AGENDA

Snohomish (WRIA 7)
Watershed Restoration and Enhancement Committee meeting
October 10, 2019 | 12:30pm – 3:30pm [WRIA 7 Committee Webpage]

Location	Committee Chair	Handouts
Gary Weikel Room Willis Tucker Community Park 6705 Puget Park Drive Snohomish, WA 98296	Ingria Jones Ingria.Jones@ecy.wa.gov (425) 649-4210	Subbasin delineation proposal Updated consumptive use work plan

Welcome, Introductions, and Standing Business

12:30 p.m. | 15 minutes | Facilitator | **Decision**

- Introductions
- Review agenda
- Approve September meeting summary

Subbasin Delineation

12:45 p.m. | 45 minutes | Technical Workgroup Representative, Facilitator| Discussion

- Objective: Consider subbasin delineation proposal from workgroup, determine best path forward for committee
- Update from October 2 Technical Workgroup meeting
- Review maps and justifications for delineations

Consumptive Use Approach

1:30 p.m. | 30 minutes | Technical Workgroup Representative, Facilitator| Discussion

- Objective: Provide update on consumptive use and determine path forward
- GeoEngineers report out on methodology, progress in other basins, decision points
    - Committee to determine path forward: start analysis or send to workgroup for additional considerations and analysis recommendations

Networking Break

Project Updates

2:15 p.m. | 45 minutes | Chair & Committee | Updates and discussion

- Objective: Continue discussions of specific projects and project inventory process
- Update from members on site visit, project ideas from other basins, etc.
- Report out from project subgroup on inventory and initial screening criteria
    - Committee to determine path forward: start initial screening or send to subgroup for additional considerations

Committee Schedule

3:00 p.m. | 10 minutes | Chair & Committee | Presentation & Discussion

- Objective: Understand next steps and remaining 2019 meetings
- Discuss 2020 meeting calendar

Public Comment

3:10 p.m. | 10 minutes | Facilitator

Next Steps and Action Items

3:20 p.m. | 10 minutes | Facilitator & Chair

- Next WRIA 7 Committee meeting: Thursday, November 14, Brightwater Facility, Woodinville
- Next Technical Workgroup meeting: TBD

DRAFT Meeting Summary

WRIA 7 Watershed Restoration and Enhancement Committee Meeting

September 12, 2019 | 12:30 p.m.-3:30p.m. | WRIA 7 Committee Webpage

Location
Brightwater Facility
22505 State Route 9 SE,
Woodinville

Committee Chair
Ingria Jones
Ingria.Jones@ecy.wa.gov
(425) 649-4210

Handouts
Agenda
August Meeting Summary
Project Subgroup Overview
Growth Projection Methods Summary
King County PE Potential Assessment

Attendance

Committee Representatives and Alternates *

Brant Wood *(Snohomish PUD)*
Keith Binkley (alternate) *(Snohomish PUD)*
Mike Wolanek *(City of Arlington)*
Lindsey Desmul (alternate) *(WA Dept of Fish & Wildlife)*
Jordan Ottow *(City of Monroe)*
Matt Baerwalde *(Snoqualmie Indian Tribe)*
Julie Lewis *(Snoqualmie Indian Tribe) (alternate)*
Jim Miller *(City of Everett)*
Morgan Ruff *(Snohomish Basin Salmon Recovery Forum) (ex officio)*
Eric Ferguson (alternate) *(King County)*
Dylan Sluder *(MBA of King & Snohomish Counties)*
Elissa Ostergaard *(Snoqualmie Watershed Forum) (ex officio)*
Steve Nelson *(City of Snoqualmie)*
Richard Norris *(City of Gold Bar)*
Paul Faulds *(City of Seattle)*
Liz Ablow (alternate) *(City of Seattle)*
Daryl Williams *(Tulalip Tribes)*
Anne Savery *(Tulalip Tribes) (alternate)*
Matthew Eyer *(City of Marysville)*
Leah Everett *(City of Lake Stevens)*
Michael Remington *(City of Duvall)*
Cynthia Krass *(Snoqualmie Valley WID)*
Emily Dick (alternate) *(Washington Water Trust)*
Bobbi Lindemulder *(Snohomish CD)*
Terri Strandberg *(Snohomish County)*
Brooke Eidem (phone) (alternate) *(City of Snohomish)*
Stacy Vynne McKinstry *(WA Dept of Ecology) (alternate)*
Ingria Jones *(WA Dept of Ecology) (chair)*

Committee Representatives and Alternates in Not Attendance*

Town of Index
City of North Bend
~~City of Snohomish~~

Other Attendees

Susan O'Neil *(ESA, Facilitator)*
John Covert *(WA Dept of Ecology)*
Caroline Burney *(Cascadia) (info manager)*
Paulina Levy (*WA Dept of Ecology)*
Yorik Stevens-Wajda *(Snohomish County Council)*
Tad Schwager *(Hart Crowser)*
Kevin Lee *(WA Dept of Fish & Wildlife)*
Joe Hovenkotter (*King County)*

*Attendees list is based on sign-in sheet.

Welcome

Susan welcomed the group and began introductions.

Welcome, Introductions, and Standing Business

Susan reviewed the agenda.

No revisions to the agenda.

Ingria did not receive any corrections to the August meeting summary.

The meeting summary was approved.

Ingria provided updates from Ecology.

- The comment period on Ecology's draft streamflow restoration project grant guidance closed September 6. We are reviewing comments on the guidance and plan to issue the final grant guidance around October and hold statewide technical assistance workshops. We plan to begin accepting grant applications in February and March of 2020.
- Jacque Klug from King County presented on reclaimed water to the WRIA 8 Committee at their meeting last month. Because the committees can consider reclaimed water as a project type, the recording of the presentation is available. You can watch a recording of the presentation at the link. Some key points from that presentation are highlighted here for WRIA 7 committee members: There are four reclaimed water facilities in WRIA 7: Carnation Farm, King County-Carnation WWTP, Snoqualmie WWTP and Reclaim Facility, and WA State Fire Training Academy. These facilities are used for various purposes, including irrigation, wetland enhancement, and firefighting training exercises. Washington Department of Health has a map of these facilities and table showing their permit number, type of plant, design capacity, and reclaimed water uses.
- Snohomish Conservation District will host a tour of its Moga back-channel restoration project before the October 10 Committee meeting. Details forthcoming.

No additional updates from committee members.

Workgroup Updates

Emily Dick provided updates from the **Project Subgroup** meetings on August 20 and September 10.

- The project subgroup discussed its relation to the committee and the technical workgroup.
  - The project subgroup will begin identifying projects and assist in the development of project criteria to assist in filtering and prioritizing projects.
  - The technical workgroup will remain focused on growth projections, subbasin delineations, and consumptive use estimates.
- The project subgroup will continue to refine the WWT's project inventory and identify additional projects.
  - The subgroup agreed to change the project type categories to align with the NEB guidance.
  - GeoEngineers will manage the project inventory on BOX, a secure file managing program, for workgroup and Committee members to post and view project ideas in the future; until then please send projects to Ingria.
  - The subgroup will coordinate with the Snohomish Basin Salmon Recovery Forum's 4-Year Work Plan update process to solicit additional projects.
  - The subgroup is developing a process to bring projects to the committee for review.

- Technical consultants are developing draft project criteria for fatal flaws to filter identified projects that do not meet the intent of the WRE Plan. They are developing additional criteria to assist with project prioritization that the committee can tailor.
    - The project subgroup will review the draft project criteria at their next meeting and provide recommended changes to the committee.

Reference Materials

- Project Subgroup Overview

Discussion:

The committee asked for clarifications about developing the committee's project list.

- The committee must identify projects and actions intended to offset impacts associated with new consumptive water use.
    - The committee's project list may include existing projects as well as potential new projects that need additional work to develop.
    - The committee approves the project list as part of the WRE Plan.
    - The Final NEB Guidance explains how the WRE Plan must describe and evaluate projects and actions for their offset potential and provides project examples.
    - The Streamflow Restoration Policy Interpretive Statement provides more information about acceptable projects and actions.
- Projects developed by Snohomish Conservation District or the Snoqualmie Valley WID with the support of Streamflow Restoration Implementation Grants (SR grant) can be included on the committee's project list.
- WWT's project inventory started the process of identifying projects for potential inclusion in the committee's plan.
    - The project inventory includes projects from existing project lists in the watershed, including Snohomish Basin Near-Term Actions, the 4-year Work Plan, and others. It includes information on 259 projects in WRIA 7, but the majority of these projects were developed for salmon recovery funding and other purposes besides water offsets.
    - The inventory still needs to be filtered to remove projects that do not meet the intent of the WRE Plan.
    - The inventory still needs to be further built out to include water offset projects.
- The water right acquisitions scope of work will support the identification of acquisitions projects that could be included in the committee's project list.
- Committee members and other entities can support the identification of projects for inclusion in the committee's plan.
    - Projects on the committee's project list do not need to be on the 4-Year Work Plan.

The committee discussed funding projects identified in the WRE Plan.

- While the committee is soliciting projects to develop its project list, Ecology is accepting applications for SR grants (anticipated this February). The SR grant funding rule outlines funding priorities in WAC 173-566-150. The Snohomish Basin is a priority basin for funding. Some of the projects identified in the WRE Plan may be eligible for SR grant funding, but there is not sufficient funding to support all projects in all WRE Plans and watershed plan updates.
- The project inventory discussed above is not part of the SR grant funding process, and this committee is not expected to identify appropriate projects for funding or show local support at this stage in plan development.

- While some entities participation on the committee may be project sponsors applying for SR funding; they should seek review and local support from the Snohomish Basin Salmon Recovery Forum, rather than the WRE committee for this round of grant funding.

The committee had questions about the 4-Year Work Plan process.

- The Snohomish Basin Salmon Recovery Forum supports local salmon recovery planning, monitoring, and adaptive management. Every other year, the Forum develops a 4-Year Work Plan, which includes a list of projects to put forth for salmon recovery funding. The Forum staff runs a process solicits projects from project sponsors to be considered for inclusion on the list.
- The project subgroup is coordinating with the Forum to encourage project sponsors to consider whether their project may have streamflow benefits, in addition to salmon habitat benefits.
    - Project sponsors typically highlight the fish habitat benefits of their project. The committee is encouraging project sponsors to clearly identify potential streamflow benefits or potential water right acquisitions associated with projects.
    - These projects could supplement the committee's existing project inventory, however the committee will still need to identify additional water offset projects.
    - Coordinating with the Forum should not place an excessive burden on project sponsors or change the current 4-Year Work Plan process.
    - Not all WRE projects need to be included on the 4-Year Work Plan. This is just one way that the Committee is reaching out to project sponsors in the basin to build out our project inventory.

Ingria provided an update on water right acquisitions scope of work.

- Ecology developed a draft scope of work to support the committee in identifying potential water right acquisitions based on discussion at the August committee meeting and feedback from the technical workgroup.
    - Washington Water Trust (WWT) will support this scope of work under its existing contract with Ecology. GeoEngineers (NHC as sub) will provide additional technical support, as needed.
    - Ecology staff, like Kelsey Collins who presented at the previous meeting will still support development of water right acquisitions.
    - WWT will work with the project subgroup and committee to identify priority areas for focused water rights assessment. The assessment will identify potential water right acquisitions within priority areas, including potential purchase (full, partial, shortened season or shifted season of use), source switches, storage and release, aquifer recharge, irrigation efficiency, or other unique water right acquisitions. All projects identified through this process would go through a similar vetting process as any other project in the plan prior to inclusions.

Reference Materials

- WRIA 7 Acquisitions Assessment

Discussion:

- The Snohomish Conservation District is developing an Agriculture Resiliency Plan. Through the process, they identified interest in developing watershed improvement districts (WID), similar to the Snoqualmie Valley WID in the Snohomish County portion of WRIA 7.
    - If opportunities for direct purchase of agricultural water rights are identified, the committee will take into consideration specific concerns.

- The committee discussed the level of detail available for identifying priority reaches.
    - Growth projections are by subbasin, not exact locations of future wells.
    - Physical Habitat Simulation Models (PHABSIM) have not been developed for all of the streams in WRIA 7, but Department of Fish and Wildlife has information on priority streams and Ecology has information on streamflow and streams with known flow issues.
- The committee discussed Ecology's well consolidation law (RCW 90.44.105), which allows the holder of a valid right to withdraw public groundwaters to consolidate that right with a groundwater right exempt from the permit requirement under RCW 90.44.050, without affecting the priority of either of the water rights being consolidated.
    - Committee members were interested in decommissioning PE wells when water service is provided without expanding the water provider's water right, and in identifying existing homes on PE wells and incentivizing connections to municipal water supply.
    - Committee members were also interested in larger water systems (Group A systems) serving smaller (Group B) water systems, then putting the Group B water system's water rights into Ecology's trust water rights program. Larger water systems typically add these water rights into their portfolio.

Ingria provided an update from the **August 26 technical workgroup** meeting.

- The technical consultants recommended a 20-year growth projection to the technical workgroup based on Snohomish and King County's past trends analysis and the estimated potential of new PE wells in UGAs.
    - GeoEngineers adjusted Snohomish County's past trends analysis to account for PE well potential near Seven Lakes Water Association.
    - GeoEngineers added a 6% error to King County's past trends analysis to account for parcels analyzed by the County that did not identify the water source.
    - GeoEngineers estimated 3,357 new PE wells in WRIA 7 over the planning horizon: 2,059 in Snohomish County (not including estimates for Tulalip tribal owned lands) and 983 in King County.
- The technical workgroup agreed to recommend the technical consultant's 20-year growth projection to the committee and include estimates for Tulalip tribal owned lands.

Reference Materials

- Growth Projection Methods Summary
- King County PE Well Potential Assessment

Discussion:

- Tulalip Tribes has examined the potential for new PE wells on tribal owned lands.
    - Tulalip Tribes have fewer than 200 acres of undeveloped land owned by tribal members, in addition to primary forest areas that are very unlikely to be developed.
    - Tulalip estimates 10-15 new PE wells in Quilceda HUC-12 and 15-20 new PE wells in Tulalip-Frontal Procession Sound HUC-12 watersheds.
- The committee recommended adding 35 PE wells to the 20-year growth projection (3,357) for a total of 3,392 new PE wells. No concerns were raised.
- The committee discussed a "full buildout" scenario that looks beyond the planning horizon.
    - King County presented their initial PE well potential assessment for WRIA 7. They estimate 1,103 parcels served by PE wells, assuming one dwelling unit (DU) per parcel.
    - Committee members are interested in seeing the maximum density allowed per zoning to consider as an offset target.

- King County developed the PE well potential assessment to identify whether there is a sufficient number of parcels in the unincorporated area to accommodate the 20-year PE well projection based on past trends. They do not consider the PE well potential assessment a "full buildout" scenario.
- King County does not support the assumption that "full buildout" will occur in the unincorporated area, but does support improving streamflow in the basin.
- The technical workgroup will continue discussions of King County's PE well potential assessment.

Net Ecological Benefit Guidance and Plan Outline

Ingria presented on the final Net Ecological Benefit (NEB) guidance and elements of the WRE Plan.

Reference Materials

- NEB Presentation
- Final NEB Guidance

General Considerations

- The Streamflow Restoration law, codified as Chapter 90.94 RCW, requires the Department of Ecology to determine whether a Net Ecological Benefit will result from the implementation of watershed restoration and enhancement plans developed under the law before Ecology can adopt them.
- The Final NEB guidance describes the standards Ecology will apply when reviewing the WRE Plan to determine whether it meets NEB.
- Ecology is developing a template WRE Plan outline to assist the committee in developing the Plan. The committee can tailor the template to meet local needs.
- Ecology gives considerable deference to the planning groups to decide what NEB means for our watershed. This committee knows this watershed best; Ecology is depending on our local expertise to put together a plan that meets the requirements of the law and enhances our watershed.
- Adaptive management is not required, however it is strongly recommended (see section 3.2.3 of NEB Guidance).
- An NEB evaluation is not required, however it is strongly recommended (see section 3.2.4 of the NEB Guidance). The NEB evaluation includes a clear statement of the committee's finding that the combined components of the plan do or do not achieve NEB.

Discussion and Additional Considerations

- The committee will discuss plan review and approval process this winter. Individual entities can begin to think about their local approval process for the WRE Plan.
- The Streamflow Restoration Policy Interpretive Statement describes the steps if the watershed plan is not adopted by Ecology by the statutory timeline. Ecology is coordinating with the Salmon Recovery Funding Board to identify their review process.
- The committee had questions about plan implementation, adaptive management, and funding for monitoring.
    - Adaptive management is a strongly recommended, but not required element of the WRE Plan.
    - The WRE Plan will be developed with implementation in mind. However, the Streamflow Restoration Law does not create an obligation on any party to ensure that the Plan, or projects and actions in the Plan are implemented.

- Environmental monitoring is eligible for SR funding. It is more likely to be competitive for funding when incorporated into a broader project proposal.

Group Discussions: Recommended Elements of WRE Plan

The committee had small group discussions of the recommended elements of the WRE Plan.

Group 1 (Paulina Levy & Ingria Jones, facilitators)

- Climate change
  - Consider climate change in the Plan
  - Consider added complexity and what is achievable
  - Identify opportunities to include in consumptive use estimates
  - Consider subbasin-scale impacts of climate change in relation to available climate change data
  - Consider climate change in project criteria
- Adaptive management/Implementation Strategy
  - Consider developing an adaptive management plan
  - Track PE well construction
  - Define adaptive management and monitoring criteria
  - Define metrics (streamflow, projects, PE wells, etc.), triggers, and course corrections
  - Identify funding needs and strategy
  - Understand adaptive management in other plans
  - Concern that plan will not be implemented
- Fee Increase
  - Careful consideration before including recommendation for rulemaking in the WRE Plan
- History of water use and anticipated future water use, beyond permit-exempt wells
  - Research illegal water use
- Other
  - Understand cost/benefit ratio of decommissioning wells and opportunities for incentives

Group 2 (Stacy Vynne McKinstry, facilitator)

- Climate Change
  - Take advantage of changing systems e.g. increased stormwaters
  - Interest in education and outreach actions
  - Understand water offsets of water conservation
- Funding Strategy
  - Understand current relevant funding opportunities
  - Identify additional funding sources being considered by other watersheds
  - Consider multiple benefits of projects, comparing work to other watersheds, and communicate project priorities to access funding
- Adaptive Management/Implementation Strategy
  - Consider developing an adaptive management plan
  - Consider long-term project performance and project benefits in project criteria and units of measurement for project benefits and outcomes
  - Define triggers for reconvening the committee
  - Incorporate project tiering/prioritization
  - Identify recommendations for rulemaking
  - Limit scope of review
  - Connect to climate change considerations

    - Concern that the WRE Plan will not be implemented
- NEB Evaluation
    - Ecology is developing templates to assist committees when possible and allowing committees to tailor to their watershed when possible
- Other
    - Concern around competing goals and consequences of not agreeing on the WRE Plan

Group 3 (Susan O'Neil, facilitator)

- NEB Evaluation
    - Clarification that committee is recommended, but not required, to include an NEB statement.
    - Group was confused by the difference between an NEB evaluation and an NEB statement.
- Adaptive Management/Implementation Strategy
    - Include funding strategy
    - Consider pilot projects and studies to replicate if successful
    - Consider both project level and WRIA level adaptive management
    - Consider project metrics
    - Track PE well construction to see where growth goes over time
    - Identify triggers for adaptive management
    - Consider oversight needed to monitor project list, funding to support monitoring, and need for Ecology's continued engagement
    - Consider legislation to pay for adaptive management
    - Are there current projects to use to determine the water offset benefits of habitat projects like floodplain reconnection?
    - Understand building permit fees and how they are being spent? Can those help fund adaptive management of the plan?
    - Unlikely that a fee increase would be broadly supported but committee members have interest in coordinating efforts to seek legislative support for more funding to implement the projects and manage the Plan after 2021.

Public Comment

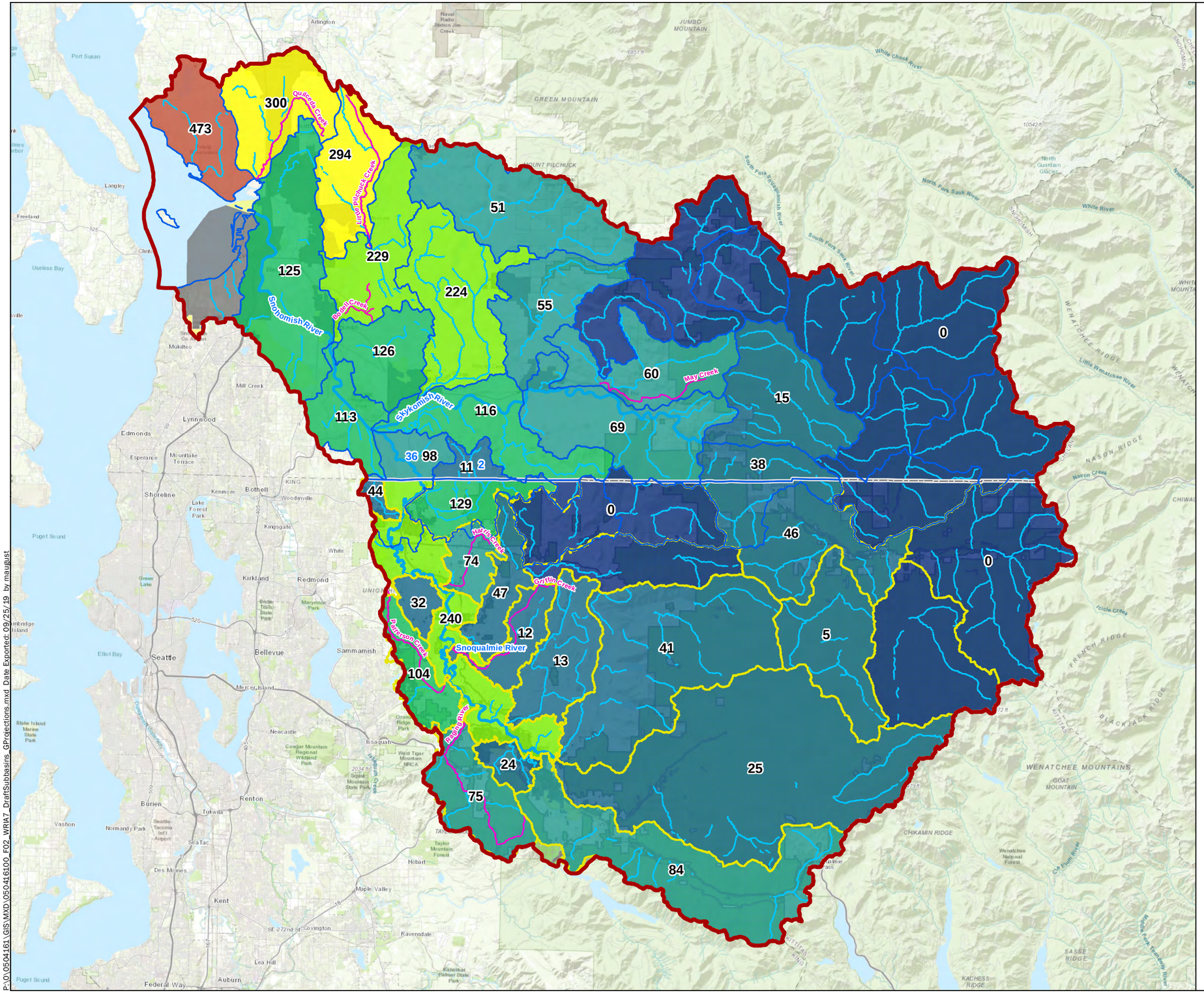
No comments.

Action Items for Committee Members

- Next meeting: October 10 at Willis Tucker Community Park.
- Next Technical Workgroup meeting: October 2, 9:30-11:30, Northwest Stream Center.
- Send projects to Ingria.

Action Items for Ecology

- Post meeting materials to the Committee webpage.
- Send details about Moga back channel site tour.



Legend

- WRIA 7 Boundary
- WRIA7 HUC12s
- Drainage Basin (King County)
- Surface Water Closures[3]

Washington State City Urban Growth Areas 2018

- Unincorporated
- Incorporated

Estimated Permit-Exempt Well Potential

- 0
- 1 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 250
- 251 - 300
- 301 - 350
- 351 - 400
- 401 - 450
- >450

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Closed streams represent GeoEngineers' interpretation of the language in WAC 173-507 and this map is to only be used for planning purposes.

Data Source: ESRI Topographic Map Base

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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WRIA 7 Preliminary Growth Projections

Watershed Restoration and Enhancement Plan WRIA 7
Snohomish County, Washington

GeoEngineers

Figure 2

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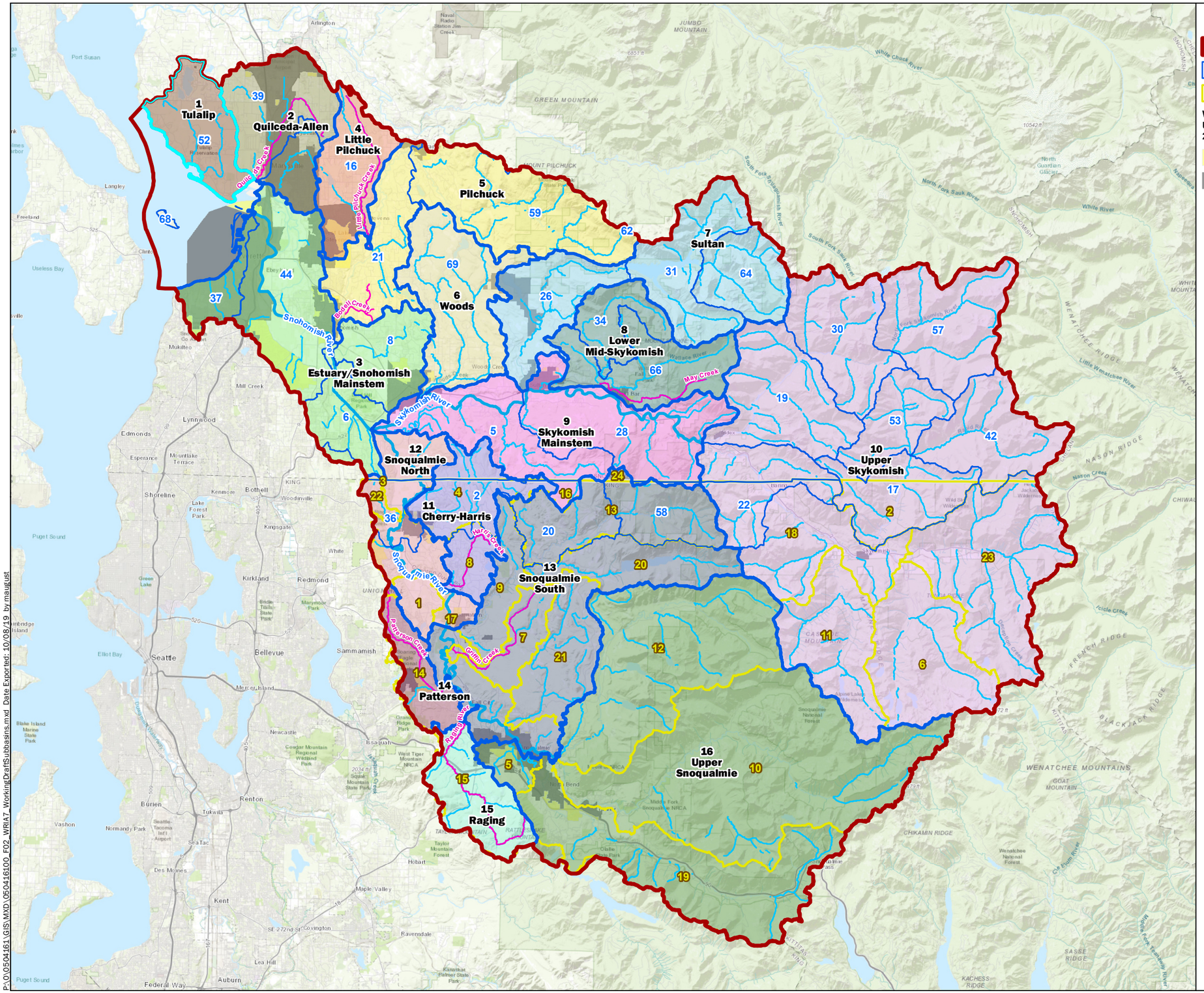

WRIA 7 Boundary

WRIA7 HUC12s

King County Drainage Basins

Washington State City Urban Growth Areas 2018

Unincorporated

Incorporated

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Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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WRIA 7 Proposed Subbasins and Working Subbasin Delineations

Watershed Restoration and Enhancement Plan WRIA 7
Snohomish County, Washington

GeoEngineers

Figure 2

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King County Drainage Basin

1 - Ames Lake
2 - Beckler River
3 - Cathcart Drainages
4 - Cherry Creek
5 - Coal Creek (Snoqualmie)
6 - Foss River
7 - Griffen Creek
8 - Harris Creek
9 - Lower Tolt River
10 - Middle Fork Snoqualmie River
11 - Miller River
12 - North Fork Snoqualmie River
13 - North Fork Tolt River
14 - Patterson Creek
15 - Raging River
16 - Skykomish River
17 - Snoqualmie River
18 - South Fork Skykomish River
19 - South Fork Snoqualmie River
20 - South Fork Tolt River
21 - Tokul Creek
22 - Tuck Creek
23 - Tye River

Snohomish County HUC12s (WRIA 7)

2 - Cherry Creek
5 - Elwell Creek-Skykomish River
6 - Evans Creek-Snohomish River
8 - French Creek
16 - Little Pilchuck River
17 - Lower Beckler River
19 - Lower North Fork Skykomish River
21 - Lower Pilchuck River
22 - Lower South Fork Skykomish River
26 - Lower Sultan River
28 - McCoy Creek-Skykomish River
30 - Middle North Fork Skykomish River
31 - Middle Sultan River
34 - Olney Creek
36 - Peoples Creek-Snoqualmie River
37 - Powder Mill Gulch-Frontal Possession Sound
39 - Quilceda Creek
42 - Rapid River
44 - Snohomish River-Frontal Possession Sound
52 - Tulalip Creek-Frontal Possession Sound
53 - Upper Beckler River
57 - Upper North Fork Skykomish River
58 - Upper North Fork Tolt River
59 - Upper Pilchuck River
64 - Upper Sultan River
66 - Wallace River
69 - Woods Creek

WRIA 7 Working Subbasin Delineations Key

Watershed Restoration and Enhancement Plan
WRIA 7

GeoEngineers

Figure 3

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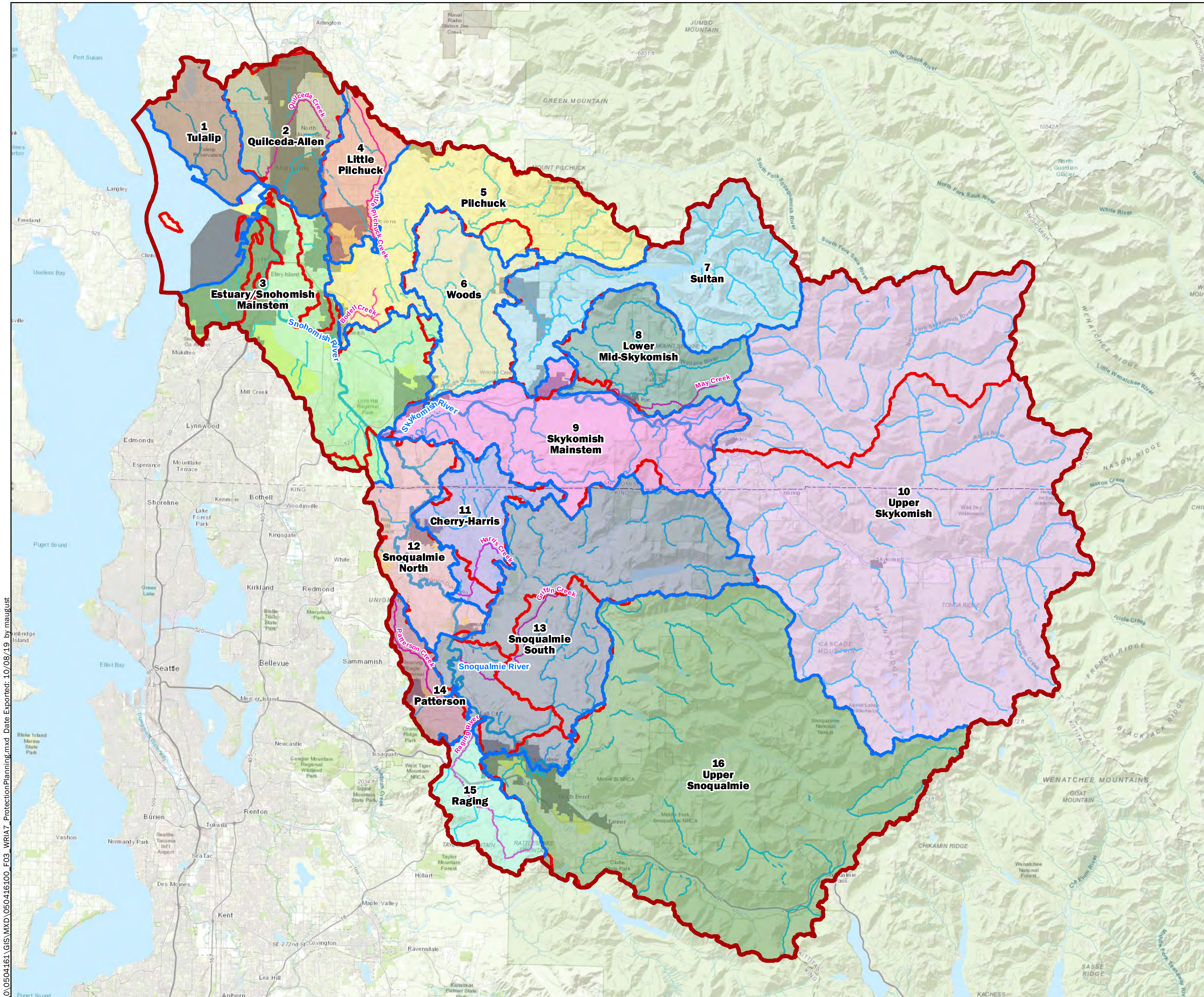

WRIA 7 Boundary

Washington State City Urban Growth Areas 2018

Unincorporated

Incorporated

WRIA7 Draft

Estuary/Snohomish Mainstem

Little Pilchuck

Lower Mid-Skykomish

Lower Snoqualmie Mainstem

Patterson

Pilchuck

Quilceda-Allen

Raging

Skykomish Mainstem

Sultan

Tulalip

Upper Skykomish

Upper Snoqualmie

Upper Snoqualmie Mainstem

Woods

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Data Source: ESRI Topographic Map Base

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

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WRIA 7 Proposed Subbasins and Protection Planning Units

Watershed Restoration and Enhancement Plan WRIA 7
Snohomish County, Washington

GeoEngineers

Figure 3

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Projects and Actions: Needs for Watershed Restoration and Enhancement Plans

Background:

In January 2018, the Legislature passed the Streamflow Restoration law (RCW 90.94) that helps restore streamflows to levels necessary to support robust, healthy, and sustainable salmon populations. The law established local Committees with the responsibility of developing watershed plans that offset water use from rural development through identification and implementation of projects and actions. The Committee in our watershed is soliciting ideas for projects and actions from partners in the watershed. Projects and actions should support putting more water in the stream or enhance habitat for fish. Compensatory mitigation projects are not allowed, but complementary projects that go above and beyond mitigation requirements are allowed. The Committee seeks project and action ideas at all stages of development: conceptual, planning, or ready for implementation.

Examples of Projects:

- Purchase of water rights (full water right or seasonal use)
- Non-Acquisition Water Offset Projects:
    - Managed aquifer recharge projects involving the addition of water to an aquifer through infiltration basins, injection wells, or other methods.
    - Projects that switch the source of withdrawal from surface to groundwater, or other beneficial source exchanges.
    - Streamflow augmentation projects that involve pumping groundwater and discharging it into a stream.
    - Off-channel storage projects that capture and store water for release back into the stream channel during critical low flow periods.
- Habitat and Other Related Projects:
    - Projects that focus on returning stream habitat to a more natural state such as through river-floodplain restoration, instream habitat restoration, beaver reintroduction, and beaver dam analogs.
    - Projects that protect current habitats through riparian or upland conservation and management, forest management, or water conservation.
    - Projects that increase connectivity and fish passage between habitats such as fish barrier removal, or reconnection of off-channel habitat.
- Regulatory or Policy Actions:
    - New, or amended, state regulations, or local ordinances that are enacted to contribute to the restoration or enhancement of streamflows (must be in effect after January 19, 2018).

Project and action ideas can be discussed with your local Committee representatives, or Ecology staff.

Ingria Jones, Streamflow Restoration Planner, WRIA 7, ingria.jones@ecy.wa.gov; 425-649-4210

Draft Fatal Flaw Screening Criteria for Initial Evaluation of Projects

WRIA 7 v100419

Background

Technical consultants developed draft project screening criteria to support WRIAs 7, 8, 9, 10, 12, 13, 14, and 15. The intent of the screening criteria is to provide a tool that can evaluate relevant attributes of candidate projects for further evaluation and potential inclusion in the WRE plan.

The draft screening criteria builds on requirements from the NEB guidance and best professional judgement from the consultant team. The committee can tailor the criteria to suit local needs.

The WRIA 7 Project Subgroup began discussions of the initial fatal flaw criteria and developed recommendations for the committee. The project subgroup anticipates reviewing the evaluation screening attributes in detail at its next meeting.

Approach

The screening process developed by the technical consultants is composed of a fatal flaw screening and subsequent evaluation screening attributes.

A subset of projects, identified by the committee, will be brought forward for further evaluation by the technical consultants, as necessary for inclusion in the WRE Plan. Initially, the committee project list will be a working document, so criteria may be applied as new projects are added and projects can be revisited as new information is available.

Fatal Flaw Screening

Each project will be evaluated with the following fatal flaw screening criteria on a binary (yes or no) basis. Any "yes" answer will disqualify a project. The reason for disqualification will be identified in the project inventory.

1) **No benefits to streamflow or habitat**
    - The project must have foreseeable benefits that are reliable. If the project is only projected to benefit streamflow or habitat on a short-term basis, or if project benefits may cease to occur because of other uncontrollable factors, the project should not be considered for further evaluation.
2) **Already required by regulatory obligation (i.e. double counting)**
    - The project cannot be required by an existing regulatory obligation that will be implemented regardless of the WRE Plan. Therefore, claiming the project and counting it towards water offset or NEB will not be allowed.[1]
3) **Inconsistent with existing law or policy**
    - The project must be consistent with existing law or policy and be able to be permitted. Examples of Washington revised code and administrative code that should be considered include the following:

[1] See Section 7 of the Streamflow Restoration Policy and Interpretive Statement (POL-2094) for under "Acceptable projects and actions."

- Chapter 90.03 RCW, Water Code (e.g. project proposes to change a water right in an unlawful way)
- Chapter 173-201A WAC Surface Water Quality Standards (e.g. project proposes a surface discharge with contaminants that will cause the receiving waterbody to exceed standards)
- Chapter 173-200-040 WAC, Water Quality Standards (e.g. project proposes a groundwater discharge with contaminants exceeding water quality standards).
- Chapter 220-660 WAC, Hydraulic code rules (e.g. project proposes to fill an excessive quantity of wetland or stream channel)

4) Substantive conflict with another watershed plan

- The project cannot be in substantive conflict with another watershed plan. For example, the project may not harm sensitive salmonid stocks or priority species.

5) Implemented prior to January 2018

- Projects or actions completed *before* January 19, 2018 will *not* count towards the required consumptive use offset and/or providing NEB.[2]

The project subgroup recommended the following changes to the technical consultant's draft fatal flaw criteria and the reasons for those changes are included in the blue bullets below.

1) Remove the word "reliable."
   - The project subgroup was hesitant to remove projects as having a fatal flaw without defining what "reliable" means in terms of estimating project benefits.
2) The project subgroup supported this criteria.
   - The subgroup noted that there may be opportunity for projects that fulfill regulatory obligations to go above and beyond those obligations to provide a streamflow benefit. The subgroup wants to consider the "above and beyond" elements of such projects.
3) Remove the word "policy" and specify "streamflow restoration policy" (POL 2094)
   - The subgroup noted that policies and their interpretation are more easily changed, but a project should not be in conflict with an existing law. If a project may be in conflict with an existing policy, the policy should be flagged in the inventory as well as justification provided for including the project.
4) The subgroup supported this criteria.

The subgroup did not have additional recommend fatal flaw criteria.

[2] See Section 7 of the Streamflow Restoration Policy and Interpretive Statement (POL-2094) for under "Acceptable projects and actions."

Project Title: Community-based water storage restoration in the Snohomish River watershed

Project Short Description: Restoring summer stream flow to the Snohomish River requires a comprehensive approach to water storage on the landscape. This project will implement a wetland restoration, beaver pond expansion and small farm water storage program in the Pilchuck River, French Creek, Woods Creek, and Lower Skykomish River subbasins.

Project Long Description:

The current hydrology of the Snohomish River is the foundation upon which we have built our communities, our agricultural system, our salmon recovery strategy, and our flood protection strategy. Human alterations to the landscape and the climate have resulted in drastic and accelerated consequences to the health of our watershed. A combination of increased intensity and frequency of winter flood flows, a decrease in snowpack, a decrease in groundwater recharge, and a decrease in summer precipitation have created a new hydrologic regime. While the focus of this project is on restoring summer flow to our rivers, these low flows are a symptom of a much broader hydrologic problem – one that can only be addressed in a comprehensive way to include projects that buffer against the already realized impacts of climate change.

The Snohomish Conservation District will implement a landscape-scale community effort to store and infiltrate water in high priority subbasins within the Snohomish River watershed. The District will implement several types of water storage and groundwater infiltration projects in the Pilchuck River, French Creek, Woods Creek, and Lower Skykomish River subbasins. Projects include wetland restoration, maintenance and promotion of beaver ponds, and small farm water storage projects. The Conservation District contends that numerous small actions, while not as flashy, can have a bigger and more lasting impact on our natural resources. Communities of people that galvanize around this effort will become educated on the impacts of climate change and land-use on our river systems and spread enthusiasm for water conservation and storage to their neighbors.

In 2015, partners in the Snohomish River Watershed completed the Snohomish Basin Protection Plan, approved as an addendum to the Snohomish River Basin Salmon Conservation Plan (2005). The genesis of this plan was the recognition that implementation of the salmon recovery plan would not be enough to recover threatened salmon species if the larger landscape-scale processes were not protected. The primary goal of this Protection Plan is to identify protection strategies that prevent the degradation of hydrologic processes that support salmon or salmon habitat. The scientific backbone of this work was a more detailed application of the Department of Ecology's Watershed Characterization specific to the watershed which was completed in 2015. In this report, areas within the watershed are prioritized for restoration and/or protection actions for hydrologic delivery, surface storage, recharge and delivery (see Map inset).

Using this analysis, the Pilchuck River, French Creek, Woods Creek and Lower Skykomish River subbasins were selected as the focus for this project. These areas include the largest proportion of high priority areas for "restoration" of surface storage and discharge, both important for restoration of low summer flows. In addition, Ecology has identified these four subbasins as the highest priority for restoration work to address high water temperatures and they are in process of developing two TMDL's – Pilchuck River/French Creek Dissolved Oxygen and Temperature TMDL and Lower Skykomish River TMDL (includes Woods Creek). The existing data and modeling efforts, therefore, all point to this area as critical for restoration of summer flows, protection of cold water inputs, groundwater recharge, and salmon habitat restoration.

One reason the Snohomish Conservation District has been so successful at achieving habitat restoration and water quality goals is their ability to engage private landowners and build community support for responsible stewardship of our natural resources. The District will capitalize on these strong relationships within the community to implement the following programs to store and infiltrate water:

Wetland Restoration – In addition to storing above and below ground water, wetlands have been shown to significantly contribute to groundwater resources, thus regulating surface water flow throughout watersheds (Carter, 1986; Bradley and Brown, 1997; ven der Kamp and Hayashi, 1998; Mitsch and Gosselink, 2000). Wetlands throughout the Snohomish River watershed have been degraded or decimated to make way for human land-uses such as development and agriculture. In the focus subbasins, there are numerous locations where farms have been left fallow due to difficulties draining the land. The District will use aerial imagery and soil maps to identify high potential wetland restoration sites and reach out to landowners to solicit support.

Living with Beavers – The District has been successfully maintaining a program to encourage landowners to allow beavers to stay on the landscape instead of trapping and removing them. This consists of educating landowners on the importance of beaver ponds, assisting with large tree protection, providing wetland plants, protecting culverts from damming activities, and where appropriate, installing pond-leveler devices. These devices allow for fish passage but also limit the height of the beaver pond to reduce impacts to human infrastructure. The result of these activities has meant beaver ponds on private property across the county have been maintained or grown in size when they would have otherwise been drained. An ongoing study in the Skykomish River basin has shown that beaver ponds and the associated below-surface storage have significant potential to increase resilience to hydrologic change (Dittbrenner et al., 2018b – in process). Additionally, data in the Skykomish River basin indicates that carrying capacity of beavers is at only 25% (Dittbrenner et al, 2018a). While beaver relocation efforts are a viable solution for repopulating areas in the upper watershed, encouraging landowners to allow beavers to build ponds where they are currently expanding their populations is an extremely cost-effective approach to increasing water storage, recharging groundwater, increasing summer flows, and decreasing surface water temperatures.

Small Farm Water Storage – Innovative techniques to store water on small farms can provide a win-win for hydrology, fish and farmers. Ponds and/or other types of vegetated depressions or bioswales, when implemented at scale, have the capacity to store large amounts of surface water across the landscape. Depending on the design and intended use of the water, they could be designed for storage or infiltration. Both have the capacity to increase summer flows through decreased water withdrawals during summer months and increased groundwater recharge. The District proposes to complete the first phase of this program with the goal of applying to this funding source for future phases. This phase will consist of a spatial analysis within the focus subbasins to identify farms with the highest capacity for hydrologic benefit, research design alternatives and permitting constraints, and install two pilot projects.

Carter. 1986. An overview of the hydrologic concerns related to wetlands in the United States. Canadian J. of Botany.

Bradley and Brown. 1997. Modeling of hydrological processes in a floodplain wetland. In Groundwater/Surface Water Ecotones: Biological and Hydrological Interactions and Mgt Options.

Dittbrenner et al. 2018a. Modeling intrinsic potential for beaver habitat to inform restoration and climate change adaptation. PLoS ONE 13.

Dittbrenner et al. 2018b (in process). Hydrologic and temperature effects of beaver in headwater streams. Ch.3 of dissertation. School of Environmental and Forest Sciences, UW.

Mitsch and Gosselink. 2000. The value of wetlands: importance of scale and landscape setting. Ecological Economics.

van der Kamp and Hayashi. 1998. The groundwater recharge function of small wetlands in the semi-arid northern prairies. Great Plains Research.