

**October 27, 2020**

**SUBJECT:** Response to comments received on *Draft East Fork Lewis River Water Cleanup Plan*.

**TO:** East Fork Lewis River Partnership and Public.

**THROUGH:** Southwest Regional Office Water Quality Program.

**FROM:** Devan Rostorfer, Water Quality Specialist, Washington State Department of Ecology

**Email:** [dros461@ecy.wa.gov](mailto:dros461@ecy.wa.gov) | **Phone:** 360-409-6693

## Background

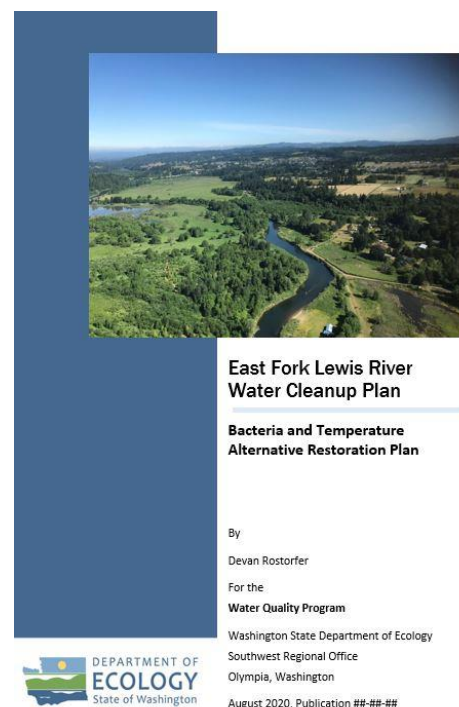
The [Draft East Fork Lewis River Water Cleanup Plan](#) was presented at a public webinar on August 27, 2020. The public was invited to submit comment on the *Draft Plan* through September 27, 2020.

Thank you to all of the [East Fork Lewis River Partners](#) that made time to review the *Plan*.

## Public comment themes

Ecology has reviewed all public comments and determined five major themes.

1. Restoration efforts that **go beyond tree planting and increasing shade** are needed in the East Fork Lewis River to address warm water temperatures.
2. Restoration activities that **restore streamflow and address low instream flows** (especially during the summer low flow period) are needed to help lower warm water temperatures in the watershed.
3. **Septic system inspections and maintenance** should be enforced in Clark County to achieve bacteria reduction goals.
4. Most stormwater implementation in the *Water Cleanup Plan* is prioritized to the City of La Center's jurisdiction in Brezee Creek. **Stormwater management is also a priority in the City of Ridgefield's** portion of **McCormick Creek**.
5. **Effectiveness monitoring and project tracking** are needed to measure progress and track implementation. Opportunities to collaborate with the Lower Columbia Fish Recovery Board (LCFRB) and local partners to implement effectiveness monitoring should be explored.



*Figure 1. Draft East Fork Lewis River Water Cleanup Plan.*

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## How public comments will be addressed

### *Ecology will develop a Streamflow Restoration chapter*

Through the end of 2020, Ecology will incorporate all public comments into the final *East Fork Lewis River Water Cleanup Plan*. The most substantial comment that will be incorporated into the plan is to prioritize streamflow restoration and address low instream flows in order to improve temperature conditions in the watershed.

To respond to this comment, Ecology will add streamflow restoration as a priority and a full chapter will be developed on implementation for streamflow restoration. The following information will be included in the Streamflow Restoration chapter.

- Background information.
- Implementation goals.
- Implementation actions.
- Milestones, targets, and timelines.
- Criteria to measure progress.
- Funding and partnerships.

Background information for the Streamflow Restoration chapter will be developed using information from Ecology's [Surface Water / Groundwater Exchange Along the East Fork Lewis River](#) (2009) report, and LCFRB's [2008 Salmon-Washougal and Lewis Watershed Management Plan](#). Additionally, this chapter will include information on how watershed processes and geomorphology impact water temperatures, as well as information on local water use impacts.

Current projects underway to assess streamflow restoration opportunities will also be highlighted. Relevant projects include the [East Fork Lewis River Thermal Assessment](#), which is establishing a thermal profile along 16 miles of the river, including nine tributaries and off-channel areas. The long-term goal of this assessment is to identify restoration opportunities to enhance cold-water refugia and augment cold-water baseflows entering the river. Information collected during this assessment will be used to update LCFRB's [Lower East Fork Lewis River Habitat Restoration Strategy](#), which has served as a long-term guide for salmon recovery in the watershed. Results from the assessment will also be utilized to inform Ecology's adaptive management of the *East Fork Lewis River Water Cleanup Plan*.

The [Ridgefield Pits Restoration Assessment](#) will also be highlighted in the streamflow restoration chapter. This project is developing restoration alternatives for river miles 8 to 10 to restore natural watershed processes and support salmon recovery. This project aims to address legacy impacts from the sand and gravel mining industry, while enhancing cold groundwater inputs to the river. Both of these projects are managed by the [Lower Columbia Estuary Partnership](#), and will provide essential information for future streamflow restoration activities.

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## Public comments received

The Department of Ecology received five sets of public comment on the *Draft East Fork Lewis River Water Cleanup Plan*. Comments were submitted by the following individuals and organizations.

- Clark County Trout Unlimited.
- Friends of the East Fork.
- Richard Dyrland.
- Lower Columbia Fish Recovery Board.
- Clark County.

Comments received by Ecology are attached in **Appendix I** at the end of this memo.

## What is the East Fork Lewis River Water Cleanup Plan?

The East Fork Lewis River and its tributaries are on Washington State's polluted waters list (303d list) for warm water temperatures and bacteria problems, which drives the need to develop a *Water Cleanup Plan* (TMDL Alternative Restoration Plan). In 2018, the [East Fork Lewis River Watershed Bacteria and Temperature Source Assessment](#) was published to identify priority locations and actions for water quality improvement. The East Fork Lewis River Partnership was formed to work collaboratively with local, state, federal, and tribal governments, non-profits, watershed groups, and private landowners to develop and implement a *Water Cleanup Plan*. Two years later, the *Draft East Fork Lewis River Water Cleanup Plan* is now available.

This *Water Cleanup Plan* focuses on priority projects and programs for water quality improvement in the East Fork Lewis River, to address bacteria and temperature pollution challenges. The top priorities in the East Fork Lewis River are addressing nonpoint source pollution from septic systems, agriculture, and stormwater, and increasing riparian forest and streamflow restoration efforts in the watershed.

## ADA Accessibility

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**Appendix I:** Public Comments on *Draft East Fork Lewis River Water Cleanup Plan* received September 2020.

# Clark Co. Trout Unlimited

See uploaded file. Clark Co. TU Comments to EFL cleanup plan.



9/25/2020

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## Clark County Trout Unlimited Comments to East Fork Lewis Water Cleanup Plan

Trout Unlimited (TU) is pleased to be able to comment on this plan. The East Fork Lewis River (EFLR) is a river in jeopardy, and it only appears to be getting worse. This watershed is home to both the fastest growing city in Washington State, and five high priority populations of Endangered Species Act (ESA) listed salmon and steelhead. The watershed has seen a 47 percent increase in human population since 2000, and provides recreation, timber, agriculture, and water resources for this rapidly growing region. The East Fork is listed on Washington State's polluted waters list (303d list) for warm water temperatures and bacteria problems.

A 2018 assessment showed not one site sampled on the East Fork met Dept. of Ecology's (DoE) temperature standards. Generally water temperatures increased farther downriver. With climate change and decreasing mature riparian vegetation, water temps have increased in recent years. Recent study indicates shade deficits are greatest in the middle portion of the river, which on average are around 35 percent. An estimated 20 to 30 river miles of tributaries need riparian buffers — vegetation cover on the riverbanks.

Since this river runs east –west and is very wide; it will be quite difficult to provide shade to the middle portions. A north – south orientation allows one bank to be in sunlight while the other is in shade. This river's east – west orientation, keeps the middle and one bank in sun virtually all day. It will take 25+ years for recently planted trees to shade the middle of the river. TU has participated in tree plantings on this system for the past few years. Without frequent watering, riparian vegetation will dry up and die. Irrigation systems or frequent hand watering is necessary to water riparian plantings. River width to depth ratios are very unfavorable. TU does **not** believe planting trees to increase shade will be a viable solution. The cleanup plan sets a goal to have restoration efforts and tree planting complete in priority areas by 2030. By 2030, trees will not have grown to sufficient size to provide much shading, and are unlikely to survive without some sort of riparian watering system.

We believe an attempt should be made to locate, sequester, and direct hyporheic flows into the lower and middle reaches of the river. The total stream flow gain to the East Fork Lewis River from groundwater was 64 cubic feet per second (cfs) in 2005. The average temperature of groundwater inputs were 10.6 to 12.5 degrees Celsius, indicating that groundwater entering the East Fork Lewis River is much cooler than surface water temperatures. Priority gaining reaches, where cold groundwater inputs enter the East Fork Lewis River should be identified and protected. River miles 4.6 to 7.3 have the largest stream flow gains in the watershed, followed by river miles 7.3 to 8. The lower and middle watersheds are priorities for future hyporheic flow restoration efforts. In our view, this is the most critical action that could be made to improve the health of river.

Currently, eight percent of the watershed is impervious surface. Watersheds are considered threatened when impervious land cover exceeds 10 percent. In total, the watershed has 18,731 acres of

developed land cover. Approximately 12,585 acres have impervious surfaces, and this figure is not current. Impermeable densities that are greater than the 10 percent target.

The County mandates storm water retention ponds, but does not require upkeep and maintenance. Often they are left to fill in with sediment, or breed mosquitoes. There should be yearly inspections by DoE or Clark Co. to insure they are functioning properly. Ideally, their trapped waters should be diverted to bolster the aquifer. Natural wetlands in the basin are critical and should be protected from disturbance.

The study states more than half of off-channel habitat for salmon in floodplain areas had been disconnected from the main stem due to diking, ditching and draining to protect agricultural, residential and mining activities. This is tragic and needs to be reversed when possible. However, TU considers the lack of cold water in the mainstem in the low and middle reaches to be the greatest problem. We believe it is foolish to attempt to divert more water into side channels, where it has a greater potential to warm or become intermittent. Rearing areas are necessary, but not at the expense of the mainstem.

The study identified problems with bacterial contamination within the basin. Significant reductions of bacteria are needed in McCormick and Brezee creeks, to the tune of up to 96 percent to achieve clean water. The restored sewage lagoon on McCormick Creek may need further modification to reduce or eliminate bacterial load. Brezee Creek's issues appeared to be mostly related to issues with cross connections of sewage and storm water infrastructure, which appear to be solved at this time.

Approximately 69 percent of tax lots in unincorporated Clark County in the watershed have septic systems, with about 6,000 systems in the watershed recorded in 2018. Though recommended by Clark County, inspections are not currently required, and County planning continues to permit new septic systems within the floodplain (Cole-Whittier Road). These should not be permitted so close to the river. The plan has a goal for 100-percent up-to-date septic system inspections as well as any potential connections of properties to sewer utilities by 2030, with failing systems' issues addressed within six months of identification.

TU does not believe voluntary implementation of water quality best management practices on streamside properties will be successful. The County has tried this approach in the past and things have been getting worse. Environmental agencies rely on residents and landowners in watersheds to be the "eyes and ears" for the environment. If the public observes pollution issues, they are encouraged to submit an ERTS complaint online. This is not appropriate and feasible in the rural areas. Residents should not be encouraged to inform on their neighbors. The County has paid code enforcement officers to enforce regulations. Drones could be incorporated into the surveillance and enforcement program.

Currently, when a NPS pollution issue is identified, site visits and property investigations are conducted. If the problem is related to agriculture, a letter may be sent to the property owner, referring them to the Conservation District for assistance. Follow-up site visits are completed to confirm Best Management Practices (BMP) implementation. The ultimate goal is voluntary compliance and implementation of BMPs necessary for water quality. Voluntary compliance has not worked in the past. Why would you believe it will work now? For agriculture, landowners are not required to use these specific BMPs. Why not? TU recommends implementing and enforcing BMPs to protect water quality and comply with water quality standards.

Approximately, 2,000 acres of Clark County property have been acquired for conservation purposes. Much of this public land is located in riparian areas along the East Fork Lewis River mainstem, providing significant opportunities for restoration. An additional 9,000 acres have been identified for future acquisition and preservation. Multiple restoration projects have been implemented in the watershed to increase tree canopy and enhance natural resources. More work is needed. However, this good work is offset and sometimes nullified by the County permitting homes and developments upstream of these restoration activities. This should not be permitted.

Outreach efforts from DoE and the County should be targeted towards three different audiences. 1.) Agricultural landowners with properties adjacent to the East Fork Lewis River and its tributaries. Agricultural landowners in sub-watersheds where there are known bacteria issues are priorities for outreach. 2.) Homeowners with septic systems adjacent to the East Fork Lewis River and its tributaries that are past due for inspection and maintenance, or need repair. 3.) Public and private landowners with riparian properties adjacent to the highest shade deficits on the East Fork Lewis River mainstem and tributaries. Outreach to these landowners to promote tree planting and riparian restoration to increase shade is needed.

The plan states, "Ecology's goal is to work with stakeholders to achieve voluntary compliance with state law and the water quality standards." The view is to proactively address pollution problems before enforcement is pursued. Ecology will need regulatory authority as a backstop when technical assistance efforts fail to address identified pollution problems. When necessary, effective enforcement should be applied.

For bacteria related outreach, there are three priority areas to target education efforts. Brezee and McCormick Creeks are the top priority for bacteria reduction. Rock Creek North, Jenny, Riley, and Lockwood Creek are secondary priorities. Mason and Yacolt Creeks are the third priority for bacteria reduction.

For this to work a strong effectiveness monitoring program will be necessary. Formal effectiveness monitoring to assess bacteria and temperature conditions in the watershed should be implemented as early as 2027; Effectiveness monitoring is the primary tool that will be used to assess if implementation actions are resulting in water quality improvement. The plan's effectiveness monitoring should be completed every 10 years starting in 2027 until water quality standards are attained. TU wonders why this occurs every decade rather than every five years.

Ecology will publish a concise annual report highlighting implementation efforts and successes in the watershed. To develop this report, a survey will be sent to East Fork Lewis River partners each year, to gather information on project and program implementation status, metrics, and outcomes. Implementation tracking will also be completed through Ecology's Water Quality Combined Funding Program. A mechanism for private landowners to report implementation will also be developed. Will this go to each individual landowner? How will you assure response? Every five years, an East Fork Lewis River Progress Report will be published to update or amend the East Fork Lewis River Water Cleanup Plan.

Thanks for the opportunity to comment.



# Friends of the East Fork Lewis River

Need to address primary problem of high stream temperature & low flows (inadequate-declining flows)

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## Friends of the East Fork & Fish First Comments to the Draft East Fork L. R. (ECY) Cleanup Plan (2020)

Sept. 26, 2020

We appreciate the past and present opportunity to collaborate on this effort. The Draft Plan contains more data & information than reports done in the past and includes much more comprehensive substantive content to address the challenges of today and future.

That said, the draft has not adequately focused on the core problem in the East Fork. **It is the interrelated issue of LOW FLOWS & HIGH SUMMER STREAM TEMPERATURES COUPLED WITH HIGH BEDLOAD SEDIMENTATION that result in the current disastrous conditions.** These conclusion are supported by earlier work done by river geomorphologists Dr. Barry Sutherland & Dr. Frank Reckendorf and others. **Almost every other issue is fundamentally a sub-set, or primarily a result of these two watershed and stream conditions and is basically a hydrologic and fluvial-geomorphic situation with strongly related biological effects.** And, much of the problem is of anthropogenic (man-made) origin. It begins to show up in historical and current data, information, and stereoscopic review of aerial photos dating back to the 1930s and on to present time.

The fluvial-geomorphic **COMPETENCE AND ENTRAINMENT** capability of the river, particularly the lower one-third is very poor. The physics result over time is that many pools have been filled in, and the **HYDROLOGIC WIDTH TO DEPTH RATIOS** of the stream channel cross-sections have become very high (40 to 60 and more) because the river flow cannot handle the bedload level and consequently makes adjustments by eroding out the stream banks and increasing the channel width as well as causing at least four major avulsions in the last 20 years.

The results of this condition shows up in an extreme way when flows began to diminish later in the year, the water depth is both very shallow and subject to faster and higher heating levels. It is somewhat similar to putting a given amount of water in a tall glass which ends up being relatively deep, versus putting the same amount into a large dishpan with the result that the water level in the pan is very low. **The lower one third of the East Fork, in most of the channel reaches, is now in that dishpan condition, making it subject to a wide range of undesirable conditions and cumulative effects.**

With these existing conditions, **PLANTING TREES ALONE WILL NOT ADEQUATELY ADDRESS THE TEMPERATURE PROBLEM** and could result in future restoration and improvement programs and funding being out of balance with this aspect of the critical problems in the East Fork ---this has not been adequately addressed in the Draft 2020 Plan.

Currently there are at least five (5) major sediment source located in reaches in the lower East Fork starting just above Lewisville Park. They should be given treatment priority. Their very high negative on-site and downstream bank and channel impacts on the river are biological as well as fluvial-geomorphic.

It is well known that low flow volumes in the East Fork have direct effects on water quality, particularly in summer time. Groundwater inflow is also affected by poor channel and watershed conditions as well as floodplain and tributary stream disturbances from anthropogenic activities that are on the

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increase in some areas of Clark County. Illegal water diversions, building along streambanks and in designated wetlands-recharge areas, heavier and more well drawdown, as well as building of rural ponds (past & present) all during a period of decline of infiltration into the Troutdale Aquifer. Weak and limited compliance by Clark County with the WA State Growth Management Act is also having some impact on water runoff, groundwater and streams.

**TO DATE, HISTORY SHOWS THAT EXISTING AND NEW RULES AND REGULATIONS WILL DO LITTLE GOOD AS LONG AS COMPLIANCE IS VOLUNTARY AND NOT MANDATORY IN CLARK COUNTY.**

Side-channel improvement and expansion has been mentioned in the draft as a source of both cooler and more groundwater inflow to the river. It appears that although both have value, flood overflow channels are being mixed in with true side-channels. They are not the same both physically and in attributes. Side-channels are not connected to the main river at their upper end, and often they have springs and upwelling areas that provide both rearing for salmonid fry as well as cooler water inflow to the river. Overflow channels are subject to high sedimentation from flood flows and do not function as well biologically or have the higher water quality and quantity attributes.

There is much more that needs to be discussed in our mutual search for solutions, but the lack of adequate focus on the main problems ---low water flows and high stream temperatures, is our focus for now.

Respectfully,

Richard Dyrland, retired Federal Regional Hydrologist

Friends of the East Fork Lewis River, 27511 NE 29<sup>th</sup> Ave, Ridgefield WA

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## Richard Dyrland

I am deeply concerned about the lack of discussion regarding gravel mining in the river valley where large ponds are left full of warm water that both intercepts ground water & produces large volumes of warm water that seeps into the river ---examples are Daybreak Pits & old Ridgefield Pits (now part of East Fork) & the abandoned large upwheling area when river entered pit. Also ridgetop or high terrace located mines also intercept & can contaminate or lower ground water levels. This is thought to be happening in the Yacolt Mt. Quarry area where local well levels are dropping & some have gone dry. In the past some mining operations were practically using the East Fork & Manly Road Creek, a tributary of the East Fork as sewer for crushing slurry water released way in excess of their NTU permit. Lawsuits & notification to WA Ecology finally got the discharges stopped & treated, but tremendous damage was done to the two streams. This is not 1960, it is 2020 and we can and have to do much better. Richard Dyrland



# Lower Columbia Fish Recovery Board

September 28, 2020

Ms. Devan Rostorfer  
Washington Department of Ecology  
Southwest Regional Office  
P.O. Box 47600  
Olympia, WA 98504-7600

Dear Ms. Rostorfer:

Subject: Comments on Draft East Fork Lewis River Water Cleanup Plan

Thank you for the opportunity to comment on the August 2020 draft East Fork Lewis River Water Cleanup Plan (Cleanup Plan). The Lower Columbia Fish Recovery Board (LCFRB) is an active partner in the East Fork Lewis River watershed, which is home to five high priority Endangered Species Act (ESA) listed populations of salmon and steelhead. The Washington State Department of Ecology (Ecology) is a key recovery partner in this watershed because of the agency's leading role in implementing the Salmon-Washougal and Lewis (WRIA 27/28) Watershed Management Plan (LCFRB, 2006). This plan highlights the importance of Ecology's regulatory and non-regulatory programs that focus on protection and restoration of water quality, stream flows, and community water supplies. Ecology's programs are critically important for protecting and recovering salmon to healthy and harvestable levels.

The LCFRB has reviewed the draft Cleanup Plan with a focus on its alignment to the Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (Recovery Plan, LCFRB 2010), and the WRIA 27/28 Watershed Management Plan. We offer the following comments for your consideration.

## **Clean Water Implementation Priorities**

The priorities listed in the draft Cleanup Plan include improving septic systems, stormwater, and agricultural runoff, as well as increasing riparian forests in the watershed. In addition to these priorities, stream flow improvements should also be considered and addressed more directly, as flow conditions are considered a key limiting factor to all five ESA-listed salmon populations in the watershed: fall Chinook, chum, coho, and winter and summer steelhead (LCFRB 2010, Table L-3). Degraded flow conditions, especially during the summer low flow period, can also negatively impact temperature, which is already above thresholds for salmon across the watershed.

## **Lower Columbia Salmon Recovery Plan Partner Program Implementation Review: East Fork Lewis River Habitat Pilot Study**

The updated title for the "East Fork Lewis River Recovery Plan Review" is the "Lower Columbia Salmon Recovery Plan Partner Program Implementation Review: East Fork Lewis River Habitat Pilot Study" (PC Trask, 2020). The data referenced in tables 5 and 6 from PC Trask are based on a draft report, and are

subject to change. The final report is attached so that Ecology can crosswalk data.

## **Reforestation**

It is noted on pages 20-21 that reforestation is occurring on harvested forest lands in the watershed. Although this is true, we recommend emphasizing that watershed process benefits from plantings can take decades to occur. Overall, the forest section is fairly short, and would benefit from more detailed information on forest practice impacts to riparian buffers, forest maturation rates, and water quality. It will also be important to discuss how forest land management as a key driver of watershed processes, including downstream impacts to temperature, water quantity, and fish habitat conditions.

## **Water Quality**

The LCFRB is supportive of the four implementation priorities for addressing water quality issues in the watershed. However, it is important to critically evaluate how successful individual landowner-scale outreach and implementation can be, given the rapid growth of many of the communities in the watershed. In light of development trends, it will be important to also work proactively with the local jurisdictions (county and cities) on more widespread implementation measures. The PIC Program described in the draft Cleanup Plan could help partners work together on identifying financial resources for mandatory and voluntary actions to achieve water quality goals (page 32 – 33).

The LCFRB is supportive of the recommendation to change septic system inspections from voluntary to mandatory, while providing landowners financial support. This is likely a necessary step in order to achieve the 100% inspection rate goal outlined in the Cleanup Plan because no voluntary programs in the watershed to date have achieved this success rate. We also recommend that water quality improvements and long-term cost savings of converting communities with septic systems to public sewer systems be considered. However, the WRIA 27/28 plan notes the importance of assessing impacts on stream flow, especially during low flow summer months, from transferring water out of a local watershed.

We recommend clarifying warm water temperature outcomes for fish and wildlife on page 11. Although waters warmer than past conditions are harmful for salmon and other native wildlife, non-native and invasive species can fare well in these conditions, such as bass and pikeminnow. These shifts in predator communities create further stress to salmon and steelhead that are already dealing with physiological impacts of warmer temperatures.

## **Riparian Restoration**

To achieve the riparian tree cover goal of 85% in the lower watershed, it will be essential to identify specific areas where restoration can occur. This is key given the urbanization trends in the watershed. Expanding the shade deficit analysis to East Fork Lewis River tributaries may provide additional opportunities for shade, and subsequent flow and temperature, improvements.

Riparian restoration metrics are included for the Clark PUD's McCormick Creek project on page 86. The PUD lost SRFB funding for this project in the summer of 2020, so metrics may not be accurate if they included the planned SRFB-funded portion of this work. Final metrics will be accepted in PRISM by project close out, which is scheduled to happen by October 30, 2020. You can access information on this project [here](#).

## Monitoring and Reporting

LCFRB strongly supports effectiveness monitoring of implemented water cleanup actions. This monitoring, as well as the outlined annual and 5-year progress reporting, will provide key data and information for Recovery Plan implementation reporting, as well as adaptive management. Recovery Plan reporting relies on action implementation and effectiveness monitoring to illustrate patterns observed in more long-term habitat and fish status and trend monitoring. Given the importance of the East Fork Lewis River watershed to regional salmon recovery, reports developed by Ecology for the Cleanup Plan will support this effort.

The Recovery Plan action implementation schedule calls for completing key actions within 25 years after ESA listings first occurred in the region - by 2024-2025. This timeline was established in order to provide ample time for longer term actions to take effect and to benefit recovering salmon, such as habitat benefits from forest maturation and flow regime improvements from floodplain and off-channel habitat restoration. In general, the milestone goals for water quality and riparian restoration occur after this, primarily by 2030. Slower action implementation could delay salmon recovery, so the LCFRB strongly encourages Ecology and its partners to emphasize wide-scale, efficient action implementation approaches up front, like county and city water quality management changes and early investments by all partners in restoration, to achieve these implementation goals as quickly as possible.

The Recovery Plan outlines an assessment framework that includes biennial action implementation reporting, coupled with six-year action effectiveness reporting, to inform more long-term fish and habitat status and trends monitoring and adaptive management (Figure 1). The proposed annual reporting and five year progress reporting in the draft Cleanup Plan should support this framework. One additional component to consider is compliance monitoring: this information could help with evaluation of action effectiveness (i.e. why, or why not, expected responses are occurring). It is not apparent if compliance monitoring information will be collected when reviewing the agricultural BMP, stormwater and riparian restoration action tables (tables 30, 42, and 59).

We appreciate the inclusion of specific recovery actions in the Cleanup Plan on page 93: identifying action numbers with the descriptions will improve our ability to track recovery implementation. In addition to the three already listed in the report, consider adding recovery action 101 (“Assist local governments in protecting floodplain impacts from new development through land use controls and Best Management Practices”) as well as actions that the WRIA 27/28 Planning Unit is identified as a partner (see Table 1 below). We are happy to review the WRIA action list with Ecology to identify which actions may be addressed by developing and implementing the Cleanup Plan.

## Adaptive Management Process

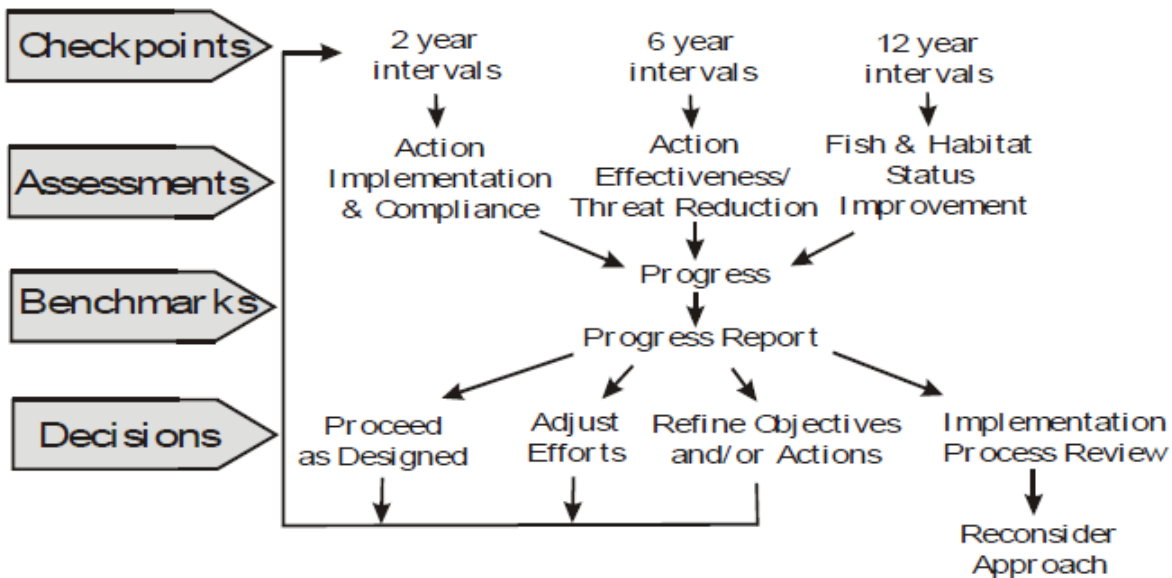


Figure 1. The adaptive management process outlined in the Recovery Plan for salmon (LCFRB 2010).

### Recovery and WRIA Management Plan references

Management techniques from the WRIA 27/28 Management Plan are included in the draft Cleanup Plan. We suggest you consider also referencing the 2008 Salmon-Washougal and Lewis Detailed Implementation Plan. The Detailed Implementation Plan builds on the 2006 Management Plan by creating a "...strategy for the coordinated implementation of water supply, stream flow management, surface water quality, ground water quality, and habitat actions." This goal aligns with the Cleanup Plan focus. The reference to the "East Fork Lewis River Salmon Recovery Plan" on page 122 should be changed to "Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan".

We recommend the following two text changes on pages 88-89:

- Change "LCFRB develops Salmon Recovery Plans and coordinates funding for implementation of salmon recovery projects", to "LCFRB developed the salmon recovery plan with partners, and now coordinates funding for salmon habitat projects, recovery partner program alignment with salmon needs, and reporting on recovery plan implementation."
- Change "A Limiting Factors Analysis (LFA) determined that over 50 percent of the off-channel habitat and wetlands in floodplain areas have been disconnected from the river as a result of diking, ditching, and draining to protect agricultural, residential and mining activities," to "A Limiting Factors Analysis (LFA) determined that over 50 percent of the off-channel habitat and wetlands have been disconnected from the lower river floodplain as a result of diking, ditching, and draining to protect agricultural, residential and mining activities."

We also recommend referring to recovery as either "salmon recovery" or "salmonid recovery", not both. Salmon recovery is inclusive of all species in the watershed, and this is especially clear for the reader because the five East Fork Lewis populations are listed.



Thank you for the opportunity to provide feedback on this important document. We are excited to work with Ecology on implementing the Cleanup Plan to support watershed health and salmon recovery goals in the East Fork Lewis River. If you have any questions, please feel free to contact me at (360) 425-1553 or via email at [smanlow@lcfwb.gen.wa.us](mailto:smanlow@lcfwb.gen.wa.us).

Sincerely,



Steve Manlow  
Executive Director  
Lower Columbia Fish Recovery Board

Attachments: Table 1, WRIA 27/28 Planning Unit Recovery Implementation Actions; Lower Columbia Salmon Recovery Plan Partner Program Implementation Review: East Fork Lewis River Habitat Pilot Study (PC Trask, 2020)

cc: Lower Columbia Fish Recovery Board

Table 1. WRIA 27/28 Planning Unit Recovery Implementation Actions (LCFRB 2010).

Action #	Description	Partners
121	Implement recommendations of the WRIA 27/28 Planning Unit through identification of funding, coordination, and monitoring of progress	Battle Ground, Camas, Clark Co, Clark Public Utilities, Cowlitz Co, Kalama, North Bonneville, Skamania Co, Tribes, Vancouver, Washougal, Woodland, WRIA 27/28 Planning Unit
932	Planning studies to explore alternative sources of supply to replace an existing source (selected communities)	WRIA 27/28 Planning Unit
933	Consider the effects of individual domestic wells when modifying or adopting comprehensive plans, zoning designations, or other land use regulations.	WRIA 27/28 Planning Unit
934	Agricultural supplies: switch from surface to ground water. Discourage new uses of surface water (use ground water instead)	WRIA 27/28 Planning Unit
935	Within authorities as staffing and funding allow, develop water-level monitoring program for aquifers	WRIA 27/28 Planning Unit
936	Consider and address effects of forest practices on stream flow. Monitor effectiveness of F&F Rules and NW Forest Plan. Report to public periodically	WRIA 27/28 Planning Unit
937	Within authorities, identify floodplain restoration projects and implement where feasible	WRIA 27/28 Planning Unit
938	Wetlands inventories and ordinances: assess and protect hydrologic functions, consider strengthening mitigation ratios	WRIA 27/28 Planning Unit
939	Large water users and hydropower facilities: short-term drought response curtailment programs, to protect stream flows	WRIA 27/28 Planning Unit
940	When modifying or adopting comprehensive plans, zoning designations, or other land use regulations, jurisdictions should consider the water balance implications of allowing extension of sewer service to communities formerly served by septic systems	WRIA 27/28 Planning Unit
941	Water conservation by farmers practicing irrigated agriculture. Technical assistance by Conservation District in each county	WRIA 27/28 Planning Unit
942	Within authorities, improve public awareness of	WRIA 27/28 Planning

	ground water quality issues. Information outlets. Mass-media campaign. Schools program. Public opinion surveys	Unit
943	Within authorities, improve local wellhead protection. Determine which Group A Systems have wellhead program. Apply technical assistance and enforcement to meet state requirements. Facilitate use of computer modeling. Encourage Group B systems to voluntarily establish wellhead programs	WRIA 27/28 Planning Unit
944	Public Water Systems develop new or expanded supplies. Requires engineering studies; approval of water system plan; water rights processing; other permitting; SEPA compliance; construction; operations & maintenance. Standard procedures exist for all of these	WRIA 27/28 Planning Unit
945	Planning studies to explore alternative sources of supply to replace an existing source (selected communities)	WRIA 27/28 Planning Unit
946	Replace an existing source of supply with a different source to reduce impacts on stream flow. Requires engineering studies; water rights processing; other permitting; inter-local agreements or contracts; construction; operations & maintenance	WRIA 27/28 Planning Unit
947	Develop map of region's aquifers with emphasis on surface water hydraulic continuity	WRIA 27/28 Planning Unit
948	Enhanced conservation exceeding state requirements in selected communities	WRIA 27/28 Planning Unit
949	Industrial supplies: Expand conservation & reuse; develop non-potable sources; connect to municipal systems	WRIA 27/28 Planning Unit
950	Consider the effects of individual domestic wells when modifying or adopting comprehensive plans, zoning designations, or other land use regulations	WRIA 27/28 Planning Unit
951	Agricultural supplies: switch from surface to ground water. Discourage new uses of surface water (use ground water instead)	WRIA 27/28 Planning Unit
952	Within authorities as staffing and funding allow, develop water-level monitoring program for aquifers	WRIA 27/28 Planning Unit
953	Maintain existing stream gauges. Install new gauges at selected locations. Select exact sites; permit and construct gauges; O&M; data management	WRIA 27/28 Planning Unit
954	Adopt restrictions on issuance of new water rights in State Rule	WRIA 27/28 Planning Unit
955	Selected actions involving water supply and intended to protect stream flow. See water supply items listed above	WRIA 27/28 Planning Unit

956	Establish target flow monitoring and management program	WRIA 27/28 Planning Unit
957	Initial surveys in selected subbasins to identify unauthorized uses and take enforcement actions. Follow-up in other basins if warranted	WRIA 27/28 Planning Unit
958	Consider and address effects of forest practices on stream flow. Monitor effectiveness of F&F Rules and NW Forest Plan. Report to public periodically	WRIA 27/28 Planning Unit
959	Within authorities, protect floodplains from modifications that would impair hydrologic functions or habitat	WRIA 27/28 Planning Unit
960	Review effects of stormwater discharges on stream flow and habitat. Where needed to protect key habitat, implement programs that exceed minimum requirements	WRIA 27/28 Planning Unit
961	Purchase or lease of water rights from willing sellers, for State Trust program	WRIA 27/28 Planning Unit
962	Within authorities, identify floodplain restoration projects and implement where feasible	WRIA 27/28 Planning Unit
963	Wetlands inventories and ordinances: assess and protect hydrologic functions, consider strengthening mitigation ratios	WRIA 27/28 Planning Unit
964	Large water users and hydropower facilities: short-term drought response curtailment programs, to protect stream flows	WRIA 27/28 Planning Unit
965	When modifying or adopting comprehensive plans, zoning designations, or other land use regulations, jurisdictions should consider the water balance implications of allowing extension of sewer service to communities formerly served by septic systems	WRIA 27/28 Planning Unit
966	Water conservation by farmers practicing irrigated agriculture. Technical assistance by Conservation District in each county	WRIA 27/28 Planning Unit
967	Source substitution for selected areas served by domestic wells: relatively higher densities and likelihood of stream impacts; dependent on feasibility and cost	WRIA 27/28 Planning Unit
968	Evaluate the need to take additional actions addressing shallow aquifer interactions (See Section 4.5.5).	WRIA 27/28 Planning Unit
969	Develop clear guidance for mitigation (See Section 3.3.1)	WRIA 27/28 Planning Unit
970	Develop water body cleanup plans (TMDLs) for subbasins, in prioritized sequence as indicated in Watershed Management Plan. Carry out necessary modeling, reporting, public involvement, and waste	WRIA 27/28 Planning Unit

	load allocations	
971	Within authorities, develop full scale assessment strategy for non-point sources	WRIA 27/28 Planning Unit
972	Carry out source assessment of non-point sources	WRIA 27/28 Planning Unit
973	Actions to correct sources of impairment	WRIA 27/28 Planning Unit
974	Within authorities and as staffing and funding allow, expand water quality monitoring activities to improve understanding of status and trends; and, install monitoring equipment; collect and analyze samples; manage and analyze data; report results	WRIA 27/28 Planning Unit
975	Within authorities, improve public awareness of ground water quality issues. Information outlets. Mass-media campaign. Schools program. Public opinion surveys	WRIA 27/28 Planning Unit
976	Within authorities, assess susceptibility of ground water supplies to contamination. Risk assessment. Evaluate data management and improve if necessary. Regional mapping	WRIA 27/28 Planning Unit
977	Within authorities, improve local wellhead protection. Determine which Group A Systems have wellhead program. Apply technical assistance and enforcement to meet state requirements. Facilitate use of computer modeling. Encourage Group B systems to voluntarily establish wellhead programs	WRIA 27/28 Planning Unit
978	Within authorities, coordinate and promote management strategies to prevent impacts to ground water quality from land use activities	WRIA 27/28 Planning Unit
979	Within authorities, clean up sources of ground water contamination. Evaluate need for greater involvement by local organizations. Evaluate need for independent cleanup actions outside Ecology programs	WRIA 27/28 Planning Unit

FirstName	LastName	Email	Address01	City	State	Zip	SubmitDate	CommentValue
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 62; Paragraph (table, figure, etc.)- Clark Co P.; I suggest mentioning the Clark County Stormwater Management Plan. The plan is updated each year and describes many of the EFLR draft plan actions in greater detail as the pertain to Clark County in general.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 62; Paragraph (table, figure, etc.)- P 1; The phase I permit was for municipalities with 100,000 or more population in the 1990 census. Unincorporated Clark County had over 100,000 people then.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 62; Paragraph (table, figure, etc.)- P 1; Ecology has the authority to require LaCenter and Ridgefield to have phase II permits.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 63; Paragraph (table, figure, etc.)- P 3; The plan mentions marinas and boat clubs. It appears this language may be from another plan used as a template because I do not believe there are any in the East Fork
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- Bullet set and text; Goose waste is usually an urban problem. Most of the EFLR is rural. There are stock ponds that may house geese, but that falls into the Ag bacteria and temperature.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- Heading; This section addresses business source controls and agriculture practices. Maybe just limit it to business source controls that are part of a SWMP.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- IDDE bullets; Same comment as on the source control program. Clark County has been implementing an IDDE program for its MS4 since 2000 that has the listed elements. The program also responds to all water quality complaints.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- Last source control program bullet; We respond to residential issues as water quality complaints under the IDDE program. The stormwater program does not generally address agriculture unless there is a complaint about a point source such as a manure pile draining into surface water or the MS4
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- Last source control program bullet; The bullet mentions source controls for temperature. I do not believe the SWMMWW has source controls for temperature. Bacteria is also pretty limited as business source controls go. This sounds more like a source identification and removal issue than a stormwater source control activity.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- P1 of IDDE; The plan sometimes references phase 1 and 2 permits. The permits actually use Roman Numerals.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 64; Paragraph (table, figure, etc.)- Source control bullets; Clark County has had a business source control program for over 10 years. This section seems to imply that we need to update the code and put in place a program. Those actions are completed. Maybe state that unpermitted cities should do this.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 66; Paragraph (table, figure, etc.)- First set of bullets; The first bullet mentions vegetated best management practices. What are these? I would probably say stormwater treatment and flow control BMPs (as defined in the permit).
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 66; Paragraph (table, figure, etc.)- LaCenter heading; Maybe make this about Brezee creek and McCormick Creek instead of LaCenter? It includes LaCenter and Clark County. If you add McCormick Creek, these actions can also apply to Ridgefield.



Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 66; Paragraph (table, figure, etc.)- second to last P; The sentence refers to the western Wa stormwater manual. Maybe use the exact title since you did capitalize it in the paragraph.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 69; Paragraph (table, figure, etc.)- Table 36; Second Bullet - Does this mean retrofitting existing rural impervious surfaces that drain to the East Fork and its tributaries?
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 69; Paragraph (table, figure, etc.)- Table 36; Third Bullet - Stormwater planning is best suited to urbanizing areas such as LaCenter and Ridgefield. Clark County is focusing on areas where it has jurisdiction over the undeveloped UGA. These basins are all in other watersheds. Also, the SWMP addresses elements of this bullet other than structural controls.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 70; Paragraph (table, figure, etc.)- Implementation Tables; The implementation tables seem redundant with bullet items above. Can you reconcile the two and just have the table?
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 70; Paragraph (table, figure, etc.)- Table 37; SWM1.2 I suggest removing references to septic systems from the stormwater section.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 72; Paragraph (table, figure, etc.)- Table 39; SMW3.2 - Capital stormwater retrofits generally do not address bacteria or temperature unless they are infiltration BMPs. As implementation actions, these actions apply to the cities, so probably should call that out.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 74; Paragraph (table, figure, etc.)- Table 42; Under source control there are two differing dates for implement source controls.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 74; Paragraph (table, figure, etc.)- Table 42; "Implement priority stormwater facilities and activities, including illicit discharge detection and elimination, and source control activities by 2030" Not sure what this is specifically.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 74; Paragraph (table, figure, etc.)- Table 42; "Enroll 100% of dog owners in the East Fork Lewis River in the Canine for Clean Water Program." This is an impossible target.
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 75; Paragraph (table, figure, etc.)- Table 43; Performance measures must be actions or results that are measurable under current programs. "Total acres with stormwater treatment" is measurable in LaCenter but meaningless in the rural area. Clark County can report the number of stormwater facilities built for rural home and building construction. But we only map the ones that discharge to the MS4. There is no way to measure the number of residents implementing BMPs. It is not tracked. "Miles of storm infrastructure mapped, surveyed and tested" is three different things. We don't test storm infrastructure and we do not survey it. We have already mapped ditches using remote sensing data and are beginning the process of verifying it. Homes do not implement IDDE activities and if they did, we could not track them. Stormwater management plans do not manage land, they manage the MS4 and connections to it. We do not track the acres of impervious surface, it would be feasible to do this in the cities or if Ecology had it done by a consultant for the entire watershed or areas in the UGA. What would be the performance measure for monitoring? Would it be change over time at a selected group of sites?
Rod	Swanson	<a href="mailto:Rod.Swanson@clark.wa.gov">Rod.Swanson@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 76; Paragraph (table, figure, etc.)- Table 45; Public Works Clean Water is not in the table. Public Works Code Enforcement is part of the Clean Water Division.
Julie	Christian	<a href="mailto:Julie.Christian@clark.wa.gov">Julie.Christian@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Clean Water Division (Public Works); Page 84; Paragraph (table, figure, etc.)- Paragraph 3; Correction: The East Fork Lewis River Schriber Reforestation project proposes to plant native trees and shrubs on 12.3 acres of county-owned property (not 8 to 9 acres).

Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 21; Paragrapgh (table, figure, etc.)- 4; 1st sentence incomplete.
Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 36; Paragrapgh (table, figure, etc.)- Table 14; No. OSS2; Consider developing a programmatic Shoreline Exemption for OSS repair and replacement within the Shoreline Management Area (at least in Clark County) to streamline permitting and reduce the cost to program participants.
Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 40; Paragrapgh (table, figure, etc.)- 3; Proposed development in parcels with streams or wetlands may present an oppoutunity to asses ag use through the wetland and habtiat review process and point land owners to resources.
Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 78; Paragrapgh (table, figure, etc.)- 2; Please clarify that the referenced "riparian buffers" are not the same as Riparian Habitat designated under SMPs and CAOs.
Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 84; Paragrapgh (table, figure, etc.)- 1; The County did 1,200 lf of riparian restoration on Manley Creek in 2010 and 2011.
Brent	Davis	<a href="mailto:Brent.Davis@clark.wa.gov">Brent.Davis@clark.wa.gov</a>	PO Box 9810	Vancouver	WA	98666-9810	9/25/2020	Program- Wetland and Habitat Review (Community Development); Page 89; Paragrapgh (table, figure, etc.)- 5 (bullet lists counted as 1); "Engaged" should be "Endangered."