

Water Rights Mitigation Pilot Project – Challenge, Status, and Opportunity

Presented by:

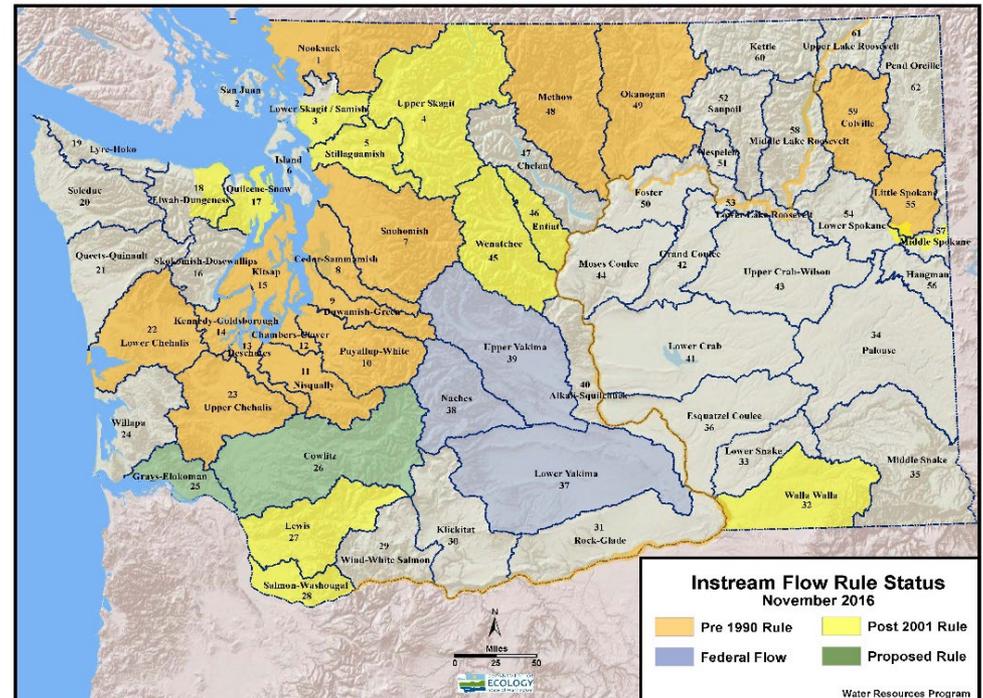
Mike Dahlem
Public Works Director
City of Sumner

Joe Becker, LHG, PG, RPG
President and Principal Hydrogeologist at
Robinson Noble, Inc.



Background: 1971 Water Resources Act and Instream Flow Rules

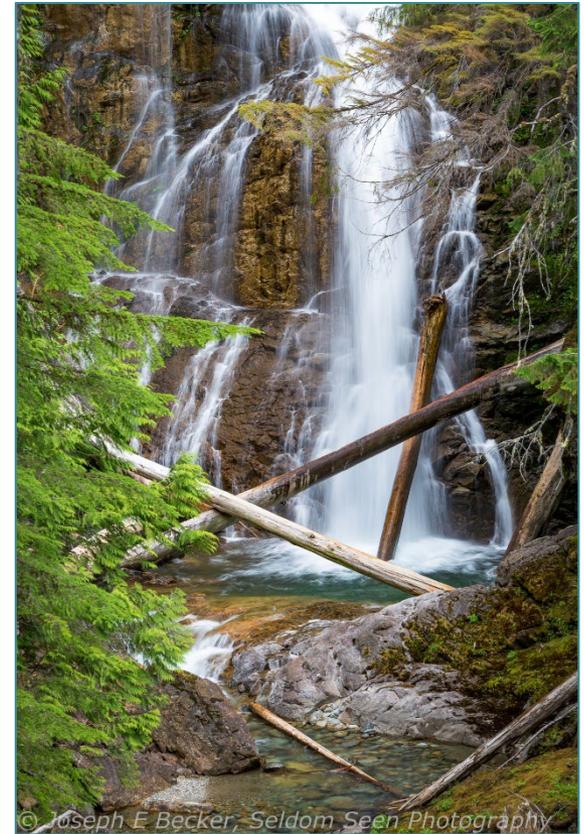
- RCW 90.54 protects “base flows” to preserve “wildlife, fish, scenic, aesthetic and other environmental values.”
- Also protected potable water supplies for human domestic needs.
- State shifted from pioneer policy of maximum utilization of resources, to managing water for the “**maximum net benefit**” of the people
- IF rules adopted in 28 of 62 WRIAs and the Columbia River.



Background: Evolution of Water Law

Postema and Swinomish Cases

- Once adopted, MF water rights cannot be impaired by junior surface or groundwater withdrawals. *Postema v. PCHB*, 142 Wn.2d 68 (2000)
- There is no “de minimus” impairment of an existing right. *Postema v. PCHB*
- OCPI cannot be used to adopt reservations for future groundwater withdrawals that would impair an existing MF water right. *Swinomish Tribal Community v. Ecology*, 178 Wn.2d 571 (2013)



Background: Evolution of Water Law Foster Case (2015)

The Washington State Court overturned approval of a groundwater right for the City of Yelm stating that despite the mitigation package, the permit would impair minimum instream flows in the Deschutes and Nisqually basins and, therefore, violated water law. The Court made three key rulings:

1. OCPI cannot be used to justify permanent allocations of water.
2. No level of impairment to instream flows is allowed, regardless of magnitude or ecological impact.
3. Out-of-kind mitigation strategies, such as habitat improvements, cannot be used to address impairment of instream flows.

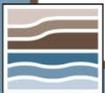


Resultant Challenges to In-Time, In-Place, In-Kind Mitigation for Groundwater Withdrawals

- Impairment difficult to assess
- Impacts are widespread
 - geographically
 - temporally
- May requires multiple, small mitigations often at large distances from withdrawal



Photo by Joe Becker

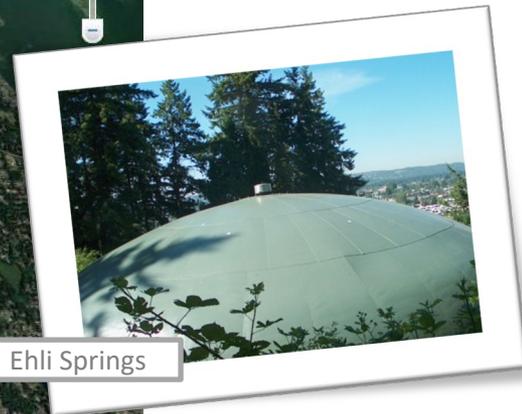




City of Sumner

- Confluence of Two Rivers [*White and Puyallup Rivers*]
- Between Two Indian Tribes [*Muckleshoot and Puyallup Nations*]
- Transected by Two Rail Lines [*BNSF and UPRR*]
- Sound Transit Hub [*Sounder Commuter Train Station and Regional Bus Service*]
- Terminus of Four State Highways [*SR 162, SR 167, SR 410, and SR 512*]
- City Residential Population of 10,000 [*Utility Service to 11,000 Residents*]
- Manufacturing Center and 17,000 jobs [*Pierce County's Largest Manufacturing Center*]
- Connection Point for Residential Development Growth [*Tehaleh and Lakeland Hills*]





998 Imagery Date: 5/22/2017 47°12'13.60" N 122°13'42.22" W ele

Water System Plans in 2004 and 2009 identified the need for additional water.

The City built a deep aquifer well as the most sustainable and environmentally responsible approach to address this need.

Water rights for this new well have been subject to a shifting regulatory environment due to the *Foster* case.

We are waiting for completion of the USGS's regional hydrogeological model to better identify impacts.



USGS
science for a changing world

Prepared in cooperation with the Cities of Auburn, Milton, Puyallup, Sumner, and Tacoma; Pierce Conservation District; Washington State Department of Health; Cascade Water Alliance; Lakehaven Utility District; Summit Water & Supply Company; Mt. View-Edgewood Water Company; and The Russell Family Foundation

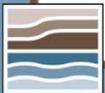
Hydrogeologic Framework, Groundwater Movement, and Water Budget in the Puyallup River Watershed and Vicinity, Pierce and King Counties, Washington

Scientific Investigations Report 2015-5068

U.S. Department of the Interior
U.S. Geological Survey

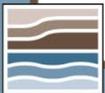
Potential Foster “Fix”

- 2018 Engrossed Substitute Senate Bill 6091
 - Established a potential path forward in a pilot program to test new 3-tier mitigation framework
 - Tier 1 – avoidance
 - Tier 2 – minimization
 - Tier 3 – compensation
 - Five pilot projects allowed to use new mitigation framework
 - Results reported back to a legislative task force to potentially design a permanent fix

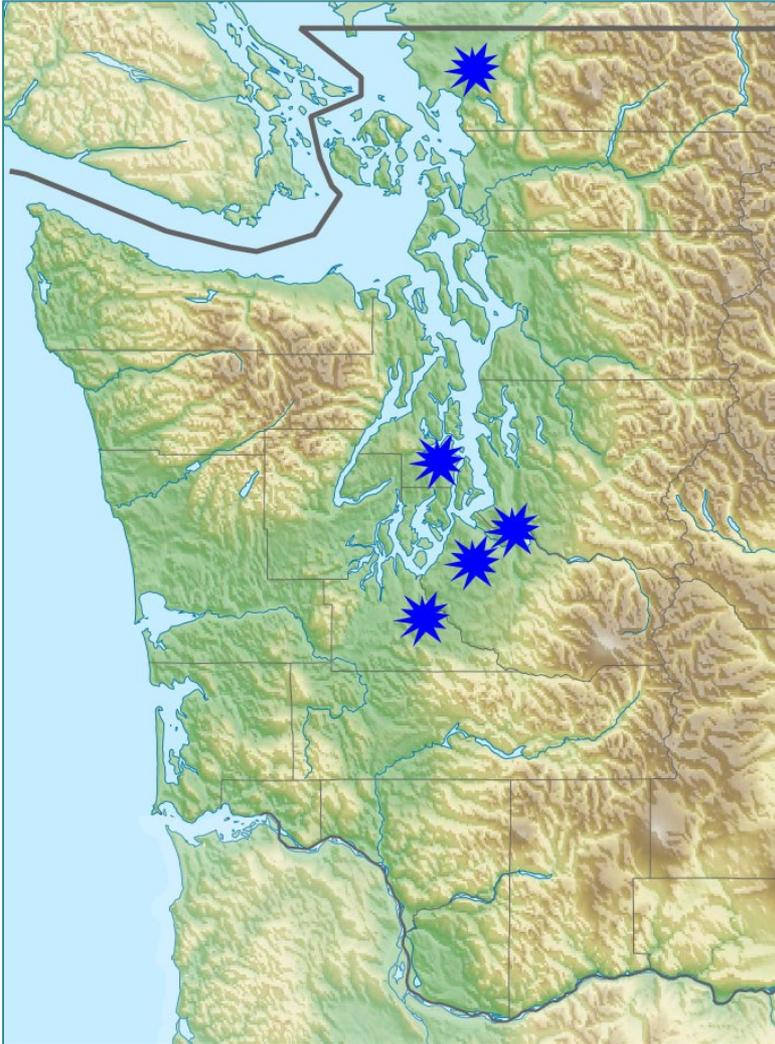


Pilot Project Mitigation Sequencing

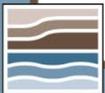
- Tier 1 – **Avoidance**: Avoiding impacts by complying with instream flow rules or making permits subject to applicable minimum flows.
- Tier 2 – **Minimization**: Where avoidance is not “*reasonably attainable*,” minimizing impacts by providing trust water rights or other replacement water resulting in “*no net annual increase in the quantity of water diverted or withdrawn from the stream*” and “*no net detrimental impacts to fish and related aquatic resources*”.
- Tier 3 – **Compensation**: Where avoidance and minimization are not “*reasonably attainable*,” compensating for impacts by providing “***net ecological benefits to fish and related aquatic resources***” in the WRIA ... “that improves the function and productivity of affected fish populations and related aquatic habitat.”



Five Foster Pilot Projects



- Yelm
- Sumner
- Port Orchard
- Spanaway Water
- Ag Water Board of Whatcom County

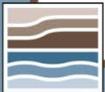


Foster Pilot Current Status

Task force was to make recommendations to legislature by November 15, 2019



As of today, one is almost completed; others still being worked or on hold

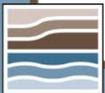


Yelm Foster Project

- January 2022 - Mitigation plan released
 - Avoidance: none
 - Minimization
 - flow augmentation on Nisqually River
 - aquifer recharge using reclaimed water for Yelm Creek
 - transfer of Olympia surface water right to groundwater for McAllister Springs
 - water right acquisition and retirement for Deschutes River
 - Compensation
 - 20-acre parcel purchased with conservation easements on Woodland Creek
 - Deschutes farm purchased
 - farming stopped
 - stream channel and wetland improved
- Draft ROE posted in February

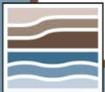


YELM
WASHINGTON



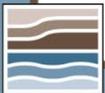
Port Orchard Pilot Project

- New Qi and Qa needed for projected growth; current well sources low in system; move production inland to deep aquifer to two new wells
- Status: impairments modeled in 10 streams; working on mitigation plan (stream augmentation; one or more habitat projects); potential draft ROE later this year



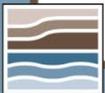
Spanaway Pilot Project

- New additive Qa needed to meet projected demands after 2023
- Proposes adding 2,000 afy Qa by conversion of existing non-additive rights through existing sources
- Status: waiting for release of USGS Southeast Sound groundwater model to finish impairment analysis

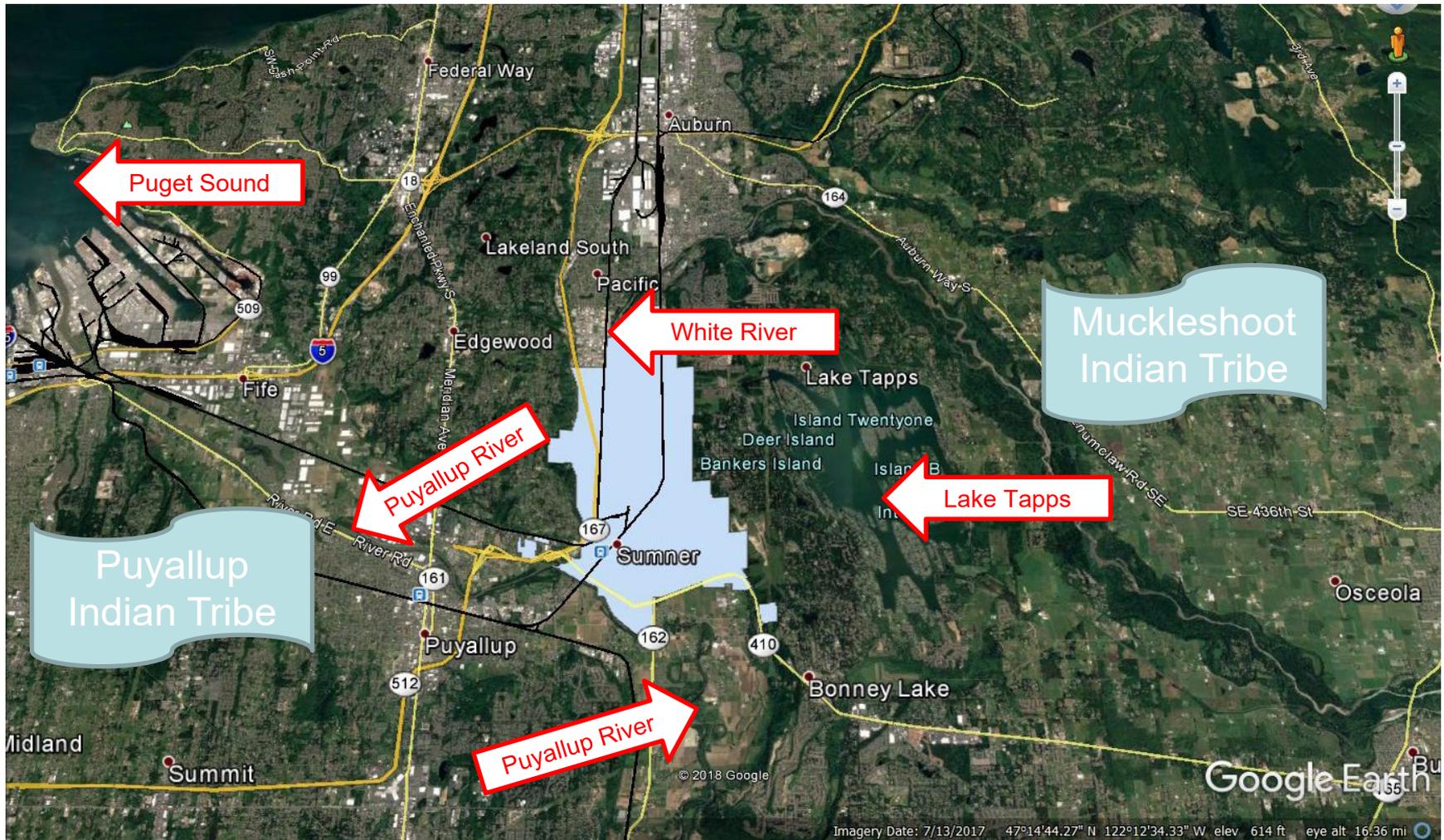


Sumner Pilot Project

- Waiting on USGS SES model to finalize impairment
- Draft USGS SES model indicates impairment likely limited to White and Puyallup Rivers
- Meanwhile working on mitigation plan combining Trust water rights and habitat project



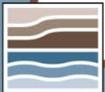
Sumner's Pilot Project



Sumner's Pilot Project

Need

- Actively Pursuing Additional Water Rights for 18 years.
- Invested in a new centrally located well in the deep aquifer.



Sumner's Pilot Project

Need

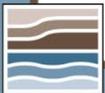
Estimated Need: <1.5 cfs

- Actively Pursuing Additional Water Rights for 18 years.
- Invested in a new centrally located well in the deep aquifer.

"In-Kind" Mitigation Portfolio

0.65 cfs (Limited by River Flow)

- Regional Reserved Water from Cascade Water Alliance
- Trust Water Rights – Irrigation Season 1.42 cfs (Irrigation Season Only)
- (In negotiation) Cascade Water Alliance Tailrace ≈1 cfs (Location Limited)
Water Release



Sumner's Pilot Project

"Out of Kind" Mitigation Opportunity



White River Restoration Draft Concept
Collaboration of the Puyallup Tribe, the
Muckleshoot Tribe, Pierce County,
and City of Sumner

[Legislative Grant, DOC Contract CD16-96503-

040]

- 200 acres of habitat improvement
- Flood channel reconnection
- Forested wetlands
- In-water wood revetments
- Anastomosing channel platform
- Side channel habitat
- Improved fish rearing and high flow refuge



Tail Race Reconfiguration

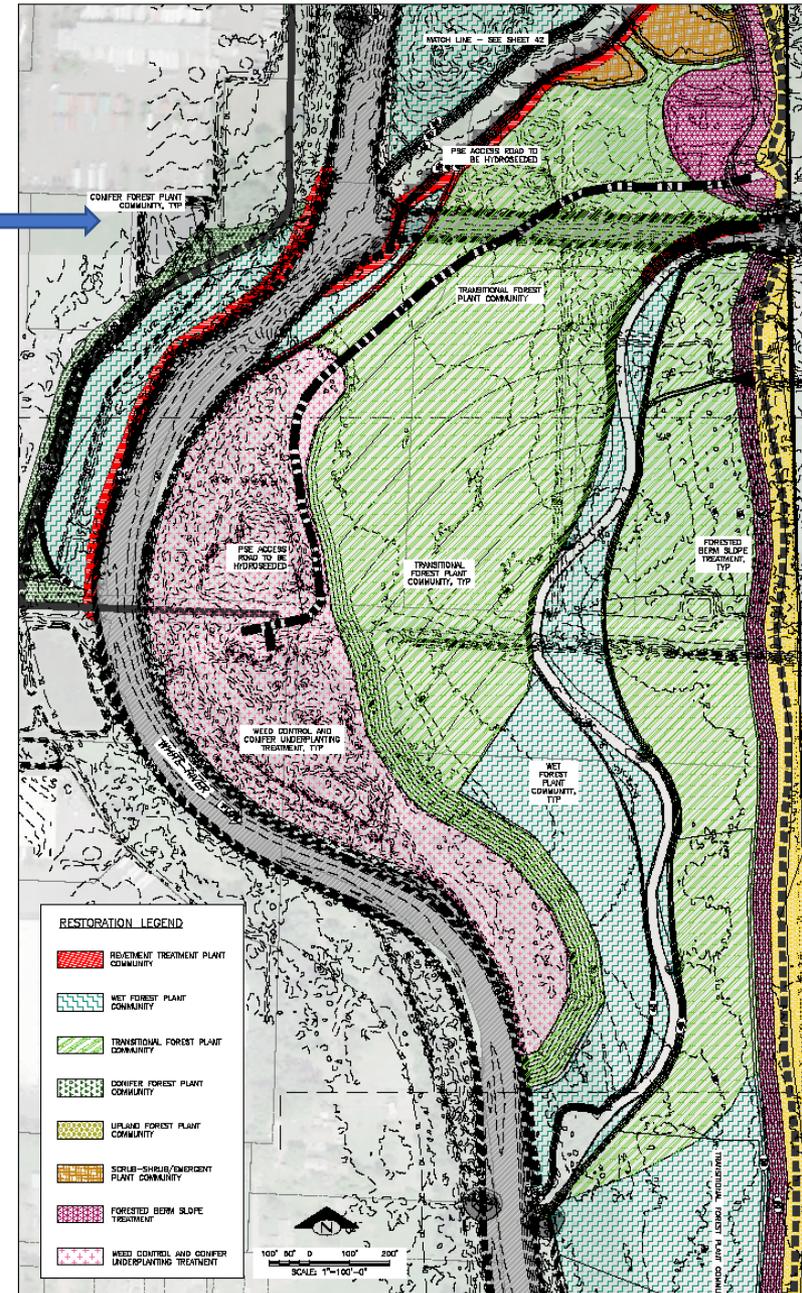
Ex. Tail Race



- Elevation Difference of approx. 3 feet
- Channel Capacity 1,500 CFS
- Sinuosity within the banks
- Rearing pond at confluence



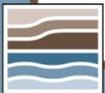
**SUMNER'S WHITE RIVER
RESTORATION**



Sumner's Pilot Project

Current Status

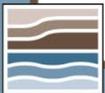
- Awaiting USGS's Regional Groundwater Model
 - Anticipated in the 4th quarter of 2020
- White River Restoration Project is taking shape
 - BNSF
 - Cascade Water Alliance
 - Puget Sound Energy
 - US Army Corps of Engineers
 - Private Property Acquisitions
 - Water, Sewer, Power, and Communication Utility Relocations
 - Private Property Developer
 - Pierce County
 - Two Tribes
 - 12+ Consulting Firms
 - Lawyers (in quantities too numerous to count)
- Development of the "Net Ecological Benefit Analysis"
 - Credit and Debit Framework



Initial Pilot Project Lessons Learned

Foster Lessons

- Water right processes are drawn out processes, more than in the past
- Groundwater models will likely be required for impairment analysis
- “Reasonably Attainable” definition for in-kind, in-place mitigation not well defined and can be complicated
- NEB analysis is challenging and requires dialogue with stakeholders
- Environmental projects are long timeline endeavors
- Benefits from environmental projects are realized in the long term



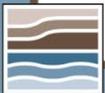
Initial Pilot Project Lessons Learned

Practical Considerations

- Planning horizons need to get longer
- Partnerships with stakeholders are invaluable
- Water utilities can play a part in environmental projects
- When you can't do anything, you can't do positives

Eying the Future

- Solutions need to be local but also take on a basin- or watershed-wide perspective
- The “stepped” Foster process is proving to be a workable solution, though expensive and time consuming



Thank You Discussion and Questions



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NOBLE



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WASHINGTON

