

The ILIO incorporates an adaptive management process into ecosystem recovery planning and implementation to inform complex decision-making and ensure partners are making most effective and efficient use of recovery funding in Island watershed. The ILIO partners are committed to incorporating new, relevant data into ecosystem recovery planning and to effectiveness monitoring to gauge success in current strategies being implemented. This iterative process is intended to:

- Inform the ILIO Executive Committee regarding the optimal approach for protecting and restoring natural resources and habitat,
- Delineate a pathway for managing gaps and barriers to evaluate alternative approaches, and
- Incorporate new data, interdisciplinary experience and other relevant information into decision making to improve ecosystem recovery program design and implementation.

Adaptive management has been used by the ILIO to modify and refine elements of the Ecosystem Recovery Plan (ERP) and to evaluate the goals and targets established by the ILIO and the success of Near Term Action (NTA) project implementation. Looking ahead, the ILIO will continue to improve the adaptive management process to be strategic in planning, policy, and implementation efforts.

### 1. ILIO Partnerships

The Island Local Integrating Organization (ILIO) represents the Island County watershed. It was officially recognized by the Puget Sound Partnership's Leadership Council in 2011. The Island LIO has two contributing committees: an Executive Committee and a Technical Committee. The ILIO Coordinator facilitates both committees.

The Executive Committee (EC) is comprised of elected officials representing Island County political subdivisions from the watershed and tribal representatives. The Executive Committee includes representatives from the following entities:

#### Island County Council of Governments

- Island County Commissioner District 1
- Island County Commissioner District 2
- Island County Commissioner District 3
- City of Langley – Mayor
- Town of Coupeville – Mayor
- City of Oak Harbor – Mayor
- Port District of Coupeville – Port Commissioner (as appointed by commissioners)
- Port District of South Whidbey – Port Commissioner (as appointed by commissioners)

#### Participating Local Tribal Governments

- Tulalip Tribes – Tribal Representative
- Swinomish Tribe – Tribal Representative

The Island LIO Technical Committee (TC) represents local watershed groups, Tribal representatives, stakeholders and ecosystem recovery partners. The TC provides recommendations to the EC on strategic direction, priority setting, funding concepts, and other issues of mutual interest. The TC is informed by the work of local and regional groups and County and technical advisors. The ILIO partners are committed to maintaining the sustainable use of water resources while protecting habitat, environment, and human health.

The Technical Committee members include representatives from the following entities:

- Island County Public Health
- Island County Public Works
- Island County Planning and Community Development
- City of Oak Harbor
- City of Langley
- Town of Coupeville
- Tulalip Tribes
- Swinomish Tribe (via Skagit River System Cooperative)
- Island County Marine Resource Committee
- Island County Water Resource Advisory Committee
- WRIA 6 Salmon Recovery Lead Entity
- Business/ports
- Whidbey ECO-Net (education/outreach)
- Conservation districts

All elements of ecosystem recovery planning and Near Term Actions (NTA) review and evaluation, scoring and selection process are developed by the ILIO TC and then vetted and approved by the ILIO EC. The ILIO Coordinator moves the recommendations up from the TC for consideration by the EC. The EC makes all ILIO decisions, sets strategic policy direction, and establishes priorities and funding concepts. When there is not consensus at the EC level, the ILIO Coordinator takes comments back to the TC for evaluation and revisions to be reconsidered.

## 2. Conceptualize/ Frame Strategies

Ecosystem recovery planning in Island watershed began with establishing the priority ecosystem components, pressures and stressors of concern. The ILIO utilized *The Guidance for Structuring, Selecting and Prioritizing Near Term Actions for Improved Ecosystem Outcomes for 2016* (Anderson, et al. 2014) as a framework for the 2-year Implementation Plan and the FY2016 NTA development process.

The Puget Sound Pressure Assessment (PSPA, 2014) was utilized to evaluate gaps in the ILIO 2012 and 2014 pressures and stressors evaluated with ecosystem vulnerability, and to refine the priority of stressors on our natural systems and habitats. Through a series of monthly meetings, workshops, consultations with technical advisors, and online surveys, the ILIO TC followed this guidance to select the

Pressures, Ecosystem Components, Vital Signs and Targets for the 2016 planning and NTA development process.

The ILIO also incorporated interdisciplinary opinions by soliciting technical experts from relevant fields to develop ecosystem component recovery targets for Island watershed and to provide guidance reviewing candidate NTAs. The ILIO works closely with the Water Resource Inventory Area (WRIA) 6 Lead Entity Coordinator to ensure that salmon recovery and habitat protection/restoration goals for the watershed are accurately represented in the planning process.

Miradi was utilized to develop conceptual models built with the established priority Pressures, Ecosystem Components, Vital Signs and Targets. The dialogue in developing the conceptual models identified the underlying causes and contextual relationships contributing to the highest priority pressures in Island watershed. The models also helped outline monitoring metrics that would be useful in tracking trigger points for adaptive management decisions. Mapping out possible approaches to address the priority pressures highlighted gaps that existed in the 2014 recovery strategies and created a better understanding with partners of the current ecological and socio-political context in the watershed and the goals to measure progress. Alternative strategies were identified and incorporated into the ecosystem recovery plan.

### 3. Plan Actions & Monitoring

The ILIO utilizes monitoring data from technical partners to adaptively manage the ecosystem recovery work in the watershed and identify the impact of both implemented and proposed recovery and protection actions. Below is a list of monitoring work that is integrated into the ILIO adaptive management process.

| <b>Organization</b>   | <b>Monitoring Data</b>                  | <b>How data is used to adaptively manage resources</b> (effectiveness, pressure abatement, and status and trends) |
|---|---|---|
| Island County Department of Natural Resources, Surface Water Quality Monitoring Program | Surface water quality                   | Watershed prioritization  |
| Island County Marine Resources Committee  | Seining                                 | Population status (abundance) in specific geographic areas.   |
|   | Eelgrass & Kelp                         | Population status (abundance) in specific geographic areas.   |
| Island County Sound Water Stewards  | Forage fish                             | Population status (abundance) in specific geographic areas.   |
| Island County Planning & Community  | Beach (elevation, sediment, vegetation) | Project effectiveness and status (abundance) in specific geographic   |

# Island Local Integrating Organization

## Adaptive Management Process

| Development                        |   | areas.   |
|------------------------------------|---|--|
| Island County Environmental Health | Shoreline infrastructure (armored / unarmored shoreline (ft)) | Status and trends                              |
| WA Department of Health            | On-site septic systems  | Status and trends and watershed prioritization |
|                                    | Marine water quality  | Status and trends and prioritization           |
| WA Department of Ecology           | Shellfish harvest (ac)  | Status and trends and watershed prioritization |
|                                    | Water Quality Assessment (303 D listed water bodies)          | Status and trends and prioritization           |

These data sources were used for evaluating successes of the 2014 NTAs and also in selecting priority projects for NTA consideration for the 2016 NTA development process. The Miradi conceptual models provide the basis for selection of parameters to monitor for effectiveness, pressure abatement, and status and trends. Surface and marine water quality data drives prioritization around natural resources and habitat protection.

Some of the monitoring data (i.e. seining, kelp, eelgrass, and forage fish) cannot be effectively used to adaptively manage for project effectiveness, but rather it is used by ILIO partners to observe species response to activities and to support regional monitoring efforts. These populations vary too much and have outside pressures and influences outside of Island watershed therefore there cannot be any direct correlations with abundance with any local actions.

The ILIO currently utilizes the smartsheet tracking to monitor progress towards ecosystem recovery goals. The monitoring component of adaptive management in the watershed is limited to the current data sources available for evaluation. Status and trend information is available for the water quality monitoring data; however, some of the shared available data are not kept current in this analysis which limits the ability to utilize the data for adaptive management. The current adaptive management system only reports on success related to specific targets assigned in the NTA development process.

#### **4. Analyze, Implement & Adapt**

Island watershed has complex and dynamic habitat and ecosystem components. Restoration actions are evaluated for success and failure in an effort to learn from our investments and alter strategies to become more effective and to be better stewards of the natural resources in the watershed. The ILIO partners are engaged in applying the limited resources available for restoration in the most effective and efficient recovery actions. There is a shared interest and responsibility in the watershed to improve our understanding of how to design, implement, and manage projects to meet the ecosystem recovery goals. Mismanaged or failed projects can threaten public support for protection and restoration in the watershed and have, sometimes, left the misunderstanding of mismanaged state or federal funding. A

transparent adaptive management process will inform improvements to future projects and efforts and increase public support for ecosystem recovery planning and future protection and restoration projects.

The ILIO will improve the adaptive management process for the 2016 NTAs by including project effectiveness monitoring to evaluate ecosystem component and vital sign targets identified in the Puget Sound Partnership Action Agenda. With improved data on ecosystem indicators, particularly nearshore indicators, the ILIO will be better equipped to measure progress toward meeting goals and objectives and respond with decision-making on project effectiveness. The ILIO TC will review monitoring data related to goals and targets and make recommendations, when needed, on new indicators or strategies and on impacts of alternative policies and projects. The ILIO will also encourage project sponsors to share lessons learned after projects have been completed to better inform adaptive management strategies.

Partners have identified short-term goals and a systematic approach to track project performance. As projects are implemented, these goals will be incorporated into tracking ILIO successes toward ecosystem recovery, both locally and regionally. Short-term goals may also be utilized to communicate progress between the ILIO and the project sponsors. These short-term goals will be utilized as triggers for accountability and adapting strategies. The ILIO TC may use these triggers to make recommendations to the EC to enhance project performance, provide alternative strategies, or require additional monitoring to better assess progress for the recovery actions.

The ILIO TC and EC will meet annually to review project status and success toward recovery goals to foster an improved learning cycle. Changes to new or revised ecosystem components, targets, pressures, stressors or strategies are fully vetted and documented through updates to the ERP annually by the ILIO Coordinator. The adaptive management process will support the most effective and efficient recovery and protection efforts in Island watershed by measuring project performance and refining the learning and decision-making processes accordingly.