Deschutes WRIA 13 Watershed Restoration and Enhancement Plan

City of Olympia Utility Advisory Committee
February 4, 2021
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DEPARTMENT OF ECOLOGY
State of Washington

Presentation Outline

Streamflow Restoration law

The Watershed Restoration and Enhancement (WRE) Committee

Wells, water consumption and impacts to streamflows

The Deschutes Watershed Plan

Steps to complete the Plan

Streamflow Restoration law
RCW 90.94 – January 2018

- To help support robust, healthy, sustainable salmon populations while ensuring rural communities have access to water

- Directs the Dept of Ecology to chair local planning Committees to develop Watershed Restoration & Enhancement Plans

- Plans identify projects to offset impacts of new permit-exempt domestic groundwater withdrawals on streamflows over the next 20 years (2018-2038)

- Plans provide for a net ecological benefit to the whole watershed

- Ecology grants for projects: $300M over 15 years

Watershed Restoration and Enhancement Committee

- Ecology chairs the Deschutes Watershed Committee
  - Squaxin Island Tribe
  - Lewis and Thurston Counties
  - Cities of Olympia, Lacey and Tumwater
  - WA Departments of Ecology, and Fish and Wildlife
  - Thurston County Public Utility District No. 1
  - Thurston Conservation District
  - Olympia Master Builders & Business Industry Assn of WA
  - Deschutes Estuary Restoration Team
  - And 5 Ex-officio entities
- The Committee has met since October 2018

What are the Committee's and Ecology's roles?

Committee

- Develops the Watershed Plan
- Approves Plan

Ecology

- Determines Plan meets the law
- Adopts Plan

The Role of Olympia's Utility Advisory Committee

1. Provide input on this draft version of the Deschutes Watershed Plan

2. Provide support for Olympia's representatives on the Watershed Committee to vote on the final Plan for submittal to Ecology for rule-making.

The Purpose of the Deschutes Watershed Plan

- To provide improved habitat for the recovery of threatened/endangered salmonids
- To identify projects and actions to offset the impacts of new permit-exempt domestic wells on streamflow
- To provide a net ecological benefit to the watershed

Next few slides cover:

- Permit-exempt wells
- Consumptive use
- Groundwater-streamflow connection
- Effects of pumping wells on streams & lakes
- Offset projects and regulatory actions
- Net ecological benefit

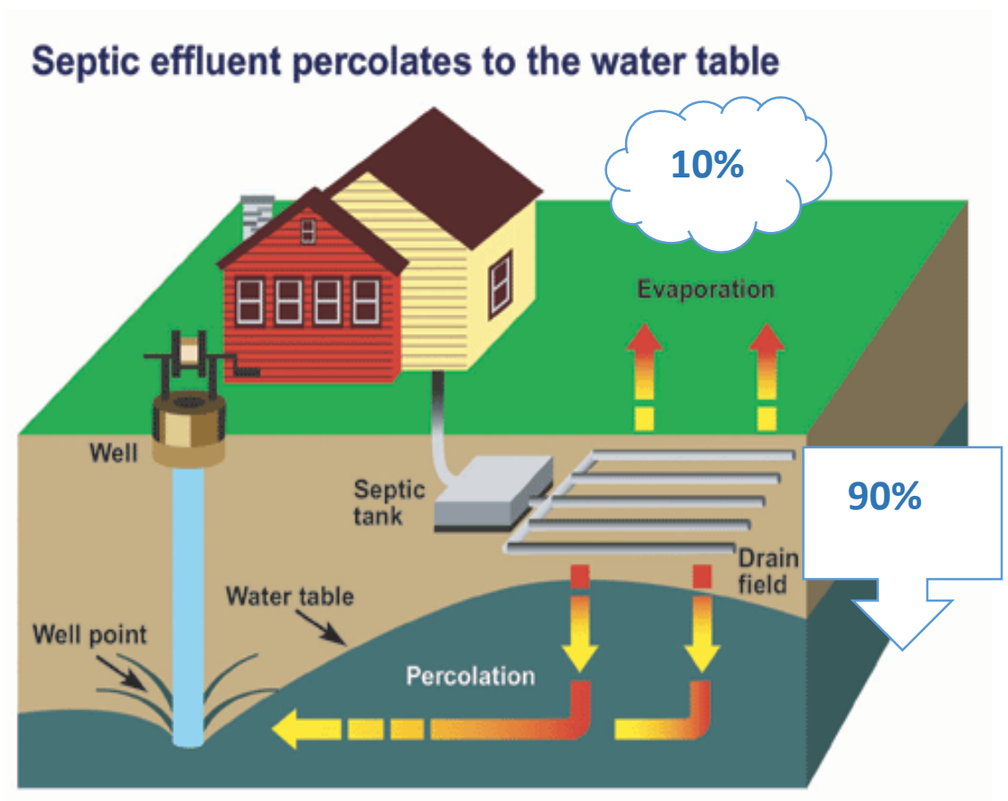
Permit-Exempt Wells

- Domestic groundwater well that serves single homes, small developments; irrigates small lawns and gardens
- Are exempt from the state water-right permitting process and are usually approved and regulated by counties
- State law establishes withdrawal limits for new PE well connections in the Deschutes watershed – 950 gpd per connection (RCW 90.94)
- Thurston County currently has almost 22,000 PE wells
  Olympia has ~650 PE wells + ~30 small water systems (1900-2018)
- Olympia water connection requirement: PE well not allowed if parcel is within 200 feet of a water main (OMC 13.04.335)

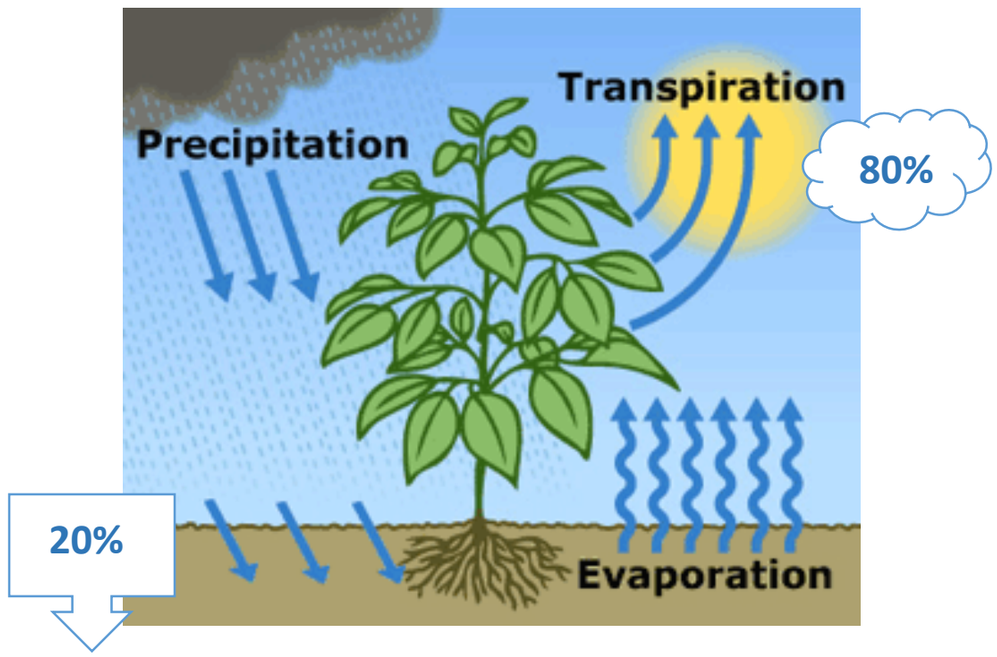
Consumptive Water Use

Water that is evaporated, transpired, consumed by humans, or otherwise removed from an immediate water environment due to the use of new permit-exempt domestic wells.

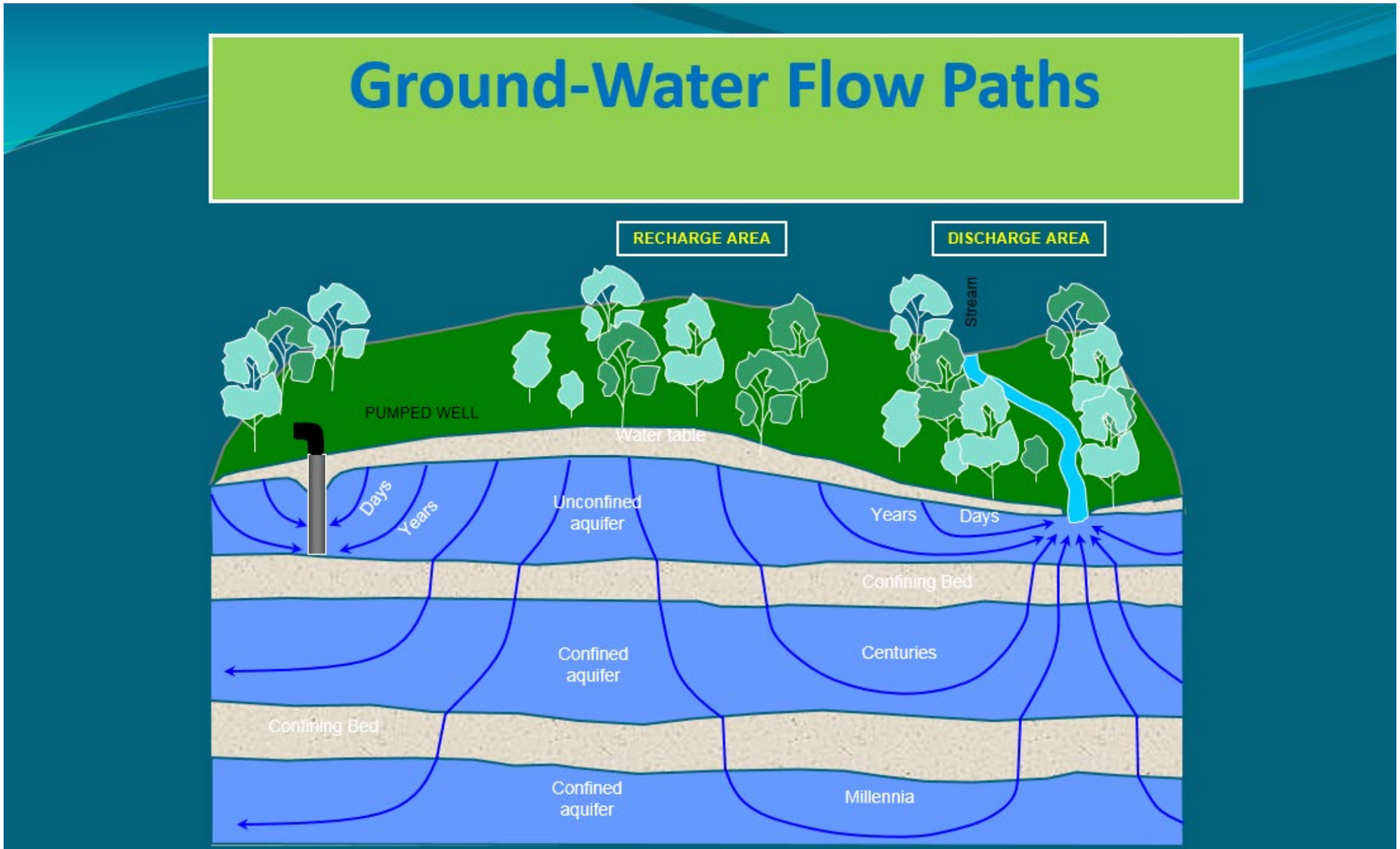
Indoor Consumptive Use



Outdoor Consumptive Use

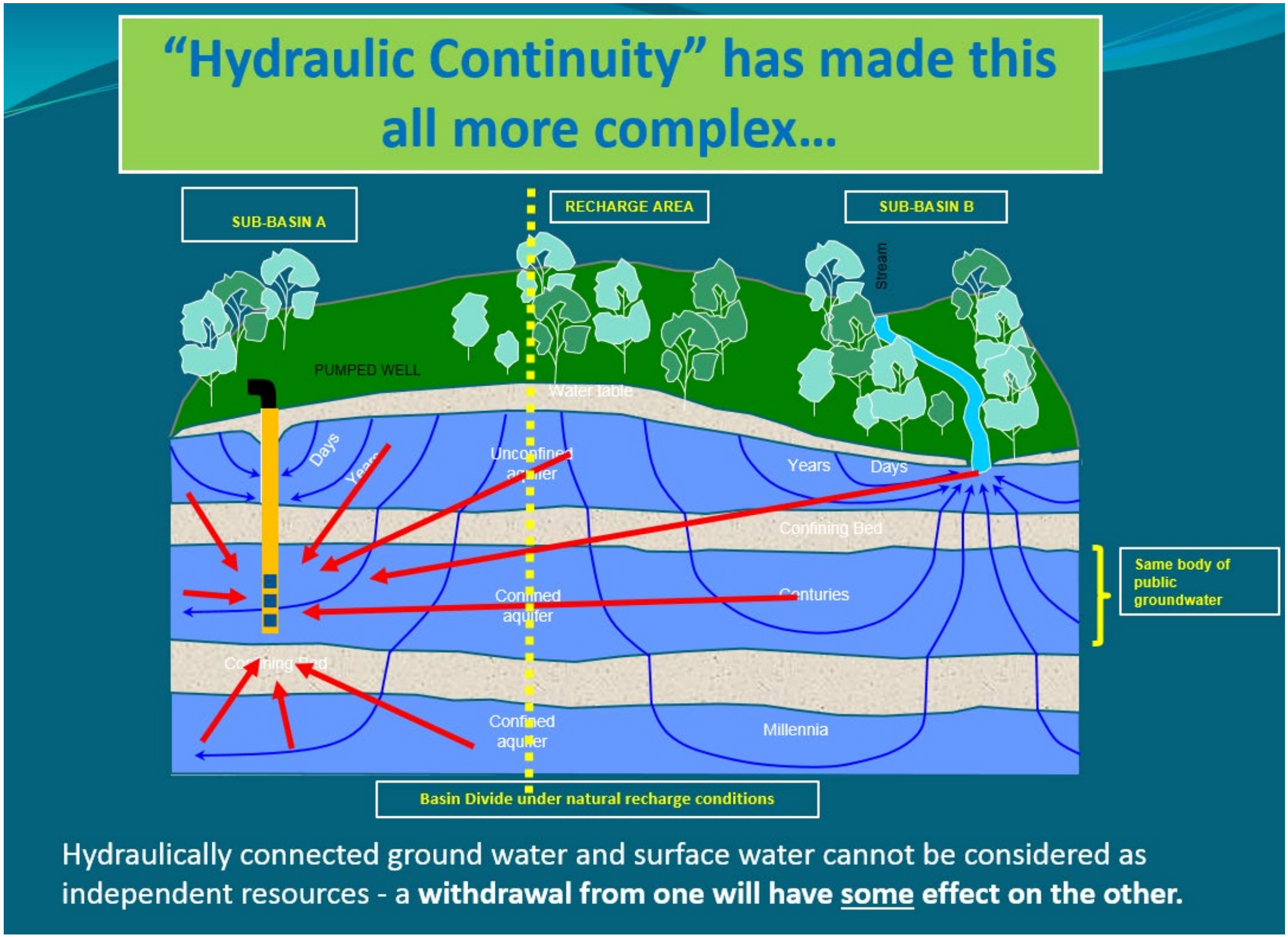


Groundwater-Streamflow Connection



Ground-water flow paths vary greatly in length, depth, and travel time from points of recharge to points of discharge in the ground-water system

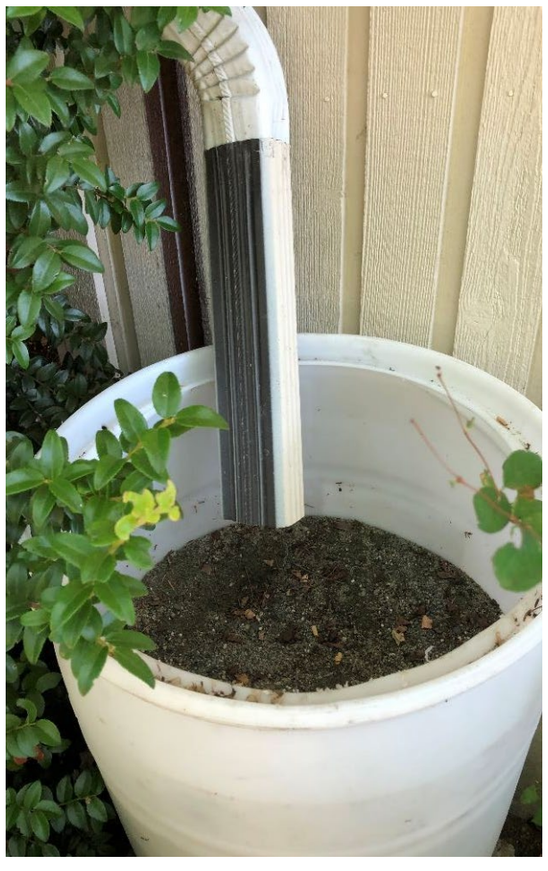
Wells Affect Streamflows

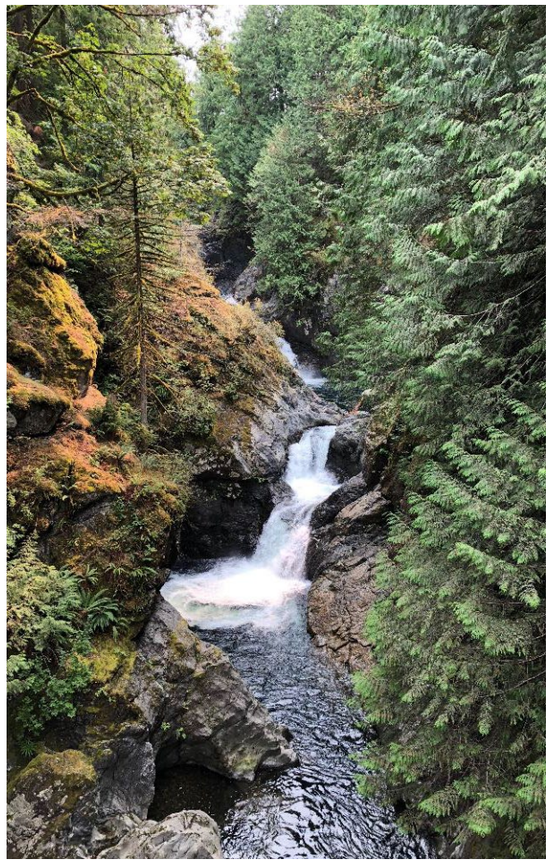


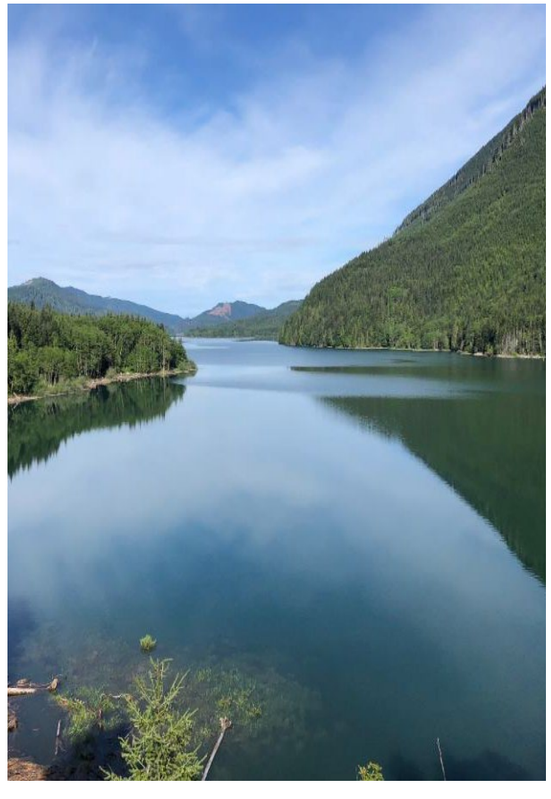
Hydraulically connected ground water and surface water cannot be considered as independent resources - a **withdrawal from one will have <u>some</u> effect on the other.**

“Offset”

The anticipated ability of a project or action to counterbalance the impact of consumptive water use on stream flows resulting from domestic groundwater withdrawals







Offset Projects – Quantity and Location

1 **QUANTIFY EXPECTED CONSUMPTIVE WATER USE OVER 20 YEARS**

2 **IDENTIFY WHERE IT IS POSSIBLE TO OFFSET**

FIRST PRIORITY

for *in* *and*

SECOND PRIORITY

for ≠

and/or

for ≠

AND

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3 **ECOLOGY MUST EVALUATE:**
DOES THIS PLAN HAVE A NET ECOLOGICAL BENEFIT?

Projects that enhance

and/or

Net Ecological Benefit

From Ecology's Final NEB Guidance

"…local planning groups are best situated, and will therefore determine the appropriate amounts of benefits beyond the offsetting of projected impacts …"

Deschutes Watershed Plan Components

Planning Horizon
2018-2038

WRIA 13 Subbasin Delineations
9 subbasins

Projected new PE Wells
2,616 WRIA-wide
~ 25-50 in Olympia/UGA

Estimated Consumptive Use
- 435 acre-feet per year (0.6 cubic feet per second)
- 513 afy (0.7 cfs) – goal to achieve through adaptive management

Projects and Actions
To offset estimated consumptive use and meet net ecological benefit

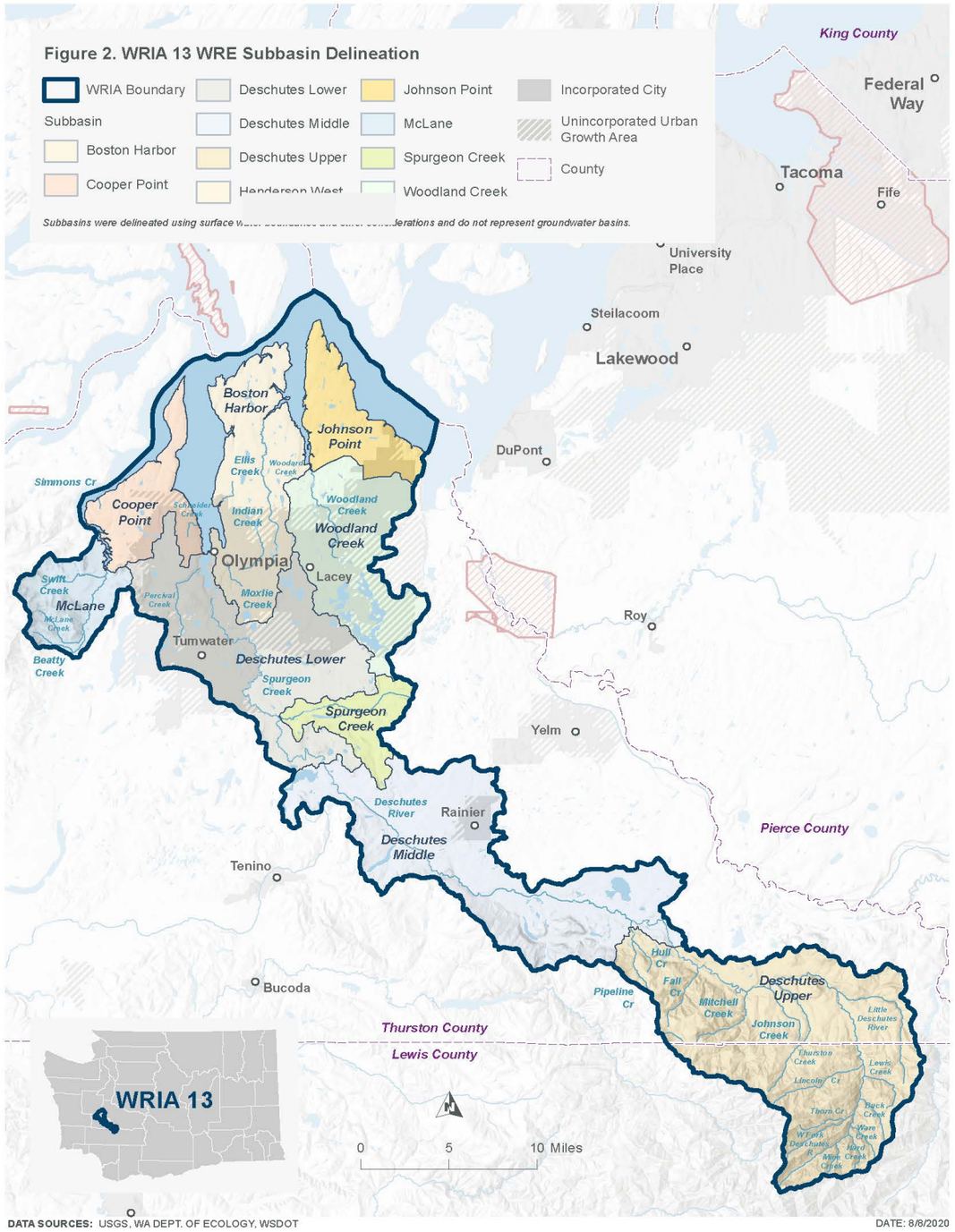
Delineate Subbasins

The Committee divided WRIA 13 into 9 subbasins

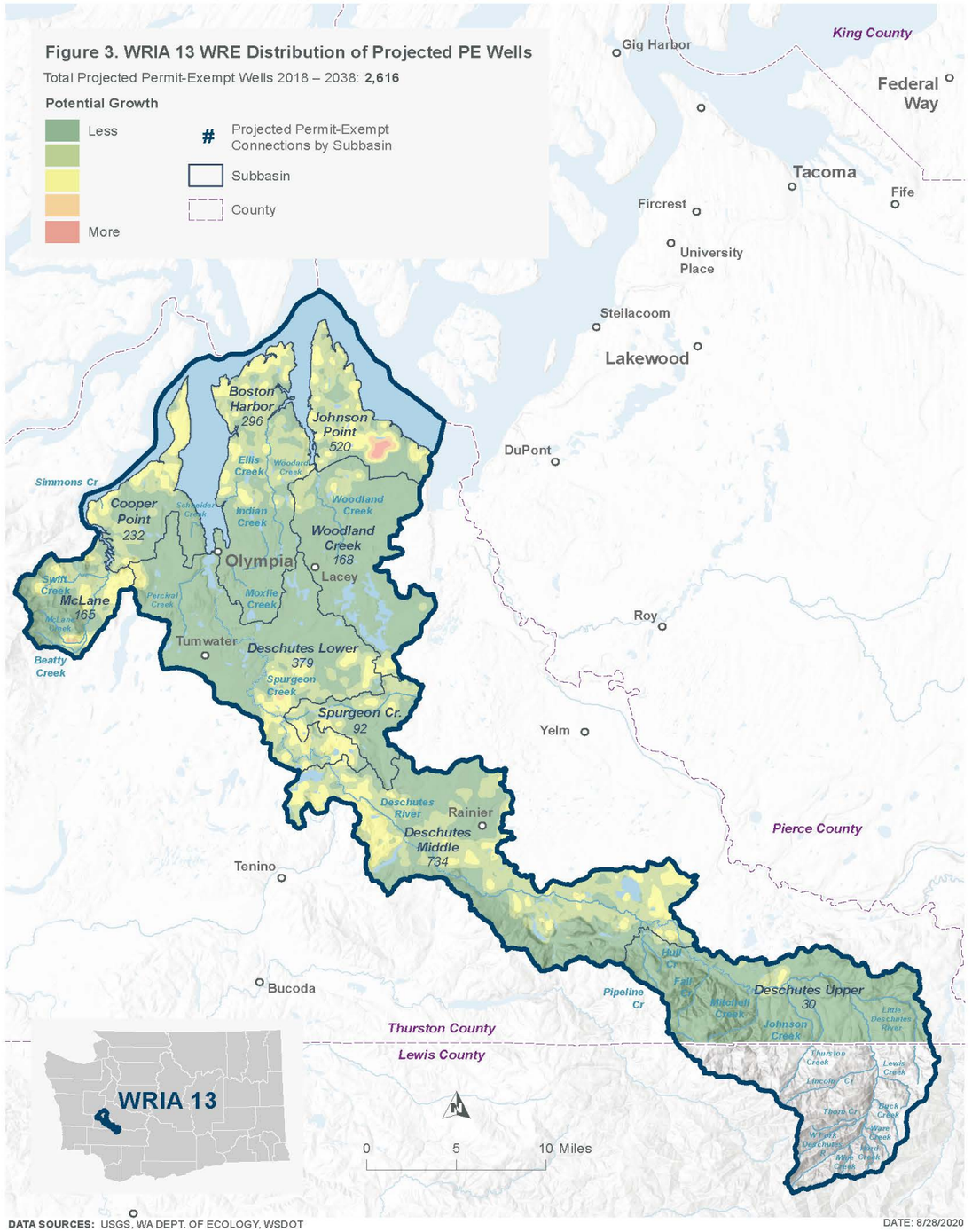
- Defined the location & timing of projected new consumptive water use
- Defined the location & timing of impacts to instream resources
- Helped determine the scope, scale, locations and anticipated benefits of projects

Subbasins do not always align with hydrologic or geologic basins
(surface-watersheds and ground-watersheds don't match)

Subbasin Delineation

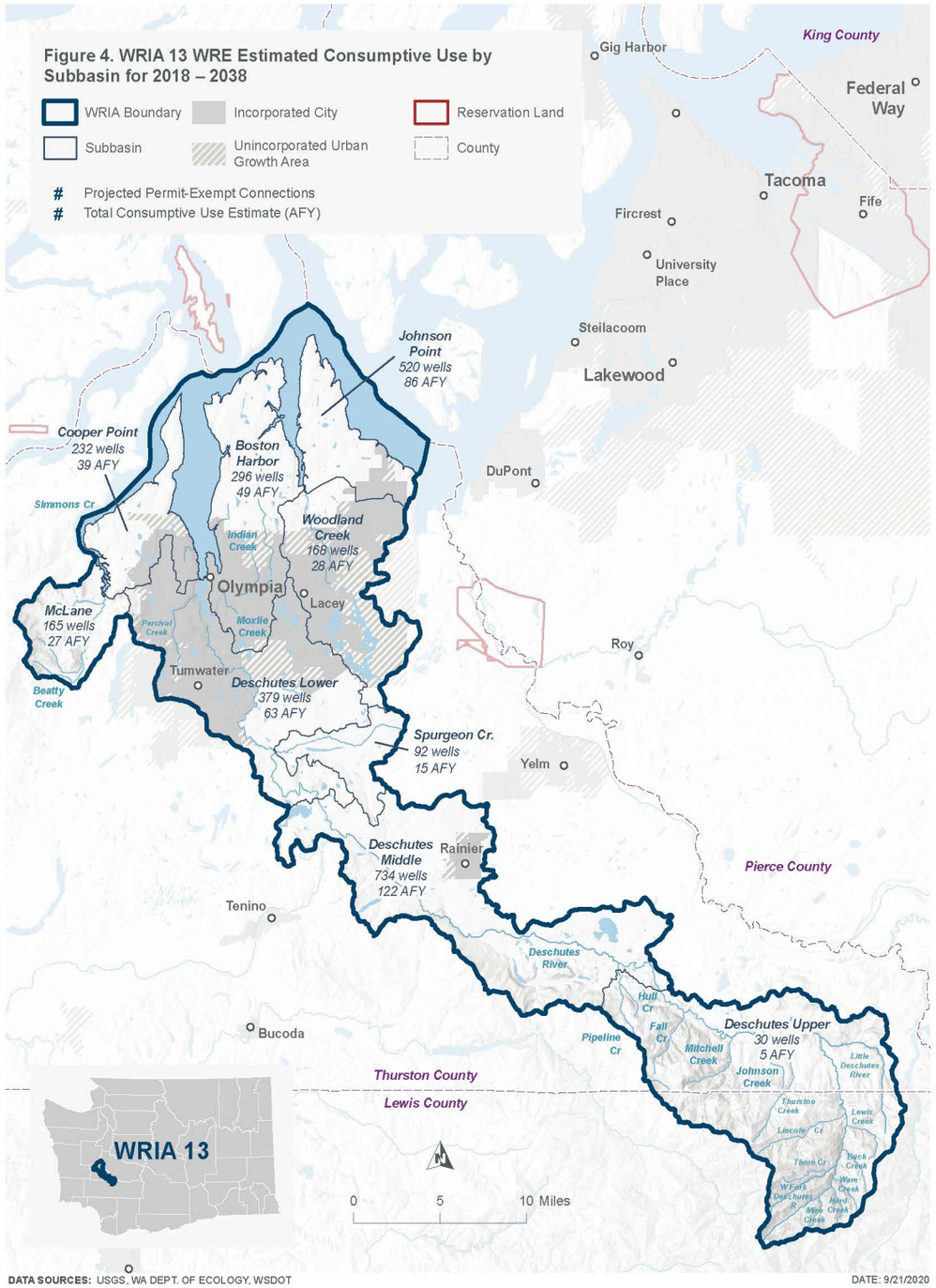


New Permit-Exempt Wells Map



New Consumptive Water Use Map

This map shows the projected new PE wells in each subbasin in the 20-year planning horizon and the associated offset needed (acre-feet/year).



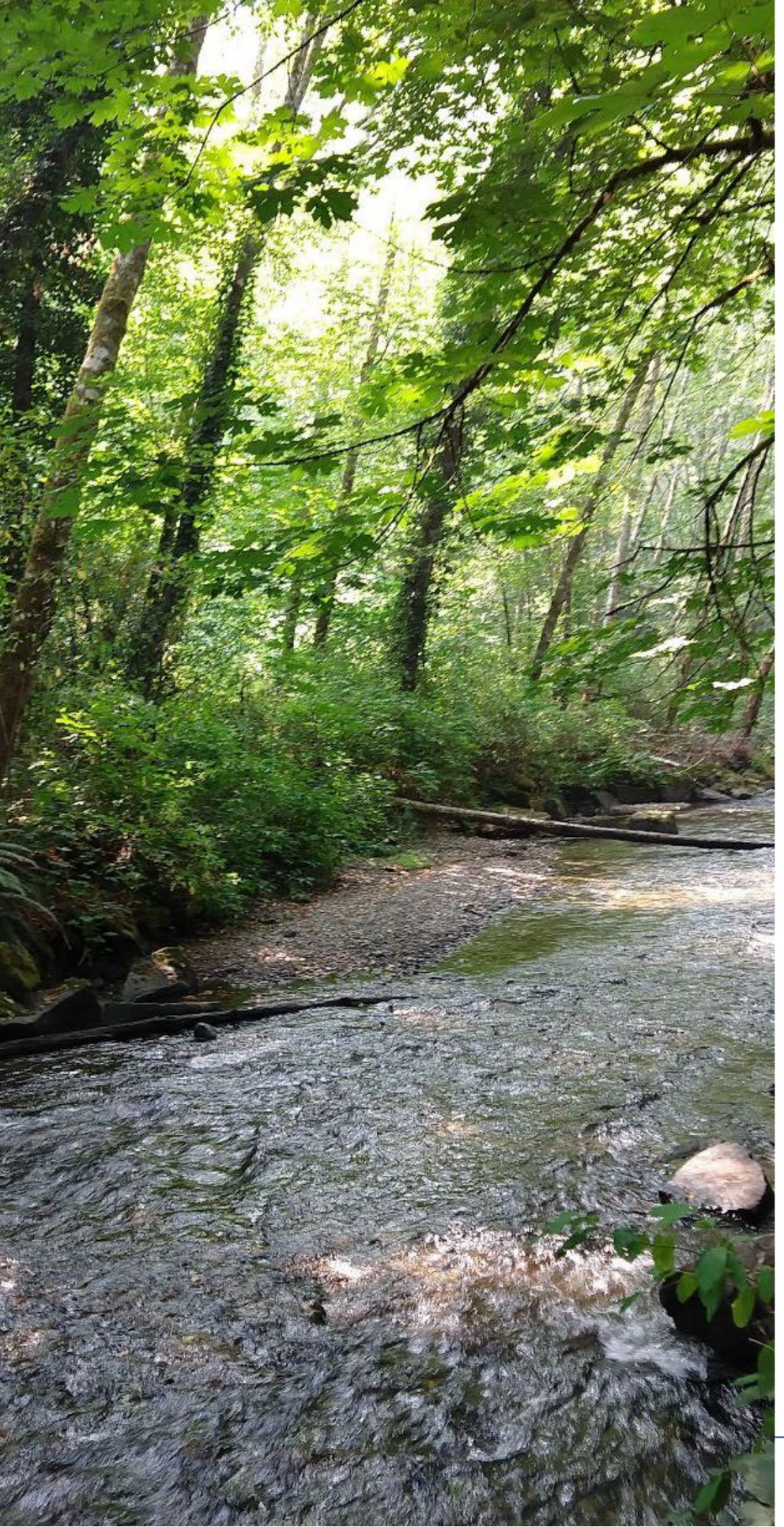
Types of Projects and Actions

- Water Right Acquisition Offset Projects
- Non-Acquisition Water Offset Projects
- Habitat and Other Related Projects
- Regulatory Action Recommendations

Water Offset Projects (selected/conceptual)

- Schneider's Prairie Off-Channel Connection (Thurston Co)
  - Off-channel reconnection and infiltration
  - Lower Deschutes subbasin
- Hicks Lake Stormwater Retrofit (Lacey)
  - Stormwater infiltration in series with existing stormwater treatment
  - Woodland subbasin
- Donnelly Drive Infiltration Ponds (Lacey)
  - Improve stormwater infiltration, avoiding surcharge and runoff to Chambers ditch
  - Lower Deschutes subbasin
- Managed Aquifer Recharge (WRIA-wide)
  - Categorical project that includes potential site locations in priority subbasins

- Project Inventory lists 8 projects in Olympia (Plan Appendix J)
- All plan projects are conceptual; no decisions yet to pursue



Habitat Projects

(selected/conceptual)

Floodplain restoration – WRIA-wide

Identifies potential locations for future projects

Floodplain connectivity, increase instream habitat complexity

- Green Cove Creek – Cooper Point subbasin
- McLane Creek – McLane subbasin
- Spurgeon Creek – Spurgeon subbasin
- Chambers Creek – Chambers subbasin
- Woodard Creek –Woodard subbasin

Project Inventory lists 3 habitat projects in Olympia (Plan Appendix J)

Policy and Regulatory Actions (selected/draft)

May involve Olympia:

- Deschutes Watershed Council – *Partnership to collaboratively address management of regional water resources*
- Instream Flow Rule revisions – *updates and possible new closures*
- County policies to promote connections to water systems
- Water supply data for comprehensive water planning
- County planning study - *streamflow restoration effectiveness*

May benefit Olympia:

- Upgraded well reporting - *Ecology database*
- State-wide water conservation program

Several others pertain only to new PE wells

Plan Implementation and Adaptive Management

- Oversight - *Deschutes Watershed Council*
- Project Tracking - *Salmon Recovery Portal*
- Monitoring and Research
- Funding – *current recommendations*
  - Request sustainable funding from Legislature
  - Increase PE well fees - *currently $500*
  - Grants - *in addition to Ecology's WRE grant program*
  - Deschutes Watershed Council – *revenues from member cost-sharing, fees or services*
  - Other ideas welcomed

WRIA-wide Net Ecological Benefit

- Compare total of projects offsets (1,316 afy) to "most likely" consumptive use impact (435 afy)
- Compare offset to impact by subbasin
- Determine whether the Plan successfully offsets impacts
- State how projects provide additional benefits to instream resources
- State how adaptive management provides additional certainty (to achieve the higher offset goal of 513 afy)

- State whether net ecological benefit has been achieved

Steps to Complete the Plan

- Watershed Committee members review & comment on draft plan
- Committee members meet (virtually) to vote on the final plan
- If all members of the Committee **approve** the plan, the Committee chair will submit the plan to Ecology for review and determination of net ecological benefit
- If the Committee **does not approve the plan**, Ecology will have the Salmon Recovery Funding Board provide technical review recommendations. Ecology will then finalize the revised plan and initiate rulemaking.

Your Role to Help Complete the Plan

Provide me with your input on this current draft Watershed Plan

- Be aware of the Plan and engage where pertinent to your expertise
- Understand potential impacts to the Deschutes Watershed from projected permit-exempt well growth in the coming 20 years
- Understand how projects and actions can offset PE well impacts
- Understand potential impacts to Olympia from projects and policies proposed in the Plan

Steps Before Voting on the Plan

- February - Presentations to Utility Advisory Committee and the Land Use & Environment Committee (February 18) for input and support to vote
- February 24 & March 24 – Watershed Committee meetings (if needed) to discuss input to Plan received during this local entity review
- March 23 – I will request City Council's approval of a resolution granting authority to vote on the Plan
- April 20 – Watershed Committee votes on final Plan to submit to Ecology
- June 30 – Deadline for Ecology to evaluate the Plan for rule-making
- Tonight – Request for UAC's verbal recommendation to LUEC in support of Olympia's Committee member to vote on the Plan (to be followed by a letter to LUEC)
- Mid-March – Send input on draft Watershed Plan to me

Post Plan Submission to Ecology

- No changes can be made to Plan after submission to Ecology
- State Environmental Policy Act (SEPA) public comment period
- Ecology will review the Plan for compliance with RCW 90.94
- If the Plan meets the law and achieves net ecological benefit, Ecology will initiate rule-making
- Rule-making may mean the Deschutes Instream Flow Rule is amended. During the amendment process, the ISF rule is open to revisions/additions by Ecology and public comment (Chapter 173-513 WAC)

Thank you for your time and attention!

Questions? Discussion

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