

Adaptive Management & Monitoring

Situation:

- Partnership's needs from monitoring have not yet been fully articulated
- Existing studies, information management, and coordination efforts may address some aspects of the Partnership's needs
- Action Agenda will include a biennial science work plan and monitoring program

Developing an Adaptive Management & Monitoring Program

Purpose:

- Develop a means of incorporating new and better information into ecosystem-based management
- Describe how the Partnership will revise implementation strategies and the Action Agenda
- Describe how the Partnership might use adaptive management & monitoring to evaluate actions and progress to outcomes

Developing an

Adaptive Management & Monitoring Program

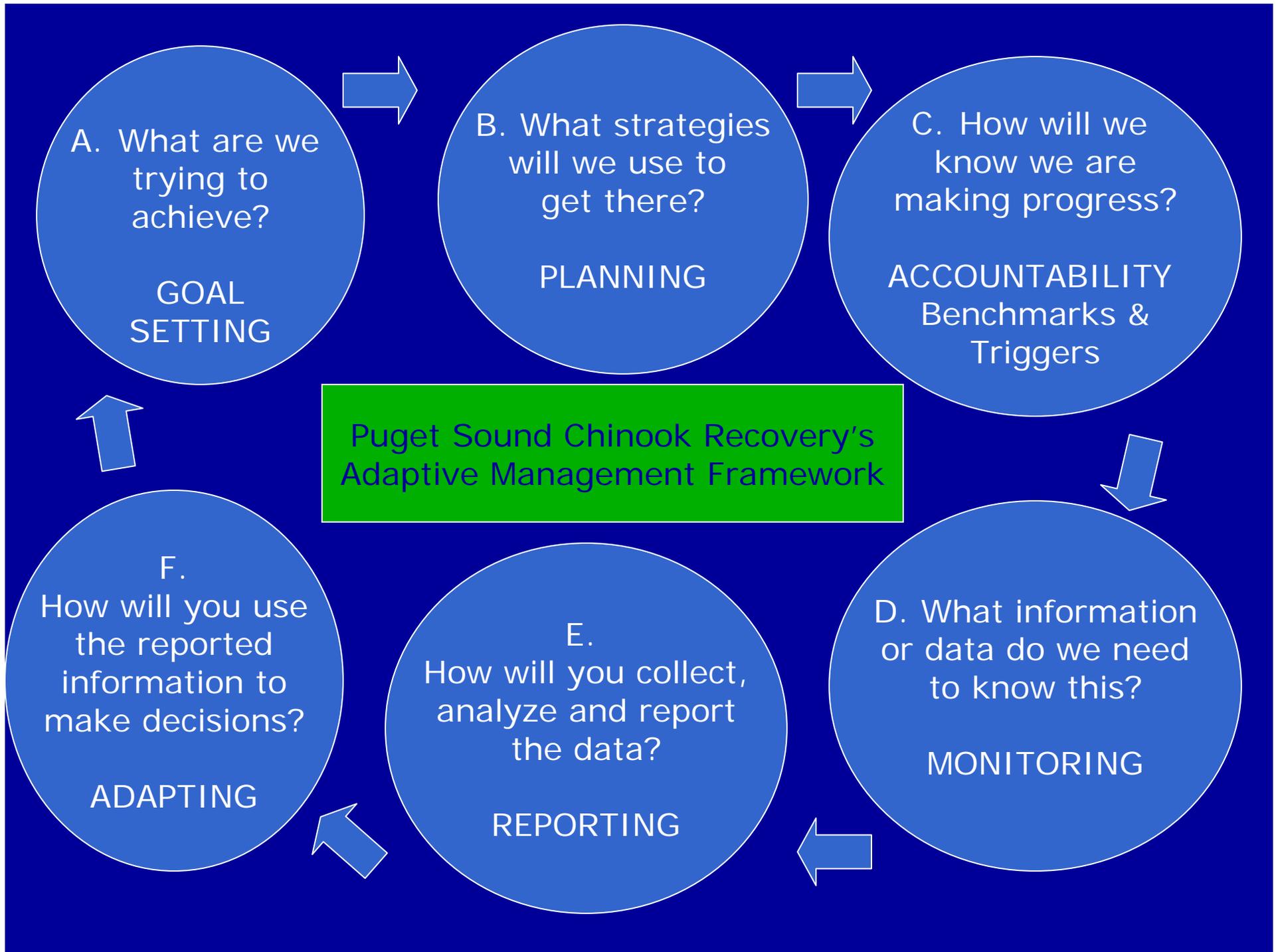
Vision: A coordinated and integrated system for collecting, analyzing, and managing ecological and program information. The system will

1. inform the Partnership's accountability system
2. fuel adaptations to ecosystem-based management
3. support communication about the ecosystem (e.g., goods & services, functions, status, trends, cause-effect)

Some thoughts heard at

2/26 Science Panel meeting

- Scientific information can come from monitoring, modeling, and research
- Include all types of evaluation questions in Strategic Science Program (or accountability system)
- Learn from history and from others
- Build from existing components & networks
- Monitoring: driven by management questions; design around testable hypotheses
- Information management: results and data readily available & transparent



Action Agenda Developed/Revised

1. What is healthy?
2. What is current status? What are the threats?
3. What needs to be done?
4. What first/next?

How will we know we are making progress?

Potential Adaptive Management Framework For Puget Sound Partnership

How will you use the reported information to make decisions?

How will you collect, analyze and report the data?

What information (data) do we need to determine if we are making progress?

➤ How will we know we are making progress?

- Identify “evaluation questions”
- Develop approach to setting priorities for evaluation
- Identify priority “evaluation questions”

Dimensions of Progress

- Topics in Partnership's goals & objectives
 - Human health
 - Human quality of life
 - Species and food web
 - Habitat protection and restoration
 - Water quality
 - Water quantity
 - Pollutant loadings
 - Stormwater management
 - Capacity
- Sound-wide, action areas, other geography (marine basin, watershed, jurisdiction)

Types of Questions *(w/ examples)*

- **Implementation & compliance**
 - Are actions occurring?
 - Are entities meeting commitments?
- **Status & trends**
 - What is current condition? Changes?
 - Are threats changing?
- **Effectiveness**
 - How effective are actions?
 - Are actions and strategies delivering
- **Validation**
 - What factors contribute to observed changes?
 - How do ecosystem components respond?

➤ What information do we need to determine if we are making progress?

- For each goal:
 - define specific objectives
 - identify hypotheses that frame monitoring, analysis, and research
- Cross-walk indicators to priority evaluation questions
- Define critical levels for key indicators
- Identify information needs related to implementation & effectiveness

➤ How will we collect, analyze, and report the data?

- Ecosystem monitoring & assessment
 - Identify existing sources & programs
 - Design & develop sources & programs to fill gaps
- Accountability information
 - Identify existing sources & programs
 - Design & develop sources & programs to fill gaps
- Information management
 - Review existing to identify models/hosts
 - Design system from existing & new
 - Arrange for delivery to appropriate targets
- Reporting

➤ How will we use the reported information to make decisions?

- Science & program input about
 - potential trigger points
 - strategy or program responses
- Discuss & decide upon trigger points and appropriate responses
- Discuss & decide upon processes to receive trigger information & ensure accountability for responses

Resources for moving forward

- People & Projects
 - Science Panel
 - NW Fisheries Sci. Ctr.: *integrated ecosystem assessment*
 - PS Monitoring Consortium: *governance committee*
 - Action Agenda development
 - Consultants: *science support; topic forums*
 - Key loaned staff: *Currens, St. John, Ruckelshaus*
 - Staff
- Information: “lessons learned,” literature

Integrated Ecosystem Assessment
Status & threats

Indicators Project
Conceptual models & Provisional indicators

Action Agenda Topic Forums
Key questions about ecosystem-based management

PS Monitoring Consortium
Governance recommendations

