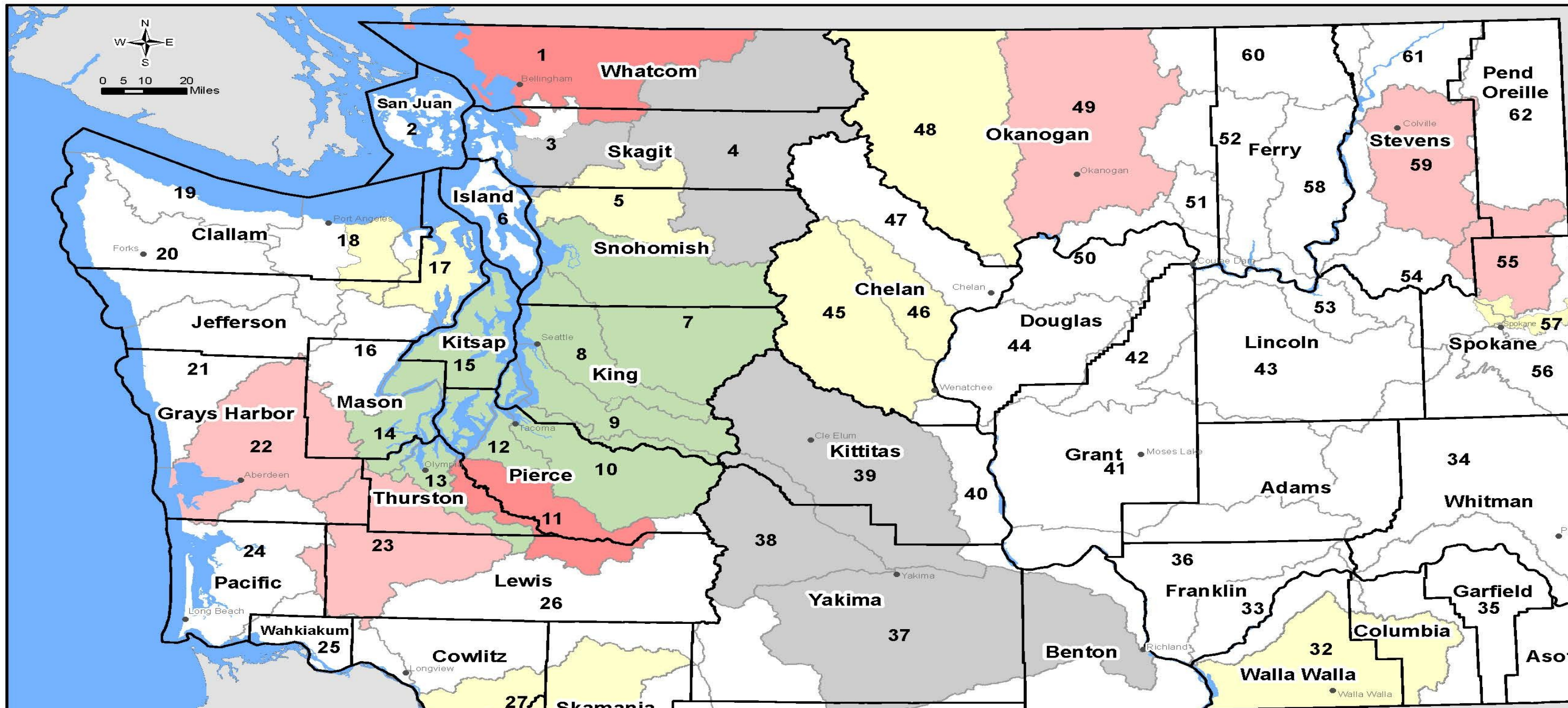
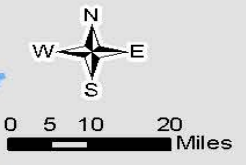


Implementing the Streamflow Restoration Act in WRIA 1

American Water Resources Association
Washington State Chapter Conference
October 16, 2018

Gary Stoyka
Whatcom County



County Boundary

WRIA Boundary

Watershed plan: update due 2019

Watershed plan: update due 2021

Watershed restoration and enhancement plan: due 2021

Existing rule that regulates permit-exempt uses

Other requirements apply

No Instream Flow Rule (See page 2 for details)

Streamflow Restoration Domestic Permit-exempt Withdrawals: New Regulations (2018 Legislation: ESSB 6091)

Water Resource Inventory Area

1 Nooksack	20 Sol Duc	43 Upper Crab-
2 San Juan	21 Queets-Quinault	Wilson
3 Lower Skagit-	22 Lower Chehalis	44 Moses Coule
Samish	23 Upper Chehalis	45 Wenatchee
4 Upper Skagit	24 Willapa	46 Entiat
5 Stillaguamish	25 Grays-Elochoman	47 Chelan
6 Island	26 Cowlitz	48 Methow
7 Snohomish	27 Lewis	49 Okanogan
8 Cedar-	28 Salmon-	50 Foster
Sammamish	29 Wind-White	51 Nespelem
9 Duwamish-Green	30 Klickitat	52 Sanpoil
10 Puyallup-White	31 Rock-Glade	53 Lower Lake
11 Nisqually	32 Walla Walla	Roosevelt
12 Chambers-	33 Lower Snake	54 Lower Spoka
Clover	34 Palouse	55 Little Spokan
13 Deschutes	35 Middle Snake	56 Hangman
14 Kennedy-	36 Esquatzel Coulee	57 Middle Spoka
Goldsborough	37 Lower Yakima	58 Middle Lake
15 Kitsap	38 Naches	Roosevelt
16 Skokomish-	39 Upper Yakima	59 Colville
Dosewallips	40 Alkali-Squilchuc's	60 Kettle
17 Quilcene-Snow	41 Lower Crab	61 Upper Lake
18 Elwha-	42 Grand Coulee	Roosevelt
Dungeness		62 Pend Oreille
19 Lyre-Hoko		

Feb. 2, 2018



RCW 90.94 Applicability

- **§020** applies to (7) WRIsAs that have:
 - ✓ Adopted ISF Rule (that does not explicitly regulate permit exempt groundwater withdrawals); and
 - ✓ Adopted Watershed Management Plan under RCW 90.82
- Update Watershed Management Plan

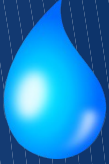
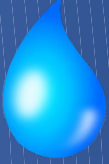

RCW 90.94 Requirements

- Wells *constructed* prior to 1/19/2018 are an adequate water supply and not subject to RCW 90.94 conditions
- New permit exempt withdrawals for domestic use allowed subject to:
 - Annual average maximum of 3,000 gpd per connection
 - Recording of Notice on Title of the withdrawal limitation
 - Payment of a \$500 fee. Remit \$350 to Ecology.
 - County must annually report on number of permits issued
- Update watershed management plan to address actions and/or projects to offset projected consumptive use for new permit exempt domestic over the next 20 years by **February 1st, 2019.**

Process for 90.94 Plan Updates

- The Lead Agency (County) shall invite...each...tribe that has usual and accustomed harvest area within the [WRIA] to participate as part of the planning unit.
(Section 020 (3))
- **In collaboration with the planning unit, the initiating governments must update the watershed plan** to include recommendations for projects and actions that will measure, protect, and enhance instream resources and improve watershed functions...
(Section 020 (4a))
- **At a minimum**, the watershed plan must include those actions that **the planning units** determine to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use.
(Section 020 (4b))

Priority of Projects

1. **Highest priority** offsets - in time, in place 
2. **Lower priority** offsets – in WRIA 
3. The watershed plan **may include** projects that  protect or improve instream resources without replacing the consumptive quantity of water [**only**] where such projects are *in addition to* those actions...necessary to offset potential consumptive impacts...

Net Ecological Benefit

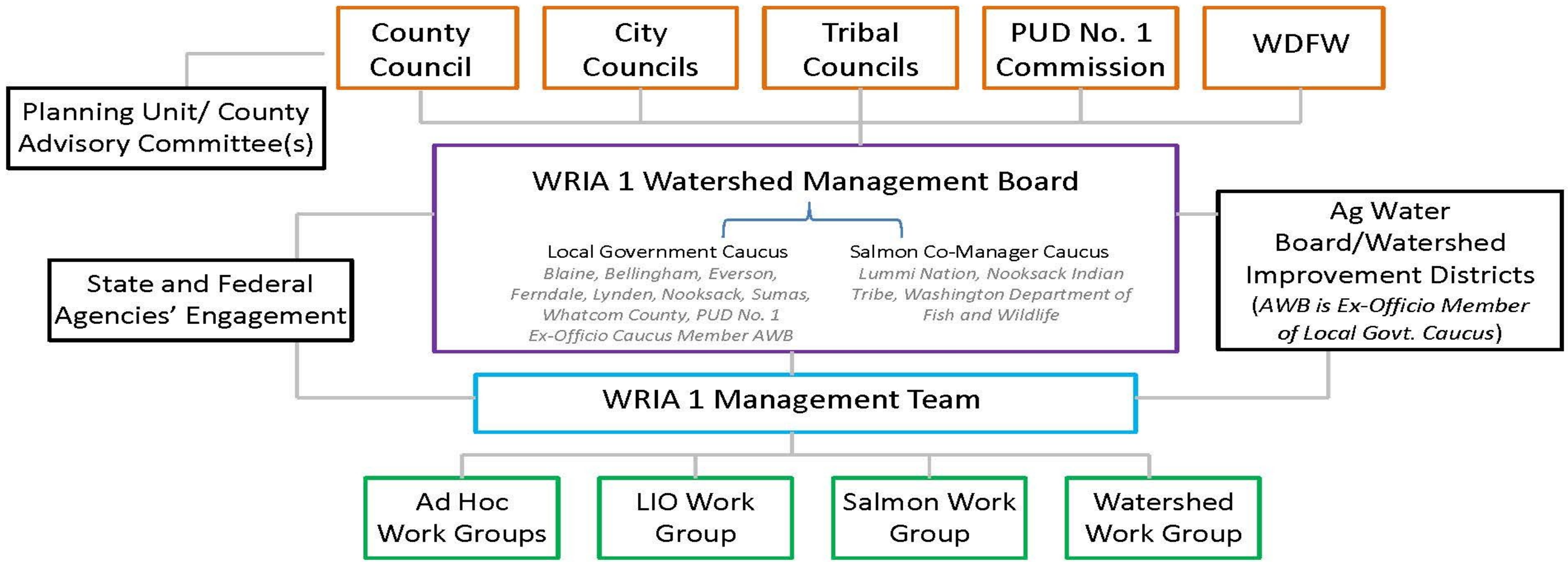
Prior to adoption of the updated watershed plan, **Ecology must determine that actions** identified in the watershed plan, after accounting for new projected uses of water over the subsequent twenty years, **will result in a net ecological benefit to instream resources...**

(Section 020 (4c))

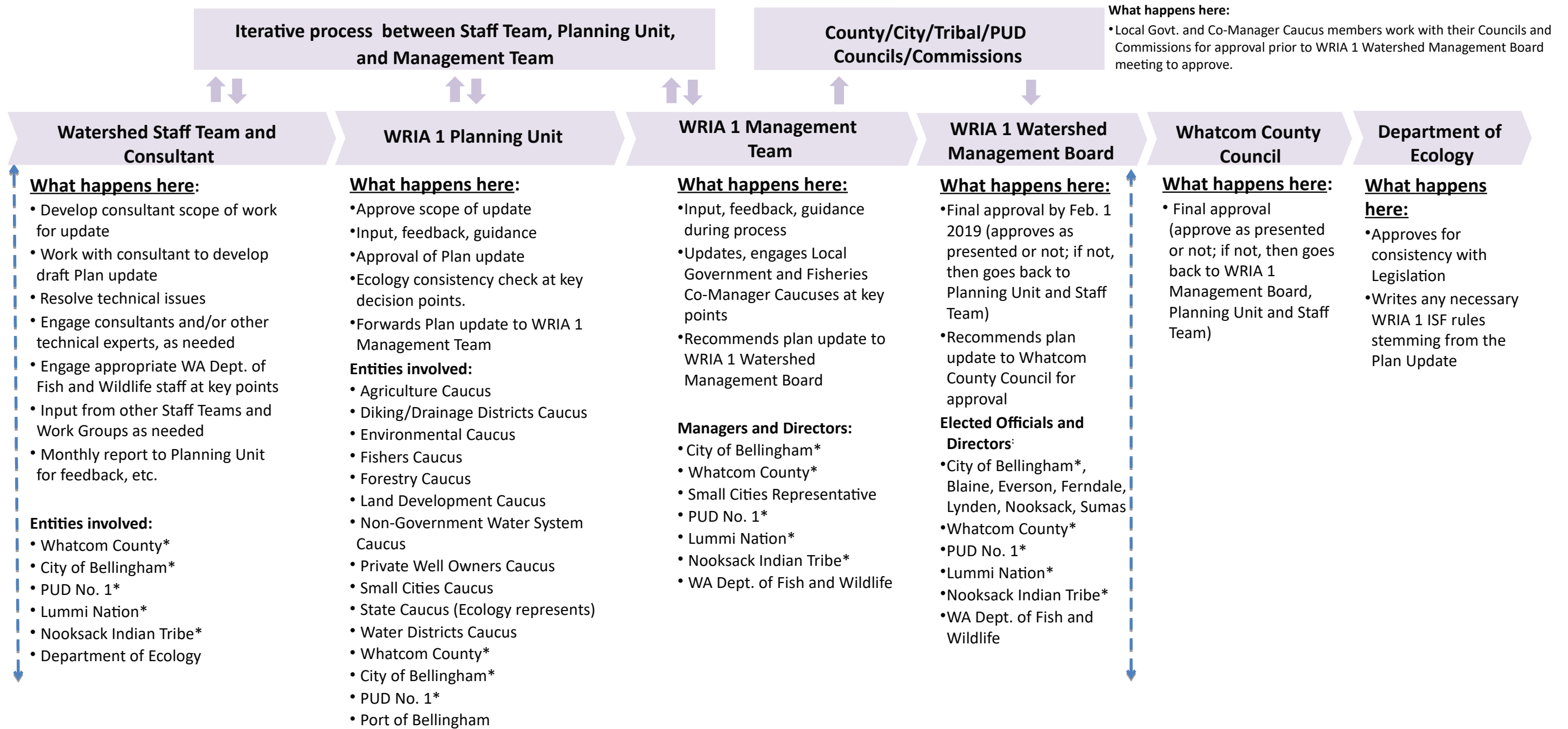
WRIA 1 Integrated Water Management

- 1998 - RCW 90.82 - Watershed Planning Act
 - *Initiating Gov'ts (Joint Board), Planning Unit, staff teams*
- 1998 - RCW 77.85 – Salmon Recovery Act
 - *Salmon Recovery Board, staff teams*
- 2005 – Watershed Management Plan; Chinook Recovery Plan
- 2009 – Coordination between salmon recovery and watershed planning
- 2010 – Puget Sound Partnership – Local Integrating Organization
- 2016 – Formal merging of Joint Board, Salmon Recovery Board, and Local Integrating Organization – WRIA 1 Watershed Management Board

2016 Interlocal Agreement– Clarifications 01/18/18



Process for Developing and Approving Streamflow Restoration Act (ESSB 6091) Update of WRIA 1 Watershed Management Plan



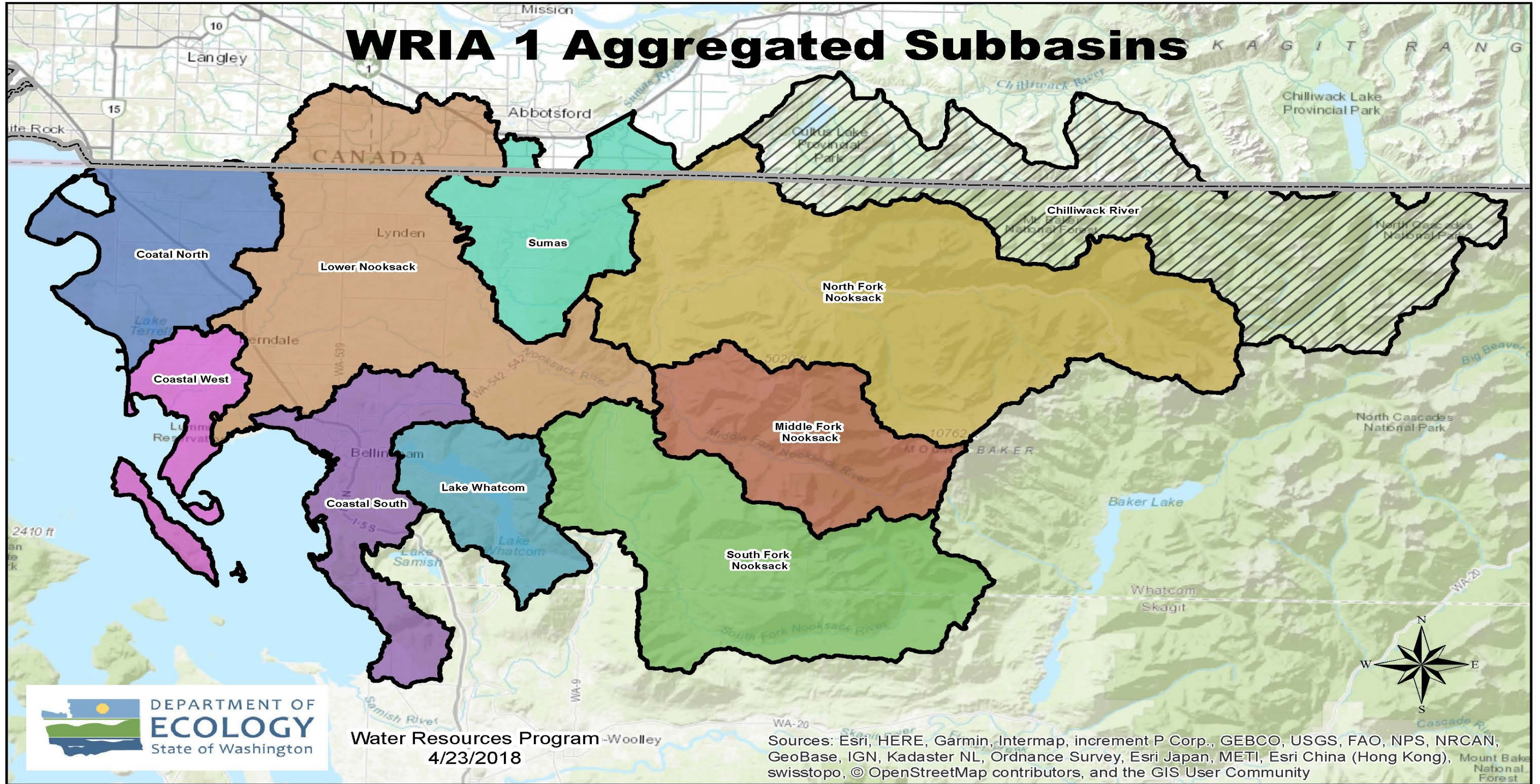
Approach v. 1.0

February 2018

1. Determine Projected Impacts
2. Identify Actions
3. Develop Monitoring and Adaptive Management Plan
4. Fit into bigger water picture

20-Year Population Projections

- 20-year growth projections consistent with adopted GMA Comp Plan non-UGA growth rate (1.6%)
- Define 9 sub-basins; Allocate 20-year non-UGA projected growth into those sub-basins
- Convert remaining population projections to number of households/connections



WRIA 1 Aggregated Subbasins reflect the aggregated subbasins delineated in the '2010 WRIA 1 Watershed Management: State of the Watershed' report (referred to as "aggregated watersheds" in the report), with each of the three forks of the Nooksack River (North, Middle, South) delineated. GIS boundaries are consistent with the original WRIA 1 Watershed Management Plan approved boundaries. The Chilliwack River aggregated subbasin is not included in analysis for new domestic connections to groundwater permit exempt wells in the next 20 years, as residential development is not anticipated in that area [ie new domestic connections to groundwater permit exempt wells in the next 20 years = zero]. Canadian portions of the aggregated subbasins are also not included in analyses.

Convert to 20-Year Consumptive Use Projections

1. Project where wells will be drilled
2. Estimate indoor use/consumption
3. Estimate range of outdoor use estimates

Result – use best science – 647 acre-ft/year

✓ Get Approval from IGs and Planning Unit

Identifying Potential Projects

- ✓ Compile list from existing projects/plans
- ✓ Brainstorming Workshop with Planning Unit
- ✓ Criteria for Evaluation
- Winnow list to “suite of projects”
- Selection

Approach v. 2.0

July 2018

Iterative Approach

1. Determine Projected Impacts
2. Identify Potential Actions (by sub-basin)
Projects, Policies, Programs
 - a. Early Actions
 - b. Potential Actions
 - c. Other Actions
3. Develop Monitoring and Adaptive Management Plan

Watershed Management Plan Update Outline

1. Introduction

2. Assessment of Potential Impacts

a. Uncertainty analysis

3. Selected Actions

a. Process for selecting actions

b. Preliminary selected actions

i. Projects

ii. Policies

iii. Programs

4. Evaluation of Impacts and Selected Actions

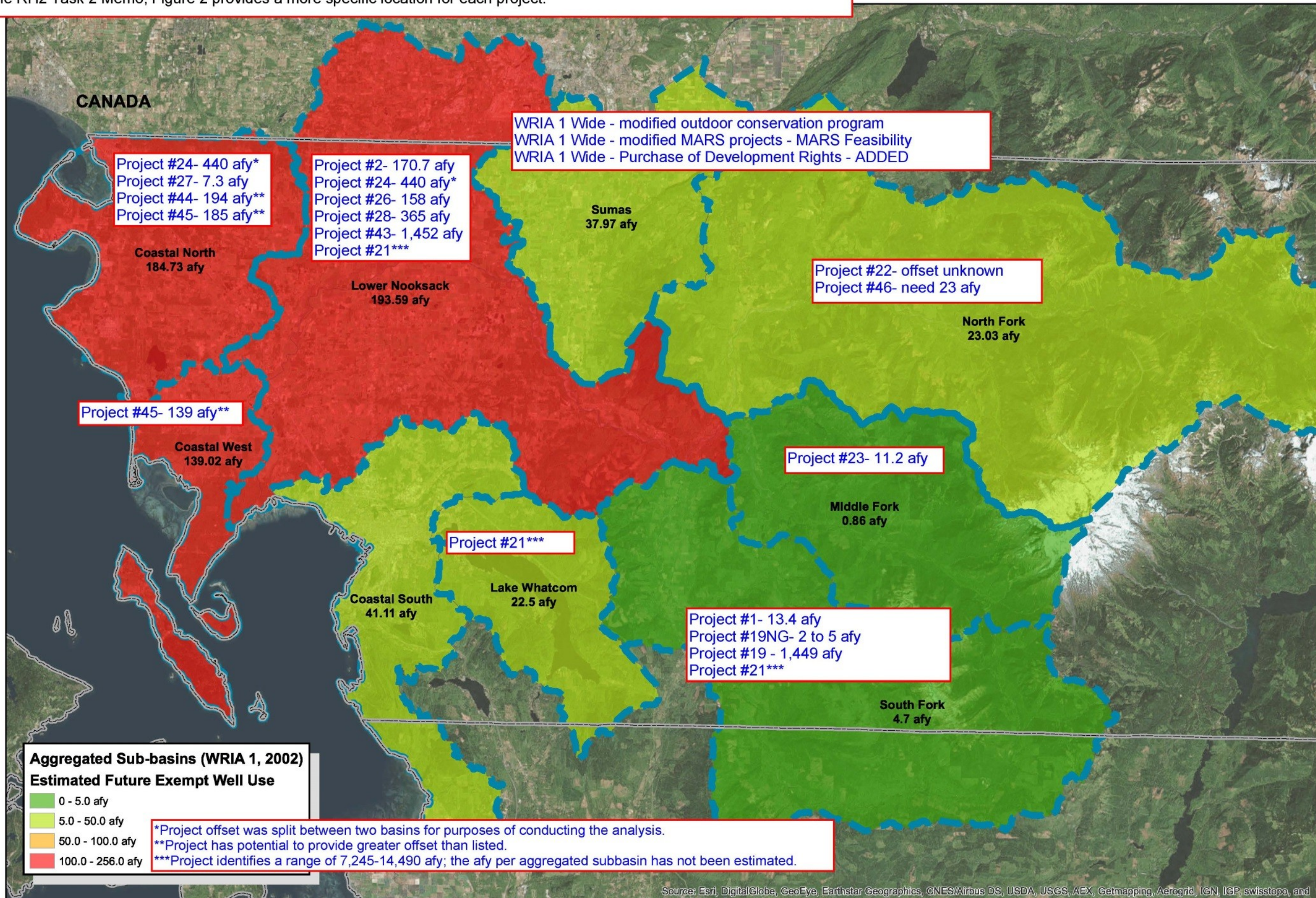
c. Offsets

d. Net Ecological Benefit assessment

5. Monitoring and Adaptive Management

6. Implementation

Visual Representation of Watershed Staff Team Suite of Projects by Aggregated Sub-basins_10-04-2018.
 The RH2 Task 2 Memo, Figure 2 provides a more specific location for each project.



Current Barriers

- Net Ecological Benefit Analysis - uncertainty
- Policy Changes/Rulemaking – Now or never
 - Withdrawal limit
 - Fees
- Exact mitigation vs. overall improvement
- Big picture vs. surgical strike
- Typical philosophical differences

October 2018



Questions?

Developing and Approving Streamflow Restoration Act (ESSB 6091) Update of WRIA 1 Watershed Management Plan

Working Draft Timeline - Technical Products, Anticipated Meeting Topics, and Approvals



Technical Work Occurring ~April-May:

- 20 yr growth projections
- Average outdoor water use analysis
- Six (6) scenarios for consumptive water use
- Calculate consumptive use for 20yr projection
- Begin identifying actions and projects

Guidance: Ecology issued guidance for net ecological benefit late May

Technical Work Occurring ~June-Mid August:

- Continue identifying and evaluating actions and projects (up to 45)
 - Detailed analysis of up to 20 selected from the 45
 - Planning level costs for projects and actions
 - Matrices/classification for prioritizing
 - Identify potential funding mechanisms
- Discussion:**
- Projects to offset consumptive use – mine existing lists; consider new projects such as high flow capture and storage for low flow periods; emergency water plan (e.g., drought, natural disaster, etc.)
 - Funding and fees for projects that offset use
 - Quantity and quantification of water use

Technical Work Occurring ~Sept-Oct:

- Prepare draft plan update due October 1
- Discussion:**
- Recommendations for plan?

Technical Work Occurring late Oct-Nov:

- Prepare final plan update due Nov 1
- Discussion:**
- Review draft early Oct
 - Provide and consolidate comments for RH2 10/17 for final update on Nov 1

Anticipated GFC and Planning Unit Meeting Topics to Correspond to Technical Work and Deliverables

4/25	5/9 ¹ & 5/23	6/13 & 6/27	7/11 & 7/25	8/8 & 8/22	9/12 & 9/26	October ²	November ³
<ul style="list-style-type: none"> • 20yr Growth projections • Water use scenarios using adopted Comp Plan growth numbers 	<ul style="list-style-type: none"> • BERK update • GIS Analysis of water use (scenario or alternate) • List of key discussion points for caucuses 	<ul style="list-style-type: none"> • Memo Outcomes • Select discussion points from list? • Guidance on net ecological benefit (if available) 	<ul style="list-style-type: none"> • Carry-over discussions from June • Project discussions? 	<ul style="list-style-type: none"> • Memo Content • Discussions leading to recommendations for Oct 1 draft update 	<ul style="list-style-type: none"> • Memo Outcomes • Discussions leading to recommendations for Oct 1 draft update 	<ul style="list-style-type: none"> • Review Draft Plan Update • Discuss and Consolidate comments for RH2 	<ul style="list-style-type: none"> • Final Plan Update • Planning Unit approval

¹Proposed- May 3 Work Session to be discussed April 25

²Proposed- Given deliverable dates, consider change in meeting schedule to 1st and 3rd week and changing the GFC meeting to a formal Planning Unit meeting (i.e., two formal Planning Unit meetings in October).

³Proposed- GFC meeting is a formal Planning Unit meeting with discussion of the final draft plan update at the first meeting (November 14) and approval at the second meeting (November 28).

Compile a list of Potential Actions

- Surface to groundwater withdrawal conversion projects (several)
- Groundwater augmentation of tributaries
- New Source: Use water from deep wells, not connected to surface water, to offset future impacts
- Habitat improvement projects (several)
- Agriculture Management: Treat Dairy Manure to Produce Fertilizer Concentrates and Dischargeable Clean Water
- Implement water markets/banks/exchanges
- Water Relocation: Pipe water from PUD plant for streamflow augmentation
- Off-channel storage & high flow/flood management (aquifer recharge)
- Conservation: (1) Improved maintenance practices for ag irrigation systems; (2) Adopt advanced methods of irrigation scheduling; (3) Improved golf course and other commercial irrigation.

Identifying Potential Projects

- ✓ Compile list from existing projects/plans
- ✓ Brainstorming Workshop with Planning Unit
- ✓ Criteria for Evaluation
 - Specific vs. general
 - Priority Hierarchy
 - Planning Level Cost/Benefit
- ☐ Find offsets for each sub-basin
- ☐ Selection