Exec Summary P 8 para 5

Third sentence, NPS is spelled out, be consistent once defined.

Chapter 1

1.2.2

p. 11 The focus on agriculture is interesting, and maybe a little uneven. The Sparrow model appears to prove that NPS in urban settings is worse than in rural areas. Clicking around from watershed to watershed, many of them show much higher inputs of nitrogen or phosphorus from sources other than manure spreading/livestock.

Last paragraph, first sentence. Seems that **‘likely sources’** would be better than **known** sources, as it is non-POINT.

Glad to see mention of climate impacts.

1.2.3

p. 12 First sentence the Sparrow Model doesn’t support this assertion in many of our agricultural areas.

P 13

*“Atmospheric deposition of enter surface waters via direct fallout or when soils contaminated via atmospheric deposition erode and enter surface waters.”*

This sentence is confusing. Erode makes me think of soil runoff not atmospheric definition.

Atmospheric deposition is when pollution from the air, or clouds falls out into surface water. Nitrogen, sulfur, mercury, and other toxic compounds such as polychlorinated biphenyls (PCBs) and dioxins may be distributed via atmospheric deposition. Mechanisms for atmospheric deposition include windblown dust, particles from wildfire smoke. Additionally, fallout may occur… (could strike forest fire sentence if you switch to above, also we have grassland fires, so maybe use wildfire instead of forest fire.)

Recreation

P 15, first sentence (long) but add rivers.

P 15 Table 6 juts out – formatting error.

2.2.2 Land Use/SMA

When will Ecology address existing uses that impact water quality such as cabins to close to waterbodies, etc.? Even if the structure can’t be moved, shorelines could be repaired. I’m thinking of Homes on Lake Washington. Homes on Puget Sound. Homes on Lake Stevens. Homes on Lake Whatcom. Homes along the Yakima River at Benton City and W. Richland, homes along the Columbia upstream of Wenatchee, homes on the Wenatchee River near Lake Wenatchee. You get the gist! Many lakes feed salmon bearing streams.

Some cities and counties do a horrible job of enforcing the SMA, sure they put the required words on paper, but oversight is random. Ecology needs to do a better job of oversight.

Chapter 3: Strategies..

Washington used to do a much better job of educating people about the environment. Ecology used to TEACH Project Wet. Information the public could really use is ¾ of the way down the agency NPS web page. The assertion that someone could “get connected” in their community is a fallacy for most of the state. I’ve never even heard of a PIC. The landowner resources are cumbersome and wouldn’t be helpful to those lake or riverside landowners, should they wish to improve their situation. Groups like the Puget Sound stream team, Or WSU programs like those in Kitsap Co. don’t exist in much of WA.

P52 Suggest moving education outreach to first bullet – people will be more difficult to engage in voluntary stewardship if the first time they see an Ecology employee is when there’s a problem. Ideally reorder to 2, 4, 1, 3 Community learns there’s a WQ problem, partnerships discuss how to address it, plans are made and carried out, enforcement is used when needed.

Opportunities…

Water quality trading seems weird. Would there be shrinking numbers of credits?

P 53 first paragraph re Better integration – as someone who works adjacent to ecology on some projects it seems this is an understatement. The regions are too big to adequately serve the residents of WA.

Next paragraph re integration – from outside looking in it appears there is little internal integration between programs that should better coordinate. Water quantity and quality are interrelated, climate actions like planting trees and pervious paving would protect people and water quality but Ecology seems to focus solely on the carbon market and not what people can do. This should be part of urban and less urban stormwater management – there are so many parts of the state where sprawl can impact water quality but doesn’t fall under municipal stormwater management.

P. 55 first paragraph – good to see discussion of land acquisition. If you are expecting people to voluntarily give up land to restoration (tree height X how many feet, could be many acres) at minimum perhaps it can be taken off their tax roles somehow – put in a permanent conservation easement. The cities and counties might not like losing that acreage for taxes though. Ecology would probably need to introduce legislation to support this goal. Notice discussion of one time payment on p. 66. It may be helpful to examine the proportion of taxes paid on the property compared to the acreage put in the buffer to evaluate how far the $2k would go in covering those taxes. Probably many years. Might help the argument.

P 56 Environmental Justice is good in theory. How is Ecology educating folks about fish consumption? If you know there is polluted water do the fish get tested? Also, from what I understand about the HEAL Act, a lot of emphasis is on race and language. There may be rural land owners with a lower education or living in poverty that may need additional help. Will they be outside the scope of EJ efforts?

p 59/60 TMDLS What is the frequency of data collection to determine the effectiveness of existing TMDLs? Are they working?

P68, more on land acquisition – Good! Need to do a program on Willapa Bay! Buy [Rose Ranch](https://maps.app.goo.gl/SeyQaEHZ9d8mQK8q6), it has zero riparian areas and it certainly looks like much of the ranch should be part of the Niawiakum River estuary. How is this allowed on our most important oyster producing bay?

3.2. 3 Trading. Seems sketchy and unrealistic. I know it’s done with air pollution, but feeling like the agency doesn’t have the capacity to regularly monitor inputs.

3.2.4 Certification. This might be a way to work in communities with social marketing and have an entire community band together to make changes and clean up their watershed (at the sub basin/stream level) and then post signs at the entrances to the town, kind of like Arbor Day and the Tree City program. When achieved there could be a big proclamation XX City is proud to be Salmon Safe! Our residents pick poop, maintain their vehicles, and keep dirty storm water out of the creek with water gardens. We’ve switched to pervious paving on all city owned lots, blah blah – partner with the stormwater people. More integration across programs AND landscapes.

3.3 NP field staff. P73 paragraph 2

“For many private landowners, nonpoint staff may be the first source of information about environmental regulations, presenting field staff with the challenge of being both the educator and the regulator.” This shouldn’t be the case. Water is the most critical resource in WA. Ecology should be running ads online, TV, and in bus shelters and at highway rest areas that remind people of that fact and show people how to protect the water flowing through or near their property. You need to realize that many cities and counties DO NOT enforce things like charity carwashes and do not do rain gardens or other water education. If they do it’s a once a year sentence or two in a paper utility bill insert that no one reads because they switched to paperless billing!

You don’t even need to spend a lot of money creating a campaign. Bring back the one from the late 1990s. In the first years of 319 funding Ecology [had ads, funny ones](https://clark.wa.gov/sites/default/files/fileuploads/environmental-services/2015/08/CCposter-petwaste.pdf). You do share (a very blurry copy) on this website re septic care. [Affordable Clean Water Loans are a lifeline when your septic system fails - Washington State Department of Ecology](https://ecology.wa.gov/blog/september-2016/affordable-clean-water-loans-are-a-lifeline-when-y) This may be from Ecology too – though it’s not a funny one. <https://i0.wp.com/pugetsoundkeeper.org/wp-content/uploads/2014/06/KC_Vehical_Leaks_adconcepts_060514a_82.jpg?ssl=1>

VSP and other projects are important, sure. But they are like using a pinch of sugar in a recipe that calls for ½ cup or more! Our salmon are in crisis. Our waterways have algae that makes them not just unpleasant, but possibly deadly. Can’t Ecology, WDFW and DOH (maybe WSU and Sea Grant) partner and get water quality messaging out in the general public so folks know water quality ‘is a thing’? Regulations aside, EVERYONE is responsible. With the changing climate and drought, water quality threats become worse. State agencies should speak with one voice about the urgency of cleaning (and shading) our waterways.

3.3.2 Complaint Response

How did I not know about this ERTS thing? See that should be on the posters and messaging you create above! Everyone should know about it. Obviously if more people started complaining, you may not have enough staff, but couldn’t you map complaints and use those to prioritize problem areas?

3.41 Forest Practices. Does this apply in our national forests or only commercial forests? It seems like USDA FS doesn’t keep cows out of creeks very well.

3.4.3 Onsite septic. General thoughts… Again, rural areas may or may not adequately monitor old OSS. How can DOH and Ecology work together to help them do more broad based education about septic maintenance? Especially as more people move into the WUE? How are we setting people up for success?

3.4.4 Water Quality permits

P 102 – Municipal permits - again, not all municipalities do a good job educating people or promoting NPS management. I’ve seen people empty their pools into a stream-connected storm drain. Even if I reported it, unless code enforcement got there in time the damage may already be done. For charity carwashes, I understand a city may have the collector to put in a storm drain to redirect waste water to a toilet, but the cheerleaders, etc. don’t know they are supposed to use them. Will the new GMA climate element accept pervious paving and swales as climate elements?

P 103 Biosolids

These creep me out. I’ve seen stories of PFAS in biosolids. Aren’t we spreading them on food crop lands?

3.4.5. Certification for Hydropower – if Ecology didn’t certify the four lower snake river dams would they be removed? They clearly impact water quality and there’s no getting around the temperature problem in those stagnant pools.

3.5 Partnerships – yay, good to have them. Has Ecology ever done an audit of counties and municipalities to ensure they are actually carrying out the education and enforcement they are responsible for (see comment about municipal permits and SMA). If governments don’t ask for help, are they ignored or does Ecology push it out?

P 117, sound vessel… Does ecology or anyone do any education on lakes and rivers about pooping on the beach or island? Lots of recreational boaters across the state who don’t have onboard toilets.

4.4.3 Irrigation districts. In the face of climate change, Ecology should be working to cover or pressurize ALL irrigation systems across the state, at least the first-third level canals that are surely losing a lot of water to evaporation, not to mention heating up before reaching the river they return to. This is a water quality (temperature) and quantity issue. If the different departments combined resources could you push through better management?

What a LONG document, I’ve reached my time limit for addressing my concerns. I sure wish these otward facing documents were shorter. Aa a member of the public it is difficult to wade through them. That may create a situation where paid interests, realtors, cattlemen, etc. get to provide more feedback than the average Joe.

Generally - I think there must be more opportunities for outreach and coordination among agencies. Joint efforts will make change easier and faster.

I appreciate the opportunity to weigh in...