DEPARTMENT OF ECOLOGY
State of Washington

Concise Explanatory Statement Chapter 173-501 WAC, Instream Resources Protection Program—Nooksack Water Resource Inventory Area (WRIA) 1

Summary of rulemaking and response to comments

May 2020
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Publication and Contact Information

This document and the separate appendices document are available on the Department of Ecology's website at:
https://fortress.wa.gov/ecy/publications/summarypages/2011078.html

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Concise Explanatory Statement

Chapter 173-501 WAC

Instream Resources Protection Program—Nooksack Water Resource Inventory Area (WRIA) 1

Water Resources Program

Washington State Department of Ecology

Olympia, Washington

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Introduction

The purpose of a Concise Explanatory Statement is to:

- Meet the Administrative Procedure Act (APA) requirements for agencies to prepare a Concise Explanatory Statement (RCW 34.05.325).
- Provide reasons for adopting the rule.
- Describe any differences between the proposed rule and the adopted rule.
- Provide Ecology's response to public comments.
- This Concise Explanatory Statement provides information on The Washington State Department of Ecology's (Ecology) rule adoption for:

Title:	Instream Resource Protection Program—Nooksack Water Resources Inventory Area (WRIA) 1
WAC Chapter(s):	173-501
Adopted date:	May 27, 2020
Effective date:	June 27, 2020

To see more information related to this rulemaking or other Ecology rulemakings please visit our website: https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking.

Reasons for Adopting the Rule

Ecology commenced a rulemaking amendment to chapter 173-501 WAC, Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1, to meet the requirements in RCW 90.94.020. The state Legislature passed chapter 90.94 RCW in 2018. This law required Ecology to initiate rulemaking if a locally updated watershed plan update was not approved and adopted by February 1, 2019. Despite great effort, the local WRIA 1 planning group was unable to meet this deadline. As a result, Ecology must adopt a rule by August 1, 2020 that meets the requirements of chapter 90.94 RCW.

To meet the requirements of RCW 90.94.020, Ecology amended the rule to:

- Add flexibility for projects that retime high flows for instream resource benefits.
- Establish domestic permit-exempt groundwater withdrawal limits for new users.
- Make minor technical corrections.

Differences Between the Proposed Rule and Adopted Rule

RCW 34.05.325(6)(a)(ii) requires Ecology to describe the differences between the text of the proposed rule as published in the Washington State Register and the text of the rule as adopted, other than editing changes, stating the reasons for the differences.

There are no differences between the proposed rule filed on November 19, 2019 and the adopted rule filed on May 27, 2020.

Acronyms

CFS: Cubic Feet per Second

CIR: Crop Irrigation Requirement

DNS: Determination of Nonsignificance

ESSB: Engrossed Substitute Senate Bill

GPD: Gallons Per Day

MAA: Maximum Annual Average

MDNS: Mitigated Determination of NonSignificance

NEB: Net Ecological Benefit

P-E Well: Permit exempt well

RCW: Revised Code of Washington

RSD: Rule Supporting Document

WAC: Washington Administrative Code

WIG: Washington Irrigation Guide

WRIA: Water Resource Inventory Area

List of Commenters

Ecology accepted comments between November 17, 2019 and January 17, 2020. You can see the original comments received at: http://oth.ecology.commentinput.com/?id=fdG6m. These comments remain available online for two years after the rule adoption date.

Commenters can find their comments in the index below and the response by scrolling to the topic or searching on the specific comment number next to their name. Please note: commenters who submitted written comments and verbal comments will find their names listed on multiple lines.

Ecology carefully considered all comments received. The agency grouped comments and topics together, and organized them by topic. Under each topic heading you can see all the comments we received for the topic, followed by Ecology's responses to the comments.

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Acree, Tamara	Unsupportive (Form Letter)	I-150-1
Baker, Gary	Unsupportive (Form Letter)	I-57-1
Baker, Jeff	Unsupportive (Form Letter)	I-151-1
Baker, Jeff	Withdrawal Limits (Other)	I-151-2
Bevens, Jacson	Unsupportive (Form Letter)	I-35-1
Black, Benjamin	Unsupportive (Form Letter)	I-62-1
Bogosian, Stephen	Other	I-2-1
Brown, Joy	Unsupportive (Form Letter)	I-99-1
Brown, Julie	Unsupportive (Form Letter)	I-28-1
Carey, Katharine	Unsupportive (Form Letter)	I-54-1
Carpenter, Julie	Unsupportive (Form Letter)	I-42-1
Carpenter, Julie	Other P-E Well Uses	I-42-2
Carpenter, Julie	Other	I-42-3
Cattle, Carol	Unsupportive (Form Letter)	I-38-1
Cavanaugh, Jason	Unsupportive (Form Letter)	I-88-1
Chapman, Alan	Other	I-163-3 , I-163-5 , I-163-7
Chapman, Alan	Adaptive Management	I-163-6
Chapman, Alan	Projects	I-163-4 , I-163-8
Chapman, Alan	Retiming Exemption	I-163-2
Chapman, Alan	Withdrawal Limits (Support)	I-163-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Cicchitti, Christine	Unsupportive (Form Letter)	I-149-1
Clark, Daniel	Withdrawal Limits (Too Low)	I-156-1
Clarkin, Kim	Other	I-7-1 , I-7-3
Clarkin, Kim	Metering	I-7-4
Clarkin, Kim	Projects	I-7-5
Clarkin, Kim	Withdrawal Limits (Support)	I-7-2
Crocker, Molly	Other	I-164-1 , I-164-2 , I-164-4
Crocker, Molly	Consumptive Use	I-164-3
Crocker, Molly	Withdrawal Limits (Too Low)	I-164-5
Daniels, Renay	Unsupportive (Form Letter)	I-116-1
De Smet, Zeke	Unsupportive (Form Letter)	I-20-1
DenB, Brady	Unsupportive (Form Letter)	I-145-1
Denson, Nina	Projects	I-91-2
Denson, Nina	Withdrawal Limits (Too Low)	I-91-1
Deshmane, Atul	Other	I-100-1
Dhindsa, Jay	Unsupportive (Form Letter)	I-33-1
Dominguez Jackson, Ana Cecilia	Unsupportive (Form Letter)	I-17-1
Draper, Shari	Unsupportive (Form Letter)	I-59-1
Dufton, Carl	Unsupportive (Form Letter)	I-105-1
Dujmovich, Lorrie	Unsupportive (Form Letter)	I-110-1
Duvall, Dana	Unsupportive (Form Letter)	I-65-1
Dyer, Andi	Unsupportive (Form Letter)	I-31-1
Eggers, John	Other	I-6-1
Eggers, John	Other Permit-Exempt Well Uses	I-6-2
Eisenberg, Michael	Unsupportive (Form Letter)	I-44-1
Elliott, Donald	Unsupportive (Form Letter)	I-51-1
Ericksen, Senator Doug	Withdrawal Limits (Other)	I-96-1
Evans, Tracy	Unsupportive (Form Letter)	I-36-1
Fassett, Sara	Unsupportive (Form Letter)	I-107-1
Ferrier, Cheryl	Unsupportive (Form Letter)	I-53-1
Fish, Brian	Unsupportive (Form Letter)	I-70-1
Freeman, Jen	Unsupportive (Form Letter)	I-87-1
Gale, Tricia	Unsupportive (Form Letter)	I-114-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Garlock, Susan	Unsupportive (Form Letter)	I-12-1
Goldstein, Bliss	Unsupportive (Form Letter)	I-80-1
Gould, Mandra	Unsupportive (Form Letter)	I-82-1
Grace, Tina	Unsupportive (Form Letter)	I-46-1
Graf, Paul	Authority (under Chapter 90.94 RCW)	I-157-1 , I-157-3
Graf, Paul	Withdrawal Limits (Too Low)	I-157-2
Grah, Oliver	Other	I-161-1 , I-161-2 , I-161-3 , I-161-13
Grah, Oliver	Adaptive Management	I-161-10
Grah, Oliver	Consumptive Use	I-161-7
Grah, Oliver	Enforcement	I-161-15
Grah, Oliver	General - Oppose	I-161-5
Grah, Oliver	Metering	I-161-14
Grah, Oliver	Net Ecological Benefit (NEB)	I-161-11
Grah, Oliver	Projects	I-161-9
Grah, Oliver	Retiming Exemption	I-161-8
Grah, Oliver	SEPA	I-161-12
Grah, Oliver	Withdrawal Limits (Support)	I-161-4
Grah, Oliver	Withdrawal Limits (Too High)	I-161-6
Graham, Jim	Unsupportive (Form Letter)	I-81-1
Groeneweg, Danielle	Unsupportive (Form Letter)	I-131-1
Hackney, Sean	Unsupportive (Form Letter)	I-132-1
Hallenburg, Erin	Unsupportive (Form Letter)	I-63-1
Hammons, Don	Unsupportive (Form Letter)	I-18-1
Hanks, Bradley	Other	I-93-4
Hanks, Bradley	Withdrawal Limits (Too Low)	I-93-1
Hanks, Bradley	Withdrawal Limits (Other)	I-93-3
Hanks, Bradley	Unsupportive (Form Letter)	I-93-2
Hansen, James	Enforcement	I-4-1
Hansen, James	Projects	I-4-2
Harriman, Ryon	Unsupportive (Form Letter)	I-66-1
Hashimi, Syed	Unsupportive (Form Letter)	I-34-1
Hauter, Valerie	Unsupportive (Form Letter)	I-84-1
Herter, Craig	Other	I-158-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Herter, Craig	Metering	I-158-3
Herter, Craig	Withdrawal Limits (Too Low)	I-158-2
Herter, Craig	Withdrawal Limits (Other)	I-158-4
Hicks, Sandra	Unsupportive (Form Letter)	I-128-1
Hinton, Lynda	Unsupportive (Form Letter)	I-56-1
Hirst, Eric	Other	I-3-1 , I-3-3 , I-3-15 , I-3-2
Hirst, Eric	Adaptive Management	I-3-13
Hirst, Eric	Enforcement	I-3-7
Hirst, Eric	Metering	I-3-8 , I-3-11
Hirst, Eric	Preliminary Regulatory Analyses	I-3-5
Hirst, Eric	Projects	I-3-4 , I-3-6 , I-3-10 , I-3-12 , I-3-14
Hirst, Eric	Questions	I-3-9
Hobkirk, Leslie	Unsupportive (Form Letter)	I-75-1
Hobkirk, Leslie	Other	I-75-2
Holman, Jayme	Unsupportive (Form Letter)	I-146-1
Holman, Jayme	Property	I-146-2
Holman, Wynden	Unsupportive (Form Letter)	I-144-1
Honeyford, Senator Jim; Warnick, Senator Judy; Short, Senator Shelly	Authority (under Chapter 90.94 RCW)	I-97-1, I-97-2, I-97-2, I-97-4
Honeyford, Senator Jim; Warnick, Senator Judy; Short, Senator Shelly	Metering	I-97-5
Howell, Brad	Unsupportive (Form Letter)	I-68-1
Humes, Lawrence	Unsupportive (Form Letter)	I-101-1
Hunt-Brown, Jean	Unsupportive (Form Letter)	I-124-1
Hustoft, Carmella	Unsupportive (Form Letter)	I-60-1
James, Shelley	Unsupportive (Form Letter)	I-79-1
Jeffrey, Sean	Unsupportive (Form Letter)	I-72-1
Kaemingk, James	Unsupportive (Form Letter)	I-137-1
Knight, Joseph	Metering	I-153-1
Knight, Joseph	Withdrawal Limits (Support)	I-153-2
Koglin, Anne	Unsupportive (Form Letter)	I-94-1
Kreiser, Dale	Unsupportive (Form Letter)	I-14-1
Kukhahn, Cherie	Unsupportive (Form Letter)	I-95-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Kulyak, Irina	Unsupportive (Form Letter)	I-147-1
Kuoppala, Joell	Unsupportive (Form Letter)	I-89-1
Kutschbach, Martin	Unsupportive (Form Letter)	I-32-1
Lake Hahn, Sunny	Unsupportive (Form Letter)	I-113-1
Langley, Cliff	Other	I-102-1
Lawrence, Brenda	Unsupportive (Form Letter)	I-50-1
Lee, Carla	Unsupportive (Form Letter)	I-9-1
Leenstra, Cal	Unsupportive (Form Letter)	I-121-1
Lockhart, Marsha	Unsupportive (Form Letter)	I-13-1
Longmire, RoseMarie	Unsupportive (Form Letter)	I-15-1
Marr, Ken	Unsupportive (Form Letter)	I-119-1
Mason, Renata	Unsupportive (Form Letter)	I-104-1
McClendon, Natalie	Other	I-152-1
McClendon, Natalie	Metering	I-152-2
McConnell, Gatlin	Unsupportive (Form Letter)	I-61-1
McDowell, Nanette	Unsupportive (Form Letter)	I-111-1
McMillan, Brent	Unsupportive (Form Letter)	I-133-1
Medearis, Shannon	Unsupportive (Form Letter)	I-141-1
Mellema, Sid	Unsupportive (Form Letter)	I-69-1
Menke, Diva	Unsupportive (Form Letter)	I-112-1
Miller, Toni	Unsupportive (Form Letter)	I-29-1
Montonye, Terry	Other	I-83-1
Moore, Shannon	Other	I-162-1 , I-162-5
Moore, Shannon	Consumptive Use	I-162-3
Moore, Shannon	Drought Limit	I-162-4
Moore, Shannon	Withdrawal Limits (Support)	I-162-2
Morrison, Bethnie	Unsupportive (Form Letter)	I-24-1
Myers, Amy	Unsupportive (Form Letter)	I-26-1
Neal, Brian	Unsupportive (Form Letter)	I-37-1
Nelson, Justin	Unsupportive (Form Letter)	I-142-1
Nilsen, Jennie	Unsupportive (Form Letter)	I-122-1
Oman, Rachel	General - Support	I-27-1
Osborn, Julie	Unsupportive (Form Letter)	I-98-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Osterdahl, Melissa	Unsupportive (Form Letter)	I-22-1
Parry, Vanessa	Unsupportive (Form Letter)	I-76-1
Perry, Max	Other	I-166-1
Perry, Max	Withdrawal Limits (Too Low)	I-166-2
Pomeroy, Chris	Unsupportive (Form Letter)	I-64-1
Pomeroy, Chris	Withdrawal Limits (Other)	I-64-2
Pope, James	Unsupportive (Form Letter)	I-115-1
Potts, Ethan	Unsupportive (Form Letter)	I-139-1
Pro, Damian	Unsupportive (Form Letter)	I-48-1
Pro, Damian	Unsupportive (Form Letter)	I-154-1
Quimby, Donna	Unsupportive (Form Letter)	I-78-1
Ramsey, Jeremiah	Unsupportive (Form Letter)	I-155-1
Rawls, Michael	Unsupportive (Form Letter)	I-117-1
Rehm, David	Unsupportive (Form Letter)	I-136-1
Rehm, David	Authority (under Chapter 90.94 RCW)	I-92-1
Reilly, Jay	Unsupportive (Form Letter)	I-77-1
Richards, Skip	Other	I-134-1 , I-134-2 , I-134-3
Richards, Skip	Authority (under Chapter 90.94 RCW)	I-134-4
Richards, Skip	Net Ecological Benefit (NEB)	I-134-5
Richards, Skip	Offsets	I-134-6
Rinker, Charles	Unsupportive (Form Letter)	I-67-1
Roberts, Peter	Unsupportive (Form Letter)	I-49-1
Robinson, Mary Kay	Unsupportive (Form Letter)	I-41-1
Roosendaal, Joel	Unsupportive (Form Letter)	I-148-1
Roosendaal, Stephanie	Unsupportive (Form Letter)	I-140-1
Roosma, Karla	Unsupportive (Form Letter)	I-130-1
Ryan, Sean	Unsupportive (Form Letter)	I-126-1
Sabel, Kathy	Other	I-165-1 , I-165-5 , I-165-8 , I-165-13 , I-165-14
Sabel, Kathy	Authority (under Chapter 90.94 RCW)	I-165-6 , I-165-10 , I-165-11
Sabel, Kathy	Enforcement	I-165-9
Sabel, Kathy	Net Ecological Benefit (NEB)	I-165-4

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Sabel, Kathy	Offsets	I-165-7 , I-165-12
Sabel, Kathy	Property	I-165-3
Sabel, Kathy	Questions	I-165-2
Sager, Lindsay	Unsupportive (Form Letter)	I-40-1
Sanderson, Laura	Unsupportive (Form Letter)	I-11-1
Sands, James	Unsupportive (Form Letter)	I-16-1
Schroeder, Daniel	Other	I-5-1
Sexton, Dawn	Unsupportive (Form Letter)	I-86-1
Shelton, Tessa	Unsupportive (Form Letter)	I-127-1
Simms, Michelle	Unsupportive (Form Letter)	I-21-1
Skerjanc, Jim	Unsupportive (Form Letter)	I-43-1
Smith, Lori	Unsupportive (Form Letter)	I-118-1
Smith, Lori Jo	Unsupportive (Form Letter)	I-90-1
Snow, Eric	Unsupportive (Form Letter)	I-73-1
St. Clair, Susan	Unsupportive (Form Letter)	I-39-1
Stach, Miki	Unsupportive (Form Letter)	I-74-1
Standow, Liz	Unsupportive (Form Letter)	I-106-1
Stanford, Kathy	Unsupportive (Form Letter)	I-85-1
Stenvers, Darin	Unsupportive (Form Letter)	I-47-1
Stevenson, Heather	Unsupportive (Form Letter)	I-30-1
Stremler, Brooke	Unsupportive (Form Letter)	I-108-1
Stull, Linda	Unsupportive (Form Letter)	I-135-1
Sturlaugson, Judith	Unsupportive (Form Letter)	I-120-1
Stuth, Dana	Unsupportive (Form Letter)	I-19-1
Swanson, Kenneth	Unsupportive (Form Letter)	I-109-1
Swanson, Kurt	Unsupportive (Form Letter)	I-129-1
Sygitowicz, Daniel	Unsupportive (Form Letter)	I-71-1
Taylor, Murray	Questions	I-23-1
Taylor, Murray	Unsupportive (Form Letter)	I-23-2
Tingvall, Nicole	Unsupportive (Form Letter)	I-10-1
Tremaine Swanson, Holly	Unsupportive (Form Letter)	I-52-1
Trimble, Allison	Unsupportive (Form Letter)	I-8-1
Vadas, Jr., Robert	General - Support	I-1-1

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Van Beek, Dennis	Unsupportive (Form Letter)	I-45-1
Van Corbach, Loren	Unsupportive (Form Letter)	I-138-1
Van Mersbergen, Lester	Unsupportive (Form Letter)	I-125-1
Van Werven, Luanne	Authority (under Chapter 90.94 RCW)	I-160-1 , I-160-4
Van Werven, Luanne	Drought Limit	I-160-2
Van Werven, Luanne	Metering	I-160-3
VanLant-Rodriguez, Janelle	Unsupportive (Form Letter)	I-159-1
Vickery, Sylvia	Unsupportive (Form Letter)	I-58-1
Wailes, Thonnie	Unsupportive (Form Letter)	I-123-1
Washburn, Robert	Unsupportive (Form Letter)	I-143-1
Washburn, Robert	Withdrawal Limits (Other	I-143-2
Westhoff, Blake	Unsupportive (Form Letter)	I-55-1
Wilson, Mallina	Unsupportive (Form Letter)	I-25-1
Worden, Jasmin	Unsupportive (Form Letter)	I-103-1
Mohns, Alison	Questions	A-1-1 , A-1-2 , A-1-3
City of Lynden (Banham, Steve)	Projects	A-2-1
WDFW (Kernan, Megan)	Other	A-3-6
WDFW (Kernan, Megan)	Enforcement	A-3-2
WDFW (Kernan, Megan)	Net Ecological Benefit (NEB)	A-3-1
WDFW (Kernan, Megan)	Offsets	A-3-3
WDFW (Kernan, Megan)	Projects	A-3-4 , A-3-5
Associated Earth Sciences, Inc. (Chennault, Jay)	Projects	B-1-1
Misty Mountain Farms (Vitali, Stephanie & Robert)	Other	B-2-2
Misty Mountain Farms (Vitali, Stephanie & Robert)	Other Permit-Exempt Well Uses	B-2-1
BIAW (Cummings, Josie)	Other	O-1-1 , O-1-5
BIAW (Cummings, Josie)	Authority (under Chapter 90.94 RCW)	O-1-2 , O-1-3
BIAW (Cummings, Josie)	Withdrawal Limits (Other)	O-1-4
Center for Environmental Law & Policy (Rolfe, Trish)	Other	O-3-1 , O-3-3 , O-3-9 , O-3-14 , O-3-15
Center for Environmental Law & Policy (Rolfe, Trish)	Adaptive Management	O-3-13

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Center for Environmental Law & Policy (Rolfe, Trish)	Authority (under Chapter 90.94 RCW)	O-3-4 , O-3-5
Center for Environmental Law & Policy (Rolfe, Trish)	Consumptive Use	O-3-8 , O-3-10
Center for Environmental Law & Policy (Rolfe, Trish)	General - Oppose	O-3-2
Center for Environmental Law & Policy (Rolfe, Trish)	Net Ecological Benefit (NEB)	O-3-12
Center for Environmental Law & Policy (Rolfe, Trish)	Offsets	O-3-6 , O-3-11
Center for Environmental Law & Policy (Rolfe, Trish)	Projects	O-3-7
Earthjustice (Goodin, Amanda)	Other	O-6-1 , O-6-2 , O-6-8
Earthjustice (Goodin, Amanda)	Adaptive Management	O-6-6
Earthjustice (Goodin, Amanda)	Metering	O-6-4
Earthjustice (Goodin, Amanda)	Net Ecological Benefit (NEB)	O-6-5
Earthjustice (Goodin, Amanda)	Projects	O-6-7
Earthjustice (Goodin, Amanda)	Withdrawal Limits (Too High)	O-6-3
RE Sources (Wright, Shannon)	Other	O-2-1 , O-2-6
RE Sources (Wright, Shannon)	Adaptive Management	O-2-8
RE Sources (Wright, Shannon)	Enforcement	O-2-3
RE Sources (Wright, Shannon)	Projects	O-2-5 , O-2-7 , O-2-9
RE Sources (Wright, Shannon)	Retiming Exemption	O-2-4
RE Sources (Wright, Shannon)	Withdrawal Limits (Support)	O-2-2
Washington REALTORS (Clarke, Bill)	Other	O-7-1 , O-7-9
Washington REALTORS (Clarke, Bill)	Authority (under Chapter 90.94 RCW)	O-7-5
Washington REALTORS (Clarke, Bill)	Consumptive Use	O-7-3 , O-7-4
Washington REALTORS (Clarke, Bill)	Drought Limit	O-7-6
Washington REALTORS (Clarke, Bill)	General - Oppose	O-7-2
Washington REALTORS (Clarke, Bill)	Withdrawal Limits (Too Low)	O-7-7 , O-7-8
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Other	O-5-1 , O-5-5 , O-5-6 , O-5-9
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Authority (under Chapter 90.94 RCW)	O-5-3 , O-5-7 , O-5-10
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Consumptive Use	O-5-8

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Metering	O-5-2
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Property	O-5-11
Whatcom County Association of REALTORS(R) (Eskridge, R. Perry)	Withdrawal Limits (Other)	O-5-4
WRIA 1 Environmental Caucus (Deatherage, Karlee)	Other	O-4-1 , O-4-2
WRIA 1 Environmental Caucus (Deatherage, Karlee)	Enforcement	O-4-5
WRIA 1 Environmental Caucus (Deatherage, Karlee)	Projects	O-4-4
WRIA 1 Environmental Caucus (Deatherage, Karlee)	Withdrawal Limits (Support)	O-4-3
Lummi Nation (Jefferson, Merle)	Other	T-2-1 , T-2-2 , T-2-3 , T-2-15 , T-2-16
Lummi Nation (Jefferson, Merle)	Adaptive Management	T-2-14
Lummi Nation (Jefferson, Merle)	Consumptive Use	T-2-6
Lummi Nation (Jefferson, Merle)	Drought Limit	T-2-7
Lummi Nation (Jefferson, Merle)	Enforcement	T-2-5 , T-2-8
Lummi Nation (Jefferson, Merle)	Fees	T-2-11
Lummi Nation (Jefferson, Merle)	Metering	T-2-12
Lummi Nation (Jefferson, Merle)	Net Ecological Benefit (NEB)	T-2-13
Lummi Nation (Jefferson, Merle)	Projects	T-2-9 , T-2-10
Lummi Nation (Jefferson, Merle)	Withdrawal Limits (Too High)	T-2-4
AG Water Board Of Whatcom County (Bierlink, Henry)	Retiming Exemption	T-1-1
Nooksack Indian Tribe (Ross Cline, Sr.)	Other	T-3-1 , T-3-2 , T-3-14
Nooksack Indian Tribe (Ross Cline, Sr.)	Adaptive Management	T-3-11
Nooksack Indian Tribe (Ross Cline, Sr.)	Consumptive Use	T-3-8
Nooksack Indian Tribe (Ross Cline, Sr.)	Enforcement	T-3-7
Nooksack Indian Tribe (Ross Cline, Sr.)	General - Oppose	T-3-4
Nooksack Indian Tribe (Ross Cline, Sr.)	Metering	T-3-6

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Nooksack Indian Tribe (Ross Cline, Sr.)	Net Ecological Benefit (NEB)	T-3-12
Nooksack Indian Tribe (Ross Cline, Sr.)	Projects	T-3-10
Nooksack Indian Tribe (Ross Cline, Sr.)	Retiming Exemption	T-3-9
Nooksack Indian Tribe (Ross Cline, Sr.)	SEPA	T-3-13
Nooksack Indian Tribe (Ross Cline, Sr.)	Withdrawal Limits (Support)	T-3-3
Nooksack Indian Tribe (Ross Cline, Sr.)	Withdrawal Limits (Too High)	T-3-5
Helm, Larry	General - Oppose	OTH-1-1
Robinson, Mary Kay (Hearing Transcript January 7, 2020)	Withdrawal Limits (Too Low)	OTH-3-2
Perry, Max (Hearing Transcript January 7, 2020)	General - Oppose	OTH-3-3
Grah, Oliver (Hearing Transcript January 7, 2020)	General - Support	OTH-3-4
Hanks, Brad (Hearing Transcript January 7, 2020)	Authority (under Chapter 90.94 RCW)	OTH-3-5
Sabel, Kathy (Hearing Transcript January 7, 2020)	Questions	OTH-3-6
Maricle, Rick (Hearing Transcript January 8, 2020)	Withdrawal Limits (Too Low)	OTH-4-2
Meyer, Rick (Hearing Transcript January 8, 2020)	Withdrawal Limits (Too Low)	OTH-4-3
Meyer, Rick (Hearing Transcript January 8, 2020)	Drought Limit	OTH-4-4
Meyer, Rick (Hearing Transcript January 8, 2020)	Authority (under Chapter 90.94 RCW)	OTH-4-5
Hanks, Brad (Hearing Transcript January 8, 2020)	Withdrawal Limits (Other)	OTH-4-6
Perry, Max (Hearing Transcript January 8, 2020)	Consumptive Use	OTH-4-7
Bierlink, Henry (Hearing Transcript January 8, 2020)	Retiming Exemption	OTH-4-8
Chapman, Alan (Hearing Transcript January 8, 2020)	Questions	OTH-4-9

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Chapman, Alan (Hearing Transcript January 8, 2020	Net Ecological Benefit (NEB)	OTH-4-10
Denson, Nina (Hearing Transcript January 8, 2020)	Authority (under Chapter 90.94 RCW)	OTH-4-11
Denson, Nina (Hearing Transcript January 8, 2020)	Withdrawal Limits (Too Low)	OTH-4-12
Eskridge, Perry (Hearing Transcript January 8, 2020)	Authority (Under other laws)	OTH-4-13
Eskridge, Perry (Hearing Transcript January 8, 2020)	Adaptive Management	OTH-4-14
Eskridge, Perry (Hearing Transcript January 8, 2020)	Other	OTH-4-15
Van Werven, Representative Luanne (Hearing Transcript January 8, 2020)	Authority (under Chapter 90.94 RCW)	OTH-4-16
Robinson, Mary Kay (Hearing Transcript January 8, 2020)	Projects	OTH-4-17
Sabel, Kathy (Hearing Transcript January 8, 2020)	Other	OTH-4-18
Perry, Carole (Hearing Transcript January 8, 2020)	Other	OTH-4-19
Langley, Cliff (Hearing Transcript January 9, 2020)	General - Oppose	OTH-5-1
Isaacson, Paul (Hearing Transcript January 9, 2020)	Other	OTH-5-2
Denson, Nina (Hearing Transcript January 9, 2020)	Withdrawal Limits (Too Low)	OTH-5-3
Hanks, Brad (Hearing Transcript January 9, 2020)	Withdrawal Limits (Too Low)	OTH-5-4
Perry, Max (Hearing Transcript January 9, 2020)	Consumptive Use	OTH-5-5
Perry, Carole (Hearing Transcript January 9, 2020)	Other	OTH-5-6
Andrew, Carmen (Hearing Transcript January 9, 2020)	Withdrawal Limits (Other)	OTH-5-7 , OTH-5-9
Andrew, Carmen (Hearing Transcript January 9, 2020)	Enforcement	OTH-5-8
Andrew, Carmen (Hearing Transcript January 9, 2020)	Projects	OTH-5-10
Andrew, Carmen (Hearing Transcript January 9, 2020)	Questions	OTH-5-11

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Various citizens by sign-on letter: A, Lynne; Ackerman, Laura; Alexandra, Kathryn; Anderson, Becky; Anderson, Glen; Anderson, Lyle; Austin, Christine; Avinger, Linda; Ayers, Ahwren; Bahr, Dennis; Bailey, Stephen; Bakke, Simon; Bakke, Susan; Balzer, Kelly; Banks, Wesley; Barats, Betty; Barcott, Nick; Bartlett, Vivian; Bartlett, Wendy; Belk-Krebs, Sharon; Bennett, Gary; Bordelon, Tika; Borso, Pam; Borst, Tom; Bowman, Bill; Brehan, Kerry; Brotherton, Priscilla; Brown, Robert; Bunis, Naomi; Burgess, Lucia; Burns, Karen; Burns, Linda; Callahan, Claudia; Canright, Mark; Canright, Rebecca; Carlson, Darcy; Carlson, Joel; Chan, Guy; Cheney, Bailey; Church, David; Clark, Kevin; Cohen, Judith; Colangelo, Annapoorne; Colbert, Amanda; Culver, Judith; Daffron, Jeff; Davidson, Barbara; Davis, Virginia; Deal, Brandie; Deatherage, Karlee; Defoer, Casey; DeSilva, Carolyn; DeWitt, Lizbeth; Donaldson, Jamie; Donelson, Ro; Douglass, Andronetta; Dowson, Eleanor; Dudley, Eric; Dukes, Patrick; Eakle, Wendy; Edmison, Sean; Eggerth, Rick; Eisenberg, Suneeta; Epperson, Gabe; Erbs, Lori; Evans, Bronwen; Fabian, Dagmar; Fairbairn, Zacchary; Falabella, Andrew; Featherston, Rose; Flood, Karen; Foster, Vincent; Francis, Barbara; Gaasland, Carrie; Gilmore, Patsy; Glidden, Hal; Glidden, Helen; Goldberg, Laura; Gordon, Jan; Goss, Bonnie; Grace, Lise; Grant, Margarette; Green, Jude; Gudmundson, Lori; Guthrie, Randy; Hackett, Jackelyn; Hagan, Martha; Hahney, Tom; Hamill, Janet; Hammer, Judy; Hammer, Krista; Hammer, Martha; Hansen, Christine; Hansen, Jim; Harrison, Diana; Harvey, Jo; Hass, Susan; Havens, Corey; Hawley, Linda; Hazen, Libby; Henderson, Margaret; Hicks, Bob; Higgins, Patricia; Higgins, Ruth; Hines, Eleanor; Hinz, Sonja; Hodson,	Adaptive Management	OTH-2-5

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Sally; Holcomb, Peter; Holderman, Karen; Holub, Lois; Holzman, Ted; Honrath, Annie; Hurt, Sonia; Hurtubise, Nicole; Jacobson, Carole; Jensen, Dena; Johnson, Julie; Johnson, Lorraine; Johnson, Mark; Johnson, Richard; Jolles, Arnold; Jordan, Dorothy; Kaye, Deborah; Kemper, Mari; Kerr, Monea; Ketter, David; Knutzen, Steve; Kroger, Jane; Lamb, Barbara; Lamb, Elsie; Lane, Jonathan; Lawrence, George; Laws, David; Lilliquist, Michael; Low, Sammy; Lunde, Bjorn; Lunsford, Melinda; Lydon, Hunter; Lynn, Colson; Lynott, Sean; MacLeod, David; Maghakian, Michael; Maliszewski, Charlie; Margolis, Margo; Markley, Shannon; Marshall, Albert; Marshall, Liz; Mayhew, Joanne; McBride, Roberta; McClintock, Gloria; McGinty, Penny; McGlothlin, Carolyn; McKim, Tina; Merrill, Arria; Michaels, Brenda; Mitten-Lewis, Suzanne; Moore, Erin; Mower, Amy; Osterhaus, Shirley; Ouellette, Tracy; Oulman, Lynne; Parsley, Adina; Parsons, Shannon; Pendleton, Lynne; Petkiewicz, Jim; Phare, Darrell; Potts, Paul; Primrose, John; Ramos, Myra; Rietz, Marguerite; Rigg, Lesley; Rink, Laura; Rivard, Margaret; Roberts, Ryan; Robson, Sandy; Rosenkotter, Barbara; Rotondi, Paula; Rumiantseva, Elena; Russell, Lynn; S, John; Savoian, Sasha; Scanlon, Jonathan; Scarborough, James; Scheer, David; Schiendelman, Joan; Schuster, Jerry; Scribner, Jason; Shearer, Cornelia; Sheay, Warren; Smith, Diane; Smith, Leslie; Snow, Michael; Spalding, Cathy; Spencer, Julia; Steel, Suzanne; Stover, Jaye; Sullivan, Diane; Sykes-David, Kristin; Taylor, Jeanne; Teesdale, Mary; Thomas, Erik; Thomas, Robin; Train, Amber; Ulrich, Friedrich; van Alyne, Emily; Verbeck, Elizabeth; Vermeeren, Dirk; Vetter-Hansen, Ann; Voorhees, Thomas; Wale, Liisa; Ward, Karla; Warden, Patricia;		

Commenter Name	Topics where comments were assigned	Associated Comment numbers
Warner, Margaret; Washburn, Liz; Weinstein, Elyette; Westlake, Rebecca; Weyer, Dora; White, Nancy; Wiederhold, Joe; Williams, Raymond; Wilson, Bea; Wingard, Sonja; Wolf, Edward; Woodum, Justin; Zimmer, Cheryn		
Various citizens by sign-on letter: same as above	Projects	OTH-2-3
Various citizens by sign-on letter: same as above	Withdrawal Limits (Support)	OTH-2-2
Various citizens by sign-on letter: same as above	Other	OTH-2-1 , OTH-2-4

Responses to Comments

General Responses

A large portion of the comments received on the proposed rule related to several core issues. Ecology felt it could better communicate the agency's responses by providing a summary response that addressed these issues up front. You will find many of the responses to the individual comments also reference these general responses.

A. Fairness / Not Fair

Ecology regularly hears concerns that Washington water law is "unfair." These concern include Ecology's oversight of water rights and establishment of water use limits. The reason for this perceived lack of fairness is the prior appropriation system of water law. Washington State follows the doctrine of prior appropriation, which means that the first users have rights *senior* to those that are established later in time (*junior* water rights). This is commonly referred to as, "first in time, first in right." If a water shortage occurs, senior rights are satisfied first and the junior right holders can be curtailed.

In Washington State, Ecology is responsible for managing the water resources of the state under the direction of a series of laws and court decisions. This includes issuing permits for water use and protecting instream resources for the benefit of the public. Water right permits authorize the use of a specific amount of water with a defined place of use, period of use, and purpose of use. Ecology manages a portfolio of over 226,000 active water right certificates, permits, and claims to help meet the state's many water supply needs. Many of these water rights have been in existence since the late 1800s.

Before Ecology can issue a new water right permit, the proposed use must meet a four-part test:

1. Water must be available (both physically and legally)
2. Water must be used beneficially
3. Water use must be in the public's interest
4. Water use must not impair another existing use

The 1945 Groundwater Code, chapter 90.44 RCW, created an exception from permitting requirements for certain groundwater withdrawals (RCW 90.44.050), including domestic use. In January 2018, Washington passed a new law that provides Ecology and local governments with tools to protect and enhance stream flows while ensuring that domestic permit-exempt groundwater is available for homes in rural parts of the state.

The 2018 law--primarily codified in chapter 90.94 RCW--allows new domestic permit-exempt wells to impact closed water bodies (closed to new consumptive water rights) and water bodies with minimum instream flows. The law also set new limits on new permit-exempt indoor and outdoor domestic use, and directed consideration of a conservation standard that limits water use from new permit-exempt domestic wells. Ecology looked at several factors in establishing the

WRIA 1 conservation standard in the rule amendment, including how higher or lower withdrawal limits affect the quantity of water that must be offset under the 2018 law, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve a net ecological benefit (NEB).

While some people consider the WRIA 1 domestic permit-exempt conservation standard limits unfair, other water users consider it unfair that these new homes are not held to the same standards as new water right permits. New domestic permit-exempt wells serving new homes are not required to determine that water is available, unlike new water right applicants. Additionally, new domestic permit-exempt wells are allowed to impair streams that are closed to new water rights, or those with minimum instream flows set to protect fish, wildlife, recreation, aesthetics, water quality, and navigation.

The new homes also do not have to find ways to mitigate their new domestic water uses as water right permit applicants may be required to do. Instead of requiring homeowners or homebuilders to mitigate the new water use, the 2018 law directs local planning groups and Ecology to find projects and actions to offset the effects on streamflows caused by the new domestic water use.

Some people consider it unfair that these new homes are allowed to use water and have impacts on streams before offset projects are completed. Some people consider it unfair that the new homeowners don't have to pay the full cost of the projects that offset their consumptive use. Instead, the law allows the consumptive water use for the new homes to be offset by projects and actions identified in the RSD and projects added through adaptive management. Project proponents can apply for grant funding provided by all the citizens of Washington through state funding.

Some junior water users consider the prior appropriation system to be unfair because they feel that the value of their water use is "better" or "more important" than a senior right holder's water use. Junior users may also feel the system is unfair to them because they have a lower priority simply because they started using water later in time. People who are used to the riparian system of water use and law, common in the eastern U.S., may also find it unfair that the surface and groundwater are state resources, and find it confusing that they may not be able to use water under or adjacent to their property.

Some people also often find 100 years of water laws that intersect, overlap, and are clarified through court decisions to be confusing. Sometimes the resulting management decisions can feel unfair. Washington State's prior appropriation system is governed by laws that have been enacted by the Legislature and court decisions interpreting these laws, which collectively set priorities and requirements for water use. Ecology is charged with authority and responsibility to carry out these laws and it works diligently to carry them out for all water users.

B. Comparison of Other Water Use Limits

Several commenters brought up Ecology's review of withdrawal limits for domestic permit-exempt groundwater uses in other areas. The comments discussed the range of limits in other areas of the state, which are both higher and lower than the withdrawal limit selected for WRIA 1, and the appropriateness and applicability of considering other existing limits to develop the

WRIA 1 conservation standard. The table below summarizes the water use limits discussed in Chapter 3 of the Rule Supporting Document (RSD).

Ecology considered several other factors while developing the conservation standard for WRIA 1 including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve Net Ecological Benefit (NEB), including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new water right permits in the watershed; and
5. Typical household water use. More information on how the conservation standard was developed is available in Chapter 3 of the RSD.

A map of the WRIAs can be found at:
https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/wsisf.pdf

Instream Flow Rule / Water Management Limit	Domestic Indoor and Outdoor Water Use
Lummi Peninsula Groundwater Settlement Agreement (Nooksack, WRIA 1)	350 GPD annual average, includes indoor and outdoor uses Metering required.
Big Lake Mitigation Program (Lower Skagit-Samish, WRIA 3)	175 GPD annual average for indoor domestic use 143 GPD annual average for outdoor irrigation Metering required.
Stillaguamish Rule (WRIA 5)	350 GPD, or 175 GPD if the residence has on-site septic, reservation assumption 1/12 acre for outdoor domestic watering
Quilcene-Snow Rule (WRIA 17)	500 GPD daily maximum or 350 GPD annual average for all four permit-exempt uses (indoor domestic, outdoor domestic, stockwatering, and industrial)
Dungeness Rule (WRIA 18)	150 GPD for indoor use 50 ft^2 (210 GPD) for basic outdoor irrigation, or option for 75 ft^2 (474 GPD) for extended outdoor at an additional cost.
Lewis Rule (WRIA 27)	800 GPD, or 240 GPD if the residence has on-site septic, reservation assumption
Salmon-Washougal Rule (WRIA 28)	800 GPD, or 240 GPD if the residence has on-site septic, reservation assumption

Instream Flow Rule / Water Management Limit	Domestic Indoor and Outdoor Water Use
Walla Walla Rule (WRIA 32)	1,205 GPD limit for domestic indoor and outdoor use in high density areas (more than one residence per 10 acres). 5,000 GPD indoor use, 1/2 acre for outdoor use in low density areas (less than one residence per 10 acres).
Entiat Rule (WRIA 46)	35 GPD per person net [consumptive] use indoors, reservation assumption 1/2 acre outdoor watering
Watersheds in RCW 90.94.020 (WRIAs 1, 11, 22, 23, 49, 55, 59)	3,000 GPD max annual average for indoor and outdoor domestic use Initial limit, "until rules have been adopted that specify otherwise"
Watersheds in RCW 90.94.030 (WRIAs 7, 8, 9, 10, 12, 13, 14, 15)	950 GPD max annual average for indoor and outdoor domestic use 350 GPD indoor use and fire protection buffer during a drought emergency Initial limit, "until rules have been adopted that specify otherwise"
Watersheds without limits in rules, case law, or RCW 90.94	5,000 GPD indoor domestic use 1/2 acre for outdoor irrigation of noncommercial lawns or gardens

C. Authority for Rulemaking

Several commenters discussed Ecology's authority to include certain provisions of the rule under chapter 90.94 RCW and other Washington State water management laws. The commenters discussed concerns about whether Ecology's rule for new domestic permit-exempt wells could include both indoor and outdoor domestic use, whether Ecology's rule could set a conservation standard to limit the water use from new domestic permit-exempt wells, whether there could be a water use limit during droughts, and whether Ecology could require meters on new domestic permit-exempt wells.

Limiting Indoor Domestic and Outdoor Domestic Water Use

To ensure transparency, consistency, and conformity in implementing the law, Ecology published its interpretation and rationale that "domestic use" in chapter 90.94 RCW includes both indoor and outdoor home uses, and watering of a non-commercial lawn and gardens in several documents.

Ecology explained its interpretation, and the rationale behind it, in an initial policy interpretation document published in March 2018 ("ESSB 6091 – Streamflow Restoration Initial Policy Interpretations, March 2018"). Ecology asked for public comments on policy issues related to chapter 90.94 RCW, including its interpretation of the withdrawal limits, in May-June 2019. The

comments were used to develop a Policy and Interpretive Statement (Water Resources Policy 2094, WR POL-2094) published in July 2019 that includes the agency's interpretation. Also, as part of the WRIA 1 rulemaking process, Ecology published two rule supporting documents (preliminary draft and draft), with the preliminary draft and proposed rule languages, which describe Ecology's interpretation.

The 2018 law established a new type of withdrawal limit called a maximum annual average (MAA) withdrawal limit for new domestic permit-exempt withdrawals. In WRIA 1 the MAA withdrawal limit was initially set at 3,000 GPD for new "domestic use" (RCW 90.94.020(5)).

The term "domestic use" is not defined in chapter 90.94 RCW. The word "domestic" is defined in the dictionary as "of or relating to the home, the household, household affairs, or the family," and "relating to the running of a home."

The 2018 law defines a MAA "domestic use" limit for WRIAs listed in RCW 90.94.030 as 950 GPD and provides that Ecology may curtail new wells in those WRIAs during a drought to the use of 350 GPD per connection for "indoor domestic use only," and "to maintain a fire control buffer" (RCW 90.94.030(4)(b)). The law states that, during a drought, Ecology may curtail use to only 350 GPD per connection for "indoor domestic use only," and that "[n]otwithstanding the limitation to no more than [350 GPD] per connection for indoor use only, an applicant may use groundwater exempt from permitting to maintain a fire control buffer during a drought emergency order." Water use to maintain a fire buffer around a home is outdoor lawn and garden watering. Thus, the agency understands "domestic use" to include all uses of water associated with homes, which includes indoor use under the "domestic" exemption from permitting and outdoor use under the "noncommercial lawn and garden" exemption.

If watering of a lawn and noncommercial garden is not included in the MAA "domestic use" limits then there was no need for the law to specify that water use during a drought is limited to "indoor domestic use only" while allowing the use of water outside for irrigation "to maintain a fire control buffer" around a home.

Since the same MAA "domestic use" use term is used throughout the 2018 law, Ecology interprets that the term means the same thing throughout the entire law. In non-drought years, Ecology reads the law's MAA "domestic use" to include both indoor and outdoor uses for a household, including watering of a lawn and noncommercial garden.

Ecology has heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators, in including the term "domestic use" in the 2018 legislation. Ecology is interpreting and implementing the law as it is written, and harmonizing its numerous sections.

The 2018 law states that "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050" and that the law "does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050" (RCW 90.94.020(8)). Ecology interprets this to mean that the MAA "domestic use" limits in the law, and the conservation standard discussed below, corresponds to the two

categories defined in RCW 90.44.050 for indoor domestic use and outdoor domestic use for watering noncommercial lawns or gardens. The 2018 law does not affect or include the categories defined in RCW 90.44.050 for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Withdrawal limits established under the two laws can be 'stacked' together, regardless of the use of one or multiple wells. For example, a new home using a domestic permit-exempt well on a property with cows on it, operating an industry (business) on-site, could potentially withdraw water from a permit-exempt well for stockwatering purposes (with no quantity limit), and for industrial purposes (up to 5,000 GPD), and for water for their home (500 GPD for indoor domestic use), and water their garden (1/12 acre for outdoor domestic irrigation). This could be done from a single well or from multiple wells; however, the number of wells would not change the withdrawal limits for that new home.

Setting a Conservation Standard, including Drought Limit

Ecology is carrying out the requirements established by the 2018 law, including specific direction to consider "[s]pecific conservation requirements for new water users to be adopted by local or state permitting authorities" (RCW 90.94.020(4)(d)(iii)).

Ecology is authorized to engage in rulemaking to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)).

The law states that the new limit for WRIA 1 is 3,000 GPD maximum annual average "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)). As explained above Ecology interprets this as a limit for both indoor and outdoor domestic use combined.

Ecology followed this direction to establish a conservation standard for newly permitted houses relying upon withdrawals from new domestic permit-exempt wells in WRIA 1. The drought limits of indoor use and outdoor irrigation for subsistence gardening are part of the conservation standard.

The conservative standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new water right permits in the watershed; and
5. Typical household water use.

During the development of the conservation standard, the drought limit was developed after considering the provision in RCW 90.94.030 that limits the withdrawal of water from new permit-exempt wells during declared droughts to "indoor domestic use only" and "to maintain a fire control buffer."

Ecology did not include maintaining a "fire control buffer" in the WRIA 1 conservation standard because "fire control buffer" is not defined in any water resource management laws or policies, including chapter 90.94 RCW. Ecology checked the Washington Department of Natural Resources materials on wildfires and was unable to find a definition or guidance on what constituted a fire control buffer, such as a recommended size or types of vegetation that would provide a way to estimate water use for irrigation to create and maintain such a buffer. Ecology will continue to follow the 2008 Water Resources Program Policy on Fire Fighting or Protection (Policy-2015).

Ecology considered the potential impact during a drought on future rural homeowners from limiting new homes to indoor use only. Ecology was concerned about the environmental justice impact on low income rural families if the limit was indoor use only during a drought. Ecology decided to include outdoor irrigation for subsistence gardening during a drought so that homeowners can use water for irrigating gardens used to grow food to feed their families.

Several commenters were concerned that Ecology does not have the authority to include a drought limit in the conservation standard. Ecology believes the drought limit is allowed under the direction to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)). The 2018 law does not specifically prohibit a drought limit for WRIA 1.

Ecology believes that the drought limit helps ensure lower consumptive use impacts during times when instream flows can be at their lowest. This provides benefits to streams and aquatic species. In providing these benefits is also helps achieve NEB; see Chapter 9 of the RSD for additional information.

The general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, have more information on the development of the conservation standard. Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provides estimates for average indoor water use per person, estimates for consumptive indoor water, and estimates for consumptive outdoor irrigation.

The conservation standard in Ecology's rule and the analysis in the RSD are consistent with all relevant legislation, case law, Attorney General Opinions, and agency policy and interpretive statements.

Metering

Ecology is not requiring water use meters for new domestic permit-exempt wells in WRIA 1.

The rule states “The department reserves the right to require metering and reporting of water use for domestic users as provided for under existing authorities. This includes, but is not limited to, RCW 90.44.050 and 90.44.250, and the provisions in Chapter 173-173 WAC.” (WAC 173-501-065(e))

No changes to existing metering laws or rules are part of this rulemaking. The existing laws and rules, from 1987, 2002, and 2003, provide Ecology with the longstanding authority to require any individual user of groundwater, including new domestic permit-exempt water users, to record and report their water use, should that be deemed necessary by Ecology.

Ecology is currently carrying out the direction in RCW 90.94.040, another section of the 2018 law, to establish metering pilot projects in areas within WRIA 18 and WRIA 39. Ecology looks forward to reviewing the results of these pilot areas to better understand the water use data and effectiveness. The pilot project section of the law does not modify or revoke Ecology’s existing authorities related to metering.

Ecology noted these older laws and rules related to its authority to require metering and reporting of water use in the WRIA 1 rule to ensure public awareness of these laws and rules.

Comments on Withdrawal Limits (Support)

Commenter: Alan Chapman – Comment I-163-1

Memorandum
To: Washington State Department of Ecology
From: Alan Chapman
Subject: Comments on Rulemaking - Amendment to Chapter 173-501 WAC IRPP Nooksack WRIA 1

Summary

1. The identification of a conservation standard of 500 gallons per day is a more effective way to estimate the potential offset for impacts of new domestic permit exempt wells than an annual average daily impact of 3000 gallons.

Response:

Thank you for your comment. Ecology's rule amendment establishes the conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day, and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home in a group domestic system.

More detailed information on how Ecology calculated the amount of consumptive use needed to offset 20 years of new domestic permit-exempt wells can be found in Chapter 4 of the RSD.

Commenter: Kim Clarkin – Comment I-7-2

Please see attached word document Thank you for setting reduced limits for new permit-exempt well withdrawals for domestic indoor uses and outdoor gardening.

Response:

Thank you for your comment. Please see comments I-7-3, I-7-4, and I-7-5for responses to the comments in your word document.

Commenter: Ross Cline, Sr. – Comment T-3-3

While we strongly support the establishment of a conservation standard in Ecology's draft rule that limits indoor domestic water use, reduces allowable irrigated acreage, and provides for interruptibility upon issuance of a drought emergency order,

Response:

Thank you for your comment.

Commenter: Oliver Grah – Comment I-161-4

While we strongly support the establishment of a conservation standard in Ecology's draft rule that limits indoor domestic water use, reduces allowable irrigated acreage, and provides for interruptibility upon issuance of a drought emergency order,

Response:

Thank you for your comment.

Commenter: Joseph Knight – Comment I-153-2

My well is on Sumas Mountain and is 220 feet deep. The well water is brackish so I process the well water through a reverse osmosis system. I also have a large garden. I mention this because RO water is expensive and therefore I manage it carefully. Nevertheless, I can grow an adequate supply of fruit and vegetables for my family within the 1/12 acre limitation proposed in the new rules. It's possible but requires a little care. Therefore, the new rules impose no unusual burden on rural households. I certainly use far less than 500 gallons a day during the summer. Thank you for considering my comments.

Response:

Thank you for your comment and for sharing your experiences.

Commenter: Shannon Moore – Comment I-162-2

Withdrawal Limits: The reduction to 500 gallons per day and 1/12 acre irrigated lawn or garden is an improvement and the step in the right direction toward conservation as we look for higher levels that protect instream flows during the summer months. Instream resources are most important to the fishers in Whatcom County.

Response:

Thank you for your comment.

Commenter: Shannon Wright – Comment O-2-2

To: Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia WA 98504-7600 January 16, 2020 RE: Chapter 173-501 WAC Draft Rule & Supporting Documents Dear Ms. Sawabini, Thank you for taking the time to consider our comments on the draft rule and supporting documents for Chapter 173-501 WAC, also known as the Nooksack Rule. RE Sources is a non-profit organization located in northwest Washington and founded in 1982. We work to protect the health of northwest Washington's people and ecosystems through the application of science, education, advocacy, and action. Our priority programs include Protecting the Salish Sea, Freshwater Restoration, Climate Action, and Fighting Pollution–all critical issues affecting our region. Our North Sound Baykeeper is also a member of the Waterkeeper Alliance, with over 300 organizations in 34 countries around the world that promote fishable, swimmable, drinkable water. RE Sources has thousands of supporters in Whatcom, Skagit, and San Juan counties, and we submit these comments on their behalf. Comments on proposed amendments to WAC 173-501: 1. Please maintain the 500 gallon per day indoor water use limit and maintain the one-twelfth acre outdoor domestic use. As stated and analyzed in the supporting document, 500 gallons per day is more than enough water to meet the needs of most households in Whatcom County. The largest source of consumptive water use is

watering lawns in the summer. Our assessment is that one-twelfth of an acre is reasonable for either lawn or subsistence gardening

Response:

Thank you for your comment. Outside lawn and garden watering accounts for roughly 95 percent of all consumptive water uses associated with new home water uses; for more information please see "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates" (Ecology Publication #18-11-007).

Commenter: Various Citizens – Comment OTH-2-2 (see names in index)

Various citizens by sign-on letter Please see attached sign on letter from over 200 individuals _ Thank you. Annie Sawabini Department of Ecology Water Resources Program po Box 47600 Olympia, WA 98504-7600 January 17, 2020 Dear Ms. Sawabini, Thank you for accepting public comment on the proposed draft changes to Chapter 173-501 WAC, Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1 . While this rulemaking focuses narrowly on the anticipated water use impacts of permit-exempt wells over the next 20 years, we urge Ecology to take this as an opportunity to plan for the impacts of climate change on streamflows for salmon and changing demands on water use for people and farms. With water shortages becoming more common as climate change worsens in our rapidly-growing state, it's urgent to take every chance we have to give both families and fish the water they need. We, the undersigned, submit the following comments on the "Proposed rule changes" and "Draft Rule Supporting Document". 1. Maintain the 500 gallon per day limit for all new permit-exempt wells and the one-twelfth acre outdoor water use limit. Larger water limits and outdoor water use encourage people to be inefficient with their water. We agree with Ecologys justification for choosing 500 gallons per day and a one-twelfth acre outdoor water use limit to encourage conservation, especially during the summer when flows are low and groundwater levels decline.

Response:

Thank you for your comment. Ecology is following the direction of the law, as specified in RCW 90.94.020. Please see response to Comment O-3-10 and O-3-12 regarding concerns about climate change.

Commenter: Karlee Deatherage – Comment O-4-3

First, we want to express our support for maintaining the 500 gallons per day indoor water use limit and the outdoor water use limit of irrigating up to one-twelfth of an acre. We think this is a reasonable limit as compared to both the 3,000 gallons per day annual average baseline set in the Streamflow Restoration Act (SRA) and the 5,000 gallons per day limit for permit exempt well usage prior to the passage of the SRA. As indicated in the Draft Rule Supporting Document, most households use well below the 500 gallons per day indoor limit.

Response:

Thank you for your comment. The RSD and Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provide estimates for average indoor water use per person, estimates for consumptive indoor water, and estimates for consumptives outdoor irrigation.

Comments on Withdrawal Limits (Too Low)

Commenter: Daniel Clark - Comment I-156-1

The proposed rule to limit water usage to 500 gpd (and also land usage) has many flaws that have already been documented.

One concern not mentioned is the illegitimate use of statistical averages in determining usage (one example being the average of a 2.5 person household). Statistics can be an adequate tool for determine averages and behavior among large groups of people. However, it is an insufficient tool for determining how specific individuals/families are impacted.

For example, the committee uses an average household size of 2.5 people for determining appropriate water usage. My family, however, is a family of 6, not including animals or including future elderly family members who are soon to be cared for.

Furthermore, not only does my family sleep at our residence, my children are educated here and my wife and I (both corporate professionals) work from home. Because we live, and also work, and also play at our home, we often use more than 500 gpd.

What is not taken into consideration is that unlike most individuals/families, we don't use ANY water at a school or workplace--nothing. Furthermore, our carbon footprint is much less than other individuals because we don't drive or consume resources at a school or workplace.

Thus, as a result of the use of "averaging," my specific family (and families like mine) are discriminated against--even though we have a smaller carbon footprint.

The committee's use of statistical averaging actually portends a legitimate Constitutional discrimination claim (these often arise when illegitimately applying statistical averages to specific parties). Not only does the illegitimate application of statistical averaging cause Constitutional Claims to arise, but these claims are buttressed if facts used by rulemaking agencies appear to be unfounded and/or specious. Here there are many good reasons to presume that some of the "facts" used by the committee are specious (e.g., improper inconsideration of recharge rates occurring from both annual rainwater and recharge from septic systems).

I would advise the committee to reconsider the rule and align the rule with the clear guidelines promulgated by the legislature. If not, there are sure to be many lawsuits filed against the DOE.

As the rule stands, the rule prevents my family and families like mine from enjoying the use of rural property within Whatcom County.

Response:

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. As an existing well owner, you and your family would not be affected by the conservation standard withdrawal limit. The withdrawal limit established by RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

Consideration of "carbon footprint" is beyond the scope of this rulemaking.

Ecology used the average of 2.56 people per household to calculate the amount of consumptive water use from new permit exempt wells over 20 years that needs to be offset by projects to achieve NEB in the WRIA. Because the law directs us to estimate water usage for homes that have not been built yet, Ecology cannot know exactly how many people will live in each home, or how each home's population will change over 20 years, therefore a population estimate is required.

The average of 2.56 people per home is based on Whatcom County data (see Whatcom County Comprehensive Plan Update Environmental Impact Statement, 2015). The average number, and its use in the consumptive use calculation was part of the analyses done by the local WRIA 1 Streamflow Restoration planning work, including representatives from the Exempt Well Caucus. Ecology believes using the average number of people per home is a realistic way to estimate the average consumptive use from the new homes built over 20 years. More information on how the consumptive use estimate was calculated is available in Chapter 4 of the RSD.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

More information on how the conservation standard was developed is available in Chapter 3 of the RSD.

Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Ecology Publication #18-11-007) provide estimates for average indoor water use

per person, estimates for consumptive indoor water, and estimates for consumptive outdoor irrigation. Based on the average indoor use of 60 gallons per day, per person, a family of 6 would use 360 gallons per day for indoor use, below the 500 gallons per day indoor conservation standard. Anecdotally, Ecology staff have been told by private well owners during the WRIA 1 Streamflow Restoration planning process that private well owners use less water than the average because of their awareness about the electrical costs of running a well pump and concerns about pumping their well dry.

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment, regarding their ability to use water from new domestic permit-exempt withdrawals to build new homes and enjoy the rural lifestyle.

The rule is not discriminatory and does not violate the constitutional right to equal protection under the law. Because the conservation standards limits apply uniformly to all new wells constructed after the effective date of the rule, all property owners are treated equally. Also, there is a rational basis for the withdrawal limits. The rule reasonably balances desires for landowners to develop and use their land with groundwater from permit-exempt wells with needs to maintain water for streamflows and fisheries resources.

Commenter: Molly Crocker - Comment I-164-5

5. The Rule making proposed by Ecology Includes offsets for the next 20 years of nearly 10 times the required amount for 500 gpd for each of the anticipated homes built. So leave the withdrawal amount at 3,000 gpd!

6. The Planning Unit consists of people who live and work in the watershed. On November 8, 2018, the Planning Unit voted to approve a withdrawal limit of 3,000 gallons per day. Here are lines 72 - 79 of the draft meeting summary from that meeting. The draft was approved at the November 28 Planning Unit Meeting:

Conclusion: Leave the withdrawal limit at 3,000 gallons per day.

Motion (Motion #5) by Dan Eisses and seconded bv Steve Jilk to keep the 3000 gpd annual average that is in the legislation and work in a voluntary metering program as part of Adaptive Management, and the Planning Unit is comfortable with RH2 estimates for consumptive use.

Vote:

- 9 in favor (Agriculture, Environmental, Forestry, Land Development, Non-Government Water Systems, Port of Bellingham, Private Well Owners, PUD Water Districts)
- 2 abstain (Whatcom County, State Government)
- 1 opposed (Fishers)

Response:

The law directed the Initiating Governments, in collaboration with the Planning Unit, to update the WRIA 1 watershed plan by February 1, 2019. Ecology appreciates all the hard work performed by the WRIA 1 Watershed Management Board, WRIA 1 Watershed Staff Team, and the Planning Unit. Ecology is aware of how the Planning Unit voted throughout the Streamflow Restoration planning process. Since a watershed management plan update, including but not limited to withdrawal limits, was not locally approved by the law's deadline, Ecology is required to meet the requirements through a rulemaking process.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its conclusion that the projects and actions--including the rule amendment conservation standard--gives Ecology reasonable certainty of achieving NEB.

Commenter: Nina Denson - Comment I-91-1

STATEMENT TO DEPARTMENT OF ECOLOGY
My name is Nina Denson, I live in Custer, WA, and I am an exempt well property owner.
I have been to two public hearings. I have heard the figures and calculations the Rule Committee have used to make their arbitrary rule for new exempt well owners. The rule makers are not taking into consideration that the planning units recommended a 3,000 gal a day withdrawal for exempt wells.
Ecology has chosen an arbitrary figure of 500 gallons a day of withdrawal.
Whatcom County is at a disadvantage because our County Council couldn't make the decision unanimous so they kicked the can down the road to Ecology to make the decision. Even though many people in Whatcom County spent a year studying the issue and had a unanimous decision with all the planning units, we are now stuck with Ecology making an arbitrary decision for us. This hardly seems fair.
Ecology's "rule making" affects many rural residents as to how they can live on their land. 500 gallons a day per household is an arbitrary number and is restrictive to rural land owners. It appears to me that rural owners are being punished for not living in the city.

Response:

The law directed the Initiating Governments, in collaboration with the Planning Unit, to update the WRIA 1 watershed plan by February 1, 2019. Ecology appreciates all the hard work performed by the WRIA 1 Watershed Management Board, WRIA 1 Watershed Staff Team, and the Planning Unit. Ecology is aware of how the Planning Unit voted throughout the Streamflow Restoration planning process. Since a watershed management plan update, including but not limited to withdrawal limits, was not locally approved by the law's deadline, Ecology is required to meet the requirements through a rulemaking process.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains Ecology's analysis for these requirements, including its

conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty of achieving NEB.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

Please see the general responses on "Fairness / Not Fair" and "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Ecology's rule amendment establishes the conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home in on group domestic system. The rulemaking does not change the permit-exempt well withdrawals for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

More information on how the conservation standard was developed is in Chapter 3 of the RSD. Ecology respectfully disagrees that the conservation standard is arbitrary.

Ecology is not punishing new rural homeowners for not living in the city. Cities and other municipal water suppliers have water rights that are used to supply the homes and businesses connected to their water systems. The municipal water suppliers manage their customer's water use to stay within their water rights, and charge a fee based on the amount of water used.

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment, regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Commenter: Paul Graf - Comment I-157-2

The legislated amount of 3000 gpd is probably satisfactory for most home owners but the also proposed 500 gpd and unacceptable.

Response:

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. More information on how the conservation standard was developed is in Chapter 3 of the RSD.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Commenter: Bradley Hanks - Comment I-93-1

Rulemaking Lead Sawabini, Please consider my comment on the proposed Nooksack River (WRIA 1) watershed permit-exempt well rule. Based on the information below, I believe that the proposed rule unfairly restricts indoor water use by rural households and that the restriction on outdoor water to an area less than that authorized by statute is not only wrong, but also erodes the rural lifestyle that is the essence of Whatcom County. The rule restricts indoor water use to 500 gallons per day. While this amount of water might be appropriate for households in urban areas, rural households tend to be larger in number of residents and require more water for household use. 500 gallons per day is the accepted use of a family of four in an urban setting, but NOT FOR larger rural families leading a rural agricultural lifestyle. During the hearings, Ecology staff raised the point that many comments have been made recommending a reduction in the proposed rule of 500 gpd withdrawal limit. I would submit that those advocating a reduction from that level have little to no knowledge of rural living and would hazard a guess that the majority espousing such a miserly approach are probably urban dwellers. Ecology's rule making staff has repeatedly stated a comparative approach was used in determining withdrawal limits for WRIA 1, though there is no indication that the WRIA's used for comparison are remotely similar to the Nooksack Basin. I feel the 500 gallon limit is an arbitrary number imposed by Ecology to severely restrict water use in Whatcom County, and believe the influence applied by major stakeholders in WRIA 1 upon Ecology has shaped the rule more than accurate scientific data. I urge the rule making staff to reconsider the withdrawal limits per the Planning Unit's recommendation of 3,000 gpd.

Response:

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. Please see the general response on "Fairness / Not Fair."

Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provide estimates for average indoor water use per person, estimates for consumptive indoor water, and estimates for consumptives outdoor irrigation.

The commenter did not specify an estimate of the number of people in a "large rural family." Based on the average indoor use of 60 gallons per day, per person, a family of 8 would use 480 gallons per day for indoor use, which is below the 500 gallons per day indoor conservation standard. Anecdotally, during WRIA 1 Streamflow Restoration Planning processes, private well

owners and building industry representatives stated that private well owners use less water than the average because of their awareness about the electrical costs of running a well pump and concerns about pumping their well dry.

The commenter also did not specific what activities required additional water use that would be part of a "rural agricultural lifestyle." The rulemaking does not change the permit-exempt well withdrawal limits for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Please also see the general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, for more detailed information on the recent rules (post-2001) and watershed management limits that were part of Ecology's analysis of other water use restrictions in the state.

The commenter does not specify which watershed Ecology should have used for the purpose of comparison because of similarity to WRIA 1. The analysis includes the Stillaguamish watershed (WRIA 5), located in Skagit and Snohomish Counties. The WRIA 5 rule defines domestic water use as indoor use and outdoor watering, with outdoor domestic watering limited to 1/12 acre for single domestic users, and a total maximum of 1/2 acre for group domestic use. The WRIA 5 rule establishes a reservation for future water use with each house assumed to use 350 GPD, or 175 GPD if the residence has on-site septic. Once that reservation is used up any new homes will have to develop individual mitigation plans that meet the in-time, in-kind, in-place standard to avoid impairing senior water rights.

Ecology did not consider a reservation system, such as in WRIA 5, because RCW 90.94.020 allows new homes in WRIA 1 to impact closed water bodies and instream flows. Under a reservation system, once the reserved water has been used according to the assumed use in the rule (350 GPD or 175 GPD), any new homes would have to prepare a mitigation plan to show how the home's water use would not impair senior water rights, including instream flows.

While the WRIA 5 rule reservation and mitigation approach is a different type of water management system, it provides a useful comparison of domestic water use assumptions and limitations in a watershed relatively near WRIA 1.

Please see the response to Comment I-164-5 regarding the Planning Unit recommendation.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Ecology respectfully disagrees that the conservation standard is arbitrary.

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment, regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Commenter: Craig Herter - Comment I-158-2

On a more basic level I oppose the proposed 500 gallon per day withdrawal limit as being insufficient for basic rural living needs as commented by many others. The current withdraw limit of 3,000 gallons per day should be left in place.

Response:

Please see the response to Comment I-93-1 regarding the conservation standard and rural needs.

The conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home in on group domestic system. The rulemaking does not change the permit-exempt well withdrawal limits for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Commenter: Max Perry - Comment I-166-2

WRIA 1 new permitted exempt wells should be set at 3000gpd and 1/2 acre of irrigated gardening should be allowed, as already stated in law by the Washington State Legislature.

Response:

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Commenter: Mary Kay Robinson - Comment OTH-3-2

MS. ROBINSON: This time I'll use glasses. Mary Kay Robinson. I live here in Bellingham. There was originally agreement amongst the various caucuses for the update to the watershed plan. It was not unanimous, you're correct. But when does a major piece of legislative action happen that we don't have -- do we always have unanimous approval for those kinds of actions? It's pretty rare. So if you look at the majority-approved plan, but then there was a decision to drastically reduce both the daily use by an 83 percent limit and outside irrigation to limit it to 1/12th of 1 acre. That's about 3,600 square feet, which is about the size of a city lot. It doesn't make a lot of sense. The rationale certainly can't be based on the WRIA districts on the Peninsula. They have less than half of the precipitation of the Nooksack Watershed, but we're imposing the same limits here in Whatcom County. That WRIA has less than half the water. We have double. That makes no sense. Then there's the arid Walla Walla Region. They have a withdrawal limit that's 2 1/2 times more than that which you're proposing for Nooksack. Again, this doesn't make sense. There doesn't seem to be a rhyme or reason with the numbers you're assigning here, proposing those withdrawal limits and irrigation areas. So another thought is to make the withdrawal limit for the Nooksack area similar to other WRIAs that have the same precipitation, the same physical characteristics, an apples-to-apples treatment of the issue. Now that makes sense. An example can be the WRIA 5 Stillaguamish area. The County has stayed up to date with their rule-making, and their withdrawal limit is 5,000 gallons a day. Given the

similarities, shouldn't the Nooksack Watershed be given similar limits? What is the rationale for not having the same limits here when in comparison -- we're looking again apples-to-apples. With similar circumstances and characteristics, the outcomes, shouldn't they be roughly the same? Isn't that what makes sense? Why propose that the Nooksack area have 1/10th of the allowed water withdrawal to a similar WRIA in the state. On top of that, proposing limitation of the outside irrigation to 1/12th of an acre, the logic just escapes me here. There needs to be an equitable assessment of WRIA 1 and the rule-making that needs to have a logical and factual basis, again comparing with other things in the state. What has been proposed here seems arbitrary and does not make sense. I look forward to the Department incorporating our input and amending the rules accordingly.

Response:

The law directed the Initiating Governments, in collaboration with the Planning Unit, to update the WRIA 1 watershed plan by February 1, 2019. Ecology appreciates all the hard work of the WRIA 1 Watershed Management Board, Watershed Staff Team, and the Planning Unit. However, since a watershed management plan update was not locally approved under directions in the law, by the law's deadline, Ecology is required to meet the requirements through a rulemaking process.

Please see the responses to Comment I-93-1 and the general response on "Comparison of Other Water Use Limits" for information on the limits in the Stillaguamish watershed (WRIA 5) and the other withdrawal limits that were considered by Ecology's while developing the conservation standard.

Ecology respectfully notes that the WRIA 5 instream flow rule established a reservation for future water domestic water use that assumed each home uses 350 GPD, or 175 GPD if the residence has on-site septic, with outdoor domestic watering limited to 1/12 acre for single domestic users, and a total maximum of 1/2 acre for group domestic use.

Commenter: Rick Maricle - Comment OTH-4-2

MR. MARICLE: Okay, I came to speak today because I for 40 years have been growing a garden that provides my family with all the vegetables they need for the year. And two things about this rule concern me in that regard. One, I know that in dry periods to keep that garden growing, I have to irrigate, and I will -- I've estimated my typical irrigation on that is 1,000 gallons a day to keep that garden growing. The second thing in this rule is that the area you've allowed for gardens, not only includes the garden, but also the landscaping that's required by the County around the house, which means that 1/12th acre is approximately the size of my garden, and so from the standpoint of water to irrigate and available land that's allowed to be used in that irrigation, your rule does not allow a family to grow a garden to supply vegetables for themselves for the year. It simply doesn't -- and you've mentioned subsistence gardening. It precludes subsistence gardening. Thank you.

Response:

Thank you for your comment and for sharing your experiences.

Ecology defines subsistence gardening in the rule amendment so that if outdoor watering by new domestic permit-exempt wells is curtailed during a future drought, an exception is provided that allows for the continuation of subsistence gardening.

Ecology is not ensuring homeowners the ability to produce enough vegetables to feed a family, either during normal conditions or during a drought. Ecology defines an outdoor area that can be irrigated. This does not preclude a larger landscaped area that requires no irrigation, or that uses water from another legal source such as rainwater collection.

More information on how the conservation standard was developed is in Chapter 3 of the RSD.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard, including the drought limit.

Commenter: Rick Meyer - Comment OTH-4-3

MR. MEYER: Hi, my name is Rick Meyer, and my first comment is just to say that I think the 500-gallon-a-day limit is way too low, and I haven't seen any justification for that particular number. I have seen some documentation from other areas that I know were considered where that number is considerably higher, and I'd like you to consider increasing that substantially.

Response:

Thank you for your comment. Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells.

Ecology's review of withdrawal limits in other areas showed a range of limits that were both higher and lower than the conservation standard. Please also see the general response on "Comparison of Other Water Use Limits."

More information on how the conservation standard was developed is in Chapter 3 of the RSD.

Commenter: Nina Denson - Comment OTH-4-12

MS. DENSON: The new water withdrawal gallons are truly restrictive to a 5 to 10-acre piece of land with a house, a garden, fruit trees, and maybe some animals. I have wetlands on my piece of property with a severe slope above it. I have planted grass. However, if I don't keep it watered, the grass dries out, and then when it rains, the dirt washes down into the wetlands. The County tells me, just like that other gentleman -- I developed my property two years ago, and the County tells me what I can plant and what I can't plant and how I have to protect that wetlands. I can't do anything with it, but I have to protect it. So if I can't water it during the summertime, it gets destroyed. So when I read through the information -- I'm getting confusing information, but I read through all the information that I got about how the water withdrawal decision was made. I see that they are using a WRIA from the Peninsula area and one from Walla Walla, both of which have different rain amounts than the Nooksack WRIA. The Stillaguamish WRIA would be more appropriate to use as a comparison, and my information was that there were no withdrawal limits, domestic or otherwise. I believe that this is about control and not about protecting water.

Response:

Thank you for your comment and for sharing your experience.

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. As an existing well owner you would not be affected by the conservation standard withdrawal limit. Existing wells would not be affected by the conservation standard withdrawal limit. The withdrawal limit established by RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

Ecology is aware that Whatcom County sometimes enters into mitigation agreements with property owners. The agency cannot comment on Whatcom County regulations, but Ecology staff encourage people considering building new homes to understand the state and local regulations and limitations that apply.

Please see the response to Comment I-93-1 and the general response on "Comparison of Other Water Use Limits" for information on the limits in the Stillaguamish watershed (WRIA 5) and the other withdrawal limits that were considered by Ecology's while developing the conservation standard.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

More information on how the conservation standard was developed is available in Chapter 3 of the RSD.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Commenter: Nina Denson - Comment OTH-5-3

MS. DENSON: I'm Nina Denson. I live in Custer on five acres. I am a rural well exempt resident. I talked yesterday about my wetlands, and one of the parts that I forgot is when you're developing property in Whatcom County and you have to take trees out of the wetlands -- I had to replace four trees for every tree that I took out of the wetlands. And I signed a piece of paper

with Whatcom County that I will keep these trees alive. If they die, I have to replace them. Trees are expensive, and trees take a lot of water. My wetlands is way more than half-an-acre, and I have to water it in August. So when you're thinking about new wells and new residents, you're just not being practical or considering unintended consequences. My information is that the State law is 5,000 gallons per home. The Planning Unit came up with 3,000 gallons. I have listened to this hearing yesterday and today, and I hear all of these numbers, and to me they're just arbitrary. They're not real numbers. So 3,000 was a reasonable amount. 500 is not a reasonable amount living on five or ten acres out in the County. And just like the other gentleman said, you know, I would ask the question how many of these people who are making this rule have exempt wells, or are they city dwellers making rules for rural residents. You're going to say that doesn't matter, and I'm going to say this is personal. This is about living on your land and how we can use it and what we can do with it, and this is all arbitrary on your part, but it's personal on our part.

Response:

Thank you for your comment and for sharing your experience.

Please see response to Comments I-164-5 and OTH-4-12.

The 1945 Groundwater Code (RCW 90.44.050) created an exception from water law permitting requirements for certain groundwater withdrawals, including indoor and outdoor domestic use. The law established limits of 5,000 gpd for indoor use, and 1/2 acre for outdoor irrigation for noncommercial lawns and gardens.

The 2018 state law established a new limit for WRIA 1 of 3,000 gpd maximum annual average for both indoor and outdoor domestic use combined, "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)). Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Ecology's rule amendment establishes the conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home being served by a group domestic system. The rulemaking does not change the permit-exempt well withdrawals for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

More information on how the conservation standard was developed is in Chapter 3 of the RSD. Ecology respectfully disagrees that the conservation standard is arbitrary.

Ecology would also like to note that new homeowners don't have to pay the full cost of the projects that offset their consumptive use under the conservation standard. Instead, the law allows the consumptive water use from the new homes to be offset by projects, eligible for grant funding provided by all the citizens of Washington through state taxes.

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule

amendment, regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Commenter: Brad Hanks - Comment OTH-5-4

MR. HANKS: Brad Hanks, Bellingham. 5,000, 3,000 and 500. Respectively, those are the withdrawal limits that the State law allows, the withdrawal limits that the Planning Unit recommended, and finally the 500 gallons represents what the rule-making process is trying to introduce. I submit to you that that is wholly arbitrary and it should be increased. But to the point made earlier about the reason that we're standing in this room today relating back to a lawsuit is partially correct, but I would also submit to you that we are here because of the Whatcom County Council's failure to act and abdicating their responsibility to the citizens of Whatcom County. And I understand that Ecology is trying to do the best they can. You were basically brought thousands of boxes, I'm sure, of paperwork by the legislature and said, here, fix this for us, and I commend you for trying to do your best with this particular rule-making process, but I would ask you to reconsider the withdrawal limits and go with what the Planning Unit suggested for 3,000 gallons per day. Thank you.

Response:

Thank you for your comment. Please see the response to Comment OTH-5-3 on the history of the withdrawal limits and the response to Comment I-156-1 on how the conservation standard was developed.

More information on how the conservation standard was developed is in Chapter 3 of the RSD.

Ecology respectfully disagrees that the conservation standard is arbitrary.

Commenter: Bill Clarke - Comment O-7-7

5. Ecology's Proposed Rule Inconsistent With WDOH Group B Water System Rule While the proposed amendments describe potential group domestic use, it is unclear whether the 500 gallon per day water use limit would even allow group domestic use. If not, this will result in the need to drill more wells, rather than fewer wells. The Washington Department of Health's Group B rule includes a water supply minimum source capacity of 750 gallons per day, per dwelling unit, for Whatcom County. WAC 246-291- 125(4)(d), Table 1. WashingtonREALTORS® suggest that 750 gallons per day, average annual use, for indoor use be the minimum quantity allowed under Ecology's amended rule. This would ensure consistency with WDOH's Group B, and ensure sufficient domestic water supply for larger families. Outdoor water use would be allowed in addition to this 750 gallon per day average annual use limit. In addition, the change from ESSB 6091 in establishing gallon per day limits on an average annual basis, to having a daily 500 gallon per day maximum, further complicates the rule. An average annual GPD limit is easier to understand, implement, and enforce.

Response:

The Washington Department of Health (DOH) rule sets the minimum water source pumping capacity for Group B water systems. The DOH rules states:

"(d) A purveyor shall design the Group B system to meet the requirements under Table 1, ***even if a locally adopted watershed plan or watershed rule under Title 173 WAC limits water use below the values in Table 1****." (WAC 246-291- 125(4), emphasis added)*

The DOH rule specifically acknowledges that a locally approved watershed plan or a Washington Department of Ecology rulemaking can set water use limits below the DOH pumping capacity. Ecology's rule establishing a conservation standard for new domestic permit-exempt wells is consistent with DOH rules.

Please see the response to Comment I-93-1 for a discussion of larger families indoor water use under the conservation standard.

Ecology's conservation standard establishes an indoor domestic use limit in terms of a water quantity limit (gallons per day), and an outdoor domestic water use limitation for irrigation in terms of the maximum area of acreage that can be irrigated. These two parts in the conservation standard are consistent with how the corresponding limits were structured in the 1945 Groundwater Code (RCW 90.44.050). Homes built in WRIA 1 using a permit-exempt well drilled before January 19, 2018 are subject to the withdrawal limits established by RCW 90.44.050. Homes using a well drilled on or after January 19, 2018 and before the rule is finalized are subject to the maximum annual average limit established by RCW 90.94.020.

Since Ecology is not requiring metering and reporting of daily water use for all new domestic permit-exempt wells, the agency believes that an indoor quantity based on a maximum daily water use limit (rather than an annual average water use limit), and an outdoor acreage limit, are easier for homeowners and regulatory staff to understand, and for Ecology to explain and enforce. For homes without water meters, Ecology believes that enforcement of a given area of outdoor domestic use (one-twelfth of an acre) is a relatively simple limit that both homeowners and regulatory staff can easily implement, monitor, and enforce.

Commenter: Bill Clarke - Comment O-7-8

6. Ecology's Proposed Rule Inconsistent With GMA Rural Element Ironically, Ecology's proposed rule is the product of the GMA decision (Hirst), overruled by the Legislature (ESSB 6091), and now ultimately resulting in an Ecology rule that is inconsistent with the GMA – which is exactly where this whole mess started. Under the GMA, "rural character" is defined to include patterns of land use "that foster traditional rural lifestyles, rural-based economies, and opportunities to both live and work in rural areas. RCW 36.70A.030(20)(b). The Department of Commerce's GMA rules further define the Rural Element of the GMA at WAC 365-196-425. Whatcom County's GMA Comprehensive Plan states as follows: "Whatcom County's rural lifestyle is one where residents enjoy views of a green landscape dotted by homes and barns, and have an appreciation for clean water and air. Residents can work and shop in small rural communities, or earn a living on their own rural lands, but these enterprises do not detract from the overall sense of openness and predominance of the landscape in the rural area. Rural Whatcom County has long been a place to raise children with the values of hard work and responsible stewardship of the land, and where residents can grow food and livestock for themselves or for market. While rural property owners do not expect to be provided with urban-

level services, they enjoy a quality of life and sense of self-sufficiency not ordinarily found in the urban areas." 9 The "traditional rural lifestyles" that the GMA describes necessitate sufficient water supply for outdoor water use – not 1/12th of an acre. Many people choose to live in rural areas so they have space – space for lawns, gardens, trees, animals, and other pursuits – all of which require outdoor water use. The analysis provided to Ecology by RH2 analyzing outdoor water use shows that on average, homeowners stay well under the ½ acre outdoor lawn and garden limit in RCW 90.44.050. Homeowners should be given this flexibility to irrigate up to ½ acre, and with realistic projections of actual water use impacts, this amount can be offset through projects funded by the Legislature.

Response:

In January 2018, the Legislature passed the Streamflow Restoration law (chapter 90.94 RCW) that helps restore streamflows to levels necessary to support robust, healthy, and sustainable salmon populations while providing water for homes in rural Washington.

Ecology does not see an inconsistency between the direction in RCW 90.94.020 to provide water for rural homes and achieve NEB for streams in the WRIA, and the Growth Management Act, which states:

(20) "Rural character" refers to the patterns of land use and development established by a county in the rural element of its comprehensive plan:

(g) That ***are consistent with the protection of natural surface water flows and groundwater and surface water recharge and discharge areas****. (RCW 36.70A.030, emphasis added)*

As noted in the Whatcom County Comprehensive Plan (May 8, 2018):

Each person in Whatcom County has a fundamental right to a healthful and safe environment in which to live and grow. With this right comes a responsibility to contribute to the protection and enhancement of our natural environment. Consequently, an important goal of the Whatcom County Comprehensive Plan is to protect or enhance the county's environmental quality. This means that, individually and collectively, we have the obligation to protect these resources for our children and their children. Essential to this is the establishment of safe development practices and patterns that do not significantly disrupt ecosystems and that ensure the continuation of ample amounts of clean water, natural areas, farmlands, forest lands, and fish and wildlife habitat….

Whatcom County's natural environment, with its seasonally abundant supply of water, its beauty, and its other natural resources, has attracted people to our community for generations. This setting is important to our sense of well-being, to our health, to our economic well-being, and to our future. Sustaining these assets in the face of increasingly intense human activity becomes more difficult each year. The challenge of protecting this environment while accommodating growth requires maintaining guidelines for development so that growth does not ultimately overrun the very assets that brought most of us here. (Chapter 10 – Environment: pg. 10-1)

Specific to Water Resources, the County Comprehensive Plan goes on to say:

…Water resources of Whatcom County provide: natural beauty; recreation; habitat for fish and wildlife; water for drinking, agriculture, and industry; and other benefits essential to the quality of life and economic health of the community. The quality of life and economic health of our county's communities depend on the maintenance of a safe and reliable water supply. Decisions affecting any element of the water environment must be based on consideration of the effects on other elements….

Groundwater is contained in aquifers…Aquifers are often integrally linked with surface water systems and are essential for meeting instream and out-of-stream water needs, such as for drinking water, agriculture, and industry. Whatcom County residents rely heavily on groundwater for drinking water, agriculture, and commercial and industrial needs. Groundwater also plays an important role in maintaining stream flows….(Chapter 10 – Environment: 10-16 to 10-25)

Ecology is carrying out the requirements established by the Legislature in RCW 90.92.020, including specific direction to consider a conservation standard for new domestic permit-exempt wells (RCW 90.94.020(4)(d)(ii)-(iii)). Ecology is authorized to use rulemaking to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than [maximum annual average of 3,000 gpd] authorized under subsection (5) of this section" (RCW 90.94.020(4)(e)).

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA.

Ecology understands that the commenter would have preferred a different outdoor limit. However, outside lawn and garden watering accounts for roughly 95 percent of all consumptive water uses associated with new home water uses (for more information please see the example in "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007). The greater the outdoor water use, the greater the required offsets needed to achieve NEB, as required under the law.

While the Legislature did provide statewide grant funding for projects that benefit streams, it did not guarantee funding for all projects needed to offset new homes in WRIA 1. Thus, the proposition that additional consumptive use from increased outdoor irrigation could be simply offset by additional projects and actions is flawed. Ecology has properly exercised judgment to include projects and actions that are actually feasible in the RSD.

Ecology's RSD contains the agency's analysis for meeting the law's requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty of achieving NEB.

The rulemaking does not change the permit-exempt well withdrawal limits for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD), which may be part of the "traditional rural lifestyles."

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment, regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Comments on Withdrawal Limits (Too High)

Commenter: Ross Cline, Sr. - Comment T-3-5

We assert that a cumulative impacts analysis of past, present, and future permit-exempt wells should inform rule development. The existing (1985) instream flow rule contemplated limiting issuance of water rights for indoor use only, "if the cumulative impact of single domestic diversions begins to significantly affect the quantity of water available for instream uses." The same standard should be applied in developing this rule applying to new permit-exempt well uses. We recognize that the total magnitude of water use from new permit-exempt wells will likely represent a relatively small fraction of water use across the basin; however, RCW 90.94 effectively allowed the proliferation of new junior water rights in closed basins where the Tribe's senior water rights are already impaired. This proposed rule does not go far enough to limit and mitigate such impairment, increasing the conflict over water resources and underscoring the need for adjudication in our basin. Ecologv's Draft Rule: We strongly support the establishment of a conservation standard that limits indoor domestic water use, reduces allowable irrigated acreage, and provides for interruptibility in drought conditions. 500 gpd indoor plus unquantified outdoor uses is still excessively high for the following reasons: The limits are less conservative than those established for three of the seven basins with post-2001 instream flow rules, as well as for the Big Lake Mitigation Program and Lummi Peninsula Groundwater Settlement Agreement. The Lummi Peninsula Groundwater Settlement Agreement — 350gpd annual average (including indoor and outdoor) with required metering — presents an example of limits that are locally workable. We urge you to establish limits at least as conservative as those established elsewhere. Lack of accountability over exempt well use is a concern.

Response:

Ecology is directed by the 2018 law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. The scope of the current rulemaking is focused on the law’s direction regarding new domestic permit-exempt wells. Past and present well impacts are beyond the scope of this rulemaking.

Chapter 90.94 RCW states that “potential impacts on a closed water body and potential impairment to an instream flow are authorized for new domestic groundwater withdrawals exempt from permitting” (RCW 90.94.020(1)). Ecology’s RSD contains the agency’s analysis for meeting the law’s requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty of achieving NEB.

Ecology staff understand that the commenter would like to see less impact in the closed basins. Ecology encourages interested parties to pursue additional projects, beyond those listed in the RSD, to provide additional benefits to streams in the WRIA. Projects not listed in the RSD can still apply for grant funding under this law.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

Please see the general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, for more detailed information on the recent rules (post-2001) and watershed management limits that were part of Ecology's analysis of other water use restrictions in the state.

Since Ecology is not requiring metering and reporting of daily water use for all new domestic permit-exempt wells, the agency believes that an indoor quantity and an outdoor acreage limit are easier for homeowners and regulatory staff to understand, and for Ecology to explain and enforce.

Commenter: Oliver Grah - Comment I-161-6

• We assert that a cumulative impacts analysis of past, present, and future permit-exempt wells should inform rule development. The existing (1985) instream flow rule contemplated limiting issuance of water rights for indoor use only, "if the cumulative impact of single domestic diversions begins to significantly affect the quantity of water available for instream uses." The same standard should be applied in developing this rule applying to new permit-exempt well uses. • We recognize that the total magnitude of water use from new permit-exempt wells will likely represent a relatively small fraction of water use across the basin; however, RCW 90.94 effectively allowed the proliferation of new junior water rights in closed basins where the Tribe's senior water rights are already impaired. This proposed rule does not go far enough to limit and mitigate such impairment, increasing the conflict over water resources and underscoring the need for adjudication in our basin. Ecology's Draft Rule: • We strongly support the establishment of a conservation standard that limits indoor domestic water use, reduces allowable irrigated acreage, and provides for interruptibility in drought conditions. • 500 gpd indoor plus unquantified outdoor uses is still excessively high for the following reasons: o The limits are less conservative than those established for three of the seven basins with post-2001 instream flow rules, as well as for the Big Lake Mitigation Program and Lummi Peninsula Groundwater Settlement Agreement.

o The Lummi Peninsula Groundwater Settlement Agreement – 350gpd annual average (including indoor and outdoor) with required metering – presents an example of limits that are locally workable. We urge you to establish limits at least as conservative as those established elsewhere. • Lack of accountability over exempt well use is a concern.

Response:

Please see the response to Comment T-3-5.

Commenter: Merle Jefferson - Comment T-2-4

Below are more detailed comments. 1. Withdrawal Limits: While the reduction to 500 gallons per day (gpd) and 1/12 acre irrigated non-commercial lawn or garden per connection is an improvement over the currently effective 5,000 gpd maximum and gpd annual average limits we propose that a further reduction in the withdrawal limit — to 350 gpd for both indoor and outdoor use — would provide both a sufficient water supply for rural Whatcom County residents and a higher level of protection Of instream flows. Three hundred and fifty (350) gpd has proven to be a reasonable amount of water for indoor and outdoor water use on the Lummi peninsula pursuant to the settlement agreement that resolved the United States. Lummi Nation v. Washington State Department of Ecology. et al. Civil Action No. C01047Z (U.S. District Court, Western District of Washington). Coupled with metering, the 350 gpd withdrawal limit would provide certainty to a conservation- based approach to water management.

Response:

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

Please see the general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, for more detailed information on the recent rules (post-2001) and watershed management limits that were part of Ecology's analysis of other water use restrictions in the state.

Ecology understands that the commenter would have preferred a different limit for indoor and outdoor use. However, Ecology believes the conservation standard follows the direction in the law to provide water for rural homes that can be offset with projects to achieve NEB in the WRIA.

Requiring metering is beyond the scope of this rulemaking.

Ecology's RSD contains the agency's analysis for meeting the law's requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard and drought use restrictions, gives Ecology reasonable certainty of achieving NEB.

Commenter: Amanda Goodin - Comment O-6-3

Withdrawal Limits and Metering While we support Ecology's inclusion of withdrawal limits on permit-exempt wells, we believe that lower limits are justified by existing data. As noted in the preliminary comments submitted by the Washington Water Trust, its work in WRIA 18 (Dungeness Basin) supports capping withdrawals at no more than 200 gallons per day (gpd), including both indoor domestic use and outdoor lawn and garden irrigation. This amount should provide a reasonable margin of error. According to the Water Trust, actual average use in the Dungeness has been approximately 120 gpd.4 This is especially notable given that the Dungeness River watershed is located in the Olympic rainshadow, making it the only coastal watershed that must rely on irrigation to support its local agriculture.5 Accordingly, Ecology should limit withdrawals from all new permit-exempt wells to 200 gpd year-round. At a minimum, 200 gpd should be the daily limit during declared drought emergencies.

Response:

Please see the response to Comment T-2-4.

Ecology understands that the commenter would have preferred a different limit during declared droughts. Please see the general response on "Authority for Rulemaking" for information on the drought limits.

Comments on Withdrawal Limits (Other)

Commenter: Jeff Baker - Comment I-151-2

What is happening to America?

The rule restricts indoor water use to 500 gallons per day is a joke how do you water your lawn, water livestock or irrigate.

Response:

In the rulemaking, indoor and outdoor domestic water uses are separate, and the 500 GPD limit only applies to indoor domestic use. Stockwater and industrial limits provided for in RCW 90.44.050 are not affected by the rule.

Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking."

Commenter: Chris Pomeroy - Comment I-64-2

I also raise a large garden and have horses and other livestock to water. Chris Pomeroy

Response:

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. As an existing well owner you would not be affected by the conservation standard withdrawal limits established for indoor and outdoor domestic limits. The withdrawal limit established by RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

Specific to your concern regarding your horses and other livestock, the rulemaking does not change the permit-exempt well withdrawal limits for stockwatering purposes (no quantity limit).

Commenter: Senator Doug Ericksen - Comment I-96-1

Olympia Address: PO Box Olympia, WA 98504-0442 December 4, 2019 Annie Sawabini Department of Ecology Washington State Senate Senator Doug Ericksen 42nd Legislative District (360) (560) 786-1323 Email: Doug.Ericksen@leg.wa.gov Department of Ecology DEC 2010 Water Resources Program Water Resources Program P.O. Box 47600 Olympia, WA 98504-7600 Re: Comments on proposed amendments to chapter 173-501 WAC (Nooksack WRIA) Dear Ms. Sawabini, The Department of Ecology's proposed amendment to the Nooksack basin instream flow rule is unlawful because it restricts water use for noncommercial lawns and gardens. The legislature did not authorize the department to restrict water use for noncommercial lawns or gardens under RCW 90.94.020, which is the statutory basis for your proposal to amend the rule. I am requesting that the department change its proposal by removing the restrictions on water use for noncommercial lawns and gardens. I voted to approve the bill that created RCW 90.94.020 in part because it protects water use for noncommercial lawns and gardens and other permit-exempt uses. The pertinent provision reads: "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050."1 This provision refers to RCW 90.44.050, where the meaning of an exempt domestic withdrawal is provided. That statute creates distinct categories of exempt uses, including a category for "domestic" use and another for noncommercial lawns and gardens of a certain size. The Washington Supreme Court confirmed this interpretation in Five Corners Family Farmers v. State, where it said that the exemption clause of RCW breaks down into distinct categories, including any withdrawal of public groundwaters "for single or group domestic uses in an amount not exceeding five thousand gallons a day," or "for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area."2 The legislature chose to apply RCW 90.94.020 to domestic uses, but not to other uses that exempt under RCW 90.44.050, RCW 90.94.020(8) (emphasis added). 2 Five Corners Family Farmers v. State, 173 Wn. 2d 296, 313 (2011) (emphasis added). page two such as the watering of a noncommercial lawn or garden. RCW 90.94.020 does not authorize the department to restrict water use for noncommercial lawns and gardens. In its proposed rule, the department violates RCW 90.94.020 and Five Corners Family Farmers by combining indoor use and the watering of a noncommercial lawn or garden under a single category called "domestic" use. Please correct this problem by removing water use

restrictions on noncommercial lawns and gardens from the final rule, and please include this letter in the administrative record for your rulemaking. Senator Doug Ericksen Ranking Member Senate Environment, Energy and Technology Committee

Response:

Thank you for your comment. Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction, including that chapter 90.94 RCW combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

Ecology has heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators, in including the term "domestic use" in the 2018 legislation. Ecology is interpreting and implementing the law as it is written, and harmonizing its numerous sections.

The decision in the *Five Corners Family Farmers* case, which was decided by the Washington Supreme Court in 2011, analyzed and applies to the four types of permit-exempt groundwater withdrawals defined under RCW 90.44.050. The case does not apply to the undefined term "domestic use" in chapter 90.94 RCW, which was enacted in 2018, and thus not considered in the *Five Corners Family Farmers* decision.

Ecology respectfully disagrees that the rule violates RCW 90.94.020, RCW 90.44.050, or the *Five Corners Family Farmers* decision.

Commenter: Bradley Hanks - Comment I-93-3

I also disagree with the artificial restriction on outdoor uses proposed for single connection permit-exempt wells. Rev. Code Wash. § 90.44.050(2019) explicitly allows the use of a permit-exempt well to water one-half acre of noncommercial lawn or garden. Ecology now seeks to limit that use to only 1/12 of an acre through some undisclosed mathematical formula. While the restriction can be understood when more than one household is connected to a permit-exempt well, restrictions on a single connection are unnecessary and unwarranted. This portion of the rule is the most confusing to understand, and the rationale and methodology used to arrive at this interpretation are puzzling at best.

Response:

Please see the general response on "Authority for Rulemaking" and the response to Comment I-96-1 regarding withdrawals under RCW 90.44.050 and chapter 90.94 RCW.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;

3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

Please see the general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, for more information on the how the conservation standard was developed.

Commenter: Craig Herter - Comment I-158-4

Finally, I oppose the proposal to limit outdoor watering use to 1/12th of an acre. A significant part of the rural lifestyle is the growing of food for personal consumption as well as watering of poultry and livestock for personal consumption. The final rule amendment should not be adopted until it has been modified to the satisfaction of those that it directly affect, the rural citizens of the state of Washington and more specifically the residents of WRIA 1. Thank you, Craig Herter

Response:

Please see the response to Comment I-93-1 regarding the conservation standard and rural needs. Please see the response to Comment OTH-4-2 regarding growing food.

The rulemaking does not change the permit-exempt well withdrawals limits for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

The Washington State Legislature guides all state rulemaking through a law known as the Administrative Procedure Act (APA), Chapter 34.05 RCW. Ecology is following the APA rulemaking process to meet the deadline in RCW 90.94.020 for WRIA 1.

Commenter: Robert Washburn - Comment I-143-2

I have seven in my family and know of many other families with more people than that. Just a quick search of per person consumption shows 80-100 gallons.

Response:

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. Please see the general response on "Fairness / Not Fair."

Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provides estimates for average indoor water use per person, estimates for consumptive indoor water, and estimates for consumptives outdoor irrigation.

Based on the average indoor use of 60 gallons per day, per person, a family of 7 would use 420 gallons per day for indoor use, well below the 500 gallons per day indoor conservation standard. This does not take into account savings expected in larger families due to economies of scale.

Please note: the conservation standards for indoor and outdoor domestic water use are for newly constructed homes with wells drilled after the date this rulemaking goes into effect; it does not affect existing domestic well users.

Commenter: Josie Cummings - Comment O-1-4

BIAW asks that Ecology measures water use on a maximum average basis per year, which would allow for a higher per day use and allow for more flexibility. Ecology's preliminary language for the proposed rule drastically limits water use to 500 gallons a day and this limitation will have a huge impact on new residential construction and the way of life for landowners who want to build homes for themselves and their families.

Response:

Ecology's rule amendment establishes the conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day, and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home in a group domestic system.

Based on the average indoor use of 60 gallons per day, per person, a family of eight would use 480 gallons per day for indoor use, below the 500 gallons per day indoor conservation standard. Anecdotally, Ecology staff have been told by private well owners during the WRIA 1 Streamflow Restoration planning process that private well owners use less water than the average because of their awareness about the electrical costs of running a well pump and concerns about pumping their well dry.

Since Ecology is not requiring metering and reporting of daily water use for all new domestic permit-exempt wells, the agency believes that an indoor quantity based on a maximum daily water use limit (rather than an annual average water use limit), and an outdoor acreage limit, are easier for homeowners and regulatory staff to understand, and for Ecology to explain and enforce.

The commenter also did not specify what activities require additional water use that would be part of "the way of life for landowners." The rulemaking does not change the permit-exempt well withdrawals limits for stockwatering purposes (no quantity limit), or for industrial purposes (up to 5,000 GPD).

Ecology staff appreciates the rural lifestyle in Whatcom County. The agency believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment, regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Commenter: Brad Hanks - Comment OTH-4-6

MR. HANKS: Brad Hanks, Bellingham. Ecology uses information from various WRIAs that have also engaged in rule-making processes, and these WRIAs are in the northern Puget Sound region and on the Washington Peninsula. The only WRIAs with identical proposed withdrawal limits are those on the Peninsula, WRIAs that have drastically different watersheds receiving less

than 1/2 of the precipitation found in the Nooksack Watershed. The only local WRIA with a new rule is WRIA 5, Stillaguamish, and it has no withdrawal limitation, domestic or otherwise. The other WRIA used for this rule lies in the Walla Walla region, WRIA 32, an arid region, and has a withdrawal limit that is 2 1/2 times that of the proposed withdrawal limit on the Nooksack. At a minimum, the rule should be informed by those WRIAs that exhibit similar precipitation amounts and physical characteristics. And thank you.

Response:

Please see the response to Comment I-93-1 and the general response on "Comparison of Other Water Use Limits" for information on the limits in the Stillaguamish watershed (WRIA 5) and the other withdrawal limits that were considered by Ecology's while developing the conservation standard.

Commenter: Carmen Andrew - Comment OTH-5-7

MS. ANDREW: My name is Carmen Andrew. I'm actually a Skagit County resident, but I am (indiscernible due to paper rustling near microphone) Washington, and I am a realtor that services all of Skagit and Whatcom County. And so I'm here on behalf of a lot of my clients and their property rights and (paper rustling) and very close to that line on the graph of the Nooksack Basin. So what I wanted to bring to your attention is this idea of the subsistence gardening that's kind of thrown in there at the end. It's a little confusing. It seems like it's an entirely new provision introduced at this phase and not contemplated during the preliminary rule phase of the rule-making process. It's defined but has no general application in the rule, and the only application is a specific instance where a drought is declared. That statute that forms the basis for this rule discusses drought rules for other watersheds, but not this one, which seems like it's a bit inappropriate.

Response:

Ecology received comments on the preliminary draft language that the term "subsistence gardening," used in the drought limit section, should be included in the definitions section. The preliminary draft language, proposed rule language, and final rule language are available on Ecology's website for comparison: https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-501.

In the preliminary draft language, please see WAC 173-501-065(5)(c) for how the term is used in the drought limit. In the final rule language, please see WAC 173-501-065(1)(d) for the definition, and see WAC 173-501-065(5)(c) for the drought limit.

Ecology believes including the ability to reduce new permit-exempt indoor and outdoor domestic use during a drought is an important water management tool to ensure the impacts from the new wells are offset, and there is a NEB in the watershed. Please see the general response on "Authority for Rulemaking" for more information on the drought limit and subsistence gardening.

Commenter: Carmen Andrew - Comment OTH-5-9

MS. ANDREW: and worse, it limits gardens for a rural household to only 1/12th of an acre with an assertion of conservation. It's interesting because the State authorized that we can garden 1/6th of our acre, or 10,000 square feet, and so this is 1/6th of what they've already determined in the legislature. So it seems a bit extreme because the State has already told us what we can do with that.

Response:

The rule does not limit how much area can be gardened. The conservation standard limits how much area can be *irrigated* for non-commercial lawns and gardens using a new permit-exempt well. This is different from how much can be grown (either without irrigation or irrigating with water from a different source).

Homes on new permit-exempt wells that want to irrigate a larger area may choose one or more of the following options for irrigation:

1. Use an existing water right;
2. Connect to an existing well that predates the limits in the law or rule amendment;
3. Install a cistern to collect rainwater;
4. Bring in water from another legal source (such as a water system, utility district, or truck in water); or

Change gardening layouts or practices to reduce irrigation needs (such as succession planting, growing high-yield plants with a smaller footprint, planting crops that are tolerant to low water).

There is also evidence that dry gardening is possible in the western Pacific Northwest. Master Gardeners at the Oregon State University Extension Service have recently tested zero-irrigation methods of growing small vegetable gardens. The gardeners had success with deeply-planted, mulched, and initially fertilized tomatoes, peppers, zucchini, and winter squash (see https://www.oregonlive.com/hg/2019/06/trial-gardens-show-vegetables-can-be-grown-without-irrigation.html for more information). Please see additional information in the Final Regulatory Analysis (Ecology Publication 20-11-081).

The conservation standard does not change the permit-exempt well withdrawals for industrial purposes (up to 5,000 GPD), as provided for in RCW 90.44.050.

Commenter: R. Perry Eskridge - Comment O-5-4

Domestic Use: A review of any legal authority involving rulemaking reveals one indisputable truth: words matter. Precision in language is the hallmark of a well drafted administrative rule. Similarly, administrative rules should seek to utilize the same language of an authorizing statute to ensure consistency and to avoid any implications that the agency may be exceeding any delegated legislative authority. This rule amendment does not meet this basic standard. The rule amendment relies heavily on the term "domestic" and creates two categories for regulation: "indoor domestic water use" and "outdoor domestic water use." This is a dichotomy that is not

supported in the applicable statutes. Ecology's supporting document relies exclusively on a single Washington Supreme Court Case, Dept. of Ecology v. Cambell & Gwinn, 146 Wn.2d 1, 9-10, 43 P.3d 4 (2002), as justification for the expansive use of the term "domestic" in this rule amendment. Cambell, according to the court itself, "involves the scope of the exemption for "any withdrawal of public ground waters ... for single or group domestic uses in an amount not exceeding five thousand gallons a day." RCW 90.44.050." Id. at 9, 43 P.3d at 10 (emphasis added). The court, analyzing the number of residential connections available on a single permit-exempt well for domestic purposes, ultimately concluded that if more than a single residence connected, the total withdrawal by those homes for domestic purposes could not exceed the 5,000 gallon per day limit expressed in Rev. Code Wash. § 90.44.050. Id at 21, 43 P.3d at 15. What is interesting to note is that nowhere in Dept. of Ecology v. Campbell does the court discuss any other exemption within the exemption clause of Rev. Code of Wash. § 90.44.050. The most interesting aspect of Ecology's "Supporting Document" analysis of "domestic" is not the use of Dept. of Ecology v. Campbell, but the fact that Ecology even cites a subsequent case that confronted head-on the exemption clause of Rev. Code of Wash. § 90.44.050, but then completely ignores the implications of that Washington Supreme Court ruling. If that were not egregious enough, the Department also ignores guidance provided in a subsequent Attorney General's opinion on the matter that explicitly analyzed the various exemptions contained in the exemption clause of Rev. Code of Wash. § 90.44.050. Presentation of a legal analysis to the public that, at best, contains only one-half of an analysis of the relevant statutory and case law (no applicable policy documents are cited) under the guise of "harmonizing" is a disservice to the public subject to this law. Ecology has not harmonized anything, but instead has merely attempted to use various parts of Rev. Code of Wash. § 90.94 in an effort to make a new administrative definition of the term "domestic." This omission is even more egregious when one considers that Ecology, in its own supporting document, makes reference to various other WRIAs for guidance on the drafting of this rule. While the vast majority of those recent WRIA rulemaking proceedings do not address "domestic use" in any format, one WRIA does: Dungeness (WRIA 8) adopted in 2013. Ecology Supp. Doc., pg. 15-16. Ecology explicitly recognizes in its summary of that WRIA rule, "Domestic use is defined as indoor use only, with outdoor use separate." Id. The Dungeness rule was, perhaps, one of the most contentious and thoroughly examined rulemaking process in recent memory, a process in which our REALTOR® colleagues were intimately involved. Yet, Ecology ignores clear precedent in terms of distinctions between indoor and outdoor use in that rule, a rule citied as authority in another aspect of the immediate proceeding, and takes an entirely different tack by combing the separate uses. Again, this omission is beyond comprehension when the distinction between indoor and outdoor use is clearly expressed in the supporting document for WRIA 8. Regulation of public groundwater within Washington State is governed by Rev. Code Wash. §§ 90.44.020 et seq. The general rule is that any withdrawal of groundwater requires a permit with four express exceptions: 1) stock watering; 2) "the watering of a lawn or of a noncommercial garden not exceeding one-half acre in size;" 3) "single or group domestic uses in an amount not exceeding more than 5,000 gallons a day" or 4) industrial purposes not exceeding 5,000 gallons per day. Rev. Code Wash. § 90.44.050 (2018). The applicable clause in Rev. Code Wash. § 90.44.050 (2018) is commonly referred to as the "exemption clause." See, Five Corners Farmers v.

Ecology, 268 P.3d 892, 898, 173 Wn. 2d 296, 306, ¶ 15 (2011). The Washington Supreme Court relied on prior Attorney General opinions that reached similar conclusions concerning the appropriate interpretation of this statute. See, e.g., WA AGO 2005 No. 17 (Nov. 18, 2005). "Each category is limited only by the qualifying phrase following it." Five Corners Farmers, 268 P.3d at 901, 173 Wn. 2d at 313, ¶ 28. This rule contradicts the separate categories of outdoor watering and domestic water by conflating "single or group domestic uses" with "watering of a lawn or noncommercial garden not exceeding one-half acre in size." This attempt is even more blatant in that the statute uses the word "domestic" to reflect one type of use and "watering" to denote an outdoor use. This is a sophisticated statute, one that is complex and relies on different words to distinguish between very different uses. The distinction between domestic uses and watering uses is also reflected in the Streamflow Restoration Act. A careful review of that statute reveals that the legislature restricted its discussion related to withdrawals to "domestic" uses; the legislature made no reference to watering of lawns or gardens. "[P]otential impacts on a closed water body and potential impairment to an instream flow are authorized for new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050." Rev. Code Wash. § 90.94.020(1) (2018) (Emphasis added). "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 . . . and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050." Rev. Code Wash. § 90.94.020(8) (2018) (Emphasis added). It is axiomatic that the legislature is aware of prior enactments when adopting new statutes and, when the legislature uses different words to characterize different uses, that the legislature's intent is clear that a different result should occur. Here, if the legislature wanted to include "watering" as a use combined with "domestic" uses, it could have easily done so. That distinction, however, is one that the legislature clearly intended to be limited to domestic uses and, indeed, specifically refused to address the other uses in the exemption clause. Science: Numerous Association members attended the open houses scheduled for late April in Whatcom County. Many members' questions focused on the need for such a drastic reduction in the amount of water authorized for withdrawal under the preliminary rule. The answer, provided, was that recent rulemakings in other WRIAs supported the reduction as did the Department's research. When we told the representatives that we did not see how that conclusion was supported, we were told to "present other science." The sparse description of Ecology's research in the preliminary draft supporting document, unfortunately, does not explain why such a drastic reduction was necessary for this WRIA. First, the only description applicable to other WRIAs and WRIA 1 appears to be proximity in time. "In order to develop water use standards for the new permit-exempt wells, Ecology looked at other water use standards, descriptions, and assumptions established for domestic permit-exempt wells in recent instream flow rules in other WRIAs in Washington." Rule Supp. Doc. pg. 9. The next paragraph states that these are post-2001 rules, that the rules are not uniform, and that withdrawal limits were based on location or other conditions. While this is interesting information, there is no attempt by the Department to describe those considerations how the Department utilized those considerations in the WRIA 1 analysis. To then foist the "burden of proof" on the public to bring better information is not only an abdication of Ecology's role in this process, but is patently unfair in that it requires the public to then prove that a reduction from the statutory amount is not warranted. In any event, the Association shall try.

WRIA Comparison: The Association reviewed the various recent rules cited by the Department. Aside from the bare information available from various Ecology websites, it is impossible for laypersons to delve into those rules and perform an adequate comparison. What was possible, however, was to discuss the impacts that these recent rules have had on members of other Associations who work in and have a familiarity with the impacts created by those rules. The most drastic comparison is available for WRIA 18, Dungeness, as the Association there was intimately involved in the process of developing the rule and there has been significant litigation about that rule. The Washington Court of Appeals dedicated an entire segment in its opinion concerning the WRIA 18 to describing the condition of the Dungeness basin saying: Because of water scarcity, DOE determined that surface water was not reliably available for new consumptive uses in the basin. The rule closed year-round eight specific tributaries as well as all unnamed tributaries to the Dungeness River. [Citation omitted.] It also closed the Dungeness River mainstem between July 15 and November 15 every year [Citation omitted.] Bassett v. Ecology, 51221"II, pg. 4 (Wash. App. Ct., Div. 2, April 2, 2019) The picture depicted in the Dungeness rule is one of a stressed watershed in which there has been obvious over appropriation in most if not all surface water bodies. It should also be noted that the Dungeness, as a matter of geography, does not receive nearly the same amount of precipitation or runoff that the Nooksack River receives. Similar conditions as the Dungeness exist for the Quilicene-Snow (WRIA 17). Ecology's preliminary rule includes amendments to the current Nooksack Instream Flow rule. What is interesting to note is that there are no amendments proposed to the seasonal or year-round closures contained in that rule. Indeed, the mainstem of the Nooksack river is not proposed to be closed at all and only two "forks" of the river, the North and South Fork are closed for two and four months respectively. This is made more interesting by Ecology's own Figure 4.1 that demonstrates that offset volumes in this rule are predominantly in the North Fork (21 acre feet/year), which is only closed two months of the year while the South Fork, which is closed 4 months of the year, is expected to only require 4 acre feet/year of offset. These numbers are even less when you account for the fact that Ecology used a 1.5 multiplier to calculate these volumes meaning the actual offset for the North and South forks are 14 afy and 2.6 afy respectively. The Middle Fork, which has even less offset required, is not proposed for closure at all. Tributaries to the Nooksack, according to the rule are either closed or seasonally closed at a ratio of approximately 46% to 54% respectively, a vast difference from the Dungeness where all tributaries are closed. The two most recent rules in close physical proximity to WRIA1 are WRIA 3 (Skagit) and WRIA 5 (Stillaguamish). The Skagit basin has been closed to all groundwater withdrawals since the Washington Supreme Court's ruling favoring the Swinomish Nation, so no definitive conclusions may be drawn from that rule. WRIA 5, however, does not contain a gallon limitation on new groundwater withdrawals that are shown to not have a hydraulic connection to surface waters. Likewise, the other WRIAs listed in the supporting documents do not have withdrawal limits save those located on the peninsula or in the arid WRIA near Walla Walla (WRIA 32) which has a limit nearly two and one-half times that proposed for WRIA 1.

Response:

Please see the general response on "Authority for Rulemaking" and the response to Comment I-96-1 regarding Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

Ecology references the *Campbell & Gwinn* and *Five Corners Family Farmers* cases in the RSD as part of a description of the history of permit-exempt withdrawal limits. The agency references the *Campbell & Gwinn* decision in the RSD to clarify that the decision's limits on group domestic systems continue to apply to new permit-exempt wells under the rule amendment's conservation standard.

Ecology's rule amendment conservation standard and the analysis in the RSD are consistent with all relevant legislation, case law, Attorney General Opinions, and agency Policy and Interpretive Statements.

Ecology's rule amendment defines "Indoor domestic water use" and "outdoor domestic water use," and provides limits for each in cases where a new single home is using a new permit-exempt well and cases where homes that are part of group domestic system are using a new permit-exempt well.

Please see the response to Comment I-93-1 and the general response on "Comparison of Other Water Use Limits" for information on the other withdrawal limits that were considered by Ecology while developing the conservation standard, including information on the limits in the Stillaguamish watershed (WRIA 5).

Please also see the response to Comment I-93-1 regarding the conservation standard and rural needs.

The conservation standard limit was developed by looking at several factors including:

1. How higher or lower withdrawal limits would affect the quantity of water that would be used, and, therefore, the number of projects needed in the WRIA to meet the offset requirements and achieve NEB, including the cost of the projects and the level of certainty of project implementation;
2. WRIA 1 planning discussions about withdrawal limits;
3. Permit-exempt water use limitations in other recent (post-2001) instream flow rules and water management limits around the state;
4. Availability of water for new permits in the watershed; and
5. Typical household water use.

The rulemaking did not consider changing instream flows or closures in the current WRIA 1 rule. The scope of this rulemaking was limited to considering the following:

1. Adding regulations to establish limits for domestic permit-exempt groundwater withdrawals for new users;

2. Changing current regulations to increase flexibility for projects that retime high flows; and
3. Making minor technical corrections.

Comments on Drought Limit

Commenter: Merle Jefferson - Comment T-2-7

5. Interruptible Outdoor Water Use: We agree with the curtailment of non-subsistence based outdoor water use during a declared drought. That said, the curtailment criterion should be expanded to also be contingent on whether minimum instream flows are being met or not. Where watercourses are gauged, the gage information could be used to determine if minimum instream flows are being met. Where that data is not available, nearby gauged watersheds and/or the Nooksack River gage at Ferndale could be used.

Response:

Ecology limited potential curtailment of new outdoor domestic water use for non-subsistence gardening from new permit-exempt wells to periods when droughts have been declared, similar to requirements found in RCW 90.94.030. Many of the minimum instream flows in WRIA 1 are based on the 50% exceedance levels. As such, the agency expects instream flows to not be met on a regular basis. This is different than a declared drought.

Additionally, curtailing new permit-exempt outdoor irrigation based on gauge measurements requires significantly increased administrative resources to review data, announce the start and end of curtailments, and ensure compliance by homeowners on shorter timelines.

Commenter: Shannon Moore - Comment I-162-4

Interruptible outdoor Water Use: In the case of drought declaration, this is a tool the Department can use to curtail non-subsistence use. In addition, where streams are not meeting flow requirements, this tool can be used. Additional stream gages may be necessary. There is no discussion on how the Department will implement or enforce this rule.

Response:

Please see the response to Comment T-2-7 regarding the concept of requiring curtailment of non-subsistence use when minimum instream flows are not met.

With respect to implementation and enforcement of this provision, Ecology will use current resources and compliance and enforcement tools, consistent with the agency's Water Resources Program goals and objectives. Ecology maintains all of its existing enforcement and compliance options, as outlined in statute, including chapters 90.44 and 90.03 RCW, regardless of whether or not they are included in the RSD. Ecology also prepared an Implementation Plan for this rule amendment.

Commenter: Luanne Van Werven - Comment I-160-2

The department's propose rule also includes a drought triggered water use restriction while a drought emergency order is in effect. However, there is no curtailment authorization under RCW 90.94.020 for the Nooksack watershed.

Response:

Ecology is carrying out the requirements established by the 2018 law, including specific direction to consider a conservation standard for new domestic permit-exempt wells (RCW 90.94.020(4)(d)(ii)-(iii)). Ecology is authorized to engage in rulemaking to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than [maximum annual average of 3,000 gpd] authorized under subsection (5) of this section" (RCW 90.94.020(4)(e)). The drought curtailment provision is part of the conservation standard authorized by the Legislature.

Commenter: Rick Meyer - Comment OTH-4-4

MR. MEYER: I'm also concerned with the expanding of your focus on outdoor domestic use and the use of the term "harmonizing" and focusing on the law that says you can set more specific guidelines in drought situations. Expanding that from a drought situation to continual use to me seems to be excessive and beyond the scope of what should be addressed at this issue.

Response:

Please see the general response on "Authority for Rulemaking" and the response to Comment I-96-1, for more information on Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response on "Authority for Rulemaking" includes Ecology's interpretation of its authority regarding the drought curtailment.

Commenter: Bill Clarke - Comment O-7-6

Another example of unnecessary complexity is the drought curtailment provision in proposed WAC 173-501-065. In the event of drought, the rule would Ecology to determine whether outdoor uses are "noncommercial subsistence gardening purposes" – as opposed to (we assume?) lawns, trees, shrubs or gardens that are not necessary for subsistence. In drought events, Ecology should focus its efforts on larger water resource issues – both instream and out-of-stream, and not adopt regulations on homeowners whose impacts during normal or drought years are immeasurable.

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the permit-exempt withdrawal limits stated in chapter 90.94 RCW including the agency's authority regarding the drought curtailment and subsistence gardening.

Ecology appreciates the suggestion regarding other water resource issues during a drought. However, Ecology believes the drought curtailment provision is a useful water management tool to include as part of the conservation standard.

Comments on Retiming Exemption

Commenter: Alan Chapman - Comment I-163-2

2. The provision for retiming instream flows under specific conditions provides a useful tool in meeting the requirements of ESSB 6091

Response:

Thank you for your comment. Ecology agrees that the retiming exemption is a useful tool.

Commenter: Ross Cline, Sr. - Comment T-3-9

Retiming of High Flows: o We appreciate that Ecology recognizes the ecological importance of high flows. In addition to fish migration and channel maintenance, high flows are important for floodplain maintenance, activation, and nutrient and sediment dynamics. Discharge levels between the minimum instream flows and peak flows are also ecologically important. Since we are uncertain about the magnitude of discharge potentially diverted relative to a system's hydrology, and because the interactions between hydrologic regime and salmon population productivity are often complex, we strongly support Ecology's intent to consult with WRIA 1 Tribes on proposed retiming projects to ensure unanticipated negative impacts are minimized. Projects that retime high flows should be conducted in such a way as to avoid contributing to fish stranding. The identification and design of retiming projects must fully consider stream hydrograph changes forecasted for a changing climate into the future. Some current concepts that address this mitigation or offset strategy assume a historical hydrograph that likely is not adequate for future hydrographs.

Response:

Thank you for your comment. You raise important points that can be considered in evaluating water right applications for individual projects under the “retiming of high flows” provision.

Commenter: Oliver Grah - Comment I-161-8

• Retiming of High Flows: o We appreciate that Ecology recognizes the ecological importance of high flows. In addition to fish migration and channel maintenance, high flows are important for floodplain maintenance, activation, and nutrient and sediment dynamics. Discharge levels between the minimum instream flows and peak flows are also ecologically important. Since we are uncertain about the magnitude of discharge potentially diverted relative to a system's hydrology, and because the interactions between hydrologic regime and salmon population productivity are often complex, we strongly support Ecology's intent to consult with WRIA 1 Tribes on proposed retiming projects to ensure unanticipated negative impacts are minimized. o Projects that retime high flows should be conducted in such a way as to avoid contributing to fish

stranding. o The identification and design of retiming projects must fully consider stream hydrograph changes forecasted for a changing climate into the future. Some current concepts that address this mitigation or offset strategy assume a historical hydrograph that likely is not adequate for future hydrographs.

Response:

Thank you for your comment. You raise important points that can be considered in evaluating proposals for individual projects under the “retiming of high flows” provision.

Commenter: Henry Bierlink - Comment T-1-1

January 7, 2020 Annie Sawabini Department of Ecology - Water Resources Program PO Box 47600 Olympia, WA 98504-7600 RE: Amendments to Nooksack Instream Flow Rule, Chapter 173-501 WAC Dear Annie: The Whatcom Ag Water Board ("AWB") is a coalition of six irrigation districts established to address water supply, water quality, drainage, and other issues affecting agriculture in Whatcom County. Adequate water supply is a critical to ensuring the viability of agriculture and protection of rural lands in Whatcom County. While the State Supreme Court's Hirst Growth Management Act decision related to the use of exempt wells for new residential development, the decision and Legislature's response in SB 6091 both implicate water issues for agriculture. Specifically, if projects and programs in the Nooksack Basin to offset new exempt domestic withdrawals follow the model in other areas of Washington State, the result will be the loss of agricultural water rights to groundwater mitigation. This would be an ironic result, given that one of the stated purposes of the Hirst litigation was the protection of rural agricultural lands and rural character. For these reasons, the AWB has actively participated in identifying projects to offset new domestic water use. The AWB's tributary flow improvement project was included by the Legislature as a Foster Pilot Project, and this project has been approved for initial funding by the Department of Ecology. The proposed rule amendment will support the efforts of the AWB and other water resource stakeholders to implement beneficial water resource projects. Specifically, the language proposed for WAC 173-501-070 provides Ecology with the flexibility to approve new interruptible uses through the water right permit process, if the new use offsets potential instream flow impacts from exempt domestic water use, or restores and enhances streamflows. This authority would still be subject to the requirements of the water code, including review for impairment for both new water rights or changes to existing water rights. The AWB does have concern that the language, as proposed, creates two different standards in WAC 173-501-070, and a standard that is higher than required by the water code. Under proposed .070(4)(a), a water use may be allowed if it "offsets potential impacts to instream flows associated by permit-exempt domestic water use," whereas under proposed .070(4)(a), a water use that is not proposed for the purpose of offsetting domestic uses is subject to a higher standard of "restores and enhances instream flows." Neither the four-part test for new water rights in RCW 90.03.290, nor the test for water right changes at RCW 90.03.380 requires restoration or enhancement of instream flows as a permitting standard. Under the language as proposed by Ecology, a proposed use that fully protects (but does not restore or enhance) instream flows, but is not designed to offset exempt wells, could arguably not be approved. This result would be counter to the efforts of water resource stakeholders to ensure that proposed

water uses protect instream flows. The requirement in proposed .070(4) to "restore and enhance" instream flows reads as if the language in RCW 90.94.020(4)(c) directing Ecology to determine that the actions taken over 20 years will achieve a "net ecological benefit to instream resources" is being applied to agency permit decisions under Chapter 90.03 RCW. The AWB suggests the proposed language in .070(4) be modified as follows: (4) New interruptible uses may be approved from streams regulated under WAC 173-501- 040 if the department determines through the water right appropriation procedure under chapter 90.03 RCW that the proposed use is consistent with: (a) The intent of chapter 90.94 RCW to offset potential impacts to instream flows associated with domestic permit-exempt water use; or (b) Applicable laws and would protect, restores, or enhances streamflows. The AWB appreciates the efforts of Ecology staff to work with our organization on water resource planning and project efforts that will benefit both agriculture and instream resources in Whatcom County. Sincerely, Scott Bedlington, President Ag Water Board cc: Senator Doug Ericksen Representative Luanne Van Werven Representative Sharon Shewmake NWRO Ecology Director Doug Allen County Executive elect Satpal Sidhu

Response:

We appreciate agriculture in Whatcom County and the Agricultural Water Board's (AWB) efforts to participate in projects in WRIA 1. As provided for in the rule amendment, WAC 173-501-070(4) provides for interruptible uses in two cases:

(4) New interruptible uses may be approved from streams regulated under WAC 173-501-040 if the department determines through the water right appropriation procedure under Chapter 90.03 RCW that the proposed use is consistent with:

(a) the intent of Chapter 90.94 RCW to offset potential impacts to instream flows associated with domestic permit-exempt water use, or

(b) applicable laws and restores and enhances streamflows.

In developing the exemption language, Ecology considered many items, including comments received on the preliminary draft language, as well as laws, court decisions, and the overall chapter 90.94 RCW goal of benefitting streamflows and aquatic species, especially salmonids.

Ecology changed the exemption language between the preliminary draft and proposed rule, taking into account thoughtful comments from the AWB and others. The agency believes the exemption language, as it was proposed, is appropriate.

RCW 90.94.020(4)(a) states, in part:

*…projects and actions that will measure, protect, **and** enhance instream resources **and** improve watershed functions that support the recovery of threatened and endangered salmonids… Qualifying projects must be specifically designed to **enhance** streamflows and not result in negative impacts to ecological functions or critical habitat. [emphasis added]*

Ecology interprets this language to set a specific direction for Ecology's implementation of the law that focuses on benefits to instream flows to support salmon recovery. Ecology developed this rule exemption to focus on supporting the direction in RCW 90.94.020, for providing offsets

to new domestic permit-exempt uses, or, if not providing offsets for that specific purpose, then restoring and enhancing flows.

As described in Chapter 5 of the RSD, under this exemption, a new water right could be approved during the closure period, subject to an established instream flow or low flow limitation and conditions necessary to protect high flow functions, provided the proposed water use enhances and restores streamflows. Ecology anticipates that future projects, such as managed aquifer recharge (MAR) storage projects located on closed tributaries, could be eligible for water right permits using this proposed exemption. Ecology's wording of the exemption is intentional, holding a high bar for the allowance of the exemption and ensuring consistency with chapter 90.94 RCW.

Commenter: Henry Bierlink - Comment OTH-4-8

MR. BIERLINK: I'm Henry Bierlink from Lynden, representing the Ag Water Board. We're going to be submitting some details of comments and testimony in written form, but I just thought I'd summarize a couple of points. One is to commend you for providing a bit more flexibility in a very rigid law that has often been standing in the way of us doing some of the things that make sense for both stream flows and for solving some of the problems that we've had with unpermitted water use over the number of years that we've been working on it. There are some issues in here that we think that you're going to get trapped in yet by the way some of the language looks, and some of the suggestions we'll suggest will try to alleviate some of those kind of problems. We also want to mention that we believe that the purpose of this law is to protect, as well as to enhance and restore. So protection in itself is also a very important thing to be doing, and not always having everything required to be at the restoration or enhancement status. We need to protect the stream that we have, and that's a goal that's well worth it as well. But overall, we are happy that you're moving in some little bit more -- you're making somewhat more flexibility into a law that has really stood in the way in a lot of ways of the very good things that we've been working on. So thank you.

Response:

Thank you for your comment. Ecology appreciates efforts to reconcile unpermitted water use in WRIA 1 and provide creative solutions that benefit streamflows and the agricultural community. Ecology supports concepts that protect, enhance, and restore streamflows, consistent with chapter 90.94 RCW. Please see response to Comment T-1-1.

Commenter: Shannon Wright - Comment O-2-4

5. What are the applicable laws as mentioned in the following under the amendatory section (173-501-074)? Please clarify which applicable laws. "(4) New interruptible uses may be approved from streams regulated under WAC 173-501-040 if the department determines through the water right appropriation procedure under chapter 90.03 RCW that the proposed use is consistent with: (b) Applicable laws and restores and enhances streamflows."

Response:

The applicable laws that a permit application must be consistent with in order for a permit to be approved under this provision include the following current laws:

Chapter 90.94 RCW – Streamflow Restoration;

Chapter 90.22 RCW – Minimum Water Flows and Levels;

Chapter 90.54 RCW – Water Resources Act of 1971;

Chapter 90.03 RCW – Water Code;

Chapter 90.44 RCW – Regulation of Public Groundwaters;

Further, the applicable laws may include future amendments to these statutes, and other laws related to water resources, that are enacted in the future.

Comments on Authority (Under Chapter 90.94 RCW)

Commenter: Paul Graf - Comment I-157-1

The notion that wells for domestic home use could have any measurable impact on stream flow of the Nooksack River makes absolutely no sense bordering on absurd. Where is the justification for imposition of such onerous restrictions upon the citizens of Whatcom County? Rural domestic well owners are not like large municipal or industrial entities which remove enormous amounts of water from the ground and divert it away from the river. Virtually all water removed via wells for home use is returned directly to the ground above from where it was taken only to return to recharge the aquifer from which it was removed.. It is utterly irresponsible to restrict citizen's right to water on their own property without valid and provable reasons. There appears to be absolutely none that show any impact of private domestic wells on the stream flow of the Nooksack River.

Response:

This comment appears to relate to dissatisfaction with chapter 90.94 RCW, which was enacted by the Legislature, rather than with the rule amendment that Ecology must undertake in accordance with the law. In passing the chapter 90.94 RCW, the Legislature determined that permit-exempt groundwater use can have impacts on streamflows, and directed that there be planning and/or rulemaking to ascertain potential impacts and identify projects to offset them.

Ecology heard repeatedly that because the depletion impacts to streamflow from a new domestic permit-exempt use may be too small to physically measure, they don’t need to be offset. However, Washington State case law is very clear that “unmeasurable” isn’t the same as “incalculable,” and RCW 90.94.020 is clear about the offset and Net Ecological Benefit (NEB) requirements, regardless of measurability of impacts to streamflows.

New domestic permit-exempt uses will impair streamflows in closed basins. RCW 90.94.020(1) authorizes those impacts through compliance with the requirements in the statute. Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use,

find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty that NEB will be achieved.

Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provides estimates for average indoor water use per person, estimates for consumptive indoor water use, and estimates for consumptive outdoor irrigation. Ecology used these estimates to calculate the projected consumptive use that will occur through 20 years of new domestic permit-exempt wells.

More information on how the conservation standard was developed is in Chapter 3 of the RSD.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard.

Commenter: Paul Graf - Comment I-157-3

We used to be the land of the free but what freedoms we have are being rapidly eroded with the imposition of unreasonable, unsubstantiated and unjustified actions as proposed here.

Response:

Please see the general response on "Fairness / Not Fair" for more information on the prior appropriation system in Washington State. Please see the general response on "Authority for Rulemaking" for more information on Ecology's authorities and rationale for this rulemaking under chapter 90.94 RCW.

Commenter: Senators Honeyford, Warnick, Short - Comment I-97-1

Washington State Senate December 9, 2019 Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia, WA 98504-7600 Re: Proposed instream flow rule amendment for chapter 173-501 WAC (Nooksack WRIA) Dear Ms. Sawabini, We are submitting this comment letter for the administrative record because the Department of Ecology is not implementing the Hirst fix legislation according to its terms.1 As legislators who worked on, and ultimately supported, the bill that created the statutory authority underlying the proposed rule amendment for WRIA 1 , we contend that your proposal does not comply with the law we enacted, for at least four reasons. The proposed rule unlawfully: • Restricts water use on lawns and gardens • Includes a drought-triggered water use restriction • Deviates from the "maximum annual average" method of measuring water use • Proposes to meter future water use We offer a brief explanation on each point.

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the WRIA 1 rule under RCW 90.94.020.

More detailed responses to the four reasons listed in the comment are provided in the corresponding responses to your more detailed comments. Please see:

Comment I-97-2 – Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens for homes.

Comment I-97-3 – Ecology's interpretation of the agency's authority to establish the conservation standard, including the drought curtailment.

Comment I-97-4 – Ecology's authority to establish a conservation standard that is different from the maximum annual average.

Comment I-97-5 – Ecology's rule language regarding metering.

Commenter: Senators Honeyford, Warnick, Short - Comment I-97-2

l. The proposed rule unlawfully restricts water use on lawns and gardens The department's proposed rule creates a new category called "outdoor domestic water use"— which it defines as water used for noncommercial lawns and gardens—and then limits such use to an area not exceeding 1/12 acre.2 But the department is not authorized to impose this restriction, because RCW 90.94.020 only applies to "domestic" use, and watering a lawn or garden is not a domestic use under the relevant statutes and case law. RCW 90.94.020, the statute that is the legal basis for the rule amendment, only applies to domestic uses of water and does not restrict other permit-exempt uses set forth in RCW 90.44.050. This distinction is provided in RCW 90.94.020(8): "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 ... and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050."3 Simply put, the proposed rule may not place restrictions on watering lawns and gardens, stock water, or water for industrial use, because those categories are "other" (not domestic) uses that are distinctly and separately categorized under RCW 90.44.050. The department errs by lumping together indoor and outdoor use under the single heading of "domestic" use because the legislature and courts have established that domestic use and water for a lawn or garden do not belong in the same category. The legislature recognized this distinction by specifically citing the water use categories listed in RCW 90.44.050. Furthermore, this reading of RCW 90.44.050 is consistent with the interpretation of that statute as spelled out by the Supreme Court of Washington's landmark opinion in Five Corners Family Farmers v. State.4 The department's proposed rule contradicts RCW 90.94.020 and judicial precedent.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

The 2018 law states, "[t]his section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050" and that the law "does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050" (RCW 90.94.020(8)).

Ecology interrupts this to mean that the maximum annual average (MAA) "domestic use" limits in the law, and the rule conservation standard, correspond to the two categories defined in RCW 90.44.050 for indoor domestic use and outdoor domestic use for watering noncommercial lawns or gardens. Ecology interrupts this to mean that the 2018 law does not change the categories defined in RCW 90.44.050 for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

The decision in the *Five Corners Family Farmers* case, which was decided by the Washington Supreme Court in 2011, analyzed and applies to the four types of permit-exempt groundwater withdrawals defined under RCW 90.44.050. The case does not apply to the undefined term "domestic use" in chapter 90.94 RCW, which was enacted in 2018, and thus not considered in the *Five Corners Family Farmers* decision.

Ecology respectfully disagrees that the rule violates RCW 90.94.020, RCW 90.44.050, or the *Five Corners Family Farmers* decision.

Commenter: Senators Honeyford, Warnick, Short - Comment I-97-3

2. The proposed rule unlawfully includes a drought-triggered water use restriction In addition to the restriction on watering lawns and gardens, the proposed rule amendment also erroneously authorizes the curtailment of water use while a drought emergency order is in effect. This curtailment provision is not authorized under RCW 90.94.020, because that statute does not contain any statutory direction to curtail water use during drought. Conversely, a different statute—RCW 90.94.030—does authorize water curtailment during times of drought, but only in eight named WRIAs, excluding the Nooksack WRIA.5 The legislature deliberately authorized drought curtailment for the eight named watersheds in RCW 90.94.030, and deliberately did not include this authority for watersheds regulated under RCW 90.94.020. There is no statutory authority for a drought curtailment provision in an amended Nooksack rule because the Nooksack watershed is governed by RCW 90.94.020, not RCW 90.94.030.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation of its authority regarding the drought curtailment. Ecology established the drought curtailment as part of the conservation standard.

RCW 90.94.020 directs Ecology to consider "[s]pecific conservation requirements for new water users to be adopted by local or state permitting authorities" (RCW 90.94.020(4)(d)(iii)).

The law goes on to direct Ecology to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)).

The law states that the new limit for WRIA 1 is 3,000 GPD maximum annual average "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)).

Ecology established the drought curtailment as part of the "quantities" included in the "conservation requirements" adopted through this rule. The law does not provide additional direction about what can, or cannot, be included in a rule limit. Ecology determined that a

drought limit should be part of the conservation standard for new domestic permit-exempt wells in WRIA 1. Further, Ecology believes the drought curtailment helps achieve NEB in WRIA 1. Please see Chapter 9 of the RSD for additional information.

Commenter: Senators Honeyford, Warnick, Short - Comment I-97-4

3. The proposed rule unlawfully deviates from the "maximum annual average" method of measuring water use. The legislature understood that enacting RCW 90.94.020 might lead to some new restrictions on domestic water use following the local watershed plan update process, but the legislature also took great pains to ensure that any such limitations would not be measured on a rigid daily basis. Unfortunately, the department's proposed rule establishes a hard-and-fast 500 gallons-per-day limit, explicitly contravening the maximum annual average limits specified in RCW 90.94.020. The legislature established that the user of a new permit-exempt well may obtain approval for "a maximum annual average withdrawal of three thousand gallons per day per connection."6 This maximum-annual-average provision recognizes that daily water use may sometimes exceed the gallonage limit, but that this would be acceptable so long as the limit was not be exceeded on an average basis over the course of an entire year. The department's 500 gallons-per-day rule is therefore flatly inconsistent with the limit provided in statute.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1.

RCW 90.94.020 directs Ecology to consider "[s]pecific conservation requirements for new water users to be adopted by local or state permitting authorities" (RCW 90.94.020(4)(d)(iii)).

The law goes on to direct Ecology to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)).

The law states that the new limit for WRIA 1 is 3,000 GPD maximum annual average "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)).

Ecology established the indoor and outdoor domestic use limits as part of the "quantities" included in the "conservation requirements" adopted through this rule. The law does not provide additional direction about how Ecology should define the quantities in a rule, such as directing Ecology to use a maximum annual average in rules.

The commenters note that daily water use may vary over a year. Ecology understands that outdoor domestic water use will vary, with higher use during the summer months. The conservation standard outdoor domestic limit measures the limit in acreage irrigated, not gallons per day, allowing for variable outdoor irrigation use.

Based on Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) the average indoor use is estimated to be 60 gallons per day, per person. A family of 8 would use 480 gallons per day for indoor use, which would still allow daily variation and stay below the 500 gallons per day indoor conservation standard. Anecdotally, Ecology staff have been told by private well owners during the WRIA 1 Streamflow Restoration planning process that private well owners use less water than the average because of their awareness about the electrical costs of running a well pump and concerns about pumping their well dry.

Commenter: David Rehm - Comment I-92-1

Rulemaking Lead Sawabini,

Why the push for restricting water? the vast majority of water used from wells would not end up in downstream flows/salmon habitat, and 90% of the water goes right back into the ground in the septic system anyway. This is a knee jerk reaction help people FEEL like they are doing something good for the environment but in fact does little to nothing.
Please stop imposing on my rights to may yourself and others feel good about doing essentially nothing. David Rehm

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard for new domestic permit-exempt wells constructed after the rule is finalized and response to Comment I-157-1.

Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) provides estimates that 10 percent of indoor water and 80 percent of outdoor irrigation is consumptively used by homes.

Please see response to Comment I-157-1 regarding why the law requires even immeasurable impacts to be offset.

Commenter: Skip Richards - Comment I-134-4

Matters of Law

This section of this document addresses three primary questions, [Table of Contents]

1.0. What does the statute (ESSB 6091, codified as RCW 90.94) require Ecology to do with respect to rulemaking? In attempting to answer this question, this section will raise ancillary questions and, to the extent useful in illuminating an answer to the primary question, these ancillary questions will be addressed.

2.0. In its proposed rule amendment, has Ecology exceeded its authority under the statute, or in the obverse, failed to fulfill all of its obligations under the statute?

1.0. What the statute provides regarding rulemaking: RCW 90.94.020 provides: (6) Rules adopted under this chapter or under chapter 90.54 RCW may (a) Rely on watershed plan recommendations and procedures established in this section to authorize new withdrawals exempt from permitting under RCW that would potentially impact a closed water body or a minimum flow or level; (b) Rely on projects identified in the watershed plan to offset consumptive water use; and (c) Include updates to fees based on the planning unit's determination of the costs for offsetting consumptive water use. (7)(a) If a watershed plan that meets the requirements of this section is not adopted in water resource inventory area 1 (Nooksack) by February 1, 2019, the department must adopt rules for that water resource inventory area that meet the requirements of this section by August 1 2020. … (8) This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 in the following water resource inventory areas with instream flow rules adopted under chapters 90.22 and 90.54 RCW that do not explicitly regulate permit-exempt groundwater withdrawals- I (Nooksack); … and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050. [emphasis added] https://app.leg.w.gov/RCW/default.aspx?cite=90.94.020

1.1. Scope of the Rule amendment, Ecology's summary of the intent of the statute, as stated in STREAMFLOW RESTORATION POLICY AND INTERPRETIVE STATEMENT dated July 31 2019, hereinafter POL2094, https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/pol-2094.pdf

"Plans must be developed that identify projects to offset the potential consumptive impacts of new permit-exempt domestic groundwater withdrawals on instream flows over the next 20 years (2018-2038), and provide a net ecological benefit to the WRIA. [POL2094, page 1] Presumably, then, the rule amendment should accomplish the same purpose as the statute's purpose, nothing more, nothing less.

1.1.1. To which of the four exemptions does RCW 90.94.020 apply? RCW 90.44.050 provides for four classes of exemptions relevant to this issue, as follows, 1. … any withdrawal of public groundwaters for stock-watering purposes [implies without limit as to quantity or place of use, an interpretation reinforced by recent court cases]; 2. … for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area (implies no quantity limit); 3. … for single or group domestic uses in an amount not exceeding five thousand gallons a day; 4. … or for an industrial purpose m an amount not exceeding five thousand gallons a day, https://app.leg.w.gov/RCW/default_aspx?cite=90.44.050

Ecology's interpretation is described in POL2094, page 4, "The requirements in RCW 90.94.020 and 90.94.030 only pertain to permit-exempt domestic withdrawals associated with a new building permit, and do not affect other uses exempt from permitting under RCW 90.44.050 " And … Chapter 90.94 RCW includes restrictions for new permit-exempt domestic withdrawals for "domestic use" to a maximum annual average of up to 950 GPD per connection in basins planning under RCW 90.94.030 and a maximum annual average of up to 3,000 GPD per connection in basins planning under RCW 90.94.020. In the context of chapter 90.94 RCW, "domestic use" and the GPD withdrawal limits include both indoor and outdoor home uses, and

watering of a lawn and noncommercial garden up to 1/2 acre in size." [POL2094, page 5] Some legislators have criticized Ecology's inclusion of the exemption for "watering of a lawn and noncommercial garden up to 1/2 acre in size," as unlawful. As an example, this letter argues, relying on a citation from the statute: "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 … and does not restrict the withdrawal of groundwater for other uses that are exempt from permitting under RCW 90.44.050." and This provision refers to RCW 90.44.050, where the meaning of an exempt domestic withdrawal is provided. That statute creates distinct categories of exempt uses, including a category for "domestic" use and another for noncommercial lawns and gardens of a certain size. The Washington Supreme Court confirmed this interpretation in Five Corners Family Farmers v. State, where it said that the exemption clause of RCW 90.44.050 breaks down into distinct categories, including any withdrawal of public groundwaters "for single or group domestic uses in an amount not exceeding five thousand gallons a day," or "for the watering Of a lawn or of a noncommercial garden not exceeding one-half acre in area."2 The legislature chose to apply RCW 9094.020 to domestic uses, but not to other uses that are exempt under RCW 90.44.050, such as the watering of a noncommercial lawn or garden. RCW 90.94.020 does not authorize the department to restrict water use for noncommercial lawns and gardens. State Senator Doug Ericksen, 42 Legislative District, letter dated Dec 4 2019 to staff Annie Sawabini. Ecology has offered an oblique response in SupportingDoc11-093, beginning page 11: "Ecology has heard many different opinions and perspectives regarding the Legislature 's intent when it used the term "domestic use" and other terms ("new water use" and "consumptive use') in the 2018 legislation. Ecology is implementing the law as it is written, and harmonizing its numerous sections. To ensure transparency, consistency, and conformity in implementing the law, Ecology has published a Policy and Interpretive Statement (POL-2094)13 that includes how we interpret "domestic use" in the MAA limit and other terms not defined in chapter 90.94 RCW. "Harmonizing the expressly written sections in chapter 90.94 RCW, Ecology interprets "domestic use" in the MAA withdrawal limits to include both indoor and outdoor home uses, including watering of a lawn and noncommercial garden up to 1/2 acre in size." Note that while Ecology reiterated its position, it did nothing to address the concern raised by the legislators. Its failure to do so invites litigation to settle the issue.

Specific questions and observations regarding Ecology's response to the validity of including lawn irrigation exemption in its definition of "domestic:" If, as Ecology claims, the statute does not define domestic use, then on what basis did Ecology define it to include lawn irrigation? On what statute, rule, or commonly accepted practice did Ecology base its "harmonizing" the numerous provisions of the statute? Nothing in RCW 90.94, or the Administrative Procedures Act, or other statute or rule appears to define the concept of "harmonizing" or make provision for its exercise. Note, for example, that the legislature appears to have intended the scope of rulemaking authority to be limited to specific provisions of the statute, except in some identified circumstances: The Procedures Act, at RCW 34 05.322 Scope of rule-making authority. For rules implementing statutes enacted after July 23, 1995, an agency may not rely solely on the section of law stating a statute's intent or purpose, or on the enabling provisions of the statute establishing the agency, or on any combination of such provisions, for its statutory authority to

adopt the rule. An agency may use the statement of intent or purpose or the agency enabling provisions to interpret ambiguities in a statute's other provisions. https://app.1eg.wa.gov/RCW/defau1t.aspx?cite=34.05.322

1.2. Ecology's interpretation of rulemaking actions required by the statute: "If a watershed plan has not been adopted by the prescribed deadline, Ecology is required to commence a rulemaking process under RCW 90.94.020 … Ecology will not write a watershed plan update for WRIAs identified in RCW 90.94.020. As required under the law, Ecology will initiate rulemaking and develop rule supporting documents that meet the intent and requirements of RCW 90.94.020. At a minimum, the rule supporting documents will include: a WRIA wide estimate of consumptive use from new permit-exempt domestic withdrawals over the planning horizon; a list of projects and actions that Ecology is reasonably assured could be completed to offset the consumptive use, and a NEB determination." [POL2094, page 11]

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1.

Ecology has heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators, in including the term "domestic use" in the 2018 legislation. Ecology is interpreting and implementing the law as it is written, and harmonizing its numerous sections.

The decision in the *Five Corners Family Farmers* case, which was decided by the Washington Supreme Court in 2011, analyzed and applies to the four types of permit-exempt groundwater withdrawals defined under RCW 90.44.050. The case does not apply to the undefined term "domestic use" in chapter 90.94 RCW, which was enacted in 2018, and thus not considered in the *Five Corners Family Farmers* decision.

Ecology respectfully disagrees that the rule violates RCW 90.94.020, RCW 90.44.050, or the *Five Corners Family Farmers* decision.

Commenter: Kathy Sabel - Comment I-165-6

5) Per information provided by Vincent Buys, ESSB6091 author, livestock watering and outdoor 1/2 acre use for lawn and non-commercial garden should not be affected by the rule. Current language in the rule changes this. Please explain how Department of Ecology reconciles the law with this rule.

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction, including that chapter 90.94 RCW

combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

Ecology has heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators, in including the term "domestic use" in the 2018 legislation. Ecology is implementing the law as it is written, and harmonizing its numerous sections.

The 2018 law does not change the categories defined in RCW 90.44.050 for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Commenter: Kathy Sabel - Comment I-165-10

10) Outdoor domestic water use is a new interpretation of the current law which allows ◆ acre for non-commercial garden and lawn (livestock separate) outside the 5000/3000 gallon limits. What law is Department of Ecology using to be able to legally make this change?

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation of the 2018 law's direction, including that chapter 90.94 RCW combines both indoor and outdoor domestic use for irrigating non-commercial lawns and gardens.

The general response on "Authority for Rulemaking" also includes more information on Ecology's interpretation of the 2018 law's direction regarding setting a conservation standard for new domestic permit-exempt wells constructed after the rule is finalized.

The 2018 law does not change the categories defined in RCW 90.44.050 for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Commenter: Kathy Sabel - Comment I-165-11

11) During the WRIA1 ESSB6091 Planning Unit process experts explained any possible effects of groundwater withdrawals from permit-exempt wells cannot be differentiated from the allowed error margin of the water models. Please explain how Department of Ecology justified requiring offsets when the uncertainty percentage of the model is less than or equal to the water use of permit exempt wells.

Response:

Please see response to Comment I-157-1.

Commenter: Luanne Van Werven - Comment I-160-1

I am submitting these comments for the administrative record for the proposed instream flow rule amendment for chapter 173-501 Washington Administrative Code (WAC) in the Nooksack WRIA.

The Department of Ecology (DOE) is incorrectly implementing the Hirst fix legislation the

Legislature passed in 2018. The department's proposed rule includes a "conservation standard" that would limit permit-exempt domestic wells to no more than 500 gallons per day for indoor use and not to exceed a total of 1/12 of an acre for outdoor usage. The Legislature authorized a reduction of water usage from 5,000 gallons per day to a maximum annual average withdrawal of 3,000 gallons per day per connection.

I would add that there is no agreed upon watershed plan for Water Resource Inventory Area 1. Therefore, in accordance with RCW 90.94.020 (7)(a) the department must adopt rules that meet the requirements of RCW 90.94.020 by Aug. 1, 2020. This statute is clear in that DOE is directed to abide by the legislative negotiated levels of a maximum annual average withdrawal of 3,000 gallons per day per connection in its rulemaking.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor domestic use in WRIA 1.

RCW 90.94.020 directs Ecology to consider "[s]pecific conservation requirements for new water users to be adopted by local or state permitting authorities" (RCW 90.94.020(4)(d)(iii)). Ecology established the indoor and outdoor domestic use limits as part of the "quantities" included in the "conservation requirements" adopted through this rule.

The law goes on to direct Ecology to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)).

The law states that the new limit for WRIA 1 is 3,000 GPD maximum annual average "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)). Thus, in rulemaking for a WRIA, Ecology is not required to include a maximum annual average withdrawal limit of 3,000 gallons per day, and can set a limit which is "less than" that amount.

Commenter: Luanne Van Werven - Comment I-160-4

This rule directly affects the citizens in my legislative district. The draft rule goes against everything the Legislature spent countless hours on and negotiated in the Hirst fix. There are many frustrated and upset people. I am also very concerned that the department's proposed rule amendment is not consistent with and ignores the Legislature's work. I appreciate your attention to these concerns. Sincerely, Rep. Luanne Van Werven

Response:

Thank you for your comment. Ecology staff are aware that there may be dissatisfied citizens in WRIA 1. This document contains a range of comments on the proposed rule. The comments include statements that the conservation standard should be lower and statements that it should

be higher. There are also comments expressing frustration that the requirements of the law are being carried out through rulemaking, instead of through a local planning process, despite the fact that a local planning process already occurred (as per RCW 90.94.020).

Ecology is carrying out the directive of the law. The RSD contains more information on Ecology's analysis for these requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty of achieving NEB.

Ecology heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators. Ecology is implementing the law as it is written, and harmonizing its numerous sections, in the timeframe directed by the law.

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the WRIA 1 rule under RCW 90.94.020.

Commenter: Josie Cummings - Comment O-1-2

11121st Avenue SW I Olympia, WA 98501 (360) 352-7800 1 BIAW.com CHAMPIONS OF AFFORDABLE HOUSING December 23, 2019 Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia WA 98504-7600 Attention: Proposed Amendments to chapter 173-501 WAC (WRIA 1) Comments The Building Industry Association of Washington (BIAW) appreciates the opportunity to comment on Ecology's proposed amendment to chapter 173-501 WAC of the Nooksack rule. BIAW represents over 8,000 Washington businesses engaged in all aspects of home construction and is the champion of attainable housing in Washington State. First and foremost, Ecology should follow the law known as the Hirst fix. The legislation is clear, rulemaking in the Nooksack needs to "meet the requirements" of RCW. 90.94.020. Part of what attracts people to build in rural areas is the ability to have yards and grow gardens. Domestic use in statute and rule was meant to include both noncommercial lawns and gardens. Within RCW 90.94.020, it refers to chapter 90.44.050 which defines exempt domestic withdrawal uses. That language clearly allows for noncommercial lawn and gardens to be included in the definition of exempt domestic withdrawal. BIAW asks that the rule include outdoor use in the domestic definition as the law was written.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1.

Ecology's rule amendment establishes the conservation standard for new domestic permit-exempt wells that limits indoor domestic use to 500 gallons per day, and outdoor domestic water use for irrigating 1/12 of an acre for lawns or noncommercial gardens for a single home, or for each home in a group domestic system.

Please also see the response to Comment I-160-4.

Commenter: Josie Cummings - Comment O-1-3

It is outside the scope of the statute for Ecology to limit use for drought curtailment. There is no reference to drought in RCW 90.94.020. In other parts of the statute, the legislature listed basins that could limit water use in a drought, but the Nooksack was not listed as one of those basins.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation of the agency's authority regarding the drought curtailment. Ecology established the drought curtailment as part of the conservation standard.

RCW 90.94.020 directs Ecology to consider "[s]pecific conservation requirements for new water users to be adopted by local or state permitting authorities" (RCW 90.94.020(4)(d)(iii)).

The law goes on to direct Ecology to modify "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section [3,000 GPD maximum annual average]" (RCW 90.94.020(4)(e)).

The law states that the new limit for WRIA 1 is 3,000 GPD maximum annual average "[u]ntil rules have been adopted that specify otherwise" (RCW 90.94.020(5)(f)(ii)).

Ecology established the drought curtailment as part of the "quantities" included in the "conservation requirements" adopted through this rule. The law does not provide additional direction about what can, or cannot, be included in a rule limit. Ecology determined that a drought limit should be part of the conservation standard for new domestic permit-exempt wells in WRIA 1.

Commenter: Trish Rolfe - Comment O-3-4

RCW 90.94.020 requires that new permit-exempt water use be offset through water-for-water mitigation.

In enacting RCW 90.94, the Legislature attempted to create a "this-for-that scheme" that provides flexibility for permit-exempt uses but does not unilaterally or significantly reduce the many longstanding protections of the water code for instream resources. The statute calls for Ecology to work with initiating governments to review existing watershed plans to: - identify the potential impacts of permit-exempt well use; - identify evidence-based conservation measures; and - identify projects to improve watershed health.6 The statute requires that "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 that support the recovery of threatened and endangered salmonids."7 Further, "[a]t 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."8 Recognizing that "potential impacts" may ensue due to further new permit-exempt well development, the Legislature mandates that Ecology and local governments must identify

measures that are necessary to offset or otherwise prevent those potential streamflow impacts from being realized in the Nooksack basin. This is not a recipe for allowing impairment of instream flows; rather, this is a recipe for giving Ecology and local governments additional tools to prevent impairments. Where some of the flexibility, and associated heartburn, comes in is with the statute's allowance for projects that provide offsets within the same basin or tributary, but not necessarily at the location where impacts are felt.9 Even so, the statute provides that watershed plans must include those actions that the planning unit believes are necessary to offset potential consumptive impacts to instream flows.10 In addition, the statute authorizes planning units to include additional projects and measures in watershed plans that result in protecting or improving instream resources over and above potential consumptive use impacts.11 In fact, in order to adopt a watershed plan – or a rule in lieu of a 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 within the water resource area."12 Ecology recognizes that it has a mandatory duty to only approve watershed plans, or adopt rules, that offset consumptive use impacts and achieves net ecological benefits.13 It also recognizes that the more water use allowed, the greater the risk to instream resources, and the greater cost of projects and other conservation actions needed to offset the consumptive use and achieve net ecological benefits.14 Unfortunately, Ecology's proposed WAC 173-501-065 and -70 fail to implement the Legislature's directive to assure that consumptive use impacts are fully offset and achievement of NEB.

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the WRIA 1 rule under RCW 90.94.020.

Ecology is carrying out the direction in the law. Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including Ecology's conclusion that the projects and actions, including the rule amendment conservation standard, which, among other things, limits water use to a quantity below the 3,000 GPD limit specified in the law before the adoption of an updated watershed plan or rule, gives Ecology reasonable certainty of achieving NEB.

Ecology respectfully disagrees and believes the rulemaking meets the requirements of RCW 90.94.020. The agency believes the rulemaking estimates 20 years of new domestic permit-exempt water consumptive use, finds projects and actions to offset that consumptive use, and achieves NEB in the WRIA, consistent with WR POL-2094, and "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates" (Ecology Publication #18-11-007), and Ecology's Interim Guidance for Determining Net Ecological Benefit (NEB).

Commenter: Trish Rolfe - Comment O-3-5

The Proposed Rule violates the scheme of RCW 90.94 by failing to assure the required water offset or Net Ecological Benefit, and therefore exceeds the agency's statutory authority. In enacting RCW 90.94, the Legislature sought to break the perceived development logjam

stemming from the Hirst decision15 by introducing new flexibility into the process of issuing building permits. First, the Legislature authorized "potential impacts on a closed water body" and "potential impairment of instream flows," stemming from new domestic permit-exempt wells through compliance with the requirements of the Act.16 Second, the Legislature provided that local governments could issue building permits before watershed plans and rules were adopted and restoration actions implemented, so long as certain requirements were met, such as recording relevant water supply restrictions on titles, fee collection, and the number of building permits and subdivision approvals were counted and reported to Ecology.17 Clearly, allowing development to proceed in flow-limited basins before instream flow protection and restoration plans are developed, let alone implemented, dramatically increases the level of risk to instream resources. However, while the Legislature was willing to risk "potential impacts" and "potential impairment" of flows,18 it created a system intended to assure that the "potentials" never become reality. First, the statute contemplates "potential impacts" but then mandates that local governments and/or Ecology adopt consumptive use offsets and other actions to achieve net ecological benefit thereby avoiding those potential impacts. While impacts are "potential," local governments must update their watershed plans to include recommendations for projects and actions that measure, protect, and enhance instream resources. Qualifying projects must be specifically designed to enhance streamflows.19 The watershed plan must include those actions that the planning units determine to be necessary to offset potential impacts to instream flows. The highest priority actions must include replacing the quantity of consumptive water use during the same time as the impact in and in the same basin or tributary.20 Further, the statute directs that, prior to adoption of an updated watershed plan, Ecology must determine that actions identified in the watershed plan, after accounting for new projected uses of water for the next 20 years, will result in a net ecological benefit to instream resources within the WRIA.21 In sum, the Legislature has crafted a statute intended to provide additional flexibility to local governments to better enable them to both (a) continue approving domestic development proposals that rely on new domestic permit-exempt wells for a water supply while also; (b) providing the tools, flexibility, suggestions, and wise planning requirements needed to both offset impacts and result in a net ecological benefit thereby supporting salmon recovery and protecting senior water rights. Unfortunately, as reflected by Ecology's Proposed Rule for the Nooksack basin, Ecology has taken the flexibility provided by the Legislature and ignored the Legislature's clear intent that the statute be implemented in a manner that results in offsetting consumptive use impacts and assuring that net ecological benefit is actually achieved over the next 20 years. It is a virtual certainty that new permit exempt withdrawals will significantly increase water use in WRIA 1. But there is nothing in Ecology's proposed WAC 173-501-065 that even acknowledges that consumptive use offsets and achievement of net ecological benefit are required to allow new domestic withdrawals, let alone provides any assurance that offsets and ecological benefits will occur. It is not enough to merely identify possible projects, that might be carried out, in the RSD. The RSD is not enforceable, would not be incorporated into the Washington Administrative Code, and does not establish binding law. The Proposed Rule, as it stands, asymmetrically grants new rights with the full power of law while relegating the statutorily required offsets to mere non-binding advice in a non-binding supporting document. In the RSD, Ecology justifies its position by declaring: RCW 90.94.020 does not require that there

be an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Furthermore, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans.22 Really? Does Ecology really think that it is fully implementing its authorities by not holding either itself or local governments accountable for implementing the actions that local governments and/or Ecology honestly believe are necessary to offset potential consumptive use impacts and achieve net ecological benefit? Ecology is quick to note that the statute does not directly condition issuance of building permits with implementation of consumptive use offsets, other conservation measures, and habitat enhancements. However, there is nothing in the statute that prohibits a local government from developing a watershed plan or Ecology from adopting a rule that directly links issuance of building permits depending upon new domestic permit-exempt wells to implementation of conservation measures, consumptive use offsets, and habitat enhancements. Such an approach would actually implement both the letter and the spirit of RCW 90.94, rather than leaving instream flow protection and enhancements as unimplemented options. Once adopted, Ecology's Proposed Rule will create hard, permanent, recorded property rights to consume water in watersheds where senior instream flow rights are already not being met. To preserve the balance the Legislature intended – flexibility to allow additional development supported by new domestic permit-exempt wells in return for consumptive use offsets and additional actions/projects resulting in water offsets and net ecological benefits -- the rule itself must contain requirements for achieving offsets and net ecological benefits in a timely manner. The current Proposed Rule fails to meet these key obligations.

Response:

Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the WRIA 1 rule under RCW 90.94.020.

Ecology's interpretation in WR POL-2094 is that RCW 90.94.020 and 90.94.030 do not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Further, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans. That said, Ecology has–consistent with the scheme of chapter 90.94 RCW and the NEB guidance prepared pursuant to that law--entered into this rulemaking and developed the RSD with "implementation in mind." Additionally, Ecology's establishment of a multi-million dollar competitive grant initiative designed explicitly to incentivize chapter 90.94 RCW plan and project implementation serves as important additional context indicating how important implementation is to Ecology; even though the legislature deemed it appropriate to not create an affirmative obligation on any party to implement the plans called for in chapter 90.94 RCW nor the projects in those plans.

The direction in RCW 90.94.020 describes what to "identify" in watershed plans (RCW 90.94.020(2)) and requires "recommendations" (RCW 90.94.020(4)(a)). The law also describes what the "watershed plan must include" (RCW 90.94.020(4)(b)).

The law does not discuss executing, or ensuring completion of, what is identified, recommended and included in the watershed plan. The law also does not set up a requirement to check the plan's projections of use, or recommended project results, at any point in the 20 year timeframe.

Through grant funding provided in the law, the law provides incentives for executing the recommended projects.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its conclusion that the projects and actions--including the rule amendment conservation standard and adaptive management approach--gives Ecology reasonable certainty of achieving NEB. The law does not require this analysis to be codified in rule language.

Ecology staff understands that the commenter would have liked Ecology to tie building permits to measures that would offset the new well use. The law did not directly require a direct connection between water use and impacts, and Ecology did not choose to include such an approach in the scope of this rulemaking.

Ecology respectfully disagrees with the contention in this comment that the new domestic permit-exempt wells will significantly increase water use in WRIA 1. Water use allowed under water right permits makes up a much larger amount of water use in WRIA 1.

Commenter: Brad Hanks - Comment OTH-3-5

MR. HANKS: Brad Hanks, Bellingham. Washington groundwater law divides permit exempt uses into four distinct categories: Single or group domestic use, non-commercial watering of 1/2 acre or less, stock watering and industrial uses. Domestic use, single and group, as well as industrial uses, are limited to 5,000 gallons per day. The Washington Supreme Court has ruled that each of these uses are individual and are not aggregated uses on a single parcel. In other words, you can have both domestic water limited to 5,000 gallons per day and unlimited for your non-commercial agricultural pursuits. The Stream Flow Restoration Act, the act the proposed rule is supposed to implement, pertains to domestic use only. The Department seems to recognize this fact, as they state that outdoor domestic use is in addition to indoor, but it is not regulated. They go on, however, and limit the amount of area that can be irrigated for lawn or garden to only 1/12th of an acre. The conclusion is that the rule goes so far as to recognize the outdoor watering for non-commercial uses is appropriate, but also it attempts to limit the amount of acreage a household can use when the legislature has granted 1/2 acre in another statute. This is not appropriate. Thank you.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

The general response also discusses how the categories defined in RCW 90.44.050 for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD) remain unchanged, and that withdrawal limits under RCW 90.44.050 and the WRIA 1 rule can be 'stacked' together.

Commenter: Rick Meyer - Comment OTH-4-5

MR. MEYER: I'm also concerned with the size limit, if you have the authority to do that, to focus on 1/12th of an acre when in other areas of the legislation it clearly seems to say that that should be at minimum a 1/2 acre. Thank you for your time.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1. This conversation standard includes the 1/12 acre limit for outdoor lawn and garden irrigation for a home.

There has never been a "minimum" ½ acre limit in any legislation that Ecology is aware of relating to groundwater permit-exempt wells. RCW 90.44.050 allows for the watering of a lawn or non-commercial garden *not exceeding* ½-acre in size. This would be the areal limit for all homes using a permit-exempt well for their domestic use that receive a building permit prior to the date this rulemaking becomes effective or if the home uses a well drilled prior to the date this rulemaking becomes effective, see general responses to "Fairness / Not Fair" and "Authority for Rulemaking."

Commenter: Nina Denson - Comment OTH-4-11

MS. DENSON: My name is Nina Denson. I am a rural resident. I have a well. I am concerned about the recommendations of the Department of Ecology for new wells. I believe rural people are mostly good stewards of the land. I don't believe that they need government to tell them what they can and can't do with their land.

Response:

In Washington State, Ecology is responsible for managing the water resources of the state, including permitting water use and protecting the instream resources for the benefit of the public under the direction of a series of laws and court decisions. Please see the general response on "Fairness / Not Fair" for more information on Ecology's water resources management responsibilities.

Ecology is carrying out the requirements established by the 2018 law. Please see the general response on "Authority for Rulemaking" for more information on Ecology's interpretation and rationale for the WRIA 1 rule under RCW 90.94.020. Please also see the general response on "Fairness / Not Fair" for information on Washington's water laws.

Commenter: Luanne Van Werven - Comment OTH-4-16

MS. VANWERVEN: Thank you. Luanne Van Werven, State Representative from the 42nd District. And I am drafting very specific comments in response to this proposed rule-making, but today I want to speak more broadly or generally. As someone who was involved in the proposal of Senate Bill 6091, I was part of a work group that put together science-based solutions for our area, specifically WRIA 1. And it is concerning to me that somewhere along the way we went from -- that the Department of Ecology has veered from the intent of the State legislature, that we have gone from 3,000 gallons a day to 500 gallons a day, and that seems to be a very arbitrary number. Like I said, we were involved in science-based solutions, and we had addressed those issues. And so I am very concerned that you are not -- these proposed rules are not consistent with Senate Bill 6091 that we presented on a bipartisan basis, Republicans, Democrats, signed by the Governor, and then somehow we ended up here. There is another way that the proposed rules do not comply with the law enacted, and that is that it unlawfully restricts water use on lawns and gardens. 6091 never intended that. So the other thing that is concerning to me is that well owners are held to a stricter standard than cities or water association members. And when you think about the amount of water that is consumed by well owners and compare that to municipalities and also water associations, it is just a mere fraction of that. So I am very concerned that you are not complying with the rule that was passed by the legislature, and I would ask you to reconsider this rule-making process and go in the right direction.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1. Ecology respectfully disagrees that the conservation standard is arbitrary.

Ecology is carrying out the directive of the law. The RSD contains more information on the agency's analysis for these requirements, including its conclusion that the projects and actions, including the rule amendment conservation standard, give Ecology reasonable certainty of achieving NEB.

Ecology heard many different opinions and perspectives regarding the Legislature's intent, including different opinions from different legislators. Ecology is implementing the law as it is written, and harmonizing its numerous sections, in the timeframe directed by the law.

Cities and other municipal water suppliers have water rights that are used to supply the homes and businesses connected to their water systems. The municipal water suppliers manage their customer's water use to stay within their water rights, and generally charge a fee based on the amount of water used, so domestic permit-exempt well water users are not subject to a "stricter standard" than the standards for those who receive water supplied by municipal water purveyors.

Commenter: Bill Clarke - Comment O-7-5

4. The Proposed Outdoor Use Limits Conflict With Legislative Intent, and Further the Trend of a Complicated and Hard to Implement Water Resource System RCW 90.94.020(8) states "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 . . . " Under RCW 90.44.050, the exemption for single or group domestic use is one of four separate exemptions. One of the other exemptions in RCW 90.44.050, and one explicitly excluded from RCW Chapter 90.94, is for the irrigation of ½ acre non-commercial lawn or garden. Ecology's proposed rule conflicts with RCW 90.94.020(8) by including outdoor irrigation limits (1/12th of an acre) with the domestic limit of 500 gallons per day. In addition to conflicting with RCW Chapter 90.94, Ecology's "bundled" interpretation of RCW 90.44.050, combining multiple exempt uses into a single exemption, was rejected by the Washington Supreme Court in the Five Corners Family Farmers decision.7 In that case, the Court stated: With collapse of the "bundle" interpretation, [Ecology's] argument that permit-exempt stock-watering withdrawals are limited to 5,000 gallons per day also fails. Accepting, as the sentence structure makes clear, that the exemption clause contains four distinct categories, it becomes apparent that each category is limited by its own qualifying language and only its own qualifying language. Given that the "five thousand gallons a day" limitation appears twice in the exemption clause, it is evident that the legislature knew how to attach that limitation to multiple categories, and yet it chose only to apply it to two categories. There is simply no textual basis for the conclusion that "five thousand gallons a day" modifies "for stock-watering purposes." RCW 90.44.050. Accordingly, Appellants' proposed interpretation is not reasonable. Five Corners Family Farmers v. Ecology, 173 Wn.2d 296, 312–13 (2011). By including outdoor irrigation limits, which cannot be attributed to any authority in RCW Chapter 90.94, Ecology is using the same "bundled" interpretation of RCW 90.44.050 rejected by the Supreme Court. Further, beyond the legal interpretation, the 1/12th acre provision is an example of a regulatory provision that creates unnecessary complexity over a few small amount of water (and again, based on the Robinson & Noble analysis, perhaps even positive increases to groundwater recharge associated with new development). In the case of group domestic use, the total outdoor use is limited to ½ acre, regardless of the size of the group use.

Response:

Please see the general response on “Authority for Rulemaking” for Ecology’s interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for “domestic use” combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology’s interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor use in WRIA 1.

Please see the response to Comment I-97-2 regarding the *Five Corners Family Farmers* case.

Ecology is not requiring all new domestic permit-exempt wells to meter and report water use. Ecology believes that an outdoor acreage limit is easier and less complex for homeowners to understand, helping to ensure compliance, as has been the case for the longstanding RCW 90.44.050 acreage limit.

Ecology understands that the commenter would have preferred a different outdoor limit. However, outside lawn and garden watering accounts for roughly 95 percent of all consumptive water uses associated with new home water uses (for more information please see the example in "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Ecology Publication #18-11-007). The greater the outdoor water use, the greater the required offsets that would be needed to achieve NEB, as required under the law.

Commenter: R. Perry Eskridge - Comment O-5-3

Titles: It is interesting at the outset to note that Ecology extensively relies on the titles of Rev. Code Wash. § 90.94 as justification for a focus on stream flows and habitat restoration. Several times during the public hearing, staff would rely on the fact that the "crux of the statute" was to ensure that adequate stream flows are maintained balanced against development in rural areas. The original title of ESSB6091, however, was entitled "AN ACT Relating to ensuring that water is available to support development . . .." ESSB 6091, pg 2 (2018). There is no mention in the title about streamflow restoration or habitat restoration. That is not to say that those considerations are not important as they are clearly established in the section, but Ecology's focus in this rulemaking proceeding is clearly and overwhelmingly focused on streamflow restoration and habitat; water use by rural households is clearly a secondary consideration in this process and, as a result, leads to an absurd result.

Response:

The 2018 law, allows new domestic permit-exempt wells to have an impact on closed water bodies and water bodies with minimum instream flows.

Ecology is carrying out the direction in the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains its analysis for these requirements, including the agency's conclusion that the projects and actions, including the rule amendment conservation standard, gives Ecology reasonable certainty of achieving NEB.

Commenter: R. Perry Eskridge - Comment O-5-7

Impermissible Use of Statutes: Ecology also includes a disturbing discussion wherein it asserts as follows in relevant part: The new domestic water use standards in RCW 90.94 were not uniform across the 15 WRIAs specified in the law. * * * The WRIAs included in RCW 90.94.020 include a MAA of 3,000 gpd. The WRIAs included in RCW 90.94.030 include a MAA of 950 gpd, reduced during drought to 350 gpd for indoor use only and for maintaining a fire control buffer during drought. Sup. Doc. pg 9. The determination by an administrative agency that two separate statutory provisions that contain explicit language on withdrawal limitations for separate categories of WRIAs should be interpreted together to support a 80% reduction from the statutory limit expressly stated for a WRIA is baffling. Had the legislature intended that WRIAs in Rev. Code Wash. § 90.94.020 would be subject to lower limitations similar to those in Rev. Code Wash. § 90.94.030, the legislature would have blended the two together, most likely in a single statutory provision. We are not allowed to guess about

legislative intent, however, and this is not what the legislature clearly stated. What is more disturbing is that Rev. Code of Wash. § 90.94.020 actually provides that rules should specify "[s]tandards for water use quantities that are less than authorized under REC 90.44.050 or more or less than authorized under subsection (5) of this section for withdrawals exempt from permitting." There is absolutely no evidence in the supporting document that Ecology sought to evaluate whether a withdrawal amount between the 5,000 gpd in 90.44 and the 3,000 gpd MAA in Rev. Code Wash. § 90.94 et seq. is appropriate. It would appear that Ecology has abandoned such an evaluation in favor of a cookie-cutter approach to WRIA rules when the legislature clearly intended that different WRIAs would be evaluated in the context of differing circumstances. Ecology's own Policy Document, POL-2094, cited in the Supporting Document, clearly delineates the different standards for watersheds listed in the Act. Ecology, on page 4 of POL-2094, apparently limits determinations of drought and rules applying to declared drought emergencies to WRIAs listed in Rev. Code Wash. § 90.94.030. Section 5 of the policy document states: For WRIAs listed in RCW 90.94.030: Where applicable, record withdrawal curtailment during drought emergencies on affected properties. Streamflow Restoration Policy and Interpretive Statement, POL-2094, pg 4 § 5, (2019). Ecology also makes a distinction on the types of rules Ecology will adopt depending on whether the WRIA is listed in Rev. Code Wash. § 90.94.020 OR § 90.94.030. The Policy Statement states in relevant part: If a watershed plan has not been adopted by the prescribed deadline, Ecology is required to commence a rulemaking process under RCW 90.94.020 or 90.94.030. • Ecology will not write a watershed plan update for WRIAs identified in RCW 90.94.020. As required under the law, Ecology will initiate rulemaking and develop rule supporting documents that meet the intent and requirements of RCW 90.94.020. At a minimum, the rule supporting documents will include: a WRIA-wide estimate of consumptive use from new permit-exempt domestic withdrawals over the planning horizon; a list of projects and actions that Ecology is reasonably assured could be completed to offset the consumptive use; and a NEB determination. • For the WRIAs identified in RCW 90.94.030, Ecology will follow the procedures specified in RCW 90.94.030(3)(h). Ecology will submit the final draft plan to the Salmon Recovery Funding Board for a technical review, and provide recommendations to amend the final draft plan, if necessary. Ecology shall consider the recommendations and may amend the final draft plan without committee approval prior to adoption. Id. at pg. 11 (emphasis added). Contrary to its own policy document, Ecology now combines the requirements of .020 and .030 to include a drought component to the WRIA 1 rule, a WRIA that is clearly excluded from .030, the only section that includes the mention of drought considerations. Yet, Ecology somehow "harmonizes" the sections, in direct contravention of its own policy document, to introduce a construct of "subsistence gardening" and restrictions should a drought emergency be declared. This is not only a gross misinterpretation of the statute, but a violation of Ecology's own stated policy.

Response:

Please see the general response on “Authority for Rulemaking” for Ecology’s interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for “domestic use” combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology’s interpretation and rationale for

developing the conservation standard for new domestic permit-exempt indoor and outdoor domestic use in WRIA 1.

Please see the general response on "Comparison of Other Water Use Limits" and Chapter 3 of the RSD, for more information on the how the conservation standard was developed. The other recent rule and water management limits include indoor domestic use limits ranging from 5,000 GPD to 175 GPD for indoor use, and outdoor domestic use ranging from no outdoor irrigation or 50 ft^2 (210 GPD) depending on the zone, to 1/2 acre.

The law provides that Ecology may consider "[s]tandards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section" (RCW 90.94.020(d)(ii)), and that the "standards for water use quantities that are less than authorized under RCW 90.44.050 or more or less than authorized under subsection (5) of this section for withdrawals exempt from permitting may not be applied unless authorized by rules" (RCW 90.94.020(e)).

The direction in the law provides a range of limits, it does not require Ecology to consider every water use standard option within the range of what is allowed. Ecology did not think it was appropriate to explore increasing the withdrawal limits for new domestic permit-exempt wells given that much of WRIA 1 is closed to the appropriation of new water rights, minimum instream flows are often not met, and low summer flows are a threat to Endangered Species Act-listed species in WRIA 1. As well, allowing higher water use limits would require greater offsets; greater offsets require more projects, resulting in greater costs and greater uncertainty in achieving NEB.

Ecology's WR POL-2094 discusses the initial withdrawal limits in chapter 90.94 RCW "or other amount specified by rule" in Section 5, and "that these limits may be changed through rulemaking" in Section 6.

The rule establishes a conservation standard, including a drought curtailment. This is consistent with the statements on rulemaking in WR POL-2094 for a WRIA included in RCW 90.94.020.

Please see the general response on "Authority for Rulemaking" and the response to Comment I-97-3 regarding Ecology's authority to include a drought curtailment provision, that includes an allowance for subsistence gardening.

Commenter: R. Perry Eskridge - Comment O-5-10

Reductions of Outdoor Watering Area: Similar to the discussion of exempt uses under the exclusionary clause of Rev. Code Wash. § 90.44.050(2018) concerning domestic use, it is unclear on what authority Ecology is relying to limit outdoor watering to 1/12 of an acre. It would appear that Ecology has taken the 3,000 gpd limit, divided that by 500 gallons, and made a determination that a Group "B" water system would only support six units. Using that six unit figure, Ecology then has divided the one-half acre outdoor watering limitation in Rev. Code Ann. § 90.44.050 (2018) to arrive at the 1/12 value. As outlined in the "domestic" discussion above, the exclusionary clause sets forth four distinct and separate uses that are limited only by the qualifying language following each category, i.e., "domestic and industrial are limited to 5,000 gpd; outdoor watering is limited in terms of size (one-half acre); stockwatering is unlimited.

Ecology is not permitted to simply amend a statute to fit an agenda without express legislative authority to do so. Accordingly, the preliminary rule should reflect the one-half acre limitation in the statute as written or Ecology should delineate the authority granted to it to make such an amendment to the statute, and amendment that is not obvious from the statutory language of either the groundwater or streamflow acts.

Response:

Please see the general response on "Authority for Rulemaking" for Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW for "domestic use" combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens. The general response also includes Ecology's interpretation and rationale for developing the conservation standard for new domestic permit-exempt indoor and outdoor domestic use in WRIA 1.

Whatcom County Health Department requirements already generally limit group domestic systems to the supply of water to six houses, so the rulemaking update is consistent with existing local land use and health department permitting authorities.

Comments on Authority (Under other laws)

Commenter: Perry Eskridge - Comment OTH-4-13

MR. ESKRIDGE: I heard you guys talking about before that your lawyers had told you this was all appropriate, and I've got to tell you off the bat that I hate to disparage other people in my profession, but you need new lawyers. When I was going through the supporting document, what I found really interesting is that Ecology says that they're trying to harmonize the various statutes, but I've got to tell you that you literally ignore the clues that lie in there about how domestic is defined. The very case you site as authority for your domestic definition is the case of -- oh, geez, I didn't write it down, but it's Department of Ecology versus Campbell and Gwinn, and that case when you read it carefully talks about domestic use, homes, indoor, one connection or six, that's it. If your lawyers had bothered to even take that case and do what we call Shepardizing, which is make sure it's still good law, they would have discovered that that exact case was cited no less than twice in another case called Five Corners Family Farmers. That case actually discusses Campbell and Gwinn when they talk about the fact that you cannot combine the four exemptions in 90.44 together, which is exactly what this rule has done. It has taken the outdoor 1/2 acre watering requirement and combined it with domestic use. Your attorneys ignore two -- if you take the Campbell case decided in 2002, they ignore two subsequent Attorney General's opinions that tell them that's not right and this Washington Supreme Court case, which adopts those Attorney General opinions as part of their rationale and tells them you cannot combine those uses. It's right there. It's just sloppy lawyering. I can tell you that this brief to support our interpretation of this pretty much writes itself. I could do it in about -- I would guess -- I told Mary Kay two days. I'm going to lower that down to about five hours.

Response:

Please see the general response on "Authority for Rulemaking" and the response to Comment I-96-1 regarding Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

Please see the response to Comment O-5-4 regarding the *Campbell & Gwinn* and *Five Corners Family Farmers* cases.

Comments on Unsupportive (Form Letter)

Commenter: Tamara Acree - Comment I-150-1 ; Commenter: Gary Baker - Comment I-57-1 ; Commenter: Jeff Baker - Comment I-151-1 ; Commenter: Jacson Bevens - Comment I-35-1 ;Commenter: Benjamin Black - Comment I-62-1 ; Commenter: Joy Brown - Comment I-99-1 ;Commenter: Julie Brown - Comment I-28-1 ; Commenter: Katharine Carey - Comment I-54-1 ; Commenter: Julie Carpenter - Comment I-42-1 ; Commenter: Carol Cattle - Comment I-38-1 ; Commenter: Jason Cavanaugh - Comment I-88-1 ; Commenter: Christine Cicchitti - Comment I-149-1 ; Commenter: Renay Daniels - Comment I-116-1; Commenter: Zeke De Smet - Comment I-20-1 ; Commenter: Brady DenB - Comment I-145-1; Commenter: Jay Dhindsa - Comment I-33-1 ; Commenter: Ana Cecilia Dominguez Jackson - Comment I-17-1 ; Commenter: Shari Draper - Comment I-59-1 ; Commenter: Carl Dufton - Comment I-105-1 ; Commenter: Lorrie Dujmovich - Comment I-110-1 ; Commenter: Dana Duvall - Comment I-65-1 ; Commenter: Andi Dyer - Comment I-31-1 ; Commenter: Michael Eisenberg - Comment I-44-1 ; Commenter: Donald Elliott - Comment I-51-1 ; Commenter: Tracy Evans - Comment I-36-1 ; Commenter: Sara Fassett - Comment I-107-1 ; Commenter: Cheryl Ferrier - Comment I-53-1 ; Commenter: Brian Fish - Comment I-70-1 ; Commenter: Jen Freeman - Comment I-87-1 ; Commenter: Tricia Gale - Comment I-114-1 ; Commenter: Susan Garlock - Comment I-12-1 ; Commenter: Bliss Goldstein - Comment I-80-1 ; Commenter: Mandra Gould - Comment I-82-1 ; Commenter: Tina Grace - Comment I-46-1 ; Commenter: Jim Graham - Comment I-81-1 ; Commenter: Danielle Groeneweg - Comment I-131-1 ; Commenter: Sean Hackney - Comment I-132-1 ; Commenter: Erin Hallenburg - Comment I-63-1 ; Commenter: Don Hammons - Comment I-18-1 ; Commenter: Bradley Hanks - Comment I-93-2 ;Commenter: Ryon Harriman - Comment I-66-1 ; Commenter: Syed Hashimi - Comment I-34-1 ; Commenter: Valerie Hauter - Comment I-84-1 ; Commenter: Sandra Hicks - Comment I-128-1 ; Commenter: Lynda Hinton - Comment I-56-1 ; Commenter: Leslie Hobkirk - Comment I-75-1 ; Commenter: Jayme Holman - Comment I-146-1 ; Commenter: Wynden Holman - Comment I-144-1 ; Commenter: Brad Howell - Comment I-68-1 ; Commenter: Lawrence Humes - Comment I-101-1; Commenter: Jean Hunt-Brown - Comment I-124-1 ; Commenter: Carmella Hustoft - Comment I-60-1 ; Commenter: Shelley James - Comment I-79-1 ; Commenter: Sean Jeffrey - Comment I-72-1 ; Commenter: James Kaemingk - Comment I-137-1 ; Commenter: Anne Koglin - Comment I-94-1 ; Commenter: Dale Kreiser - Comment I-14-1 ; Commenter: Cherie Kukhahn - Comment I-95-1 ; Commenter: Irina Kulyak - Comment I-147-1 ; Commenter: Joell Kuoppala - Comment I-89-1 ; Commenter: Martin Kutschbach - Comment I-32-1 ; Commenter: Sunny Lake Hahn - Comment I-113-1 ; Commenter: Brenda Lawrence -

Comment I-50-1 ; Commenter: Carla Lee - Comment I-9-1 ; Commenter: Cal Leenstra - Comment I-121-1 ; Commenter: Marsha Lockhart - Comment I-13-1 ; Commenter: RoseMarie Longmire - Comment I-15-1 ; Commenter: ken marr - Comment I-119-1 ; Commenter: Renata Mason - Comment I-104-1 ; Commenter: Gatlin McConnell - Comment I-61-1 ; Commenter: Nanette McDowell - Comment I-111-1 ; Commenter: Brent McMillan - Comment I-133-1 ; Commenter: Shannon Medearis - Comment I-141-1 ; Commenter: Sid Mellema - Comment I-69-1 ; Commenter: Diva Menke - Comment I-112-1 ; Commenter: Toni Miller - Comment I-29-1 ; Commenter: Bethnie Morrison - Comment I-24-1 ; Commenter: Amy Myers - Comment I-26-1 ; Commenter: Brian Neal - Comment I-37-1 ; Commenter: Justin Nelson - Comment I-142-1 ; Commenter: Jennie Nilsen - Comment I-122-1 ; Commenter: Julie Osborn - Comment I-98-1 ; Commenter: Melissa Osterdahl - Comment I-22-1 ; Commenter: Vanessa Parry - Comment I-76-1 ; Commenter: Chris Pomeroy - Comment I-64-1 ; Commenter: James Pope - Comment I-115-1 ; Commenter: Ethan Potts - Comment I-139-1 ; Commenter: Damian Pro - Comment I-48-1 ; Commenter: Damian Pro - Comment I-154-1 ; Commenter: Donna Quimby - Comment I-78-1 ; Commenter: Jeremiah Ramsey - Comment I-155-1 ; Commenter: Michael Rawls - Comment I-117-1 ; Commenter: David Rehm - Comment I-136-1 ; Commenter: Jay Reilly - Comment I-77-1 ; Commenter: Charles Rinker - Comment I-67-1 ; Commenter: Peter Roberts - Comment I-49-1 ; Commenter: Mary Kay Robinson - Comment I-41-1 ; Commenter: Joel Roosendaal - Comment I-148-1 ; Commenter: Stephanie Roosendaal - Comment I-140-1 ; Commenter: Karla Roosma - Comment I-130-1 ; Commenter: Sean Ryan - Comment I-126-1 ; Commenter: Lindsay Sager - Comment I-40-1 ; Commenter: Laura Sanderson - Comment I-11-1 ; Commenter: James Sands - Comment I-16-1 ; Commenter: Dawn Sexton - Comment I-86-1 ; Commenter: Tessa Shelton - Comment I-127-1 ; Commenter: Michelle Simms - Comment I-21-1 ; Commenter: Jim Skerjanc - Comment I-43-1 ; Commenter: Lori Smith - Comment I-118-1 ; Commenter: Lori Jo Smith - Comment I-90-1 ; Commenter: Eric Snow - Comment I-73-1 ; Commenter: Susan St. Clair - Comment I-39-1 ; Commenter: Miki Stach - Comment I-74-1 ; Commenter: Liz Standow - Comment I-106-1 ; Commenter: Kathy Stanford - Comment I-85-1 ; Commenter: Darin Stenvers - Comment I-47-1 ; Commenter: Heather Stevenson - Comment I-30-1 ; Commenter: Brooke Stremler - Comment I-108-1 ; Commenter: Linda Stull - Comment I-135-1 ; Commenter: Judith Sturlaugson - Comment I-120-1 ; Commenter: Dana Stuth - Comment I-19-1 ; Commenter: Kenneth Swanson - Comment I-109-1 ; Commenter: Kurt Swanson - Comment I-129-1 ; Commenter: Daniel Sygitowicz - Comment I-71-1 ; Commenter: Murray Taylor - Comment I-23-2 ; Commenter: Nicole Tingvall - Comment I-10-1 ; Commenter: Holly Tremaine Swanson - Comment I-52-1 ; Commenter: Allison Trimble - Comment I-8-1 ; Commenter: Dennis Van Beek - Comment I-45-1 ; Commenter: Loren Van Corbach - Comment I-138-1 ; Commenter: Lester Van Mersbergen - Comment I-125-1 ; Commenter: Janelle VanLant-Rodriguez - Comment I-159-1 ; Commenter: Sylvia Vickery - Comment I-58-1 ; Commenter: Thonnie Wailes - Comment I-123-1 ; Commenter: Robert Washburn - Comment I-143-1 ; Commenter: Blake Westhoff - Comment I-55-1 ; Commenter: Mallina Wilson - Comment I-25-1 ; Commenter: Jasmin Worden - Comment I-103-1 ;

Rulemaking Lead Sawabini,

Please consider my comment on the proposed Nooksack River watershed permit-exempt well rule. Based on the information below, I believe that the proposed rule unfairly restricts indoor water use by rural households and that the restriction on outdoor water to an area less than that authorized by statute is not only wrong, but also does not promote the rural lifestyle that is the essence of Whatcom County.

The rule restricts indoor water use to 500 gallons per day. While this amount of water might be appropriate for households in urban areas, rural households tend to be larger in terms of residents and require more water for household use. 500 gallons per day is the accepted use of a family of four in an urban setting, but NOT FOR larger rural families leading a rural agricultural lifestyle.

There is also the issue of enforcement. While I certainly do not support metering of permit-exempt wells in the rural areas of the county, it does raise the question of how indoor domestic use will be monitored and, if necessary, enforced when a household exceeds the indoor use limit. Enforcement would be easier for outdoor use, but enforcement of an arbitrary and unrealistic indoor use limit seems to be ineffective.

I also disagree with the artificial restriction on outdoor uses proposed for single connection permit-exempt wells. Rev. Code Wash. § 90.44.050(2019) explicitly allows the use of a permit-exempt well to water one-half acre of noncommercial lawn or garden. Ecology now seeks to limit that use to only 1/12 of an acre through some undisclosed mathematical formula. While the restriction can be understood when more than one household is connected to a permit-exempt well, restrictions on a single connection are unnecessary and unwarranted.

Thank you for considering my comments. I anticipate seeing a rule that better balances the needs of rural households against our desire to efficiently use our water resources.

Response:

Ecology appreciates the rural lifestyle in Whatcom County. Ecology did not receive information suggesting data used were inaccurate or inconsistent with new domestic permit-exempt well needs in Whatcom County. The number of residents used in the analysis comes from Whatcom County data, and is consistent with projections agreed to during the WRIA 1 Streamflow Restoration Planning process. Water use data and projections are consistent with Ecology's WR POL-2094 and "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates" (Publication #18-11-007). Additional information is available in Chapter 4 of the RSD.

Ecology maintains all of its existing enforcement and compliance options, as outlined in statute, including chapters 90.44 and 90.03 RCW.

Offset calculations are consistent with Ecology's WR POL-2094 and "ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates" (Publication #18-11-007).

Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking."

Comments on General – Oppose

Commenter: Ross Cline, Sr. - Comment T-3-4

[W]e remain concerned with the lack of metering and enforcement, spatial distribution of offset projects, and uncertainty of mitigation or offset project funding, implementation, and effectiveness.

Response:

Thank you for identifying your concerns. Ecology did not announce an intent to meter all new domestic permit-exempt wells in the initial rulemaking announcement (CR-101); however, the agency retains the authority to require metering under existing statutes and rules. Please see general response "Authority for Rulemaking" specific to Metering. As well, please see additional information in Chapter 3.4 of the RSD. Ecology's enforcement, compliance, and technical assistance authorities, including, but not limited to, chapters 90.03 and 90.44 RCW remain in effect.

Ecology appreciates that the planned spatial distribution of the proposed projects does not perfectly match the spatial distribution of the estimated future growth and consumptive water use. Planning estimates such as these are imperfect and Ecology expects adaptive management will be useful as projects are implemented and new homes using new domestic wells are permitted; please see Chapter 7 of the RSD. That said, RCW 90.94.020 allows for imperfect (not in-time and not in-place) offsets, and Ecology believes the proposed projects and actions achieve NEB; see Chapter 9 of the RSD.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements--including its conclusion that the projects and actions--including the conservation standard, gives Ecology reasonable certainty of achieving NEB.

Ecology understands that there may be concerns regarding implementation and effectiveness of projects and actions. However, several projects are currently underway, and the agency understands that several other proponents for projects listed in Chapter 6 of the RSD are applying for funding to move additional projects and actions forward in the near term.

Ecology included an Adaptive Management approach in the RSD; please see Chapter 7. The agency expects to see adaptive management used to monitor implementation and effectiveness.

Commenter: Oliver Grah - Comment I-161-5

[W]e remain concerned with the lack of metering and enforcement, spatial distribution of offset projects, and uncertainty of mitigation or offset project funding, implementation, and effectiveness.

Response:

Thank you for your comment. Please see response to Comment T-3-4.

Commenter: Larry Helm - Comment OTH-1-1

Whatcom Water Debate-A conservative view point!
Over the last twenty years of attending many WRIA meetings I have heard meeting participants state that the Whatcom county has a shortage of water. Some say it's the whole County and others say the shortage is at certain times of the year in certain places. The 2002 ($600,000) plus Utah State water of the Whatcom County Aquifers was designed to determine the amount of water shortage in our County; however, there was never a decisive report issued to end the debate. Then around 2005 I stated hearing that the rural wells were using so much water that the rivers and creek levels were negatively impacted by the well water withdrawals. Several studies were initiated to determine the size of the well water withdrawal impact. One of these studies involved pumping water from the Bertrand Creek aquifer and putting it back into the Nooksack River. I have never seen a conclusive scientific report quantifying this problem, but there has sure been a lot of expensive consultant opinions written to support the idea that wells might negatively impact rivers and streams. The rural well users in this county consume less than ◆ % of the total water used in the County because the rural well users recycle almost all of their pumped water through an efficient septic system back into the aquifer for reuse. Around 2017 I learned that there is a very large untapped reservoir of fresh water basically under Blaine, WA which could be used for future populations. Future population projections show that mitigation needed for increased population rural well use in the next twenty years is not very significant. In spite of a basic lack of science to prove any shortage of water, Ecology insists on introducing Rules to dramatically reduce well water rights. If successful, Ecology will expand government and assume control of a basic human requirement for life at their determined monetary cost. Current scientific data concerning well water withdrawals doesn't support Ecology's new proposed Rules!
Larry Helm

Response:

Thank you for sharing your viewpoint. Ecology is implementing this rulemaking as required under RCW 90.94.020. Please see response to Comment I-157-1 for information about small uses of water.

Please see the general responses on “Fairness / Not Fair” and “Authority for Rulemaking” for more information on Ecology’s interpretation of the 2018 law’s direction regarding setting a conservation standard.

Ecology used 2018 guidance (“ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates,” Ecology Publication #18-11-007) to develop offset estimates, as well as significant data and information developed and agreed to during the local WRIA 1 Streamflow Restoration planning processes.

Additional information on how water use limits and consumptive use estimates is available in Chapters 3-4 of the RSD. Please see general responses on “Comparison of Other Water Use Limits” and “Authority for Rulemaking” for additional information.

Commenter: Trish Rolfe - Comment O-3-2

Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia, WA 98504-7600 January 16, 2020 Dear Ms. Sawabini: The Center for Environmental Law and Policy appreciates this opportunity to provide comments on the Washington Department of Ecology's Proposed Amendments to WAC 173-501 (the "Proposed Rule"), and the associated "Rule Supporting Document." CELP believes that the Proposed Rule fails to meet the requirements of the 2018 Streamflow Restoration Act (RCW 90.94) and would be vulnerable to challenge should it become effective. There are significant flaws in the assumptions used to calculate projected new permit-exempt water use, which would lead to a failure to provide adequate water to offset these uses. The projects identified as sources of offset water are in many cases very uncertain to be carried out or to generate the projected water offsets, and in some cases have not been demonstrated to be feasible. Perhaps of greatest concern, the reliance on a "Rule Supporting Document" (RSD), which appears to have no binding force or effect, to ostensibly meet the statute's requirements that water use be offset and a "Net Ecological Benefit" for the watershed be produced provides no assurance that any of the projects identified would ever be carried out. Further, the adaptive management program as described appears to be wholly ineffective. Both the Proposed Rule and the RSD wholly ignore the likely effects of climate change, which will predictably alter both water use and water availability patterns. CELP suggests that the better approach would be to make compliance with RCW 90.94.020's offset requirement a condition for the continued availability of new permit-exempt water use. This would not only ensure that new water use be offset, as the Legislature commanded, but would provide the opportunity to correct for climate change effects.

Response:

Ecology believes the calculations of projected new water uses in the RSD are consistent with Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) and WR POL-2094. Please see responses to Comments T-2-6, O-3-6, and O-3-7.

Ecology understands there is inherent uncertainty associated with future projections—whether they be population projections or project implementation. However, the agency believes the projects and actions identified in Chapter 6 of the RSD, as well as the adaptive management provided for in Chapter 7 of the RSD achieve NEB. Of the 14 listed projects, 8 are funded or partially funded, and three are actively seeking grant funding from the 2020 Streamflow Restoration grant cycle. This high level of interest in pursuing the projects helps provide certainty of implementation and clear community support.

Further, it is expected that the projected consumptive use calculations (including the safety factor) in each of the three aggregated subbasins where complete offsets are not achieved, are conservative, because they likely overestimate the required offset amounts. This provides for additional levels of certainty that offsets are met and NEB is achieved in the WRIA, in case certain projects are not implemented and/or don't achieve the anticipated results.

Please see responses to Comments O-3-6 and O-3-7.

Ecology respectfully disagrees with your effectiveness statement. Please see responses to Comments O-3-6 and O-3-13.

Ecology appreciates your concerns regarding climate change. Please see responses to Comments O-3-10 and O-3-12.

Thank you for your suggestion to include provisions that would predicate new domestic permit-exempt well use on the implementation of projects to offset the impacts of such use. However, that would be contrary to the law the Legislature enacted with ESSB 6091 (primarily codified as chapter 90.94 RCW). The Legislature specifically decouples the use of new permit-exempt wells from the implementation of projects and actions to achieve offsets, see RCW 90.94.020(1):

…potential impacts on a closed water body and potential impairment to an instream flow are authorized for new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 through compliance with the requirements established in this section….

Under this provision, the Legislature has allowed new permit-exempt groundwater use to cause impacts and impairment on closed water bodies and instream flows. At the same time, the law also includes requirements that are intended to offset the effects caused by these new water uses, by specifically allowing out-of-time and out-of-place offsets. See RCW 90.94.020, WR POL-2094, and Interim Guidance for Determining Net Ecological Benefit. The agency appreciates that some stakeholders may not agree with this "decoupling" approach; however, Ecology must implement the law as written, and be consistent with its Policy and Guidance documents.

Commenter: Max Perry - Comment OTH-3-3

MR. PERRY: Max Perry. I'm from Whatcom County. I've been on the Planning Unit since it began here -- I've been working on it since '91. We just got word today at the meeting we had that there were 23 houses built that required exempt wells all of 2019, all of last year. In 2018 there were eight. So I would defy any that require metering (indiscernible words) that -- to even measure -- even measure the amount of water that comes from those wells. So we have a well. We have a septic system on our well. We've been there for 50 years, 51 years. And the water -- all the water that we use in the house and that we use outside -- we have quite a large garden and we water that in the summertime because to grow things, you have to keep water on it. And most of that water, except for the irrigation part of it, partly there's some evaporation in that, but the rest of the house water, I would estimate that 85 to 90 percent of that goes right back in my septic tank, goes back in the aquifer, goes back -- we're adjacent to Deer Creek, and it goes eventually back in Deer Creek through the ground and purified from that. So all I'm saying is that with this number of wells that's been dug in two years -- and granted, you have to go for 20 years, and I don't see a large number -- a large increase happening on that -- because of the things they have -- between the County and the City and the growth of the -- how much are going to (indiscernible word) in the County, so I don't think (indiscernible words), and I would just recommend that the gallons go back to what we have for the existing 5,000 gallons per day. Thank you.

Response:

Thank you for sharing your experience in Whatcom County. Please see response to general response on **"**Fairness / Not Fair."

Please note that the rulemaking does not affect existing domestic permit-exempt well users, such as yourself. Since your permit-exempt well appears to predate RCW 90.94.020, limits to your permit-exempt water use are authorized under RCW 90.44.050 and include up to 5,000 gpd for domestic use and up to ½-acre non-commercial lawn and garden.

Commenter: Cliff Langley - Comment OTH-5-1

MR. LANGLEY: I'm Cliff Langley, a resident of Whatcom County in the WRIA 1 district, and I am a member of the Private Well Owners' Caucus. I would like to start out by saying that the Washington State Constitution was modeled after the U.S. Constitution, which if followed was designed to limit government and allow and preserve the rights of individuals. We find ourselves in a time and situation where that is not true and that people have no confidence that they are being listened to. Now, regarding what we're here today for, there is consideration that rules being made which affect private exempt wells, wells which have the least effect and not really have been proven to affect stream flow, rules that will greatly affect usage of private rules, but in all practicality can't be enforced. In 2018 the Whatcom County Planning Unit was working on a plan that would satisfy 6091. As you know, we came up with a plan that was passed by a super majority of caucuses in the Planning Unit, but that was not enough to put it into place. So now you are intending to implement a plan here that is different from what the super majority of the Whatcom County Planning Unit approved. What you are proposing, I believe, is unreasonable when the volume of water drawn by these 15 wells is compared to the volume of water in the Nooksack water basin.

I spoke with a State licensed engineer who is a member of our caucus and has spent considerable time investigating this. He told me that if, in fact, the volume of water drawn out of the ground by all exempt wells, both current and estimated future, was at the maximum allowed by the Planning Unit plan, it would still be within the allowable margin of error when measured in decreased stream flow caused by exempt well withdrawal, especially when you consider that 90 percent of the water drawn is returned to the ground and does not go into the sewer where it is eventually pumped into the Sound.

On behalf of the private well owners, current and future, I am asking that you reconsider what you're doing and adopt the recommendations that the overwhelming majority of caucuses of the Whatcom County Planning Unit approved. Thank you.

Response:

Ecology appreciates all the efforts undertaken as a part of the WRIA 1 Streamflow Restoration planning process. Since a Watershed Management Plan Update was not approved locally, Ecology is required to undertake this rulemaking. Please see Chapter 1 of the RSD, and general response on "Fairness / Not Fair."

Please see responses to Comments OTH-1-1 and I-157-1 for additional information.

Commenter: Bill Clarke - Comment O-7-2

Comments on Proposed Amendments to Chapter 173-501 WAC Nooksack Instream Flow Rule Bill Clarke, for Washington REALTORS® 1. The Rule Creates an Overly Complicated System That Increases the Amount of Time, Money, and Human Resources Devoted to Analyzing and Regulating Small Water Uses (That Will be Offset Anyway) Over the past 20 years, the increasingly complexity of Ecology's instream flow rules on exempt wells has created significant problems for landowners, local governments, and agency itself – all without a commensurate water resource benefits. The implementation of ESSB 6091 is an opportunity to end this trend, and redirect water resource efforts toward more significant issues. Under ESSB 6091, the consumptive use from new domestic exempt wells will be entirely offset by projects within the Nooksack Basin – so why both offset consumptive use projections AND create a complicated regulatory system? Ecology's proposed rule would establish a number of different limits, under different situations, that unnecessarily limit homeowners and that neither Ecology or local governments are or should be staffed or funded to implement in a meaningful way. For example, the rule proposes a daily gallon per day limit of 500 gallons per day – as opposed to a much simpler to implement metric of a maximum average annual withdrawal, used by the Legislature in ESSB 6091. RCW 90.94.020(5)(f)(ii). The proposed rule limits outdoor irrigation to 1/12th of an acre per single domestic connection. These limits are far lower than those adopted by the Legislature in ESSB 6091, and far less than what a reasonable homeowner may need to use. Further, Ecology's rule analysis compares the proposed Nooksack limits to those in other recent Ecology instream flow rules (Stillaguamish, Entiat, Quilcene, etc.). The significant difference is that in the Nooksack Basin under ESSB 6091, all new domestic exempt use will be offset through instream flow projects. In the other WRIA rules used for comparison by Ecology, there is no such equivalent provision. And ironically, Ecology's rule analysis does mention, let alone analyze, its most recent adopted instream flow rule, Chapter 173-557 WAC, for the Spokane River. In that rule, Ecology adopted a far simpler rule structure without domestic exempt well limits and instead acquired water rights to offset future projected exempt well consumptive uses. The drought limits also create complexity, especially given the increasing occurrence of declared droughts in Washington State. Outdoor irrigation can be curtailed during a declared drought, but only to the extent that the outdoor irrigation is not "subsistence gardening." That likely means that lawns, flowers, and non-fruit bearing bushes and trees could not be irrigated, but food-bearing crops could still be irrigated in a drought. Taken together, this means that by adopting such a proposed rule, Ecology is creating the expectation that it will meaningfully enforce the variety of limits during nondrought and drought conditions on new domestic exempt wells. If Ecology's objective is to reduce consumptive outdoor water by exempt wells, its priority should be on those exempt well users whose outdoor use exceeds the ½ acre noncommercial lawn and garden limit in RCW 90.44.050. The irrigation acreage analysis provided to Ecology by RH2 Engineering shows that 34% of homes built between 2000 and 2014 have no outdoor irrigation at all; and that if irrigation over ½ acre was eliminated, the mean area irrigated by homes built during this time period would be only .18 acres, about 1/3 of what could be lawfully irrigated under the ½ acre noncommercial lawn and garden limit in RCW 90.44.050.

Response:

Thank you for your comment. Ecology respectfully disagrees that the indoor and outdoor water use limits are more complicated. Ecology believes that the proposed indoor and outdoor domestic use limits are easy to understand and implement. Since Ecology is not requiring metering and reporting of daily water use for all new domestic permit-exempt wells, the agency believes that an indoor quantity and an outdoor acreage limit are easier for homeowners and regulatory staff to understand, and for Ecology to explain and enforce.

Ecology respectfully disagrees that the outdoor irrigation limits are far lower than what a reasonable land owner needs to use; please see general responses to "Fairness / Not Fair" and "Comparison of Other Water Use Limits."

As compared to the Spokane Rule (Chapter 173-557 WAC) example, during the Streamflow Restoration planning process and rulemaking for WRIA 1, no water rights were noted as available to purchase. Furthermore, the WRIA 1 agricultural community opposed purchase of irrigation water rights to use for offsets for new domestic permit-exempt uses. In addition, the total number of anticipated new domestic-exempt wells will likely be less than 100 homes for the area covered by the Spokane Rule as most of the area covered by that rule is served by public water purveyors. In contrast, in WRIA 1, it is projected that 2,150 new homes scattered among 9 aggregated subbasins will begin using new permit-exempt wells during the planning horizon.

Ecology believes the opportunity to reduce outdoor irrigation of new permit-exempt wells during declared droughts remains an important action in achieving NEB in the watershed. Please see response to Comment I-160-2.

Thank you for your recommendations for future enforcement and compliance activities in the watershed.

Comments on General – Support

Commenter: Rachel Oman - Comment I-27-1

I Don't Agree with NAR

As a member of the National Association of Realtors and a resident of Whatcom County currently living on a private well, I am firmly in agreement with the proposed rule governing the use of permit-exempt wells.

Based on the average consumer indoor use of water (80-100 gallons per day) I believe 500 gallons per day is justified and reasonable. I also think that it makes sense to restrict non-commercial outdoor watering so that water usage can be prioritized for food production.

I would like to go on record with my dissent. I am deeply disappointed in the stance that NAR has taken on this issue.

Response:

Thank you for your comment.

Commenter: Robert Vadas, Jr. - Comment I-1-1

As an instream-flow biologist who has done extensive field & watershed-planning work in WRIA 1, I heartily endorse limits on groundwater withdrawals by new landowners. Indeed, standard withdrawal limits are too high & don't encourage water conservation, the latter of which I've done & gotten utility-bill reductions every month since I've owned my home in Thurston County. Moreover, streamflow & riparian restoration of Bertrand Cr. (given irrigation impacts) & the S. Fk. Nooksack R. (given climate change) are important for instream-flow & thermal benefits to Pacific salmonids.

-Bob Vadas, Jr.

Response:

Thank you for your comment.

Commenter: Oliver Grah - Comment OTH-3-4

MR. GRAH: Yes, my name is Oliver Grah, and I'm here to provide comment as an individual. I am the Water Resource Program Manager for the Nooksack Indian Tribe, but I'm not here to represent policy on behalf of the Tribe. I would like to say that I'm generally supportive of the draft rule. It's movement in the right direction. Water resources are limited in the Nooksack basin, and when references are made to all of the precipitation that falls in the watershed, that precipitation, the excess precipitation, shows up as peak flow in the wintertime when there isn't a high demand for water use. And stream flows are quite low during the summertime when there is a high demand. So I wanted to make that point. Another point I'd like to make is that the WRIA 1 Watershed Management Board also provided quite a bit of technical input into this process, and I just want this audience to understand and recognize all of that work that the Management Board put into the process as well. When I say that I'm generally supportive of the draft rule, there are some exceptions. And a lot of our comments -- when I say our, the Nooksack Indian Tribe's comment letter on the preliminary draft rule -- there's a lot of technical information in that letter that we don't see how it was taken into consideration going through the preliminary draft rule to the draft rule. And we'd love an opportunity to talk with Ecology in the detail about the path from the preliminary draft rule to the draft rule in regard to all of our technical comments that we brought up. And again, I appreciate our collaborative relationship with Ecology and the great work that the staff does. And again, in summary, I believe that this draft rule is a step in the right direction in terms of more effective management of water resources in the Nooksack Basin. Thank you.

Response:

Ecology appreciates the efforts of the WRIA 1 Streamflow Restoration planning participants, including all the technical input provided by the Watershed Management Board. Ecology

appreciates the collaborative relationship it has with the Nooksack Indian Tribe. Thank you for your comment.

Comments on Consumptive Use

Commenter: Molly Crocker - Comment I-164-3

2. The amount of use by private well owners, at 3,000 gpd per connection, is small. The population of Whatcom County is roughly 227,000. About 131,000 live in the incorporated cities, leaving 96,000 people in water associations, water districts, and private wells. If household size is 2.56 persons, then there are 37,584 households. If each of these households IS withdrawing 3000 gallons per day (this is enough to water 1/2 acre in a year when there is NO rainfall), this amount is 15 million cubic feet per day, or 174 CUBIC feet per second. September 14 is historically the Nooksack's lowest flow day of the year. At an average of 1,510 cubic feet per second, all households drawing from groundwater (water associations, water districts, private wells) compare to 12% of Nooksack flow on this day. •Unlike city water users that process sewage and either return it to the river or put it into Bellingham Bay, rural homes on septic systems recycle nearly all of the water used back into the ground. Let's assume it is 90% 'recycled' (where else dogs it go, besides a septic system?). Now that comparison is 1.2% for the flow of the Nooksack on its lowest flow day of the year, for ALL homes using groundwater, including water associations, water districts, private wells. •The Nooksack flow cannot be measured within 1.2% accuracy.

3. Groundwater is not stream water. Wells do not withdraw from a stream. It has never been shown that groundwater withdrawals, especially the small amount drawn by private wells, depletes water in a stream. •The Bertrand Creek project draws water from the ground and puts it directly into the stream. It increases stream flow. •Agriculture and those that draw from the ground for irrigation put it back onto the ground where it either filters back to the ground or to a stream. No studies have been done, but summer irrigation may actually help increase summer stream flow. Indeed, 50 years ago Whatcom County had more acreage under tillage and (less efficient) irrigation, and more water and fish in the streams. This connection needs to be explored.

Response:

Thank you for your comments. The volume of water in the Nooksack Basin does fluctuate over the course of the water year. Summer is typically the lowest flow time of the year. The volume of new consumptive water uses anticipated from the forecasted 2,150 permit-exempt new homes in the watershed will be small compared to the summer low flow rate of the mainstem Nooksack River (see Table 9.1 in the RSD for estimates). In many of the smaller tributaries, summer low flows are often in the single digits. In most cases the impacts to streamflow from new uses will be small. Case law is very clear that unmeasurable isn’t the same as incalculable, and RCW 90.94.020 is clear about the offset and NEB requirements, regardless of measurability. New domestic permit-exempt uses will impair streamflows in closed basins. RCW 90.94.020(1) authorizes those impacts through compliance with the requirements in the statute.

Ecology doesn't agree with your opinion that groundwater pumping doesn't deplete streamflow. On the contrary, in most watersheds, it's a relatively rare circumstance where groundwater pumping doesn't impact streamflow. Deep wells pumping confined aquifers near the coastline in WRIA 1 may not interact with freshwater resources. See Chapter 4.2.4 of the RSD outlining Ecology's calculations of streamflow depletion by groundwater pumping. Additional information can be found in a USGS publication dedicated to a discussion of streamflow depletion from groundwater pumping: Barlow, P.M., and Leake, S.A., 2012, Streamflow depletion by wells—Understanding and managing the effects of groundwater pumping on streamflow: U.S. Geological Survey Circular 1376, 84 p. (Available at http://pubs.usgs.gov/circ/1376/).

Commenter: Ross Cline, Sr. - Comment T-3-8

• Consumptive use impacts: Consumptive use must be offset and the safety factor should be applied to the theoretical maximum use to increase certainty that net ecological benefit will be met. o Crop irrigation requirements (CIRs) are based on estimates from an earlier, cooler climate period. A warming atmosphere with reduced soil moistures have been documented over the last century in WRIA 1. As such, the CIRs need to be adjusted upwards to represent a warmer and drier climate. We appreciate the analysis to estimate the seasonal streamflow depletion of permit-exempt well withdrawals to support the assertion that annually-averaged water use approximates their streamflow depletion effects. Given the sensitivity of streamflow depletion to well proximity to the stream, however, we would like to see regulatory mechanisms established to ensure that wells are located on a property so as to minimize streamflow depletion effects. We do note that the distance from the parcel centroid to an adjacent stream is less than 300 ft— the smallest distance employed in the STRMDEPL08 analysis - for over 20*of the parcels in the Berk 2018 growth scenario. We remain concerned about the cumulative streamflow depletion impact of existing and future permit-exempt wells, both for the next 20 years and beyond, and urge Ecology to establish limits that are informed by such a cumulative impact analysis.

Response:

Thank you for your comments. It is Ecology's standard to use the Washington Irrigation Guide CIRs. The current Washington Irrigation Guide was published in 1985, with supplemental data added in 1992.

Climate change is occurring within the watershed. For example, more recent CIR work conducted by WSU did derive different CIR values (https://www.researchgate.net/publication/271421378_Revising_Crop_Coefficient_for_Washington_Sate). In general their values for turf grass were reduced by 10 to 20% over what's in the Washington Irrigation Guide. While they used more current climate parameters which represent a warmer and drier climate, they also used best available science to improve the formulas and methodologies used to calculate evapotranspiration rates. This led to their reduction noted above.

The CIR numbers used in the RSD are more protective of the resource as they likely overestimate the volume of water needed by lawns and gardens. Ecology used those volumes to inform the total offset volume of 390 acre-feet per year (see Table 4.1 in the RSD), this

methodology derives larger offset volumes than what would be calculated if Ecology used more current CIR methodologies.

New homes will be built in many locations throughout the watershed, some closer to the streams and others much further from the streams (see Figure 4.4 in the RSD for the locations of new homes built between 2000 and 2014). Ecology calculated the stream depletion impacts at the same distances as were used in the USGS publication for illustrative purposes only. It wasn't intended to be encompassing of all possible distances.

Distance of the well to its adjacent stream is an important consideration. Also important is the well depth and whether it is a confined or unconfined aquifer.

Ecology assumed that all of the new wells will behave as water table wells. At the subbasin scale, this will over predict the stream depletion impacts to nearby surface water sources for confined wells because confined well impacts will be more diffuse than water table wells.

Ecology's analytical modeling results do indicate that depletion impacts don't even reach the steady-state average of the pumping rate (see Section 4.2.4 in the RSD) and as such, using steady-state depletion rates for offset estimation is protective of the resource.

Commenter: Oliver Grah - Comment I-161-7

Draft Rule Supporting Documentation: • Consumptive use impacts: o Consumptive use must be offset and the safety factor should be applied to the theoretical maximum use to increase certainty that net ecological benefit will be met. o Crop irrigation requirements (CIRs) are based on estimates from an earlier, cooler climate period. A warming atmosphere with reduced soil moistures have been documented over the last century in WRIA 1. As such, the CIRs need to be adjusted upwards to represent a warmer and drier climate. o We appreciate the analysis to estimate the seasonal streamflow depletion of permit-exempt well withdrawals to support the assertion that annually-averaged water use approximates their streamflow depletion effects. Given the sensitivity of streamflow depletion to well proximity to the stream, however, we would like to see regulatory mechanisms established to ensure that wells are located on a property so as to minimize streamflow depletion effects. We do note that the distance from the parcel centroid to an adjacent stream is less than 300 ft – the smallest distance employed in the STRMDEPL08 analysis - for over 20% of the parcels in the Berk 2018 growth scenario. o We remain concerned about the cumulative streamflow depletion impact of existing and future permit-exempt wells, both for the next 20 years and beyond, and urge Ecology to establish limits that are informed by such a cumulative impact analysis.

Response:

Thank you for your comment. Please see the Response to Comment T-3-8 for information about CIRs.

Changing well setback requirements is outside the scope of this rule amendment.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its

conclusion that the projects and actions--including the rule amendment conservation standard--gives Ecology reasonable certainty of achieving NEB. Chapter 90.94 RCW does not direct Ecology to offset the consumptive use impacts of existing homes in WRIA 1; please see Ecology's WR POL-2094 for additional information.

Commenter: Merle Jefferson - Comment T-2-6

3. Crop Irrigation Requirements: The Crop Irrigation Requirement (CIR) used in the preliminary draft rule calculations should be nearly 25% higher for pasture/turf based On recent water rights work completed by Ecology contractors (e.g., Protested Report Of Examination for Water Right Change, Water Right Number: GWC 2776(A) [G1-*04184C(A)], WR Doc ID 6800738). Without adjustment, Ecology stands to substantially underestimate actual irrigation demand. 4. Safety Factor: We agree a safety factor is needed. However, it should be applied to consumptive use estimates that already incorporate known sources of uncertainty. For example, the CIR should be part of the consumptive use estimate to which the safety factor is applied. In addition, the safety factor as applied in the preliminary draft rule does not account for either the 500 gpd indoor water use limit, or, since there is no metering or enforcement, of 3,000 gpd annual average or 5,000 gpd daily maximum use limits.

Response:

Thank you for your comments. See response for Comment T-3-8. Ecology believes the CIR numbers used overestimate irrigation demands associated with new permit-exempt uses. The safety factor was applied to the calculated consumptive use number which does include the CIR-calculated outdoor use; see Discussion in Chapter 4.2 of the RSD.

The total offset target of 390 acre-feet per year is larger than the hypothetical offset volume calculated by presuming that every new home used the full maximum indoor withdrawal limit of 500 GPD (see Table 4.1 in the RSD and the discussion in Section 4.2.3). At 60 GPD per person, getting to 500 GPD of indoor use requires all 2,150 anticipated new homes have an average of 8+ occupants. This is an unlikely scenario. It's also not realistic to suggest that all 2,150 new homes would use an equivalent of 3,000 gallons per day as a maximum annual average.

If new homes use more water than allowed, they may be regulated under Ecology's existing authorities. Other new homes will chose to have no outdoor irrigation footprint. Ecology calculated offsets assuming all new homes use the maximum irrigation footprint allowed under the rule amendment.

Commenter: Shannon Moore - Comment I-162-3

Crop irrigation (CIR): The Department needs to rework the calculations on this subject. The pasture /turf calculation could be much higher. I'll use Deer Creek (01-0155, lower reach) for example. Surface water irrigation of pasture with water gun. In this case, 25% of the water shot from this devise did not hit the ground, but evaporated during the heat of summer. In another case, I'll use 10 Mile Creek (0l-0163, middle reach) for example. Pasture irrigation from this water gun was off target on a regular basis, landing on the hot highway surface, evaporating during the summer heat. Safety Factor: Erroring on the side of conservation, safety factors are

needed. Some metering is needed in sub-basin that experience low flows, putting instream resources at risk. Additional stream gauges should be considered as a safety factor. Perhaps, "water use efficiency methods" would fit well in this section. Some of the original stream gauge stations used to collect flow data have been moved. Has this skewed data collection?

Response:

Thank you for your comments. Ecology believes an application efficiency of 75% is appropriate to use when calculating irrigation efficiency associated with new domestic permit-exempt wells irrigating a 1/12th of an acre-sized lawn and garden surrounding a new home. The methodology used here is consistent with Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007).

Ecology encourages all water users to apply water as efficiently as possible to be protective of the resource. Wasting water is not allowed by statue. Project ID 46NG in the RSD on page 46 is a county-wide program, partially sponsored by Whatcom County, to help educate all homeowners about water conservation measures.

You are correct that some of the original stream gages used in chapter 173-501 WAC are no longer in service. Stream gages are likely not accurate enough to allow the physical measurement of impacts from individual new domestic permit-exempt consumptive uses. Instead, Ecology incorporated a safety factor into its consumptive use estimate. See Chapter 4.2.2 in the RSD for a discussion of the safety factor.

Commenter: Trish Rolfe - Comment O-3-8

Ecology's calculations of the likely amount of consumptive use are not as conservative as would be prudent. As discussed above, Ecology's assumption that consumptive use offsets will assure that summer groundwater pumping will not result in further depletion of late summer low flows cries out for verification. Another assumption is that future domestic permit-exempt well users will adhere to the assumed pumping limits, particularly the limit of lawn/garden sizes to no larger than 1/12 acre (0.083 acre). This is an important assumption because the vast majority of domestic consumptive use comes from outdoor watering.33 Outdoor watering is assumed to be 80% consumptive, whereas indoor domestic consumptive use is assumed to be 10% consumptive (when the house is hooked up to a septic tank).34 The Nooksack watershed consultants modeled scenarios that ranged from indoor use only to 5000 gpd indoor use and irrigation of half an acre. Total consumptive use ranged from 33 acre-feet per year to 12,421 acre-feet per year. The Nooksack watershed planners eventually settled on a figure of 647 acre-feet per year as being a good planning estimate for consumptive use over the next 20 years.35 In contrast, based upon its selection of 156 gpd for indoor use and 1/12 acre of outdoor watering, Ecology estimated that all the new growth would result in just 260 acre-feet per year – less than half the watershed's estimate of future annual use. Ecology then applied its 150% safety factor and its estimate of future annual use went up to 390 acre-feet per year – still much less than the watershed's estimate.36 In developing a "maximum use" estimate, Ecology used the 500 gpd indoor use estimate but did not change its assumption that no one would irrigate more than 1/12 of an acre – even though the average lawn and garden size was found to be a 0.28 of an acre and even though

there is no provision in the Proposed Rule for enforcing the limits by either local governments or Ecology.37 This is not conservative and will likely result in underestimating actual future consumptive groundwater use.

Response:

Thank you for your comments. The Planning Unit did settle in on a consumptive use figure of 647 acre-feet per year. That value was calculated using a modified average irrigation footprint as determined by consultants; see the discussion in Chapters 4.1 and 4.2.1 of the RSD for additional information. With outdoor irrigation footprints for new domestic permit-exempt uses set at a maximum of $1/12^{th}$ of an acre as outlined in WAC 173-501-065(5)(a), the calculated volume of consumptively used water is reduced.

Please see response to Comment T-3-7 regarding enforcement. Please also see Chapter 7 of the RSD for adaptive management information.

Commenter: Trish Rolfe - Comment O-3-10

Consumptive Use Analysis Must Include Anticipated Climate Change Conditions As written, the Proposed Rule along with its Supporting Document fails to consider likely effects of climate change in estimating consumptive use of permit-exempt groundwater. The Proposed Rule does include some provisions that are wise in the face of a changing climate, but these do not go far enough. While the 500 gallon per day limit is an improvement over the 3,000 gallons per day allowed by RCW 90.44.050, it should be noted that even 500 gallons per day is significantly greater than nationwide average water use.51 With many rivers in WRIA 1 regularly below the minimum instream flow limits as it is, the 3,000 gallon limit is untenable. We also support the Proposed Rule's outdoor irrigation limit of 1/12 acre. Outdoor water consumption is a significant driver of water use and the overwhelming driver of consumptive use.52 The agency must dedicate resources to ensuring that these limits are followed, particularly because they underpin the consumptive use calculation. If new homes do not comply with these figures or they are not enforced, the consumptive use calculation used to generate the RSD will not represent the actual impact to the watershed. We suggest that water use from new permit-exempt wells should be metered, in order to determine how much water is actually being used. The RSD includes a 50% safety factor on top of the consumptive use estimate, in order to "address the inherent uncertainty" behind each assumption. CELP strongly feels that this is a prudent strategy. However, climate change is likely to introduce substantial additional uncertainties in water use. Specifically, the consumptive use estimate is flawed because it does not consider how climate change will impact population migration, irrigation needs, and evaporation rates. Because of these omissions, the actual consumptive use figure is very likely larger than represented in the supporting document. Simply adding a percentage on top, without analyzing an essential factor, is inadequate even if well-intentioned. Furthermore, the RSD asks the safety factor to do too much. The safety factor cannot both capture the inherent uncertainty behind the factors that Ecology considered and incorporate the factors the agency failed to consider. A few specific instances where climate change must be considered when calculating consumptive use are discussed below.

Response:

Thank you for your comments. We agree that outdoor domestic water use affects the required offsets. Chapter 90.94 RCW does not address climate change conditions nor mandate that Ecology consider such conditions. See response to Comment O-3-10.

RCW 90.94.020 directs the agency to evaluate and offset the impacts from a small subset of water users in WRIA 1, namely the consumptive use impacts from new domestic permit-exempt well users that come into the watershed between 2018 and 2038. In identifying and including projects and actions to meet the offset requirement and achieve NEB, Ecology encourages all project proponents to consider climate change impacts as a component of their grant applications (see Ecology Publication 19-11-089).

Commenter: Max Perry - Comment OTH-4-7

MR. PERRY: Max Perry, Whatcom County. And I just want to address that what exempt wells use and what they return back into, in place, in time, into the aquifer, into the water system. As I mentioned last -- yesterday -- last night, we've been there at our place for 50 years, and I don't have the exact gallonage that Rick had, Rick Maricle, but we do water. We do raise a garden and keep everything going. But it's estimated that for our indoor use that up to 90 percent -- or around 90 percent -- goes back into the septic tank, back into the aquifer, back into -- by our place, Deer Creek, that's just down the hill from us. And that most exempt wells will use the same thing. They'll use septic systems the same way, and so your septic systems will go back into that, into the -- again, return back into the ground for the indoor use. So the irrigation use then is probably not as efficient, but it's up to 70 to 75 percent efficient for irrigation. Some evaporation on that. So all that is saying is that the wells that you're talking about for the next 20 years, the amount of water consumed out of the system is negligible. Most of the wells will have a septic system also, and so it would be returning back into the aquifer. So thank you.

Response:

Thank you for your comments. Ecology factored the indoor consumptive use at 90% return flow to the system. The agency factored the outside lawn and garden watering at 20% return flow to the system. Both calculations are consistent with Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007). Please see Chapter 4.1 in the RSD for additional details.

Commenter: Max Perry - Comment OTH-5-5

MR. PERRY: Max Perry, Whatcom County. I spoke yesterday about our -- most wells are -- exempt wells -- are on rural septic systems. And for a 500-per-gallon-per-day usage for a rural exempt well with an 80 percent return, that's 400 gallons that (indiscernible words) back into the water system, your water well -- water aquifer. If it's 90 percent, it's 450 gallons back in the aquifer, and I would probably argue with Mr. Covert about the irrigation being 90 percent consumptive. I don't agree with that. Perhaps that would be for a large agriculture operation with large guns and this type of thing, if that's what he's thinking of. But with a home system, 3,000 gallons, I estimate that -- and I've researched some of this -- that it's 70 percent attrition. And

with 70 percent attrition, 3,000 gallons, 2,100 gallons per day goes back into your water table, water aquifer. So all I'm saying is that, just like Mr. Isaacson showed the graph with the wells being such a minute part of the water, total water, it's absurd to have the restrictions that you're talking about on these. Thank you.

Response:

Thank you for your comments. See the response for OTH-4-7. The agency respectfully disagrees with the consumptive use numbers in this comment.

Commenter: Bill Clarke - Comment O-7-3

2. The Rule Analysis Greatly Overestimates the Impact to Instream Flows Associated With New Domestic Exempt Wells. Ecology's rule analysis greatly overestimates the impact of new exempt wells on instream flows by improperly focusing solely on the quantity of water withdrawn from new exempt wells, rather than calculating the actual impact on instream flows. One of the purposes of ESSB 6091 was to offset impacts to instream flows that may occur over the next 20 years. The statute is replete with some version of the phrase "impacts to instream flows" – see RCW 90.94.020(1) (. . . "potential impacts on a closed water body and potential impairment to an instream flow are authorized . . . "); .020(4)b) (". . . those actions . . . necessary to offset potential impacts to instream flows . . . ") The statute is not focused narrowly on the quantity of water withdrawn from wells, but rather, more broadly on impacts to instream flows associated with permit-exempt domestic water use." In contrast, Ecology's proposed rule, and related documents focus narrowly on the withdrawal from the well, not the impacts on instream flows. For example, the Ecology document "Recommendations for Water Use Estimates" document states: "ESSB 6091 requires offsetting the quantity of water consumptively used by future domestic permit exempt wells . . . " (Page 4). The statute is not tied narrowly to water "used by" the well as Ecology's document states – the statutory phrase is "impacts to instream flows "associated with" permit-exempt domestic water use. So, what is the actual, factual, "impact" over 20 years that is "associated with" domestic water use on instream flows? As to this question, Ecology's proposed rule and related guidance documents presume only those actions that will increase the "impact" on instream flows – but reject or ignore those actions that will reduce the instream flow impacts. In the construction of a new house, there will typically be the removal of existing vegetation, and the consequential reduction in water use. This will occur in those areas needed for the driveway, septic drainfield, building footprint, and other structures. Ecology's acknowledged this reality in the Water Use Spreadsheet from one of its "Net Ecological Benefit (NEB) Workshop, as the water use projections stated: "** Does not take into account direct and indirect impacts of property development – tree removal, impervious surfaces, stormwater control regulations." In the pre-development condition, vacant land will have a certain amount of consumptive water use, depending on the type of vegetation on site. Some of this vegetation (and thus the consumptive use associated with the vegetation) will be permanently removed as part of the home construction process. For example, if the diagram below represents a building parcel in the pre-development condition, home construction might eliminate 1/3 of the existing vegetation, and replace those areas with impervious surfaces that would have zero evapotranspiration: An additional way that the "impact" to instream flows is

being overestimated is lack of recognition of well depth. The removal of vegetation that occurs during development will reduce shallow groundwater use. In contrast, groundwater wells are much deeper than the root zone, and so will withdraw water that recharges shallower aquifers through septic return flows. In some cases, water is provided to shallow groundwater areas that contribute to streamflow only because of the withdrawal by the well and septic recharge. This combined effect of reduced vegetative evapotranspiration and deep-to-shallow recharge has been documented. For example, see USGS Conceptual Model and Numerical Simulation of the Groundwater-flow System of Bainbridge Island, Washington (2011) https://pubs.usgs.gov/sir/2011/5021/. The USGS document stated as follows: "The calibrated model was used to simulate predevelopment conditions, during which no groundwater pumping or secondary recharge occurred and currently developed land was covered by conifer forests. Simulated water levels in the uppermost aquifer generally were slightly higher at the end of 2008 than under predevelopment conditions, likely due to increased recharge from septic system returns and decreased evapotranspiration due to reduced forest land cover." (Page 91) (Emphasis Added)

Response:

Thank you for your comments. The agency's calculations are consistent with Ecology's 2018 guidance ("ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates," Publication #18-11-007) and WR POL-2094. Please see Chapter 4.1 in the RSD for additional details.

Please see response to Comment OTH-4-15 regarding considering vegetation removal as an action to offset new domestic permit-exempt water use.

Ecology chose to be conservative in calculating the impacts from new permit-exempt wells, giving the agency reasonable assurance that the offset volumes identified in the RSD are protective of the resource. To achieve streamflow restoration, Ecology must determine that the portfolio of offset projects and actions exceeds the impacts to streamflow, to achieve a net ecological benefit.

Ecology equates the impacts to instream flows associated with new domestic permit-exempt water use by estimating their new consumptive uses and equating them to streamflow impacts, consistent with Ecology's 2018 guidance. Ecology recommends consumptive use as a surrogate for consumptive impact to eliminate the need for detailed hydrogeologic modeling, which is costly and unlikely feasible to complete within the limited planning timeframes provided in chapter 90.94 RCW.

Some of those new uses will be from aquifers whose depletion impacts on local streamflow will be less than the theoretical estimate and the offset estimates will be too high. Other new uses will be from shallow water table wells located so close to their associated streams that their impacts may be more transient than the theoretical steady-state estimates. This complexity is a reality. Taken in the whole, Ecology is confident that the approach meets the requirements of the law, and is consistent with Ecology's guidance, policy, and interpretive statements.

Commenter: Bill Clarke - Comment O-7-4

3. Robinson & Noble Analysis re: Water Balance "Associated With" Rural Development Further, during the period of time after the Hirst decision, but prior to passage of ESSB 6091, some counties required additional analysis of water use associated with rural residential development. An example of this is in the attached water balance analysis provided by Robinson & Noble for an actual single-family residential development in Pierce County. The analysis calculates all changes in consumptive water use from the "predevelopment" to "post-development" condition and estimates that the post-development condition will cause an increase in groundwater recharge of 485 gallons per day. This analysis is summarized in the report as follows: "In the post-development condition, groundwater use from the planned well is partially offset by the infiltration of septic return flow and the partial infiltration of water used outside the home. The decrease in evapotranspiration of the developed area of the property, when coupled with the decreased runoff and increased infiltration capacity of the amended soils, will result in an increased to the amount of water recharging the subsurface. The resulting water balance of this project entirely offsets the consumptive use from the proposed well on the property and provides an increase in recharge as a result of the post-development condition." (Page 8) Robinson & Noble – Pierce County/Sullivan Project Water Balance Analysis (Attachment A) Robinson & Noble also prepared a similar analysis for Washington REALTORS®, based on an actual development in Thurston County. (Water Balance Analysis, Typical Rural Large Lot Residential Developments in Western Washington, Attachment B) This analysis is based on an actual 10-lot, 50 acre development. For this analysis, the area of forested/vegetation cover and associated consumptive water use was calculated in the predevelopment condition, and compared to the area of outdoor irrigation and associated consumptive use, assumed indoor water use, and septic recharge. The analysis includes both a "high water use" scenario, based on assumptions developed by Ecology as part of the ESSB 6091 implementation, and a "moderate water use" scenario based on other reports (Culhane & Nazy, 2015; Golder, 2011). 6 For each lot, under the high water use scenario, groundwater recharge in the post-development condition increases by 277 gallons per day. In the moderate water use scenario, groundwater recharge increased by 1,041 gallons per day at each lot. The conclusion of the water balance analysis was summarized by Robinson & Noble as follows: "In the post-development condition, groundwater use from the planned well is partially offset by the infiltration of septic return flow and the partial infiltration of water used outside the home. The decrease in evapotranspiration of the developed area of the property, when coupled with the decreased runoff and increased infiltration capacity of the amended soils, results in an increase in the amount of water recharging the subsurface. Our analysis suggests that the resulting water balance of the project like this, under either water use scenario, more than completely offsets the consumptive use from the proposed well on the property, providing an increased amount of groundwater recharge under the post-development condition." (Water Balance Analysis, Typical Rural Large Lot Residential Developments in Western Washington, Page 5 – 6) (Emphasis Added) REALTORS® are not asking that the reduced water uses associated with vegetation removal be afforded any legal status as mitigation, or suggesting deforestation as a instream flow restoration strategy. Rather, if ESSB 6091 requires calculating and offsetting the "consumptive use impacts to instream flows associated with permit-exempt domestic water use"(RCW 90.94.020(4)(b)), then all actions – those that both

increase and decrease groundwater use – should be part of the calculation. This more holistic and hydrologically honest framework would great decrease the supposed "impact"(and in some cases show a benefit) to instream flows – thereby supporting a rule amendment that more closely reflects water needs of rural residents.

Response:

Thank you for your comments. Please see the response to Comment O-7-3.

Commenter: R. Perry Eskridge - Comment O-5-8

Bertrand Creek: Ecology's supporting document contains much information about Bertrand Creek located in the North Central portion of Whatcom County. This water body, situated in the heart of the agricultural area of Whatcom County, is perhaps the most burdened water body in the entire WRIA. Accordingly, Bertrand Creek and its hydrology has been studies comprehensively and the particular circumstances of that body are well understood by environmentalists, agricultural groups, land use professionals, and even local scientists. What is also interesting is that it is well known to persons in Whatcom County that a local respected hydrologist performed an evaluation on the effect of permit exempt wells in the Bertrand Creek watershed. That evaluation demonstrated that if 100 new permit exempt wells were constructed in the Bertrand Creek watershed, the impact on that stream would be negligible. Specifically, Mr. Lindsay writes: The exaggerated maximum worst-case potential impact to flow in Bertrand Creek from the 100 wells would be around 0.38 afd (3.8 % of late summer flow) and the more realistic impact estimate, based on 350 gpd of use, is around 0.027 afd, or only 0.3 of late summer flow. Assoc. Earth Sciences, Lindsay Memo, June 19, 2017, pg. 5 (Ex. "A"). Mr. Lindsay continues saying: Even in areas of the proposed numerical model with high data density, and good calibration data (Bertrand Creek drainage), the extremely conservative estimate of maximum potential impact to surface water from the use of 100 permit-exempt wells will be significantly less than the lowest possible streamflow measurement error that will be used to calibrate the model. The more realistic potential impact of 0.027 afd is less than 6% of the potential error associated with the streamflow measurement data. Therefore, any simulated predicted impact to the stream based on this scenario would be statistically insignificant and not defensible. Id. The conclusion from this modeling seems to oppose, diametrically, the conclusion that Ecology has suggested that further withdrawal limits are necessary. If 100 wells have a negligible impact on a highly appropriated water body, so negligible as to be almost undetectable, it is not possible that further restrictions WRIA-wide are necessary or warranted.

Response:

Thank you for your comments. Ecology agrees that the impacts from new domestic permit-exempt uses may be small and likely unmeasurable in many areas of the WRIA given the lack of precision with which streamflow can be measured in the natural environment. Case law is very clear that unmeasurable isn't the same as incalculable and chapter 90.94.020 RCW is clear about the offset and NEB requirements, regardless of measurability. New domestic permit-exempt uses will impair streamflow in closed basins. Please see response to Comment I-164-3.

Comments on Offsets

Commenter: Skip Richards - Comment I-134-6

1.4. Basis in law for the proposed rule amendment's use reductions: Ecology's proposed amendment to WAC 173-501 calls for a reduction in indoor use from 3,000 gpd to 500 gpd, and a reduction in outdoor watering from 1/2 acre to 1/12 acre. Both of these reductions are by a factor of six. (There is nothing in particular, stated or implied, in any of Ecology's documents, to suggest that the equivalence in reduction factors is anything but a coincidence.) Since Ecology has identified projects that, if implemented over the 20 years, would offset consumptive use, and provide NEB, and by an order of magnitude greater than Ecology's estimated streamflow impacts, why does Ecology proposed to reduce indoor and outdoor use by a factor of six? Ecology's SupportingDocll-093 describes its use reductions as follows: Consumptive Use Calculation "To calculate the consumptive use of new domestic permit-exempt wells in WRIA 1 from 2018- 2038, Ecology made slight adjustments to the original RH2 spreadsheet input parameters to reflect proposed Rule conditions. Adjustments to the spreadsheet included modifying the outdoor domestic irrigation area limit to 1/12 acre for non-commercial lawns and gardens, consistent with the proposed rule." "Assuming 2,150 new homes throughout the watershed, an average of 2.56 persons per home (153.6 GPD indoor use), and an anticipated maximum outdoor watering footprint of 1/12 acre (0.083 acres), results in 260 acre-feet per year of consumptive use for W'RIA 1 SupportingDoc11-093, pages 28-29. A big problem here is that Ecology appears to have worked the problem backwards, it set the use rates at 500 gpd indoor and 1/12 acre outdoor, then computed what the total consumptive use would be under those conditions. The calculations may be correct, but their results do not justify the use rate reductions; those results merely show what the outcome would be if those use rate reductions were adopted in the rule. In taking this approach, Ecology appears to have confused an explanation with a justification. Thus, the key question remains, why did Ecology choose to reduce the outdoor use area by a factor of six? SupportingDoc11-093 appears to provide no answer to this central question. Exploring SupportingDoc11-093, further, we find: Comparison of the Total Offset with a Maximum Use Scenario "For comparison's sake, Ecology thought it would be helpful to understand the hypothetical offset required if every new domestic permit-exempt well used the maximum volume legally available to it over the next 20 years (“maximum use scenario"). To calculate the maximum consumptive use, Ecology presumed full use of the indoor withdrawal limit of 500 GPD per new domestic permit-exempt well established in the proposed rule amendment language (500 GPD every day for every new domestic permit- exempt well). "To evaluate how assuming the maximum indoor water use for all new domestic permit-exempt wells impacts the consumptive use offset calculations, a consumptive use volume Was calculated assuming 2,150 new homes, an indoor water use of 500 GPD, and an outdoor irrigation footprint of 1/12 of an acre for every new home. The result is a total consumptive use volume of 343 acre-feet per year for WRIA 1. The majority of consumptive use associated with each new home is associated with the outdoor water use. As noted above, indoor water use is typically only 10 percent consumptive, while outdoor use is 80 percent consumptive. Tripling the indoor use rate from an average of 153.6 to the maximum 500 GPD, basin-wide in the calculations increases the offset required by 32 percent (83 acre-feet per year). This scenario’s

detailed results are included in Table 4.2." SupportingDoc11-093, pages 29 — 30. Ecology's use of the phrase "thought it would be helpful to understand" the maximum use scenario is puzzling. It would seem to be best practice to set the rule amendment's use rates based on the maximum use scenario, because while it might not be likely from year to year, it is possible. Doing so would have provided a more solid rationale for the "safety factor" Ecology seems to have pulled out of thin air, thus: Safety Factor to Calculate Total Offset "In order to account for uncertainty, Ecology is applying a safety factor to the 260 acre-feet per year consumptive use value. Adding a safety factor is consistent with county projections, the RH2 analysis, and the planning process. "Calculating the consumptive use volume required several assumptions related to, the number of new homes constructed over the specified twenty-year period; the occupancy rate; per capita water use; outdoor water use; efficiency of the use; the consumptive use fraction for all of this use; and the impacts of this collective use on the instream resources. "To address the uncertainty associated with each of these assumptions, Ecology chose to multiply the calculated consumptive use volume in each aggregated subbasin by a factor of 1.5, creating a total offset of 150%. "For the nine aggregated subbasins, the total volume required for the entire WRIA to offset new consumptive uses this safety factor is 390 acre-feet per year (consumptive use of 260 acre-feet per year multiplied by 1.5). " SupportingDoc11-093, page 29. But why a factor of 1.5 , exactly? Ecology does not show any calculations or provide any specific explanation why it derived the magnitude of that "safety factor." The remainder of Chapter 4 of SupportingDoc11-093 contains substantial material calculating and displaying results based on Ecology's proposed use reductions, but we find nothing that answers either of the questions posed above herein, On what technical basis did Ecology decide on use reductions of a factor of six? On what technical basis did Ecology select the "safety factor" of 1.5?

Response:

There are a number of variables associated with the consumptive use calculations outlined in Chapter 4 of the RSD. During the planning process, the WRIA 1 Planning Unit, Watershed Staff Team spent considerable time and effort carefully considering and agreeing upon the data and variables. It’s a difficult task to accurately predict how rural homeownership conditions will evolve over a future, twenty-year timeline, what their collective water use will look like and, how much of that use will be consumptive, develop a portfolio of projects to offset those impacts, and then determine that those actions and projects will achieve NEB in the watershed. During the rulemaking process, Ecology considered the work accomplished during the planning process.

As the planning group and later Ecology estimated the numbers needed to evaluate the task at hand, the agency had to make numerous decisions, all of which affect the final value. This information is available in Chapters 3-6 of the RSD. While the WRIA 1 planning group was deliberating, they evaluated 35 different scenarios that resulted in offset calculations that ranged between 33 and 12,421 acre-feet per year.

As Ecology worked through its technical work for this rulemaking, it arrived at an offset volume calculation of 260 acre-feet per year as the most defendable number. Ecology recognizes that there is uncertainty in that calculation. However, the agency’s work is consistent the law, and

agency guidance, and policy and interpretive statements. Ecology believes it prudent to add a safety factor to the calculations, recognizing the uncertainty inherent in these calculations. Ecology used its best professional judgement to settle on a safety factor of 1.5.

For more information on the conservation standard please see the general response on "Comparison of Other Water Use Limits" and Chapter 3 for the RSD.

Commenter: Kathy Sabel - Comment I-165-7

6) Early in the Planning Unit process for ESSB6091 one of the consultants explained how the 3000 gallons maximum annual average use was derived with data. Please include in the rule the methodology from the legislation that concluded 3000 gallons is the appropriate value for permit exempt wells.

Response:

Thank you for your comment. Chapter 90.94 RCW doesn't articulate how the Legislature arrived at their 3,000 gallon per day maximum annual average.

Commenter: Kathy Sabel - Comment I-165-12

12) Adding a .5 extra offset for uncertainty seems arbitrary. How was .5 determined as appropriate?

Response:

Please see the response to Comment I-134-6.

Commenter: Trish Rolfe - Comment O-3-6

The list of proposed projects in its current form, as located in the RSD, does not remedy the Proposed Rule's deficiency. Even if the Proposed Rule did ensure that the projects listed in the RSD would be funded, this suite of projects falls far short of meeting the statute's requirements. Ecology portrays its list of 13 watershed projects as having a high likelihood of implementation and having one or more of the following attributes: "an advantageous location in the watershed; likelihood for achieving offset and/or NEB; existing funding for the project provided by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility." Unfortunately, many of these projects are uncertain to occur, have overstated benefits, or are intended to restore salmon habitat and water quality rather than serve as mitigation for future domestic permit-exempt wells. Moreover, by placing them in the RSD and failing to create a firm linkage between project implementation and compliance with its Proposed Rule, Ecology virtually assures water offsets (if they occur at all) will lag behind new development of permit-exempt wells.

Response:

The portfolio of projects in the RSD provides a mixture of water offsets and habitat improvement projects. Both types are allowed by the statute. The portfolio in total provides an offset much greater than the anticipated new consumptive uses. While it is possible that not all of the listed

projects will be implemented, others may be added through adaptive management (see Chapter 7 of the RSD). We also recognize that some of the projects that do get developed may end up with offset volumes or habitat improvements different from what is expected, both higher and lower. Nonetheless, Ecology is confident that its NEB determination is well grounded, meets the requirements of RCW 90.94.020, and is consistent with the agency's guidance, and policy and interpretive statements.

Ecology believes the consumptive use impacts from domestic permit-exempt uses will be offset at the WRIA scale and within many of the individual subbasins. In addition, habitat projects that improve ecological function help achieve NEB in the WRIA.

The statute does not require Ecology to create a firm linkage between project implementation and compliance. The agency believes—and has been told by project proponents—that it's unlikely that proponents would step forward and volunteer to shepherd a project if they were obligated to guarantee projects and results without guaranteed funding.

The statute does not mandate that offset projects and new consumptive uses must occur in tandem. The law specifically creates a twenty-year timeline over which to compare uses and offsets. That said, all 2,150 new homes forecasted to be constructed within the watershed will not be built immediately, nor will all of the offset projects wait to be implemented at the end of the twenty years. As noted in response to Comment O-3-2, several offset projects have already received funding and are underway.

Commenter: Trish Rolfe - Comment O-3-11

Crops and Irrigation First, the methodology makes no account of how water use in lawns or gardens might be affected by climate change. Warmer weather is likely to yield additional winter crops, longer growing seasons and an accompanying increase in water usage.53 The Department of Ecology has previously acknowledged that crop changes may occur due to climate change.54 Yet, the Department fails to consider this in the calculations underlying the Proposed Rule. This omission is potentially significant. Ecology notes that outdoor watering is largely 'consumptive use', and makes up 95% of total household consumptive use, meaning water that doesn't directly return to groundwater. This means that outdoor watering is the most significant source of household water consumption, and errors in calculating outdoor can't simply be written off as easily captured by the safety margin. A local gardening guide suggests starting most crops in early May to avoid frost.55 If WRIA 1 residents start maintaining gardens or crops from April to October, instead of May to September because climate change extended the growing season, the extra two months of watering could significantly increase household water usage for those two months. This omission is magnified because climate change is expected to cause summer rainfall to decline by roughly 20%.56 As the crops change and the growing seasons lengthen, there will be less rain at crucial times to feed those crops. The Proposed Rule takes some steps to begin enforcing water limits should drought conditions occur, but largely fails to analyze the foreseeable impact of climate change. Second, the outdoor consumptive use estimates in the Supporting Document rely on irrigation figures that are over twenty years old.57 Twenty-year-old figures cannot be accurate forecasts for water usage because Washington has already become hotter and is expected to continue to get hotter in the future. 58 As a result, the RSD's calculation

of water demand doesn't account for the likelihood that demand for water has already increased over the baseline due to reduced precipitation, increased evaporation of water due to heat changes, and the changing nature of crops and plants themselves. A consultant, RH2, conducted a technical review of consumptive use for WRIA 1 which explicitly stated "Changes in climate since the issuance of the WIG [Washington Irrigation Guide] are not considered."59 This review goes on to state that changes in temperature and precipitation since the WIG was issued could cause some water use figures to be underestimated.60 We agree. The impact of climate change on irrigation is not trivial. The EPA estimates that over half of outdoor watering is wasted, in part due to evaporation.61 However, both Ecology and RH2 assume that only 10% of irrigated water will evaporate.62 The evaporation rate will increase if temperatures increase in WRIA 1, as they are predicted to.63 For example, a California drought manual suggests that up to 20- 25% of irrigated water may be lost to evaporation.64 There are a number of factors behind the efficiency of irrigation systems, but the RSD, and in turn the Proposed Rule, fails to consider how increased temperatures and drought will impact irrigation. Population Growth Climate change may fuel additional population growth in the Pacific Northwest.65 However, there is substantial uncertainty. Modeling future migration is difficult because the climate is only one factor among many that determines a choice to move. Income, economic security, social ties, age and economic opportunity play major roles in the choice to relocate.66 Research suggests that migration to the PNW may be increased by climate change.67 While more information is needed to make a numeric prediction of climate change fueled population growth, a regional symposium report stressed the need to build flexibility into current long term planning, particularly in regard to water resources. Despite local uncertainties, there is high confidence that climate change will fuel migration generally. The World Bank predicts that climate change will displace 143 million people by 2050 across Africa, Southeast Asia, and Latin America. Migrants from Latin America may very well head north to the United States. Within the United States, some speculate the Pacific Northwest will attract displaced people. At a minimum, any rule adopted must acknowledge this possibility and prepare for it. Instead of preparing for this contingency, however, the Proposed Rule and RSD omit any discussion of the risk. The RSD adopts population growth figures from the County's Comprehensive Planning Process. The County's comprehensive plan in turn relied on a consultant's technical analysis which does not mention climate change, let alone prepare for it. The risk of climate change fueled migration must be considered in the consumptive use figure in the first instance. It would be appropriate to consider this issue when determining the appropriate "safety factor" to be used in deciding how much offset water must be provided.

Response:

Thank you for your comments. Please see the response to Comment O-3-10 and T-3-8.

Commenter: Megan Kernan - Comment A-3-3

Water benefits used to offset impacts should be identified and quantified in a transparent, scientifically rigorous way, and include documentation and justification of key scientific methods used. As we understand the proposed rulemaking, Ecology seeks to offset the impacts from future residential permit-exempt use and create a Net Ecological Benefit through two

strategies. One is reducing future impacts through the adoption of a new regulation establishing a conservation standard for indoor domestic water use of 500 gallons per day. The other strategy is the prioritization of specific projects that have the ability to directly offset streamflow impacts by adding water back into the system or the ability to otherwise provide an ecological benefit. WDFW is concerned that the quantified streamflow benefits claimed for some projects are overstated. Overstating the benefits of these projects may result in future impacts to salmonids in the watershed and sets a confusing precedent for streamflow restoration planning occurring elsewhere in the state. Within the rule-supporting document, some habitat restoration and conservation projects are characterized as having streamflow benefits commensurate with in-kind (water-for-water) projects. While some habitat restoration projects may benefit streamflows, the uncertainties inherent with these kinds of projects make it extremely difficult to accurately quantify those benefits. The project matrix on page 41 of the rule-supporting document states that with the implementation of just one habitat restoration project, enough water will be created to offset over 12,000 residences, or nearly six times the estimated rural residential, permit-exempt well use projected over the coming 20 years. Given the sparsity of detail provided about each project, we are unable to ascertain what methodologies were employed to calculate the stated water benefits and the assumptions that underlie those calculations. A transparent and scientifically robust description of these benefit estimates is critical to ensure that impacts are sufficiently offset.

Response:

Please see the response to Comment O-3-6. Table 6.1 in the RSD does not state that one habitat restoration project will offset water use from 12,000 residences. On the contrary, the large habitat project listed in Table 6.1 of the RSD specifically excludes the offset volumes for that project from the table totals. While that project offers important habitat benefits (and potentially large water offset volumes), it will not be fully realized within the twenty-year timeline of the statute and wasn't factored into the offset analysis. Ecology provides all of the details that it has for each project in the portfolio.

Comments on Projects

Commenter: Alan Chapman - Comment I-163-4

4. The supporting documentation should indicate that the project list was developed by the WRIA 1 Planning Unit in the rush to update the plan through the local process and was not final or completely agreed upon. Grant project funding for consideration under the Stream Flow Restoration Act (Chapter 90.94) should be prioritized by the local Planning Unit and Watershed Management Board before consideration in the statewide funding prioritization.

Response:

Thank you for your comment. As noted in Chapter 6 of the RSD, the WRIA 1 Watershed Staff Team and Planning Unit identified 45 projects categorized as "Early Action," "Preliminary Projects, or "Other Projects." Ecology considered this project list as a starting point in order to

develop its own list of projects and actions that, once implemented, achieve the water offset and meet the NEB criteria outlined in RCW 90.94.020.

The process and criteria for Streamflow Restoration competitive grant funding is set forth in the Streamflow Restoration Funding Rule (chapter 173-566 WAC), consistent with WR POL-2094.

Commenter: Alan Chapman - Comment I-163-8

While there was general agreement of all parties that the RH2 estimates of consumptive use were acceptable for considering offsets, there was more a rush to identify projects that could offset this estimated projected use than a consensus on the projects that should be implemented to offset the impact of new domestic permit exempt wells. It would improve the supplementing documentation to indicate that the projects identified are representative of the type of projects that would offset the impact of new domestic permit exempt wells on senior water rights and net ecological benefits and that the priority of specific projects directed toward offsetting new domestic permit exempt wells submitted for funding provided for this purpose under Chapter 90.94 RCW should be determined by the agreement of the Planning Unit as it is currently implemented and the Watershed Management Board representing implementing governments.

Response:

Ecology recognizes the short timeframe provided to the WRIA 1 planning groups under RCW 90.94.020. Ecology believes the adaptive management strategies outlined in Chapter 7 of the RSD provide opportunities to enable adjustments based on new or more accurate information associated with domestic permit-exempt well growth and project implementation.

Commenter: Kim Clarkin - Comment I-7-5

3. As Eric Hirst has advocated for a long time, this rule should include strong water use efficiency standards and incentives. Coupled with metering and public education, such a program would help people identify wasted water and correct their system to eliminate it. This kind of water conservation would offset some of the additional water withdrawals you are permitting in this rule in a much more convincing way than some of the listed habitat projects. I believe you should place much more emphasis on this strategy. 4. Coldstream Dairy water offset: the volume of water that would be returned to the river is trivial in comparison to flow in the river in late summer. Unless the dairy's supply is a deeper, confined aquifer, this project should not be considered a benefit to low summer flows. I do, however, thoroughly support the project for its other benefits. 5. I urge you to search out and focus on wetland restoration and floodplain/fan reconnection projects that will increase groundwater recharge and storage. These are the types of natural recharge areas we have lost by occupying, draining and levee-ing our floodplains and fans. Such projects would not require pumping and artificially moving water between basins, so they would be less likely to have unforeseen negative consequences to other resources and habitats. Thank you for receiving and considering my comments. Kim Clarkin

Response:

Thank you for your comment. Ecology agrees that conservation is a good way to reduce consumptive water use. Included in the Chapter 6 of the RSD is a WRIA 1 Conservation

Program. That said, as discussed extensively during the WRIA 1 Streamflow Restoration planning process, it is difficult to guarantee conserved water will continue to be conserved in perpetuity, as required under the law. Specifically, Ecology heard from the agricultural community both during the planning process and rulemaking that they did not want any conserved irrigation water to go towards offsets of domestic permit-exempt wells; they wanted it to remain for irrigation purposes. Additional or expanded conservation programs can be included with adaptive management, see Chapter 7 of the RSD.

Ecology respectfully disagrees on project consideration. There is not a minimum offset amount required for a project to proceed, and the Coldstream Farm / Regenis project provides for both water quality and quantity benefits. Extreme low flows in the South Fork are a known limiting factor to Chinook recovery, and during low flow events, any additional quantity of water is beneficial.

Ecology appreciates your recommendation. Wetland restoration enhancement/creation is listed in the project list in Chapter 6 of the RSD.

Commenter: Nina Denson - Comment I-91-2

I find it curious that in no where in the rule making is there provisions for conservation. It seems to me that would be a logical step to suggest conservation measures.

Response:

Thank you for your comment. Conservation is included as a project; please see response to Comment I-7-5.

Commenter: Ross Cline, Sr. - Comment T-3-10

Offset projects: o Ecology recognizes that mitigation or offset project funding, implementation, and/or attainment of benefits are not guaranteed, undermining certainty of net ecological benefit.

o We support the inclusion of conservation programs and also strongly urge Ecology to incorporate evaluating the feasibility of on-site mitigation of consumptive water use into the project list, particularly for watersheds where no other projects are proposed (e.g., Lake Whatcom watershed). However, it is essentially impossible to ensure effectiveness of a voluntary conservation program, particularly for impacts as high as 25 acre-feet in the Lake Whatcom watershed where no other offset projects are proposed or monitoring proposed.

Since RCW 90.94 passed, the Tribe has advocated for minimization of impact through limits coupled with mitigation of impacts in-time, in-kind, and in-place. The list of offset projects should include regulation and/or programs to facilitate onsite avoidance, minimization, and mitigation of impacts.

We are concerned about the inclusion of projects that involve interbasin transfers of water due to negative impacts to streamflow of the contributing water body and the potential to interfere with natal stream imprinting and homing of salmon in the receiving water body. With regard to Project #44, the proponent seeks to move water from the Nooksack River, which provides

important habitat for a number of priority salmon species, to California Creek, which is a lower priority system for Tribal treaty fisheries. Offset projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) potentially offer the highest magnitude of benefit and both the greatest life span and greatest likelihood of benefit.

However, as Ecology acknowledges, there is a time lag to the onset and realization of the benefit. For instance, such projects may not produce offset water for well after the 20-year planning horizon identified for the draft rule. It would be prudent to develop for each subbasin both in-kind, in-time offset projects with more immediate benefit and ecological restoration projects with higher magnitude and greater lifespan of benefit. We do remain concerned about the lack of rigor in estimating offset project benefits and would like to see an explicit evaluation of magnitude and seasonal timing of benefit as well as onset and lifespan of project.

Offset projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) but do not yield offsets until after the 20-year planning horizon, but well into the future, are recommended because they would provide net ecological benefit in perpetuity as specified in Ecology's draft NEB guidance.

Offset quantities for projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) should be better quantified through robust contemporary hydrologic modeling using such models as DHSVM and/or VELMA. The Tribe has initiated a pilot project to calibrate and validate DHSVM and VELMA to quantify such offset water provided by such projects.

We are strongly opposed to accounting for benefits from projects that would be implemented without Ecology's streamflow restoration funding — flow benefits should be accounted for proportional to the contribution of ecology streamflow restoration funding to total project cost.

As indicated above, any storage project should be conducted in such a way as to avoid stranding of fish or an altered hydrograph that adversely impacts fish.

We understand from the City of Lynden that several of the minimum instream flow compliance gages have been discontinued. There is no feasible way to measure the contribution to flows provided by most offset projects, such as the MAR project or the Stewart Mountain and Skookum Creek projects, without addressing the need for compliance gages. As such, we strongly suggest that Ecology fund replacement or substitute compliance gages.

There are several other locations that have been proposed for MAR projects than just the North Fork Nooksack River as referenced in the draft rule supporting documents and SEPA checklist. These MAR locations include sites on the Middle Fork Nooksack River, South Fork Nooksack River, and the mainstem Nooksack River near Cedarville that should be included in the final rule.

Response:

Thank you for your comments on the projects. Ecology is aware that there is uncertainty in several elements required under the law, including uncertainty in the timing and impacts from

the new homes projected to be built over 20 years, and uncertainty in the project timing, funding, and benefits.

As described in the Chapter 4 of the RSD, there is some uncertainty regarding Ecology's estimate of the consumptive-use impacts associated with future domestic permit-exempt wells. To account for this uncertainty, Ecology applied a safety factor of 1.5 times the projections (1.5 safety factor). Ecology is confident that this approach addresses any uncertainty with growth projections and related potential impacts to instream resources. Please also see response to Comment T-3-4 regarding project uncertainties.

Ecology agrees that conservation is a good way to reduce consumptive water use. Please see Chapter 6 of the RSD for information on a WRIA 1 Conservation Program (Project ID 46NG). This project has not been limited in geographic scope and may occur in Lake Whatcom and/or other areas of the WRIA. Please see response to Comment I-7-5 for more information on conservation.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its conclusion that the projects and actions--including the rule amendment conservation standards--gives Ecology reasonable certainty of achieving NEB. Thank you for your identified concerns regarding interbasin transfers. Ecology agrees that projects should be carefully crafted to avoid inadvertent detrimental impacts.

Ecology appreciates your concerns regarding offsets that are not always in-time and in-place. The law does not require in-time and in-place offsets. Please see the response to Comment O-3-2 regarding the law's requirements related to impacts and offsets.

Offsets from projects and actions were considered in the rulemaking, and will be considered in adaptive management activities, consistent with WR POL-2094. Ecology supports accurate quantification of offsets, and recognizes this may occur through a variety of processes. Ecology recognizes that more information on project offset benefits will be available as project development and implementation occur. As projects move forward and are implemented, and as adaptive management processes occur, Ecology continues to welcome the use of accurate data, and will incorporate it into the adaptive management process.

The 2018 law establishes streamflow restoration planning requirements, and separately establishes a statewide grant funding process for projects that benefit instream resources. The law does not guarantee funding for projects required to meet the planning requirements. Ecology encourages project proponents to apply for funding under the law, while also encouraging project proponents to use other funding sources to offset the impacts from new domestic permit-exempt wells.

Ecology supports the avoidance of fish stranding and altered hydrography that adversely impact fish. The agency's goal is identify projects to offset the potential consumptive impacts of new domestic permit-exempt groundwater withdrawals on instream flows over the next 20 years (2018-2038), and achieve NEB in the WRIA, consistent with chapter 90.94 RCW.

Thank you for your comment regarding gaging. The Streamflow Restoration Funding rule, chapter 173-566 WAC, provides potential funding opportunities for environmental monitoring, consistent with chapter 90.94.RCW.

Thank you for your suggestion regarding MAR project sites. Please see Chapter 6 of the RSD for additional information regarding MAR projects in the watershed. As described in the RSD, Ecology's Water Resources Program identified several potential sites for developing managed aquifer recharge (MAR) projects in the Nooksack basin on publically owned land. Sites considered and evaluated included areas beyond the North Fork of the Nooksack. The RSD has been updated to include MAR projects more inclusive of the geographic spectrum considered and identified during the planning process and previously identified by Ecology's Water Resources Program.

Commenter: Oliver Grah - Comment I-161-9

• Offset projects: o Ecology recognizes that mitigation or offset project funding, implementation, and/or attainment of benefits are not guaranteed, undermining certainty of net ecological benefit.

o We support the inclusion of conservation programs and also strongly urge Ecology to incorporate evaluating the feasibility of on-site mitigation of consumptive water use into the project list, particularly for watersheds where no other projects are proposed (e.g., Lake Whatcom watershed). However, it is essentially impossible to ensure effectiveness of a voluntary conservation program, particularly for impacts as high as 25 acre-feet in the Lake Whatcom watershed where no other offset projects are proposed or monitoring proposed.

o Since RCW 90.94 passed, the Tribe has advocated for minimization of impact through limits coupled with mitigation of impacts in-time, in-kind, and in-place. The list of offset projects should include regulation and/or programs to facilitate onsite avoidance, minimization, and mitigation of impacts.

o We are concerned about the inclusion of projects that involve interbasin transfers of water due to negative impacts to streamflow of the contributing water body and the potential to interfere with natal stream imprinting and homing of salmon in the receiving water body. With regard to Project #44, the proponent seeks to move water from the Nooksack River, which provides important habitat for a number of priority salmon species, to California Creek, which is a lower priority system for Tribal treaty fisheries. Offset projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) potentially offer the highest magnitude of benefit and both the greatest life span and greatest likelihood of benefit.

However, as Ecology acknowledges, there is a time lag to the onset and realization of the benefit. For instance, such projects may not produce offset water for well after the 20-year planning horizon identified for the draft rule. It would be prudent to develop for each subbasin both in-kind, in-time offset projects with more immediate benefit and ecological restoration projects with higher magnitude and greater lifespan of benefit. We do remain concerned about the lack of rigor in estimating offset project benefits and would like to see an explicit evaluation of magnitude and seasonal timing of benefit as well as onset and lifespan of project.

o Offset projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) but do not yield offsets until after the 20-year planning horizon, but well into the future, are recommended because they would provide net ecological benefit in perpetuity as specified in Ecology's draft NEB guidance.

o Offset quantities for projects that restore hydrologic processes (e.g. Stewart Mountain and Skookum Creek) should be better quantified through robust contemporary hydrologic modeling using such models as DHSVM and/or VELMA. The Tribe has initiated a pilot project to calibrate and validate DHSVM and VELMA to quantify such offset water provided by such projects.

o We are strongly opposed to accounting for benefits from projects that would be implemented without Ecology's streamflow restoration funding – flow benefits should be accounted for proportional to the contribution of ecology streamflow restoration funding to total project cost.

o As indicated above, any storage project should be conducted in such a way as to avoid stranding of fish or an altered hydrograph that adversely impacts fish.

o We understand from the City of Lynden that several of the minimum instream flow compliance gages have been discontinued. There is no feasible way to measure the contribution to flows provided by most offset projects, such as the MAR project or the Stewart Mountain and Skookum Creek projects, without addressing the need for compliance gages. As such, we strongly suggest that Ecology fund replacement or substitute compliance gages.

o There are several other locations that have been proposed for MAR projects than just the North Fork Nooksack River as referenced in the draft rule supporting documents and SEPA checklist. These MAR locations include sites on the Middle Fork Nooksack River, South Fork Nooksack River, and the mainstem Nooksack River near Cedarville that should be included in the final rule.

Response:

Please see the response to Comment T-3-10.

Commenter: James Hansen - Comment I-4-2

and use conservation as the primary mitigation.

Response:

Thank you for your comment. Conservation is included as a project; please see response to Comment I-7-5.

Commenter: Eric Hirst - Comment I-3-4

Water-Use Efficiency Both the preliminary draft and the current Draft Rule Supporting Document include only one WUE project (46NG). This project description is bereft of any details on who would implement the project; what measures would be included; the sectors to be targeted; promotion methods (e.g., workshops, written materials, and/or financial incentives for

purchase and installation of WUE measures); and potential funding sources. And this project, unlike all the others proposed by Ecology, lacks any quantification of offset amounts (Table 6. l).

Response:

Ecology used the project information provided by the WRIA 1 Streamflow Restoration planning work for its projects; see Chapter 6 of the RSD. The Whatcom County Council allocated initial funding for this work and, Ecology understands Whatcom County is working on the scoping of the project. Since no specific values of offsets were quantified by the planning effort or Whatcom County, none were included in the offset calculations; see Table 6.1 of the RSD.

Commenter: Eric Hirst - Comment I-3-6

Exhibit 1. Sample water-use efficiency programs Hose timer. Provide homeowners with a free timer, retail price about $15 plus 25% program overhead; 1 hour saved each time lawn watered, 180 gallons/hour, water 2 times/week, timer lasts 10 years; cost of conserved water is $168/acre-foot Advanced irrigation scheduler: Workshop to inform/motivate farmers costs $10,000 plus 25% program overhead; 50 attendees, of whom 5% adopt the proposed method; 60 acre farm using 1.2 acre-feet/acre, with a 5% savings in irrigation water, savings last 10 years; cost of conserved water is $139/acre-foot I am glad to share spreadsheet used to derive these results so that others can test the effects of different assumptions. The City of Bellingham provides a real-world response to my question on projects that might be more cost-effective than these supply projects. Bellingham's single-family residential rebate program has a cost of conserved water equal to approximately $1,200/acre-foot, about half of what Ecology appears willing to spend to provide more water. If water use efficiency is that inexpensive why does Ecology's portfolio include no (zero) substantive projects to save water? Why does Ecology consider it so much more important to expand supplies and storage than to improve efficiency of use? At a minimum, Ecology should explicitly address these concerns. Ecology's determination to ignore WUE occurs even though my comments to Ecology on the preliminary draft amendment focused on this issue (Exhibit 2) and included an appendix "Water- Use Efficiency (WUE) Mitigation Options for WRIA 1 in Response to ESSB 6091." This memo, sent by the Environmental Caucus to the WRIA 1 Planning Unit in July 2018, includes several references I had hoped Ecology staff would read plus several experts on WUE I had hoped Ecology would contact. It appears that none of this happened. Nevertheless, I once again include the appendix and hope that this time Ecology will take seriously the large and largely untapped potential of WUE

Response:

Thank you for your comment. Ecology reviewed all materials provided, both during the planning process and during the rulemaking. As noted in Comment I-3-4 and in Chapter 6 of the RSD, as a part of this rulemaking process, Ecology staff reviewed work accomplished during the Watershed Management Plan Update Streamflow Restoration planning process, including proposed projects and actions. Please also see response to Comments I-7-5 and I-3-4.

Commenter: Eric Hirst - Comment I-3-10

(And if conservation is an important goal, why is project 46NG "WRIA 1 Conservation Program" devoid of even the barest explanation?). Exhibit 2. Hirst Comments on WUE for Proposed Draft Amendment, 4/22/2019 Chapter 6 of the Supporting Document lists 13 projects that Ecology believes, in aggregate, will "achieve offsets and NEB." Even though a demand/supply imbalance can be met equally well by either increasing supply or decreasing demand, only one of the 13 projects includes WUE. And that project (46NG modified) has no details at all. Indeed, it is the only one of the 13 for which no estimates of offset amounts are provided. This lack of information is both disappointing and surprising. Disappointing because WUE is likely a large and largely untapped resource in WRIA 1, saves water when it is most needed (summer), is likely very cost effective, is distributed throughout all nine subbasins, and requires no regulatory approvals for its implementation. Surprising because the environmental caucus distributed a paper to Ecology, Whatcom County Public Works, and the Planning Unit in July 2018 on "Water-Use Efficiency (WUE) Mitigation Options for WRIA 1 in Response to ESSB 6091. The paper, included here as Appendix A, offered several specific programmatic suggestions, references, and experts to consult with on the design and implementation of WUE programs. In addition, several local organizations can likely help Ecology in fashioning WUE programs and projects, including the six agricultural watershed improvement districts and their coordinating body, the Ag Water Board; Whatcom Family Farmers; and Whatcom Conservation District. Because some of the projects that Ecology selected for offsets are already underway, it is inappropriate to include their water production as offsets. Salmon and other instream resources gain no additional benefits from projects that would have been implemented in the absence of the Streamflow Restoration Act. Such projects include Coldstream Farm (#1), Bertrand stream augmentation (#2), shifting from surface to ground water (#26), and the two Whatcom Land Trust projects [Skookum Creek (#19) and Stewart Mountain (#21)]. FL-ology should explain its The regulatory analysis sap: "In past rulemakin•gs related to water resources, for example, compliance costs included the costs of metering and reporting." (page viii).

Response:

Please see responses to Comments I-7-5, I-3-4, and I-3-6.

Commenter: Eric Hirst - Comment I-3-12

Ecology should explain its basis for selecting these (and perhaps other projects that are either underway or were already planned) and how they meet the offset requirements. Ecology offers no rationale for picking some projects and rejecting others. How important, in Ecology's view, are various factors that might affect the feasibility and attractiveness of different projects: capital cost, operating cost, overall cost effectiveness (in $/acre-foot of water provided, stored, or saved), environmental effects, regulatory obstacles, and political support? It appears (page 39) that the sole factor for project selection was "likelihood of implementation." Even here, Ecology offers not a clue as to how they determined this likelihood. There is no way to ensure that the projects identified in Chapter 6 actually get done and are completed within the 20-year time frame. For example, the Birch Bay deep wells project (#24) has no contracts, now or planned, to build the infrastructure to pump water up from these wells and deliver that water to users;' what,

therefore, is Ecology's basis for assuming this project will offset 440 acre-feet of water? Along similar lines, what assurance does Ecology have from Whatcom Land Trust that its projects (Skookum Creek and Stewart Mountain) will yield additional water supplies and do so by 2038? "Protecting these areas will improve slope stability, retention, water quality and other human and species benefits, but I don't see how it would improve quantity. If so, that would be insignificant for addressing instream flow in the watershed."6 Chapter 7 notes that nothing in the Streamflow Restoration Act "require[s] that there be an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented." This suggests that 20 years out we may find our streams further depleted because of new rural residential construction with little or no offset. What, if anything, is Ecology doing to encourage the legislature to modify the law to ensure that realistic offset projects are approved before new wells are drilled?

Response:

As described in Chapter 6 of the RSD, Ecology looked for projects that demonstrate one or more of the following: an advantageous location in the watershed; likelihood for achieving offset and/or NEB; existing funding for the project provided by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility. Although Ecology encourages project proponents and advocates to work towards completing the projects, and will use incentives through the grant funding provided under the law, RCW 90.94.020 and 90.94.030 do not actually create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Further, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans; please see WR POL-2094. Ecology understands that this may not be your preference for the law, but Ecology is implementing RCW 90.94.020 as written. Ecology is not currently proposing any changes to modify the law.

Commenter: Eric Hirst - Comment I-3-14

Conclusions A recent UN report emphasizes the importance of responding quickly and aggressively to the increasingly adverse effects of climate change. Ecology could use the Streamflow Restoration Act as an opportunity to respond broadly to the many water-supply problems in the Nooksack Basin (e.g., flows in the mainstem and tributaries that often fall well below the limits in Ecology's instream flow rule especially in the summer, and the large amount of water used without legal authorization for agricultural irrigation). Instead, Ecology chose to take a very narrow, limited approach to meet the letter of the law and no more. What a missed opportunity! Because of Ecology's overly cautious approach, the Draft Amendment is substantively the same as the Preliminary Draft Amendment with after-the-fact justification in the Draft Rule Supporting Document and Preliminary Regulatory Analyses. That is, Ecology appears to have worked backward in preparing this draft amendment: change as little as possible from the Preliminary Draft and then justify this lack of imagination. A key example of this lack of imagination and initiative is the absence of independent investigation and assessment of options to offset permit-exempt well water use. Ecology began — and ended — with the list of projects developed by the local planning process in 2018. Surely, Ecology had time during the

ten months since the failure of the local planning effort and publication of this draft to explore new ideas and projects. As far as I can tell, Ecology made no effort to independently verify the existence and viability of the projects it did include. My contacts with Birch Bay Water & Sewer District and Whatcom Land Trust indicate that Ecology's estimates are wildly optimistic. Fortunately, the nine months between publication of this draft and issuance of a final rule in August 2020 gives Ecology an important chance to develop and adopt a rule that truly solves local water supply problems. In particular, Ecology should independently and seriously investigate the potential benefits (as well as costs) of ambitious water-use efficiency across all sectors of society. I urge Ecology staff to contact me (EricHirst@comcast.net) if I can assist in this effort. U .N. Enviromnent Programne, Emissions Gap Report 2019, NOV. 2019

Response:

Ecology used the offset projections provided by the project proponents and by the WRIA 1 Streamflow Restoration planning process. Ecology appreciates that you may want the agency to "respond broadly;" however, it must implement the law as written, and consistent with the agency's previously published interpretations, guidance documents, and policy and interpretive statements.

Commenter: Merle Jefferson - Comment T-2-9

7. Critical Flow Period: Establishment of a critical flow period is referenced in the Streamflow Restoration Act (RCW 90.94), but has not yet been defined by Ecology. The critical flow period should be defined as the irrigation season plus the low-flow season— April 1 to November 15.

Response:

Thank you for your comment. The amended rule language does not use the term "critical flow period," so defining the term was not necessary for this rulemaking.

The 2018 law discusses "critical flow period" when defining lower priority projects (RCW 90.94.020(4)(b)). Ecology has not labeled the projects in the RSD by priority and therefore does not define the term in the RSD. The projects in the RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets.

Commenter: Merle Jefferson - Comment T-2-10

8. Offset Projects: We find many of the water offset projects list in Table 6.1 of the Rule Supporting Document to be problematic. a. Most of the listed offset projects were identified for alternative purposes prior to the passage of RCW 90.94, meaning that the preliminary draft rule relies largely on projects unrelated to RCW 90.94 to achieve the goals of RCW 90.94 — thus undermining the goal of streamflow restoration. b. Many of the offset projects are conceptual or in the early stages of development (i.e., uncertainty of project implementation), rely on coarse-scale estimates of offset quantity (i.e., uncertainty of water replaced), may or may not be implemented effectively (i.e., uncertainty of project effectiveness and lifespan). We find it irresponsible to rely on such a project list to achieve the water-for-water offset required in RCW 90.94. c. Similarly, the project list does not effectively provide offsets near the projected future points of withdrawal (i.e., projects are out-of-place). To help rectify the inadequate spatial

distribution of offset projects relative to impacts of future permit-exempt domestic wells, we strongly recommend that on-site mitigation be added on the project list. d. The estimated water offset attributed to the Skookum Creek Restoration (No. 19) will take more than 20 years to be realized. As such, the estimated water offset for the Skookum Creek Restoration should be treated like the Stewart Mountain/SF Nooksack Conservation (No. 21) offset, and be removed from the calculated total offsets within WRIA-1. e. The Managed Aquifer Recharge (MAR) — North Fork Site (No. 8) and Gravel Pits (No. 28) are still only conceptual and the estimated water offsets attributed to these projects should be removed from the calculated total offsets within WRIA-1. f. Three offset projects require inter-basin transfers (Nos. 24, 44, 45). We are concerned with the "scent" of the water with regards to the homing of salmonids for these three projects. Addressing these concerns needs to be satisfied prior to implementation of these projects. g. The Bertrand Augmentation (No. 2) and the Middle Fork porter Creek Phase a (No. 23) projects will not provide water throughout the critical flow period (April 1 through November 15). h. The Coastal South, Lake Whatcom, and Sumas aggregated subbasins do not have any offset projects that will become effective within the 20-year planning period. With the removal of the MAR — North Fork site (No. 8), the North Fork of the Nooksack River will not have any offset projects. i. With the understanding that resources are limited, monitoring (e.g., surface and ground water, instream resources) should be included on the project list. If monitoring is not included, we will be ill-equipped to assess how conditions are changing and/or what additional management actions are necessary to help protect instream resources. j. Considered as a whole, the project list does not provide reliable offsets, particularly where impacts are projected to occur and during the critical flow period (i.e,, projects are out-of-place and out-of-time)

Response:

During the WRIA 1 Streamflow Restoration planning work, the WRIA 1 planning groups spent considerable effort developing projects and actions to meet RCW 90.94.020 offset requirements and achieve NEB. As a part of this rulemaking process, Ecology staff reviewed work accomplished during the Watershed Management Plan Update planning process, including proposed projects and actions.

The WRIA 1 Watershed Staff Team and Planning Unit identified 45 projects categorized as “Early Action,” “Preliminary Projects, or “Other Projects.” Ecology considered this project list as a starting point in order to develop its own list of projects and actions that, once implemented, achieve the water offset and meet the NEB criteria outlined in RCW 90.94.020 (See Chapter 9 for more discussion of NEB). Ecology built on the information provided for each of these projects. Descriptions, offset, and NEB data were taken from the WRIA 1 Streamflow Restoration planning process, primarily captured in RH2’s “FINAL Task 2 Deliverable – Projects and Actions” technical memorandum. Project updates that occurred between the end of the planning process (February 1, 2019) and this rulemaking were included where possible.

The 14 projects and actions identified by Ecology in the RSD were chosen based on their likelihood of implementation, as described more in Chapter 6 of the RSD. Ecology looked for projects that demonstrate one or more of the following: an advantageous location in the

watershed; likelihood for achieving offset and/or NEB; existing funding for the project provided by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility.

The project list intentionally includes projects anticipated to exceed the projected required offsets, including a safety factor. Ecology identified geographically distributed projects in an attempt to meet each aggregated subbasin's projected offset requirements. In-time and in-subbasin offsets are of highest priority; however, this is not always feasible and, per RCW 90.94.020(4)(b), in-time and in-subbasin offsets are not required, as long as offsets are met in total across the WRIA. The projects in this RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets.

It is expected that the projected consumptive use calculations (including the safety factor) in each of the three aggregated subbasins where complete offsets are not achieved, are conservative, because they likely overestimate the required offset amounts. This provides for additional levels of certainty that offsets are met and NEB is achieved in the WRIA, in case certain projects are not implemented and/or don't achieve the anticipated results.

Ecology selected the list of projects based on the above criteria to be reasonably assured the projects would be carried out. However, some uncertainty remains. In order to reduce uncertainty, project implementation and offsets will be tracked and addressed under an adaptive management plan; see Chapter 7 of the RSD. The combination of the high likelihood of project completion and the adaptive management mechanism provide Ecology with a reasonable assurance that the projects will meet the offset requirement and achieve NEB during the planning horizon. Some of these projects may include a monitoring element.

Ecology understands your concerns regarding "scenting" or imprinting for interbasin transfers. Ecology is working with current and future project proponents to address this issue. The agency expects monitoring to be a component of all projects, and as such is not called out separately from the rest of the projects.

Please see response to Comment T-2-13.

As described in Chapters 6-7, and 9 of the RSD, Ecology believes the projects meet the requirements of law, and achieve NEB per the Ecology's Interim Guidance for Determining NEB and WR POL-2094.

Commenter: Jay Chennault - Comment B-1-1

The Draft Rule Supporting Document (Publication 19-11-093) includes a description of Project ID 8: MAR- North Fork site (page 43). Potential managed aquifer recharge (MAR) project sites have also been identified on the Lower Nooksack, Middle Fork, and South Fork by Ecology's Water Resources Program and others. Our suggestion is to expand the potential sites identified in the Rule Supporting Document for MAR projects to include the South and Middle Forks, as well as the Lower Nooksack. As described in the Draft Rule Supporting Document, MAR projects re-time high-flow season surface water to discharge as groundwater baseflow during the low-flow season. These benefits should not be limited to a potential project in the North Fork.

Response:

Thank you for your suggestion regarding MAR project sites. Please see Chapter 6 ("Projects and Actions") of the RSD for additional information regarding MAR projects in the watershed. As described in the preliminary draft RSD, Ecology's Water Resources Program identified several potential sites for developing managed aquifer recharge (MAR) projects in the Nooksack basin on publically owned land. Sites considered and evaluated included areas beyond the North Fork of the Nooksack. The RSD has been updated to include MAR projects more inclusive of the geographic spectrum considered and identified during the planning process and previously identified by Ecology's Water Resources Program. Please see updated Table 6.1 in the RSD.

Commenter: Trish Rolfe - Comment O-3-7

Comments and concerns related to specific projects.

Project #1: Dairy Waste Processing/Treatment – This is a pilot project that currently has funding. It is estimated to produce 13.4 acre-feet per year, but the water is owned by Whatcom PUD#1. Described as a temporarily funded pilot project, this project lacks a commitment to provide water in perpetuity, as is necessary to offset future consumptive use likely to be perpetual. In addition, no evidence is provided that the water owner is willing to dedicate the water as a permanent offset for future consumptive use. Accordingly, the record fails to show that this project has a high probability of continuation in perpetuity. Having noted those concerns, it bears mention that this project does appear to be an example of providing real water for offsets.

Project #2: Bertrand Augmentation – While the RSD characterizes this project as being a source of water to offset future permit-exempt wells, this project is listed as a potential Puget Sound Partnership Action Agenda salmon recovery project.25 To date, it doesn't appear that the Partnership has funded it. It is noteworthy that the Partnership characterizes the project as a feasibility study to occur between 2020-2022: Conduct a feasibility analysis for approximately three potential partners to transfer from surface to groundwater and outline the potential costs of each project. For each of the potential partner[sic], the individual plans will include an analysis of the value to stream flow enhancement and cost effectiveness. A cost-share program will be offered to each interested landowner estimated at 50%-75%, capped at a maximum. The maximum amount will be developed based on the feasibility analysis per project partner.26 Based on its description of the project, it appears that there is not enough information for the Partnership to estimate how much stream flow enhancement this project will yield in perpetuity. Accordingly, it would appear to be premature and uncertain for Ecology to assume that this project will yield 170.4 acre-feet per year. This project also raises a larger issue; what is the relationship between salmon habitat recovery projects and projects designed to offset the impacts of future development of domestic permit exempt wells? CELP has raised this issue before and has been assured by Ecology staff that projects funded through money directed to salmon habitat restoration projects would not be used in the NEB analysis required by RCW 90.94. Salmon habitat restoration projects funded under any program other than RCW 90.94 are intended to recover salmon habitat, not to mitigate for new development, and must not be considered in Ecology's NEB analysis. To take salmon habitat restoration actions and use them as mitigation

for future development raises Pacific Northwest-wide issues, undermines treaty rights with Indian tribes, and regional and federal efforts to recover ESA-listed salmon and steelhead. Based on the information provided by the Puget Sound Partnership and Ecology, this project is a salmon habitat restoration project whose benefits are so uncertain that a feasibility study has been determined necessary. Accordingly, it should not be included in Ecology's NEB calculations.

Project #8: MAR -- North Fork Site – This is a managed aquifer recharge proposal that Ecology has identified. This project appears to be at the stage of possibly a good idea, rather than being ready for use in offsetting water withdrawals. Ecology states, inter alia, that "[t]his storage opportunity has not been critically evaluated nor have any discussions taken place with any landowners and further investigations are necessary. There is no current project proponent, but Ecology expects to work with the community to identify a proponent."27 If no discussions with landowners have taken place, there has been no critical evaluation, and there is no project proponent, it is difficult to see how Ecology could rationally determine that this project has a high likelihood of going forward, will produce 200 acre-feet of water per year, and will endure in perpetuity. This project cannot currently be considered as contributing to consumptive use offsets or NEB within the next 20 years.

Project #19: Skookum Creek Restoration – The stated purpose of this project is salmon habitat restoration. The land has already been purchased by the Whatcom Land Trust. No description of the project that we have found, including that provided by Ecology, indicates that there is any intent for any of the project benefits to be used for mitigating the impacts of future development of permit-exempt wells. The following is an excerpt of the Whatcom Land Trust's February 6, 2019 press release announcing the purchase of the land along Skookum Creek: Whatcom Land Trust announces the purchase of a riparian forest in a major tributary watershed of the South Fork Nooksack basin from Weyerhaeuser. The Skookum Creek Conservation Corridor acquisition will permanently protect 1,400 acres of riparian forest and uplands to improve salmon habitat, watershed health, landscape connectivity and recreation opportunities for Whatcom County.... "The Skookum Creek Conservation Corridor is a long-term visionary project for the Land Trust," according to Rich Bowers, Whatcom Land Trust Executive Director, "a key to what can be in the next 100 to 200 years regarding clean, cold water, healthy salmon habitat, eventual old growth, connected wild places, and a buffer against a changing environment." Skookum also represents strong, local support and understanding for the value of local land conservation and stewardship, with nearly all funding coming from private sources, and with financial support from more than 600 community members involved with the permanent protection of natural resources important to the quality of life available in Whatcom County. There is no indication that this project is intended to mitigate for future development. Nor is there any evidence that this project will produce 1,449 acre-feet of water per year (or, indeed, any other amount) that can be used to offset consumptive use from future domestic permit-exempt wells. While restoration of riparian areas will likely result in more stable year-round flows in the watershed, additional instream flows aren't even one of the listed benefits of the project. In addition, it is likely that a significant portion of the ecological benefits of this

project will take more than 20 years to accrue. In sum, this is a project that is not intended to be used as an offset for future consumptive use, nor is there any evidence that it will produce any significant amount of water. Unless and until the project proponent indicates a desire to dedicate some portion of project benefits to offset potential impacts from future consumptive use, this project should not be on Ecology's list.

Project #19G: Wetland Restoration, Enhancement/Creation – This is a Nooksack Tribe project that is funded by National Estuary Program funds. The purpose of these funds is generally to restore water quality. It is not clear that these funds can be used to fund mitigation for future development rather than restoration projects. There is no indication that the Nooksack Tribe has agreed to use the benefits of this project -- originally intended to promote wetland enhancement and creation, water quality improvements, and vegetation restoration -- as mitigation for future development of permit-exempt wells. Accordingly, this project should not count towards Ecology's water offset and net ecological benefit obligations.

Project #21: Stewart Mountain SF Nooksack Conservation – Ecology has chosen not to include benefits from this project in its offset/NEB analysis because most of the benefits probably won't be realized within the 20-year planning period. We agree that it would be inappropriate to count this project. Since the project does not count, it is a mystery why it is included at all. Also, it is not clear that the project proponent has chosen to assign project benefits to mitigation of impacts stemming from future development of permit-exempt wells.

Project #23: Middle Fork Porter Creek Phase 4 Project – The project sponsor is the Lummi Nation. To the best of our knowledge, the Lummi Nation has contributed around $230,000 and the Salmon Recovery Funding Board may have contributed around $420,000, perhaps to other aspects of this project.28 It is likely that the SRFB funds and the Lummi Nation funds were intended to support salmon recovery. Again, because of the salmon recovery purposes of some aspects of this project, Ecology needs to be clear about what benefits, if any, can legitimately be allocated to mitigation of future development of permit-exempt wells.

Of the remaining projects in Ecology's Table 6.1, Project #46NG -- WRIA 1 Conservation Program has unknown benefits and therefore cannot contribute to offsets or NEB. Project #28 -- Storage Projects Including Gravel Pits – proposes to flood four gravel pits as a means of recharging aquifers. The project has no proponent and therefore cannot legitimately be treated as a project that is likely to be implemented. The following projects do not appear to have the defects that the previously mentioned projects do, but all of them appear to need a lot of work before they come on line: Project #24 Birch Bay/Blaine Deep Wells; Project #26 Lower Nooksack SW to GW Conversion Projects; Project #44 PUD No. 1 Vista Road Project; and Project #45 PUD No. 1 lake Terrell/Coastal Drainages. Ecology's record is devoid of information about how long it is estimated that it will take before any of these projects come online and begin to deliver offsets and ecological benefits. Impacts to instream resources will become actual, rather than potential, if offsets are not developed and implemented in a timely manner while

local governments are issuing building permits in drainages where minimum instream flows are often not being met.

After reviewing the project information provided by Ecology, we conclude that a substantial portion of Ecology's "highly likely" projects either can't be used as offsets or have grossly overstated offsets. Rather than around 1,464 acre-feet per year of water offsets in the South Fork Nooksack, the actual number is somewhere between 0 and 15 acre-feet per year. There are no offsets in the Sumas, North Fork, Lake Whatcom, or Coastal South basins. At best, the Middle Fork has around 11 acre-feet of offsets per year. Accepting Ecology's remaining numbers at face value, eventually there will be 819 acre-feet per year of offsets in the Coastal North basin, 139 acre-feet per year in the Coastal West basin, and 598 acre-feet per year in the Lower Nooksack basin.29 It is unknown when, if at all, these offsets may occur, and consequently it is not possible to assess when or if NEB would result. Nor do there appear to be commitments by any of the project proponents to maintain the projects in perpetuity. Thus, Ecology cannot meet its obligation under RCW 90.94.020(4)(c) to affirmatively find that the actions called for (or more accurately, not called for) by its Proposed Rule will result in a net ecological benefit to instream resources within WRIA 1.

Ecology dealt with the issue of uncertain water benefits much more realistically in its adoption of the Watershed Plan Amendment for the Nisqually Basin (WRIA 11). There, Ecology conducted a thorough and appropriately skeptical review of the water offset projects proposed.30 In cases where the actual streamflow benefit that would be produced was uncertain, Ecology either assumed that only a portion of the predicted streamflow benefits would actually occur, or in some cases declined to consider any streamflow benefits from a given project. As one example, in evaluating the Nisqually plan, Ecology declined to consider any offset amount as resulting from the Eatonville ASR project due to concerns over the project's viability.31 This is in stark contrast to the approach chosen here, where Ecology assumed that a theoretical MAR project in the North Fork Nooksack would produce 200 acre-feet per year of offset water even though a site has not been fully identified, no discussions with landowners have occurred, and the project has no proponent. The Skookum Creek project presents an even more egregious example. Despite no explanation whatsoever of how this project would generate the estimated streamflow benefits (see discussion, supra), Ecology credited the full projected amount of offset water. In the WRIA 11 plan, on the other hand, Ecology assumed that forest conservation management projects would produce either a fraction of the predicted streamflow benefits or none at all.32

Response:

Thank you for your comments. Although Project #1 is a pilot project, that does not mean it has a sunset date; rather, as described in Chapter 6 of the RSD, it is considered a “pilot” for potential use in additional locations. Ecology is currently working with the project proponent and landowner to provide continued water offsets that benefit streamflow. As with all proposed projects, Ecology included adaptive management strategies, as discussed in Chapter 7 of the RSD, to address variables and uncertainties, such as project and action implementation.

All acceptable projects and actions are consistent with “acceptable projects and actions,” as per WR POL-2094.

There is strong interest in the community to move forward with MAR projects, as identified during the Streamflow Restoration planning efforts in WRIA 1 that pre-dated this rulemaking. Ecology received several requests to add additional MAR projects in the RSD. Ecology included adaptive management strategies, as discussed in Chapter 7 of the RSD, to address variables and uncertainties, such as project and action implementation.

Regarding Project ID 19, the Whatcom Land Trust voluntarily identified the project as a part of the WRIA 1 planning process, and confirmed their partner willingness during the rulemaking process. The Nooksack Tribe participated regularly as a part of the WRIA 1 Streamflow Restoration planning process, from which the project list was developed, and proposed inclusion of the project; please see Chapter 6 of the RSD.

As noted, during their Streamflow Restoration planning, the WRIA 1 planning groups spent considerable effort developing projects and actions to meet RCW 90.94.020 offset requirements and achieve NEB. As a part of this rulemaking process, Ecology staff reviewed work accomplished during the Watershed Management Plan Update planning process, including proposed projects and actions. Ecology agrees with the planning groups that Project ID 21 is valuable in achieving offsets and NEB. However, Ecology has chosen to be conservative with the offset estimates and not include them as a specific value in Table 6.1 of the RSD.

There are several different phases of the Porter Creek project. Offsets and benefits calculated from Phase 4 are specific to Ecology grant monies and work specified in Chapter 6 of the RSD.

Regarding Project ID 46NG, Ecology respectfully disagrees that the project cannot contribute benefits. Ecology has received many comments to the contrary, supporting this project and requesting that it be enlarged.

Ecology respectfully disagrees with your assessment of Project ID 28 that the project has no proponent and, therefore, cannot legitimately be treated as a project that is likely to be implemented. Please see paragraphs 1-3 in this comment response.

Ecology respectfully disagrees with your conclusions. Ecology believes the RSD is consistent with WR POL-2094, Ecology's Interim Guidance for Determining NEB, and RCW 90.94.020. Whether or not the projects and actions in the proposed WRIA 1 rule and RSD achieve NEB depends upon the assumptions used to determine potential impacts from new domestic permit-exempt wells, implementation of projects and actions to achieve the consumptive use offset and NEB, and the accuracy of projected benefits from consumptive use offset and NEB projects and actions. To address these variables and uncertainties, Ecology included an adaptive management approach. Adaptive management is an iterative and systematic decision-making process and framework that aims to reduce uncertainty over time and help meet performance goals by learning from the progress and outcomes of projects and actions; see Chapter 7 of the RSD for additional detail.

Commenter: Steve Banham - Comment A-2-1

On page 36 of the Preliminary Draft Project ID 8 identifies Managed Aquifer Recharge (MAR) only in the North Fork and this solution should be expanded to include the Middle Fork and South Fork were in-stream flows and water temperature are also a concern for salmon recovery.

Response:

See response to Comment B-1-1.

Commenter: Amanda Goodin - Comment O-6-7

Additionality Watershed plans must include "recommendations" for projects and actions.42 Built into this concept of "recommend[ed]" projects and actions is the implication that they should arise, at least in part, as a result of ESSB 6091 and its associated watershed planning. The law would have little value if it meant only that plans contain a survey of pre-existing commitments in order to claim their benefits to streamflow. Indeed, Ecology recognizes the need for some consideration of this concept of "additionality."43 Ecology has stated that it will not credit mitigation that is "required by existing regulations"; that is, if the outcome would have occurred "regardless of the passage of chapter 90.94 RCW."44 Ecology has also introduced a timing element, disallowing projects that were completed before January 19, 2018, the date of the law's passage.45 40 Center for Environmental Law and Polcy v. Dep't of Ecology, PCHB No. 13-117, Order on Mot. For Summ. Judg., at 20-21 (June 24, 2014). 41 Id. at 20; see also id. at 12 (noting language in ROE); id. at 20 ("Mere reference [to the condition] is not enough."); id. at 12 (noting language in ROE). WDFW agrees: "Monitoring and adaptive management requirements should be contained directly in the rule, or at least incorporated elsewhere, but referenced in the rule." WDFW Cmts at 2 & 3. 42 RCW § 90.94.020(4)(a). 43 Undertaking a review of a project's "additionality" is an attempt to determine whether a claimed effect would have happened even absent the action designed to promote that result. Additionality, Wikipedia, https://en.wikipedia.org /wiki/Additionality (last visited Jan. 17, 2020). The concept of "additionality" commonly arises in the context of greenhouse gas cap and trade programs for determining the validity of – appropriately enough – carbon "offsets." See Pew Center on Global Climate Change, Greenhouse Gas Offsets in a Domestic Cap-and-Trade Program, Congressional Policy Brief, at 3 (Fall 2008), https://www.c2es.org/site/assets/uploads/2008/11/greenhouse-gas-offsets-domestic-cap-tradeprogram.pdf. One aspect of additionality is to avoid "double counting," the claiming of the same benefit for two separate purposes. 44 POL-2094 at 8. 45 Id.; see also Adaptive Management, supra. Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 11 Yet Ecology does not fully embrace the need for additionality. Beyond its date threshold and avoidance of legally mandated actions, Ecology has not developed any means to evaluate whether projects would proceed independently of ESSB 6091. In fact, as noted, Ecology takes the position that it is under no obligation to use ESSB 6091 funds to support "recommended" projects, and those projects that are funded entirely by other means may still be counted.46 Consequently, for the Nooksack Basin, Ecology has proposed including projects that are fully supported by alternative sources of money, for example a levee breaching (Project #23), funded through Ecology's Watershed Plan Implementation and Flow Achievement Program. Given that Ecology is the source of the money, this complaint may seem to be legalistic hairsplitting. But the distinction is important for the same reason that Ecology applies its rudimentary version of additionality, noted supra: the project would have happened "regardless of the passage" of ESSB 6091. The levee breaching project is intended to improve flows, not free up water for developers to claim in order to build new homes and subdivisions. And yet the latter will be the result if Ecology's reasoning is allowed to stand.

Ecology should amend the proposed rule to make clear that only projects that rely on funding from the Streamflow Restoration Fund count toward the offsets required under ESSB 6091.47

Response:

Offsets from projects and actions are considered in this rulemaking consistent with WR POL-2094. Please see the RSD Chapter 6 for more information on the Projects.

Commenter: Mary Kay Robinson - Comment OTH-4-17

MS. ROBINSON: Mary Kay Robinson, Bellingham. Now I've been listening to the testimony, and what occurred to me was that the evaluation of the projects, the offsets -- there's a lot of emphasis on that. That there's an evaluation and a somewhat nebulous term, adaptive management, et cetera, that -- the offset projects that were suggested or put forth as far as the Planning Unit are not sufficient to do that for a variety of reasons. The timeframe for this plan is 20 years, and like Perry said earlier, we plan 110 homes a year. We're now at 31. We're way behind. There's a fair -- estimating that growth with population, housing permits, et cetera, is a fairly binary conversation. You know, you take the numbers, you do the math, and it's an algebraic conversation. Whereas, the projects themselves are very interpretive. It's like we think this might happen. We're not sure. This isn't -- maybe it should be closer. It's a lot of shoulds, a lot of judgment calls, et cetera, and it is based on knowledge of today. Knowledge of today is dictating 20 years' worth of projects essentially. This -- and I'm holding up my iPhone -- didn't exist 20 years ago, so we're making decisions from a technology standpoint of what's possible today and just dismissing some of the projects that are on there because essentially they're being dismissed as not doing the job of mitigating and offsetting that water. We're making decisions with today's knowledge and today's technology and today's funding saying it's not possible, it's not possible, within 20 years to offset the growth that we are not even meeting today. To me there's a big disconnect. This is an example.

Response:

Thank you for your comment.

Ecology is directed by the law to estimate 20 years of new domestic permit-exempt water consumptive use, find projects and actions to offset that consumptive use, and achieve NEB in the WRIA. Ecology's RSD contains the agency's analysis for these requirements, including its conclusion that the projects and actions--including the rule amendment conservation standard--gives Ecology reasonable certainty of achieving NEB.

Commenter: Carmen Andrew - Comment OTH-5-10

MS. ANDREW: I'd like to see other conservation measures with irrigation timing, water savings, sprinkling, that kind of thing. That seems that that should be considered first before regulating a non-commercial gardening lot size.

Response:

Please see responses to Comments I-7-5, I-3-4, and I-3-6.

Commenter: Shannon Wright - Comment O-2-5

Comments on Draft Rule Supporting Document 1. Clarify the rationale behind choosing the 13 projects out of the 45 that the Planning Unit and Watershed Management Board considered. Many of these projects chosen are highly conceptual (project 24) or overly optimistic in the amount of water offset they'll produce during the life of the project and/or the project's primary intent was not to benefit streamflow (i.e. projects 19 and 24). These 13 projects will have a better likelihood of receiving Streamflow Restoration grant funding over projects that could have a direct and immediate benefit to improving streamflows in critical subbasins. We suggest Ecology provide an explanation for selecting these 13 projects for the benefit of taxpayers.

Response:

Chapter 6 of the RSD includes an explanation for project selection.

Commenter: Shannon Wright - Comment O-2-7

3. What is Ecology's rationale for including projects that are currently underway? Impacts to streamflow from new permit exempt wells will likely not take place until a few years from now when some projects have been completed.

Response:

Please see WR POL-2094 for identification of "acceptable projects and actions."

Please also see response to Comment O-3-6

Commenter: Shannon Wright - Comment O-2-9

5. Please include more information about estimated water offsets for project 46NG modified. As with our last comment from May 2019, Ecology can generate this information. We are disappointed to see no changes to this project despite information we provided (see page 4 of this letter) as well as other citizens. We urge Ecology to consider the information and resources we and others provided to bolster this project. Thank you for considering our comments. Please contact Karlee Deatherage (KarleeD@re-sources.org) if there are any questions. Sincerely, Shannon Wright Executive Director

Response:

Ecology built on the information provided for each of these projects, as developed during the Streamflow Restoration planning process in WRIA 1. Descriptions, offset, and NEB data were taken from the WRIA 1 Streamflow Restoration planning process (January 2018-February 2019), primarily captured in RH2's "FINAL Task 2 Deliverable – Projects and Actions" technical memorandum. Updates were provided wherever possible. Please see response to Comments I-7-5, I-3-4, and I-3-6.

Commenter: Various Citizens - Comment OTH-2-3 (see names in index)

2. Prioritize water conservation and efficiency for all current and future water users. Project 46NG in the Draft Rule Supporting Document has no information about how much water could

be saved from a countywide water conservation program. Please include estimates for how much water can be saved for all current users. Water efficiency and conservation is by far the most inexpensive and efficient project that could be implemented in the watershed.

3. Include new projects, rather than projects already in progress, to offset the impacts of new well water use and achieve net-ecological benefit. This rulemaking is an opportunity for Ecology to go above and beyond. The projects that are listed as already in progress were going to happen for another reason and improving streamflows may be a secondary or indirect benefit. If the purpose of the SRA is to offset future exempt well use and achieve NEB, this is an opportunity to go above and beyond.

Response:

Please see responses to Comments I-7-5, I-3-4, and I-3-6. Please see WR POL-2094 for identification of "acceptable projects and actions."

Commenter: Megan Kernan - Comment A-3-4

The descriptions of the projects and actions within the rule-supporting document lack sufficient detail to adequately assess their fitness for inclusion in the streamflow restoration effort. We believe the implementation of a suite of process-based projects, formulated specifically to restore streamflows and benefit instream resources, is the key to the success of the streamflow restoration effort occurring around the state. Many promising projects are named in the rule-supporting document; however, many projects are still in the conceptual stage and important details remain unresolved that will bear on their ability to improve instream resources. We are concerned about projects that may deliver short-term benefits, but carry long-term risks. Projects that pipe water out-of-basin may affect the ability of salmonids to imprint and return to their natal streams. "Pump and dump" projects that withdraw from declining aquifers as a means to augment streams can result in the very impacts we seek to minimize and offset. Like all Washington watersheds, the Nooksack contains many complex and interrelated biotic and physical systems, it is essential that projects be carefully crafted to avoid inadvertent detrimental impacts. We provided our preliminary comments specific to projects considered during the WRIA 1 planning process during fall of 2018 and would be happy to provide additional feedback on specific projects as proposals are refined.

Response:

During their Streamflow Restoration planning work, the WRIA 1 planning groups, including WDFW staff participating on the WRIA 1 Watershed Staff Team, spent considerable effort developing projects and actions to meet RCW 90.94.020 offset requirements and achieve NEB. As a part of this rulemaking process, Ecology staff reviewed work accomplished during the Watershed Management Plan Update planning process, including proposed projects and actions.

The WRIA 1 Watershed Staff Team and Planning Unit identified 45 projects categorized as "Early Action," "Preliminary Projects, or "Other Projects." Ecology considered this project list as a starting point in order to develop its own list of projects and actions that, once implemented, achieve the water offset and meet the NEB criteria outlined in RCW 90.94.020 (See Chapter 9

for more discussion of NEB). Ecology built on the information provided for each of these projects. Descriptions, offset, and NEB data were taken from the WRIA 1 Streamflow Restoration planning process, primarily captured in RH2's "FINAL Task 2 Deliverable – Projects and Actions" technical memorandum. Project updates that occurred between February 1, 2019 and this rulemaking were included where possible.

The 14 projects and actions identified by Ecology in the RSD were chosen based on their likelihood of implementation; please see Chapter 6 of the RSD for additional information. Ecology looked for projects that demonstrate one or more of the following: an advantageous location in the watershed; likelihood for achieving offset and/or NEB; existing funding for the project provided by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility.

The project list intentionally includes projects anticipated to exceed the projected required offsets, including a safety factor. Ecology identified geographically distributed projects in an attempt to meet each aggregated subbasin's projected offset requirements. In-time and in-subbasin offsets are of highest priority; however, this was not always feasible and, per RCW 90.94.020(4)(b), in-time and in-subbasin offsets are not required, as long as offsets are met in total across the WRIA. The projects in the RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets.

It is expected that the projected consumptive use calculations (including the safety factor) in each of the three aggregated subbasins where complete offsets are not achieved, are conservative, because they likely overestimate the required offset amounts. This provides for additional levels of certainty that offsets are met and NEB is achieved in the WRIA.

Ecology selected the list of projects based on the above criteria to be reasonably assured the projects would be carried out. However, some uncertainty remains. In order to reduce uncertainty, project implementation and offsets will be tracked and addressed under an adaptive management plan; see Chapter 7 of the RSD. The combination of the high likelihood of project completion and the adaptive management mechanism provide Ecology with a reasonable assurance that the projects meet the offset requirement and achieve NEB during the planning horizon.

Please see WR POL-2094 for identification of "acceptable projects and actions."

Currently, there are no "declining aquifers" identified in WRIA 1.

Ecology agrees that projects should be carefully crafted to avoid inadvertent detrimental impacts.

Commenter: Megan Kernan - Comment A-3-5

Subbasins with projected streamflow impairments should be ameliorated by at least one ecologically beneficial project or action. During the WRIA 1 planning process, the watershed was delineated into subbasins for the purpose of assessing the adequacy of the project list as compared to projected impacts. As described in the rule-supporting document, certain subbasins have projected impacts without proposed projects to offset those impacts. While we understand that RCW 90.94 allows consumptive quantities of water to be offset out-of-place, there should

be, at the very least, habitat or other project types identified that provide benefits at the subbasin level to attenuate anticipated impacts.

Response:

In-time and in-subbasin offsets are of highest priority; however, this is not always feasible and, per RCW 90.94.020(4)(b), in-time and in-subbasin offsets are not required as long as offsets are met in total across the WRIA. The projects in this RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets.

Commenter: Karlee Deatherage - Comment O-4-4

1. Water Use Efficiency Only one of the 13 projects included in Ecology's list (Chapter 6 of the supporting document) addresses water-use efficiency. And that project has no details to support it. That is, there is no information from Ecology on: • what actions will be taken to improve efficiency, • what entities (government or otherwise) will implement the programs, • the nature of the programs intended to improve efficiency (e.g., general information, sitespecific information, financial incentives for installation of efficiency measures, or regulations that require efficient equipment and practices), • the likely cost of these programs, • potential and likely funding sources, • likely benefits (both economic and environmental), • and the overall cost effectiveness of these efforts. We hope (and expect) the final rule, to be issued in August 2020, will put some meat on the bones and provide specifics on the who, what, when, where and how. We suggest revising this section based on specific recommendations Eric Hirst1 and RE Sources2 provided in their comments.

2. Lack of Assessment for Projects It appears that Ecology conducted no independent assessment of the 13 projects presented in Chapter 6 – Projects and Actions. Indeed, this entire chapter appears to have been lifted from a 2018 report prepared by RH2 Engineering for the WRIA 1 participants. The WRIA 1 Planning Unit approved the project list for consideration but did not endorse them unanimously. In the end our Planning Unit was unable to agree either internally or with the Initiating Governments on an approach to offset permit exempt domestic well consumptive use and could not complete a final update to the 2005 WRIA 1 Watershed Management Plan. For these additional reasons, Ecology needs to step in assess whether these projects are feasible and not accept them as approved or endorsed locally. We hope (and again expect) Ecology to carefully review these 13 projects, talk with the project sponsors, and form its own view on the likelihood of their being implemented and achieving the intended results at reasonable costs.

Response:

Please see responses to Comments I-7-5, I-3-4, and I-3-6.

Please see Chapter 6 of the RSD for details on project review and selection. Please also see Chapter 7 of the RSD for approaches on adaptive management.

Comments on Adaptive Management

Commenter: Alan Chapman - Comment I-163-6

General Discussion The Department was faced with a difficult task to revise WAC 173-501 to allow the requirement of Chapter 90.94 RCW to permit exempt domestic wells to meet local building code requirements for the issuance of new residential building permits in areas not served by water purveyors under conditions that met the concerns raised in the Supreme Court of Washington decision in Whatcom Cty. v. Hirst, 186 Wn.2d 648, 381 P.3d 1 (2016) about impacts on senior water rights and critical salmon habitat. The Department's task was further complicated because of requirements to offset impacts of these new permit exempt wells on instream flow requirements without clear information on the impact of pumping ground water on instream flows, the lack of clear prioritized goals for ecological benefits of instream flows in diverse sub basins with different instream flow and habitat characteristics, and the impact on Planning Unit functioning on the absence of three of the initiating governments. The identification of a conservation standard of 500 gallons per day estimated domestic indoor and outdoor consumptive water use based on information from a number of situations throughout the state made it possible to estimate the more likely impacts of new domestic permit exempt wells on instream flows and senior water rights than the annual daily consumptive use of 3000 gallons indicated in Chapter 90.94 RCW that needed to be offset to protect senior water right holders and ensure net ecological benefits. It is not a limit to be enforced, but the most likely actual consumptive use. Because the conservation standard is an estimate and uncertainties relative to the number of projected households, the number of residents per projected household and the actual withdrawals from new domestic permit exempt wells may affect the validity of these estimates, The actual values should be should be regularly checked and adjustments made in offset and net ecological benefits required for mitigation.

Response:

Adaptive management, as described in Chapter 7 of the RSD, provides for opportunities to address variables, to reduce uncertainty over time, and help meet performance goals by learning from the progress and outcomes of projects and actions.

Commenter: Ross Cline, Sr. - Comment T-3-11

Adaptive Management: o We remain concerned about the lack of monitoring of project effectiveness. Ecology acknowledges that estimating the quantity of flow benefit is challenging. We have raised concerns about the rigor associated with initial estimates of benefit, but we urge Ecology to require more rigorous modeling and/or monitoring of benefits in the Five-Year Self-Assessments. Funding of offset projects: o We remain concerned that the proposed funding mechanisms (permit fees, Streamflow Restoration Funding) are inadequate to fully fund proposed offset projects or their maintenance, monitoring, and/or deficiency rectification. Permit-exempt well withdrawals are allowed under 90.94 RCW, even though such funding for required offset projects is uncertain.

Response:

Thank you for identifying your concerns. Ecology grant funding, including Streamflow Restoration grants, may require monitoring for project implementation and effectiveness.

Ecology appreciates concerns that funding is not guaranteed and the desire for project implementation. Several projects included in Chapter 6 of the RSD have already received partial or full funding, and several more project proponents stated their intent to apply for funding during the current (Jan-March 2020) Streamflow Restoration grant funding round. Ecology believes there is significant likelihood of implementation for the reasons specified in Chapters 6-9 of the RSD, as well as due to: existing funding by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility.

Adaptive management, as described in Chapter 7 of the RSD, provides for opportunities to address variables, to reduce uncertainty over time, and help meet performance goals by learning from the progress and outcomes of projects and actions.

Commenter: Oliver Grah - Comment I-161-10

• Adaptive Management: o We remain concerned about the lack of monitoring of project effectiveness. Ecology acknowledges that estimating the quantity of flow benefit is challenging. We have raised concerns about the rigor associated with initial estimates of benefit, but we urge Ecology to require more rigorous modeling and/or monitoring of benefits in the Five-Year SelfAssessments. • Funding of offset projects: o We remain concerned that the proposed funding mechanisms (permit fees, Streamflow Restoration Funding) are inadequate to fully fund proposed offset projects or their maintenance, monitoring, and/or deficiency rectification. Permit-exempt well withdrawals are allowed under 90.94 RCW, even though such funding for required offset projects is uncertain.

Response:

Please see response to comment T-3-11.

Commenter: Eric Hirst - Comment I-3-13

The adaptive management plan requires Whatcom County to submit a brief progress-report memo each year. Why does Ecology propose to limit this memo to "less than 5 pages"? Why not encourage the County to write as much or as little is required to appropriately report progress? The adaptive management plan requires project proponents to provide self assessments every five years. Why such a long lag time between reports? Would not Ecology and Whatcom County be better served by annual reports to ensure timely responses to changing circumstances? Also, what compels project proponents to comply with this requirement? 5 D. Eisses, General Manager, Birch Bay Water & Sewer District, personal communication, Dec. 5, 2019. 6 R. Bowers, Executive Director, Whatcom Land Trust, Dec. 6, 2019.

Response:

The intent is for the adaptive management progress report to provide required information; Ecology believes this is an appropriate length and provides the necessary guidance to the

reporting entity. Ecology believes the 5-year timeframe is appropriate, given the time projects take to implement, reporting mechanisms already in-place with grant funding, and the annual reporting already required as a part of adaptive management, see Chapter 7 of the RSD.

Commenter: Merle Jefferson - Comment T-2-14

12. Adaptive Management: The section on adaptive management requires mechanisms to ensure that corrective actions occur where performance goals are not met. We strongly urge Ecology to take into consideration Appendices J and K of the Draft WRIA 1 Watershed Management Plan Update (Draft Project Monitoring and Effectiveness Template, and Draft Monitoring and Adaptive Management Program, respectively). During development of the Draft Monitoring and Adaptive Management Program, we were advocating for a three-year interval and/or as-needed threshold for the two update steps, which did not make it into the draft released to the Planning unit. The addition of these appendices, with the noted changes, to the Rule Supporting Document would benefit the adaptive management section. a. Instead of once every five years, self-assessments should be conducted every three years, and/or as needed if growth projections substantially underestimate the actual growth, and/or there is little or no progress on project implementation, and/or if projects are found to not be as effective as intended. This would also provide for an end-of-planning horizon evaluation (under RCW 90.94) in 2038 for the entire effort. b. In addition to tracking building permits, the number of permit-exempt wells drilled should also be tracked. Wells can be put into use long before the landowner applies for a building permit.

Response:

Please see response to Comment I-3-13. Ecology agrees that an "end-of-planning horizon evaluation" is helpful. As written in the RSD, the five-year assessments begin in 2023, so, the agency will receive them in 2023, 2028, 2033, and 2038. As 2038 is the end of the planning horizon, the agency will receive its final five-year assessment at the end of the 20-year planning horizon. Information on wells drilled in Washington are already available to the public and to Ecology through Ecology's well-drilling database.

Commenter: Trish Rolfe - Comment O-3-13

The adaptive management proposal in its current form, located in the RSD, does not remedy the Proposed Rule's deficiency. Ecology can and should put adaptive management requirements in rule, rather than relegating them to the RSD (which Ecology maintains is unenforceable). The Legislature clearly anticipated that Ecology and local governments would actively measure the resources they are managing. Watershed plans must be updated to include recommendations for projects and actions that will measure, protect, and enhance instream resources and improve watershed functions that support the recovery of threatened and endangered salmonids.87 The Legislature explicitly listed stream gaging and groundwater monitoring as potential watershed plan actions.88 Data gathering and monitoring are key components of adaptive management and while it may be reasonable to set forth the specific data collection provisions in the [non-binding] watershed plan or RSD, the actual rule adopted needs to include the obligation to actually do the adaptive management.89 Unfortunately, it does not appear that the proposed adaptive

management program – even if it were implemented – would actually collect data regarding how well instream resources and groundwater are being managed.90 Ecology's adaptive management program encourages Whatcom County and project implementers to simply rely on estimates for their Five Year reports: One of the most challenging aspects of the Five-Year Self-Assessments will be estimating the quantity of flow benefit realized through project implementation. In most cases, the estimates used will be the same as those provided in this rule supporting document, which are based on a series of outcome assumptions. Depending on the progress of individual projects, the entity or entities implementing the project may choose to update the flow benefit estimates, based on conditions and circumstances encountered.91 How does one adaptively manage a resource if, instead of collecting data, one simply relies on estimates and/or assumptions made prior to project implementation? Ecology needs to design an adaptive management program that will indicate whether offsets and NEB are being achieved. The requirement to implement that adaptive management program needs to be part of Ecology's adopted rule. Ecology needs to examine more closely its assumption that the new wells' depletion effects are a steady-state equivalent at the subbasin and WRIA scales and therefore depletion effects are not greater during the high water use/low flow time of the year.92 The Nooksack Tribe conducted modeling based on a different assumption – that depletion effects are not steady state – and came up with different results than Ecology.93 We did not see any analysis or consideration of the Tribe's analysis in Ecology's RSD. Even though Ecology has chosen to rely on a USGS model, the USGS seems to think that more work is needed to verify how groundwater will respond to shrinkage of glaciers. It is seeking funding from the Puget Sound Partnership to test three models. It appears that Ecology's steady-state assumption may not be as risk averse as Ecology suggests.94 Ecology has no real remedy for the possibility that not enough offset projects take place or that withdrawals occur at a faster rate than offsets. Ecology needs a firm adaptive management program that enables it to manage such situations through such tools as providing notice to the basin of insufficient offsets, temporarily halting the exempt well program, and reopening rulemaking to lower recordable water allowances under the Proposed Rule. In conclusion, Ecology's statement that "[t]he combination of the high likelihood of project completion and the adaptive management mechanism provide Ecology with a reasonable assurance that the projects will meet the offset requirement and achieve NEB during the planning horizon"95 does not withstand close scrutiny.

Response:

Ecology believes the RSD is the appropriate location for the adaptive management strategies. The agency believes the requirements set forth in the RSD are consistent with chapter 90.94 RCW, Ecology's Interim Guidance for Determining NEB, and WR POL-2094.

Ecology developed the RSD with implementation in mind. Yet, as articulated in WR POL-2094, RCW 90.94.020 does not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Further, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans.

Commenter: Amanda Goodin - Comment O-6-6

Adaptive Management As noted, Ecology must certify that projects "will result" in a net ecological benefit.29 Ecology recognizes that in doing so it must be "reasonably assured" that the projects will "be carried 25 See, e.g., Foster v. Dep't of Ecology, PCHB No. 11-155, Order Granting Partial Sum. Judgment, at 27 (2013) (distinguishing between habitat restoration projects with "flow enhancement benefits" from "in-kind mitigation"). 26 RCW § 90.94.090(9)(c). 27 Proposed legislation from 2015 similarly demonstrates this conventional understanding, noting that out-of-kind mitigation includes "land development practices, habitat restoration, and best management practices[.]" Sub. Senate Bill 5965, 64th Leg. Session, Sec. 2(d) (2015). 28 Three subbasins will not benefit from any offset water and two have no projects at all. RSD at 41. 29 RCW §§ 90.04.020(4)(c) (Ecology "must determine that actions identified in the watershed plan . . . will result in a net ecological benefit"); .020(7)(a) (Ecology "must adopt rules" that "meet the requirements of this section"). Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 8 out."30 At the same time, Ecology insists that there is no requirement that the identified projects and actions actually come to fruition: RCW 90.94.020 and 90.94.030 do not create an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Further, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans.31 This reasoning extends to the issue of funding established by ESSB 6091: Ecology has found that while projects identified in the watershed plans are prioritized, "[t]here is no guarantee that any application or project proposal will be funded[.]"32 Ecology's cramped interpretation is contrary to its statutory responsibilities. While true that the statute does not place a direct obligation on project proponents or localities to complete the work in the watershed plans, it does task Ecology with ensuring that the standards set by ESSB 6091 have been met. The fact that the statute allows permit-exempt wells to be drilled in advance of the projects heightens rather than diminishes the importance of implementation and the achievement of stated goals. Ecology's use of the term "reasonable assur[ance]" in its guidance document is instructive. This term also appears in the Clean Water Act Section 401 certification rules, providing a standard Ecology uses to certify that a federally permitted activity will not violate state water quality standards.33 The Pollution Control Hearings Board held that Section 401 "reasonable assurance" means "something is reasonably certain to occur. Something more than a probability; mere speculation is not sufficient."34 The Washington Supreme Court further recognized the 30 RSD at 39 ("Ecology selected the list of projects based on the above criteria to be reasonably assured the projects would be carried out."). 31 POL-2094 at 10; RSD at 49 (same); see also RSD at 40 ("Neither the completion of the projects nor the attainment of their anticipated results are guaranteed"). 32 Dep't of Ecology, Washington State, Publ. 19-11-089, Streamflow Restoration Competitive Grants, 2020, at 1 (2019); see also RSD at 40 ("the listing of a project herein does not obligate Ecology to fund a project"). 33 40 C.F.R. § 121.2(a)(3) (agency must provide a statement that "there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards"). 34 Port of Seattle v. Pollution Control Hearings Board, 151 Wn.2d 568, 600 (Wash. 2004) (citation and quotation marks omitted). Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020

Page 9 importance of robust adaptive management to support a finding of "reasonable assurance," given the uncertainties of ecological mitigation outcomes. 35 Yet the section of the Nooksack RSD devoted to "adaptive management" includes only information gathering, requiring Whatcom County to prepare annual and five-year selfassessments.36 There are no built-in penalties, incentives, or adjustments designed to actually produce results. At the same time, Ecology appears to assume that adaptive management will play an important role in the Nooksack Basin: "Ecology's adaptive management approach will enable adjustments and course corrections over time and establishes an approach to incorporate new information as well as new projects and actions."37 How this will occur without an ongoing assessment of impacts through metering or triggers for mandatory intervention is not discussed.38 Ecology must include steps to intervene if the recommended projects falter before full implementation or do not achieve the instream benefits projected in the RSD. Monitoring and real adaptive management are essential for overcoming the uncertainties necessarily involved in projections that, at a minimum, extend out over the next two decades. 39 At a minimum, this would require that whenever monitoring reveals that projects are not providing the water projected in the RSD in a reasonable amount of time, enforceable contingency plans would be automatically triggered, resulting in the development of additional offset water. 35 Id. at 606 ("Monitoring and adaptive management provide a mechanism through which Ecology can mitigate [the] inherent uncertainty" that comes with predicting future results.). That uncertainty is only magnified when Ecology relies on projects that are not traditional "wet water" mitigation. See, e.g., RH2, App. A, at 6 (noting the "uncertainty of the quantity of offset water provided" for the Skookum Creek Project); Final Guidance at 11 (habitat projects increase uncertainty). 36 RSD at 49-51. 37 Id. at 63. 38 See Airport Comm. Coal. v. Dep't of Ecology, PCHB No. 01-160, at 82, Findings of Fact, Concl. of Law (Aug. 12, 2002) (noting that reliance on adaptive management means including "specific enforceable requirements" if "monitoring data indicate [that] standards are being violated"). 39 Ecology instructs planning groups to assess "the likelihood that project and action benefits will occur, including local support, and any possible barriers to implementation." Final Guidance at 12. As noted by the Lummi Tribe, projects such as the managed aquifer recharge at the North Fork Site (#8) and Storage Projects (#28) remain, at best, conceptual. Lummi Tribe Cmts at 3. Neither has a project proponent, and the storage at the North Fork site "has not been critically evaluated" nor have any discussions taken place with landowners. RSD at 43, 47. Yet Ecology has continued to rely on them. Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 10 Ecology should begin by incorporating key elements of the RSD, such as adaptive management, directly in the actual rule language. As the Pollution Control Hearings Board recognized in a water right challenge, necessary conditions must be documented in such a way to become "an enforceable provision[.]"40 The Board directed Ecology to "place in the [water right] permit" the relevant condition, rather than rely on language appearing in an accompanying Report of Examination (ROE).41 The same logic applies here.

Response:

Ecology believes the adaptive management approach described in Chapter 7 of the RSD is consistent with chapter 90.94 RCW, WR POL-2094, and the Interim Guidance for Determining

NEB. As well, the agency believes the description of funding for the projects in the RSD is consistent with the law and WR POL-2094. Ecology respectfully disagrees with your comment and believes the RSD is the correct place for the adaptive management approach. Please see responses to Comments T-3-10, I-3-12, and O-3-7, and Chapters 6-9 of the RSD.

Commenter: Perry Eskridge - Comment OTH-4-14

MR. ESKRIDGE: Adaptive management. Ecology keeps throwing out this use. The Planning Unit estimated 110 new homes every year. We know -- we know for sure that there have only been 31 permits total issued in the past two years, 1/20th of the way through the planning session, and we are only barely at 20 percent. There's no change in the analysis on this change in facts. There's nothing in there about this.

Response:

Adaptive management information is located in Chapter 7 of the RSD.

Commenter: Shannon Wright - Comment O-2-8

4. Why did Ecology choose five year self-assessments for projects under the Adaptive Management chapter? Wouldn't Ecology want to receive yearly updates on progress to be able to see trends over time and adaptively manage more accurately? We suggest revising this to yearly self-assessments.

Response:

Chapter 7 of the RSD describes requirements for annual reporting, as well as five-year assessments. Because of the timelines associated with project implementation and the frequency of annual and five year reporting, Ecology believes this reporting strategy is appropriate. Please see response to Comment T-2-14.

Commenter: Various Citizens - Comment OTH-2-5 (see names in index)

5. Make sure projects are being implemented as anticipated by requiring self-reporting of project proponents every year as opposed to five years. To truly adaptively manage whether projects are moving forward as anticipated, there should be updates more frequent than five years. Whatcom County is responsible for submitting updates each year on how many building permits utilizing exempt wells are issued. Why shouldn't project proponents?

We thank you for your attention to this critical matter for the future of our Nooksack watershed. Sincerely, Lynne A 98103 Laura Ackerman 99224 Kathryn Alexandra 98221 Becky Anderson 98229 Glen Anderson 98503 Lyle Anderson 98230 Christine Austin 98227 Linda Avinger 98226 Ahwren Ayers 98248 Dennis Bahr 98296 Stephen Bailey 98244 Simon Bakke 98225 Susan Bakke 98501 Kelly Baizer 98226 Wesley Banks 98682 Betty Barats 98225 Nick Barcott 98087 Vivian Bartlett 98229 Wendy Bartlett 98225 Sharon Belk-Krebs 98226 Gary Bennett 98229 Tika Bordelon 98101 Pam Borso 98240 Tom Borst 98267 Bill Bowman 98257 Kerry Brehan 98248 Priscilla Brotherton 98229 Robert Brown 98466 Naomi Bunis 98229 Lucia Burgess 98225 Karen Burns 98225 Linda burns 98247 Claudia Callahan 98225 Mark Canright 98283 Rebecca

Canright 98283 Darcy Carlson 98225 Joel Carlson 98516 Guy Chan 98195 Bailey Cheney 98225 David Church 98229 Kevin Clark 98229 Judith Cohen 98112 Annapoorne Colangelo 98236 Amanda Colbert 98226 Judith Culver 98248 Jeff Daffron 98226 Barbara Davidson 98225 Virginia Davis 98072 Brandie Deal 98021 Karlee Deatherage 98284 2 Casey Defoer 98229 Carolyn DeSilva 98226 Lizbeth DeWitt 98226 Jamie Donaldson 98225 Ro Donelson 98248 Andronetta Douglass 98226 Eleanor Dowson 98012 Eric Dudley 98229 Patrick Dukes 98225 Wendy Eakie 98226 Sean Edmison 98052 Rick Eggerth 98229 Suneeta Eisenberg 98229 Gabe Epperson 98225 Lori Erbs 98220 Bronwen Evans 98104 Dagmar Fabian 98225 Zacchary Fairbairn 98225 Andrew Falabella 98225 Rose Featherston 98247 Karen Flood 98247 Vincent Foster 98225 Barbara Francis 98226 Carrie Gaasland 98229 Patsy Gilmore 98225 Hal Glidden 98225 Helen Glidden 98225 Laura Goldberg 98223 Jan Gordon 98232 Bonnie Goss 98229 Lise Grace 98225 Margarette Grant 98230 Jude Green 98225 Lori Gudmundson 98227 Randy Guthrie 98290 Jackelyn Hackett 98229 Martha Hagan 98225 Tom Hahney 98226 Janet Hamill 98245 Judy Hammer 98221 Krista Hammer 98005 Martha Hammer 98248 Christine Hansen 98228 Jim Hansen 98225 Diana Harrison 98226 Jo Harvey 98047 Susan Hass 98075 Corey Havens 98225 Linda Hawley 98229 Libby Hazen 98225 Margaret Henderson 98229 Bob Hicks 98225 Patricia Higgins 98231 Ruth Higgins 98230 Eleanor Hines 98225 Sonja Hinz 98225 sally Hodson 98279 Peter Holcomb 98226 Karen Holderman 98226 Lois Holub 98244 Ted Holzman 98105 Annie Honrath 98225 Sonia Hurt 98230 Nicole Hurtubise 98225 Carole Jacobson 98229 Dena Jensen 98230 Julie Johnson 98226 Lorraine Johnson 98125 Mark Johnson 98226 Richard Johnson 98229 Arnold Jolles 98125 Dorothy Jordan 98264 Deborah Kaye 98230 Mari Kemper 98229 Monea Kerr 98225 David Ketter 98226 Steve Knutzen 98221 Jane Kroger 98229 Barbara Lamb 98260 Elsie Lamb 98225 Jonathan Lane 98225 George Lawrence 98226 David Laws 98229 Michael Lilliquist 98225 Sammy Low 98292 Bjorn Lunde 98274 Melinda Lunsford 98228 Hunter Lydon 98229 Colson Lynn 98229 Sean Lynott 98226 David MacLeod 98225 Michael Maghakian 98226 Charlie Maliszewski 98229 Margo Margolis 98229 Shannon Markley 98177 Albert Marshall 98262 Liz Marshall 98225 Joanne Mayhew 98502 Roberta McBride 98026 Gloria McClintock 98274 Penny McGiNTY 98225 Carolyn McGlothlin 98225 Tina McKim 98225 Arria Merrill 98262 Brenda Michaels 98368 Suzanne Mitten-Lewis 98230 Erin Moore 98225 Amy Mower 98266 Shirley osterhaus 98225 Tracy Ouellette 98232 Lynne Oulman 98225 Adina Parsley 98292 Shannon Parsons 98230 Lynne Pendleton 98225 Jim Petkiewicz 98250 Darrell Phare 98226 Paul Potts 98577 John Primrose 98225 Myra Ramos 98262 Marguerite Rietz 98230 Lesley Rigg 98225 Laura Rink 98229 Margaret Rivard 98363 Ryan Roberts 98229 Sandy Robson 98230 Barbara Rosenkotter 98245 Paula Rotondi 98226 Elena Rumiantseva 98115 Lynn Russell 98229 3 John S 98133 Sasha Savoian 98225 Jonathan Scanlon 98225 James Scarborough 98225 David Scheer 98225 Joan Schiendelman 98503 Jerry Schuster 98226 Jason Scribner 99026 Cornelia Shearer 98092 Warren Sheay 98225 Warren Sheay 98225 Diane Smith 98229 Leslie Smith 98226 Michael Snow 98225 Cathy Spalding 98516 Julia Spencer 98225 Suzanne Steel 98230 Jaye Stover 98233 Diane Sullivan 98277 Kristin Sykes-David 98229 Jeanne Taylor 98229 Mary Teesdale 98225 Erik Thomas 98225 Robin Thomas 98225 Amber Train 98226 Friedrich Ulrich 98226 Emily van Alyne 99353 Elizabeth Verbeck 98660 Dirk Vermeeren 98226 Ann Vetter-Hansen 98225 Thomas Voorhees 98236 Liisa Wale 98226 Karla Ward 98229 Patricia Warden 98056 Margaret Warner 98226 Liz Washburn 98225

Elyette Weinstein 98501 Rebecca Westlake 98225 Dora Weyer 98204 Nancy White 99216 Joe Wiederhold 98229 Raymond Williams 99301 Bea Wilson 98020 Sonja Wingard 98226 Edward wolf 98225 Justin Woodum 98225 Cheryn Zimmer 98274 4

Response:

Please see response to Comment O-2-8.

Comments on Net Ecological Benefit (NEB)

Commenter: Ross Cline, Sr. - Comment T-3-12

Net Ecological Benefit: o While we acknowledge that offsetting projects, if fully implemented and effective, will generate substantial benefit, we do remain concerned about the spatial and temporal gaps between impacts and offset projects, and the potential for significant streamflow depletion in localized areas, especially where permit exempt well development, and associated consumptive use, is concentrated in basins with low summer base flows. While it is reasonable to assume that permit-exempt well consumptive use impacts will extend beyond the 20-year planning horizon, the net ecological benefit does not account for the lifespan of benefit for offsetting projects beyond that timeframe.

Response:

Thank you for your comments. The statute established a twenty-year timeline for analysis of new consumptive use impacts. In-time and in-subbasin offsets are of highest priority; however, this was not always feasible and, per RCW 90.94.020(4)(b), in-time and in-subbasin offsets are not required, as long as offsets are met in total across the WRIA. The projects in the RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets. Please see response to Comment O-3-2. Offsets and ecological benefits from projects and actions, including longevity and maintenance requirements, were considered in the rulemaking consistent with WR POL-2094 and Ecology's Interim Guidance for Determining NEB.

Ecology believes the adaptive management approach outlined in Chapter 7 of the RSD informs the progress of these offset and environmental benefits consistent with the requirements of the law.

Commenter: Oliver Grah - Comment I-161-11

• Net Ecological Benefit: o While we acknowledge that offsetting projects, if fully implemented and effective, will generate substantial benefit, we do remain concerned about the spatial and temporal gaps between impacts and offset projects, and the potential for significant streamflow depletion in localized areas, especially where permit exempt well development, and associated consumptive use, is concentrated in basins with low summer base flows. o While it is reasonable to assume that permit-exempt well consumptive use impacts will extend beyond the 20-year planning horizon, the net ecological benefit does not account for the lifespan of benefit for offsetting projects beyond that timeframe.

Response:

Thank you for your comment. See the response to Comment T-3-12.

Commenter: Merle Jefferson - Comment T-2-13

11. Net Ecological Benefit (NEB): The NEB analysis is insufficient; it does not characterize and quantify potential impacts to instream resources from the projected 20-year new domestic permit-exempt water use at a scale to meaningfully determine if the proposed projects are in. time and in-place. Far more detailed analysis is needed than annualized steady-state water use at the scale of WRIA 1. a. Lowland streams where development is likely to occur are already impaired and are important for fish production. These streams should not be subject to further degradation just because they already impacted. b. Further temporal analysis is required. For instance, July water use will be greater than the average annualized water use, and will have a proportionally larger impact. Please refer to the December 5, 2018 Interim Work Product developed by Nooksack Natural Resources and Lummi Natural Resources Department technical staff as part of the WRIA-1 planning effort entitled "Assessing the Ecological Effects of WRIA 1 Watershed Plan Update" for documentation that contradicts the assertion that impacts to instream resources will be small, regardless of whether they are measurable or not.

Response:

Thank you for your comments. The statute established definitions for higher and lower priority projects; please see RCW 90.94.020(4)(b). In-time and in-subbasin offsets are of highest priority; however, this was not always feasible and, per RCW 90.94.020(4)(b), in-time and in-subbasin offsets are not required, as long as offsets are met in total across the WRIA. The projects in the RSD exceed the offsets required across WRIA 1, and therefore meet the overall statutory requirements for offsets.

The RSD lays out Ecology's rationale for assuming steady-state impacts to streamflow depletion in Chapter 4.2.4. Figure 4.3 in the RSD demonstrates the seasonal temporal variability in the pumping stress. By Ecology's calculations, July pumping is almost four times the winter average rate (red curve). The key take-away from Figure 4.3 is that while pumping stresses are seasonal, the depletion impacts are much more muted and spread out across the entire water year. Figure 4.3 suggests that Ecology's assumption that streamflow depletion is equivalent to the steady-state rate is more than adequate for the distances modeled (as they (blue, green, pink lines) fall below the steady-state (black) line).

Commenter: Skip Richards - Comment I-134-5

1.3. Net Ecological Benefit (NEB) Determination, The statute, at RCW states the following regarding NEB, (c) Prior to adoption of the updated watershed plan, the department 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 within the water resource inventory area.
https://app.leg.wa.gov/RCW/default.aspx?cite=90.94.020 Since the legislature did not provide an explicit definition of "Net Ecological Benefit," Ecology issued a guidance document that

addressed the issue, as follows Interim Guidance for Determining Net Ecological Benefit, June 2018, Publication 18-11-009 This document is available on the Department of Ecology's website at, https://fortress.wa.gov/ecy/publications/summarypages/1811009.html The Interim Guidance document, at page 2, states, with respect to what local information planning groups should rely, and presumably upon which Ecology will rely, regarding determination of NEB: "Information on local conditions is crucial to understanding how to NEB for individual watersheds. NEB evaluations should make use of available information on watershed-specific factors including, hydrogeology, stream flow conditions, fish populations and life histories, current habitat conditions, water use demand, and local salmon-recovery efforts. Ecology's evaluation of NEB will incorporate existing information on watershed-specific factors that are addressed during the planning process and rely heavily on input from local, state, federal and tribal resource managers, and water resources stakeholders participating in the planning process." And, "Plans submitted for approval should provide structured and transparent accounting that itemizes and compares projected impacts against recommended offsetting projects for use in the NEB evaluation. The impacts from future domestic permit-exempt water use and the effects of planned offset projects should be quantified whenever possible. When necessary, the benefits of some types of offsets may be evaluated qualitatively. Uncertainty of benefits should be identified and quantified to the extent possible. Plans should demonstrate scientific rigor, and include documentation and justification of key scientific methods used. Interim Guidance document, Page 3. The Interim Guidance document states, "When addressing NEB, plans should address the following elements, as discussed in more detail below, 4. Provide a narrative description and quantitative evaluation (to the extent practical) of the net ecological effect of the plan." Interim Guidance document, page 4. Elsewhere in the same document, we find "Descriptions of All Water and Non-Water Offset Projects To properly characterize benefits to instream resources, plans should list and describe each habitat project with the following information when available, • Information on the proposed project that includes a narrative description and a quantitative and/or qualitative assessment of how the project will contribute to NEB." Interim Guidance document, page 7. Further on the same document, Ecology elucidates the requirements of Element 4 of NEB: "Element 4 Provide a narrative description and quantitative evaluation (to the extent practical) of the net ecological effect of the plan. "Ecology‘s expectation is that plans will provide a transparent, structured evaluation to be used in Ecology's NEB analysis to determine whether the requirement in ESSB 6091 has been met. If the planning group concludes that the planned projects recommended in the plan will achieve NEB, the plan should include a clear explanation and justification for that conclusion. "Plan components to be used in the NEB analysis, • May be structured in the form of a ledger or matrix that describes all the impacts and offsets in detail and sums up the net ecological effect • Should describe the scale at which the plan is designed to achieve success (e.g., subbasin or WRIA) • Should include a description of the projected impact to instream flows that will not be offset through replacement of Water. To the extent possible, describe this projected flow impact in terms of ecological impact to instream resources. • Should include a description of how the recommended projects and actions will offset the total projected new consumptive domestic permit-exempt water use over the subsequent 20 years throughout the watershed. • Should address the feasibility of plan implementation. This includes what is known about funding available under ESSB 6091 and

other funding sources. The plan should also prioritize projects for funding and clearly identify the group of projects and actions that must be funded to achieve NEB." Interim Guidance document, page 8. Excerpts re NEB in Ecology's rulemaking SupportingDoc11-093, SupportingDocll-093, Page 9: "The law allows new permit-exempt domestic wells to have an impact on closed water bodies and water bodies With minimum instream flows. It also requires planning efforts in 15 Water Resource Inventory Areas (WRIAs) to develop watershed plan updates2 or watershed restoration and enhancement plans3 to project consumptive use by new domestic permit-exempt wells over the next 20 years, and identify projects and actions to offset those impacts in order to achieve a net ecological benefit (NEB) for the WRIA. Streamflow restoration projects and actions are to be prepared with implementation in mind." SupportingDocll-093, Page 39 "Ecology's 2018 Interim Guidance on Determining Net Ecological Benefit gives a number of examples of projects that can provide water offsets and habitat benefits including retiming water from the high flow to the low flow seasons. However, many of the stream management units in WRIA 1 have partial or year-round closures listed in WAC 173-501-040(1), making water unavailable for these types of retiming projects. SupportingDocll-093, begins page 58: Chapter 9 — NEB Determination "RCW states that prior to adoption of an updated Watershed plan, the department 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 within the water resource inventory area." RCW further states that if a watershed plan that meets the requirements of this section is not adopted, "the department must adopt rules for that water resource inventory area that meet the requirements of this section by August 1, 2020." This chapter provides Ecology's analysis and determination on whether the NEB requirement is met. "In June 2018, Ecology issued Interim Guidance for Determining NEB36 (Interim Guidance) to assist Streamflow Restoration planning groups on expedited planning tracks, including WRIA 1. This is the guidance Ecology previously established would be used to evaluate NEB in a WRIA 1 watershed plan update or a rulemaking. This guidance states: A net ecological benefit determination means anticipated benefits to instream resources from actions designed to restore streamflow will offset and exceed the projected impacts to instream resources from new water use. "The Interim Guidance goes on to provide guidance on the process and information Ecology will use to evaluate NEB. The guidance describes the following four elements to the analysis and evaluation 1) estimate 20 years of new domestic permit-exempt water use; 2) describe and evaluate offset projects; 3) describe how the planned projects and actions are linked or coordinated with other existing plans and actions, and 4) provide a description and evaluation that the projects and action will achieve NEB SupportingDocll-093, Page 60: Ecology's Project List "Ecology leaned heavily on this list of locally-approved projects and actions for achieving offsets for projected consumptive use impacts and achieving a net ecological benefit. "As discussed in Chapter 6, Ecology reviewed and identified a suite of projects from the WRIA 1 planning effort's list of approved projects that Ecology believes, once implemented, offer a reasonable assurance that the consumptive use impacts of new domestic permit-exempt wells from 2018-2038 will be offset on the scale. In total, Ecology's project list provides an estimated 3,767 acre-feet per year of offset water. This is an order of magnitude greater than 390 acre-feet per year, Ecology's estimate of the volume needed to offset impacts from 20 years of domestic

permit-exempt wells, including the 1.5 safety factor. In addition to the offset benefits, many of these projects provide habitat improvements at specific project locations." SupportingDocll-093, Page 63: 9.4 NEB Description and Evaluation "The fourth element of the Interim Guidance discusses providing a description and evaluation that the projects and actions will achieve NEB. 9.4.1 Comparison of Aggregated Subbasin Summer Low Flow and Consumptive Use "Comparisons of the impacts from new domestic permit-exempt wells versus offsets need to consider both the flow benefits and habitat benefits associated with the offset projects and actions. It is important to recognize the relative scale of the impacts and offsets. WRIA-wide, Ecology calculated a projected offset requirement of 390 acre-feet per year for the consumptive uses associated with new domestic permit-exempt wells during the 2018 — 2038 timeframe, including the 1.5 safety factor. This converts to an average continuous flow of 0.54 cfs across the entire watershed. If new domestic permit-exempt wells are concentrated in a small area, the impacts could represent a high flow percentage of a small stream. However, new domestic permit-exempt wells will most likely be distributed at a low concentration throughout the watershed, and the effect of new uses at any one specific location will likely be quite small." SupportingDocll-093, Page 67: "All of the water-offset projects will provide an ecological benefit to the watershed over and above what is needed to offset new consumptive uses. Additional projects that improve habitat and instream resources and provide additional ecological benefit to the watershed are on the project list. Ecology's adaptive management approach will enable adjustments and course corrections over time and establishes an approach to incorporate new information as well as new projects and actions. At the aggregated subbasin scale, new consumptive uses will likely be a fraction of one percent of the existing summer low flow, and in two-thirds of the aggregated subbasins, will be offset many-fold by the projects identified in Chapter 6." 1.3. Upshot regarding NEB: What Ecology did not provide, in either its Interim Guidance document, or in SupportingDoc11 093, is an explicit threshold determination of how much additional water offset in any given subbasin, or in the WRIA as a whole, would be required to meet NEB, nor did it provide such a threshold for non-water projects such as habitat improvements. For a given subbasin, would 1 additional gallon per day over and above the offset provide adequate NEB? One supposes not, but then, Ecology does not appear to explicitly address what it determined to be the lower limit of a valid NEB amount, if it made such a determination at all. In the case of WRIA 1, Ecology can be excused for skirting the threshold determination issue because it did not need to do so. As cited above in SupportingDoc11-093, in Ecology's own words WRIA-wide streamflow impacts and offsets, Ecology reviewed and identified a suite of projects from the WRIA 1 planning effort's list of approved projects that Ecology believes, once implemented, offer a reasonable assurance that the consumptive use impacts of new domestic permit-exempt wells from 2018-2038 will be offset on the scale. In total, Ecology's project list provides an estimated 3,767 acre-feet per year of offset water. This is an order of magnitude greater than 390 acre-feet per year, Ecology's estimate of the volume needed to offset impacts from 20 years of domestic permit-exempt wells, including the 1.5 safety factor. In addition to the offset benefits, many of these projects provide habitat improvements at specific project locations." Basin-specific streamflow impacts and offsets: If new domestic permit-exempt wells are concentrated in a small area, the impacts could represent a high flow percentage of a small stream. However, new domestic permit-exempt wells will most likely be

distributed at a low concentration throughout the watershed, and the effect of new uses at any one specific location will likely be quite small." 1.3.1. Net result for NEB, as stated by Ecology: "All of the water-offset projects will provide an ecological benefit to the watershed over and above what is needed to offset new consumptive uses. Additional projects that improve habitat and instream resources and provide additional ecological benefit to the watershed are on the project list.

Response:

Thank you for your comments.

Commenter: Kathy Sabel - Comment I-165-4

3) What is the impact of using the NEB Interim Guidance vs the Final NEB?

Response:

Ecology published the Interim NEB Guidance in June 2018 to support the watersheds with early Streamflow Restoration planning deadlines, including WRIA 1. Ecology used public input and research from Washington State University to develop the Final NEB Guidance. The Final NEB Guidance provides additional details, clarifications, as well as suggestions, to help the planning groups meet the requirements of the law. The requirement in the law, described in both guidance documents, is to calculate the consumptive use by new domestic permit-exempt wells over the next 20 years, and identify projects and actions to offset those impacts in order to achieve a NEB for the WRIA.

The commenter used the term “impact” which we interpret to mean effect of the two guidances. Ecology did not do a systematic analysis for this rulemaking under both guidances, so it cannot comment on detailed effects of using one guidance versus the other. However, subtle differences between the interim and final guidance notwithstanding, Ecology is meeting the requirements of the 2018 law through this rulemaking process.

Commenter: Trish Rolfe - Comment O-3-12

The supporting document's net ecological benefit analysis is inadequate because it fails to account for the effects of climate change on the ecological baselines in the basin. While the projects proposed for achieving net ecological benefits (NEB) will be of some help in restoring the already significantly degraded conditions for aquatic species in the watershed, Ecology has not provided assurance that the worsening effects of climate change on ecosystems within WRIA 1 have been accounted for in the NEB determination. Ecology relies on 2011 studies from WDFW to determine which areas within the watershed would benefit most from restoration projects, but does not explain whether those studies account for climate change over the coming 20 years or beyond. The RSD's NEB determination is inadequate because it does not explain if or how it has taken climate change into account. As Ecology knows, climate change will increase stress on nearly all aspects of aquatic ecosystem functions in the coming years. Moreover, increased development and climate migration could exacerbate these effects due to their impact on water quality and quantity. As effects of climate change materialize in the watershed, the entire ecological baseline will shift due to factors including changed hydrograph timing and

resulting sediment transport alterations, water chemistry changes, and increases in temperature. Ecology also does not consider the possibility that climate change may cause upstream locations and projects that benefit them to diminish in value by becoming inaccessible to fish and other species due to low flows or high temperatures downstream. Higher summer stream temperatures and reduced flow are projected to exceed tolerance levels and increase lethal stream conditions for salmon and other cold-water species in the Nooksack River.78 Without restoration of riparian shade, maximum water temperatures in the Nooksack river during summer low-flow conditions could increase by between 3.4 to 5.9 degrees C by the 2080s.79 Even with the restoration of full system potential riparian shading, these temperatures are expected to increase by between 1.1 and 3.6 degrees C.80 In conjunction with these temperature increases, the percent of stream miles in which critical condition water temperatures exceed lethal levels for salmonids is expected to increase from the current 18% to between 60% and 94% by the 2080s. 81 Increasing stream temperatures can create migration barriers for migratory fish and can kill cold water species.82 This is of particular importance to salmon, who migrate back to the stream where they were born to spawn.83 Due to climate change, salmon could become unable to migrate to their home-stream to spawn, or may die prematurely in the process as a result of higher temperatures. Because temperatures are projected to increase as a result of climate change, a determination that there will be NEB must take these considerations into account. As adverse stream conditions such as high temperatures, low flows, and altered chemistry continue to worsen due to climate change, upstream habitats may become functionally inaccessible. While the headwater and upstream locations of many proposed projects are of high value under current conditions, Ecology has not shown with certainty that they will remain high value in a climate altered future. There is no analysis showing that improved upstream habitats will remain connected to the downstream reaches as migratory fish and other organisms require. If salmon and other species are unable to reach the benefited habitats due to heat barriers or low flows that occur below the benefited habitats as a result of climate change, then Ecology cannot certify that NEB has been achieved. This is especially important when considering the ecological impacts of drilling new permit exempt wells: as the number of permit-exempt wells increases, surface water availability is reduced, harming salmon at all stages of their lifecycle.84 This issue emphasizes the importance of maintaining streamflows rather than relying on non-water strategies for providing ecosystem benefit. Ecology also asserts that ecological benefits upstream will flow downstream without providing any evidence or analysis that this is true or likely in a climate altered future.85 It is certain that stream flows and temperatures will be altered as a result of climate change within the 20 year planning horizon.86 Therefore, it is necessary for Ecology to provide evidence showing that ecological benefits will actually flow downstream to justify their assumption that upstream restoration projects will provide a NEB to the watershed as a whole.

Response:

Thank you for your comments. See response to Comment O-3-10. Ecology agrees that climate change affects ecosystems throughout the state. RCW 90.94.020 directs the agency to evaluate and offset the impacts from a small subset of water users in WRIA 1, namely the consumptive use impacts from new domestic permit-exempt well users that come into the watershed between

2018 and 2038. It doesn't task Ecology with solving all the impacts from climate change in this rulemaking.

While the impacts from climate change may turn out to be substantial, Ecology does not believe that they will reverse the stream flow.

Commenter: Amanda Goodin - Comment O-6-5

Net Ecological Benefit As mandated by ESSB 6091, Ecology must find that its chosen projects in the Nooksack Basin meet the "net ecological benefit" standard. Two aspects of the net ecological benefit finding in the Nooksack are contrary to Ecology's legal responsibilities: 1) Ecology unreasonably conflates out-of-stream habitat work with bucket-for-bucket water replacement; and 2) Ecology has failed to include adequate adaptive management to overcome the uncertainty around whether the selected projects will be implemented and achieve their stated goals. As a result, Ecology must reevaluate its net ecological benefit finding. It should consider the need for new offset projects that will provide in-kind water as well as new habitat projects that will benefit instream resources where offset water is either non-existent or unlikely to occur. Trees-for-Water Ecology's proposed rule relies on an untenable interpretation of ESSB 6091. Under the statute, the watershed plan rule must both "offset" the projected impacts to instream resources from new permit-exempt wells as well as provide benefits that will "exceed" those impacts.9 [RSD at 63 (quoting Dep't of Ecology, Washington State, Publ. 18-11-009, Interim Guidance for Determining Net Ecological Benefit (2018) ("Interim Guidance")). According to the statute, Ecology "must determine" that the actions identified "will result" in a net ecological benefit to instream resources. RCW § 90.94.020(4)(c).] In other words, projects must: 1) replace the consumptive use of water from the groundwater use, bucket-for-bucket; as well as 2) provide a degree of additional ecological improvement. The latter can rely on additional water instream and/or habitat work (non-water projects) that would improve stream conditions.10 In the WRIA 1 proposed rule, however, Ecology unreasonably relies on habitat projects to "offset" new withdrawals without adequate support for the amount of water they will provide. Such projects are more appropriately included as habitat improvement projects that "protect or improve instream resources without replacing the consumptive quantity of water," and as such must be "in addition to" projects that provide a specific amount of water. In the RSD for the Nooksack Basin, Ecology identifies thirteen projects to support its net ecological benefit conclusion, including both traditional streamflow augmentation (e.g., pumping groundwater to surface water) as well as habitat-focused projects that it maintains will result in additional "wet water." Ecology includes both types in support of its determination that the future groundwater impacts will be "offset."11 For example, Ecology claims that habitat restoration efforts in Skookum Creek will add 1,449 acre-feet per year (AFY) to a tributary of the Nooksack River, well over a third of the total claimed water savings for the entire watershed.12 The other project that most clearly relies on habitat restoration is a 7,000 acre conservation easement on Stewart Mountain. Although the RSD claims an eye-popping 7,240 AFY for Stewart Mountain based on reduced timber harvest, Ecology does not include the figure in the total because it will "not be fully realized" in the twenty-year horizon demanded by the law.13 In its Interim Guidance, Ecology contemplates a limited role for habitat projects in calculating offset water.14 Its list of "water offset projects" with an express habitat component includes only [10 Non-water projects "must be in addition to

water offset projects" that are needed "to offset the consumptive domestic permit exempt use impacts to instream flows[.]" Interim Guidance at 6. 11 See RSD at 41 (calculating the claimed water gains associated with each project). 12 The total amount of water for all thirteen of the projects included in the watershed plan is 3,767 AFY. Id. 13 Id. at 41, 44-45. 14 See Interim Guidance at 5 (noting that offset projects can include water right acquisitions as well as "other projects that provide flow benefits"). The Nooksack rule is governed by Ecology's Interim Guidance. Dep't of Ecology, Washington State, POL-2094, Streamflow Restoration Policy and Interpretive Statement, at 6 n.14 (2019) ("POL-2094"); see also RSD at 54 (applying the interim guidance). Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 5] floodplain restoration and levee removal, both of which arguably more closely resemble managed aquifer recharge. The list does not include forest regrowth or riparian restoration.15 Ecology's inclusion of Skookum Creek and Stewart Mountain may have been influenced by its later-issued final guidance, which more aggressively embraces allowing habitat work to offset water use.16 The claimed in-stream benefit for habitat projects in the Nooksack Basin is troubling in two key respects. First, the supporting information is thin. The Skookum Creek project evidently involves the protection of "high quality forested riparian habitat" while restoring areas that have had "major logging operations[.]"17 The references to restoration in Ecology's single-paragraph description provide little more than the expressed intent to "restore the property to allow natural ecosystems to function" resulting in "significant landscape-scale restoration[.]"18 The only additional details come from a technical report cited by Ecology in the RSD. The report states that it is estimated that the cessation of timber harvesting on this land could result in a 2 [cubic feet per second (cfs)] increase in instream flow and the reintroduction of beavers to Skookum Creek and other restoration work could further enhance instream flows.19 This summary description raises a number of questions. How exactly was the 2 cfs increase calculated? To what extent will the benefits accrue during the twenty-year time horizon mandated by the legislation? Like the Stewart Mountain project, Skookum Creek is relying on [15 Interim Guidance at 5. 16 Dep't of Ecology, Washington State, Publ. 19-11-079, GUID-2094, Final Guidance for Determining Net Ecological Benefit, at 11 (2019) ("Final Guidance") (allowing for the inclusion of projects that "result in an increase in streamflow" even if they otherwise "prioritize the habitat benefits"). However, even there, Ecology acknowledges that it may be "difficult to quantify the offset benefits" of habitat projects and that this reality would "potentially increas[e] uncertainty" for any watershed plan. Id. 17 RSD at 43; see also id. at 57 (describing project). 18 Id. at 44. It is unclear whether Ecology is also relying on habitat protection for flow benefits. Ecology's Final Guidance includes projects "that protect current habitats" in its list of examples where streamflow dividends are possible. Final Guidance at 11. That inclusion is curious given that preserving the status quo would not in any sense appreciably alter streamflows for the better, especially considering the twenty-year time horizon required by ESSB 6091. 19 RH2, Final Task 2 Deliverables – Projects and Actions, at App. C (Oct. 2, 2018). A 2 cfs increase roughly corresponds to 1,449 AFY.] reforestation, but Ecology did not include the Stewart Mountain instream flow because it would "not be fully realized" within twenty years. How does Ecology differentiate between the two? In comments submitted on preliminary proposal for WRIA 1, the Washington Department of Fish and Wildlife (WDFW) raised concerns with Ecology's approach: "Numerous habitat restoration and conservation projects are

characterized as having streamflow benefits commensurate with in-kind projects."20 The problem, in WDFW's view, is that the "uncertainties inherent with these kinds of projects make it difficult to accurately quantify those benefits."21 Indeed, the RSD seems to be at odds with the specificity demanded by the Interim Guidance. For habitat projects as floodplain restoration or levee removal where benefits will vary year-to-year, Ecology urges the inclusion of estimates of flow improvement "over an entire year for a range of average and low precipitation years," information absent from the WRIA 1 documentation.22 Second, regardless of the underlying proof, Ecology is blurring the established distinction between water-for-water replacement and habitat restoration, i.e., in-kind versus out-of-kind mitigation.23 The PCHB has long been skeptical of land use changes allowing for increased water use, as in Black River Quarry, which found, "No credit is merited nor authorized under the Water Code for returning to nature, what originally belonged to it."24 Habitat work traditionally has been categorized as out-of-kind mitigation, potentially useful for improving the ecological function of a stream generally but in a separate category from the in-[20 Letter from Megan Kernan, Washington Dep't of Fish and Wildlife, at 2 (May 10, 2019) ("WDFW Cmts"). 21 Id. 22 Interim Guidance at 6. In fact, more information is needed to justify the offset assumptions for most of the projects. We have been unable to locate the underlying calculations in either the RSD or the RH2 technical memorandum. 23 WDFW Cmts at 2 (cautioning against "open[ing] the door to greater uncertainty by characterizing out-of-kind projects with possible streamflow benefits as having in-kind benefits"). Ecology recognizes that "calculating the benefits may be more complicated for [nonwater acquisition] projects." Interim Guidance at 5. 24 Black River Quarry v. Ecology, PCHB No. 96-56 Findings of Fact, Concl. of Law, at 15 (1996) (rejecting attempt to create "new water" though the infiltration of stormwater runoff); see also Manke Lumber v. Ecology, PCHB 96-102-106, Findings of Fact, Concl. of Law, at 11 (Nov. 1, 1996) (finding that the water trees leave in the ground at any point in time "is merely a portion of the ground water resources that belongs to the people of the State").] kind mitigation that can provide wet water. It simply is not a substitute for maintaining and improving flows, although habitat restoration can certainly benefit instream resources.25 The legislation here in no way disturbs that division. Instead, when ESSB 6091 does refer to "out-of-kind" mitigation, it does so within its commonly understood meaning: projects that "improve or enhance existing water quality, riparian habitat, or other instream functions and values[.]"26 This description of out-of-stream mitigation pointedly does not encompass water quantity.27 Where the legislature intended to rewrite water law, it did so clearly and unequivocally. Out-of-time and out-of-place offsets for permit-exempt wells were unambiguously embraced by the law. Obscuring the division between in-kind and out-of-kind mitigation was not. Ecology can and should include habitat projects in order to create an overall enhancement of stream resources to support a net ecological benefit finding. Indeed, where offset projects do not replace the same quantity of consumptive use during the same time and in the same tributary or sub-basin, Ecology must include significant habitat projects in addition to lower-priority offset projects to reach a defensible net ecological benefit determination.28 While ESSB 6091 does create an important role for habitat projects, Ecology's claim that the habitat projects provide offset water is inconsistent with the statute and Ecology's supporting documentation.

Response:

Thank you for your comments. The RSD includes multiple water offset projects (e.g., water right acquisitions and managed aquifer recharge projects) as well as habitat improvements projects (e.g., reconnection of off-channel habitat, barrier removal, and shading projects).

Some of these habitat projects also provide water offset benefits, such as the Skookum Creek project, but by design they prioritize the habitat benefits. It can be difficult to quantify offset volumes for these types of projects. Ecology relied on much of the WRIA 1 Streamflow Restoration planning process's agreed upon work for project descriptions, including quantifications; please see Chapter 6 of the RSD and response to Comment I-3-6.

The portfolio of projects in the RSD has a total offset volume that greatly exceeds the target offset volume. This gives Ecology reasonable assurance that the offset target volume will be met even if some of the projects don't produce the volumes forecast. Please see Chapter 7 of the RSD for information on adaptive management.

Commenter: Alan Chapman - Comment OTH-4-10

MR. CHAPMAN: The same thing with net ecological benefit. What is the minimum threshold required for net ecological benefit? The Statute 90.94 doesn't say. The supporting document doesn't say. It could be one gallon per minute per sub-basin, who knows? It doesn't say. And if not, why not? So now let's just perform some eighth grade arithmetic on this thing. 260 acre feet per year offset -- add the safety factor of 390. Well, you've got 3,767 acre feet per year of projects. So after you do all this arithmetic, you wind up with a whole surplus. This was mentioned before by one of the questioners. So again, why couldn't you just stick with the 3,000 gallons per day on a half-acre. You do the arithmetic, and you've got plenty of room in there using the methodology you stated to accomplish those purposes. Well, the question -- the answer before was the funding. Well, this doesn't have to happen immediately. Over 20 years the funding could be made available. Therefore, this whole thing is an exercise in only one branch of science, political science. There's no justification for it at law or real science. Thank you very much.

Response:

Thank you for your comments. As you note, the term "Net Ecological Benefit" is a creation of the Washington State Legislature. Ecology's Interim Guidance for Determining NEB was issued in June 2018 to outline the process and information Ecology uses to evaluate NEB for this rulemaking. Please see Chapter 9 of the RSD and Ecology's Interim Guidance for additional information.

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. Please see Chapter 3 of the RSD for more information.

Commenter: Megan Kernan - Comment A-3-1

January 17, 2020 Via Electronic Submission Ms. Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia, WA 98504-760 Re: WDFW Comments on Proposed Rule Language and Rule Supporting Document for WAC 173-501 Dear Ms. Sawabini: The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to comment on the Washington Department of Ecology's (Ecology) draft rule amendment to Chapter 173-501 WAC. The availability of adequate streamflows in the Nooksack watershed is essential to the recovery of salmonids, which play an important ecologic, economic, and cultural role in this watershed and in ocean fisheries and ecosystems. These fish are imperiled; the WRIA 1 Salmonid Recovery Plan identifies only three of the 25 salmonid stocks in the Nooksack as "healthy."1 In 1985, Ecology, in close coordination with WDFW, took an important step toward the protecting salmonids in the Nooksack through the creation of the instream flow rules contained in Chapter 173-501 WAC. Unfortunately, despite these protections, streamflows in the Nooksack watershed frequently fall below the levels necessary to support salmon recovery efforts.2 It is in this context that we view the amendment to the Nooksack instream flow rules. The Nooksack rule amendment was developed to fulfill the requirements of the Streamflow Restoration law enacted by the legislature in 2018 and codified primarily under 90.94 RCW. The law seeks to address the impacts of rural development on surface waters protected by rule through the establishment and implementation of a program to protect and enhance streamflows. After considerable effort, and in the face of an extremely tight, legislatively-mandated deadline, the watershed planning group in the Nooksack watershed was unable to approve the watershed plan addendum required by 90.94.020 RCW, thereby triggering the rulemaking requirement of subsection 7(a). WDFW is concerned that the proposed rule language does not provide certainty of adequate streamflows for salmon and steelhead recovery, and it may fall short of meeting the requirements of RCW 90.94.020. [1 Water Resources Inventory Area 1 Salmon Recovery Funding Board. WRIA 1 Salmonid Recovery Plan. (2005), 2. 2 WA Dept. of Ecology. Draft Rule Supporting Document Chapter 173-501 WAC. (2019), 19. Ms. Annie Sawabini January 17, 2020 Page 2]More specifically, WDFW is not confident that the rule will offset impacts to protected surface waters from future residential, permit-exempt well use and provide a Net Ecological Benefit because: 1) The streamflow benefits of many of the projects described in the rule-supporting document are extremely uncertain; 2) The project descriptions contained in the rule-supporting document lack sufficient detail to adequately assess their ecological benefits and may result in unintended, detrimental impacts to salmon and aquatic resources; and 3) Some subbasins have projected impairments to streamflows without containing a single beneficial project or action.

Response:

Thank you for your comments. Please see the responses to Comments O-6-5, O-3-7, I-3-12, T-3-10, and A-3-4. All of the offset information that the agency has is included in the RSD, Chapter 6.

You are correct, there are three subbasins that don’t have specific offset projects at this time. The RSD encourages WDFW or any other entity to propose offset projects that would benefit those

subbasins; see Chapter 9.4.3 of the RSD. RCW 90.94.020 requires the consumptive use offset and NEB determination to be met at the WRIA scale (RCW 90.94.020(4)(c)). While Ecology sought to offset impacts in all subbasins, it is not always feasible and is not a requirement of the statue. The portfolio of projects and actions listed in Chapter 6 of the RSD offsets the forecasted consumptive use impacts from new domestic permit-exempt wells anticipated to develop over the twenty-year timeline of the statute.

Comments on Enforcement

Commenter: Ross Cline, Sr. - Comment T-3-7

If the outdoor limit continues to be based on irrigated area without a volume restriction, the rule should also explicitly state that irrigated acreage limits will be monitored and enforced. Draft Rule Supporting Documentation:

Response:

Ecology retains all of its existing authorities provided for under law and code, regardless of whether or not they are stated in the rule. This includes the agency's existing authorities including, but not limited to: chapters 90.03, 90.44, and 43.21A RCW.

Commenter: Oliver Grah - Comment I-161-15

If the outdoor limit continues to be based on irrigated area without a volume restriction, the rule should also explicitly state that irrigated acreage limits will be monitored and enforced.

Response:

Please see response to Comment T-3-7.

Commenter: James Hansen - Comment I-4-1

I believe that adoption of the Draft Rules will results in no beneficial mitigations to new Exempt Well use in WRIA1, a closed watershed. The comments I made at the Open House in Lyndon to help rectify this failing were not incorporated into the draft. I am a an urban tax payer with an interest in protecting our environment and rural economy. However, the voices of those whose narrow self interest lies in land speculation drowned me out in the process. Eric Hirst made such precise and constructive comments to the Draft that I can not do improve upon them, so I will attache them verbatim as my position. Please get over the hurdle of fearing budget cuts if you truly do a good job. Please modify the Draft Rule to bring accountability to the process

Response:

Thank you for your comment. Ecology respectfully disagrees and believes the projects and actions will result in achieving NEB in WRIA 1.

Commenter: Eric Hirst - Comment I-3-7

Other Issues Neither the Draft Rule Supporting Document nor the Preliminary Regulatory Analyses mentions compliance and enforcement of the 500-gpd indoor and the 1/12-acre outdoor water limit. How does Ecology plan to ensure compliance with this conservation standard?

Response:

The Regulatory Analyses compare rule requirements to the baseline, and by necessity need to assume compliance to make that comparison across requirements under statute. Please see response to Comment T-3-7.

Commenter: Merle Jefferson - Comment T-2-5

2. Acreage-Based Outdoor Water Use: There should be a specific limit on the quantity of water allowed to be put to use for outdoor irrigation. As written, there is nothing to prevent residents from overwatering their 1/12 acre of lawn or non-commercial garden. Ecology appears to assume that any excess irrigation water will not be consumptively used (i.e., will become aquifer recharge), this is not universally true. If a gallon per day limit is not established for outdoor water use, we are also concerned with how Ecology will administer and enforce the acreage based irrigation limits.

Response:

Outdoor domestic quantities and offsets were calculated consistent with Ecology Recommendations for Water Use Estimates. Ecology presumed the full (maximum) outdoor irrigation footprint allowed for under the rulemaking ($1/12^{th}$ acre) for every home, and a high consumptive use crop (pasture/turf grass) water duty when calculating offsets for outdoor domestic uses. As well, a safety factor was added; please see Chapter 4 of the RSD for additional information. Ecology believes these calculations are protective by overestimating offset requirements. Regarding concerns of waste, existing water resources laws--namely chapters 90.03 and 90.44 RCW--prohibit the waste of water.

Since Ecology is not requiring metering and reporting of daily water use for all new domestic permit-exempt wells, the agency believes that an indoor quantity and an outdoor acreage limit are easier for homeowners and regulatory staff to understand, and for Ecology to explain and enforce.

Commenter: Merle Jefferson - Comment T-2-8

6. Accountability and Enforcement: Without metering there is no reliable way to hold residents accountable to the withdrawal limits in the preliminary draft rule. There is also no discussion of how Ecology will enforce the any of the provisions of the preliminary draft rule.

Response:

Please see responses to Comments T-3-7, T-3-6, and T-2-12.

Commenter: Kathy Sabel - Comment I-165-9

9) What form will enforcement of well withdrawals take? Will there be penalties? Will all wells, not just permit-exempt wells, have withdrawals enforced?

Response:

Please see response to Comment T-3-7. Ecology performs enforcement, compliance, and technical assistance for both groundwater withdrawals and surface water diversions.

Commenter: Carmen Andrew - Comment OTH-5-8

MS. ANDREW: There doesn't seem to be any discussion about how this will be monitored or enforced,

Response:

Please see Chapter 7 of the RSD for discussion on the adaptive management approach, including annual reporting and five-year assessments. The department reserves the right to require metering and reporting of water use for domestic users as provided for under existing authorities. This includes, but is not limited to: RCW 90.44.050 and 90.44.250, and the provisions in Chapter 173-173 WAC. Please also see response to Comments T-3-7.

Commenter: Shannon Wright - Comment O-2-3

2. Clarify how will Ecology reconcile people using more than 500 GPD. Households with nine or more people will exceed this limit based on the 60 GPD per person estimate as extrapolated from page 18 of the supporting document. Will they be given a special exemption for the indoor water use limits?

3. Clarify how will Ecology enforce indoor and outdoor watering limits. It is clear in the rule that Ecology will not mandate metering of new permit exempt domestic wells. What other ways will Ecology prevent rural wells from impairing senior water rights? Please include this either in the rule amendments or supporting document so the public has confidence that water rights are not being abused.

4. Will Ecology accept and respond to citizen reports of households on permit exempt domestic wells (after August 2020) exceeding the one-twelfth per acre outdoor watering limit with documented evidence?

Response:

The 500 GPD limit for indoor domestic water use applies equally to all new homes permitted after the date this rulemaking becomes effective using new permit-exempt wells for their domestic water source.

Larger families often experience economies of scale that allow them to use less than the average daily per-person average. The rule amendment does not give special exemptions for indoor use limits. Please see response to Comment I-143-2.

The department reserves the right to require metering and reporting of water use for domestic users as authorized under existing laws and rules. This includes, but is not limited to: RCW 90.44.050 and 90.44.250, and the provisions in chapter 173-173 WAC. Please also see response to Comments T-3-7.

Under chapter 90.94 RCW, new domestic permit-exempt wells are allowed, despite having priority dates junior to other already-existing (senior) water rights. An objective of the law is for adverse impacts on senior water rights to be prevented or offset through implementation of the actions and projects identified in the RSD.

Ecology will prioritize any non-permitted water use that exceed limits specified under the rule, including the 1/12-acre limit for noncommercial lawn and garden watering, within the broader context of the agency's enforcement and compliance priorities in this watershed.

Commenter: Megan Kernan - Comment A-3-2

A regulatory approach (i.e., described in rule) to offsetting the consumptive use impacts associated with future residential, permit-exempt well use would best support the recovery of robust, healthy, and sustainable salmon populations. WDFW is concerned that there is no regulatory requirement to offset future residential, permit-exempt well use embodied in the rule amendment. Ecology created a rule-supporting document to articulate the requirements of 90.94.020 RCW when the law specifically instructs Ecology to meet these requirements in rules.3 We view this explicit requirement as expressing the legislature's intent for a regulatory framework that ensures impacts will be offset with actions. Rule requirements that go unsatisfied have consequences; statements contained within rule-supporting documents do not. We find this distinction significant in the ability of this rule to address the requirements of 90.94.020. In its CR-102 rulemaking filing, Ecology articulates the requirements of RCW 90.94.020 as: 1) Estimate 20 years of projected consumptive water use of new permit-exempt domestic withdrawals in WRIA 1 2) Develop a set of projects and actions that will offset the estimated consumptive water use and result in a Net Ecological Benefit in the WRIA; and 3) Amend and add regulations necessary for implementing these projects and actions. We do not believe that these objectives have been achieved by the proposed rule language. As it is currently configured, the rulemaking does not require new consumptive uses under RCW 90.94 to be offset by any projects or actions. Considering the investments made by WDFW and others during the streamflow restoration planning process, and in other salmon recovery and ecosystem restoration and protection processes, we hope to see greater assurances that the important restoration work contemplated by the law will be implemented, along with greater certainty that the desired benefits from that work be realized. Successful restoration of streamflows and instream resources is most certain when a regulatory framework is in place that requires projects and actions to restore and enhance the resource. 3 The Streamflow Restoration law directs Ecology to "adopt rules for that [Nooksack] water resource inventory area that meet the requirements of this section [RCW 90.94.020] by August 1, 2020."

Response:

Thank you for your comment. Ecology believes this rulemaking is consistent with chapter 90.94 RCW, WR POL-2094, and Ecology's Interim Guidance for Determining NEB.

Commenter: Karlee Deatherage - Comment O-4-5

3. Compliance Finally, we appreciate Ecology's plan to impose reasonable limits on the indoor and outdoor water uses for these new rural homes. However, absent metering (which Ecology largely ignores), we see no way for Ecology to monitor actual water use and ensure compliance with its standards. We hope (and expect) the final rule to include an explicit discussion of metering, compliance, and enforcement. Thank you for considering these comments from the Environmental Caucus. Karlee Deatherage, On behalf of the WRIA 1 Environmental Caucus

Response:

Please see response to Comments T-3-7 and I-7-4.

Comments on Metering

Commenter: Kim Clarkin - Comment I-7-4

My comments on the draft rule follow below. 1. I see no way you can enforce the water use limits if you do not require metering. Even well- meaning householders will not be able to comply if they do not know how much water they are using. I have left my garden hose running for an extended period by mistake—but I have had to pay the City for the error, and that is a great incentive to not repeat it. There is no incentive to improve your water conservation if you don't even know how much water you've wasted. 2. How do you propose to evaluate the effectiveness of your overall program without metering? Unless we know how much water is actually being withdrawn, how can we interpret any changes we might observe in reach-scale flows? This is especially true since you are not limiting stockwater use at all and business withdrawals can vastly outweigh the domestic uses you are regulating here. Metering households' total use is essential for interpreting permit-exempt well impacts on flows.

Response:

Ecology's announcement for the rulemaking (CR-101) did not include metering all new domestic permit-exempt wells as a part of the amendment, and therefore it is outside the rulemaking scope.

Chapter 90.94 RCW provides for metering pilot projects in two areas outside of WRIA 1, and these pilot areas—and their results—are currently underway with data and analyses of the pilot projects pending.

Existing laws and rules provide Ecology with the ability to require any individual user of groundwater, including new domestic permit-exempt water users, to record and report their water use, should that be deemed necessary by Ecology. The state's water code includes several existing laws pertaining to metering, including Ecology's authority to require the measurement,

recording, and reporting of water use. These long-standing authorities include: RCW 90.44.050, 90.44.250, and chapter 173-173 WAC. Ecology retains these authorities. However, the rulemaking does not plan for or authorize a 'blanket' or 'wholesale' metering of all new domestic groundwater permit-exempt wells.

Outdoor domestic quantities and offsets were calculated consistent with Ecology Recommendations for Water Use Estimates. Ecology presumed the full (maximum) outdoor irrigation footprint for every home, and a high consumptive use crop (pasture/turf grass) water duty. As well, a safety factor was added; please see Chapter 4 of the RSD for additional information. Ecology believes these calculations are protective in that they overestimate offset requirements, thereby compensating for uncertainty.

Please see Chapter 7 of the RSD for adaptive management information.

Commenter: Ross Cline, Sr. - Comment T-3-6

We appreciate that the rule explicitly states that Ecology reserves the right to require metering; however, we strongly urge Ecology to go further to require that meters be installed for all new permit-exempt wells.

Response:

Ecology's announcement for the rulemaking (CR-101) did not include metering all new domestic permit-exempt wells as a part of the amendment, and therefore it is outside the rulemaking scope.

Chapter 90.94 RCW provides for metering pilot projects in two areas outside of WRIA 1, and these pilot areas—and their results—are currently underway with data and analyses of the pilot projects pending.

Existing laws and rules provide Ecology with the ability to require any individual user of groundwater, including new domestic permit-exempt water users, to record and report their water use, should that be deemed necessary by Ecology. The state's water code includes several existing laws pertaining to metering, including Ecology's authority to require the measurement, recording, and reporting of water use. These long-standing authorities include: RCW 90.44.050, 90.44.250, and chapter 173-173 WAC. Ecology retains these authorities. However, the rulemaking does not plan for or authorize a 'blanket' or 'wholesale' metering of all new domestic groundwater permit-exempt wells.

Commenter: Oliver Grah - Comment I-161-14

We appreciate that the rule explicitly states that Ecology reserves the right to require metering; however, we strongly urge Ecology to go further to require that meters be installed for all new permit-exempt wells.

Response:

Please see response to Comment T-3-6.

Commenter: Craig Herter - Comment I-158-3

I oppose the metering of private wells as both impractical and unnecessary as well as being an overreach of governmental authority on private well owners who bear the expense of drilling and maintaining the infrastructure of these well.

Response:

The rulemaking does not meter all new domestic permit-exempt wells. Ecology noted these older laws and rules related to the agency's metering authority in the WRIA 1 rule for public awareness. The state's water code includes several existing laws pertaining to metering, including Ecology's authority to require the measurement, recording, and reporting of water use. These long-standing authorities include: RCW 90.44.050, 90.44.250, and chapter 173-173 WAC. Ecology retains these authorities should they be deemed necessary. However, the rulemaking does not plan for or authorize a 'blanket' or 'wholesale' metering of all new domestic groundwater permit-exempt wells. The general response on "Authority for Rulemaking" provides more information on Ecology's authority to meter wells.

Commenter: Eric Hirst - Comment I-3-8

What is the role of metering here? Remarkably, the rule supporting document says nothing about metering in WRIA 1 although it does mention metering in WRIA 5; if metering is called for there, why not in WRIA 1?

Response:

Please see response to Comment I-7-4.

Commenter: Eric Hirst - Comment I-3-11

Again, what is different about WRIA 1 such that metering is not even considered an option?

Response:

Please see response to Comment I-7-4.

Commenter: Senators Honeyford, Warnick, Short - Comment I-97-5

4. The proposed rule unlawfully proposes to meter future water use Furthermore, in its rule the department expressly reserves the right to require metering of future water use in the Nooksack watershed, yet the legislature never authorized this. In fact, RCW 90.94.040 limits metering under the Hirst fix legislation to a pilot project exclusively reserved for the area covered under the Dungeness water rule within WRIA 18, and the area in which the Kittitas County water bank program operates in WRIA 39. It should be obvious to the department and anyone else reading the law that this authorization for metering does not cover WRIA 1. The legislature did not authorize metering in the Nooksack watershed. Thank you for considering these comments. We are very concerned that the department's proposed rule amendment is not consistent with the Hirst fix legislation, and that ignoring the legislature's prescriptions in this rulemaking will invite failure. Sincerely, Senator Judy Warnick Senator Jim Honeyford Senator Shelly Short [1 ESSB 609 1 (2018), codified in part as chapter 90.94 RCW. 2 For withdrawals serving a single

connection, the proposal limits outdoor domestic water use to 1/12 acre. For group connections, outdoor domestic water use is limited to 1/12 acre, and may not exceed a total of 1/2 acre for the entire group. 3 RCW 90.94.020(8) (emphasis added). 4 Five Corners Family Farmers v. Stale, 173 Wn. 2d 296 (2011). 5 Under RCW 90.94.030, drought curtailment is only allowed in the following watersheds: 7 (Snohomish); 8 (Cedar-Sammamish); 9 (Duwamish-Green); 10 (Puyallup-White); 12 (Chambers-Clover); 13 (Deschutes); 14 (Kennedy-Goldsborough); and 15 (Kitsap). 6 RCW 90.94.020(5)(f)(ii)]

Response:

Ecology is not proposing to meter all new domestic permit-exempt wells in WRIA 1 as a part of this rulemaking; please see response to Comment I-7-4.

WAC 173-501-065(e) states "The department reserves the right to require metering and reporting of water use for domestic users as provided for under existing authorities. This includes, but is not limited to, RCW 90.44.050 and 90.44.250, and the provisions in chapter 173-173 WAC."

Ecology noted these older laws and rules related to the agency's metering authority in the WRIA 1 rule for public awareness. The general response on "Authority for Rulemaking" provides more information Ecology's authority to meter.

Commenter: Merle Jefferson - Comment T-2-12

10. Metering: Metering needs to be required. At the December 5, 2018 WRIA 1 Watershed Management Board meeting. several representatives were on the record as generally in favor of mandatory metering (Lummi Nation, Nooksack Indian Tribe, City of Bellingham, and Washington State Department Of Fish and Wildlife); the other members present stated a preference for voluntary metering (Whatcom County, PUD No. 1 of Whatcom County). Although consensus on mandatory metering was not achieved, the policy discussions around this topic indicate that several WRIA-1 entities agree that monitoring water use is an important component of responsible water resources management.

Response:

Please see response to Comment T-3-6. A voluntary metering program is not excluded from happening in the WRIA, despite it not being included in this rulemaking. A voluntary metering program could move forward as a project or action, if the community and a willing project proponent want to pursue it.

Commenter: Joseph Knight - Comment I-153-1

I am writing about the rule-making requirements for new exempt wells in the Nooksack Basin (WRIA1). It is very important that you include metering as part of the new regulations. The principle is simple -- if you do not measure it, you cannot manage it. Without facts and data there is no way to accurately determine then impacts of well water usage on the Nooksack basin.

Response:

Please see response to Comment T-3-6.

Commenter: Natalie McClendon - Comment I-152-2

The bare minimum that new rural exempt well owners should have to do is to meter their use and demonstrate water efficiency practices to minimize their impact on senior rights holders. We are just quibbling over the daily average usage numbers if we do not have a requirement to meter usage to hold users accountable to the permit limits. Everybody else has metered water. It's the only way to build awareness of water usage and even voluntarily reduce water use.

If you can't bring yourselves to include metering in this new rule, please, at the very least, create some sort of voluntary incentive program for metering for both new and current well owners. Those of us who care about water conservation can help make metering of rural wells normal. I contend that metering water is normal, but I some rural circles, it is not, yet.

Response:

Please see responses to Comments I-7-4 and T-2-12.

Commenter: Luanne Van Werven - Comment I-160-3

Finally, the department's proposed rule unlawfully proposes to meter future water use. The Legislature never authorized this in the Hirst fix. You may recall, RCW 90.94.040 limits metering under the Hirst fix legislation to a pilot project exclusively reserved for the area covered under the Dungeness water rule within WRIA 18 and in the water bank program area in WRIA 39 in Kittitas County. There is no mention of metering in WRIA 1.

Response:

Please see response to Comment I-97-5.

Commenter: Amanda Goodin - Comment O-6-4

Regardless of whether Ecology adopts these lower amounts, it should require metering and reporting so that whatever limits it does set are actually enforceable. Indeed, it is difficult to see how homeowners themselves can be expected to remain within established thresholds without a sense of how much water they are using. Ecology's instream rule in the Dungeness Basin requires the metering of all new permit-exempt wells, which promotes the efficient use of water documented by the Water Trust. [6 2 Id. at 663 (quotation marks and citation omitted). 3 Id. at 662-63. 4 Letter from Suzanne Skinner, Washington Water Trust, at 2 (May 10, 2019). 5 See Clallam County, Elwha-Dungeness Watershed Plan at 2.8-1 (May 2005). The Lummi Tribe has found 350 gpd sufficient for both indoor and outdoor use on the Lummi Peninsula. Letter from Merle Jefferson, Lummi Indian Business Council, at 1-2 (May 9, 2019) ("Lummi Tribe Cmts"). 6 WAC 173-518-060 ("All future new surface and groundwater appropriations, other than rainwater collection, shall measure withdrawals"). Beyond the importance of using metering to facilitate meaningful withdrawal limits, there is an even more compelling reason to require metering here. Discussed in more detail, infra, ESSB 6091's command to "offset" future consumptive groundwater use requires a bucket-for-bucket replacement of water in the basin. Maintaining that balance necessitates ongoing metering to allow for potential adjustments to the projects providing the offsets. Again, the Dungeness Basin is instructive. The decision to require

metering there is an outgrowth of the fact that new domestic-well groundwater users in WRIA 18 must either draw from established reserves or mitigate their water use.7 While there are important differences between this approach and ESSB 6091, the Dungeness rule recognizes that there cannot be any real accounting without metering and reporting: tracking the drawdown of the reserves and confining water use to match a mitigation plan requires accurate measurement.8

Response:

Please see response to comments I-7-4 and T-2-12.

Commenter: R. Perry Eskridge - Comment O-5-2

Metering: At the outset, the Association notes that Ecology's or Whatcom County Council's authority to meter wells is undisputed. While we understand that Ecology wanted to reassert its power to issue a metering order at any point, it seems unnecessary to raise a controversial topic in a rule amendment when Ecology does not appear ready to issue such an order. Including that language in this amendment only serves to fuel rhetoric and enflame passions. We would suggest removing that language as Ecology's authority to implement metering is without question and does not bear special mention in a rule specific to WRIA 1.

Response:

In order to address multiple comments received during the Preliminary and Proposed comment periods requesting metering of all new domestic permit-exempt wells, as well as discussion during the WRIA 1 Streamflow Restoration planning process, Ecology feels it’s appropriate to maintain the language in the RSD.

Comments on Fees

Commenter: Merle Jefferson - Comment T-2-11

9. Fees: We are concerned that Ecology has not proposed to increase the permit fee from the $500 required under RCW 90.94. It stands to reason that the fees should be increased to cover the cost of administering the program and to provide at least a portion of the funding needed for water offset and ecological benefit projects. Without sufficient funding, there is a high level of uncertainly that necessary projects will actually be completed.

Response:

A fee increase was not included as a part of this rulemaking announcement (see the published CR-101).

Several projects included in Chapter 6 of the RSD already received partial or full funding, and several more project proponents stated their intent to apply for funding during the current (Jan-March 2020) Streamflow Restoration grant funding round. Ecology believes there is significant likelihood of implementation for the reasons specified in Chapters 6-9 of the RSD, as well as due to: existing funding by Ecology; existing funding provided by another entity; partner willingness; and, overall feasibility.

Adaptive management, as described in Chapter 7 of the RSD, provides for opportunities to address variables, to reduce uncertainty over time, and help meet performance goals by learning from the progress and outcomes of projects and actions.

Comments on Other Permit-Exempt Well Uses

Commenter: Julie Carpenter - Comment I-42-2

Typical rural households using permit-exempt wells have one to twenty acres under some level of cultivation, from kitchen gardens to pastures. Many rural property owners maintain a subsistence lifestyle including watering some marketable crops, and they may have a small number or herds of livestock to water, but they are not sufficiently large, capitalized or competitive to be regulated as commercial operations. It is important (and Constitutional) to permit self reliance and further, it's important to legislate and regulate to support development of sustainable small farms in WA. At this strange time when multinational corporations and foreign investors have been permitted nationally to monopolize food & water production for corporate profit, the Washington State DOE must protect not only our physical ecology, you must also include workable protection for productive use of appropriate lands for local human ecology. This requires permitting sufficient rural exempt well water use to maintain crops and livestock, as well as sometimes multiple households. The regulations as currently presented fall short of this reasonable requirement. Please present further revisions that include consideration for human ecology and support, not extinction, of small farms & sustainable local self-sufficiency. Julie Carpenter

Response:

The rulemaking does not change the permit-exempt well withdrawals for stockwatering purposes (with no quantity limit), or for industrial purposes under RCW 90.44.050, nor does it change limits for existing users. Please see general response on "Authority for Rulemaking."

Commenter: John Eggers - Comment I-6-2

In addition, if we decided to have a mini-farm with a few sheep/goats/chickens/ducks and a food plot, your 500 gpd runs out pretty quickly. I know of several people with horses,cows, lavender, fruit orchards, food plots - i.e. other mini-farms who are equally concerned about an arbitrary flat rate for all. Why not make this an application driven process versus a flat rate for all process? It seems very disconnected.

Response:

The 500 gpd domestic use limit, is not related to stockwatering, and is separate from outdoor domestic irrigation. Please see response to Comment I-42-2.

Please note, any withdrawals of groundwater exceeding 5,000 gpd for industrial uses, and any diversions of surface water, require a water right and are not exempt from permitting (see RCW 90.44.050).

Commenter: Stephanie & Robert Vitali - Comment B-2-1

As a small family farm in the Mount Baker foothills, we have been supplying naturally grown produce (no pesticides) to people in this community for some years, including in Ferndale, where we have a loyal customer base at the weekly Ferndale Farmers Market. The impacts of this proposal would be devastating to our farm, and it is likely we would not be able to continue to supply natural, locally-grown produce to the wonderful people who genuinely value it.

Response:

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. As an existing well owner, you and your family would not be affected by the conservation standard withdrawal limit. The withdrawal limit established by RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

Please see response to Comment I-42-2 and I-6-2.

Comments on Property

Commenter: Kathy Sabel - Comment I-165-3

2) Department of Ecology (DOE) needs to include language on providing compensation to landowners for lost value of the land due to reduced water withdrawals.

Response:

Washington State follows the doctrine of prior appropriation, which means that the first users have rights senior to those issued later. This is referred to as "first in time, first in right."

Ecology is responsible for managing the water resources of the state, including permitting water use and protecting the instream resources for the benefit of the public under the direction of a series of laws and court decisions. Ecology issues water right permits that authorize the use of a specific amount of water with a defined place of use, period of use, and purpose of use.

The prior appropriation doctrine allows for private rights to be established for the use of water, a public resource, but the water itself retains its public character, i.e. water rights, once established, are considered “usufructuary” property rights. A water user only obtains a property interest in the water to the extent they have actually withdrawn and have put the water to beneficial use.

The 2018 law allows new homes in WRIA 1 to get a building permit for a new home using a permit-exempt well for their domestic water source. Under the law, those new homes have their permit-exempt water use limitation recorded on their property title at the time the county approves the landowner’s application for a building permit or a subdivision (RCW 90.94.020(5)(a)). These properties do not have a right under the new law to use permit-exempt water until the property owner applies for a building permit and those limitations are recorded.

There may be a perception of "lost value" due to the conservation standard for new domestic permit-exempt wells. However, these properties do not have any right to use water that is "lost" because they only receive a right to use water when the property owner applies for a building permit.

Ecology staff notes that the Whatcom County's Assessor's Office did not modify (or reduce) any property values based on the passage of RCW 90.94.020, which established the baseline limit on domestic use.

The Regulatory Analysis (Ecology Publication YYYYYY) provides an analysis of the economic theory and available data related to the perception of "lost value" due to the conservation standard. The analysis was not able to identify an impact, likely due in part to the many factors that influence property values.

Even if there would actually be reductions in property values, Ecology would not be required to provide compensation to landowners. An unconstitutional "taking" only occurs when a regulation destroys a fundamental attribute of ownership or denies any economically viable use of the property. Any reduction in property value resulting from the MMA limit would not prevent a landowner from developing their land for residential use, and would not deny any economically viable use of the property. The proposed rule reasonably balances the needs for landowners to develop their land with groundwater supply from permit-exempt wells with the needs to maintain streamflows and fisheries resources.

Commenter: Jayme Holman - Comment I-146-2

Please protect my rights as a property owner .

Response:

Please see the response to Comment I-165-3.

Please see the general response on "Fairness / Not Fair." The rulemaking does not affect existing permit-exempt water users.

Commenter: R. Perry Eskridge - Comment O-5-11

Fiscal Impact: Finally, the Association has discussed the implications of this rule on land values in rural Whatcom County with our real estate appraiser members. The results of their analysis also demonstrate additional hardship resulting from this rule. The appraised each noted that values assigned to land take in a variety of factors, one of which is the availability of potable water necessary for construction. As a matter of appraisal principles, land that is constrained in some manner from neighboring properties must, accordingly, have less of a value than the value assigned to the unencumbered property. The reduction from 5,000 gpd to 3,000 gpd was not a significant reduction as the ability of most rural households to use that amount for domestic use was not substantially limited. However, the 80% reduction proposed in this rule from the 3,000gpd limit will be a significant factor that then implicates not only the operation of a household, but ancillary uses, likely a machine shop, that will not be possible. Such a limitation for rural households means, in essence, that the land cannot be put to the use customarily

associated with a rural lifestyle. Accordingly, the market value of that property must be reduced. The implications are immense. Lending institutions are required to value lending portfolios based on appraised value and, in turn, calculate financial reserves based on those values. A significant drop in the value of rural properties resulting from water limitations means that institutions will be required to revalue the portfolios, adjust reserve balances, and make future lending decisions based on the values established after the rule. The typical scenario will be that a rural household that has a loan on a property prior to construction will suddenly realize that the amount of additional borrowing power for construction is limited to new appraised value; the number will certainly be less and, in worst case scenarios, may be negative. Households that have financed land through personal loans or using lines of credit could suddenly find themselves having to provide additional collateral (property or cash) to the lender in order to secure that debt. The practical result is that, rather than preserving the rural lifestyle, we have added additional unnecessary burdens. The Whatcom County Association of REALTORS®, together with our members and aligned organizations, remains committed to creating an amended instream flow rule for WRIA 1 that both meets our needs for water conservation, habitat restoration, and rural lifestyle preservation. The preliminary rule from Ecology will not achieve those goals. Accordingly, the Association requests that Ecology revise and propose a rule closely aligned with the significant legislative goals sought to be achieved through this legislation and that more closely balances the disparate interests fairly. If the rulemaking team has any questions concerning these comments, the Association is prepared to meet with Ecology at any time to further discuss our concerns. Sincerely, R. Perry Eskridge Exec. Officer/ Gov't Affairs Dir. Land Use Caucus Chair, WRIA 1 Planning Unit cc: 42nd Leg. Dist. Board of Directors File RPE/

Response:

Please see the response to Comment I-165-3 regarding changes in land value. Please see the response to Comment I-93-1 regarding rural household use.

The commenter cited a machine shop as a specific rural use that required additional water as part of a "rural lifestyle." However, the commenter did not provide information on machine shop tools or activities that require water use, or estimates of the quantity of water required for a machine shop. If the machine shop was for personal use by the residents then the water use would be part of the 500 GPD indoor domestic use. If the machine shop was for a business located on the property then the water would be for industrial purposes, which is a separate permit-exempt category with a withdrawals limit of 5,000 GPD. The rulemaking does not change the permit-exempt well withdrawal limits for stockwatering purposes (with no quantity limit), or for industrial purposes under RCW 90.44.050.

Please see the general response on "Authority for Rulemaking" regarding Ecology's interpretation and rationale that the permit-exempt withdrawal limits stated in chapter 90.94 RCW combines both indoor domestic use and outdoor domestic use for irrigating non-commercial lawns and gardens.

Ecology staff appreciates the rural lifestyle in Whatcom County. Ecology believes new domestic well owners will enjoy the certainty provided by RCW 90.94.020, and the rule amendment,

regarding their ability to obtain a building permit for a new home, use a new domestic permit-exempt well for their source of water, and enjoy the rural lifestyle.

Comments on Preliminary Regulatory Analyses

Commenter: Eric Hirst - Comment I-3-5

To illustrate the possible benefits of a robust WUE program consider the following comparison. Ecology' s Preliminary Regulatory Analysis shows an average cost for three projects of $2,100 per acre-foot (Table 6, page 28), exclusive of annual operating and maintenance costs (which would raise the cost of new water)? Is this a reasonable price to pay for more water? Are there other projects that might be less expensive, require fewer regulatory approvals, and be less environmentally disruptive? And are water users willing to pay this much for additional supplies? Water-use efficiency measures surely cost much less. Consider two simple examples (Exhibit 1). Providing free garden-hose timers to homeowners might cost about $168 per acre-foot. Encouraging farmers to adopt internet-based, advanced irrigation scheduling methods might cost even less, $139 per acre-foot. And these savings occur during the critical low-flow summer months. How can Ecology propose and approve so many expensive projects without at least considering what are likely to be much more cost-effective options? Page 41 Of Draft Rule Supporting Document. NOV. 2019. The numbers reported by Ecology are 10 times higher than the number I use here for comparison. Ecology incorrectly in my view, mixed one-time capital costs with annual water supply additions. I requested clarification from Ecology but the agency declined to respond to my query.

Response:

See response to Comments I-3-4 and I-7-5. Ecology encourages conservation and agrees that water use efficiency projects can be beneficial. The Preliminary Regulatory Analyses based offset costs for limited outdoor irrigation on approved projects identified by WRIA 1 Streamflow Restoration planning work, and their identified attributes. We have added clarifying language to the Final Regulatory Analyses to better reflect uncertainty about actual projects that will be implemented, and types of potential indirect and induced impacts. We have also added discussion of conservation as an alternative rule component in place of offset projects. The agency is unclear what query you’re referencing and is not aware of declining to respond to any requests.

Comments on SEPA

Commenter: Ross Cline, Sr. - Comment T-3-13

• SEPA Determination of Non-Significance (DNS): We have concerns over how Ecology applied SEPA to the draft rule and arrived at a Determination of Non-Significance:

o As explained in our May 7, 2019 comment letter, we expected Ecology to conduct an objective and comprehensive State Environmental Policy Act (SEPA) review of the draft rule. Ecology

used the SEPA process to justify their proposed actions to comply with "Hirst fix" and arrived at a DNS without adequate objective review and analysis of cumulative impacts of past, present, and reasonably foreseeable future actions related to water demand, use, and management in WRIA 1 and the added impacts of continued climate change.

o We have already stated our concerns about how spatial and temporal gaps in offsetting undermine NEB and what we consider to be avoidable impacts caused by those gaps. Those gaps will add to the cumulative impacts of past and present projects. o SEPA must evaluate the financial parameters of the draft rule in regard to who owns an offset project, how is it paid for, how is it managed, how is it monitored for compliance, and the costs to rectify failed offset water.

o SEPA must also address the many uncertainties built in to the draft rule including the heavy use of assumptions in arriving at a conclusion of NEB.

o Of particular concern is the lack of a cumulative impacts analysis required by SEPA that focuses on past, present, and reasonably foreseeable future actions related to water right management and water supply and demand. The assumption is made by Ecology that the amount of consumptive use associated with DPEG wells is very small, almost too small to resolve. However, with minimum instream flows typically not being met in most streams in WRIA 1, common non-compliant water use, the effects of climate change, combined with the consumptive use associated with this draft rule, cumulative impacts are likely substantial and significant.

o Based on these comments and those presented in our May 7, 2019 letter, we had expected Ecology would arrive at a Mitigated Determination of Non-Significance (MDNS) as opposed to a Determination of Non-significance (DNS). As such we believe there is a substantive deficiency in how Ecology applied SEPA to this draft rule.

o The SEPA checklist dismisses the impacts associated with this draft rule by stating that "this is a nonproject proposal." New water withdrawal from exempt wells are approved without specific SEPA evaluation or a cumulative impacts analysis.

o Section A.8 of the SEPA checklist missed many substantive documents that relate to WRIA 1 hydrology, salmon habitat restoration, and salmon recovery. Many of the missing documents were developed in support of a WRIA 1 watershed management plan update pursuant to the 90.94 RCW. SEPA cannot be considered adequately executed without a recognition that there are many additional sources of technical information on hydrology, salmon habitat restoration, and salmon recovery in WRIA 1.

o Section B.3, Water, of the SEPA checklist does not list all of the important tributaries to the Nooksack River or marine tributaries. As such, there is an inadequate disclosure of all important tributaries that could be impacted by the adoption of this draft rule.

o Section B.4 is contradictory or is misleading as it states "the amendment will not require any surface water withdrawals or diversions, but enables the potential for diversion...." Most

certainly, additional water diversions will occur as there is currently demand for rural residential development.

o Section B.5.d ignores that spatial and temporal gaps in offsets will exist in some important tributaries and as such NEB is not attained.

o Section B.8.l lists the proposed offset projects that address the implementation impacts of this draft rule. The temporal gap between when an offset project is implemented and when the benefits of the offset projects are realized are not disclosed, again indicating an inadequate SEPA review. Similarly, there are no compliance and enforcement components of the voluntary conservation program leading to the likelihood that intended offsets in the Lake Whatcom watershed are not a certainty.

Response:

This SEPA document addresses the different regulatory framework that exists without the rule amendment (baseline) compared to that which would exist with the amendment to chapter 173-501 WAC in place (action), and the likely resulting changes to the built and natural environment as a result of the amendment. It is not appropriate for this SEPA document to address:

- The impacts that have or are likely to occur under chapter 90.94 RCW, except in how the rule amendment is likely to reduce or exacerbate them.
- The financial impacts of the rule amendment, which are not covered by SEPA [see WAC 197-11-450], but are addressed in the economic analyses prepared for this rule-making.

Ecology acknowledges that there are "spatial and temporal gaps" in offsetting the new domestic permit-exempt well withdrawals, and that permit-exempt well withdrawals are not a trigger for SEPA analysis. These circumstances are authorized under existing Washington Water Law, most specifically RCW 90.94.020 and 90.44.050, and therefore, generally outside the scope of this SEPA analysis. [See also SEPA exemptions WAC 197-11-800 (1) and (4).] The rule amendment does not increase, require, or encourage future out-of-stream water uses.

A cumulative impacts analysis of all "past, present, and reasonably foreseeable future actions related to water right management and water supply and demand" is also beyond the scope of the analysis. The amendment of the rule puts further restrictions on the quantity of water that may be used from a new domestic permit-exempt well (500 GPD indoor domestic and 1/12 acre outdoor domestic irrigation, rather than the existing 3,000 GPD maximum annual average for both indoor and outdoor domestic combined). It also encourages and enables future offset projects, including those that divert water under the rule exemption for retiming, that benefit streamflows, and fish and wildlife habitat.

In regard to the "heavy use of assumptions" in the determining of NEB, the agency is comfortable with its NEB determination and finds it consistent with the RCW 90.94.020, and Ecology's guidance, and policy and interpretive statements.

Ecology issued a Determination of Non Significance (DNS), not a Mitigated DNS (MDNS), for the amendment to the WRIA 1 rule because the agency determined it was the appropriate determination given this action.

A MDNS varies from a typical DNS in two ways. It provides the SEPA lead agency the authority to apply conditions to a proposal to prevent likely significant adverse environmental impacts, using SEPA substantive authority. A MDNS also requires a 14-day public comment period. [See WAC 197-11-766.]

In the case of the WRIA 1 rule amendment, Ecology does not need to rely on SEPA substantive authority to modify or condition the agency's own proposal. In addition, Ecology found no significant adverse impacts likely to result from the rule amendment. Ecology provided a 59-day comment period for the DNS, along with the proposed rule and associated economic analyses.

Ecology thanks you for noting the missing sources of technical information on hydrology, salmon habitat restoration, and salmon recovery in WRIA 1 from the list in Section A.8 of the SEPA checklist, as well as any important streams in section B.3. Please see updated SEPA citation list with additional information the Tribe provided.

Commenter: Oliver Grah - Comment I-161-12

SEPA Determination of Non-Significance (DNS): We have concerns over how Ecology applied SEPA to the draft rule and arrived at a Determination of Non-Significance: o As explained in our May 7, 2019 comment letter, we expected Ecology to conduct an objective and comprehensive State Environmental Policy Act (SEPA) review of the draft rule. Ecology used the SEPA process to justify their proposed actions to comply with "Hirst fix" and arrived at a DNS without adequate objective review and analysis of cumulative impacts of past, present, and reasonably foreseeable future actions related to water demand, use, and management in WRIA 1 and the added impacts of continued climate change. We have already stated our concerns about how spatial and temporal gaps in offsetting undermine NEB and what we consider to be avoidable impacts caused by those gaps. Those gaps will add to the cumulative impacts of past and present projects. SEPA must evaluate the financial parameters of the draft rule in regard to who owns an offset project, how is it paid for, how is it managed, how is it monitored for compliance, and the costs to rectify failed offset water. SEPA must also address the many uncertainties built in to the draft rule including the heavy use of assumptions in arriving at a conclusion of NEB. Of particular concern is the lack of a cumulative impacts analysis required by SEPA that focuses on past, present, and reasonably foreseeable future actions related to water right management and water supply and demand. The assumption is made by Ecology that the amount of consumptive use associated with DPEG wells is very small, almost too small to resolve. However, with minimum instream flows typically not being met in most streams in WRIA 1, common non-compliant water use, the effects of climate change, combined with the consumptive use associated with this draft rule, cumulative impacts are likely substantial and significant. Based on these comments and those presented in our May 7, 2019 letter, we had expected Ecology would arrive at a Mitigated Determination of Non-Significance (MDNS) as opposed to a Determination of Non-significance (DNS). As such we believe there is a substantive deficiency in how Ecology applied SEPA to this draft rule. The SEPA checklist dismisses the impacts associated with this

draft rule by stating that "this is a nonproject proposal." New water withdrawal from exempt wells are approved without specific SEPA evaluation or a cumulative impacts analysis. Section A.8 of the SEPA checklist missed many substantive documents that relate to WRIA 1 hydrology, salmon habitat restoration, and salmon recovery. Many of the missing documents were developed in support of a WRIA 1 watershed management plan update pursuant to the 90.94 RCW. SEPA cannot be considered adequately executed without a recognition that there are many additional sources of technical information on hydrology, salmon habitat restoration, and salmon recovery in WRIA 1. Section 8.3, Water, of the SEPA checklist does not list all of the important tributaries to the Nooksack River or marine tributaries. As such, there is an inadequate disclosure of all important tributaries that could be impacted by the adoption of this draft rule. Section B.4 is contradictory or is misleading as it states "the amendment will not require any surface water withdrawals or diversions, but enables the potential for diversion...." Most certainly, additional water diversions will occur as there is currently demand for rural residential development. Section B.5.d ignores that spatial and temporal gaps in offsets will exist in some important tributaries and as such NEB is not attained. o Section B.8.l lists the proposed offset projects that address the implementation impacts of this draft rule. The temporal gap between when an offset project is implemented and when the benefits of the offset projects are realized are not disclosed, again indicating an inadequate SEPA review. Similarly, there are no compliance and enforcement components of the voluntary conservation program leading to the likelihood that intended offsets in the Lake Whatcom watershed are not a certainty.

Response:

Please see the response to Comment T-3-13.

Comments on Other Questions

Commenter: Eric Hirst - Comment I-3-9

The quantity limit standard (both indoor and outdoor), according to Ecology, "promotes conservation [that] is necessary to protect instream resources/" (p 20). Nowhere in the two supporting documents does Ecology explain how either the 500 gpd or 1/12 acre limit promotes conservation.

Response:

Please see Chapter 3 of the RSD for this information.

Commenter: Alison Mohns - Comment A-1-1

Question: (g) line 1- "new": What is the date for "new"? New as in not ever been put to use before or New as being drilled after this rule proposal goes into date or New as after the WRIA 1 Hirst Fix date?

Response:

As noted in the amended language at WAC 173-501-065(2), the requirements and limits apply to domestic permit-exempt wells constructed after the effective date of this rule amendment. In other words, “new” wells are wells constructed after the effective date of this rule amendment.

Commenter: Alison Mohns - Comment A-1-2

Question: (h) "not to exceed 500g/day: Does this mean that a land division cannot exceed 6 connections on a multi connection well that is totaled at 3,000g/day? Is the "connection" limited to lot or plumbed structure?

Response:

Ecology is unclear what you mean by “land division.” As per WAC 173-501-065(5)(b): Withdrawals from a new domestic permit-exempt well(s) serving a group domestic system that qualifies for the group domestic permit exemption under RCW 90.44.050 are limited as follows:(i) Indoor domestic water use shall not exceed five hundred gallons per day for each connection, and shall not exceed a total of three thousand gallons per day for the entire group; and (ii) Outdoor domestic water use shall be limited to an area not to exceed a total of one-twelfth acre, or three thousand six hundred thirty square feet, for each connection, and shall be limited to an area not to exceed a total of one-half acre for the entire group. Outdoor domestic water use is in addition to indoor domestic water use set forth in (b)(i) of this subsection. The term “connection” refers back to the term as used in chapter 90.94 RCW, referring to a home using or “connected” to a domestic permit-exempt well.
Whatcom County Health Department requirements already generally limit group domestic systems to six houses, so the rulemaking update is consistent with existing local permitting authorities.

Commenter: Alison Mohns - Comment A-1-3

Question: (i) "non-commercial subsistence gardening"- does this mean edible gardening only not ornamental plants?

Response:

If the ornamental plants have no subsistence purpose (i.e. are for decorative purposes only) they would not be considered subsistence gardening.

Commenter: Kathy Sabel - Comment I-165-2

Here are my comments which I appreciate Department of Ecology response to: 1) ESSB6091 did not alter the 1945 5,000 gallons/day allotment to permit-exempt wells; it established 3,000 gallons maximum annual average daily use. The new rule replaces the 5000 gallons with 500 gallons per day for domestic use. Rationale for this level of reduction is questionable. Some people may have owned land for some years and may have planned selling it for an investment now or for retirement. Does First in Time, First in Right apply to land ownership first in time, or does there have to be beneficial use?

Response:

Please see general responses to "Fairness / Not Fair" and "Authority for Rulemaking," and Chapter 1 of the RSD. Additional information regarding state water law is set forth in statute, including chapters 90.03 and 90.44 RCW. State water law is based on the prior appropriation doctrine reliant on the time a legal beneficial use of water is established, not land ownership.

Commenter: Murray Taylor - Comment I-23-1

Rulemaking Lead Sawabini,
I have a couple questions and comments beside the scripted version below. Is this a one size fits all remedy to ground water conservation? There are some areas where drawing well water doesn't effect the stream, lake and river flows. My well is 250 feet deep what science is there that suggests my water usage effects stream levels? I am on an approved septic system, I put water back in the ground do I get credit for that water I'm returning to the aquifer? We water a large garden for home use during the summer, probably equal to 1 acre in size. We also need to water new trees we've planted as part of the Lake Terrill watershed restoration. The suggested restrictions would limit garden and amount of trees we could plant. Also most of this water is also returned to the aquifer.
I am a liberal voter and I'm conservation minded, but the suggested well restrictions go to far and are unnecessary to save our ground water resources. It is not the small land owners that are depleting our stream and river flows.
Now, back to the suggested text, with which I totally agree.

Response:

Ecology is unclear what you mean when you mean by the "one size fits all remedy," question. Existing domestic permit-exempt water use is not subject to the withdrawal limits in the rule. The rule limits only apply to newly permitted homes relying on newly drilled wells for their new domestic indoor and outdoor permit-exempt water use. Consumptive use information is described in Chapter 4 of the RSD. Please also see general responses to "Fairness / Not Fair" and "Authority for Rulemaking" and Chapter 1 of the RSD. Please note: without a water right, existing permit-exempt use is limited to up to ½-acre of non-commerical lawn or garden.

Commenter: Kathy Sabel - Comment OTH-3-6

MS. SABEL: Kathy Sabel, Bellingham. wasn't sure if this was really a Q&A or a comment because this rule is only for new permit-exempt wells. The ESSB 6091 said if you didn't meet the criteria for water well construction -- and there's a code for that -- then that would also be subject, those existing wells, to change on the water withdrawal and the fees whenever a building permit was applied for. And Whatcom County has put that requirement in their code. So the question is I'm not clear how this rule, which only applies to new permit-exempt wells, interacts with what the County has in their code. Will the County have to change their code to only be applying to new permit-exempt wells? Do we no longer have existing wells in the mix, the permit-exempt existing wells? I would love to have that clarified. Thank you.

Response:

Thank you for your comment. Ecology recommends speaking with Whatcom County regarding their respective codes.

Commenter: Alan Chapman- Comment OTH-4-9

MR. CHAPMAN: So my comments are based on a detailed review of the supporting document, the one that you issued in November, I think it is. And in there I found nothing to explain why particular use rates were chosen. 500 gallons for indoor. Why not 450 or 600 or 800? It doesn't say. It doesn't give any detailed analysis to justify that particular choice of number. The same problem with the outdoor figure. All I've heard so far, either orally from Ecology staff and it seems to be restated in the supporting document, is this sort of vague method of, well, we estimate what actual consumptive use is going to be over the 20-year period, fully offset that, and then add some ecological benefit. Okay, well -- and then on top of that, you come up with a safety factor of 1.5. Well, why not 1.25 ? Or why not 2? There's no specific rationale provided as to why that particular number was chosen. And since the RH2 study performed no sensitivity analyses, no real uncertainty estimates, you really had no basis for doing so, so it looks like that 1.5 is just pulled out of thin air, and there's nothing in the supporting document to suggest otherwise. Also, uncertainty works both ways. It could be 1 1/2 times more or 1 1/2 times less. We don't know for sure. I'm assuming that's what your adaptive management thing is about, and we'll get to that later.

Response:

Please see general response to "Comparison of Other Water Use Limits." And Ecology's response to Comment I-134-6. Ecology believes the safety factor to be an appropriate level based on the inherent uncertainties with projections, analysis, and the planning process.

Commenter: Carmen Andrew - Comment OTH-5-11

MS. ANDREW: And this is a bit of a question, but I'll just put it out there because I was a bit confused reading the rule. If you have a single-family home and they have an agricultural tax classification, which just means they have to make so much per year, they may have a larger garden and maybe they just go down and they do a farmer's market to sell their vegetables -- it's not a commercial license, they aren't running a full business, but they have this tax classification they have to meet -- how does that affect them as well? Thank you.

Response:

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. Existing wells would not be affected by the conservation standard withdrawal limit. The withdrawal limit established by RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

The rulemaking does not change the permit-exempt well withdrawals for stockwatering purposes (with no quantity limit), or for industrial purposes (up to 5,000 GPD).

Ecology does not have a role in tax classifications, and cannot discuss the requirements that must be met for an agricultural classification. However, tax classifications do not provide water rights. For water uses beyond the permit-exempt withdrawals discussed above, applicants must get a water right permit from Ecology that authorizes the use of a specific amount of water with a defined place of use, period of use, and purpose of use.

Comments on Other Subjects

Commenter: Stephen Bogosian - Comment I-2-1

using large vats of highly refined LIQUID NEGATIVELY CHARGED BENTONITE and rifle out with each discharge within the pipeline or otherwise bonded. minimum experimental funding reseach scince the tech. of negatively charged liquid bentonite exists its a matter of refinement. I hope its a good ideal for you.thank you.

Response:

Ecology is unclear about your comment and believes it is outside the scope of the rulemaking.

Commenter: Julie Carpenter - Comment I-42-3

Rulemaking Lead Sawabini,
I'm a "tree hugger" and lifelong student of human ecology as well as someone who has worked on my grandparent's small family farm. I'm also a 23 year experienced Realtor licensed in WA and I represent rural property owners.

Response:

Please see response to Comment I-150-1.

Commenter: Alan Chapman - Comment I-163-3

3. There are other out of date issues that should have been addressed it the rule amendment. Several instream flow levels are based on gauging stations that no longer exist and might be significant gaps in issuing new permitted withdrawals.

Response:

Thank you for your comment regarding gaging. Ecology's streamflow restoration competitive grants help state and local agencies, tribal governments, and non-profit organizations implement local plans and projects to improve streamflow and aquatic resources. The Streamflow Restoration Funding rule, chapter 173-566 WAC, provides potential funding opportunities for environmental monitoring, consistent with chapter 90.94.RCW.

Commenter: Alan Chapman - Comment I-163-5

5. The local watershed planning process should be encouraged to continue working diligently on developing a comprehensive plan to balance salmon recovery, instream flow and ecosystem benefits to meet the diverse needs of the local community.

6. The resolution of existing conflicts between land use and water availability could be effectively addressed through increased flexibility in implementation of current water law to meet locally agreed objectives. This could be done by moving away from a system of water rights permitting to locally proscribed water management.

7. More information on the relationship between ground water and instream flows is necessary to forge a community consensus and the development of a locally accepted instream flow rule with the priority to meet treaty reserved hunting and fishing rights that integrates salmon habitat conditions with water quality and quantity.

Response:

Thank you for your comment.

Changes in existing state water law are beyond the scope of this rulemaking.

Ecology is required to implement this rulemaking per RCW 90.94.020; please see general response to "Authority for Rulemaking."

Commenter: Alan Chapman - Comment I-163-7

It should be recognized that instream flow is an important ecological benefit for the watershed residents but the use of the land and withdrawal for local economic, social and physical wellbeing of residents for housing, food and fiber, enterprises providing employment and infrastructure impact the ecological benefits of stream flow requires a balance between human needs and natural processes that can only be achieved through local actions consistent with statewide objectives. Watershed planning under Chapter 90.94 RCW recognized the need to harmonize the needs of many segments of the local community to the benefit of all. The supporting documentation should reflect that although a plan was developed through the 90.84 process it relied heavily on monitoring and adaptive management of proposed actions to address specific issues related to meeting salmon recovery , water supply, and providing for an increasing human population. The Planning Unit under this process involving the initiating governments and caucuses representing a variety of local interests for land development, sustainable fisheries, water supply and environmental protection has not functioned well with the withdrawal of three of the initiating governments from the process.

Response:

Thank you for your comment.

Commenter: Kim Clarkin - Comment I-7-1

Please see attached word document

Response:

Thank you for your comments. Please see responses to Comments I-7-2 through I-7-5.

Commenter: Kim Clarkin - Comment I-7-3

If I understand correctly, the purpose of these limits along with 'retiming' projects is to constrain the total impact of all such new wells so that Nooksack River low flows will not be reduced. I believe you are being much too timid in your effort to protect Nooksack flows. This is no time to minimize our protective efforts when we know summer flows will decrease as the climate warms.

Response:

Thank you for your comment. The goal of allowing "retiming" projects is to increase low flows.

Commenter: Molly Crocker - Comment I-164-2

Molly Crocker Please see attached document. Comments on WRIA 1 Rulemaking, January 2020

1. Legislation ESSB 6091 named 3,000 gpd •Ecology arbitrarily chose 500 gpd, and gave no reason for the reduction from the legislation. Verbal comments by Ecology personnel when they met with WRIA 1 Planning Unit suggested they were using numbers from other WRIAs (also without explanation), and that a lower gpd means they have less need for which to offset. •The new amount is not only arbitrary, it is unfair. The City of Bellingham shows on their website that average summer use can as high as 15 million gallons per day: https://www.cob.org/services/environment/conservation/pages/outdoor-water-conservation.aspx It is estimated that 91,000 people live in Bellingham (highest estimate found using a web search), which means that peak use is 260 gpd per person. In an average household of 2.56 persons, this is MORE than 500 gpd. While this likely includes all uses, including indoor and outdoor, these uses fit the 'domestic' use that Ecology wants to use for the WRIA 1 rule making. •Multi-generational housing is a feature of many families in our area. This Rule is destructive to their family model.

Response:

Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking."

Commenter: Molly Crocker - Comment I-164-4

4. Remove the term 'subsistence garden', and separate outdoor use from indoor use. •The definition of 'subsistence garden' provided in the proposed rule cannot upheld in a court of law. If a 1/12th acre garden doesn't provide for all of a family's fruit and vegetable needs then it is less than 'subsistence'. If there is an abundance of one vegetable but a crop failure of another, then how is the garden defined? •The legislation creating this watershed update provides that outdoor watering is a separate use from indoor domestic well use.

Response:

Thank you for your comment. Indoor domestic use is separate from outdoor domestic use limits; please see Chapter 3 of the RSD. Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking."

Commenter: Molly Crocker - Comment I-164-1

Please see attached document.

Response:

Thank you for your submittal. Please see response to Comments I-164-2 through I-164-5.

Commenter: Atul Deshmane - Comment I-100-1

The rules do not seem to change how new home owners learn about their water related restrictions. It would be beneficial to have a more explicit statement of water limitations.

Response:

Legislative requirements for recording limits for new domestic permit-exempt use are outlined in RCW 90.94.020. The rule amendment does not change these requirements; please see Chapter 3.4 of the RSD.

Commenter: John Eggers - Comment I-6-1

I'm writing in response to ongoing efforts by Department of Ecology to bring changes to the current code around exempt wells and protection of inland streams and waterways. I'm unable to find where you are drawing a distinction between shallow wells and deep wells. Shallow wells have a distinctly unique recovery profile and in most cases have naturally limiting factors that preclude the necessity or accurate viability of monitoring. My well(s) for example are less than 18' deep in an area predominantly consisting of loam and sand on top of a bed of clay. Any water that spills on my land returns directly to the water table below likely in the same day. It is frustrating not to see any reference to the distinction of the types of wells that exist in the County and to be lumped in with concerns over deeper aquifer depletion or some effect of removing water from the area. That last mention, we are on septic so the drain fields are in fact filtering through sand to create an almost perfect balance of consumption and return. We feel all of this is unjust when it doesn't reflect an accurate portrayal of those of us who aren't really part of the perceived problem by DOECO.

Response:

The consumptive use calculations, as opposed to the actual water use, takes recharge water and septic return flow into account. Please see Chapter 4 of the RSD for additional information on the consumptive use calculations.

The conservation standard for new domestic permit-exempt withdrawal limits applies to new wells constructed after the rule is finalized and comes into effect. Existing wells would not be affected by the conservation standard withdrawal limit. The withdrawal limit established by

RCW 90.44.050 would apply if the well was drilled, or the home was permitted for construction before January 19, 2018. The withdrawal limits established by RCW 90.94.020 would apply if the well was drilled and the home was permitted for construction on or after January 19, 2018 and before the rule is finalized.

Commenter: Leslie Hobkirk - Comment I-75-2

This already has created a hardship on people owning rural land as the decision on this issue has been in limbo. Putting waterways above and beyond the people that inhabit the land and own the land is absurd. Not everyone wants to live in the city. And our farmers need the water to provide food to the population at large. This is not a responsible way to dictate water use.

Response:

The rulemaking provides clarity and certainty for new domestic permit-exempt well owners. Please see response to Comment I-150-1 and general responses to "Fairness / Not Fair" and "Authority for Rulemaking." The rulemaking does not affect irrigation water rights.

Commenter: Ross Cline, Sr. - Comment T-3-2

The general and specific comments below reiterate many of those comments previously provided to Ecology: Overarching Comments • Minimum instream flows as established in WAC 173-501-030 for the Nooksack River watershed are frequently not being met, and such inadequate low flows diminish salmon habitat, challenge the survival of salmon, exacerbate salmon recovery, and jeopardize the Tribe's treaty rights. For example, low flows in the South Fork exacerbate high temperatures, reduce habitat availability and can impair passage upstream, thus reducing productivity and survival of South Fork Nooksack Early Chinook. Low flows in the Nooksack River can affect the extent and connectivity of side channels that have historically provided considerable habitat and fishing opportunity for Nooksack Chum. Low flows in larger tributaries to the Nooksack River also impair passage and reduce productivity of historically productive fishing streams, such as Fishtrap Creek. All surface and groundwater diversions and withdrawals must be considered cumulatively in regard to minimum instream flows not being met. In addition, current and future domestic permit-exempt wells have and will continue to contribute to minimum instream flows not being met.

Response:

Thank you for identifying your concerns. Ecology believes the projects and actions identified in Chapter 6 of the RSD provide the required offsets for new domestic permit-exempt wells from 2018-2038. Other uses of water in the watershed are beyond the scope of the rulemaking and RCW 90.94.020.

Commenter: Ross Cline, Sr. - Comment T-3-14

Many of the parameters of the draft rule address some of our concerns over water demand and water use associated with rural residential development. We feel that the draft rule is a step in the right direction as compared to the existing rule. However, we believe that there are still substantial deficiencies in the effectiveness of the draft rule in avoiding adverse impacts to

minimum instream flows, salmon survival, salmon habitat restoration, and salmon recovery, as well as to our treaty resources. We urge Ecology to revise their draft rule taking our comments into consideration before such becomes adopted as a final rule. We remain committed to work with Ecology in making in what we consider to be reasonable revisions to the draft rule to avoid substantive spatial and temporal gaps in offset project effectiveness and to truly attain net ecological benefit and a reduction of cumulative impacts to minimum instream flows. Sincerely, Ross Cline, Sr., Chairman Nooksack Tribal Council cc: Ms. Annie Sawabini, Department of Ecology Online comment portal: http://ws.ecology.commentinput.com/?id=GFRjc Ecology Water Resources Program Watershed Lead Kasey Cykler, kasey.cykler@ecy.wa.gov NIT Natural Resources Director George Swanaset Jr., george.swanasetjr@nooksack-nsn.gov LIBC Chairman Jeremiah "Jay" Julius, JeremiahJ@lummi-nsn.gov LIBC Natural Resources Director Merle Jefferson, MerleJ@lummi-nsn.gov LIBC Water Resources Manager Kara Kuhlman, Hon. Seth Fleetwood, Mayor, City of Bellingham Hon. Satpal Sidhu, Executive, Whatcom County, WA

Response:

Thank you for your comments. Ecology fully reviewed and considered all comments submitted. Please see responses to Comments T-3-1 through T-3-13.

Commenter: Ross Cline, Sr. - Comment T-3-1

January 17, 2020 Nooksack Tribal Council 4979 Mt. Baker Hwy, suite G. PO Box 63 Deming, WA 98244 Ph: (360) 592-5164 Fx: (360) 592-4506 Hon. Laura Watson, Director WA Department of Ecology Water Resources Program p.o. Box 47600 Olympia, WA 98504-7600 Re: Nooksack Indian Tribe comments on Draft Amendment to WAC Chapter 173-501 Dear Ms. Watson: Thank you for this opportunity to provide comments on Washington Department of Ecology's (Ecology) Draft Instream Flow Rule (Draft Rule) (Draft Amendment to WAC Chapter 173-501) for Water Resources Inventory Area #1. The Nooksack Indian Tribe (Tribe) relies on salmon in the Nooksack River watershed for subsistence, cultural, heritage, and commercial uses. Salmon are a major focus of protection and management of our treaty resources. The implementation of Ecology's draft rule will have a direct result on streamflows, salmon habitat, salmon survival, and salmon recovery. Further, the Tribe has participated in WRIA 1 watershed management and salmon recovery programs since their inceptions. Tribal staff have considerable technical expertise on the Nooksack River system and have provided this expertise in the WRIA 1 programs since their inception. More recently, Tribal staff were substantially involved with the effort to update the WRIA 1 Watershed Management Plan pursuant to the 90.94 RCW. Finally, the Tribe provided substantive comment on the preliminary draft rule in our letter dated May 7, 2019. It is not clear if or how Ecology considered those in the development of the proposed draft rule.

Response:

Thank you for your comments. Ecology appreciates the Tribe’s participation in Watershed Planning (chapter 90.82 RCW) and Streamflow Restoration (chapter 90.94 RCW) work in WRIA 1. Please see responses to Comments T-3-2 through T-3-14.

Commenter: Oliver Grah - Comment I-161-1

No Comment Text

Response:

Comments were provided as an attachment. Thank you for your comments. Please see responses to Comments I-161-2 through I-161-15.

Commenter: Oliver Grah - Comment I-161-2

January 17, 2020 Hon. Laura Watson, Director WA Department of Ecology Water Resources Program P.O. Box 47600 Olympia, WA 98504-7600 Re: Oliver Grah comments on Draft Amendment to WAC Chapter 173-501 Dear Ms. Watson: Thank you for this opportunity to provide comments on Washington Department of Ecology's (Ecology) Draft Instream Flow Rule (Draft Rule) (Draft Amendment to WAC Chapter 173-501) for Water Resources Inventory Area #1. The Nooksack Indian Tribe (Tribe) relies on salmon in the Nooksack River watershed for subsistence, cultural, heritage, and commercial uses. Salmon are a major focus of protection and management of our treaty resources. The implementation of Ecology's draft rule will have a direct result on streamflows, salmon habitat, salmon survival, and salmon recovery. Further, I understand that the Tribe has participated in WRIA 1 watershed management and salmon recovery programs since their inceptions. I understand that Tribal staff have considerable technical expertise on the Nooksack River system and have provided this expertise in the WRIA 1 programs since their inception. I understand that Tribal staff were substantially involved with the effort to update the WRIA 1 Watershed Management Plan pursuant to the 90.94 RCW. Finally, I understand that the Tribe provided substantive comment on the preliminary draft rule in our letter dated May 7, 2019. It is not clear if or how Ecology considered those in the development of the proposed draft rule.

Response:

Please see response to comments T-3-1.

Commenter: Oliver Grah - Comment I-161-3

The general and specific comments below reiterate many of those comments previously provided to Ecology: Overarching Comments • Minimum instream flows as established in WAC 173-501-030 for the Nooksack River watershed are frequently not being met, and such inadequate low flows diminish salmon habitat, challenge the survival of salmon, exacerbate salmon recovery, and jeopardize the Tribe's treaty rights. For example, low flows in the South Fork exacerbate high temperatures, reduce habitat availability and can impair passage upstream, thus reducing productivity and survival of South Fork Nooksack Early Chinook. Low flows in the Nooksack River can affect the extent and connectivity of side channels that have historically provided considerable habitat and fishing opportunity for Nooksack Chum. Low flows in larger tributaries to the Nooksack River also impair passage and reduce productivity of historically productive fishing streams, such as Fishtrap Creek. • All surface and groundwater diversions and withdrawals must be considered cumulatively in regard to minimum instream flows not being

met. In addition, current and future domestic permit-exempt wells have and will continue to contribute to minimum instream flows not being met.

Response:

Please see response to Comment T-3-2.

Commenter: Oliver Grah - Comment I-161-13

Many of the parameters of the draft rule address some of our concerns over water demand and water use associated with rural residential development. We feel that the draft rule is a step in the right direction as compared to the existing rule. However, we believe that there are still substantial deficiencies in the effectiveness of the draft rule in avoiding adverse impacts to minimum instream flows, salmon survival, salmon habitat restoration, and salmon recovery, as well as to our treaty resources. We urge Ecology to revise their draft rule taking our comments into consideration before such becomes adopted as a final rule. We remain committed to work with Ecology in making in what we consider to be reasonable revisions to the draft rule to avoid substantive spatial and temporal gaps in offset project effectiveness and to truly attain net ecological benefit and a reduction of cumulative impacts to minimum instream flows. Sincerely, Oliver Grah 2670 Pyeatt Place Bellingham, WA 98226

Response:

Please see response to Comment T-3-14.

Commenter: Bradley Hanks - Comment I-93-4

Finally, I would note that we are in this situation as a direct result of the Whatcom County Council's abdication of their responsibility to the citizenry of Whatcom County for their failure to act on the Planning Unit's recommendations. By "kicking the can down the road" on this issue, they have successfully painted Ecology as the "bad guy," thereby absolving the council of any responsibility for this government taking. The council's inaction in this matter is a profound dereliction of duty, and the punishment for their failure to act should be meted out at the ballot box. Thank you for considering my comments. I anticipate seeing a rule that better balances the needs of rural households against our desire to efficiently use our water resources. Bradley Hanks

Response:

Thank you for your comment.

Commenter: Craig Herter - Comment I-158-1

I am both pleased and amazed that so many people have taken the time to comment on the Department of Ecology's proposed rule amendment. I think this should demonstrate to the Department of Ecology that this is a matter of vital interest to the rural citizens of the state of Washington of which I am one. It was only through the efforts of the Whatcom Well Water group that I was even made aware of these proposed changes. How many others are not aware of this and that will be directly affected by it? I do not know but I suspect there are many.

This a very complex issue that must involve a number of different areas of science, regrettably I am not an expert in any of the sciences. I have read and understood to a large degree a document prepared by Skip Richards that appears to have already been submitted to you. I certainly cannot add anything to his treatise other that to echo his detailed analysis and support his conclusions.

Response:

Thank you for your comment.

Commenter: Eric Hirst - Comment I-3-1

Please see my comments, attached.
Eric Hirst
Decembere 10, 2019

Response:

Thank you for your comments. Please see responses to Comments I-3-2 through I-3-15.

Commenter: Eric Hirst - Comment I-3-3

Eric Hirst Decembere 10: 2019 Comments on Ecology's Draft Amendment to 173-501 WAC Eric Hirst Bellingham WA December 9, 2019 Although it has been seven months since Ecology issued its preliminary draft amendment, the agency appears to have made little progress in addressing the most serious deficiency in the original document: a careful, comprehensive assessment of the potential benefits and costs of improving water-use efficiency (WUE) in WRIA 1. Thus my comments focus primarily on this crucial issue.

Response:

Thank you for your comments. Please see response to comments I-3-2 through I-3-15.

Commenter: Eric Hirst - Comment I-3-15

APPENDIX A: WATER-USE EFFICIENCY (WUE) MITIGATION OPTIONS FOR WRIA 1 IN RESPONSE TO ESSB 6091 Environmental Caucus to WRIA 1 Planning Unit July9, 2018 INTRODUCTION The environmental caucus believes that improving WUE represents an important and largely untapped class Of options to increase streamflows in WRIA I watersheds. Generally, these options can cost-effectively and flexibly meet the requirements of ESSB 6091 to directly offset (water-for-water, in time, and in place) the consumptive water use from rural homes using permit-exempt wells. In particular, WUE measures and programs aimed at rural residential and agricultural irrigation water uses can directly address Ecology's requirements on the "amount, location and timing of benefits" needed to offset consumptive water use.8 The WUE programs suggested below meet many of the criteria in the June 28, 2018 Project Master List and Evaluation Matrix. Specifically, WUE has positive attributes in terms of Status (many of the technologies and programs are well established and far beyond the conceptual stage), Quantity, the amount of water saved to offset well water use is reasonably well known (and can be measured through water meters9), Seasonality, saves water during the summer months when

it is most needed to protect and restore streamflows, Financial, is likely less expensive and more cost-effective (S/acre-foot) than many supply and storage projects, Flexible, because these WUE efforts can be ramped up or down as needed to match construction and water use for rural homes. This note focuses on Residential and Agricultural water uses because those are the uses most common in the areas where rural exempt wells are located. That is, commercial and industrial users are more concentrated in the urban areas. Washington State Dept. of Ecology, Interim Guidance for Determining Net Ecological Benefit, Publication 18- I l- 009, 2018 (page 5). Because no data exist on water use for rural homes in Whatcom County, it is essential to collect and manage such data for at least a representative sample of these homes. Data from Skagit and Kittitas counties show similarities in the monthly pattern of water use but stark differences in outdoor water use. 6 RESIDENTIAL New construction standards: Require installation of high-efficiency water-use fixtures and equipment in all new rural homes (toilets, showerheads, front-loading washing machines, etc). These standards should also apply to irrigation systems. The standards would be set at the maximum cost-effective level. Provide incentives to encourage WUE adoption in and outside existing rural homes: Offer financial assistance to help pay for more efficient residential water-using fixtures and equipment in existing rural homes, including lawn-watering and other outdoor water uses. Use the City of Bellingham program as a starting point. Purchase of indoor or indoor+outdoor water use package: Review Dungeness11 and Kittitæs12 programs to mitigate rural residential water use. Develop mitigation packages to sell to rural homeowners: indoor-use only or indoor-plus-outdoor use. An outdoor option offers a way to limit outdoor water use and is much more palatable than a ban on outdoor water use in watersheds where summer flows are especially low. Include an enforcement clause (aerial photos, drone flights) in permits to ensure compliance with limits or prohibition on outdoor water use. The fees yielded by such a program (to replace the one set in ESSB 6091 of $500) would be more closely related to the actual cost of mitigation in Whatcom County and would provide money to pay for other mitigation projects in WRIA 1.13 Information and education: Offer workshops to rural households on efficient outdoor water techniques and equipment. Conduct these programs with rural water associations and districts, building on their existing WUE programs. Although the benefits of such programs are hard to measure, they are very inexpensive and lay the groundwork for future actions to promote WUE AGRICULTURAL IRRIGATION Because agricultural irrigation is, by far, the dominant water use during the summer, improving its efficiency could yield major savings, far more than needed to offset the consumptive water 14 15 use from new rural homes. o Discuss with Riley Grant, City or Bellingham Natural Resources Division of Public Works for additional ideas on WUE measures and program design. See also the Saving Water Partnership (Seattle and other local water utilities, talk with Phil Seattle Public Utilities). For information on the Dungeness Water Exchange, contact Mike Gallagher, Section Manager in Ecology's SW Regional Office, 360-407-6305, MGAL461@ECY.WA.GOV. 2 For more information on the Kittitas County program, Erin Moore, Kittitas County Environmental Health Dept., 509-962-7698, Erin.Moore@co.kittitas.wa.us. Any such program should ensure that low-income households are able to afford rural housing and use water to grow food. Talk with George Boggs and others at WCD to see what they are doing to improve agricultural WUE and help with those programs. Conduct similar conversations with the six WIDs and Whatcom Family Farmers. The

Washington State Conservation Commission (WCC) runs an Irrigation Efficiencies Grant program (IEP), Funded by Ecology, to reduce agricultural water and apply the saved water to instream flows for salmon Improve irrigation scheduling efficiency: Washington State University developed software that farmers can use with a personal computer or smart phone to schedule use of their irrigation systems (when to turn on and how long to water) for the next seven days on the basis of various factors, such as soil type and depth; soil moisture; recent, current, and forecast weather conditions from a local weather station; type of crop, daily crop ET; and irrigation system efficiency. 16 "Improved irrigation scheduling [could] decrease irrigation water use by 10-30% while resulting in equivalent or better crop yields and quality." Focus on improved irrigation scheduling techniques, especially the one developed by Troy Peters and others at WSU — Prosser. Work with Troy Peters and Don McMoran, WSU Mt. Vernon, to implement such a program. Improved scheduling methods require no capital investment, although they may require some training for farmers in how best to use these systems. 17 Improve irrigation system maintenance: In a similar fashion, develop, demonstrate and apply best practices for maintaining irrigation equipment, including leak detection and repair. Soil-moisture sensors: These sensors can help farmers decide when and how much to irrigate. Some soils permit application of large amounts of water at infrequent intervals, while other soils require smaller applications more frequently. 18 CONCLUSION As shown above, many options exist to improve water-use efficiency in WRIA 1. Developing and then adopting these options, along with cost-effective and environmentally benign supply and storage options, will result in a robust package of measures to best meet the requirements of ESSB 6091. The overall goal is to assess and rank individual efficiency and supply options to develop a portfolio of programs/projects that will best meet the ESSB 6091 requirements. recovery. The IEP projects deal with delivery systems (replace unlined ditches with liners or put water in pipes) and application systems (more efficient irrigation). As of 2015, 62 projects had been completed through the IEP, saving nearly 16,000 acre feet of water and 66 cubic feet per second of flow back into 23 tributaries. R. T. Peters, irrigation scheduler mobile, User's Manual and Documentation, Washington State University. A California study of the California Irrigation Management Information System "found that on average, CIMIS increased yields by 8% and reduced water use by 13% [increasing productivity by 23%]." (H. Cooley et al., California in an Future, pacific Institute, July R. T. Peters, "Managing Irrigation Water on Different Soils in the Same Field," Whatcom Ag Monthly, 2(8), August 15, 2013. SUGGESTED REFERENCES ON RESIDENTIAL AND AGRICULTURAL IRRIGATION WATER USE AND WATER-USE EFFICIENCY General http•.//u".v.v.allianceforwaterefficiency.org/resource-library/default.aspx Alliance for Water Use Efficiency, Resources Library https://www.epægov/sites/production/files/2()162/documenLs/wc best practices to avoid supply expansion 2016 508.pdf U.S. Environmental Protection Agency, Best Practices 10 Consider When Evaluating Water Conservation and Efficiency as an Alternative for Water Supply Expansion, EPA-810-B-16-005, Dec. 2016. http•.//www.slcdocs.com/uti1itiey'PDF%20Fil&'2014%20SW%20Water%20Conservation%20M aster%20Plan. 2014 Salt Lake City Water Conservation Master Plan Residential water use and efficiency references http://ww.v.waterrf.org/Pages/Projects.aspx?PID=4309 W. DeOreo et al, Residential End Uses Of Water, Version 2: Executive Report, Water Research Foundation, April

2016. W. B. DeOreo, "Some Key Results from Residential End Use of Water Study," Water Smart Innovations Conference, Las Vegas, NV, Oct. 2014. W. B. DeOreo and M. Hayden, Analysis of Water use Patterns in Multi-Family Residences, for Irvine Ranch Water District, Oct. 2008. Agricultural irrigation water use and efficiency references https://www.ers.ILSda.gov/publications/pub-details/?pubi(1=44699 G.D. Schaible and M.P. Aillery, Water Conservation in Irrigated Agriculture: Trends and Challenges in the Face of Emerging Demands, U.S. Dept. of Agriculture, Sept. 2012. https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/waterfirrigation/irrigation-system-assessment-guide British Columbia Agriculture Council, Irrigation System Assessment Guide, June 2005. H. Cooley et al., Sustaining California Agriculture in an Uncertain Future, Pacific Institute, July 2009. http://css.wsu.edu/irrsoils/files/2016/01 IFS086E-Managing-Irri gation-Water-on-Different- R. T. Peters, 'Managing Irrigation Water on Different Soils in the Same Field," Whatcom Ag Monthly, 2(8), August 15, 2013. 9 http://pacinst.org/publication/califomia-farm-water-success-stories-2/ J. Christian-Smith and p. Gleick, California Farm Waler Success Stories, Pacific Institute, March 2010. h ://weather.wsu.edu/is/ISMManual. R. T. Peters, irrigation scheduler mobile, User's Manual and Documentation, Washington State University. h Wirri tion.wsu.edw'Contenb'Fact-Sheets/Dri Irri ation-For-A -Producers. R. T. Peters, "Drip Irrigation for Agricultural Producers," Washington State University, Extension Service, undated. https://www.researchgate.net/publication/271421378 Revising Crop Coefficient for Washingt on Sate T. Karimi, Revising Crop Coefficients for Washington State, MS Thesis, Dept. of Biological System Engineering, Washington State University, May 2012. 10

Response:

Thank you for your comments. Please see responses to Comments I-3-1 through I-3-15.

Commenter: Eric Hirst - Comment I-3-2

No Comment Text

Response:

Comments were provided as an attachment. Comments were provided as an attachment. Thank you for your comments. Please see responses to Comments I-3-1, and I-3-3 through I-3-15.

Commenter: Merle Jefferson - Comment T-2-1

No Comment Text

Response:

Comments were provided as an attachment. Thank you for your comments. Please see responses to Comments T-2-2 through T-2-16.

Commenter: Merle Jefferson - Comment T-2-2

LUMMI INDIAN BUSINESS COUNCIL 2665 KWINA ROAD BELLINGHAM, WASHINGTON 98226 (360) 312-2000 January 14, 2020 Annie Sawabini Department of

Ecology Water Resources Program PO Box 47600 Olympia, WA 98504-7600 Subject: Comments on the Draft Amendments to Chapter 173-501 WAC, Instream Resources Protection Program — Nooksack Water Resource Inventory Area (WRIA) 1

Dear Ms. Sawabini, I am writing to provide comment on behalf of the Lummi Nation on the proposed draft amendments to Chapter 173-501 WAC, Instream Resources Protection Program-Nooksack Water Resource Inventory Area (WRIA) l. I am resubmitting the comments (attached) that I submitted on the preliminary draft rule on May 9, 2019 As a whole, these comments were not adequately addressed in the proposed draft are still relevant and should be incorporated. In addition, the evaluation of seasonal impacts associated with the draft rule was incorrectly scaled to accurately characterize seasonal impacts. Please see the attached document titled "Assessing the Ecological Effects of WRIA I Watershed Plan Update" that characterizes seasonal impacts at appropriate scales. Thank you for your time and consideration of these comments. If you have any questions about the comments, please contact me (360) 312-2328] or Kara Kuhlman of my staff [karak@lummi-nsn.gov, (360) 312-2128]

Sincerely, Merle Jefferson, Sr., Executive Director Lummi Natural Resources Department (LNR)

Response:

Thank you for your comments. Please see responses to Comments T-2-4 through T-2-16. We appreciate all the hard work undertaken by Lummi Nation and Nooksack Indian Tribe staff to develop the evaluation. Please see Ecology's evaluation of NEB in Chapter 9 of the RSD. Ecology believes the evaluation in the RSD is consistent with WR POL-2094, Ecology's Interim Guidance for Determining Net Ecological Benefit, and RCW 90.94.020.

Ecology understands that the commenter would have liked to see impacts offset more closely in-time and in-place (as described in the document attached to the comments). Ecology believes the rulemaking meets the requirements of the law.

Please see Appendix B to view the document discussed in this comment.

Commenter: Merle Jefferson - Comment T-2-3

Merle Jefferson Please see attached letter RE: Comments on the Preliminary Draft Rule Language for the Amendment to Chapter 173-501 WAC: Instream Resources Protection Program — Nooksack Water Resource Inventory Area (WRIA) 1 LUMMI INDIAN BUSINESS COUNCIL 2665 KWINAROAD BELLINGHAM, WASHINGTON 98226 (360) 312-2000 DIRECT May 9, 2019 Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia, WA 98504-7600 Annie.Sawabini@ecv.wa.gov Subject: Comments on the Preliminary Draft Rule Language for the Amendment to Chapter 173-501 WAC Instream Dear Ms. Sawabini, I am writing to provide comments on behalf of the Lummi Nation on the preliminary draft rule language for the Amendment to Chapter 173-501 WAC, Instream Resources Protection program — Nooksack Water Resource Inventory Area (WRIA) 1 (preliminary draft rule). As you know, the Lummi Nation has treaty reserved water rights in WRIA-1 and on the Lummi Indian Reservation (Reservation). These rights include, but are not

limited to, a federal Indian reserved water right to instream flows sufficient to Support treaty fishing rights. In addition, the Lummi Nation also retains a federal reserved water right for consumptive uses necessary to fulfill the purposes of our Reservation. Regrettably, the State legislature has chosen to ignore the rights of the Lummi Nation in an effort to placate a small but powerful number of special interests groups. The Department of Ecology has thus been placed in the unenviable position of drafting a rule destined to permit actions that will certainly result in the continued impairment of the rights of the Lummi Nation. It is against this backdrop that we provide the following technical comments with respect to your preliminary draft rule. While we appreciate the proposed reduction of the withdrawal limit and the interruptible nature of outdoor water use in the preliminary draft rule, if not coupled with metering — a necessary component for ensuring accountability — establishing compliance with these provisions will be difficult, if not impossible. Furthermore, the draft preliminary rule does not appear to create a net environmental benefit and the certainty of achieving required water offsets is low.

Response:

Thank you for resending your comments. Please see responses to Comments T-2-4 through T-2-16.

Commenter: Merle Jefferson - Comment T-2-15

In closing, a 350 gpd limit for indoor and outdoor water use coupled with metering would provide a high level of certainty for the offsets needed and be far easier to effectively administer. Thank you for your time and consideration of these comments. If you have any questions about the comments, please contact me (360) 312-2328) or Kara Kuhlman of my staff (karak@lummi-nsn.wv, (360) 312-2128.

Sincerely, Merle Jefferson, Sr., Executive Director Lummi Natural Resources Department (LNR)

Cc: Jeremiah Julius, Lummi Indian Business Council Chairman Steve Solomon, Lummi Natural Resources and Fisheries Commission Chairman Kara Kuhlman, LNR Water Resources Manager George Swanaset, Nooksack Indian Tribe Natural and Cultural Resources Department Director Maia Bellon, Department of Ecology (Ecology) Director Mary Verner, Ecology Water Resources Program Manager Kasey Cykler, Ecology RCW 90.94 WRIA 1 Lead

Response:

Please see response to Comment T-2-4.

Commenter: Merle Jefferson - Comment T-2-16

Enclosure 2 Assessing the Ecological Effects of WRIA 1 Watershed Plan Update. Technical Memo Prepared in Support of WRIA 1 Watershed Plan Update 12/5/2018 Interim Work Product Assessing the Ecological Effects of WRIA 1 Watershed Plan Update Technical Memo Prepared in Support of WRIA 1 Watershed Plan Update - 12/5/2018 Interim Work Product Treva Coe, Nooksack Tribe Natural Resources Department Gerald Gabrisch, Lummi Natural Resources Department Kara Kuhlman, Lummi Natural Resources Department Andy Ross, Lummi Natural

Resources Department Oliver Grah, Nooksack Tribe Natural Resources Department
DISCLAIMER: Nooksack Indian Tribe and Lummi Nation technical staff performed this work using best available science and readily available methods to evaluate and/or describe potential impacts and a particular suite of planned actions at a temporal and spatial scale relevant to aquatic resources and within the limited timeframe available to conduct the analysis. The report is intended to help inform decision-makers, and should not be misconstrued as representing the policy positions of either the Nooksack Indian Tribe or Lummi Nation.

eComment link:
https://commentinput.com/attachments/projectID_200013/200142/merged//79E4AgZwQ2Z.pdf?v=6NPQM8W95

Response:

Thank you for your enclosure. Please see response to Comment T-2-2.

Commenter: Cliff Langley - Comment I-102-1

I would first like to draw your attention to the statement in our Declaration of Independence which I believe applies to all levels of government. "That to secure these rights Governments are instituted among men, deriving their just powers from the consent of the governed."
I don't believe that it is the fault of DOE that we find ourselves resisting the current rule making process and the rules they are making, but our governments at the county and state level have not been careful to see that they are listening to and deriving their conclusions from "We the people". Our governors have taken on the arrogant opinion that they know best, and allowed rules and regulations to be made by unelected bureaucrats.
The process in which the Planning Unit engaged was a process that was intended to listen to "the consent of the governed" but was allowed to be over ridden by entities that did not even bother to attend the Planning Unit meetings. This is not how our government was intended to work!
There was a super majority of caucuses that approved a plan to be passed on to Ecology. Those caucuses represented "We the People".
I call upon our government (state and county) to look at the rules, regulations and laws under which they operate and find ways to ensure the return of governance and what is done to "the consent of the governed".

Response:

Thank you for your comment. Please see general responses to “Fairness / Not Fair” and “Authority for Rulemaking.”

Commenter: Natalie McClendon - Comment I-152-1

Thank you for your work struggling to find a solution to our limited water that works for most people, and the fish. The bottom line is that the Nooksack Basin is over-appropriated and has been closed to new water rights permits for a long time. Rural permit-exempt wells for homes are the exception. Even though the basin is over-appropriated, rural land owners and developers

want to continue to take more water, and under current state law, they can. This is unfair to all senior rights holders, including in-stream uses.

Response:

Thank you for your comment.

Commenter: Terry Montonye - Comment I-83-1

Keep things simple by piezoelectric monitoring of the nine aggregated sub-basins initially, thenceforth reacting with new rules once actual localized needs are precisely defined.

And with respect to reduced summertime river flows, nets out of the rivers and 'enforced mouth-only openings only', first and foremost!

Response:

Thank you for your comment.

Commenter: Shannon Moore - Comment I-162-1

Jan. 15, 2020 2405 Broadway St. Bellinqham, WA. 98225 (360) 671-0071 Puqet Sound Gillnet Fishermen Annie Sawabini Dept. of Ecology Water Resource po Box 47600 Olympia, WA 98504-76, Re: Amendment to Chapter 173-501 WAC Nooksack Water Resource Inventory Area (WRIA) 1 Dear Ms. Sawabini, Thank you for your work struggling to find good solutions to our water problems here in Whatcom County. I am writing to provide comments on behalf of our commercial fishermen's association, The Puget Sound Gillnet Fishermen. The Puget Sound Gillnet Fishermen are a trade association of fishers located in Bellingham, Washington. Our association is represented by fishing families in North Puget Sound and the San Juan Islands. Presently, the limiting factor to our salmon fisheries in Puget Sound, are early arriving Chinook salmon that spawn in the Nooksack river particular to the South Fork and the North fork systems. Both Commercial and sport fishers are restricted during the early migration in river, and in marine areas 7,7A & 7B. Further, the National Marine Fishers Service has determined that current instream flows are inadequate to support the salmon and steelhead uses. In carrying out its duties under the Endangered Species Act, the National Marine Fisheries Service has stated that poor habitat productivity, not harvest, is the primary factor preventing chinook rebuilding in the Nooksack. NMFS' review of implementation of its Chinook Recovery Plan indicated that salmon habitat has continued to decline. More recently, the Lummi Nation and Nooksack Tribe have identified inadequate instream flows as a factor limiting salmon production in the Nooksack basin. Ecology's RSD also acknowledges that minimum instream flow levels are often not met. For example, minimum instream flows are not met more than 50% of the time in July and more than 60% of the time in August and September. None of the aforementioned information is new information, but needs to be included as the Department makes a decision of the Amendments to the New Rules. Climate change will exacerbate poor instream flow conditions and high stream temperatures. In short, even absent further development and consumptive use of water, salmon habitat conditions in the Nooksack basin are in poor condition and growing worse. There is no more room for additional stressors to this race of salmon and their habitat. Ecology's Proposed

Rule for the Nooksack fails to reflect a reasonable consideration of the risks that face salmon as well as basin residents with senior water rights. Extinction is not an option. Below are additional comments:

Response:

Thank you for your comment.

Commenter: Shannon Moore - Comment I-162-5

Critical Flow period: minimum instream flows are not met more than 50% of the time in July and more than 60% of the time in August and September. The listed Spring Salmon enter Nooksack River in late April and May. Depending on water temps and flow, these Chinook begin migration. At which time, they hold and ripen-up in their spawning reach in the Forks during the month of June and July, Spawning in August and September. Low stream flows and elevated water temperature produce poor spawning parents. I thank you for your time and consideration, Shannon Moore Puget Sound Gillnet Fishermen CC: Dave Erickson Kristian Warfel Bob Franks David Nash Terry Betts Brendon Flynn

Response:

Thank you for your comment.

Commenter: Max Perry - Comment I-166-1

The update of the Planning Unit should be used as a basis by the Department of Ecology for rule making for WRIA 1. It most broadly represents the will and determinations of the majority of Whatcom County water stakeholders. New exempt wells should be set at 3000gpd for the next 20 years. The vast majority of water used by exempt wells goes back into the water table through septic systems and irrigation. Only 23 exempt wells have been permitted in Whatcom County in 2019 and 8 in 2018; thus the water used is negligible.

Response:

Thank you for your comment. Please see general responses to "Fairness / Not Fair" and "Authority for Rulemaking."

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. See Chapter 3 of the RSD for more information on how the conservation standard was developed.

Commenter: Skip Richards - Comment I-134-1

Please see attached.

Response:

Thank you for your comment. Please see responses to Comments I-134-2 through I-134-6.

Commenter: Skip Richards - Comment I-134-2

Skip Richards Please see attached. To Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia WA 98504-7600 From, Skip Richards Catalyst Consulting cdl@catalvst-consultine.com Re, COMMENTS on proposed Amendment to Chapter 173-501 WAC Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1 Date, January 13 2020 Via, online comment form submitted to. http://oth.ecology.commentinput.comt/?id=fdG6m Formal Title of DOE action, Amendment to Chapter 173-501 WAC Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1 BASIS OF COMMENTS, The document titled Draft Rule Supporting Document November 2019, hereinafter, Supporting Doc11-093, which Ecology has designated as Publication, 19-11-093 This document is available on the Department of Ecology's website at, https://fortress.wa.gov/ecy/publications/summarypages/1911093.html Ecology issued an earlier version titled Preliminary Draft for Public Comment in April 2019, referred to herein as DraftSupportingDoc04. NOTE, various times herein the text of the two versions of the supporting document may be compared and contrasted. Table of Contents Executive Summary Background matters of policy Matters of Law Matters of Science References Executive Summary [Table of Contents]

This document focuses primarily upon Ecology's reduction in water use rates in its proposed amendment to WAC 197-201, the Nooksack or WRIA 1 instream flow rule. Ecology proposes to reduce water use rates for domestic wells from the statutory 3,000 gallons per day (gpd) indoor use, and 1/2 acre outdoor irrigation, to 500 gpd indoor use and 1/12 acre outdoor irrigation. No explanation provided for the propose use rate reductions: In Supporting Doc11-093 Ecology provides no explanation for why it chose the specific use rates it did. In all 78 pages and 3.3 Megabytes of text, tables and figures found in SupportingDoc11-093 one finds nothing used to justify the rate reductions. Might it have chosen, for indoor use rate, 400 gpd, or 800, or any other figure? Why 500 gpd exactly? Same issue with the outdoor rate. No detailed criteria stated for selecting the use rates: neither does Ecology state any detailed criteria it used for selecting the reduced use rates. Instead it points to the requirement of full offset and Net Ecological Benefit provided for the water consumptively used by the next 20 years-worth of domestic wells at whatever the use rates are to be. Other use rates, higher or lower, could meet those simple and vague criteria. During the public hearing held at Lynden Middle School on January 8 vague references were made to the availability of funding. Since the projects do not all have to be funded at the beginning of the period in which the rule takes effect, lack of immediate sources of funding is an unjustifiable excuse. No justification offered for the rate reductions: If administrative rules should rest upon a firm factual and analytical foundation, then Ecology should provide a detailed justification for the use rate reductions. Just as Ecology offers no criteria for selecting use rates, or explanation for its choice of the proposed rates, it has also failed to provide any justification for those rates. The statutory use rates meet the stated criteria: Given the amount of offset water that the projects Ecology has placed on its approved list, the statutory use rates of 3,000 gpd indoor use and 1/2 acre outdoor irrigation can meet the criteria of full offset and Net Ecological Benefit provided for the Water consumptively used by the next 20 years-worth of domestic wells. The use of the USGS program STRMDEPLOS remains

inapposite: despite some changes since the draft version of the Supporting Document. The assumption of continuous pumping for 90 days straight does not apply to domestic wells and will greatly overstate impacts of domestic wells on nearby streamflow. The results of the overall streamflow depletion impacts as displayed in Figures 4.2 and 4.3 is based on a false premise and is thus fatally flawed and dangerously misleading. SupportingDoc11-093 displays Figure 4.2, titled "Stream depletion from a well over a twenty-year timeline," and Figure 4.3 titled "Analytical results obtained from the USGS STRMDEPL08 program utilizing parameters that are typical for the Sumas Aquifer in Whatcom County." Ecology claims these figures estimate the steady state depletion rate after 20 years of new domestic well pumping. These displays, and any analysis based on them, is fatally flawed because it assumes that all 2,150 domestic wells start pumping at Year One, that is, in 2018! To the contrary, roughly one-twentieth of the wells will begin pumping at any given year and it will not be until year 20 that the total estimated 2,150 wells will be pumping. Thus, the estimated steady state depletion rate will be reached in the year 2058, not 2038. Sadly, SupportingDoc11-093 reads like the cynic's definition of government planning, the collection of information used to justify a pre-determined conclusion. That Ecology has chosen to take this route poses potential damage to the agency's credibility [Table of Contents]

Response:

Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking." Please see response to Comment I-134-6.

Please see the response to Comment I-156-1 regarding how Ecology developed the conservation standard for new domestic permit-exempt wells. See Chapter 3 of the RSD for more information on how the conservation standard was developed.

Commenter: Skip Richards - Comment I-134-3

Background, Matters of Policy The Hirst Case, Analysis of Hirst in light of prior state supreme court decisions, [Table of Contents] The Hirst decision appears to contradict the court's previous decisions on the same issue, namely in the Kittitas and Swinomish cases. In Kittitas County v. Eastern Washington Growth Management Hearings Board the county inter alia, ". . .addressed the counties' and Ecology's respective roles in regulating water rights. Petitioners had argued that the County is entirely preempted by Ecology from adopting regulations related protecting groundwater resources. The court disagreed, holding that nothing in Washington's Ground Water Code expressly preempts consistent local regulation. The court further held that "in fact, several relevant statutes indicate that the County must regulate to some extent to assure that land use is not inconsistent with available water resources." The county concluded, therefore, that "while Ecology is responsible for appropriation of groundwater by permit under RCW 90.44.050, the County is responsible for land use decisions that affect groundwater resources, including subdivision, at least to the extent required by law."" Source, http://www.martenlaw.com/news1etter/20111013-wash-water-rights-restricted The operative phrase is " at least to the extent required by law." Since WAC 173-501 allows permit- exempt wells for WRIA 1, it seems to follow that in allowing building permits to applicants relying on permit-exempt wells, Whatcom County was well within the law. In the second case, Swinomish

v Ecology, the court found that in an area where DOE had adopted a highly restrictive instream flow rule, Ecology itself could not modify said rule to permit some exceptions (reservations) for new water uses even in cases where both DOE's experts and those of WDFW " had determined the amount of water allocated for the new uses represented less than the amount that would result in significant adverse impacts to fish populations." The court also held that no amendment to an instream flow rule could contradict any existing provision of the water code Source, https;//jordanramis.com/resources/articles/washington-supreme-court-acts-to-limit-acquisition-of-n/view/ In essence, then, in these two cases the Supremes decided that DOE's instream flow rules are sacrosanct and immutable unless and until new information is uncovered and/or, presumably, any new provisions are made to assure instream flows are met by other means. In any case, a DOE rule could not be changed, even by DOE, without going through the rulemaking process set forth in the state Administrative Procedures Act, RCW 34.05, https://app.1eg.wa.gov/rcw/defau1t.aspx?cite=34.05. In its decision in Hirst, by contrast, the court relied upon an assertion of fact by the petitioners that the cumulative use of a few thousands more permit-exempt wells would have an adverse impact on streamflows — which apparently went unchallenged by the county's attorneys. The opening summary of the decision reads as follows: The GMA requires counties to ensure an adequate water supply before granting a building permit or subdivision application. The County merely follows the Department of Ecology's "Nooksack Rule"; it assumes there is an adequate supply to provide water for a permit-exempt well unless Ecology has expressly closed that area to permit-exempt appropriations. This results in the County's granting building permits for houses and subdivisions to be supplied by a permit- exempt well even if the cumulative effect of exempt wells in a watershed reduces the flow in a water course below the minimum instream flow. We therefore hold that the County's comprehensive plan does not satisfy the GMA requirement to protect water availability and that its remaining arguments are unavailing. We reverse the Court of Appeals in part and remand to the Board for further proceedings. [emphasis added) Source, http://www.ecy.wa.gov/programs/WR/wrac/images/pdf/91475-3opinion.pdf what distinguishes Hirst from Kittitas and Swinomish is that in the latter two cases the Supremes upheld the supremacy of DOE's instream flow rules, whereas in Hirst the court found that DOE's rule was inadequate. Arguably, it did so without basis in fact or in law. Certainly, the factual basis of the majority's opinion is faulty, as will be shown below. What do these three cases have in common? Kittitas, Swinomish, and Hirst all further restrict homebuilding and other development in rural areas of the state. Critics of the Hirst decision point to that commonality to suggest that the state supreme court majority, whose campaign contributors are largely made up of interests that oppose rural growth, are biased and are re-writing the law to suit the anti-rural growth agenda. Thus, critics of the Hirst decision see it as an attempt to effect a huge downzone by other means. During the case, DOE filed an amicus brief in support of the county's position. After the decision, it did an about-face and made excuses as to why the decision might not have been so erroneous after all, as posted on this page of their site, do some instream flow rules govern permit-exempt wells but others don't? "We began adopting instream flow rules in 1976. Rules that were adopted before 2001 do not specifically govern permit-exempt uses of groundwater. This is the case with the Nooksack River rule in Whatcom County. "The instream flow rules developed since 2000 are much more comprehensive than their counterparts in the 1970s and

early 1980s. These newer rules address the use of permit-exempt groundwater." [emphasis added] Source, http://www.ecy.wa.gov/programs/wr/nwro/hirst.html The text of WAC 173-501 seems to suggest otherwise, however, WAC 173-501-070 Exemptions. (1) Nothing in this chapter shall affect existing water rights, perfected riparian rights, federal Indian and non-Indian reserved rights, appropriative or otherwise existing on the effective date of this chapter, nor shall it affect existing rights relating to the operation of any navigation, hydroelectric, or water storage reservoir or related facilities. (2) Single domestic, (including up to 1/2 acre lawn and garden irrigation and associated noncommercial stockwatering) shall be exempt from the provisions established in this chapter, except that Whatcom Creek is closed to any further appropriation, including otherwise exempted single domestic use. For all other streams, when the cumulative impact of single domestic diversions begins to significantly affect the quantity of water available for instream uses, then any water rights issued after that time shall be issued for in-house use only, if no alternative source is available. (3) Nonconsumptive uses which are compatible with the intent of this chapter may be approved. [Statutory Authority, RCW 90 54 020 (3)(a) and (1) and 24-073 (Order 85-19), S 173-501-070, filed 12/4/85.] [emphasis added] Source, http://leg.wa.gov/CodeReviser/WACArchive/Documents/2013/WAC-173-501-CHAPTER.pdf The emphasized language in the exemption section of WAC 173-501 does not appear in RCW 90.44 050, so it is not strictly correct that DOE gave no thought to permit-exempt uses, in that the rule explicitly provides for an exemption that is based on, but not entirely the same as, the statute. The costs to people and the benefits to fish of the Hirst decision: The costs: As a consequence of being unable build homes on parcels they own that are located in areas of the county zoned for residential use, thousands of property 0'vners saw the value of their properties plummet. The county assessor stated he would reduce the valuation of the properties for tax assessment purposes, to a rate 60% to 70% less than that of their pre-Hirst valuation for one group of 2,291 parcels, and between 20% and 30% for a second group of 1,170 parcels. A spreadsheet of the fiscal impact of Hirst has been generated by the assessor, found here http://www.thefourthcorner.com/assessors-report/ [NOTE, in the format presented, this sheet may be difficult to read] The net result, Loss of assessed valuation: $186,149,412 Tax shortfall (what assessor calls make-up tax), $2,197,161: this is the additional amount that must be collected from the rest of the taxpayers to achieve the same revenue stream for the county. Property owners unsatisfied with the assessor's revised valuation could appeal his decision to the board of equalization. They might have strong arguments to have their property values reduced to near zero. Without the ability to build on a parcel zoned rural residential, the values of the range of permitted uses would be quite limited. It should be noted, that the Hirst decision did not in any way amend or invalidate DOE's water supply rule WAC 173-501, so property owners could still drill a permit-exempt well and use it for the other exempted purposes, such as stock watering and small-scale non-commercial irrigation. The value of doing so would depend upon the revenue that could be generated by such activities; in the case of non-commercial irrigation, the value would likely be zero. Note one key aspect of the results of these calculations, the estimated reduction in county tax revenues will not actually take place. Rather, the county will adjust everyone else's tax rates upward to achieve the same total revenue amount as it would have prior to Hirst. So while the financial impact of Hirst will fall most heavily on those property owners who can't build, it will fall on all county taxpayers to the extent necessary to make up the

tax revenue shortfall. It can be expected that many county residents won't fuss, since by reducing the number of available building lots, the value of existing residences will increase — the anti-growth folks know a good thing when they see one. But the overall long-term impact to the local economy of increasing per capital tax rates will be negative. More money that goes to taxes means less consumers will have to spend on everything else, including locally produced items so favored by many. What are the benefits of Hirst to stream flow? In short, they are negligible, at best. The amount of water that permit-exempt wells installed over the next 20 years would consume, an amount carefully estimated to be less than 1.0 cfs distributed over all of WRIA 1, is not sufficient to cause any meaningful impact on streamflow. The 1 Planning Unit and Initiating Governments respond to ESSB 6091 aka RCW 90.94. After failing to agree on a "Hirst fix" in the 2017 legislative sessions, in early 2018 the legislature adopted ESSB 6091, later codified as RCW 90.94 (hereinafter, the statute). The relevant section of RCW 90.94 that applies to WRIA 1 is RCW Water Availability vs Streamflow Restoration, The legislature saw fit to title ESSB 6091 "Water Availability." Ecology later retitled the same bill "Streamflow Restoration." The retitling appears to be an exercise in Orwellian doublethink. The legislation required the WRIA 1 Planning Unit and Initiating Governments to: Estimate the number of new domestic wells that would serve new households over the next 20 years; Estimate the amount of consumptive use by these wells, which means the total amount of water pumped by a given well, less the amount that returns to the ground in the form of septic systems via indoor water use and infiltration/recharge from outdoor water use; Estimate the amount of consumptive use that reduces streamflow; Identify projects that would offset the consumptive use by putting the amount of water all the wells would take from the streams back into stream by some means; Provide for a Net Ecological Benefit (NEB), which meant, according to Ecology's interpretation, that the selected projects would return more water to streams that the quantity taken by the wells, plus other ecological enhancements like fish habitat improvements. Incorporate these results into an update to the existing WRIA 1 watershed management plan. While the intent of the legislature may have been well meaning, the consequences of the attempt to implement the legislation in WRLA 1 were not. First problem, time frame too short, while it took the IGs and PU then acting in concern to develop the watershed plan, the legislature gave them only one year to complete the update. Second problem, power struggle between PU and IGs left unresolved, the statute did nothing to resolve the power struggle between the Planning Unit (PU) and the Initiating Governments (IGs). In 2009 the IGs suspended PU activities, in effect seizing total control of the watershed planning process, which some PU members believe to have been (and continues to be) illegal. Thereafter the IGs made significant amendments to the watershed management plan while claiming with a straight face that those amendments, which by law and by the provisions of the existing plan, should have been reviewed and approved by the PU, were just "implementations" of the existing plan. The IGs continue to maintain that charade to this day. Instead, the statute called out a separate role for the IGs by name, which some might see as a state-level legitimization of at least some aspects of the validity of the IGs acting as a separate entity, despite the fact that Watershed Planning Act, which brought the respective roles of planning units and IGs into existence, made no such provision. To complicate matters, despite making the split between the IGs and the PU worse by seemingly accepting it as an acceptable status quo, the statute required the IGs and the PU to collaborate in developing a watershed plan update that would achieve the statute's

objectives as stated above The division of the IGs (and their staffs) from the PU made the process almost impossible. The watershed plan was developed by the staffs and PU members working together closely throughout the six- year process that led to the plan's unanimous adoption in 2005. By contrast, during the 2018 effort to comply with the planning requirements of ESSB 6091, the IG staff operated separately and in isolation from the PU. Further, the plan update approval process sequence that the staff shoved down the throat of the PU, in which the IGs acted through a separate set of meetings from which the PU was explicitly excluded from participation (the so-called WRIA 1 Watershed Management Board), guaranteed to exacerbate the existing conflict between the PU and the IGs. Since the IGs and the PU had been at odds since the PU'S restart in 2013, the chances of such collaboration being fruitful were slim to none from the beginning, but both entities made an effort to comply. (In so doing, the level of sincerity of each is open to question). Against all odds, the PU and the IGs accomplished all but the last two objectives, providing NEB and achieving consensus on a watershed plan update Unfortunately, this result was equivalent to an eight-foot leap over a ten-foot ditch. Reviewing the particulars of the failures, and the role Ecology's representative played in them, are instructive. An artificially shortened time frame. The first blow Ecology struck came when, relatively late in the process, its representative to the PU announced that while the statutory deadline for final state-level approval (by Ecology) of the plan update had been set at February 1, 2019, in order for Ecology to have sufficient time to review and approve it, Ecology set a tighter deadline for the IGs/PU to complete the plan update of mid-December 2018 The statutory deadline was short enough; lopping off another month and a half made the process all the more difficult. If Ecology had made its announcement in that regard early on in the process, perhaps the schedule could have been adjusted accordingly. Waiting until after mid-year to do so many PU members saw as unhelpful, at best. Overall, this additional contraction in the time line, which some PU members felt was unauthorized, and most felt was unreasonable, would play a major role in the failure to approve a plan update. The Net Ecological Benefit (NEB) fail: Late in the process, a member of the IGs staff delivered a report that purported to be an analysis of NEB and the impact of projected streamflow reductions on salmonid populations. The PU had not requested, nor had it been expecting, such a report. At such, the report was sprung on the PU at the last minute without warning. The credentials of the report's author were called into question by some PU members. (A PU members' request for the CVs of the IG staff was ignored.) The report used faulty assumptions to draw the most negative possible picture of the impact of new domestic wells on streamflow, hence on salmonids. The PU panned the report. Some IG staff found fault with the report as well. Nevertheless, the IGs staff included it, verbatim, in its draft update to the watershed plan. The staff plan update fail: After delivering its draft of the update to the PU at literally the last minute, most of the staff left on winter break, which meant that there was no way to reconcile the staff's version of the update with one that had been developed independently by the PU. In doing so, in effect the staff said to the PU, take our version or else. And of course without their staff s approval of the final product, the IGs weren't going to accept the PU' s version, so there was, by early December, no viable pathway by which a plan update could be approved by all parties. Despite this seeming deadlock, the PU continued to work on its version of the plan update, ignoring the Ecology-imposed shorter deadline. The PU’s vote on the member-developed plan update did not take place until January 2019, after the Ecology-imposed

deadline had expired. Most relevant to this discussion, the PUS proposed plan update kept the statutory rates, of 3,000 gpd indoor use and 1/2 acre outdoor irrigation. The final blow to the PU's plan update delivered by Ecology's representative to the PU: During the final vote on the PU's version of the plan update, Ecology's representative to the PU after a constant series of abstentions and recusals in all prior PU votes — cast a no vote without first observing the PU's rules (found in the PU's Process and Procedural Agreement, Section 4.1). Said rules were crafted by the PUs original facilitators precisely in order to thwart such last-minute sabotage of the planning process. These rules require stating the concerns of the member intending to vote no, and offering alternatives, to give the PU an opportunity to amend the proposal so that the body could achieve unanimous approval. Since all government representatives to the PU have veto power, the Ecology no vote killed the plan update. Ecology's approach to their proposed amendment to the WRIA 1 instream flow rule should be viewed in the context as set forth above. Is there a policy bias in Ecology's use limits in the proposed rule amendment? As demonstrated elsewhere herein, Ecology has failed to provide any specific justification for its proposed use rates, which reduce the statutory limits of 3,000 gpd indoor use and 1/2 acre outdoor irrigation to 500 gpd indoor use and 1/12 acre outdoor irrigation. Both of these reduced rates represent one-sixth of the statutory rate. As shown elsewhere herein, if Ecology kept the statutory use rates it could still achieve what the law requires, which is full offset of all water use by exempt wells drilled over the next 20 years, and provide Net Ecological Benefit. And this result could be achieved under exactly the same terms and conditions that Ecology used to arrive at its proposed use rates, which are one-sixth those of the statutory rates. So, what is the real reason Ecology chose the 500 gpd indoor use and 1/12 acre outdoor irrigation rates? During the 2018 plan update process, the local tribes, City of Bellingham, and those interests which oppose other rural residential and business development, made it very clear they wanted drastic use rate reductions. And, as documented above, at the last minute Ecology's representative to the PU spiked the PU's attempt to pass a plan update. Taken together, these actions suggest that perhaps Ecology has adopted these proposed use rate reductions simply to cater to the minority interests who want them. The coming General Stream Adjudication, The amount of water the next 2,150 homes build in the rural parts of WRIA 1 will consume is a tiny and, in the context of the overall water budget, insignificant fraction of the amount of water currently consumed, over 90 percent of which is used by commercial irrigators. From the perspective of rational water management policy, to place so much emphasis and effort into addressing the least significant sector of water consumption made no sense from the beginning. It shows how much irrational damage that some fanatical interest groups can do to the body politic and its decision making process. The waste of time and other resources will take on a tragic aspect when a General Stream Adjudication starts in WRIA 1, which knowledgeable observers anticipate beginning early 2021. [Table of Contents]

Response:

Thank you for your comment. Ecology appreciates that you may not like certain components of the law the Legislature enacted. Ecology respectfully disagrees with several of your claims and assertions. Ecology appreciates all the hard work performed by the WRIA 1 Watershed Management Board, WRIA 1 Watershed Staff Team, and the Planning Unit. Since a watershed management plan update, was not locally approved by the law's deadline—by either the

Planning Unit or the Initiating Governments—Ecology is now required to meet the requirements through a rulemaking process.

Commenter: Kathy Sabel - Comment I-165-1

I have been attending the local WRIA1 meetings and Whatcom County Council meetings for the last several years, not long after moving here. I also attended a state hearing in 2018 on the proposed ESSB6091 language. I heard many citizens testify how regulations in the past had hurt their families, and regulations that continue to be implemented with their concerns not listened to. I am not a Washington state pioneer family with knowledge of the history of the county, but have seen through these meetings there are many who have been involved for many years with great wisdom. It was disappointing that the local stakeholders could not reach agreement to prevent this WRIA1 watershed planning effort going to the state level for rulemaking. If local stakeholders were not able to reach agreement on 1% of the water usage in WRIA1, how will local stakeholders be able to reach agreement on the remaining 99% water usage? Will Watershed Planning now move to the State Level? Are non-governmental water users being relegated to second class citizens? It remains to be seen, especially now with the State interviewing groups for an evaluation determining which watershed will have their water rights adjudicated as a priority with the report due September 2020.

Response:

Thank you for your comment.

Commenter: Kathy Sabel - Comment I-165-5

4) The rule is using water reduction numbers some of the Initiating Governments (IG) proposed during the WRIA1 process of reviewing ESSB6091 water limits and fees. Additionally, Department of Ecology had meetings with specific government groups during rulemaking. Please explain criteria used for evaluating government and non-government stakeholder input.

Response:

This rulemaking is performed in accordance with chapter 34.05 RCW of the Administrative Procedure Act. As such we accept comment and input from all entities, including government and non-government.

Commenter: Kathy Sabel - Comment I-165-8

7) Since no outreach was done to the specific landowners of WRIA1 affected by the rule, how does Department of Ecology justify not doing this? Targeted outreach to existing and forecasted new permit-exempt well owners is needed. Outreach is needed prior to the adopting the rule since the trigger for the reduced allowed water withdrawal of the proposed 500 gallons is only memorialized when a building permit is issued.

8) In order for existing and future new permit-exempt well landowners to know of water withdrawal limitations, all land titles should have possible limitations noted in the title once the rule is effective July 2020, not later with an issued building permit. By having the rule

documented in the title effective the adopted rule date, those with 5000, 3000 or 500 gallons should have a clear understanding of the land's water use allowed, and so will the county assessor along with owners and buyers. Please explain how Department of Ecology will mandate this or a similar requirement.

Response:

Ecology performed notice of the proposed rulemaking consistent with chapter 34.05 RCW. Ecology provided significant outreach for the rulemaking. This included: two rounds of public comment periods; the issuance of a Preliminary Draft of the amendment; multiple open houses across both affected counties; multiple public hearings across both affected counties; newspaper notices in both affected counties; updates by Ecology at numerous relevant meetings, including the WRIA 1 Planning Unit, WRIA 1 Watershed Staff Team, WRIA 1 Management Team, and WRIA 1 Management Board; email notifications to more than 1,600 interested parties on multiple occasions; outreach materials; a dedicated webpage; and more. As well, RCW 90.94.020 clearly states the requirement for the rulemaking and the approximate timelines associated with the rulemaking.

Please see response to Comment I-100-1.

Commenter: Kathy Sabel - Comment I-165-13

13) In RCW 90.94, (which points to RCW 19.27.97 water availability), permit-exempt wells drilled prior to January 19, 2018 (ESSB6091 effective date) which do not meet the requirements of Chapter 18.104 (Water Well Construction) are subject to the 3000 gallon reduction from 5000 gallons if for a new water use when getting a building permit in WRIA1. Cities and Counties have been given authority to implement this requirement for water availability as per RCW 90.94/ESSB6091, and Whatcom County has implemented it. RCW 90.94.020 states: "This section only applies to new domestic groundwater withdrawals exempt from permitting under RCW 90.44.050 in the following water resource inventory areas with instream flow rules adopted under chapters 90.22 and 90.54 RCW that do not explicitly regulate permit-exempt groundwater withdrawals: 1 (Nooksack);". The rule is missing supporting documentation on the number of existing permit exempt wells that will be reduced from 5000 to 500 gallons due to the existing water well's construction for "new domestic groundwater withdrawals". Only 31 wells were reported to Department of Ecology from 2018 to 2019, and of those new wells it is not known at this time if any of them had been existing permit exempt wells. The rule erroneously omits these law-defined existing permit exempt wells from the rule. The law included existing permit exempt wells in it and so must the rule to be in compliance with the law. The rule needs to research and provide estimates for how many existing permit exempt wells will be reduced from 5000 gallons to 500 gallons under the rule. Without that information, this rule has left out vital information on the impact of RCW 90.94 on allowed water usage by existing permit exempt wells and the effect on any needed offsets for forecasted new permit exempt wells water usage.

Response:

Thank you for your comment. Ecology believes the rulemaking and associated supporting documents and analyses include all necessary information to meet the requirements of RCW 90.94.020.

Commenter: Kathy Sabel - Comment I-165-14

14) I've heard there is a WRIA1 pilot trying moving a surface water withdrawal to a groundwater withdrawal. If so, I would appreciate more information on this as it seems the rule is reducing groundwater use while other processes are looking at increasing groundwater use. Thank you for the opportunity to comment. Kathy Sabel

Response:

Please see RCW 90.94.040 and Chapter 6 of the RSD.

Commenter: Daniel Schroeder - Comment I-5-1

Rulemaking Lead Sawabini,

Test Daniel Schroeder

Response:

Thank you; we hope your test was successful.

Commenter: Josie Cummings - Comment O-1-1

No Comment Text

Response:

Comments were provided as an attachment. Thank you for your comment. Please see responses to Comments O-1-2 through O-1-5.

Commenter: Josie Cummings - Comment O-1-5

To summarize, rural landowners and communities are amongst the strongest proponents of protecting water and habitat. There should be a balance between protecting water resources and allowing for landowners to live on and use of their own property. Please follow RCW 90.94.020 as it was written and allow for noncommercial lawns and gardens to be included in the domestic use definition as the legislature intended, the drought curtailment should not be in the Nooksack rule, and utilize the maximum average basis for water use as stated in statute. Please correct these problems and include it in the final rule. Sincerely, Jan Himebaugh Government Affairs Director Building Industry Association of Washington

Response:

Thank you for your comment. Please see general responses to “Fairness / Not Fair,” “Comparison of Other Water Use Limits,” and “Authority for Rulemaking.”

Commenter: Trish Rolfe - Comment O-3-1

Please find attached CELP's comments on the proposed Amendments to WAC 173-501.

Thank you.

Response:

Thank you for your comment. Please see responses to Comments O-3-2 through O-3-15.

Commenter: Trish Rolfe - Comment O-3-3

Water quantity and quality in the Nooksack Basin (WRIA 1) is already consistently and significantly impaired.

That current instream flows are inadequate to support the salmon and steelhead uses is not new information. In carrying out its duties under the Endangered Species Act, the National Marine Fisheries Service has stated that poor habitat productivity, not harvest, is the primary factor preventing chinook rebuilding in the Nooksack.2 NMFS' review of implementation of its Chinook Recovery Plan indicated that salmon habitat has continued to decline.3 More recently, the Lummi Nation and Nooksack Tribe have identified inadequate instream flows as a factor limiting salmon production in the Nooksack basin.4 Ecology's RSD also acknowledges that minimum instream flow levels are often not met. For example, minimum instream flows are not met more than 50% of the time in July and more than 60% of the time in August and September.5 As discussed in detail later in these comments, climate change will exacerbate poor instream flow conditions and high stream temperatures. In short, even absent further development and consumptive use of water, salmon habitat conditions in the Nooksack basin are dire and growing worse. There is no more room for additional risk to salmon and their habitat. Accordingly, Ecology must take a risk-averse approach at every step of its analysis and decision-making. Unfortunately, Ecology's Proposed Rule for the Nooksack fails to reflect a reasonable consideration of the risks that face salmon as well as basin residents with senior water rights and other beneficial uses.

Response:

Please see response to Comment T-2-10.

Commenter: Trish Rolfe - Comment O-3-9

The supporting document's analysis of projected consumptive water use in WRIA 1 is inadequate because it fails to account for the impacts of climate change. Climate change will affect many aspects of water use in the years ahead, both within the 20-year analysis period required by RCW 90.94(4)(c), and the effectively permanent duration of the recordable water rights at stake in this rulemaking. Ecology's RSD prudently recognizes the "inherent uncertainty" in making the assumptions that go into projecting future consumptive water uses.38 We support Ecology's principle of accounting for all reasonably predictable variables in projecting future uses and then adding a 50% safety factor to plan for uncertainty. However, many forthcoming effects of climate change are a virtual certainty.39 Therefore, they should be included in the consideration

of reasonably predictable variables in making the baseline consumptive water use projections, rather than relying on the safety factor to account for inherent uncertainty as well as the reasonably modeled impacts of climate change on well water demand. Washington State's Integrated Climate Response Strategy, created by Ecology with assistance from the University of Washington Climate Impacts Group, states that"[c]limate change has already altered and will continue to alter the snowpack and streamflows in the Western United States, affecting where, when, and how much water is available for all uses."40 The Strategy also states that projected climate change impacts include: rising temperatures, declining snowpack and loss of natural water storage, changes in seasonal streamflow, higher drought risk, competition for scarce water resources, reduced water quality, and increased winter flooding.41 Models show that WRIA 1 will be significantly impacted by climate change.42 This is especially concerning considering the Nooksack River already struggles to meet minimum instream flows consistently, especially during the summer months.43 The UW Climate Impacts Group produced a set of models predicting specific impacts to the Nooksack basin.44 The analysis predicts an average temperature increase of 2.2 degrees Celsius in winter and 3 degrees Celsius in summer, for the period beginning in 2040.45 Winter precipitation is expected to increase by 10% while summer precipitation declines by 21%.46 April 1 snowpack water content levels are expected to drop by nearly half.47 Summer water deficits (the gap between soil moisture available and the amount needed for crops) will increase substantially.48 This is particularly concerning because water demand is significantly higher in summer across the region.49 The change from snow to rain in winter, along with reduced summer rainfall, will have measurable impacts on water availability across streamflows in WRIA 1.50 These impacts are projected to occur within WRIA 1's 20-year planning horizon and must be taken into account when planning for the watershed.

Response:

Please see responses to Comments O-3-10 and O-3-12. Projects that address climate change get additional points in scoring in the latest (2020) iteration of the Streamflow Restoration grant funding guidance.

Commenter: Trish Rolfe - Comment O-3-14

Conclusions in enacting RCW 90.94, which allows for essentially unbridled growth using permit-exempt wells, the Legislature created a significant threat to streamflows and the salmon that they support. Fortunately, RCW 90.94 also contains provisions designed to mitigate for that threat and to take steps towards restoring and improving instream ecology. Those provisions require Ecology to adopt rules that meet the statute's requirements, including identifying and providing water to offset new permit-exempt well use as well as other restoration projects. Unfortunately, the Proposed WRIA 1 Rule Amendments, in their present form, fail to meet these obligations and would be vulnerable to challenge. CELP suggests that, rather than relying on an unenforceable Rule Supporting Document, Ecology should redraft the Proposed Rule to contain meaningful provisions that will ensure RCW 90.94's goals of streamflow protection and restoration are met. Again, we appreciate the opportunity to provide input on this Proposed Rule. Feel free to contact me if you have any questions or concerns. Sincerely, Trish Rolfe Executive Director

Response:

Thank you for your comments. Ecology believes the rule is consistent with WR POL-2094, Ecology's Interim Guidance for Determining NEB, and RCW 90.94.020.

Commenter: Trish Rolfe - Comment O-3-15

1 These comments were developed with the research assistance of the University of Washington Regulatory Environmental Law & Policy Clinic. 2 See NMFS, Proposed Evaluation of and Pending Determination on a Resource Management Plan (RMP), Pursuant to the Salmon and Steelhead 4(d) Rule, Comprehensive Management Plan for Puget Sound Chinook: Harvest Management Component (NMFS Tracking No. F/NWR/2010/06051) (December 14, 2010) at 69. 3 See NMFS, Puget Sound Chinook Salmon Recovery Plan – 2011 Implementation Status Assessment Final Report, 2011, at 43 (Habitat quality continuing to decline. Current habitat protection tools generally the same as those that failed to forestall ESA listing). 4 See Treaty Tribes of Western Washington, 2016 State of Our Watersheds at 81 (continued development of permit-exempt wells conflicts with the guidance of the Chinook Recovery Plan); See also id. at 143-45 (discussing impacts of climate change on hydrograph and stream temperatures) available at: https://nwifc.org/publications/state-of-ourwatersheds/ 5 See Washington Department of Ecology, Draft Rule Supporting Document for Amendment to Chapter 173-501 WAC Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1 (Publication 19-11-093 (November 2019). at 19, Figure 3.1 (hereinafter "Rule Supporting Document" or "RSD"). 6 RCW 90.94.020(2) (emphasis added). 7 Id. at (4)(a) (emphasis added). 8 Id. at (4)(b) (emphasis added). 9 Id. 10 Id. 11 Id. (emphasis added). 12 Id. at (4)(c) (emphasis added); see also Id. at (7)(a) (If a watershed plan is not adopted in the Nooksack watershed by the February 2019 deadline, Ecology must adopt rules for the WRIA that meet the requirements of this section). 13 See e.g., Washington Department of Ecology, Streamflow Restoration Policy and Interpretative Statement, POL 2094 at 6 (7/31/19): "Watershed plans must identify projects and actions necessary that at a minimum, offset the consumptive use of new groundwater permit-exempt domestic withdrawals over the planning horizon and achieve NEB." See also id. at 12. 14 See RSD at 14. 15 Whatcom Cty. v. Hirst, 186 Wn.2d 648, 381 P.3d 1 (2016). 16 RCW 90.94.020(1) (emphasis added). 17 See RCW 90.94.020(5). 18 Interestingly, the one place in the statute where actual impacts to instream resources are arguably authorized is RCW 90.94.090 (establishing the Joint Legislative Taskforce on water resource mitigation and authorizing five pilot projects to assess the efficacy of mitigation sequencing and various mitigation proposals). 19 RCW 90.94.020(4)(a) (emphasis added). 20 Id. at (4)(b) (emphasis added). 21 Id. at (4)(c) (emphasis added). 22 RSD at 49. See also id. at 40: "[T]he listing of a project herein does not obligate Ecology to fund a project or the project proponent to carry out the project (see Ecology's POL-2094). Therefore, neither the completion of projects nor the attainment of their anticipated results is guaranteed. However, the inclusion of multiple projects vetted for pertinence and feasibility provides reasonable assurance that projected consumptive use from new domestic permit-exempt withdrawals will be offset and that NEB will be achieved. Ecology will encourage project proponents and advocates to work towards completing the projects and will use incentives through the grant funding provided under the law." 23 RSD at 41. 24 Id. at 39. 25 See Puget Sound Partnership Action Agenda Fact Sheet found at:

https://actionagenda.pugetsoundinfo.wa.gov/Project/FactSheet/13033 (accessed January 14, 2020). 26 Id. 27 RSD at 43. 28 See project descriptions online at: http://hws.ekosystem.us/project/360/80501#, accessed January 14, 2020. For additional information, see PRISM site at: https://secure.rco.wa.gov/prism/search/projectsnapshot.aspx?ProjectNumber=17-1261, accessed January 14, 2020. The project descriptions make it clear that the SRFB thought this was a salmon habitat recovery project. 29 This adds up to 1,556 acre-feet per year. This is less than half the 3,767 acre-feet per year of offset that Ecology has claimed in Table 6-1. 30 In evaluating the WRIA 11 Plan, Ecology generated a document that provided a technical review of the proposed projects. See Washington Department of Ecology, Technical Review of Nisqually Watershed Response to the 2018 Streamflow Restoration Act (RCW 90.94) – January 16, 2019 Addendum to the Nisqually Watershed Management Plan, updated January 29, 2019 (hereinafter "Nisqually Review"). 31 Nisqually Review at 21-2 32 Nisqually Review at 25. 33 "Outside lawn and garden watering accounts for roughly 95 percent of all consumptive water uses associated with new home water uses." RSD at 23. 34 Id. 35 Id. at 24. 36 Id. at 24-25. 37 Id. at 25-26. 38 Washington Department of Ecology, Draft Rule Supporting Document: Amendment to Chapter 173-501 WAC Instream Resources Protection Program - Nooksack Water Resource Inventory Area (WRIA) 1 (Nov. 2019) at 13, available at https://fortress.wa.gov/ecy/publications/documents/1911093.pdf. 39 See generally University of Washington Climate Impacts Group, Maps of Climate and Hydrologic Change for the Nooksack River Watershed (Dec. 2017), available at https://cig.uw.edu/wp-content/uploads/sites/2/2018/02/03-PhysicalDrivers-Report.compressed.pdf. 40 Washington State Department of Ecology, Preparing for Climate Change: Washington State's Integrated Climate Response Strategy, Department of Ecology (Apr. 2012) at 103, available at https://fortress.wa.gov/ecy/publications/publications/1201004.pdf. 41 Id. at 103-109. 42 University of Washington Climate Impacts Group, Maps of Climate and Hydrologic Change for the Nooksack River Watershed (Dec. 2017), available at https://cig.uw.edu/wp-content/uploads/sites/2/2018/02/03-Physical-DriversReport.compressed.pdf. 43 Washington State Department of Ecology, WRIA 1 Draft Rule Supporting Document at 19 (Figure 3.1 shows the high frequency at which minimum in-stream flows are not met). 44 University of Washington Climate Impacts Group, Maps of Climate and Hydrologic Change for the Nooksack River Watershed (Dec. 2017) at 5, available at https://cig.uw.edu/wp-content/uploads/sites/2/2018/02/03-Physical-DriversReport.compressed.pdf. 45 Id. 46 Id at 10-11. 47 Id at 12. 48 Id at 14. 49 Stephan Jilk, Climate Change & Water Supply In the Nooksack Basin, PUD No.1 of Whatcom County, available at http://whatcomwin.org/presentations/NooksackBasin.pdf. 50 Guallime Mauger, Climate Change What Does it mean for Ag in Whatcom, UW Climate Impacts Group, available at https://www.whatcomcounty.us/DocumentCenter/View/31565/3-GMauger_FLIP_20171101?bidId=. 51Environmental Protection Agency, Indoor Water Use in the United States (2008), available at https://19january2017snapshot.epa.gov/www3/watersense/pubs/indoor.html. 52 Environmental Protection Agency, How We Use Water (2018), available at https://www.epa.gov/watersense/how-weuse-water. 53 Stöckle, et al. Evaluating opportunities

for an increased role of winter crops as adaptation to climate change in dryland cropping systems of the U.S. Inland Pacific Northwest, Climatic Change (2018) 146: 247, Available at https://doi.org/10.1007/s10584-017-1950-z. 54 Department of Ecology, Preparing for Climate Change: Washington State's Integrated Climate Response Strategy (2012) at 125, available at https://fortress.wa.gov/ecy/publications/documents/1201004.pdf. 55 Bellingham Food Bank, Growing Guide (2013), available at http://www.bellinghamfoodbank.org/wpcontent/uploads/Growing_Guide_2014.pdf. 56 University of Washington Climate Impacts Group, Maps of Climate and Hydrologic Change for the Nooksack River Watershed (2017) at 11, available at https://cig.uw.edu/wp-content/uploads/sites/2/2018/02/03-Physical-DriversReport.compressed.pdf. 57 Department of Agriculture Natural Resources Conservation Service, Washington Irrigation Guide (1997). 58 University of Washington Climate Impacts Group, Climate Change in the Pacific Northwest (2019) available at https://cig.uw.edu/learn/climate-change/. 59 Andrew Dunn & Adam Neff, WRIA 1 Consumptive Use Technical Review, RH2 Engineering (2018) at 15. 60 Id. 61 Environmental Protection Agency, When It's Hot (2018), available at https://www.epa.gov/watersense/when-its-hot. 62 Andrew Dunn & Adam Neff, WRIA 1 Consumptive Use Technical Review, RH2 Engineering (2018) at 16. 63 Environmental Protection Agency, Climate Impacts on Water Resources (2017), available at https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-water-resources_.html. 64 California Drought Preparedness, Summer Lawn Conservation Tips, available at http://www.cadroughtprep.net/images/06billl_inserts.pdf. 65 Allison Saperstein, Climate Change, Migration, and the Puget Sound Region: What We Know and How We Could Learn More, University of Washington Climate Impacts Group (2015). 66 Whitely Binder et. al., The Winds of Change? Exploring Climate Change-driven Migration and Related Impacts in the Pacific Northwest: Symposium Summary, Portland State University Population Research Center & University of Washington Climate Impacts Group (2016) at 10. 67 Id. at 13. 68 Id. at 14. 69 See World Bank, Groundswell: Preparing for Internal Climate Migration (2018) at 11. 70 See Cliff Mass, Will the Pacific Northwest be a Climate Refuge Under Global Warming? (2014), available at https://cliffmass.blogspot.com/2014/07/will-pacific-northwest-be-climate.html. 71 BERK, WHATCOM COUNTY POPULATION AND EMPLOYMENT PROJECTIONS AND URBAN GROWTH AREA ALLOCATION TECHNICAL MEMO (2013), available at https://www.whatcomcounty.us/DocumentCenter/View/4677/Population-andEmployment-Projections-and-UGA-Allocations---Phase-I-Technical-Report-PDF?bidId=. 72 See WRIA 1 Watershed Joint Board, 2010 State of the Watershed Report (Jun. 2011) at 9-11 (Discussing how meeting established in stream flows is already a challenge and how several species of fish in WRIA 1 have seen a decline in the past decades), available at https://drive.google.com/file/d/1DCSpPR2-Q05zV8K2T8lMTPi1ZcPoQIfs/view. 73 Washington State Department of Ecology, Final Guidance for Determining net Ecological Benefits (Jul 2019) at 14 available at https://fortress.wa.gov/ecy/publications/documents/1911079.pdf. 74Washington State Department of Ecology, WRIA 1 Draft Rule Supporting Document at 65-67. 75Washington State Department of Ecology, Preparing for Climate Change: Washington State's Integrated Climate Response Strategy, Department of Ecology (Apr. 2012) at 67-71, available at https://fortress.wa.gov/ecy/publications/publications/1201004.pdf. 76See WRIA 1

Watershed Joint Board, 2010 State of the Watershed Report (Jun. 2011) at 6-10). 77 See Oliver Grah & Jezra Beaulieu, The effect of climate change on glacier ablation and baseflow support in the Nooksack River basin and implications on Pacific salmonid species protection and recovery (2013) at 11, available at https://nooksacktribe.org/wp-content/uploads/2019/09/Grah_Beaulieu_2013.pdf; See also University of Washington Climate Impacts Group, Adapting to Climate Change (Apr. 2016) at 12-17, available at https://cig.uw.edu/wpcontent/uploads/sites/2/2014/11/Adapting-to-Change-booklet_final.pdf; See also Nooksack Tribe Natural and Cultural Resources Department, Climate Change, available at (https://nooksacktribe.org/departments/cultural-resources/waterresources/climate-change/. 78 See Oregon Climate Change Institute, Climate Change in the Northwest: Implications for our Landscapes, Waters, and Communities (2013) at 213, available at http://cses.washington.edu/db/pdf/daltonetal678.pdf; See Washington State Department of Ecology, Preparing for Climate Change: Washington State's Integrated Climate Response Strategy (Apr. 2012) at 18. 79 Washington Department of Ecology, South Fork Nooksack River Temperature Total Maximum Daily Load (June 2018) at 175, Available at https://fortress.wa.gov/ecy/publications/documents/1810021.pdf. 80 Id. 81 Id. 82 Washington State Department of Ecology, Preparing for Climate Change: Washington State's Integrated Climate Response Strategy (Apr. 2012) at 22. 83 See U.S. Geological Survey, How do salmon know where their home is when they return from the ocean? (accessed Jan. 13, 2020), available at https://www.usgs.gov/faqs/how-do-salmon-know-where-their-home-when-they-return-ocean1?qt-news_science_products=0#qt-news_science_products; see also Scientific American, How do spawning fish navigate back to the very same stream where they were born? (Jan. 2009), available at https://www.scientificamerican.com/article/how-do-spawning-fish-navigate-back/. 84 Northwest Treaty Tribes, State of Our Watersheds: Wells Deplete Water Resource for Salmon (Sept. 2016), available at https://nwtreatytribes.org/state-watersheds-wells-deplete-water-resource-salmon/.85 Washington State Department of Ecology, WRIA 1 Draft Rule Supporting Document at 60. 86 Floodplains by Design, Climate Change in the Nooksack River (last accessed Jan. 12, 2020) available at http://www.floodplainsbydesign.org/wp-content/uploads/2018/09/FbD_Nooksack-climatechange_web.pdf. 87 RCW 90.94.020(4)(a) (emphasis added). 88 Id. 89 It will be hard to get local governments and project implementers to do adaptive management when Ecology chooses to make it optional: "The adaptive management approach in this document is prepared with implementation in mind. However, RCW 90.94.020 does not require that there be an obligation on any party to ensure that plans, or projects and actions in those plans or associated with rulemaking, are implemented. Furthermore, the law does not predicate the issuance of building permits on the implementation of watershed plans or any projects and actions in those plans." RSD at 49. 90 See RSD at 49-51. Project implementation monitoring is not the same as monitoring groundwater movement. 91 RSD at 51 (emphasis added). 92 See RSD at 26-28 (discussion of groundwater pumping depletion effects). 93 Coe, T., Gabrisch, G., Kuhlman, K., Ross, A., Grah, O. Technical Memo Assessing the Ecological Effects of WRIA 1 Watershed Plan Update (12/5/2018). 94 See https://actionagenda.pugetsoundinfo.wa.gov/Project/FactSheet/12916, accessed January 14, 2020. 95 RSD at 39.

Response:

Thank you for your comment.

Commenter: Amanda Goodin - Comment O-6-1

Please see Comments attached in PDF format (1 PDF document):

"Final Comments Nooksack WRIA 1 - Earthjustice 2020.01.17"
with Attachment: Informal Comments Letter submitted May 10, 2019

Response:

Thank you for your comment. Please see responses to Comments O-6-2 through O-6-8.

Commenter: Amanda Goodin - Comment O-6-2

January 17, 2020 SUBMITTED ONLINE VIA WASHINGTON STATE DEPARTMENT OF ECOLOGY WEBSITE: https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-501 Annie Sawabini Department of Ecology Water Resources Program PO Box 47600 Olympia, WA 98504 RE: Comments on Proposed Rule and Proposed Rule Supporting Document for the Amendment of WAC 173-501 Dear Ms. Sawabini: The Department of Ecology has proposed language amending WAC 173-501, the instream flow rule for WRIA 1 (Nooksack Basin), pursuant to the process established by ESSB 6091, RCW 90.94. We appreciate that Ecology has the unenviable task of developing the amended rule by August 1, 2020, a relatively tight deadline given the import of the task. However, we are concerned both with Ecology's decisions specific to the Nooksack Basin as well as some of the general policies and interpretations of ESSB 6091 that have been put into practice here. This rulemaking is critical for multiple reasons. It is the first rule issued pursuant to ESSB 6091 without the guidance of an amended watershed plan, and consequently, Ecology is establishing and implementing standards that will influence the thirteen watersheds that are still in the process of developing plans under the new law. The outcome here is also vital for protecting the resources of the Nooksack Basin. Water shortages in WRIA 1 are well established, with the rivers and streams routinely failing to meet established minimum instream flows.1 The basin is home to two populations of chinook salmon listed under the Endangered Species Act, the preferred food source for our struggling population of Southern Resident killer whales. The problem of low flows in the Nooksack is in part a result of the unrestricted growth in permit-exempt wells over many decades. As early as 1999, Whatcom County recognized that the proliferation of rural, permit-exempt wells was creating "difficulties for effective water resource [1 Whatcom Co. v. Hirst, 186 Wn.2d 648, 662 (Wash. 2016) (noting the finding that minimum flows are not met on average 100 days per year).] Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 2 management."2 Since that time, hundreds more wells have been drilled in the county.3 The rulemaking here will determine how to manage future permit-exempt wells in the watershed and how to mitigate the depletions caused by their withdrawals of water over the next two decades. With one notable exception discussed at the conclusion of these comments, the proposed rule language and accompanying Rule Supporting Document (RSD) appear to largely recapitulate the preliminary draft rule

language and RSD released by Ecology for comment in the spring. Consequently, we are attaching our previous comments for inclusion here and urge Ecology to consider all of the comments submitted at that time.

Response:

Thank you for your comment.

Commenter: Amanda Goodin - Comment O-6-8

Rule Language Finally, in its preliminary rule language, Ecology proposed edits to WAC 173-501-070 to make clear that the "[s]ingle domestic use" referenced in the section would be subject to the newly proposed withdrawal limits in WAC 173-501-065, with the implication that section .070 was directed to permit-exempt wells. This approach conforms to the Washington Supreme Court's interpretation of the section.48 In the proposed rule language, Ecology introduces significant confusion by modifying "[s]ingle domestic" with "surface water use" and removing any cross reference to the limits in WAC 173- 46 Id. at 8. As noted in the preliminary comments submitted by the Lummi Tribe, most of "the listed offset projects were identified for alternative purposes prior to the passage of RCW 90.94," meaning that the projects are "unrelated to RCW 90.94 . . . thus undermining the goal of streamflow restoration." Lummi Tribe Cmts at 2-3. See also Letter from Ross Cline, Nooksack Indian Tribe, at 3 (May 7, 2019) ("Nooksack Tribe Cmts") ("Accounting for the benefits of restoration projects that will already be implemented undermines our collective ability to recover imperiled salmon populations."). 47 As argued by the Nooksack Tribe, flow benefits "should be accounted for proportional to the amount of Streamflow Restoration funding supporting the project." Nooksack Tribe Cmts at 3. 48 Hirst, 186 Wn.2d at 676 (interpreting WAC 173-501-070). Annie Sawabini Department of Ecology Water Resources Program Comment Letter January 17, 2020 Page 12 501-065. Evidently, it is Ecology's belief that the provision has always exempted single domestic surface water diversions from the instream flow rule. That view, however was rejected by the Washington Supreme Court, despite Ecology's arguments.49 Regardless, the instream flow rule should not now be amended to establish two tiers of domestic water users: permit-exempt groundwater users who must conform to the limits established in WAC 173-501-065 and permitted "single domestic" surface water users who are not subject to instream flows or the newly enacted limits. The legislature enacted ESSB 6091 to relax instream flows for a select class of users under the conditions established by the law. Ecology's proposed rule risks creating a privileged group of users outside the reach of ESSB 6091, resulting in further difficulties for achieving the instream flows in WRIA 1. Ecology should take the opportunity to correct this error rather than magnify the problem. We strongly recommend that Ecology clarify that .070 does not exempt surface water diversions. Conclusion Thank you for your consideration of these comments and your efforts to protect instream resources in the Nooksack River basin. Sincerely, Michael Mayer Amanda Goodin Attorneys for Earthjustice Attachment: Earthjustice May 10, 2019 Informal Comment Letter 49 Amicus Br. of Dep't of Ecology, No. 91475-3, 2015 WL 5636892, at *15-16 (Wash. Sept. 18, 2015). Attachment: May 10, 2019 EARTHJUSTICE letter to Ecology re: Amendment of WAC 173-501

Response:

Ecology's technical corrections simply clarify existing rule language, where historical terminology may be confusing. When chapter 173-501 WAC was promulgated, the term "withdrawal," as used in WAC 173-501-070, referred to surface water. We now use the term "diversion" to refer to surface water and "withdrawal" to refer to groundwater. Ecology provided technical amendments for clarification purposes.

Information on projects and actions is available in Chapter 6 of the RSD. Ecology believes the projects, offset calculations, and NEB Determination (see Chapter 9 of the RSD) are consistent with chapter 90.94 RCW, Ecology's Interim Guidance for Determining NEB, and WR POL-2094.

Commenter: Perry Eskridge - Comment OTH-4-15

MR: ESKRIDGE: The other thing I want to say is you're supposed to require conservation, and you don't even discuss it. If you cut three mature Douglas Fir trees in building your house, you have mitigated nearly 3,000 gallons per day use. Thanks.

Response:

Please see response to Comment I-7-5.

Ecology does not consider tree/vegetation removal to be a legally sound offset, and does not view it as a practice that meets the NEB requirement of the law. The idea of factoring the consumptive use benefits of tree or vegetation removal when estimating the effects of new domestic permit-exempt groundwater use is contrary to existing Washington water law. Specifically, the Pollution Control Hearings Board (PCHB) has ruled in several case decisions that, in evaluating water right permit applications, the removal of trees and vegetation is not a viable and lawful mitigation technique. These decisions include *Manke Lumber Co. v. Department of Ecology and Muckleshoot Indian Tribe* (1996); and *CPM Development Corporation and ICON Materials v. Department of Ecology* (2007). In both cases, the PCHB ruled that the removal of vegetation cannot provide a "credit" when consumptive water use is assessed. Ecology cannot adopt a rule amendment with elements that are contrary to state water law.

Commenter: Kathy Sabel - Comment OTH-4-18

MS. SABEL: I wanted to add a little bit to my comments from yesterday, which were at the Bellingham meeting I discussed that Whatcom County has Code 24.11.60, which uses the RCW 90.94, so that when anybody in Whatcom County applies for a building permit, in order to have legal water availability, they have to meet -- there's a menu of criteria, one of which from the RCW 90.94 says if you have an existing well that was built before the law passed, only if it meets the criteria of well water construction -- so whatever those rules are. If it does not meet those rules, then they also would be an existing well, would also be subject to the 3,000 gallons per day and the fee. So what I asked yesterday was what's the County going to do since this rule only applies to new wells? So what's not clear to me and what I think Ecology needs to put in their supporting documentation is since you're not looking at existing wells in that case, explain

why. Explain what offset you could have gotten or are getting right now. I don't know on those 31 new wells that the County reported to Ecology in the last two years, were any of them existing wells that did not meet the criteria and, therefore, had to drill a new one. That's what my assumption is, that if you're not able to -- I don't know if you're able to do fixes to the existing well or not. And even if you did it, I don't know if that existing well would still be subject to that 3,000 gallon rule. So to me, that needs to be in the analysis. Since these are projections and estimates, how many existing wells do we think fit that criteria where they would be reduced from 5,000 to whatever the rule has and how many right now are being subjected or will be as an estimate to the 3,000 because that 3,000 only lasts until the new rule is passed. So I hope that clarifies what I was getting at, and I hope the County can answer some of these questions from real data they have in these last two years. Thank you.

Response:

Please see response to Comment OTH-3-6. Ecology believes the rulemaking is consistent with WR POL-2094, Ecology's Interim Guidance for Determining NEB, and RCW 90.94.020.

Commenter: Carole Perry - Comment OTH-4-19

MS. PERRY: I didn't -- I didn't formally sign up, but because I went to, I think, every meeting of the Planning Unit last year and I still can't understand all of this. I'm just a citizen, and I understand, DOE, that you're under the same pressure that the Planning Unit was under, one year to come up with this. And let me tell you, the Planning Unit is just a little bigger than this group, and they spent hundreds of hours trying to figure this all out for their fellow citizens. They didn't get a dime. It wasn't their job. They were under pressure. And I don't think anything that I say today will change a word. I guess I watch government a lot. But I want you to know what went on. In January, as we were approaching the deadline, the County Council really wanted that update to get done, so they said -- I think they passed it unanimously. They said if the Planning Unit would send them an update that was passed by a majority, they would send it on. And I'm not sure about -- I can't interpret the law and all that, but that was -- and they said to Gary Stoyka, the lead agency person in the Planning Unit, vote for the update. There was a lot of pressure because February 2nd was the date. And just for the record, I know that what I'm saying is not going to affect -- the Planning Unit did pass an update, and it did satisfy, as far as I could tell, what the law required. But there were two caucuses that voted against it, and because I think it would be improper for me to say who in this setting, I won't. But that's how close it came. Some of your fellow citizens worked hard, and they're still working hard as a Planning Unit to form an update, a plan, for this County because even as 6091 was being debated in Olympia, the point was made that not every WRIA is the same. We're different. And I've run out of time. Thank you.

Response:

Thank you for your comment.

Commenter: Paul Isaacson - Comment OTH-5-2

MR. ISAACSON: Paul Isaacson. I'm the president of the private well caucus -- private well caucus in Whatcom County. I've spent the last several days thinking about how I would prepare some information for this hearing, and I have thousands and thousands of sheets of data in my office. I've paid a number of employees several thousands of dollars to go over them. I have legal staff within my office. And I've come up with a conclusion that I decided today I would share with you about rule-making, and I don't have a prepared statement, so I'm going to take this a little more personal. A couple of years ago, a lady about 40 years old knocked on my door with two children at ten o'clock at night, and she was crying. She said Mr. Isaacson -- I didn't even know who this was. I thought I needed to call the police or something. I said what's the problem, what's going on here? She said I'm losing my home right now and I'm losing the property because I have a moratorium and I can't drill a well on my property. What is wrong with me? What did I do? I love the environment, I was born and raised in Whatcom County, what have I done? What makes me so cruel? What have I done? I said you haven't done anything. So I went on to explain to her that we had somebody file a lawsuit and that there would be some kind of remedy down the road that may have some effect, but throughout this months what I've realized is we're all sitting in this room dealing with less than one percent of the water, but I had to buy into the premise that we have a problem here, and I don't believe that we have a problem. I know that the public doesn't necessarily believe that we have a problem. We're trying to remedy something in a negotiated political climate through a lawsuit. So when you're doing this, let's not perceive that we have this horrible problem because we don't. Now, I brought an illustration, and I blew it up -- it's not a sign, but it's from your guys' -- your site. It's less than one percent of the water we're talking about. So with all the industrial users and all these other people, including the farmers and all the others, if this process is difficult for less than one percent, I can't even believe what you have ahead of you. But what I want you to think about -- and I understand most of you are here because it's your job. I've done all of this free. Could you imagine doing this every day free? I just want you to think about that as you're moving forward with these rules because I think this is actually cruel what it's doing to a lot of people. It's cruel and unusual punishment in my opinion after 18 months of reviewing records, and I personally spent $10,000 of research alone last year, including my own time. I want you to keep that in mind when you're doing this rule-making. And thank you for listening to me.

Response:

We appreciate your dedication and thank you for your comment.

Please see Appendix A to view the illustration discussed in this comment.

Commenter: Carole Perry - Comment OTH-5-6

MS. PERRY: My name is Carole Perry, and I'm a resident of Whatcom County. Having followed this whole process, I was very disappointed at these last three hearings that there were so few people that participated because in the year-long process when 0 was passed, there was a lot of participation. And we watched the hearings with the County Council where hundreds of people were affected by this whole thing. I really am encouraged by the comments that have

been made this morning, even though there's half-a-dozen comments at each one of these, starting on the 7th, the 8th, and now today on the 9th. But I think -- and -- it's hard to limit my comments, but according to what someone said earlier, the founders looked ahead, and I want to just read a paragraph for the record. "The law should be understandable and stable. The founders were sensitive to the fact that the people have confidence in the law only to the extent that they can understand it and feel that it is a rule of relative permanence which will not be continually changed. James Madison emphasized both of these points when he wrote, 'It will be of little avail to the people that the laws are made by men of their own choice if the laws be so voluminous that they cannot be read, or so incoherent that they cannot be understood, if they can be repealed or revised before they are promulgated or undergo such incessant changes that no man who knows what the law is today can guess what it will be tomorrow. Law is defined to be a rule of action, but how can that be a rule which is little known and less fixed?'" From the Federalist Papers. That's where we're at. The people are losing confidence in their government. That's why there's no one here.

Response:

Thank you for your comment.

Commenter: Stephanie & Robert Vitali - Comment B-2-2

We are also concerned about transparency, as we have not seen any data regarding the Nooksack River levels and its impacts on local wells. Thank you for the opportunity to comment.

Response:

Please see RCW 90.94.020, Chapter 1 of the RSD, the general response to "Authority for Rulemaking," and response to Comments I-165-5 and I-165-8.

Commenter: Shannon Wright - Comment O-2-6

2. How will Ecology address anticipated climate impacts on streamflows? The Streamflow Restoration Act is an opportunity for Ecology to address climate impacts and promote watershed resilience through project selections. Climate change is only mentioned three times in the entire supporting document and not mentioned once in the proposed rule amendments.

Response:

Please see responses to Comments O-3-10 and O-3-12. Projects that address climate change get additional points in scoring in the latest (2020) iteration of the Streamflow Restoration grant funding guidance.

Commenter: Shannon Wright - Comment O-2-1

Please see attachment for our comment letter. Thank you.

Response:

Thank you for your comments. Please see responses to Comments O-2-2 through O-2-9.

Commenter: Various Citizens - Comment OTH-2-1 (see names in index)

Please see attached sign on letter from over 200 individuals. Thank you.

Response:

Thank you for your comments. Please see responses to Comments OTH-2-2 through O-2-5.

Commenter: Various Citizens - Comment OTH-2-4 (see names in index)

4. Prioritize the impacts of climate change on water use and streamflow and suggest projects that will improve watershed resilience. Climate change is only mentioned once in the whole Draft Supporting Rule Document. Climate change impacts are not mentioned in the offset calculation and safety factor. The safety factor should be increased to reflect anticipated increased water use during the year as a result of climate impacts. This is a chance to save the state and Ecology even harder work on water conservation that will need to be done in a climate-changed future if we don't act now. Similar to point #3 above, Ecology should propose projects that will make the watershed more resilient in the face of climate impacts such as wetland and riparian restoration and reforestation efforts.

Response:

Please see responses to Comments O-3-10 and O-3-12. Projects that address climate change get additional points in scoring in the latest (2020) iteration of the Streamflow Restoration grant funding guidance

Commenter: Bill Clarke - Comment O-7-1

January 17, 2020 Annie Sawabini Department of Ecology, Water Resources Program PO Box 47600 Olympia, WA 98504-7600 RE: Comments on Nooksack Instream Flow Rule, Chapter 173-501 WAC Dear Ms. Sawabini: Washington REALTORS® represents the interests of over 20,000 REALTORS® and their clients in Washington State. We appreciate the opportunity to submit comments on the Washington Department of Ecology's ("Ecology") proposed amendments to Chapter 173-501 WAC, the Nooksack Instream Flow Rule. Over the past 20 years, the issue of rural water availability has significantly impacted the real estate market and homeowners in many parts of Washington State. Our state's near obsession with exempt wells has resulted in a regulatory system that is costly and complicated. The financial and human resources and legal complexity associated with exempt wells has been disproportionate to their water resource impact. Or as said in the song Juice by Lizzo, "the juice ain't worth the squeeze." Much of this complexity has been caused by Ecology's instream flow rules. Implementation of ESSB 6091 is an opportunity to reduce regulatory complexity that provides no commensurate water resource benefit. In reversing the Hirst decision, the Legislature provided a record amount of capital funding. Projects, not regulations, are the best path to protect and restore instream flows. REALTORS® ask that Ecology strive to create a simply regulatory structure with the end users in mind – people who own or buy vacant land in rural areas, REALTORS® who assist them in this process, homebuilders, homeowners, and counties. We have prepared more detailed comments included with this letter, as well as technical and other documents to be included in

the rulemaking record. If you have further questions, please contact Bill Clarke at (360) 561-7540. Sincerely, Kitty Wallace Kitty Wallace, 2020 President Washington REALTORS® Enc.

Response:

Thank you for your comment. Please see general responses to "Fairness / Not Fair," "Comparison of Other Water Use Limits," and "Authority for Rulemaking." RCW 90.94.020 requires Ecology to conduct rulemaking to meet the requirements of the law. Ecology believes the rulemaking balances new out-of-stream uses, projects (paid for using public tax dollars), and likelihood in achieving NEB. Ecology believes the rulemaking is consistent with WR POL-2094, Ecology's Interim Guidance for Determining NEB, and RCW 90.94.020.

Commenter: Bill Clarke - Comment O-7-9

Attachments:
A. Robinson & Noble – Pierce County/Sullivan Project Water Balance Analysis.
B. Robinson & Noble - Water Balance Analysis, Typical Rural Large Lot Residential Developments in Western Washington.

Response:

Thank you for your attachments. Please see response to Comment O-7-1.

Please see Appendix C and Appendix D to view the attachments discussed in this comment.

Commenter: Megan Kernan - Comment A-3-6

Streamflow offset targets calculated for each subbasin should be established in rule. This rulemaking in the Nooksack is the first of its kind and will likely set a precedent for any future streamflow restoration rulemakings. A primary challenge is to develop a rule that satisfies the requirements of RCW 90.94.020 without being cumbersome and difficult to administer. To this end, we suggest including water offset benchmarks, not associated with any specific project, into the rule. This avoids having specific projects required by rule, yet provides accountability to ensure that in-kind benefits successfully offset the estimated future residential permit-exempt impacts. WDFW looks forward to continuing to advance streamflow restoration efforts in the Nooksack and elsewhere that support the recovery of threatened and endangered salmonids.

We understand the deadline for rule approval is quickly approaching and offer our assistance if it is useful to you. Please do not hesitate to contact me if you have any questions. Thank you for considering these comments; we hope they prove to be useful as you finalize this rule. Sincerely, Megan Kernan Streamflow Restoration Coordinator

Response:

Thank you for your comment. Ecology believes the RSD is the appropriate location for this information. Ecology also looks forward to continuing to advance Streamflow Restoration efforts in the Nooksack.

Commenter: R. Perry Eskridge - Comment O-5-5

Definition of "Domestic": It should also be noted for completeness that no WRIA cited as support for this rule reduces the size of the land available for outdoor water as is proposed in the WRIA 1 rule and, moreover, the rules do not contain consistent definitions of the term "domestic." As mentioned above, words matter in the administrative rule context and effective rulemaking relies on consistent interpretation and application of identical words. Even "domestic" definitions that include outdoor uses attempt to draw the distinction between the two in an attempt to give credence to the exclusion clause of Rev. Code Wash. § 90.44.050 (2018). Ecology should take this opportunity to use a clear, succinct definition of the term "domestic" to only include water for usual and customary household uses as are identified in other WRIA rules. Ecology should avoid, at all costs, any definition that would blend or otherwise confuse the clear delineation of uses provided by the legislature as set forth in Rev. Code Wash. § 90.44.050.

Response:

Thank you for your comment.

Commenter: R. Perry Eskridge - Comment O-5-6

Meeting Instream Flows: Ecology includes as support for the proposed rule a graph demonstrating the percentage of time instream flows are not met for the Nooksack River. Sup. Doc. Figure 3.1, pg. 10. The most interesting conclusion to be drawn from that graph is not the percentage of time that instream flows are not met, but the consistency with which the data points on that graph are tightly concentrated and the trend is not capable of any other interpretation as it is clearly similar. When one considers that those data points represent monthly readings over a nearly 50-year period, a period of time when the population of Whatcom County has very nearly tripled, the flow rates year-to-year have remained uncannily consistent to within a few percentage points. If the impact from permit exempt wells from an increased rural population were to be significant to this discussion, it would necessarily follow that there would be a demonstrated change in the percentage of time flows are not met. This is not supported by the evidence cited by Ecology.

Response:

Thank you for your comment. Please see response to Comment O-7-1.

Commenter: R. Perry Eskridge - Comment O-5-9

Projected Households are Inflated: Ecology has stated on numerous occasions that this rulemaking is informed by the work of the WRIA 1 Planning Unit during 2018. When asked how much of the research and work was utilized by Ecology in the development of this rule, the response at the open houses and public hearings was that virtually none of that work was allowed to be used by the Department. What is very interesting to note is that some of the work seems to have been "cherry picked" when it suits the Department's views, while other information has been cast aside. An example of such "cherry picking" includes that list of proposed projects evaluated by the Planning Unit to support the offset of anticipated consumptive use of new construction during the 20-year planning cycle. At the initial public hearing, it was stated that

only projects that had received some funding or were otherwise deemed "viable" were included in Ecology's evaluation and, because those projects did not adequately offset consumption, a conservation limit was necessary. Yet, during the very next public hearing when a member of the public noted that fully-funded or partially-funded projects on the Planning Unit list exceeded anticipate consumptive use by a factor of nearly 2.5, the analysis suddenly changed to including projects in specific sub-basins and subsequent analysis using "adaptive management." Later, another member of the public provided information that, contrary to the Planning Unit's estimate of permit-exempt connections, Whatcom County has only issued 31 permits in the first two years of the 20-year planning cycle. Stated another way, ten-percent of the planning period has passed and actual permits expressed as a percentage of anticipated permits is only 14%. If "adaptive management" were to play the significant role that Ecology purports it to play, would it not seem appropriate to realize that the Planning Unit's estimate of permit-exempt wells for domestic purposes would need to be reevaluated in light of the significant disparity concerning actual permits? Yet, in the face of evidence that Whatcom County is only meeting 14% of the anticipated need for permit-exempt wells, Ecology uses this as evidence that an extreme reduction in daily withdrawals is warranted. Such analysis defies explanation. One example is the projected housing estimated to be constructed in the rural areas of Whatcom County in the next 20 years. Ecology utilized the Planning Unit's working number of 2,150 new homes over a twenty-year period, or approximately 107 new homes per year on average. What Whatcom County reported at the end of 2018, a number that has not been updated as of this writing, is that only 8 homes using permit-exempt wells had been constructed in Whatcom County during the first year of the planning period. The Association requested updated numbers as required to be kept by Whatcom County pursuant to Rev. Code Wash. § 90.94.020(5)(c) (2018), but the County has not responded. In any event, it would appear that the number of proposed households is not on track for the over 100/year as projected, but is something much less, a fact that was known to Ecology's representative during the Planning Unit process but apparently is ignored for purposes of this rulemaking proceeding. Current building permits should be evaluated and projections altered to closely approximate the real number of home that may be constructed during the planning period.

Response:

Please see Chapter 4 of the RSD for information on growth projections. Ecology believes the projections used are consistent with “ESSB 6091 – Streamflow Restoration Recommendations for Water Use Estimates” (Ecology, 2018).

Commenter: R. Perry Eskridge - Comment O-5-1

This comment is provided on behalf of the over 830 members of the Whatcom County Association of REALTORS(R). This comment is in addition to the many comments provided by individual members. The text of the comment is included here while the "official comment" on letterhead and signed by the Executive Officer/Gov't Affairs Dir. is in the PDF document attached.

January 17, 2020

Annie Sawabini, Rulemaking Lead
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

RE: Proposed Nooksack River Instream Flow Rule Amendment – Water Resource Inventory Area 1
WSR 19-04-091; Chapter 173-501 Wash. Admin. Code

Ms. Sawabini:

On behalf of the over 830 members of the Whatcom County Association of REALTORS®, please consider the following comments on the above proposed rule amendment. It is the opinion of our members that this proposed rule is contrary to the spirit and intent of the Streamflow Restoration Act, that the rule will have devastating impacts on the rural lifestyle in Whatcom County, and that the evidence cited as support for this rule is erroneous.

At the outset, it is instructive to recall that WRIA 1/Whatcom County was at the very center of the controversy that resulted in the Washington Supreme Court decision in Hirst v. Whatcom County. That case, at its essence, was a Growth Management Case that concluded counties were no longer able to rely on Department of Ecology for a determination that utilizing permit-exempt wells for rural development was appropriate; counties must now make a separate determination that an building permit utilizing an exempt well for potable water did not impair senior water rights or a protected water body. The impact of that decision, particularly in Whatcom County, was extensive and devastating. Families were suddenly homeless, projects in-process were scrambling for allowable water sources, and the Whatcom County Assessor was poised to reduce rural land values using a 90% market reduction factor. Overnight, rural households went from pursuing the American dream to living a Washington nightmare.

After nearly fourteen months of laboring under a construction moratorium imposed by the Whatcom County Council, and with the assistance of our state legislative delegation and the excellent input from our State Association's water counsel, we celebrated the passage of Engrossed Substitute Senate Bill 6091, the legislation to be entitled the Streamflow Restoration Act. The prospect of local stakeholders debating and deciding on the appropriate use of local resources was a welcome challenge, one that many of us accepted eagerly. Unfortunately, after months of work, the Planning Unit did not successfully present a WRIA 1 Watershed Plan update to the County Council and the process shifted to Ecology.

Response:

Thank you for your comment.

Commenter: Karlee Deatherage - Comment O-4-1

Please find our comment letter attached. Thank you.

Response:

Thank you for your comment letter. Please see responses to Comments O-4-2 through O-4-5.

Commenter: Karlee Deatherage - Comment O-4-2

Ecology Draft Amendment to 173-501 WAC: Comments from the Environmental Caucus of the WRIA 1 Planning Unit January 17, 2020 The Environmental Caucus is a member caucus of the Water Resource Inventory Area No. 1 (WRIA 1) Watershed Management Project Planning Unit.

We envision a future Whatcom County where our community is unified in restoring and protecting a resilient ecosystem as our highest priority. Members of the Environmental Caucus include nonprofit organizations, community groups, and individual citizens in Whatcom County. We are speaking only as the Environmental Caucus and not on behalf of the Planning Unit as a whole in this letter.

We are pleased to submit these comments to the Washington State Department of Ecology in response to the department's publication, in November 2019, of its Draft Amendment to Chapter 173-501 WAC, its Preliminary Regulatory Analysis, and its Draft Rule Supporting Document. Our specific comments and suggested revisions cover three topics: (1) Water-use efficiency, (2) lack of due diligence in assessing the 13 projects intended to offset the water expected to be used by new homes that use permit-exempt wells, and (3) lack of any metering or other method to ensure compliance with Ecology's water use limits.

Response:

Thank you for your comment letter. Please see responses to Comments O-4-3 through O-4-5.

Appendices

Please see the separate Concise Explanatory Statement Appendices document, available on the Department of Ecology's website at:

https://fortress.wa.gov/ecy/publications/summarypages/2011078.html