Discussion Guide

**Sub-Basin Delineations**

**WRIA 15 Watershed Restoration and Enhancement**

**Committee and Workgroup Meeting**

May 2, 2019

# Purpose of Discussion

The Committee will consider options for WRIA 15 sub-basins, discuss and evaluate the pros and cons of various options, and develop questions and/or guidance for the workgroup or technical consultants to consider as they develop options for consideration by the full committee. The Committee is expected to make a decision at our June meeting. The Committee can choose to revisit the subbasin delineations as projects are identified.

# Background and Context

## Why we need sub-basins:

RCW 90.94.030(3)(b) says plans must include actions to offset new consumptive use impacts associated with permit-exempt domestic water use. RCW 90.94.030(3)(b) states “The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary.” Therefore, the Committee will work to identify projects to offset impacts from permit-exempt wells within the same sub-basin.

## Available Resources:

Sub-basins were identified during the WRIA 15 watershed planning effort (see subbasin presentation on the Committee webpage). In addition, maps of historic trends in wells, stream closures, purveyor service areas, fish distribution and other sources can be helpful. The Squaxin Island Tribe, Pierce County, and KPUD have also proposed subbasin options as a starting point for discussion. The Committee may choose to start from these existing resources or may choose to start from scratch.

## [Key](file:///\\ECYflBLVuser\SVYN461$\Documents\Section203WS\WRIA%2015\2019%20Committee%20Meetings\May\e) Considerations in delineating sub-basins:

* The Committee should consider the optimal size for sub-basins within WRIA 15. Too few sub-basins will reduce understanding of relationships between where water will be withdrawn from new wells and where benefits of offset projects will occur. Too many sub-basins can make it unwieldly to evaluate all the offset projects needed to achieve a net ecological benefit for the WRIA and could also make it difficult to correlate benefits and impacts within the same sub-basin.
* Hydrogeological sub-basins (based on groundwater instead of surface water flows) can be more complex to delineate, since water in different aquifer levels can travel in different directions, and we don’t have all the information on the hydrogeology. However, the Committee may want to generally consider surface hydrology as well as rainfall patterns and other water flow information.

In considering sub-basins, the Committee may also want to consider:

* Areas of anticipated rural growth and areas where little rural growth is expected.
* Priority areas for salmon recovery to ensure projects occur in critical habitats
* Isolated areas for offsets (e.g. islands such as Vashon-Maury, Fox, McNeil, etc.).

The workgroup has developed these proposed components as a starting point for committee discussion:

1. Vashon-Maury is one subbasin
2. Bainbridge Island is one subbasin
3. 3 larger watershed/drainage considerations include Hood Canal, Puget Sound, South Puget Sound
4. Gig Harbor – group two HUC 12s into one subbasin (USGS)[[1]](#footnote-2)
5. Key Peninsula – group two HUC 12s into one subbasin (USGS)
6. Use a layering approach to subbasins, starting with HUC 10 and going out to HUC 12 if there aren’t priority projects within smaller subbasin.

The workgroup will provide more explanation of these components (and their reasoning) at the May 2nd committee meeting.

# Questions for Committee and Workgroup Discussion

* Are there additional considerations, or revisions to those posed by the workgroup, that you think are most important to WRIA 15 subbasin delineations?
* What initial feedback do you have on sub-basin components proposed by workgroup members? What are the pros and cons of these options?
* What questions or guidance do you have for technical staff/consultants for refining the sub-basin boundaries and bringing a recommendation back the committee?

1. HUCs: The United States is divided and sub-divided into successively smaller hydrologic units which are classified into four levels: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged or nested within each other, from the largest geographic area (regions) to the smallest geographic area (cataloging units). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to eight digits based on the four levels of classification in the hydrologic unit system.

   The first level of classification divides the Nation into 21 major geographic areas, or regions. These geographic areas contain either the drainage area of a major river, such as the Missouri region, or the combined drainage areas of a series of rivers, such as the Texas-Gulf region, which includes a number of rivers draining into the Gulf of Mexico.

   The second level of classification divides the 21 regions into 221 subregions. A subregion includes the area drained by a river system, a reach of a river and its tributaries in that reach, a closed basin(s), or a group of streams forming a coastal drainage area.

   The third level of classification subdivides many of the subregions into accounting units. These 378 hydrologic accounting units are nested within or can be equivalent to the subregions.

   The fourth level of classification is the cataloging unit, the smallest element in the hierarchy of hydrologic units. A cataloging unit is a geographic area representing part of all of a surface drainage basin, a combination of drainage basins, or a distinct hydrologic feature. These units subdivide the subregions and accounting units into smaller areas. There are 2264 Cataloging Units in the Nation. ***Cataloging Units sometimes are called "watersheds"***. **THIS IS THE CLASSIFICATION WE ARE REFERRING TO IN OUR PROCESS.** [↑](#footnote-ref-2)