

## Net Ecological Benefit Workshop for Counties and Cities

Ecology Headquarters Lacey WA

May 7, 2018

To see presentations or materials, please email Amy Pearson at [amy.pearson@ecy.wa.gov](mailto:amy.pearson@ecy.wa.gov).

### 1. Welcome, Introductions, Agenda Review

Mary Verner opened the workshop by recognizing the tremendous opportunity that ESSB 6091 provides. She emphasized that Ecology needs help from local governments to define “Net Ecological Benefit” and determine the best ways to implement this new law. She is grateful for the valuable brain trust in the room. She thanked participants in attendance and welcomed input moving forward with the accelerated timeline.

Susan reviewed the agenda, which focused on the technical challenges with NEB, the policy considerations with NEB and the opportunity to define goals for how to move forward.

### 2. ESSB 6091 Streamflow Restoration Act

*Presentation – Ann Wessel and Carrie Sessions (Ecology)*

*Questions/Discussion*

Following the presentation, Ecology staff provided clarification to questions focused on how applicants would navigate the permitting process:

- If the well has an impact on an instream flow in rule, it doesn't matter if the stream is salmon bearing or not. Applicants can also show that their well is not in hydraulic continuity with an instream flow so that it could be exempt.
- The applicant must show proof that there is no continuity. It is up to the county to decide whether the proof from the applicant is sufficient to show no impact. The impact can be determined through the local planning process, to be determined.

Presenters also provided responses to participant questions about the watersheds slated for early adoption:

- Interim guidance will be available by the end of May to be used by Nisqually, Whatcom or any early implementers, including potentially Foster pilots.

- There is a meeting scheduled with the Governor, Ecology, and tribal leaders following the development of interim guidance, but it isn't anticipated that tribal chairs will dig into technical details. Ecology will continue to engage technical experts, not likely to be a part of the governor meeting. Adaptive management provisions will be built into the interim guidance since it is on such a fast timeline and will have limited review.
- Review of the interim guidance and lessons learned from the early implementers will be used to finalize guidance. Guidance may suggest a process for conducting NEB evaluation rather than a specific definition of how to calculate NEB.

### **3. Net Ecological Benefit**

*Presentation – Jonathon Yoder (Washington Water Resource Center)*

*Presentation - Tom Culhane (Ecology)*

*Presentation - Kiza Gates (WDFW)*

*In the following discussion, Jonathon, Tom, Kiza, and Dave Christensen provided the following comments about the technical considerations of NEB.*

- The context of the legislation suggests the net effects of an application must be positive.
- See graphic posted on wall. Applicants are likely to be in yellow box – the time and/or place are impossible to mitigate so the equation needs to be bolstered by off-site mitigation, to be determined.
- If groundwater models don't exist for an area, then it is assumed that there is a consumptive impact. The burden of proof requires showing there is no impact; otherwise, Ecology will be conservative and assume there is an impact. In the overall process, Ecology not spend significant time and money on more modeling as opposed to implementing NEB projects.
- In some cases aquifer pumping can provide benefit to local stream flows; it depends on where you are pumping.
- The legislation refers to both consumptive use and the impacts of consumptive use. Ecology will focus on the impacts of consumptive use.
- Planning units are charged with coming up with the drainage unit and scale. Suitably-sized subbasins or groups of subbasins will be appropriate for a NEB analysis.

- It isn't clear how much information is needed to have a NEB offset. Interim guidance will attempt to make recommendations about how much info is needed for each area. There is no time for long studies. Effort needs to be put towards understanding what information/data/guidance already exists.
- Instream Flow Incremental Methodology (IFIM) will be useful at providing base information for impacts from flow changes to habitat quantity. Likely will go to the literature to determine the ecological impacts resulting from impacts to flow.
- The assumption is that there will be 10 amendments to existing instream flow rules in the next 10 years. Local decisions will guide where rules will need to be modified to implement the planned actions (for example in closed basins). Rules are outdated in many places (1980s).
- Forest health projects are a tool that could be included with local planning process. There is insufficient monitoring and/or data at this time to understand changes in successional stages in forests and how that has impacted stream flows.
- Ecology is having frequent discussions with other state agencies such as the WA Conservation Commission. The conversations acknowledge the need for consistent monitoring and data. Particularly with Voluntary Stewardship Programs, there needs to be increased certainty of benefit in order to be used in net ecological benefit calculations.

#### **4. Hypothetical Application of NEB**

##### *Exercise*

*Instructions: With regard to the hypothetical example, what are the five most important factors that Ecology should consider when evaluating Net Ecological Benefit.*

The recommendations from each of the break out groups focused on the following themes:

- There is no one-size fits all. Watersheds must accommodate their unique needs and the information available.
- There are many plans and assessment tools in progress that should be considered, such as salmon recovery and WDFW's Priority Index. Many groups gave weight to projects that have had support from other planning processes. If a group has agreement on these, Ecology's job will be easier.

- Areas should be ranked for ecological importance as well as impairment. It is important to have a completely transparent approach to describing how things got ranked or described.
- Seasonality and sustainability of projects is important. It is difficult to have water-for- water benefits in tributaries. Many places will require changes in water use—re-timing, seasonal rights, etc.
- Monitoring and adaptive management are critical to ensure the success of the approach. If NEB is approached as a process as opposed to a thing to be defined, it will be more credible. Process definition is less likely to lead to litigation because it was more adaptable over time.
- It is important to have regulatory consistency and cohesiveness. This process may have unintended consequences of encouraging rural development vs. infill. There are concerns about municipalities and how this may affect growth. The focus is on exempt wells, but the bulk of growth is expected to happen in municipalities. There should be a better connection between the exempt well process and municipal process. GMA may provide some consistency for a whole watershed growth with an eye towards both local and regional plans.
- Climate impacts need to be considered.

#### Discussion:

- The NEB evaluation needs to be credible to avoid situations where plans are struck down through legal challenges. If NEB is approached as a process as opposed to a thing to be defined, it will be more credible.
- As a whole, NEB must be met within a WRIA. That is the standard.
- Highlight that there are concerns about municipalities and how this may affect growth. This focus is on exempt wells but the bulk of growth is expected to happen in municipalities. There should be a better connection between the exempt well process and municipal process. GMA may provide some consistency for a whole watershed growth with an eye towards both local and regional plans.
- Important to weigh considerations of impacts from cities but more importantly the benefits provided by encouraging density and growth in UGAs.
- It is important for Ecology to clearly show what is mandatory and where there is room for discretion. That will help the agency to defend themselves. There needs to be clear, consistent criteria for local application.

- Whatcom County will likely be the test case for any legal challenges. It is critical for Ecology to be a strong partner. It will be important to bring other partners along.
- While repurposing water seasonally can be considered retiming of “existing water, it is considered a project that provides water offsets by Ecology. If you are adding more water during low flow periods and it increases productivity for habitat, it counts. If not, it doesn’t count.
- When cases are litigated, molecule for molecule will be back on the table. Legally mitigating water is not sufficient – there is still an impact. Most of the water in the basin is connected. Ecology needs to keep in mind what the future lawsuits may look like when considering creative local plans.

## 5. Foster Decision

### *Foster Case Overview (Robin McPherson, AG Office)*

Following cases in Skagit and Yelm, it became clear that laws regulating new uses of water had limited flexibility and Overriding Considerations of Public Interest (OCPI) could not be used to justify impairment of instream flow water rights.

In the Skagit case, analysis from Ecology concluded there would be a small impact to the instream flow but a huge benefit to Skagit County - the benefits to the public were many times greater than the impact. The Supreme Court said the benefit will always favor using water and conservation will always lose. The Court ruled against establishing reservations of water relying on OCPI.

In the Foster case, Ecology issued a permit to the City of Yelm, relying on both water-for-water and out-of-kind mitigation with an OCPI determination. There was support for the decision from the Nisqually Tribe and WDFW, and general acknowledgement of ecological benefit. However, this didn’t matter to the court. The standard is legal impairment of the instream flow right, not ecological benefit, and OCPI is not allowed for permanent new uses of water.

The City of Yelm is one of the 5 pilot mitigation projects listed in Section 301. The proposed mitigation in Yelm has high support across municipalities for mitigation as well as support from Nisqually Tribe.

### *Discussion Facilitated by Dave Christensen*

- NEB isn’t defined in the statute. With the Foster pilot projects, calculating NEB is part of the required mitigation sequencing. The sequencing ranges from minimization to avoidance to compensation. There is a much narrower

set of circumstances than in the Hirst fix. Look at the original language to define or at least qualify NEB. (ESSB 6091, Section 301(8)(a),(b), and (c))

- Calculating NEB will be different in each of the 5 pilot projects. If there is agreement with Tribes and others on what compensatory mitigation should be, that should be noted. Disagreement would suggest that there needs to be more guidance on how to meet NEB.
- There are lots of questions about NEB for the pilot projects. Are the NEB factors the same for the Foster pilots as for the Hirst plans? Should the Foster pilots be more quantitative? Are the Foster pilots watershed-based or just the point of impact? What area of measurement is necessary to assess NEB? Several points downstream from the water right, or just at the water right? Where is the benefit determined? Can the benefit be qualitatively expressed or is numerical modeling necessary?
- The language in ESSB 6091 focuses on instream functions. Need to consider the not just the instream flow levels, but also the instream values they were intended to protect. Mitigation has to match the values that watersheds want to protect.
- NEB determinations under Foster and Hirst can't be totally separate. One consideration is land use planning. If mitigation opportunities are used up through the Hirst planning processes, then people are trapped; no mitigation available for municipal water rights. This sets up future conflict.
- Ecology would like Foster and Hirst NEB to be consistent and able to scale up and down. However, the processes are quite different (watershed planning vs. site-specific pilots). Scalar differences in info available are very different. Most of the thought around NEB is at watershed scale.
- It could be useful to recognize there are two different purposes for pilots:
  - The pilots will serve to demonstrate to the Foster Legislative Task Force about how mitigation sequencing will work
  - In turn, that demonstration will give the Task Force the info they need to propose permanent legislation. Need guidance in time to be to be useful for Task Force process. In November Ecology must furnish the Task Force with information on conceptual mitigation plans for each pilot project application.

## **6. Workshop Conclusions (Dave and Mary)**

Mary thanked all the participants and assured them that their input will be reflected in the interim and final guidance. She encouraged participants to keep in touch with Ecology staff and let them know if they need technical support.

# **Net Ecological Benefit Workshop at Lacey: First Steps to Establish Interim Guidance**

**Monday, May 7, 2018**

**10:00 a.m. - 4:00 p.m.**

**Ecology Headquarters, Basement Auditorium**

**300 Desmond Drive SE, Lacey, WA**

## **Attendance List**

<b>Name</b>	<b>Organization</b>
Tyler Schroeder	Whatcom County
Gary Stoyka	Whatcom County
Jeff Johnson	Spanaway Water
Kathy Minsch	Seattle PUD
Vanessa Brinkhuis	Ecology
Donald DeBerg	North Bend
Tyler Patterson	Tacoma Water
Tom Mortimer	Whatcom PUD
Jason Van Gilder	City of Sumner
Andy Oien	City of Centralia
Matt Rakow	Ecology
Lee Napier	Lewis County
John Covert	Ecology
Jaime Short	Ecology
Buck Smith	Ecology
Perry Huston	Okanogan County
Laura Berg	WSAC
Kiza Gates	WDFW
Thomas Hunter	City of Port Orchard
Liz Ablo	City of Seattle
Andy Long	USGS
Erik Johansen	Stevens County
Adam Cares	Stevens County
Dave Christensen	Ecology
Mark Maurer	Thurston County
Kevin Hansen	Thurston County
Jessica Kuchan	Stevens County
Leonard Bauer	City of Olympia
Carrie Sessions	Ecology
Joel Purdy	Kitsap PUD
Mark Morgan	Kitsap PUD
Greg Volkhardt	Tacoma Water
Tom Pors	Port Orchard and Sumner
Mike Kaputa	Chelan County

Michael Garrity  
Allison Ostenberg  
Soo Ing-Moody  
Kathleen Collins  
Stephen Jilk  
Chelsea Hager  
Brad Johnson  
Carl Schroeder  
Shannon McClelland  
Bill Clarke  
Grant Brock  
Ann Wessel  
Michael Grayum  
Amy Pearson  
Mary Verner  
Tom Culhane  
Jim Pacheco  
Susan Gulick  
Abby Hook  
Kelsey Collins  
Julie Padowski  
Matt Bateman  
Michael Brady  
Jon Yoder

WDFW  
Thurston County  
Mayor of Twisp  
Washington Water Policy Alliance  
PUD #1 Whatcom County  
City of Port Orchard  
City of Burlington  
AWC  
AWC  
Attorney at Law  
Yelm  
Ecology  
Yelm  
Ecology  
Ecology  
Ecology  
Ecology  
Ecology  
Facilitator – Sound Resolutions  
Facilitator – Hook Environmental  
Ecology  
WSU  
USGS  
WSU  
WSU

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



≠

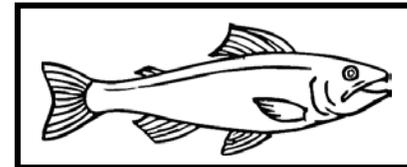


3



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

PROJECTS THAT ENHANCE

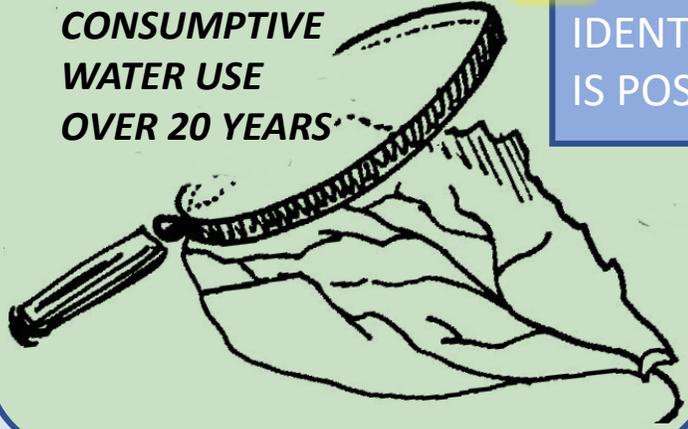


AND/OR



1

QUANTIFY EXPECTED CONSUMPTIVE WATER USE OVER 20 YEARS



2

IDENTIFY WHERE IT IS POSSIBLE TO OFFSET

FIRST PRIORITY



SECOND PRIORITY

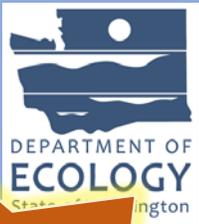


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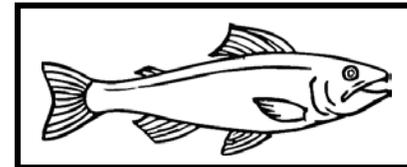
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ECOLOGY MUST EVALUATE: DOES THIS PLAN HAVE A NET ECOLOGICAL BENEFIT?

WORKSHOP WILL HELP ECOLOGY FIGURE OUT HOW TO DO THIS

PROJECTS THAT ENHANCE



AND/OR





# Hypothetical Scenario

## Net Ecological Benefit (NEB) Workshop

### Future Permit Exempt Wells

A planning unit has developed a watershed plan that must be evaluated to determine whether a Net Ecological Benefit (NEB) will be provided over the next 20 years. The planning group has broken the WRIA into 2 subbasins and has estimated water use by new permit-exempt domestic wells within both subbasins:

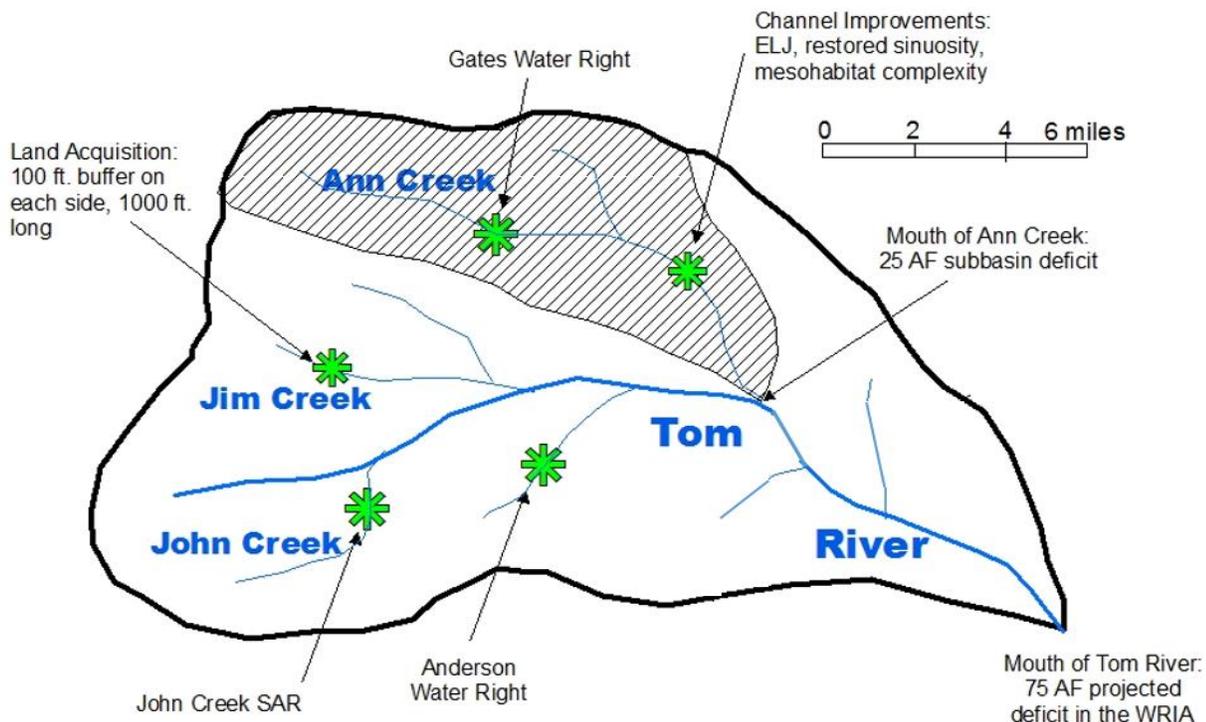
- 100 new homes in Ann Creek subbasin over the next 20 years, using a total consumptive water quantity of 25 acre-feet per year (AF/YR), equal to an average continuous flow of 0.034 cfs.
- 200 new homes in the remainder of the WRIA over the next 20 years, using a consumptive quantity of 50 AF/YR, equivalent to average continuous flow of 0.069 cfs.

### Dominant Fish Presence

The WRIA can be divided into 3 areas with regard to dominant fish presence:

- Ann Creek subbasin is predominantly used by Coho (fall spawners).
- Tom River above Ann Creek, including Jim Creek and John Creek, is predominantly used by Steelhead (spring spawners).
- Lower Tom River up to Ann Creek confluence has both Coho and Steelhead.

Coho and steelhead rear in all areas all year.



Proposed Water Mitigation Projects

There will be a WRIA-wide deficit created by new permit-exempt well pumping of 75 AF/YR, and the planning unit has produced a combination of water offset projects equal to 85 AF/YR. So the requirement that the total quantity of water consumed by permit-exempt domestic wells be offset will be met. However, the locations and timing of those offsets are different than the impacts.

Consumptive Water Use from New Domestic Permit-Exempt Wells	Diminished Quantity (AF/YR)	Period of Year Flows are Effected	Downstream Corridor (miles)
Ann Creek subbasin	25	year-round	20 (from subbasin mouth)
Remainder of WRIA 100	50	year-round	
<b>Total</b>	<b>75</b>		
Water Offset Project	Offset Quantity (AF/YR)		
Anderson groundwater right acquisition	35	increase year-round	20
Gates surface water right (seasonal) acquisition	20	increase May - Sept.	18
John Creek Shallow Aquifer Recharge (SAR) project	30	decrease Jan. - April, increase May - July	30
<b>Total</b>	<b>85</b>		

Additional Projects:

In addition to the water offset projects, two non-water offset projects are included in the watershed plan, including:

Jim Creek Strategic land acquisition

100 foot buffer on both sides of creek, 1,000 feet long, in an area now slightly developed, but slated for major development in next 10 years. 20 percent of Coho spawn in Jim Creek.

Ann Creek channel improvements: engineered log jams (ELJ), sinuosity, mesohabitat complexity

The land has been farmed for 30 years, and currently 900 feet of affected stream channel essentially functions as an irrigation ditch. This project will significantly rework the channel and install ELJs, and there is an upstream source to supply gravel in the future.

**Exercise**

So Ecology’s task is to evaluate the tradeoffs between the negative impacts from consumptive water use associated with the new wells, and the benefits from the proposed mitigation.

The goal of this exercise is for each breakout group to list at least 5 factors that Ecology should consider when evaluating NEB.