Discussion Guide: Adaptive Management

## Purpose of Discussion

*The purpose of the discussion is to identify adaptive management provisions to include in the draft WRIA 13 plan. This is intended to build on and refine previous committee discussion and ideas.*

## Background

Adaptive management provides a mechanism to track plan implementation and to adapt if the desired outcomes of the plan are not achieved, or if assumptions used in the plan prove to be inaccurate. In general, adaptive management address what should be tracked/monitored, and what should occur if the tracking indicates adaptation is needed.

Ecology’s NEB Guidance recommends adaptive management to help create reasonable assurance for plan implementation; however, RCW 90.94.030 does not require watershed plans to include adaptive management in order to achieve NEB. It is also important to note that the plan cannot obligate future actions. However, adaptive management can establish a framework for addressing future events if plan implementation does occur as planned or if new information arises.

The committee should note that at this time there is no funding for adaptive management, and the committee should consider cost and funding sources in shaping adaptive management recommendations.

## Options for Committee Consideration

### 1. Tracking and Monitoring

There are two types of tracking commonly used in adaptive management. The first type is called “**status and trends**” and involves tracking general information within the watershed that is not necessarily the direct result of the plan. This could include such things as flow measurements[[1]](#footnote-1), rainfall, water use (to the extent there is metering), etc. The second type, called “**effectiveness monitoring**” is used to monitor the effect of specific projects or of the plan as a whole. It is difficult to monitor effectiveness at the project level, but one simple measure is whether or not a project is implemented as planned. A potentially more challenging measurement is whether the anticipated offset was successfully achieved. Each project should address effectiveness tracking to the extent possible.

If a committee wants to include a monitoring component, here are some monitoring options for the committee to consider. For each idea, it is important to identify how the information will be tracked, the frequency of measurement and reporting, who is responsible for tracking, how the information is reported and to whom, etc.

1. Streamflow monitoring.
   * What streams need to be monitored? Is there a gauge currently in place or are new gauges needed?
2. The number and location of permit exempt wells.
   * Is this number significantly higher or lower than the plan anticipated?
3. Project implementation
   * Was the project implemented as planned? If not, did it likely result in lesser or higher offset?
4. Other ideas?

### 2. Adaptation Strategies

Adaptation strategies address what should occur if tracking indicates that plan expectations are not being met by significantly under-achieving or over-achieving offsets. Some groups, such as the Chehalis Basin, recommend reconvening the WREC to address the issue and prepare new recommendations and/or new projects. Others are considering turning this over to an existing group who may be able to do this more efficiently (e.g. an LIO, watershed council, county or other entity). A third option is to recommend some triggers so that there will be immediate consequences (*See Squaxin Island Tribe proposal linked at the end of this document*).

1. Reconvening the WREC
   * Should the WREC meet annually (or more frequently) or only if specified targets are not met? Or should the WREC disband following the planning process?
2. Assigning responsibility to another existing group (LIO, Lead Entity, watershed council, county or other)
   * Are there other groups in WRIA 13 who are suited to this task?
3. Establishing triggers for actions
   * What measures should trigger additional actions? What additional actions should be recommended?
4. Other ideas?

### 3. Funding Strategies

As we have discussed before, multiple WRIAs (perhaps all Puget Sound WRIAs) have expressed interest in including an identical recommendation in their plans that asks for ongoing funding for adaptive management. (*See discussion guide linked at the end of this document.*) The draft language being considered is here:

*“The WRIA 13 Watershed Restoration and Enhancement Committee recommends that the legislature provide funding and a structure to monitor plan implementation (including annual tracking of new permit-exempt wells and project implementation by subbasin) and develop a process to adaptively manage implementation if Net Ecological Benefit is not being met as envisioned by the Watershed Restoration and Enhancement Plan”.*

Is the committee interested in including a recommendation like this in the plan? If so, WRIA 13 Committee members who wish to refine this language may work with other WRIAs to develop improved language. The hope is to have a short, simple recommendation that is identical in all WRIAs.

### 4. Data Gaps

Data gaps can be addressed in multiple places in a plan, but it can be beneficial to address key data gaps in the adaptive management section. In particular, it is helpful to note what data would be beneficial in assessing plan implementation. If these data are not available, should the plan include recommendations to obtain this data going forward?

### 5. WRIA 1 Example

Committee members have requested that we share examples for adopted plans or rule supporting documents. As an example of an adaptive management approach, WRIA 1’s adopted rule includes the following components (and is *linked in its entirety at the end of this document*).

**Annual reporting**: The county (counties) will prepare an annual report to Ecology describing:

* Number of new building permits associate with new PE wells in the prior calendar year, including e-mail address of building permit recipients.
* A description of the status of each project
* Any other implementation actions to date

**Five-Year Self-Assessment:** The county (counties) will submit to Ecology every 5 years a description of:

* Total number of new building permits associated with new PE wells since plan adoption.
* The status of all projects
* Estimate of water and instream flow benefits realize through project implementation or other streamflow restoration work associate with RCW 90.94.20.
* Recommended project substitutions or actions.

## Questions for committee discussion

* What information should be tracked?
* What should happen if tracking shows significant diversion from planned outcomes?
* Does the Committee support a standard request to the legislature for funding for adaptive management?
* Are there data gaps that should be addressed in this section?

#### Referenced Links:

* [WRIA 1 Adaptive Management Chapter](https://app.box.com/s/aif9cu7y65nggfz3yho06jtk9xumw00m)
* [Squaxin Island Tribe Adaptive Management Proposal](https://app.box.com/s/m9riyfgwl5oaso3z0b4ds658psijg1z1)
* [Adaptive Management Funding Recommendation to the Legislature](https://app.box.com/s/g0srt5d9taes68qfmyrho12b5awwkaph)

#### Additional Information

* [Nisqually Watershed Plan Addendum](https://app.box.com/s/1kqioz4cg8paaz8ljuzgptvfoipfpput)
* [Full WRIA 1 Rule](https://app.box.com/s/sb599kzmmrzjra2xvfn0pqh1qi3dm1h6)

1. It is important to recognize that it is not possible to measure streamflow effects (positive or negative) of individual projects. Streamflow measurements will only provide information on the status and trends of a particular stream; additional work would be required to identify the cause of changes. [↑](#footnote-ref-1)