Purpose of Discussion
The purpose of this discussion is to introduce the committee to the concept of adaptive management and begin the dialogue of how adaptive management should be addressed in the WRE plan for WRIA 9. This discussion is intended as an initial discussion to frame up options to bring back to the committee for further discussion in the spring.

Background and Context
The NEB Guidance defines Adaptive Management as follows: An iterative and systematic decision-making process that aims to reduce uncertainty over time and help meet project, action, and plan performance goals by learning from the implementation and outcomes of projects and actions. (pg. 4)

The Guidance also states:
Planning groups may want to consider adaptive management. An adaptive management component of the plan helps demonstrate the watershed planning group’s intent that the plan will be implemented, thereby bolstering the plan’s reasonable assurances. Ecology will not interpret adaptive management provisions in a plan as an obligation of the planning group to continue its work or for Ecology to continue to fund the planning group. (pg. 13)

In addition, the Streamflow Restoration Policy and Interpretative Statement states that planning groups may include components which they believe help ensure that projects/actions will be completed successfully (e.g. conditions to allow for adjustment of the watershed plan in the future) as an “adaptive management” element. However, Ecology cannot include statutory-defined requirements or changes that would require rulemaking as part of adaptive management. (pg. 9)

The Committee should note that at this time there is no funding for adaptive management. Consideration around adaptive management in the plan should identify potential funding sources.

Options for Committee Consideration
There are many options for the committee to consider to address the broad topic of adaptive management. A few common options include those listed below and are provided to initiate a discussion with the committee. The committee will likely want to modify the approaches, add additional approaches, or mix and match to meet their needs.

- **Track number and location of permit except wells:** Identify an approach for determining whether the assumptions for amount and location of growth/PE wells are still accurate (1-year, 2-year, 5-year, 10-year intervals). Determine potential trigger points and responses to consider if assumptions are not met (e.g. sequencing or identifying additional projects in response to actual growth patterns).
- **Track and manage project implementation:** Identify an approach for determining what projects are being implemented, where they are, what funding source they are using, and whether the offset element of the project has been included. Determine if and how new projects or new types of projects can be added to the plan.
Effectiveness monitoring and adaptive management at the project level:
- Identify pilot projects or studies to determine the offset potential of certain project types (overall or in certain basins). Using a project tiering approach to manage the project list to add or remove projects or project types as more is understood (e.g. floodplain reconnection projects). Use common metrics to repeat and apply lessons learned across the WRIAs.
- Determine project performance of offset projects by monitoring flows before and after installation.
- Determine long-term project benefits (flows and habitat improvements) by tracking specific metrics over time.

Effectiveness monitoring and adaptive management at the subbasin:
- Implement flow and groundwater monitoring to track changes as projects and wells are installed to determine overall effectiveness of the offset program.
- Implement flow monitoring across a subbasin or WRIA to determine overall status and trends and changes to flow from additional inputs such as impervious surface, climate impacts, logging practices, etc.

Incorporating new science and management frameworks:
- Identify data gaps: climate or groundwater studies, models (e.g. VELMA), hydropower dam management, forest management or other relevant information specific to the WRIA that may be in process or planned that could improve future plan implementation or project identification. These could be prioritized or sequenced based on relevance of informing future plan implementation.
- Develop a process and timeline for integrating new science into project selection, project construction, long-term monitoring, or other elements of the plan.

Identifying and discussing key elements of an adaptive management program that should be considered as part of a plan implementation discussion with the committee include:
- Commitments of partner governments and stakeholders
- Long-term governance structure – does the committee continue to meet? How often and with what resources?
- The roles and responsible parties in the adaptive management program; Ecology, counties, other committee members, and internal or external support (for data collection, analysis, reporting)
- Updates and communications post 2021
- Integration into ongoing local processes (e.g. salmon recovery Lead Entity, local integrating organizations)
- Coordinating implementation with non-committee members (e.g. other state agencies.)
- Triggers for reconvening the committee - does the committee meet regularly or just if a certain milestone is reached? (e.g. permit exempt wells exceed more than 5% of projections)
- Funding sources for effectiveness and implementation monitoring
- Role of the committee in supporting or selecting projects or adaptive management elements to advance for funding (e.g. preparing letters of support for priority projects)

Questions for committee discussion
- What should be the committee’s role in adaptive management and/or who would participate in the adaptive management process?
- What other options should be added to the list above?
- Of these options, which do you think will be most useful for inclusion in our WRE plan?
- What additional information would you like to help you discern the best approach to adaptive management?