



Department of Commerce



DEPARTMENT OF
ECOLOGY
State of Washington



Washington
Department of
**FISH and
WILDLIFE**

Critical Areas Monitoring and Adaptive Management

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Seattle Workshop

Workshop Goals



- Introduce the concept of critical areas permit monitoring and adaptive management
- Explain/explore why monitoring might be beneficial
- Share tools for monitoring critical areas permit implementation and effectiveness
- Discuss challenges and identify resources

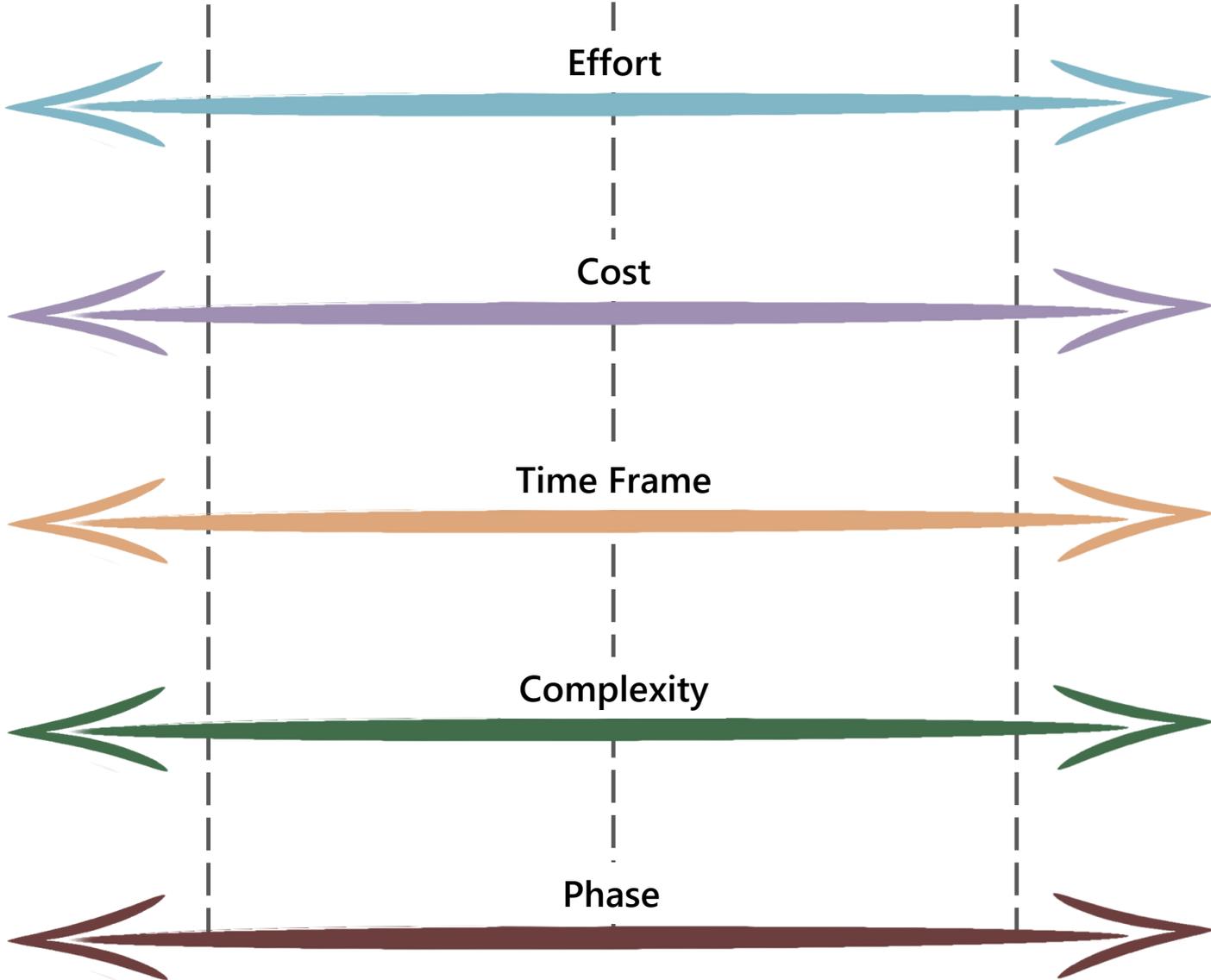
Why Monitor? Legal basis?

- No statutory requirement to monitor under GMA or SMA.
- Best Available Science WAC 365-195:
 - Encourages monitoring and evaluation of critical areas protection efforts (905(6))
 - In absence of valid scientific information, recommends a “precautionary or no risk” approach, or an interim adaptive management approach (920)
- Monitoring has been required in some hearings board cases under certain circumstances:
 - Jefferson County choosing less stringent protection standards against seawater intrusion into potable water supplies(2002)
 - Skagit County choosing to take a less-than-precautionary approach for protection (2003)
 - San Juan County limitations on modeling and data regarding impact of increased UGA densities on seawater intrusion into critical aquifer recharge area (2006)

**Permit
Implementation
Monitoring**

**Permit
Effectiveness
Monitoring**

**Ecological
Validation
Monitoring**



Effort

Cost

Time Frame

Complexity

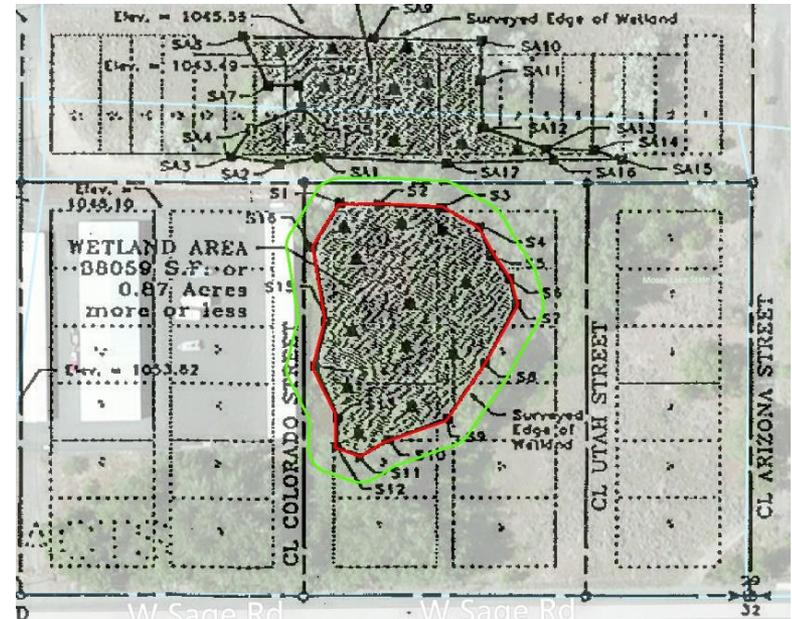
Phase

Primary emphasis of this guidance

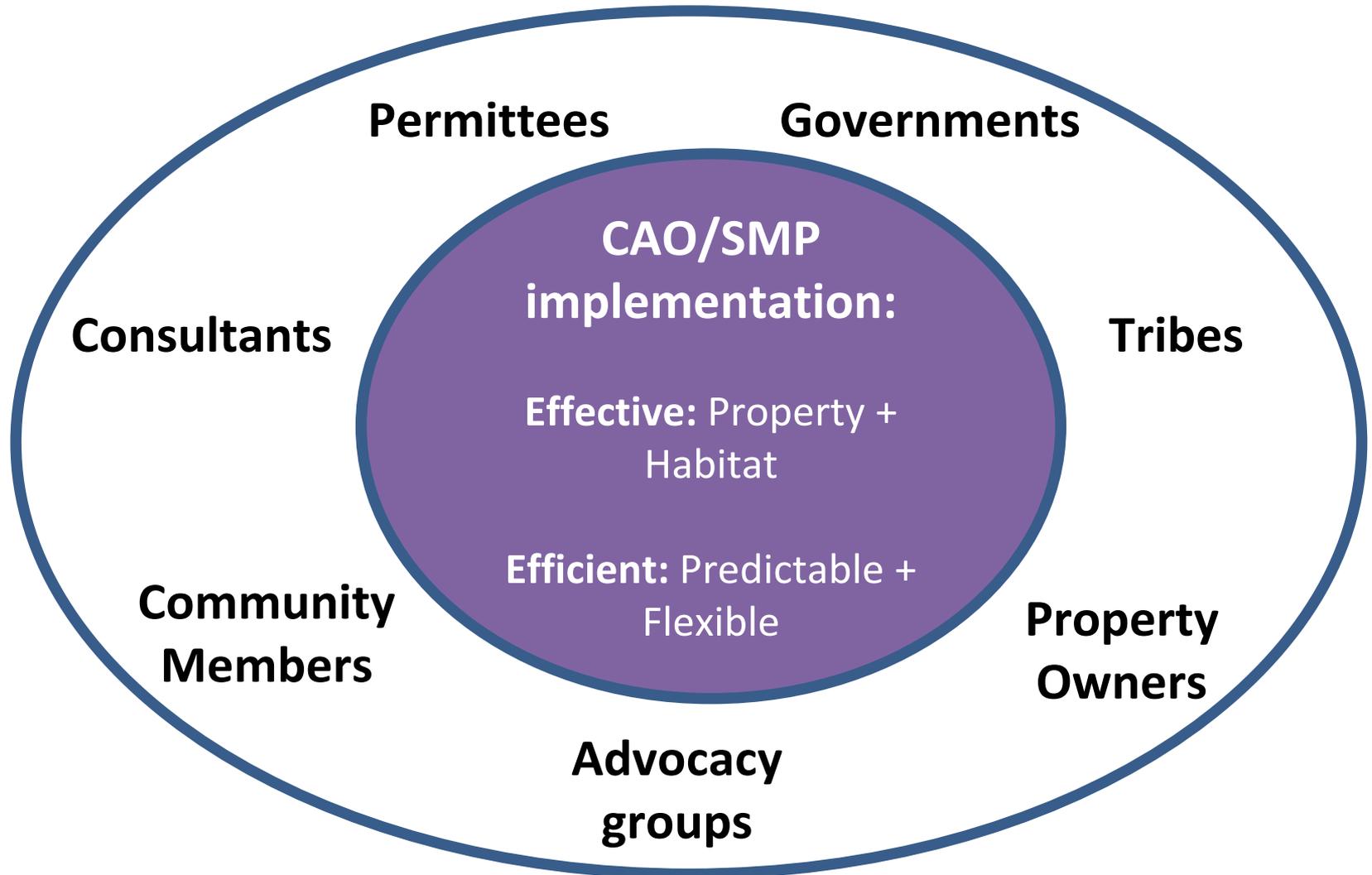
Monitoring or tracking permit implementation and/or applicant compliance with mitigation requirements.

Adaptively managing based on results, e.g.:

- Staff review process, training
- Application forms, guidance for applicants
- Administration interpretations
- Revising regulations



Why Monitor? Addressing Common Interests



Are we achieving “no net loss?”

We can only know if we are achieving No Net Loss through implementation over time

Guiding principles as we build “feedback loops:”

- Humility
- Curiosity
- Respect
- Partnerships



Prepared for

City of Benton City
City Hall
708 9th Street
Benton City, Washington 99320



SMPs: Cumulative impact analysis projected forward and determined regulations would achieve “No Net Loss.”

Benefits of monitoring: Feedback from Previous Workshops



- Ensures regulations are being implemented
- Data is better than anecdote
- Provides area-wide trends
- Provides opportunities to educate applicants – fosters support
- Helps determine what you don't need to require
- Identifies risk of planned development to people and ecological function
- Mitigates legal liability
- Updates critical areas inventory and status
- Creates consistency over time
- Tracks performance standards/mitigation
- Validates efforts
- Demonstrates no net loss/progress to officials
- Adaptive management could lead to code clarification/simplification
- Informs inter-relatedness of regulations
- Identifies cross-team improvements

Challenges of monitoring: Feedback from Earlier Workshops



- Lack of resources – staff, funds, state budget/grants
- Changes in leadership
- Lack of political will
- Lack of training/knowledge
- Changing state mandates
- Balancing property rights
- Conflicts of interest (jobs v. environment)
- Homeless populations moving into critical areas
- Single-family residence permittees lack funds to pay for monitoring
- Baseline data
- Database challenges – sorting, monitoring, transferring information
- Delay in acquiring data
- Data/technology to keep up with climate change
- Loss of institutional knowledge
- Property owners' privacy concerns (e.g., drones)
- Discrepancy between jurisdictions

Break Out Activity

What questions would you like to answer by monitoring critical areas?

Silently write down responses



1 Minute

In pairs, discuss responses



2 Minutes

In groups of 4, discuss responses



4 Minutes

Report out any major themes to the group



5 Minutes

Monitoring and Adaptive Management Steps



1. Articulate reasons for Monitoring
2. Identify Key Study Questions/Objectives
3. Design Monitoring Program
4. Determine Monitoring Time Frame
5. Evaluate Results and Make Recommendations

Step 1: Articulate Reasons for Monitoring

- Direction from core plans or policy documents, ordinances
- Inadequate protection of specific critical
- Unpermitted activities
- Community complaints
- Desire to improve transparency and accountability
- Improve the permit process



Courtesy of City of Bellingham

Step 2: Identify Study Questions/Objectives

Key Questions

- ▶ **How do we ensure that these conditions are implemented?**
 - ▶ Implementation monitoring
- ▶ **How do we know if performance standards are met over time?**
 - ▶ Effectiveness monitoring
- ▶ **Without one you don't have the other**

Step 3: Designing A Program

- Discrete categories of actions?
- Reliable way to track permits and conditions?
- Sample size and random selection?
- Selection bias/access to permit information?

City of Bellingham
Department of Public Works Laboratory
April 2015

URBAN STREAMS MONITORING PROGRAM REPORT 2014



Step 4: Monitoring Time Frame



Every 5 years?

Every 8 years
for update?

Retroactive
review?

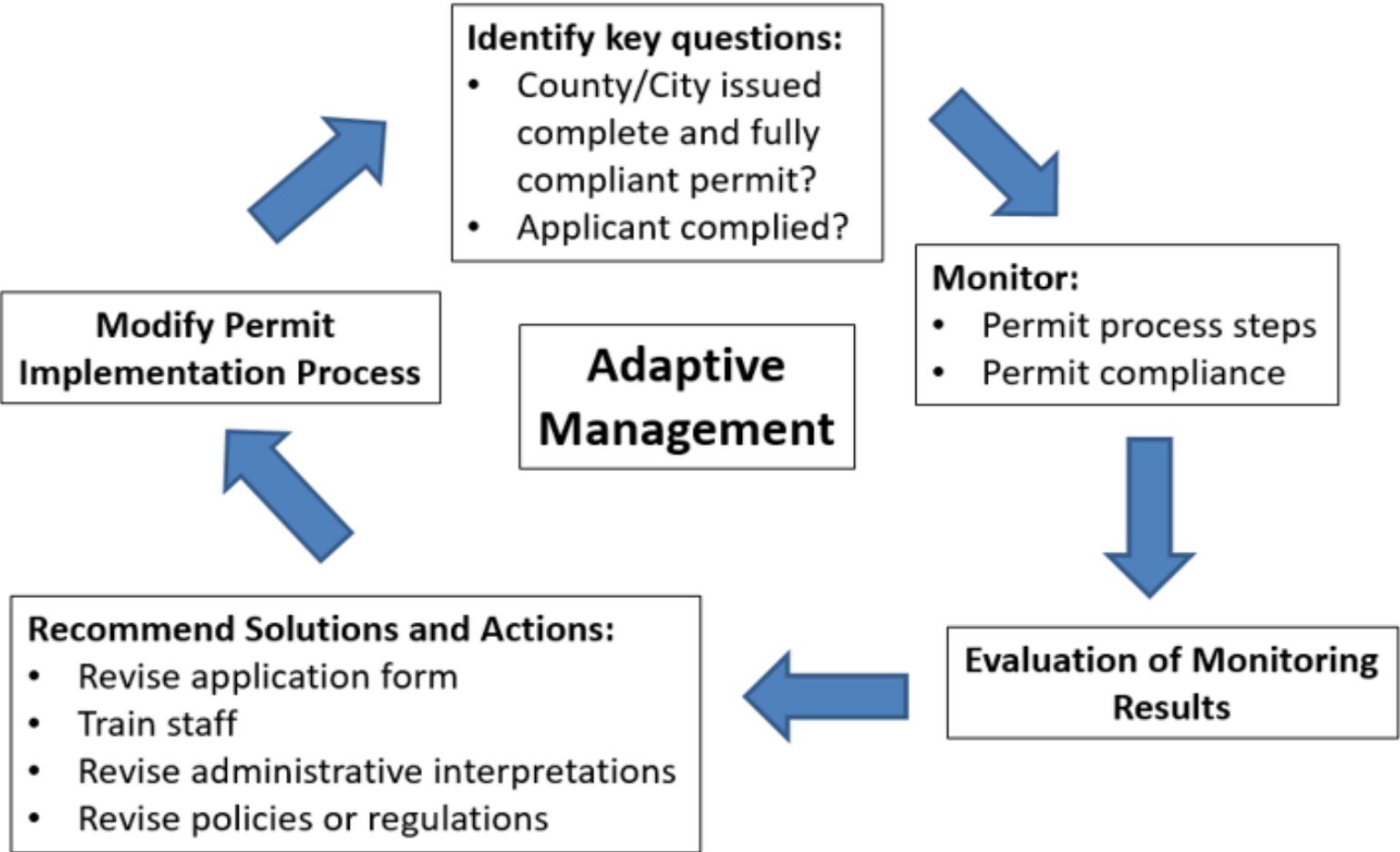
- Scope of monitoring?
- Ongoing or limited time frame?
- Specific reporting periods?

Step 5: Evaluation and Recommendations

- Evaluate results
- Produce reports that answer the monitoring questions
- Make recommendations for training staff, tweaking/improving the permit process, revising regulations



Permit Monitoring and Adaptive Management





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Questions?

[Draft Monitoring and
Adaptive Management
Chapter](#)

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