Essential Elements of Adaptive Management Plans for Puget Sound Salmon Recovery

Puget Sound Technical Recovery Team
Why take an Adaptive Management approach for Recovery Plans?

Basic principles and features of Adaptive Management

• Systematic process for improving future management actions by learning from the outcomes of implemented actions.
• A means to reduce the risk of insufficient investment and misdirection of future funding.
• A rigorous, transparent process to set reasonable expectations and timeframes.
• Support for taking action even though there is uncertainty.
• Method for communicating information to the public and building understanding.
• Expecting surprise and capitalizing on “crisis”.
• Method for distinguishing mistakes from failure.
Questions an Adaptive Management program is designed to address for Salmon Recovery

Questions answered directly by implementation of Adaptive Management program

- How well does a specific project work?
- Are the collective projects achieving the anticipated results? In the short-term, long-term?
- Are the hypotheses for what is limiting recovery valid and is our strategy appropriate?
- Are we achieving recovery of salmon in our watershed and across Puget Sound?
Questions an Adaptive Management program is designed to address for Salmon Recovery

Questions answered indirectly by implementation of Adaptive Management program

- What are the major impediments to achieving our goals and what strategies will we implement to address the factors limiting recovery?
- How can the certainty of achieving watershed objectives be increased through monitoring and reviewing and modifying management actions?
- Are we implementing actions that we committed to and at a rate to reach the 10-year milestones?
Essential elements of a plan implementation framework that is “adaptive”

Structural elements of an Adaptive Management plan

- Goals – implementation, restoration, process and participation.
- Assumptions and uncertainties about key habitat and species factors related to the goals
- Specific actions leading to achievement of goals
- Hypotheses about contributions of actions to goals
- Measures to assess effectiveness of the actions, including triggers
- Data collection, analysis and evaluation supporting measures to assess effectiveness
Essential elements of a plan implementation framework that is “adaptive”

Elements of an Adaptive Management plan that support and facilitate implementation

- Communication at all levels of results of actions and improvement of knowledge; including explicit decision support system
- Resources sufficient to carry out each element over time and geographic area
- Decision making structure defining roles and responsibilities for each element
- Commitments to implementing plan and actions
- Systematic process linking these elements together predictably
Elaborations of Plan Elements as examples

Data collection, analysis and evaluation supporting measures to assess effectiveness and gauging progress

- Implementation, direct and cumulative effectiveness, validation monitoring.
- Specify what will be monitored under each type of monitoring
- Develop procedures and protocols that allow assessments to be rolled up across stream reaches and watersheds to the ESU level.
- Estimate costs of monitoring
- Identify roles for each monitoring need and who is currently funding the projects.
Elaborations of Plan Elements as examples

Decision making structure defining roles and responsibilities for each element

- Tracking and guiding plan implementation
- Making technical assessments about effectiveness of hatchery, harvest and habitat actions
- Evaluating progress and making decisions about priorities within and across H’s.
- Communicating progress
- Managing data, describing plan effectiveness
- Securing funds to support plan implementation
Elaborations of Plan Elements as examples

Systematic process linking all elements of plan together predictably

- Specify plan timeline e.g., 10-year horizon for plan
- Specify appropriate spatial scales for monitoring, reporting and evaluation
- Specify timeframe and groups to whom reporting of results will occur and in which decisions will be made. For example:
  - 1st 2 years: develop detailed monitoring plan, initiate monitoring, reporting on implementation
  - year 3+: effectiveness assessments and continue implementation reporting
  - year 5+: use info to evaluate progress and priorities for continued funding of projects, engage discussion with broader policy committee for these decisions