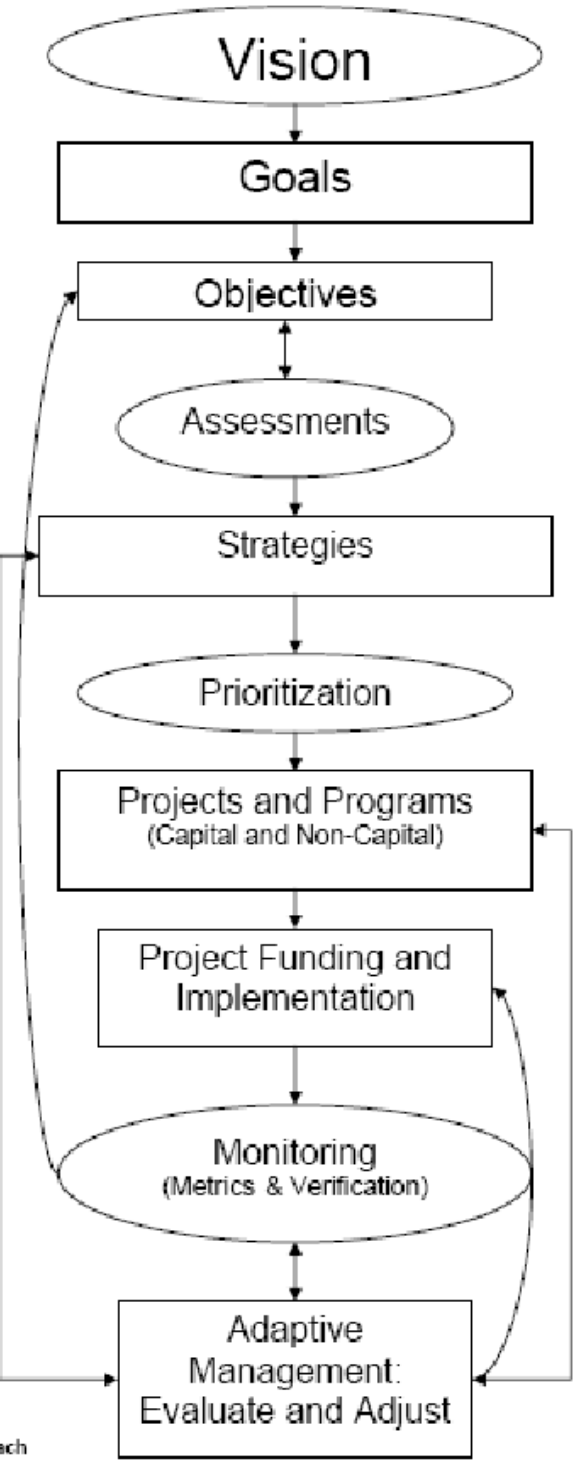


Figure 2
Strategic Approach

1. Achieve fish stocks that are robust to changing conditions, self-sustaining over the long term, and capable of supporting harvests (ceremonial, subsistence, recreational, and commercial)
2. Implement the salmon recovery plans to protect and restore fish habitat on the North Olympic Peninsula.
3. Restore and maintain ecosystem function on the North Olympic Peninsula.
4. Instill ecosystem awareness.
5. Integrate efforts towards these goals with larger visions for overall salmon recovery and restoration of the Puget Sound ecosystem.

The intent of the goals is to achieve the NOPLE vision articulated above by showing the pathways to be taken in NOPLE's activities and projects.

The first goal has been implicit in NOPLE's activities but is explicitly re-affirmed here to align with the NOPLE vision. The first goal also reflects the conclusion of the workshop participants that a healthy fish stock is more than just robust and self-sustaining. A healthy stock supports harvest as well.

The second goal has been the essence of the NOPLE mission since its inception and will remain the major element of NOPLE's activities and projects. However, the second goal also reflects an expanded scope of activities that flows to NOPLE from its relationship to PSP and the role of PSP as the regional entity for recovery of all salmon stocks other than summer chum. Pursuing this goal will also bring NOPLE to coordinate activities on the North Olympic Peninsula with the Hood Canal Coordinating Council (HCCC), which is the regional recovery organization for summer chum.

Although the third goal, maintaining and improving ecosystem productivity, was a goal recognized in NOPLE's 2004 Strategy, the goals and objectives of PSP (Appendix A and Table D) for recovery of the Puget Sound ecosystem give this goal an increased emphasis and expanded scope.

The fourth goal rests on a strong recognition that progress on the other goals needs to be supported by increased awareness of what constitutes a fully-functioning ecosystem. The workshop participants were vocal about the fact that there are two-way interactions between salmon and the Puget Sound ecosystem. All groups need this awareness: decision makers, scientists, project proponents, and the public.

The fifth goal recognizes that NOPLE is not alone in its efforts to restore salmon and ecosystems on the North Olympic Peninsula. NOPLE's efforts need to be integrated with those of other organizations in both formal and informal ways.

Each goal is to be supported by objectives that are measurable ways to demonstrate progress and success. The objectives are also to be credible because they are science-based and community-influenced.

Goals, objectives and proposed metrics are summarized in Table A (pg. 24).

OBJECTIVES

The objectives that support each goal are summarized in Tables B - F (pgs. 25 to 30). These tables also provide the proposed success metrics for the objectives. Success can be measured at project, watershed, and area-wide levels. However, the cumulative effects of a series of protection and restoration activities need to be measured at the watershed and area-wide levels. A set of broad-area measurable objectives and success metrics appears in Table G (pg 31). Using best available science, the TRG will provide the threshold and other values needed to complete the table and develop it into a useful tool to measure progress and success supporting the first three NOPLE goals.

PRINCIPLES AND VALUES

The NOPLE participants and the NOPLE 2004 Strategy indicated that NOPLE's program development needs to be true to the following values and principles:

Protect the best and restore the rest

All stocks need attention

Use best available science

Recognize social and political values

Address limiting factors

Build capacity first before embarking on new goals and objectives

Seek credible projects that are science-based, technically feasible, and economically realistic

Order to be followed: Prevent imperilment, bring to robust, self-sustaining status, bring to harvestability

Practice a land ethic

Change the nature and extent of the human footprint.

The first two principles require more detailed explanation. The dilemma faced in the 2004 Strategy still confronts us today. That dilemma is that a diversity of stocks within the NOPLE area and that the status of these stocks ranges from weak to strong. Moreover, most are in decline to some degree. NOPLE's programs need to provide a balance between protection and maintenance of strong stocks

and restoration of weak stocks. Attention to all stocks is needed to prevent the degradation in stock status.

## STATUS AND TRENDS OF FISH STOCKS

The status and trends of NOPLE area fish stocks is summarized in Appendix B. The comparison of historic and current productivity by watershed also appears in Appendix B. The table and figure and supporting data in Appendix B are drawn from the NOPLE 2004 Strategy. The TRG is responsible for updating the assessment of status and trends and we recommend that this update be done every five years.

## LIMITING FACTORS

Limiting factors generally include but are not limited to such conditions as the following:

- Insufficient instream flow
- Lack of Large Woody Debris (LWD) in stream
- Barriers to fish passage (culverts and dams)
- Poor riparian vegetation
- Poor off-stream rearing and overwintering habitat

The limiting factors assessment can be found in the NOPLE 2004 Strategy. The TRG is tasked with assessing limiting factors. We recommend that the limiting factors assessment be updated every five years.

## DECISION MAKING

The draft 2008 Strategy now has the NOPLE goals and objectives. Under each goal, the associated objectives provide the pathway to the goal. Objectives also indicate the types of activities, programs, and projects that are needed. When these items have been identified, NOPLE can use the decision-making process to rank the items. The decision criteria developed on March 5, 2008 are for ranking projects, primarily habitat protection and restoration projects. NOPLE's agenda needs to list activities, programs, and projects beyond just habitat projects. From this "umbrella" list will come the projects submitted to different sponsors aligned with that sponsor's focus. There will be items on the list for which there are currently no sponsor or no proponent. Such items move NOPLE to find sponsors and proponents as part of its agenda.

The steps to the process are the following:

1. Assemble LEG and TRG
2. Develop Strawman Criteria
3. Weight the criteria
4. Calculate mean and Standard Deviation of weights
5. Re-iterate if necessary
6. Finalize criteria and weights (See Technical Note appended to Three Year Work Plan Narrative)
7. Identify constraints and preferences (screens)
8. Develop list of "big picture" items at the NOPLE-wide level
9. Apply constraints to screen items
10. Score items against criteria
11. Calculate weighted scores by multiplying score under each criterion by its weight
12. Use sum of weighted scores to rank items

Separate sets of criteria and weights were developed for habitat projects and non-capital projects. Please see the Technical Note appended to the Three Year Work Plan Narrative.

## ROLE OF ADAPTIVE MANAGEMENT

Adaptive Management (AM) is a rigorous, systematic, iterative process for optimal decision-making in the face of uncertainty, and its aim is to provide information that reduces uncertainty and leads to more informed decisions over time. The statute establishing salmon recovery efforts in Washington State (RCW 77.85.005) calls for the integration of AM into the salmon recovery effort. NOPLE received guidance indicating that incorporation of AM into lead entity decision-making was going to be increasingly emphasized. The AM process modified from Murray and Marmoek (2003) includes the following steps:

1. Assess
2. Design
3. Implement
4. Monitor
5. Evaluate

6. Adjust

The first step bounds the problem and identifies the critical uncertainties and potential alternatives.

The second step is part of the program or project design. It includes developing the alternatives and establishing the explicit predictions or hypotheses associated with the alternatives. In the second step, an action is selected and project specifications for the action are developed. A monitoring plan is developed to provide the explicit measurements to be used to test predictions.

The third step implements the program or project element selected.

The fourth step monitors the outcomes with attention to the measurements to test hypotheses.

The fifth step evaluates the outcomes to determine the accuracy of the predictions. This step advances the state of knowledge concerning what works and does not work.

The sixth and last step is to adjust the actions in present or future projects as a result of what has been learned.

AM can be used to:

Test assumptions that govern a program

Assess which of several alternatives actually work

Develop better measures of progress and success, and most importantly,

Enable programs and projects to move forward despite the fact that not everything is known or understood

The TRG will develop an Adaptive Management Plan for NOPLE. The plan will identify the critical uncertainties that need to be addressed at each of three levels: Project, Watershed and NOPLE area-wide. An associated monitoring plan will also be developed at the watershed and area-wide levels.

PROGRESS AND SUCCESS

The exact routes by which NOPLE will communicate progress and success will be determined as an element in the development of an outreach and education program. This will be an objective under the goal of instilling ecosystem awareness. The outcomes of measurements for the success metrics will need to be part of such a program.

FUNDING

NOPLE needs to diversify its funding sources beyond its present ones. SRFB representatives have advised NOPLE against simply staying with its present funding sources. Additional funding sources are expected to become available to support other aspects of salmon recovery beyond habitat restoration and will support ecosystem restoration. To capitalize on the opportunities presented by these emerging funding sources,

NOPLE needs to provide for them in its Strategy and its 3-Year Work Plan.

OUTPUT TO WORKPLAN

Beyond the projects currently listed in the present 3-year plan, NOPLE needs to add activities and projects to address the following critical success factors:

Continue its viable program of habitat protection and restoration

Update the assessment of stock status and trends

Update the limiting factors assessment

Build capacity to deal with implementation of recovery plans

Build capacity to address restoration of ecosystem function

Propose projects for restoring ecosystem functions

Fulfill statute requirements for decision making to flow from the strategy

Identify critical data gaps and approaches to fill the gaps

Develop an Adaptive Management Plan and associated monitoring program

Provide for increased public involvement

Update bylaws

Expand and diversify funding sources

To expand and diversify funding sources, capacity needs to be built not only within NOPLE but also among NOPLE's partners and project proponents. As future projects become more complex and take on ecosystem restoration aspects as well as the salmon habitat restoration, the scientific and engineering capability amongst NOPLE's community will need to expand to deal with the emerging needs.

## CONCLUSION

The recovery of both salmonids and the overall health of Puget Sound require a strategic approach to assessing effectiveness of efforts. The members of the Lead Entity Group and Technical Review Group have worked to present a more transparent process for articulating their strategy and prioritizing their work.

The group re-affirmed its vision and from that developed goals and objectives. These lead to the development of or adoption of regional strategies. These strategies then lead to development of proposed tasks or projects. Many of the proposed projects have been considered before but will be included the 2008 Work Plan in a new strategic context.

Finally, the group adopted a method of screening and ranking projects that is transparent and consistent with the goals and objectives of the strategy.

## APPENDICES

A. Puget Sound Partnership Objectives

B. Stock Status and Trends and Watershed Current and Historic Productivity

**Table A**

**2011 NOPLE Salmon Recovery Strategy**

**Goals, Objectives, and Metrics**

| No. | Goal | Proposed Objectives | Proposed Metrics |
|---|---|---|---|
| 1 | Achieve robust fish stocks | • Support implementation and integration of all H management strategy<br>• Consider hatchery, harvest, hydro and other habitat management strategies in prioritizing actions | • Use VSP metrics |
| 2 | Implement recovery plans and protect and restore fish habitat | • Adopt strategies from specific ESA recovery plan(s)<br>• Develop strategies for other fish population and stocks recovery | • Use VSP metrics<br>• Use NOPLE metrics |
| 3 | Restore and maintain ecosystem function and nearshore processes | • Adopt the objectives of PSP<br>• Focus on protection and restoration of habitat-forming, watershed, and nearshore processes | • Adopt PSP metrics<br>1. Instream flow<br>2. Riparian vegetation<br>3. Assess shoreline armoring |
| 4 | Instill ecosystem awareness | • Create and implement an outreach and education program | • Conduct before and after surveys of attitudes, knowledge, and awareness<br>• Assess change in behavior, such as, increased land use compliance, low impact development<br>• Increase use of native plants |
| 5 | Integrate efforts | • Communicate and network<br>• Provide input to and use the regional and state-wide databases | • Number of partnering organizations<br>1. Complete initial input<br>2. Maintain annual inputs<br>3. Provide access to LEG, TRG and |

## Table B

## 2011 NOPLE Salmon Recovery Strategy

| Goal 1: Achieve robust fish stocks | | | | |
|---|---|---|---|---|
| **Objectives** | **Assessments** | **Strategies** | **Tasks** | **Metrics** |
| **Support implementation and integration of all H management strategy** | Assess populations | | 1. Assess populations using VSP metrics<br>2. Establish monitoring program for VSP metrics<br>3. Report data/findings to regional and co-managers for use in EDT or AHA | Use VSP metrics |
| **Consider hatchery, harvest, and other habitat management strategies in prioritizing actions** | 1. Document consideration of key questions to identify issues for harvest, habitat and hatchery interactions<br>2. Document consideration of steps in development of an integrated salmon recovery strategy | | | |
| **Attend to all stocks** | Assess populations | Develop monitoring program using local parameters | 1. Assess population using VSP metrics<br>2. Establish monitoring program for VSP metrics | Use VSP metrics |

**› I. Document consideration of key questions to identify issues for harvest, habitat and hatchery interactions.**

1. Given the VSP attributes of a population, what role has each H played in the condition of the population?
2. Has any VSP attribute been irretrievably altered? (Generally applies more to diversity and spatial structure)
3. Is the population imperiled by changes in any particular VSP attribute or combination of attributes in the short or long term?
4. What H strategies have the greatest probability for addressing this change?
5. Given the strategies, what actions are necessary to implement them successfully?
6. How do the actions interact and complement one another towards achieving objectives for the population?
7. What are the effect of each action and the cumulative effects of all actions on the VSP attributes?

**□ II. Document consideration of steps in development of an integrated salmon recovery strategy.**

1. Understand or predict the combined effects of the individual H actions on VSP parameters over the life of the actions.
2. Compare the effects of the H action on VSP parameters for the directionality (+ or -), magnitude, time lag and persistence.
3. Choose actions that are complementary in their effects.
4. Time the actions appropriately keeping in mind the state of the VSP attributes and salmon population goals.
5. Sequence the actions appropriately to achieve the desired VSP effects in time to avoid the loss of VSP integrity (the "first things first" principle).
6. Utilize monitoring and adaptive management to address probabilities and uncertainties.

**Table C**

**2011 NOPLE Salmon Recovery Strategy**

| Goal 2: Implement recovery plans and protect and restore fish habitat | | | |
|---|---|---|---|
| **Proposed Objectives** | **Strategies** | **Tasks** | **Proposed Metrics** |
| **Adopt strategies from specific plan(s)** | • Elwha Chinook/ Bull Trout<br>• Dungeness Chinook/ Bull Trout<br>• Hood Canal / Eastern Strait of Juan de Fuca Summer Chum<br>**› SEE BELOW** | Prioritize tasks using decision criteria | Use VSP metrics |
| **Develop strategies for other fish and stock recovery** | • Identify high-quality Protection Habitat through purchase or other arrangement<br>• Develop willing landowners | | • Areas identified and ranked by quality area protected by purchase or easement<br>1. Number of willing landowners<br>2. Area protected or restored with willing landowners |
| **›Other Species and Stocks** | • Restore fish passage | | • Number of barriers (culverts, dams)<br>• Number of barriers (culverts, dams) removed<br>• Before and after measurements of instream flow<br>• Area and stream length of accessible habitat<br>• Before and after surveys of juvenile fish use, adult returns, and reds<br>• Measurements of marine derived nutrients |
| **›Other Species and Stocks** | • Restore instream flow<br>• Restore riparian vegetation | | • Measure hydrograph<br>• Spatial analysis with GIS on data from remote sensing and field surveys |
| **›Other Species and Stocks** | • Restore mature forests | | Spatial analysis with GIS on data from remote sensing and field surveys |
| **›Other Species and Stocks** | • Restore instream habitat | | |

**Table C**

**2011 NOPLE Salmon Recovery Strategy**

**(Continued)**

## › Elwha Chinook/Bull Trout

1. Restore access to the upper Elwha watershed
2. Protect existing functional habitat
3. Restore the floodplain
4. Protect/restore estuaries and nearshore environments
5. Conserve water and protect instream flow
6. Placement of Large Woody Debris

## › Dungeness

1. Restoration of the lower river floodplain and delta to increase the quantity of essential rearing and salt/freshwater transition habitat
2. Protection of existing functional habitat within the watershed
3. Floodplain Restoration/Constriction Abatement (RM 2.6 – 11.3) to alleviate channel constrictions, thereby increasing corresponding channel meanders and velocities, scour and bank erosion reducing gradient
4. Water Conservation, Instream Flows, and Water Quality Improvement/Protection to improve summer low flows and alleviate water quality concerns
5. Restoration of Functional Riparian and Riverine Habitat to improve the quality of riparian habitat and function, including temperature moderation, long-term recruitment of LWD, cover, food production, etc.
6. LWD Placement
7. Nearshore Habitat Protection and Restoration to improve the quantity and quality of estuarine and nearshore habitat
8. Barrier Removal to address passage conditions
9. Sediment Management/Source Control

## › Hood Canal/Eastern Strait of Juan de Fuca Summer Chum

Implement National Forest road maintenance and abandonment program.

**Table D**

**2011 NOPLE Salmon Recovery Strategy**

| Goal 3: Restore & Maintain Ecosystem Function | | | | |
|---|---|---|---|---|
| **Proposed Objectives** | **Assessments** | **Strategies** | **Tasks** | **Proposed Metrics** |
| **Adopt the goals and objectives of the PSP** | | | | Adopt PSP |
| **Protect habitat** | Use assessment of regional ESA recovery plans | Implement strategy of regional ESA recovery plans | Prioritize tasks as per Goal | |
| **Restore habitat** | Use assessment of regional ESA recovery plans | Implement strategy of regional ESA recovery plans | Prioritize tasks as per Goal | |
| **Reduce toxic pollution** | Use assessment of PSP | Consider strategy of PSP in prioritizing of | | |
| **Reduce human/animal waste** | Use assessment of PSP | Consider strategy of PSP in prioritizing of | | |
| **Better manage stormwater** | Use assessment of PSP/ Ecology | Consider strategy of PSP/ Ecology in | | |
| **Preserve biodiversity and recover imperiled species** | Use assessment of regional ESA recovery | Consider strategy of PSP in prioritizing of | | |
| **Build and sustain the capacity for action** | Assess capacity of NOPLE and | | | |
| **Focus on protection and restoration of habitat-forming, watershed, and** | | | | TBD by TRG |
| **Protect, restore, and maintain Instream Flows as defined by WDOE** | Use Ecology/ WDFW assessment | | | |
| **Protect and restore riparian and nearshore vegetation** | Use ESA recovery plan nearshore and local habitat assessments | | | |

**Table E**

**2011 NOPLE Salmon Recovery Strategy**

| Goal 4: Instill Ecosystem Awareness | | | | |
|---|---|---|---|---|
| **Proposed Objectives** | **Assessments** | **Strategies** | **Tasks** | **Proposed Metrics** |
| **Create and implement an outreach and education program** | • Identify obstacles to awareness<br>• Identify target audiences | • Develop marketing and communication tools<br>• Create a media plan | • Prioritize according to decision criteria<br>• Create and maintain a user-friendly website | 1. Conduct before and after surveys of attitudes, knowledge, and awareness<br><br>2. Assess change in behavior, such as, increased land use compliance, and use of Low Impact Development techniques<br><br>3. Increased use of native plants<br><br>4. Resolution of shoreline armoring and/or other structures (groins, breakwaters, docks) |

**Table F**

**2011 NOPLE Salmon Recovery Strategy**

| Goal 5: Integrate efforts | | | | |
|---|---|---|---|---|
| **Proposed Objectives** | **Assessments** | **Strategies** | **Tasks** | **Metrics** |
| **Coordinate efforts amongst agencies and other ecosystem recovery efforts** | 1. Identify impediments to coordination<br>2. Identify all groups and plans that should be considered in prioritizing actions | 3. Develop NOPLE-wide network programs<br>4. Create master schedule for meeting(s) of affected groups | Prioritize according to decision criteria | • Number of partnering organization<br>• Number of specific tasks or projects that benefit from |
| **Provide input to and use the regional and state-wide databases** | 1. Identify all state-wide databases seeking input<br>2. Identify requested database parameters and data sets | Develop monitoring and reporting program | | 1. Complete initial input<br>2. Maintain annual inputs<br>3. Provide access to LEG, TRG and |
| **Develop and implement Adaptive Management Plan** | Stock and habitat assessments | 1. Develop NOPLE-wide Adaptive Management Plan<br>2. Develop NOPLE-wide monitoring program | | |

**Table G**

**2011 NOPLE Salmon Recovery Strategy**

| Stock | Distribution | Abundance | Productivity | Diversity |
|---|---|---|---|---|
| **Salt Creek Coho Objectives** | Return to historic distribution | Escapement Goal = X | Support Y% HR | Run timing broadened to Nov. |
| **Salt Creek Metrics** | % of Area (or stream length) of historic | % of Escapement goal achieved in last three years | % of goal achieved in last three years | Run timing as % of goal |
| **Pysht River Chum** | TBD by TRG | TBD by TRG | TBD by TRG | TBD by TRG |
| **Elwha Chinook** | TBD by TRG | TBD by TRG | TBD by TRG | TBD by TRG |
| **Other NOPLE Area Stocks** | TBD by TRG | TBD by TRG | TBD by TRG | TBD by TRG |

# Appendix A
# Puget Sound Partnership Objectives

## Elements of the Action Agenda

Protecting and restoring a large, complex ecosystem such as Puget Sound requires setting clear goals and measurable outcomes. Goals create common agreement on what it means to have a thriving natural system.

In addition, measurable outcomes can be used to track progress towards achievement of the goals. Integrating goals for natural and manmade systems is new for the Puget Sound region. Although this approach is widely recommended by ecosystem-scale management experts, it has rarely been done.

## Goals

According to the law creating the Puget Sound Partnership, the 2020 Action Agenda will strive to achieve the following six goals by 2020:

### Healthy people supported by a healthy Puget Sound

#### Potential outcomes

• Fish and shellfish are plentiful and safe for people to eat.

• Marine and fresh waters are clean for swimming, fishing and other human uses and enjoyment.

• Air is healthy to breathe.

### The quality of human life sustained by a healthy Puget Sound

#### Potential outcomes

• Aesthetic values, opportunities for recreation and access for the enjoyment of Puget Sound are continued and preserved.

• Upland and marine resources are adequate to sustain the treaty rights, as well as the cultural, spiritual, subsistence, ceremonial, medicinal needs and economic endeavors of the tribal communities of Puget Sound.

• The Puget Sound ecosystem supports thriving natural resource and marine industry uses such as agriculture, aquaculture, fisheries, forestry and tourism.

• The Puget Sound's economic prosperity is supported by and compatible with the protection and restoration of the ecosystem.

### Puget Sound species and the web of life thrive

#### Potential outcomes

• Marine and upland species such as southern resident killer whales, salmon, forage fish, eelgrass, zooplankton and birds exist at sustainable levels into the future.

• Invasive species do not significantly harm the persistence of native species and the functioning of the food web.

• The harvest of fish, wildlife, shellfish and plant species is sustainable so that a healthy food web is maintained.

## Puget Sound habitat is protected and restored

### Potential outcomes

• The amount, quality and location of marine, nearshore, freshwater and upland habitats sustain the diverse species and food webs of Puget Sound lands and waters.

• The amount, quality and location of marine, nearshore, freshwater and upland habitats are formed and maintained by natural processes and human stewardship so that ecosystem functions are sustained.

• The abundance and distribution of invasive species do not significantly harm habitat quality, quantity or the processes that form and maintain habitats.

## Puget Sound rivers and streams flowing at levels that support people, fish and wildlife and the environment

### Potential outcomes

• Sufficient water to support food webs in fresh water and on land and for people to use and enjoy.

• Sufficient fresh water to support estuarine, nearshore and marine food webs and the habitats upon which they depend.

## Puget Sound marine and fresh water are clean

### Potential outcomes

• Toxic contamination and pathogen levels in marine mammals, fish, birds and shellfish do not harm the numbers and health of these species.

• Loadings of toxic contamination, nutrients and pathogens do not exceed levels consistent with healthy ecosystem functions.

• The waters in Puget Sound region are safe for drinking, swimming and

recreation.

## Objectives

By law the Puget Sound Partnership will develop and carry out the Action Agenda to achieve the following eight objectives.

The eight objectives are:

- Protect habitat
- Restore habitat
- Reduce toxic pollution
- Reduce human/animal waste
- Better manage stormwater
- Assure adequate water supply for people, wildlife
- Preserve biodiversity and recover imperiled species (including salmon)
- Build and sustain the capacity for action

Measurable outcomes for each objective must specifically describe what will be achieved, how it will be quantified, and how progress toward outcomes will be measured.

Though the Action Agenda is not complete until its adoption in December 2008, on-the-ground work under most of these eight objectives (with the exception of water supply) is taking place through the 2007-2009 Puget Sound Conservation and Recovery Plan.

# Appendix B

## Stock Status and Trends
## and
## Watershed Current and Historic Productivity
## (Updated March 2008)

## APPENDIX B: 2011 NOPLE STRATEGY

### Stock Status and Trends and Watershed Current and Historic Productivity

### Sorted by WRIA

| | Weights | 2 | 1 | 2 | 1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WRIA | System | Historic Productivity | Current Productivity | Number of Stocks Historically | Number of Stocks Critical or Extirpated | System Priority (Low, Med., High) | Weighted Score | Normal-ized Score (1 to 5) | List of Stocks Histori-cally | List of Stocks Critical or Extirpated |
| 17 | Nearshore | 5 | 3 | 11 | | high | 35 | 4.27 | co, ch, fc, sc, ws, ss, ep, p, bt, ct, so | |
| 17 | 17.0277 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | 17.0284 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | 17.0295 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | 17.0296 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | 17.0297 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | 17.0300 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 17 | Chicken Coop Creek | 2 | 1 | 2 | 1 | low | 10 | 1.22 | co, (ws), ct, (fc) | co, (ws), ct, (fc) |
| 17 | Dean Creek | 2 | 1 | 2 | 1 | low | 10 | 1.22 | co, (ws), ct, (fc) | co, (ws), ct, (fc) |
| 17 | Jimmy-comelately Creek | 4 | 3 | 4 | 2 | Low-restored? | 21 | 2.56 | co, ws, sc, ct | co, ws, sc, ct |
| 17 | Johnson Creek | 2 | 1 | 2 | 1 | low | 10 | 1.22 | co, (ws), ct (fc) | co, (ws), ct (fc) |
| 18 | Nearshore | 5 | 3 | 11 | | high | 35 | 4.27 | co, ch, fc, sc, ws, ss, ep, p, bt, ct, so | |
| 18 | Bell Creek | 1 | 1 | 3 | 2 | low | 11 | 1.34 | co, ws, ct, (fc), (bt) | co, ws, ct, (fc), (bt) |
| 18 | Cassalery Creek | 1 | 1 | 2 | 1 | low | 8 | 0.98 | co, (ws), ct (fc) | co, (ws), ct (fc) |
| 18 | 18.0017 (Cooper Creek) | 1 | 1 | 3 | 1 | low | 10 | 1.22 | co, (ws), ct (fc) | co, (ws), ct (fc) |
| 18 | 18.0159 | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |

| | Weights | 2 | 1 | 2 | 1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WRIA | System | Historic Productivity | Current Productivity | Number of Stocks Historically | Number of Stocks Critical or Extirpated | System Priority (Low, Med., High) | Weighted Score | Normal-ized Score (1 to 5) | List of Stocks Histori-cally | List of Stocks Critical or Extirpated |
| 18 | Agnew Creek (18.0172) | 1 | 1 | 1 | 1 | low | 6 | 0.73 | unknown | unknown |
| 18 | Bagley Creek | 1 | 1 | 3 | 2 | low | 11 | 1.34 | co, ws, ct (fc) | co, ws, ct (fc) |
| 18 | Dry Creek | 1 | 1 | 3 | 2 | low | 11 | 1.34 | co, ws, ct (fc) | co, ws, ct (fc) |
| 18 | Dungeness River | 5 | 2 | 10 | 7 | high | 39 | 4.76 | co, ch, fc, sc, ep, p, bt, ct, ws, ss | ch, sc, ep, p, bt, ss, ws |
| 18 | Elwha River | 5 | 1 | 11 | 8 | high | 41 | 5.00 | co, ch, fc, (sc),ep, p, bt, ct, ws, ss, so | ch, (sc), fc, ep, p, bt, ss, ws, so |
| 18 | Ennis Creek | 3 | 1 | 5 | 4 | med | 21 | 2.56 | co, ws, ct, fc, bt | co, ws, fc, bt |
| 18 | Gierin Creek | 1 | 1 | 2 | 1 | low | 8 | 0.98 | co, (ws), ct (fc) | co, (ws), ct (fc) |
| 18 | Lees Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 18 | McDonald Creek | 3 | 2 | 4 | 3 | med | 19 | 2.32 | co, ws, ct, fc | co, ws, ct, fc |
| 18 | Meadow-brook Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), (bt) | co, ws, ct, (fc), (bt) |
| 18 | Morse Creek | 4 | 1 | 8 | 7 | high | 32 | 3.90 | co, ch, fc, (sc), p, bt, ct, ws, ss | co, ch, fc, (sc), p, bt, ct, ws, ss |
| 18 | Peabody Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 18 | Siebert Creek | 3 | 2 | 4 | 2 | med | 18 | 2.20 | co, ws, ct, fc | co, ws, ct, fc |
| 18 | Tumwater Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 18 | Valley Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Nearshore | 5 | 3 | 10 | | high | 33 | 4.02 | co, ch, fc, sc, ws, ss, ep, p, bt, ct | |
| 19 | Colville Creek | 2 | 1 | 3 | 2 | mediu m low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |

| | Weights | 2 | 1 | 2 | 1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WRIA | System | Historic Productivity | Current Productivity | Number of Stocks Historically | Number of Stocks Critical or Extirpated | System Priority (Low, Med., High) | Weighted Score | Normal-ized Score (1 to 5) | List of Stocks Histori-cally | List of Stocks Critical or Extirpated |
| 19 | 19.0005 | | | | | | 0 | 0.00 | | |
| 19 | 19.0006 | | | | | | 0 | 0.00 | | |
| 19 | 19.0018 | | | | | | 0 | 0.00 | | |
| 19 | 19.0019 | | | | | | 0 | 0.00 | | |
| 19 | 19.0080 | | | | | | 0 | 0.00 | | |
| 19 | 19.0081 | | | | | | 0 | 0.00 | | |
| 19 | Bullman Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Butler Creek (19.0112) | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Clallam River | 4.5 | 2 | 5 | 2 | med high | 23 | 2.80 | co, ws, ct, fc, ch | fc, ch |
| 19 | Deep Creek | 3.5 | 2 | 4 | 1 | med high | 18 | 2.20 | co, ws, ct, fc | ch |
| 19 | East Twin River | 3 | 2 | 4 | 2 | med high | 18 | 2.20 | co, ws, ct, fc | ws |
| 19 | Falls Creek | 1 | 1 | 1 | 1 | Low | 6 | 0.73 | unknown | unknown |
| 19 | Field Creek | 2 | 1 | 3 | 2 | low | 13 | 1.59 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Hoko River | 5 | 2 | 5 | 2 | high | 24 | 2.93 | co, ws, ct, fc, ch | fc, ch |
| 19 | Jim Creek | 3 | 2 | 3 | 1 | med low | 15 | 1.83 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Joe Creek | 2 | 1 | 3 | 1 | low | 12 | 1.46 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Lyre River | 5 | 2 | 5 | 3 | high | 25 | 3.05 | co, ws, ct, fc, ss, (ch), (p) | fc, ss, ws |
| 19 | Murdock Creek | 2 | 1 | 3 | 1 | low | 12 | 1.46 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Olsen Creek | 1 | 1 | 3 | 1 | low | 10 | 1.22 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Pysht River | 5 | 2 | 5 | 2 | high | 24 | 2.93 | co, ws, ct, fc, ch | fc, ch, ct |
| 19 | Sail River | 3 | 1 | 3 | 1 | low | 14 | 1.71 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | Salt Creek | 4 | 2 | 5 | 3 | high | 23 | 2.80 | co, ws, ct, fc, ch | fc, ws, ch |

| | Weights | 2 | 1 | 2 | 1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| WRIA | System | Historic Productivity | Current Productivity | Number of Stocks Historically | Number of Stocks Critical or Extirpated | System Priority (Low, Med., High) | Weighted Score | Normal-ized Score (1 to 5) | List of Stocks Histori-cally | List of Stocks Critical or Extirpated |
| 19 | Sekiu River | 4 | 2 | 5 | 2 | med high | 22 | 2.68 | co, ws, ct, fc, ch | fc, ch |
| 19 | Whiskey Creek | 2 | 1 | 3 | 3 | low | 14 | 1.71 | co, ws, ct, (fc), | co, ws, ct, (fc), |
| 19 | West Twin River | 3 | 2 | 4 | 2 | med high | 18 | 2.20 | co, ws, ct, fc | fc, ws |

Historic Productivity – A qualitative term that's based on historical knowledge of biological and physical characteristics of the geographical unit (5 = High Productivity, 3 = Medium Productivity, L = Low Productivity).

Current Productivity – A qualitative term, relative to historic productivity, that's based on the known biological and physical condition of the geographical unit (5 = High Productivity, 3 = Medium Productivity, L = Low Productivity).

Number of Stocks Historically – Total of all entries in "Status" column, excluding "Strays", for each watershed.

Number of Stocks Critical or Extirpated – Total of all Critical and Extirpated entries in the "Status" column for each watershed.

Abbreviation Key – Bull trout (bt), Chinook (ch), Coho (co), Cutthroat (ct), Early Pink (Ep), Fall Pink (fp), Pink (p), Summer Chum (Sc), Standard Deviation (SD), Sockeye (So), Summer Steelhead (Ss), Winter Steelhead (Ws).

# Appendix C

## Updated Criteria and Weights for Prioritizing Capital and Non-Capital Projects

**APPENDIX C: 2011 NOPLE STRATEGY**

**Updated Criteria and Weights for Prioritizing Capital Projects**

## Criteria and Weights for Scoring and Ranking CAPITAL Projects

New or modified wording in ***BOLDFACE Italics***

***New mean weight for each criteria from 1 to 5, with 5 being highest***

***Criteria 1 through 10 inclusive are used to assess Work Plan Narratives for Capital Projects.***

***All Criteria are used to assess Project Proposals for Current Year's funding.***

| ID | Criteria for Ranking | Criteria Narrative | New Mean Weight |
|---|---|---|---|
| 1 | **Watershed Priority** | This criterion is based on data concerning historical and current productivity ***and stock diversity*** of the NOPLE watersheds. The data was presented and the priorities established in the development of the 2008 Strategy. Consideration of watershed priority is mandated by regulation. This score is added by Lead Entity staff for the watershed(s) covered by the proposed project. | **2.88** |
| 2 | **Addresses limiting factor** | This criterion pertains to the extent to which the proposed work would address the limiting factor(s) relevant to the watershed and stock. How well does the proposed work address the relevant limiting factors? | **4.04** |
| 3 | **Addresses stock status and trends** | This criterion derives directly from NOPLE's GOAL to achieve robust fish stocks and pertains to the extent to which the proposed work takes into account stock status and trends. Is the proposed work appropriate for the current status and trends of the stock(s) of interest? | **2.56** |
| 4 | ***Benefits an ESA-listed stock*** | ***This criterion derives directly from NOPLE's GOAL to address ESA-listed stocks. To what extent does the proposed work benefit ESA- listed stock (s)?*** | **3.33** |
| 5 | **Benefits other stocks** | ***This criterion derives directly from NOPLE's long-standing principle that "All stocks need attention." To what extent to which the proposed work provide tangible benefit(s) to non-listed stock(s)?*** | **3.00** |
| 6 | **Protects high-quality fish habitat** | This criterion derives directly form NOPLE's GOAL to protect and restore fish habitat. This criterion pertains to the extent to which the proposed work would protect high-quality fish habitat. A project with acquisitions, easements, or other instruments that protects habitat would score well here. How well does the proposed instrument protect high-quality salmon habitat? How critical or important is the habitat in question? ***A restoration only project or a ecosystem only project would score zero.*** | **3.82** |

## APPENDIX C: 2011 NOPLE STRATEGY

### Updated Criteria and Weights for Prioritizing Capital Projects (Continued)

| ID | Criteria for Ranking | Criteria Narrative | New Mean Weight |
|---|---|---|---|
| 7 | **Restores formerly productive habitat** | This criterion derives directly form NOPLE's GOAL to protect and restore fish habitat. This criterion pertains to the extent to which the proposed work restores formerly productive habitat. A project with active measures to restore habitat would score well here. To what extent does the proposed work restore formerly productive salmon habitat? **A protection only project or ecosystem only project would score zero.** | **3.88** |
| 8 | **Supports restoration and maintenance of ecosystem functions** | This criterion derived directly from NOPLE's GOAL to restore and maintain ecosystem function and this pertains acquisition, restoration and combination projects. This criterion pertains to the extent to which the proposed work restores ecosystem function(s). To what extent does the proposed work support restoration or recovery of ecosystem function(s)? A project that restores a number ecosystem processes would score well here. | **3.67** |
| 9 | ***Spatial-Temporal Scale of Influence*** | ***This criterion addresses the scale in space and time over which the benefits of the project would extend. A project for which the benefits would extend over a region or watershed and for years to decades would score high. Projects of local extent or temporary duration would score lower.*** | **3.27** |
| 10 | ***Project Readiness*** | ***This criterion addresses how ready are projects to implement. A project that can be implemented within the current year should score high. A project that is several years away should score low.*** | **2.52** |
| 11 | **Likelihood of success based proposer's past success in implementation** | This criterion is a standard one in project selection and management. What is the probability that the project sponsor will succeed with the proposed work given their previous experience and current expertise and capability with the type of work proposed? | **1.85** |
| 12 | **Likelihood of success based on approach** | This criterion is a standard one in project selection and management. Is the approach appropriate to the work proposed? What is the probability of success of the proposed approach? | **2.86** |
| 13 | **Reasonable-ness of cost and budget** | This criterion is a standard one in project selection and management. Do the scope of work, overall estimated cost, and budget align? Are the budget items and costs reasonable given the scope of work? | **2.17** |

**APPENDIX C: 2011 NOPLE STRATEGY**

**Updated Criteria and Weights for Prioritizing Non-Capital Projects**

## Criteria and Weights for Scoring and Ranking NON-CAPITAL Projects

New or modified wording in ***BOLDFACE Italics***

***New mean weight for each criteria from 1 to 5, with 5 being highest***

***Criteria 1 through 9 inclusive are used to assess Work Plan Narratives for Non-Capital Projects. All Criteria are used to assess Project Proposals for Current Year's funding.***

| ID | Criteria for Ranking | Criteria Narrative | New MEAN Weight |
|---|---|---|---|
| 1 | **Advances robust harvestable stocks** | This criteria derives from NOPLE's GOAL to achieve harvestable fish stocks. To what extent does the proposed work lead to progress towards harvestable fish stocks? | **3.23** |
| 2 | **Advances implementation of recovery plan(s)** | This criteria derives from NOPLE's GOAL to implement recovery plans. To what extent does the proposed work lead to progress in the implementation of recovery plan(s)? | **3.73** |
| 3 | **Advances habitat protection and restoration** | This criteria derives from NOPLE's GOAL to protect and restore salmon habitat. To what extent does the proposed work lead to progress in protecting and/or restoring salmon habitat? | **4.05** |
| 4 | **Advances recovery of ecosystem function** | This criteria derives from NOPLE's GOAL to support recovery and restoration of ecosystem function. To what extent does the proposed work lead to progress in the recovery and restoration of ecosystem function(s)? | **4.21** |
| 5 | **Advances ecosystem awareness** | This criteria derives from NOPLE's GOAL to instill ecosystem awareness. To what extent does the proposed work increase the ecosystem awareness and its application? To what extent does the proposed work address and overcome obstacles to awareness? | **2.81** |
| 6 | **Advances integration** | This criteria derives from NOPLE's objective of advancing the integrations of the four H's: Habitat, Harvest, Hatcheries, and Hydropower. To what extent does the proposed work acknowledge the influence of the other H's on the work and the potential influence of the work on the other H's? | **2.05** |

## APPENDIX C: 2011 NOPLE STRATEGY

### Updated Criteria and Weights for Prioritizing Non-Capital Projects (Continued)

| ID | Criteria for Ranking | Criteria Narrative | New MEAN Weight |
|---|---|---|---|
| 7 | **Fulfills requirements of external agencies** | This criteria derives from NOPLE's objective to network with other entities and agencies. To what extent does the proposed work recognize and coordinate with the efforts and requirements of agencies? To what extent does the proposed work contribute to the knowledge and databases at the regional and state levels? | **1.71** |
| 8 | **Advances multi-agency funding strategy** | This criteria derives from NOPLE's objective of diversifying the funding base. To what extent will the proposed work be eligible and competitive for Non-SRFB funding? | **1.81** |
| 9 | **Has large spatial-temporal scale of effects** | This criteria derives from NOPLE's objective to support non-capital projects that benefit salmon recovery on a NOPLE-wide or regional basis. To what extent does the proposed work aid salmon recovery to a broad degree in time and space? | **3.38** |
| *10* | ***Likelihood of success based proposer's past success in implementation*** | ***This criterion is a standard one in project selection and management. What is the probability that the project sponsor will succeed with the proposed work given their previous experience and current expertise and capability with the type of work proposed?*** | ***1.92*** |
| *11* | ***Likelihood of success based on approach*** | ***This criterion is a standard one in project selection and management. Is the approach appropriate to the work proposed? What is the probability of success of the proposed approach?*** | ***3.10*** |
| *12* | ***Reasonableness of cost and budget*** | ***This criterion is a standard one in project selection and management. Do the scope of work, overall estimated cost, and budget align? Are the budget items and costs reasonable given the scope of work?*** | ***2.69*** |