WRIA 27/28 Overview

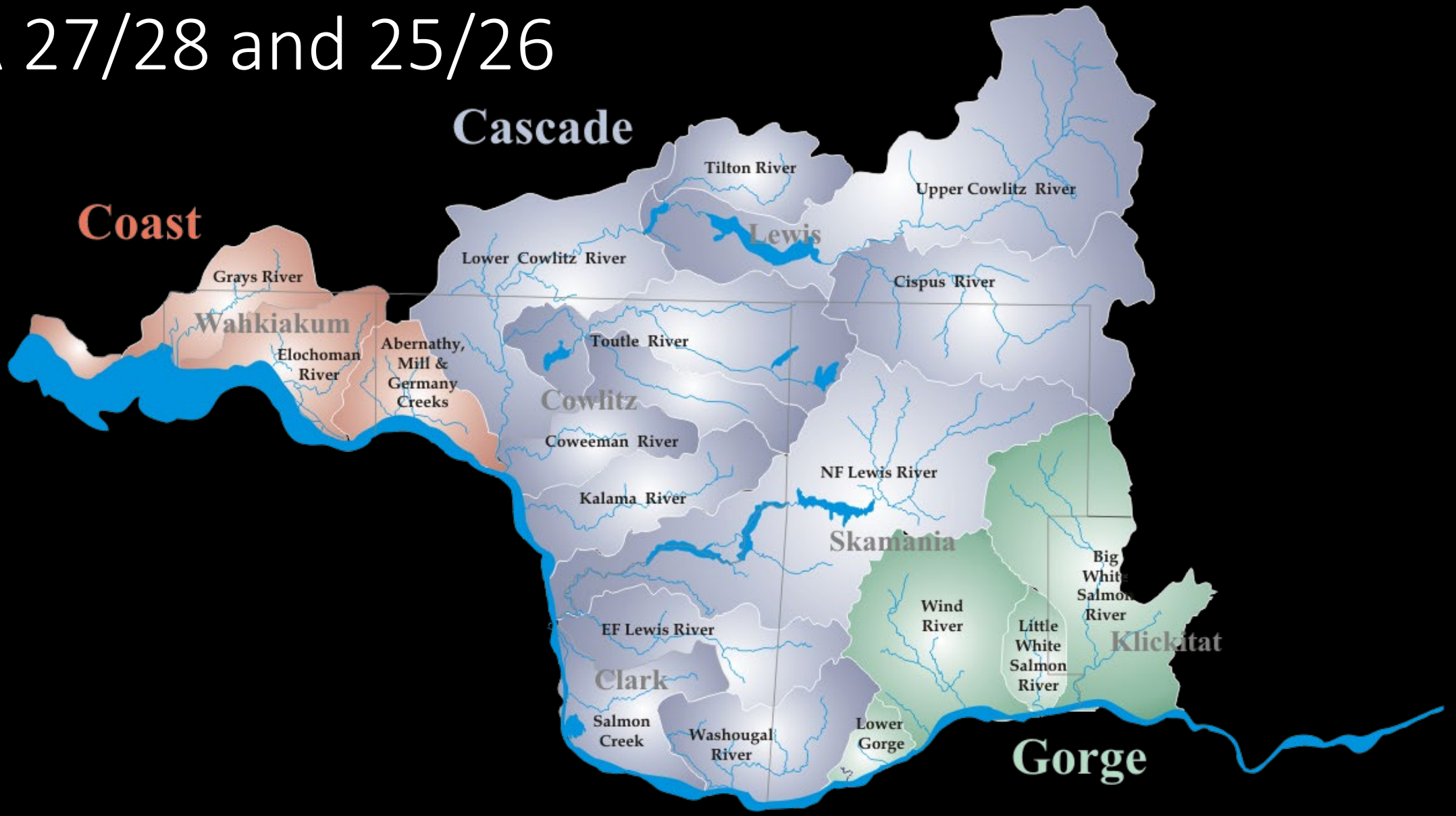
Lower Columbia Fish Recovery Board

August 26, 2021

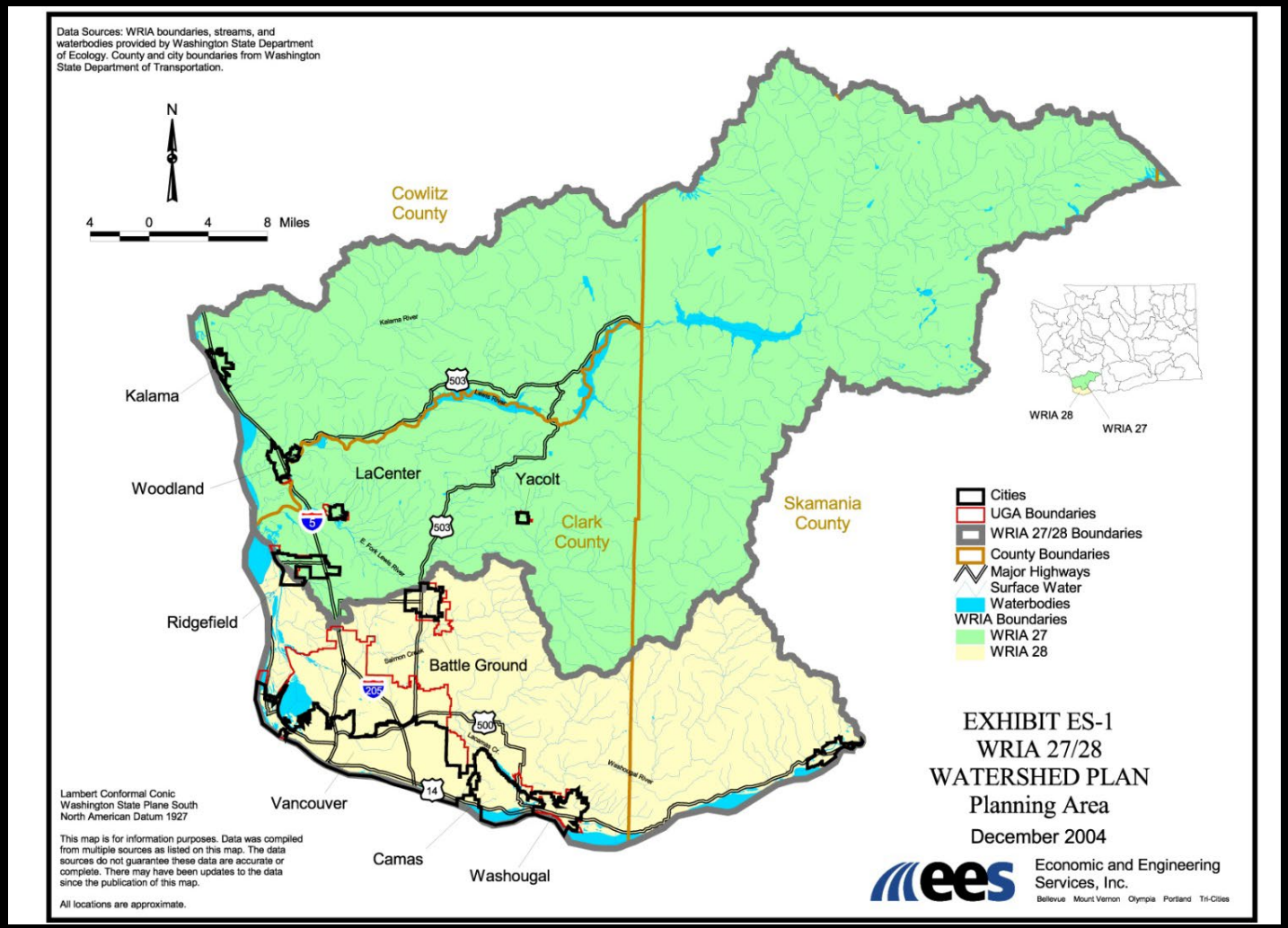
Watershed Planning Process

- State Watershed Management Act
- Initiated planning in 1999
- Two planning areas – WRIA 25/26 and 27/28
- Planning Units established to guide process
- Planning Units consists of state agencies, local governments, water purveyors, and interested individuals

Planning Area:
WRIA 27/28 and 25/26



Planning Area: WRIA 27/28



WRIA 27/28 Mission Statement

"Develop and implement a watershed management plan for the responsible use of water to balance the needs of people and natural resources" - addressing:

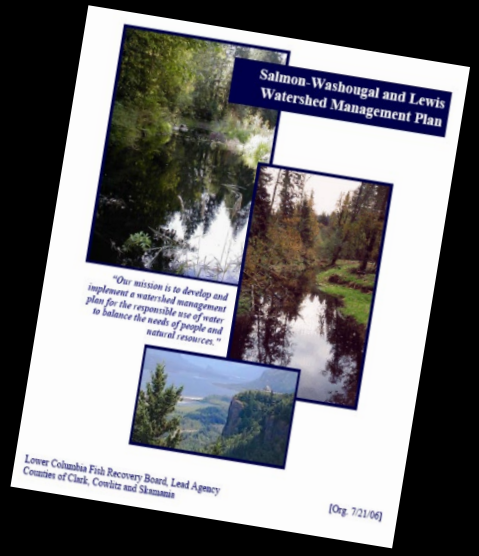
- Water quantity
- Water quality
- Habitat
- Instream flows

Planning Process

- Technical Evaluations
  - Water availability and needs
  - Water quality concerns
  - Stream flows
  - Fish habitat conditions
- Recommended Management Actions
  - Water supply management
  - Stream flow management
  - Water quality protection and improvement
  - Habitat restoration measures from salmon recovery plan

Planning Process

- Watershed Plans adopted in 2006 by Boards of County Commissioners of Clark, Cowlitz, Skamania, Lewis, and Wahkiakum Counties
- Detailed Implementation Plans developed by the Planning Units and adopted in 2008



Current Status

- WRIA 27/28
  - Rule adopted in 2009
  - Plan implementation underway
- WRIA 25/26
  - Rule making initiated in 2010 by Ecology
  - Strong public concern over adequacy of water set aside for future needs
  - Ecology halted rule making process
  - Planning Unit Revised Plan
  - Rule making in abeyance

Water Supply Management

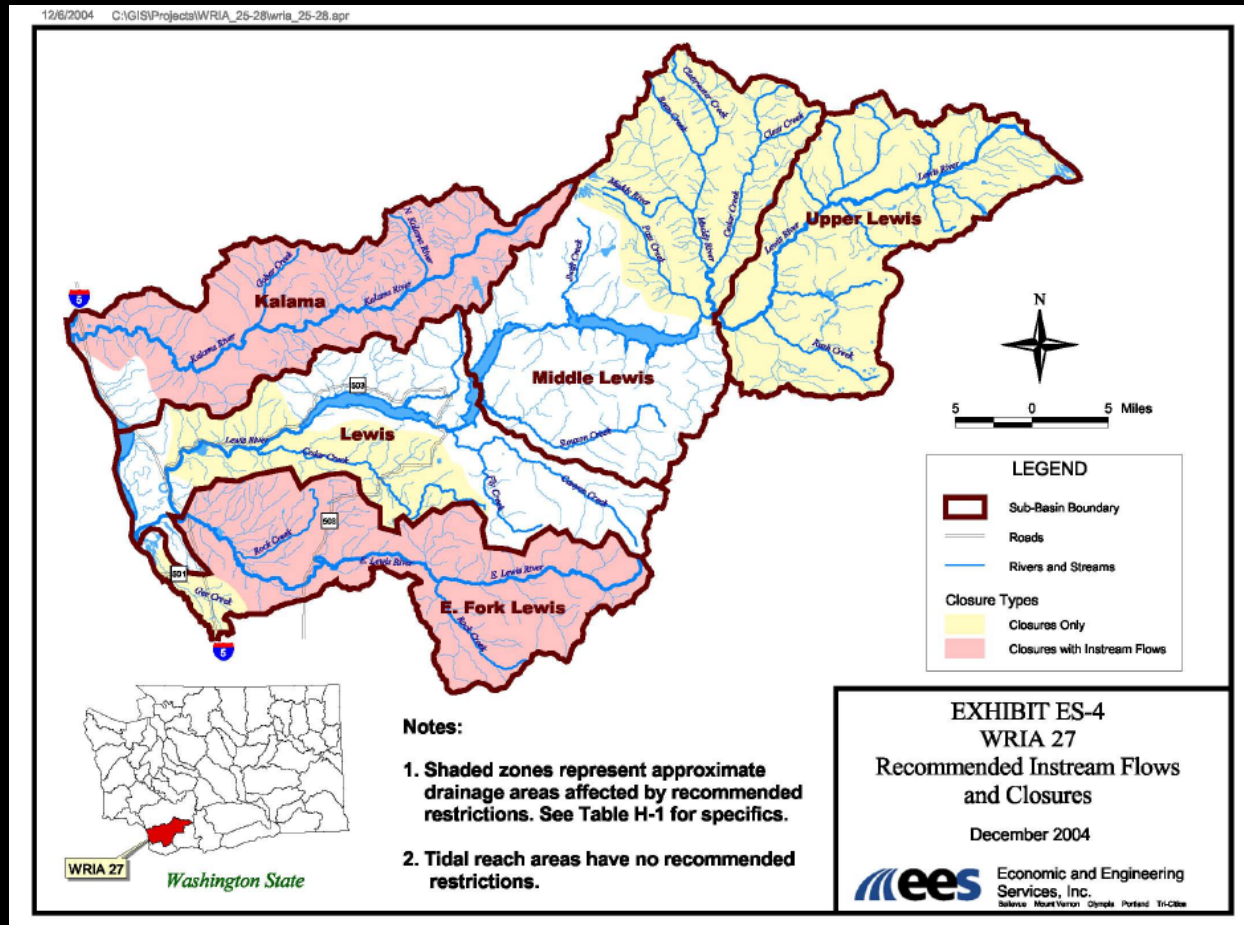
- PU reviewed range of water supply strategies
  - Development of new surface or ground water supplies
  - Water conservation
  - Water reclamation and reuse
  - Voluntary transfers of water rights
  - Aquifer storage and recovery
  - Surface water storage
- Examined needs of communities and water-use groups (through 2020)

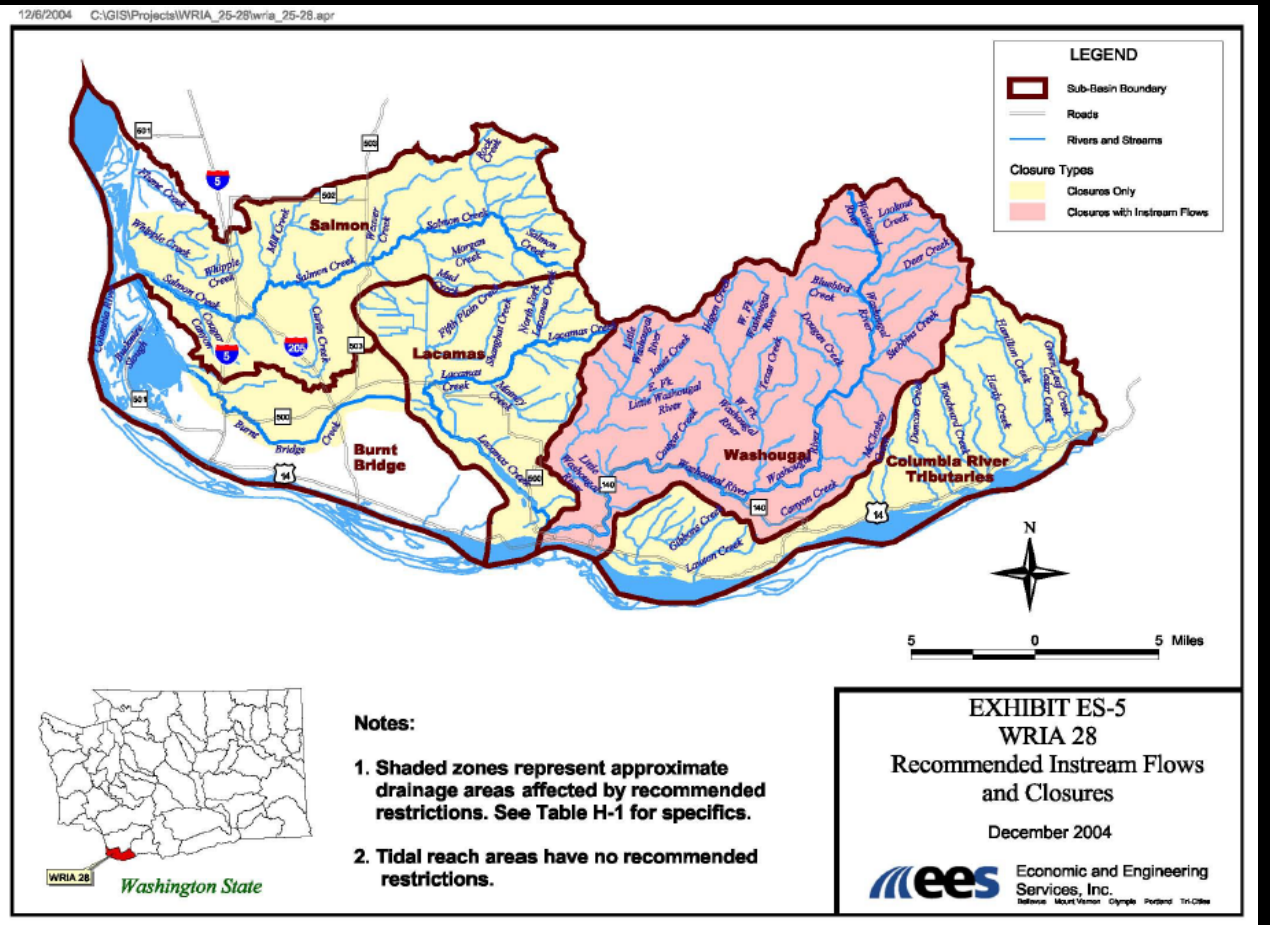
Stream Flow Management

- Work to improve watershed conditions over the long-term to improve stream flows and promote aquifer recharge
- Identified potential regional water sources
- Establish stream flow protection
  - Instream flow, closures
- Set aside “Water Reservations” to meet future needs
- Established conditions for using reserved water

Stream Flow Protection

- Open areas
- Closures
- Instream Flows
- Reservations





Reservations

- Closing most of the region's streams and rivers to future withdrawals to protect stream flows

- "Water Reservations" are a *specific quantity of stream flow* set aside in a closed stream to meet future needs
  - Based on 20-year estimate of needs
  - Allocated across specific water users
  - Approximately 1-2% habitat impact at low flow

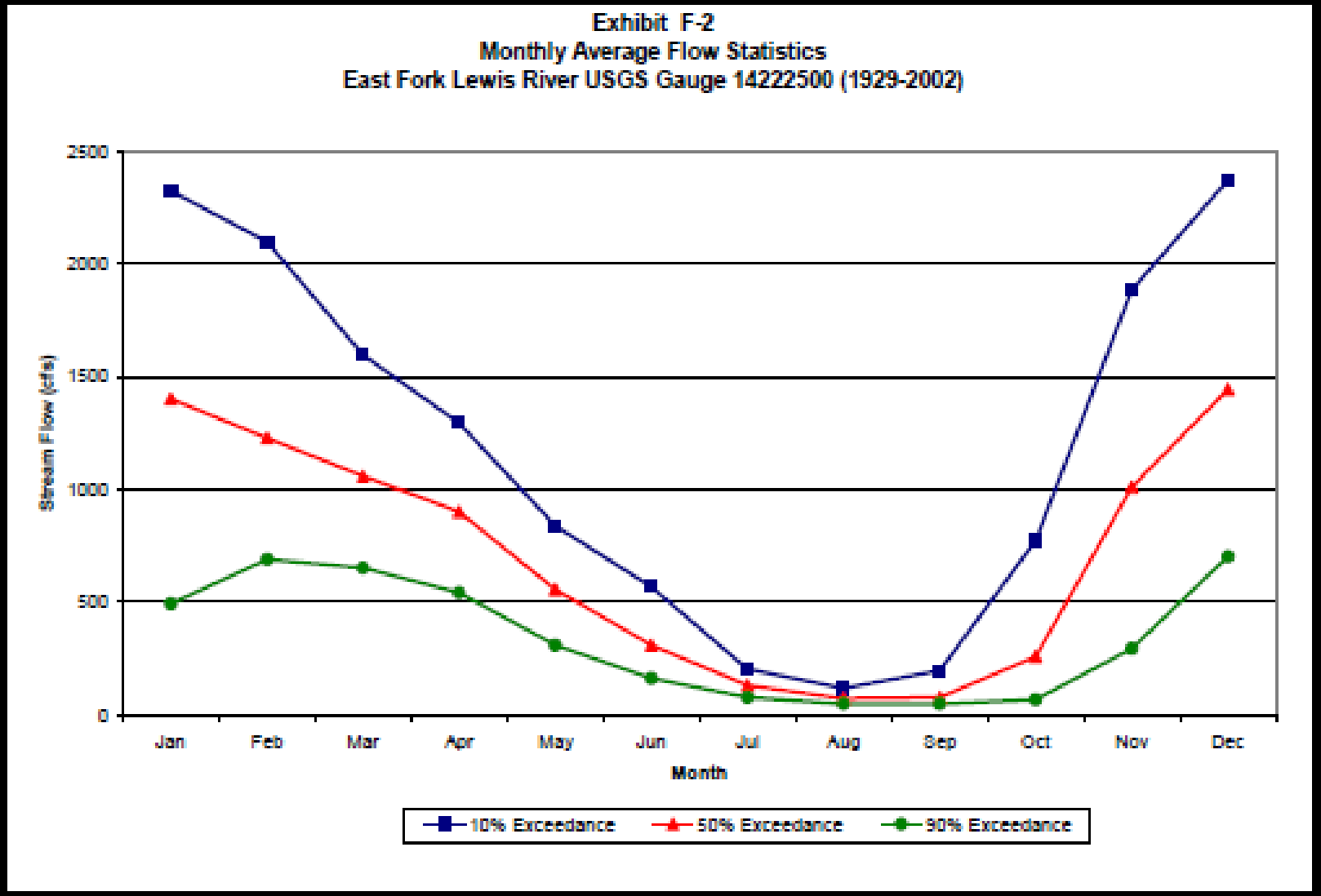
Reservations

Table ES-3
Water Right Reservation Summary for WRIAs 27/28

Water User [1]	Net Stream flow Depletion Allowance After Mitigation (cfs) [2]
Kalama River Subbasin [5]	
Kalama	1.92
Small Systems and Domestic Wells	0.35
Subbasin Total	**2.26**
North Fork Lewis Subbasin	
Cowlitz County Portion	
Small Systems and Domestic Wells	0.26
Clark County Portion	
Small Systems and Domestic Wells	0.49
Skamania County Portion	
Domestic Wells	0.40
Small Systems	0.40
Commercial	0.21 [6]
Subbasin Total	**1.76**
East Fork Lewis Subbasin [5]	
Clark County Portion	
CPU, Battle Ground, and Ridgefield [4]	2.20
Small Systems and Domestic Wells	0.66
Skamania County Portion	
Small Systems and Domestic Wells	0.00
Subbasin Total	**2.85**
Salmon Creek Subbasin	
CPU, Battle Ground, and Ridgefield [4]	0.13
Small Systems and Domestic Wells	0.12
Subbasin Total	**0.24**
Burnt Bridge Creek Subbasin	
Vancouver	0.02
Small Systems and Domestic Wells	0.00
Subbasin Total	**0.02**
Lacamas Creek Subbasin	
Camas	0.50
CPU	0.30
Small Systems and Domestic Wells	0.36
Subbasin Total	**1.16**
Washougal River Subbasin [5]	
Clark County Portion	
Washougal	0.00 [3]
Small Systems and Domestic Wells	0.36
Skamania County Portion	
Small Systems and Domestic Wells	0.74 [7]
Subbasin Total	**1.10**
Columbia River Tributaries Subbasin	
Clark County Portion	
Small Systems and Domestic Wells	0.22
Skamania County Portion	
Small Systems and Domestic Wells	0.22
Subbasin Total	**0.44**

Notes:
[1] Categories of water users include:
Large Public Water Systems, which are listed individually.
Small Systems, which refers to Public Water Systems not listed individually and required to apply for a water rights permit.
Domestic Wells, including those serving multiple homes but exempt from the requirement to apply for a water right permit.
Other Beneficial Uses, such as self-supplied industrial uses.
[2] Calculated based upon an estimate of additional water rights needed to meet water demands through 2020. Incorporates the effects of offsetting and mitigation activities. The allowance applies only to mainstem flows; it is not intended to allow for extensive dewatering of smaller water bodies.
[3] Current water rights are sufficient to meet needs through year 2020. Therefore no reservation is established.

Stream Flow Protection



High Priority Actions - Examples

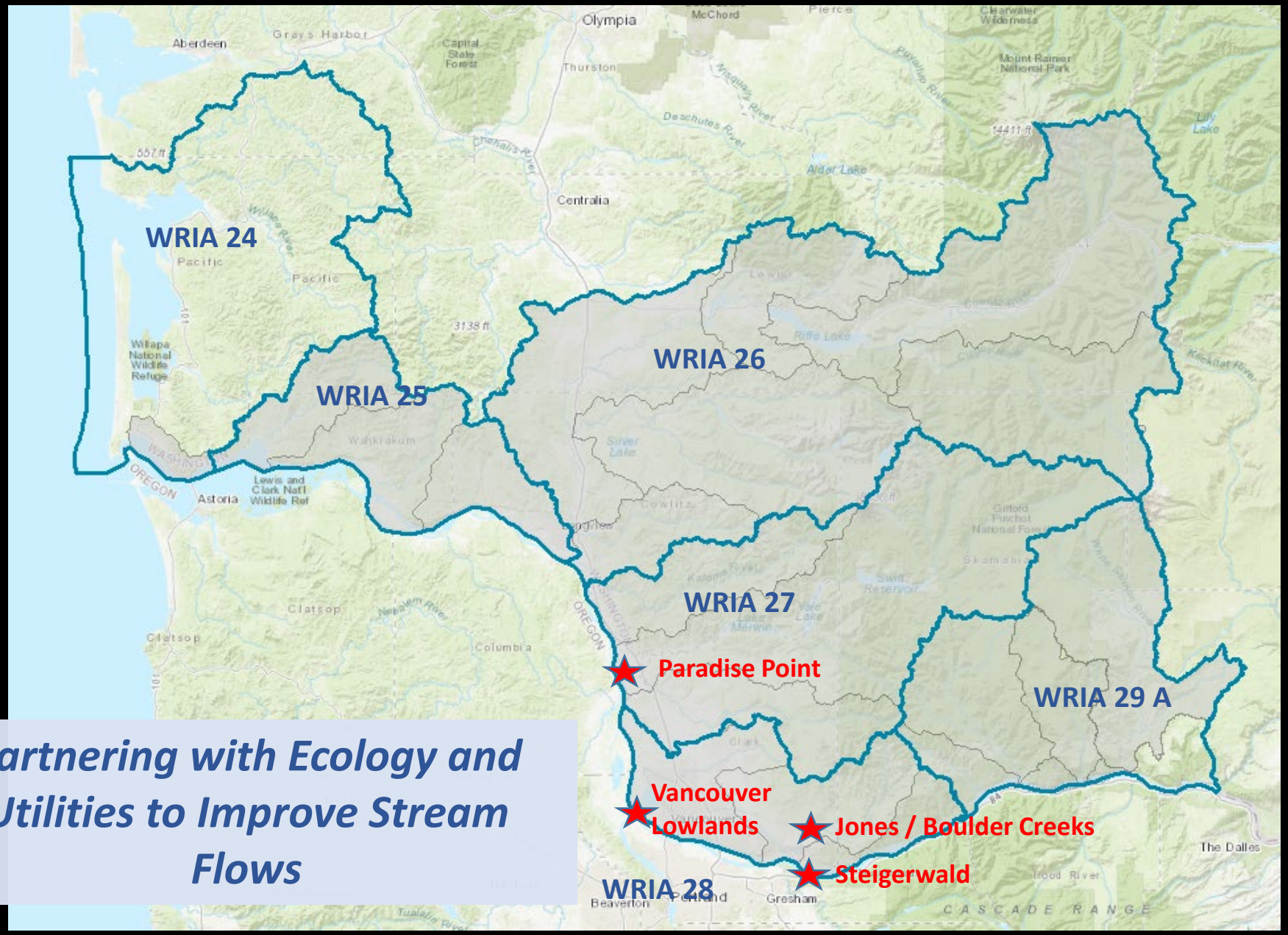
Table ES-5
Implementation Considerations for Watershed Management Plan

Priority[1]	Activity	Implementers[3]	Financial/ Economic Costs[2]	Potential Funding Sources
Category: Water Supply				
High	Public Water Systems develop new or expanded supplies. Requires engineering studies; approval of water system plan; water rights processing; other permitting; SEPA compliance; construction; operations & maintenance. Standard procedures exist for all of these (See Section 3.3.1).	*Lead*: Public Water System *Others*: DOH, Ecology	Medium	*Main*: Water rates and hookup charges in affected service area *Additional*: Grants or low-interest loans from existing state & federal programs
High	Planning studies to explore alternative sources of supply to replace an existing source (selected communities) (See Section 3.3.2).	*Lead*: Public Water System	Low	*Main*: Water rates in affected service area
High	Replace an existing source of supply with a different source to reduce impacts on stream flow. Requires engineering studies; water rights processing; other permitting; inter-local agreements or contracts; construction; operations & maintenance (See Section 3.3.2).	*Lead*: Public Water System *Others*: DOH, Ecology, adjacent water system(s) to serve as wholesaler	Medium to High	*Main*: Leg. appropriation *Additional*: Water rates in affected service area
	Develop map of region's aquifers with emphasis	*Lead*: Ecology		

Table ES-5 (cont.)
Implementation Considerations for Watershed Management Plan

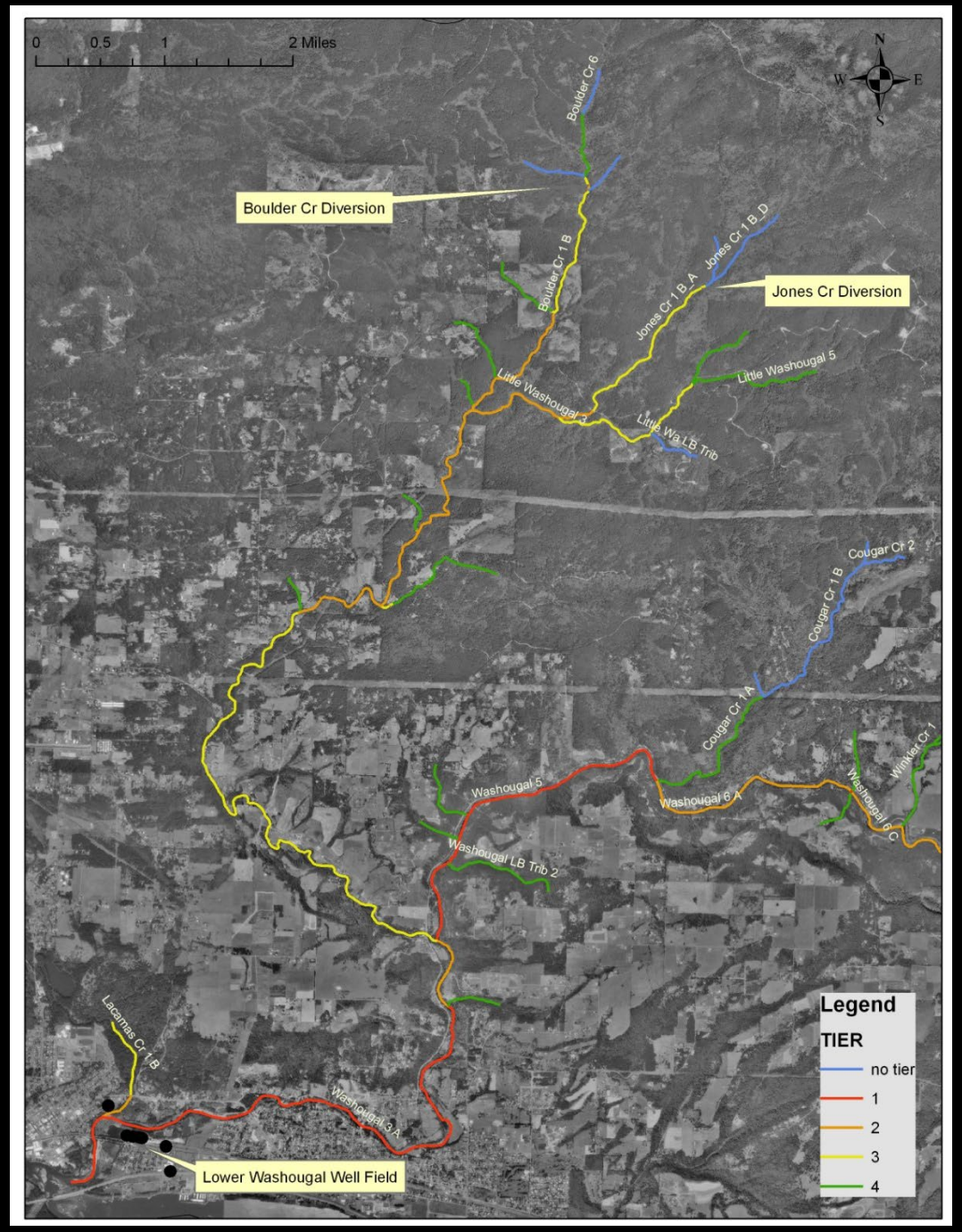
Priority[1]	Activity	Implementers[3]	Financial/ Economic Costs[2]	Potential Funding Sources
Category: Stream Flow Management				
High	Maintain existing stream gauges. Install new gauges at selected locations. Select exact sites; permit and construct gauges; O&M; data management (See Section 4.2).	*Lead*: Ecology *Other*: USGS, LCFRB, Counties	Medium	*Main*: Leg. appropriations (Ecology budget); Congr. appropriations (USGS budget); *Additional*: Counties; Public Water Systems
High	Adopt restrictions on issuance of new water rights in State Rule (See Section 4.4.1).	*Lead*: Ecology *Other*: LCFRB	Low	*Main*: Ecology (staff time) *Additional*: LCFRB (staff time)
High	Selected actions involving water supply and intended to protect stream flow. See water supply items listed above.	*See Section 3.6*	*See Section 3.6*	*See Section 3.6*
High	Establish target flow monitoring and management program (See Section 4.3).	*Lead*: LCFRB and Planning Unit or successor organization *Other*: Ecology, DFW		*Main*: Phase 4 implementation funds *Additional*: TBD
High	Initial surveys in selected subbasins to identify unauthorized uses and take enforcement actions. Follow-up in other basins if warranted (See Section 4.4.6).	*Lead*: Ecology *Other*: N/A	Low to medium	*Main*: Leg. appropriations (Ecology budget & staffing) *Additional*: N/A
High	Consider and address effects of forest practices on stream flow. Monitor effectiveness of F&F Rules and NW Forest Plan. Report to public periodically (See Section 4.5.1).	*Lead*: DNR, USFS *Other*: Private forest landowners	Low to medium	*Main*: Leg. appropriations (DNR budget); Congr. appropriations (USFS budget), Timber producers *Additional*: N/A
High	Within authorities, protect floodplains from modifications that would impair hydrologic functions or habitat (See Section 4.5.3).	*Lead*: Counties, cities, State agencies with land management responsibilities *Other*: DFW	Low	*Main*: County permitting fees or general fund revenues, grants *Additional*: State agency budgets

Source Substitution



Camas Source Substitution

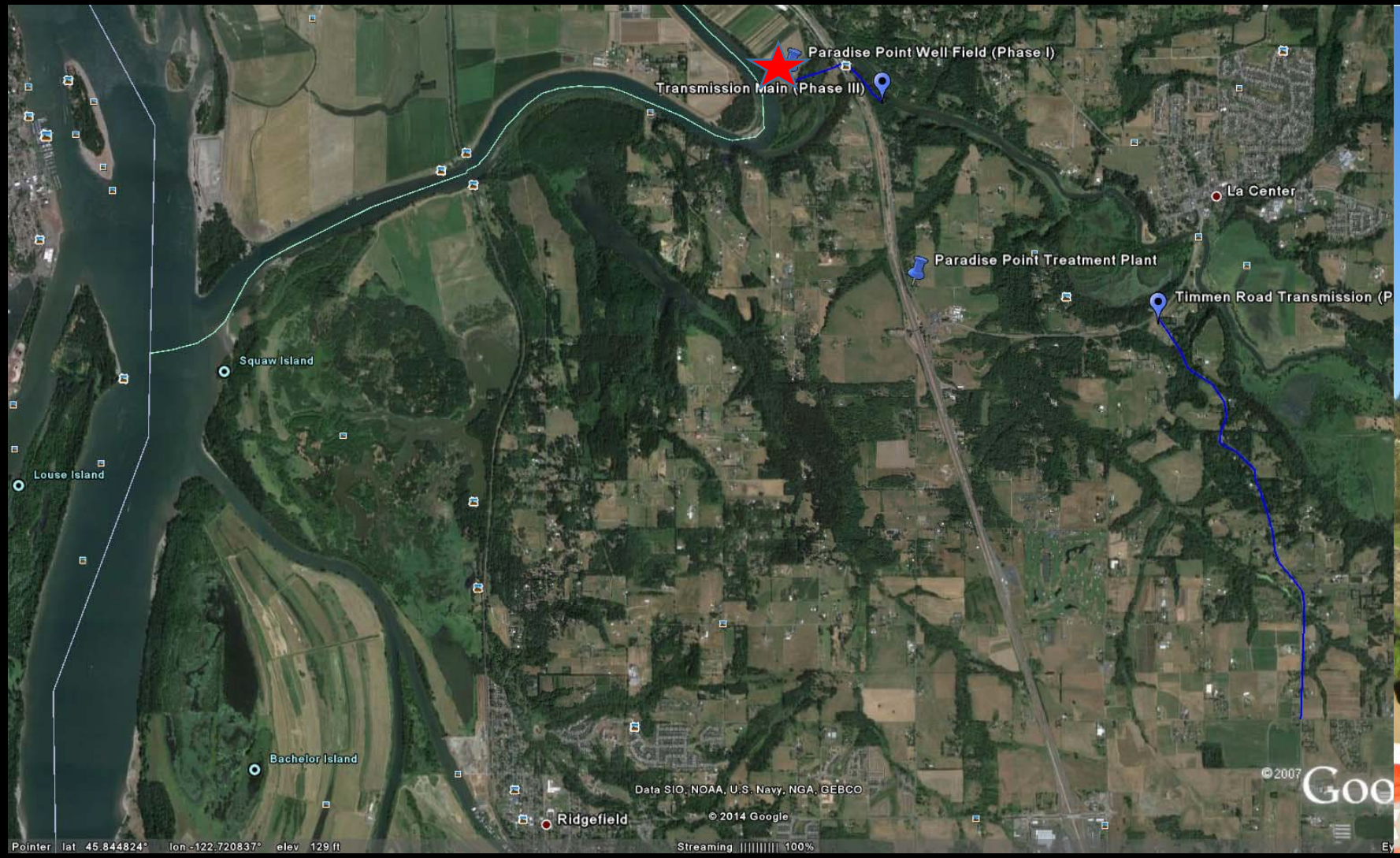
- 3 new wells and increase withdrawal on an existing well – all wells in the lower Washougal River
- No diversion of water from Jones and Boulder Creeks from May 15 to October 31
- Funded in part by Department of Ecology grant funds



City of Camas Source Substitution

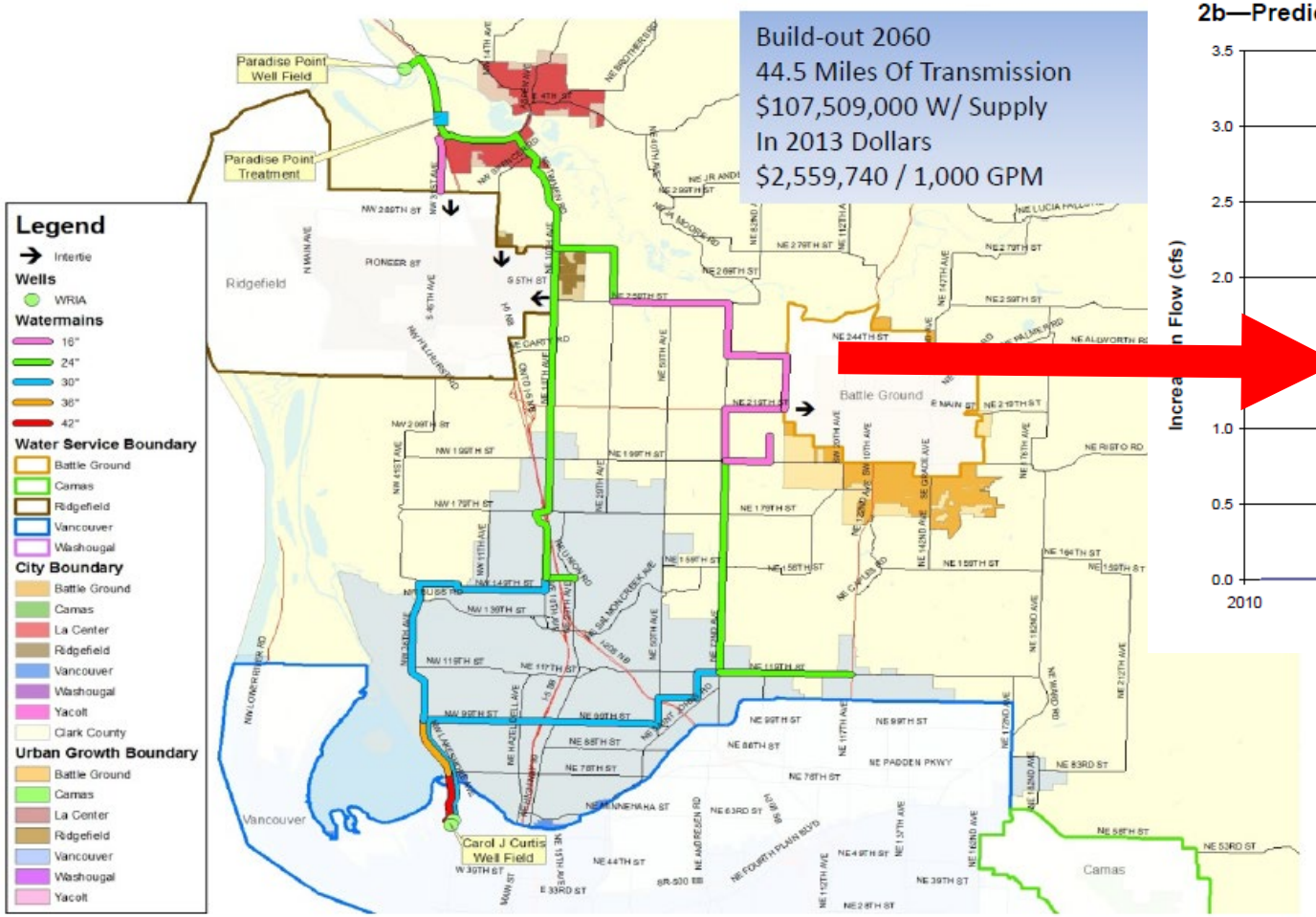
- Benefits to Camas:
  - More reliable summer water source
  - Granting of new water rights from regional water source area
- Benefits to fish:
  - Improved flow during critical summer months in flow-limited Jones and Boulder Creeks
  - Additional flow benefits in Little Washougal and mainstem Washougal Rivers
  - Improved habitat (quantity and temperature) for rearing life stages of coho, steelhead, Chinook, and potentially chum

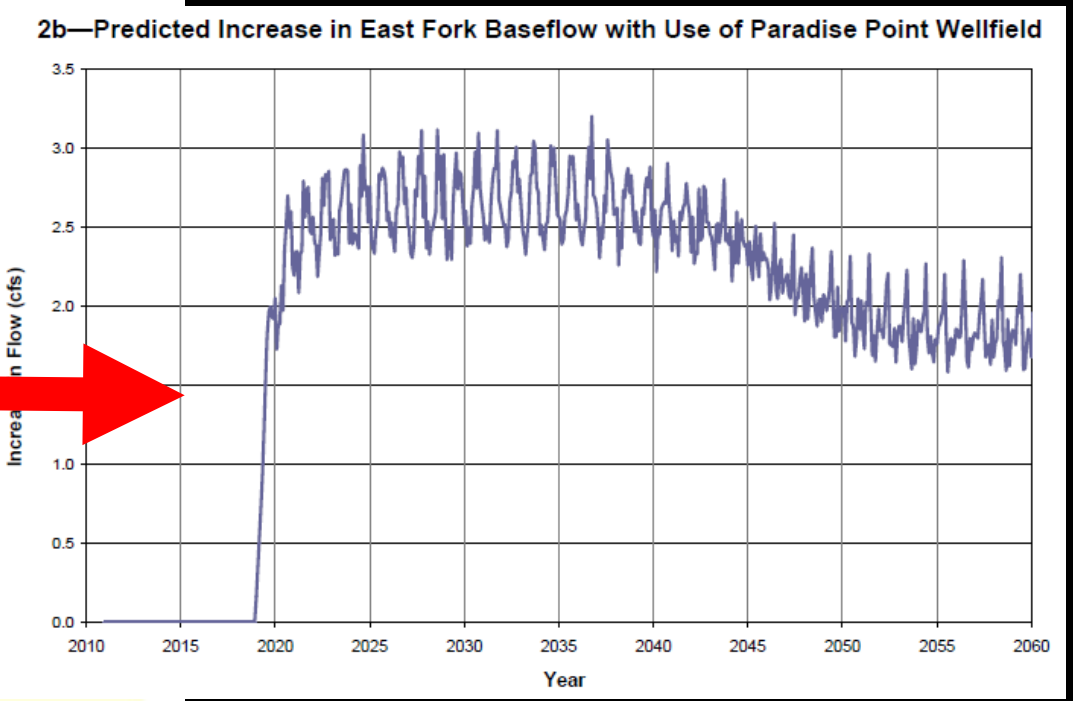
Clark Public Utilities Paradise Point



Clark Public Utilities Paradise Point

Water Transmission To Serve Clark, Battle Ground & Ridgefield Demands





Questions?