

| | FFF IOC Meeting Feb 28, 10:00 AM – 12:00 PM Zoom Meeting | |
|--------------|---|---------------------------------|
| 10:00-10:15 | <p>1) Welcome and Updates</p> <ul style="list-style-type: none"> a. Introduce new FFF Forum Representative Rick Shaffer, City of Duvall b. Channel Migration Zone Analysis Update c. Washington State Updates: <ul style="list-style-type: none"> i. WA State Conservation Commission FFF intersection/related issues d. Follow-up reports and letters | Teresa Lewis Daryl Williams |
| 10:15-10:40 | <p>2) Agriculture Land Based Strategic Plan</p> <ul style="list-style-type: none"> a. Review two issues papers, input on draft 2022 timeline, plan contents/overview update. <p>Materials: ADAP Waterways and Invasive Species Issue Papers, ASP 2022 timeline, ASP overview 2/28/22</p> | Patrice Barrentine |
| 10:40 -11:15 | <p>3) KC Comp Plan and FFF Nexus</p> <ul style="list-style-type: none"> a) Presentation on updated timeline for Comp Plan development efforts. b) Discuss FFF involvement in the Comp Plan for 2022.R649, R650, R650A <p>Materials: R650 background and Draft Comp Plan Handout</p> | Chris Jensen and Michael Murphy |
| 11:15-11:45 | <p>4) Briefing on Flood Management Plan Update</p> <ul style="list-style-type: none"> a) Share information on the plan timeline, scope expectations. b) Discuss FFF issues of interest related to the plan | Jason Wilkinson |
| 11:45- 11:55 | <p>5) Draft IOC workplan for 2022</p> <ul style="list-style-type: none"> a) Highlight and input on draft high level IOC workplan <p>Materials: Updated workplan.</p> | Tamie Kellogg |
| 11:55-12:00 | <p>6) Follow-up Items and Public Input</p> | Tamie Kellogg |

Snoqualmie Fish, Farm, Flood 2.0 Implementation Oversight Committee

DRAFT MEETING NOTES

Monday, December 13, 2021

9:00 am to 11:00 am (scheduled)

Video Conference Call via King County Zoom Account

| Committee Members Present (Y/N) | | | | | |
|--|---|--|---|--|---|
| * = denotes caucus co-chair | | | | | |
| Fish Caucus | | Farm Caucus | | Flood Caucus | |
| Cindy Spiry, Snoqualmie Tribe* <i>(proxy: Matt Baerwalde - Y)</i> | Y | Marie Shimada, Snoqualmie Valley Preservation Alliance* | Y | Angela Donaldson, Fall City Community Association* | Y |
| Denise Krownbell, Snohomish Forum | Y | Bobbi Lindemulder, farmer | Y | Stuart Lisk, City of Carnation | N |
| Mike Remington, Snoqualmie Forum | N | Meredith Molli, Agriculture Commission | Y | Lara Thomas, City of Duvall | N |
| Micah Wait, Wild Fish Conservancy | Y | Dave Glenn, Sno Valley Tilth | Y | | |
| Daryl Williams, Tulalip Tribes <i>(proxy: Kurt Nelson - N)</i> | Y | Liz Stockton, King Conservation District | N | | |
| Ex Officio Members Present (Y/N) | | | | | |
| Gary Bahr, WSDA | N | Brendan Brokes, WDFW <i>(proxy: Stewart Reinbold - N)</i> | N | Kirk Lakey, WDFW | N |
| Josh Baldi, KC DNRP | Y | Tom Buroker, WDOE <i>(proxy: Joe Burcar - N)</i> | N | | |

I) Call to Order and Chairs Welcome / Updates / 2022 Draft IOC Work Plan

Meeting facilitator Tamie Kellogg called the meeting to order at 9:03 a.m. and requested attendees remind others to follow up on King County Flood Control District (FCD)’s participation in future FFF meetings. Carrie King will be the FCD representative until further notice. King reported an advertisement for FCD Stewardship Director will be posted very soon. Caucus co-chairs and IOC members introduced themselves verbally.

King County DNRP-WLRD Division Director Josh Baldi announced that Beth leDoux has accepted a three-month SDA supervisory position within the Science Section of WLRD. An advertisement will be posted to fill the permanent FFF position. Baldi stated leDoux will continue to perform some FFF duties initially while transitioning into the new position. Meanwhile, WLRD will work on ways to address the FFF PM work.

Kellogg recently met with caucus co-chairs after October’s FFF Retreat to review a follow-up list of priorities to work on in the coming year. This provided the basis on a draft IOC workplan for 2022. Kellogg encouraged feedback from IOC members, WLRD, DLS, FCD, and others to ensure the accuracy of timing for the FFF priorities. The work plan draft also includes five IOC meetings in 2022, containing “placeholder” items for various plans such as the King County Flood Hazard Management Plan, the King County Comprehensive Plan, and the Snoqualmie Sub-Area Plan. Other key “placeholder” items included the Agricultural Strategic Plan, the Buffer Implementation Task Force, and FFF accountability to the priorities. The IOC work plan is anticipated to be finalized in late January 2022.

II) King County Comprehensive Plan (Ivan Miller, King County Executive’s Office)

Josh Baldi introduced Ivan Miller, the Comprehensive Planning Manager (CPM) from the King County Executive’s Office, as presenter. Regarding the King County Comprehensive Plan (KCCP), DNRP and DLS work together in a joint work program to fulfill planning objectives. Baldi noted both departments anticipate meeting with their department directors next month. Work is expected to continue for the KCCP and King County Flood Management Plan.

There is also technical work on policy discussion surrounding King County Ordinance R-650a. Examples include 2-D modeling of the Snoqualmie Valley, road studies, landslide hazard mapping and alluvial fan mapping. Jason Wilkinson will be the Project Manager for the King County Flood Management Plan, and the plan will be updated in partnership with FCD. New areas of emphasis, such as equity and climate change, will be addressed in both plan updates. Baldi urged IOC members to not treat the two plans as separate forums and encouraged FFF in collectively advocating multiple objective positions.

a. Presentation - Comp Plan Process, Timeline for Opportunities for Input to KCCP

Miller forewarned IOC members that the schedule is what King County is currently using for the 2024 KCCP update, however, it is likely the schedule may shift an additional 6-12 months due to state legislation changing the upcoming Growth Management Act (GMA) schedule. Starting in 2022, the new King County CPM will be Christine Jensen. The GMA is a state law that requires city and county jurisdictions to achieve 14 different

planning goals in urban and rural growth. Comprehensive (comp) plans and processes are created to address urgent needs of the region such as affordable housing, amenities, and land preservation. King County addresses needs in both plans and individual policies in critical areas using best available science. Comp plans contain numerous elements via chapters ranging from land use to economic development and serves as a guide on how best to serve overall growth.

The KCCP is implemented in a variety of ways through developmental regulations, capital projects, and county policies, all of which need to be consistent with codes and policies within the plan itself. This comp plan is undergoing a statutory update as required by state law; the last update was in 2012. Major updates like this one occurs every four years; King County anticipates the 2024 update will provide opportunities for major changes. The 2024 KCCP update is currently behind schedule due to employee transitions and the need for bidding for an ESI/SEPA consultant. Outreach and the establishment of the scope of work will begin in January 2022 and continue through May 2022. June 2022 will see the formation of the scope of work on the EIS and a public engagement plan, with the issuance of a public review plan and EIS draft by the end of 2022. January 2023 will initiate the public comment period, which will be taken to departments and subject matter experts to review and update into an executive plan and final EIS, transmitting to the KCC by June 2023. The KCC will then go to committee using a standard legislative process and develop possible striking amendments and environmental review processes for the next 6-8 months. Finally, if state legislature extends the GMA deadline, the 2024 KCCP update is expected to be adopted by December 2024.

b. Q & A from IOC Members

- **Q:** Will King County consider a full report of growth maximum targets for rural areas as part of the update?
IM: King County does not establish growth targets for rural areas. We assume there is a growth increment in those areas, but not targets. There is typically an overall growth of 3% in rural areas. Over 90% of growth is in the cities with the remainder in unincorporated urban areas, assuming possible growth in a rural area. Cities are growing up, not out, with some zoned at low densities, which could increase after annexation.
- **Q:** Are growth averages on a ten or twenty-year cycle?
IM: Twenty. The next round of targets reaches out from 2019 to 2044. They need to be twenty years beyond the date of the KCCP update.
- **Q:** How do we handle present conflicts such as moratoriums while we wait for KCCP updates?
IM: Code enforcement is currently stretched thin, but if it's that type of issue, please contact me or Jesse Reynolds for any sub-areas or Josh Baldi for any policy issues. Annual updates are done in addition to the major updates with the option to fix current issues, but we may not choose to do that if it's a countywide issue.
- **Q:** How granular might some of these policies become? Are policies like buffer widths included in the KCCP or some other sub-plan?
IM: Probably a sub-plan. Policies are broader and any details are typically in a functional plan or code. The real policy question is: do the policies in the KCCP provide King County the flexibility it needs for more certainty? We need to make sure we're consistent with state requirements. If we have the affordability, we can have more stringent regulations.
- **Q:** What do you see as the best way to receive input on the KCCP by nonprofits?
IM: A variety of different ways are good. I recommend getting on the mailing list to track what's happening, you don't have to wait for a public comment period. You can write a separate letter and send it to all King County Council (KCC) members and the Executive. It is important to show up and testify when the plan is at a KCC committee meeting as it is the most effective with councilmembers.
- **Q:** Between now and the end of the public comment period in May 2022, is feedback useful or expected?
IM: January to May 2022 is when we will be receiving feedback and where the scope of work and environmental impact statement (EIS) will be established. From May 2022 until the end of the year, research and analysis will be done, but there will be additional opportunities for input. By January and February 2023 and a draft plan and EIS have been written, then the formal comment period begins.
- **Q:** How do you see this multi-interest group providing feedback to you? Is it a formal or informal process?
IM: It is formal. Department heads will come forward with their ideas and updates, then it will go through the Executive process, the Executive provides input, and then KCC reviews adopts it. Staff will check in with the KCCP manager throughout the process. It is important to comment during the first draft. After transmittal in June 2023, it is at KCC, then staff can connect you with KCC members.
- **Q:** Can you explain the public process occurring in 2022 and 2023?
IM: Currently, these are generic placeholders for the following: Quarter 4 (Q4) of 2021 is the scope announcement, Q1 of 2022 is developing the scope with KCC, then the scope is adopted in Q2 of 2022. Q3 to

Q4 of 2022 is the drafting of the KCCP and EIS and outreach. The final Executive plan and EIS will be revealed Q1 or Q2 of 2023, where it will go to the KCC committee from Q3 to Q4 of 2023. Finally, the KCCP is adopted by Q2 of 2024.

- **Q:** Is it correct that if a topic is not in the motion of the scope, it cannot be discussed in the KCCP motion?
IM: That is not correct. That would be true in midpoint update, but not in a statutory update. Issues can come up as we are doing the work and we can adjust accordingly.
- **Q:** Where are things at currently with King County? Can what is currently being proposed change?
IM: We currently do not have the list because we haven't contacted other departments yet. There will be some issues on climate change, mitigation, and resiliency. There is a lot on homelessness and affordable housing, particularly for low-income, as part of a state requirement. Social equity is another issue, not I am not sure how much will be policy.
- **Q:** Will there be new sections or policies to the KCCP or changes to existing sections?
IM: They are changes to existing sections. Climate change affects everything and affects the entirety of the plan. Social equity and affordable housing will be in the housing chapter. There is a lot of need for code updates, and I can see those adjustments.
- **Q:** Do you go back to older versions of the KCCP and compare to see what you've accomplished? How can you strategize priorities that are still outstanding and who prioritizes everything?
IM: In terms of the KCCP, it is a balancing act. Everything is subject to appeal. Things like policy framework, zoning, or critical areas won't be touched. We are trying to strategically streamline the plan because it has gotten so big and there is a lot of outdated language. One thing going to be released in 2022 is our first KCCP measures report to give a snapshot of how things are working. In terms of prioritizing, we implement through budget, code, and functional plans like open space plans. Action items require individual studies.

c. IOC Next Steps to Support FFF Strategic Priorities into KCCP

Tamie Kellogg invited caucus co-chairs and IOC members to measure their level of interest in FFF IOC's involvement in the KCCP and goals to coincide with said involvement. All IOC members expressed a medium to medium-high interest in participating in KCCP updates. Caucus co-chairs and their members for each group proposed the following goals:

- **Flood:** Stay engaged and interested in the process and have each caucus review chapters pertinent to FFF, specifically Chapters 3,5,8, and 11. Then, find areas where the IOC can advocate for caucus priorities in the KCCP update. After 3-6 months, caucuses will individually meet and discuss. A follow-up meeting with KCCP Manager Christine Jensen can then take place. The KCCP should not take priority over other FFF items, but in conjunction with them.
- **Farm:** Examine the information presented today and plan some feedback and ways to participate. Caucuses should receive updates from King County. An example of how the Agriculture Commission has contributed to the KCCP in the past includes: the KCCP Manager gathers all relevant issues for the commission and the commission establishes a committee to create comments for all docket items. These comments go the KCCP staff and Executive Constantine. When the KCCP is transmitted to KCC, the Ag Commission again reviews and comments.
- **Fish:** Stay engaged in areas that connect with FFF and form a subcommittee that tracks the KCCP process and coordinate with a sustainable land strategy. Also, the subcommittee should coordinate with Snohomish County's comp plan subcommittee as both counties face similar issues.

III) FFF Priorities 2022-2024 Gap Analysis for King County

a. WLRD Context

Throughout the fall, IOC members and caucus co-chairs discussed various FFF priorities and milestones to achieve necessary goals and to ultimately provide content items regarding resource needs in a future letter to King County Executive Constantine. Tamie Kellogg referred to WLRD Director Josh Baldi to address context with current resources and budgeting. Baldi discussed the following areas:

- **King County budget:** There have been many economic implications due to the COVID-19 pandemic; however, due to a \$1.2 trillion federal infrastructure bill, new funding has been established. There are newly-elected members of the King County Council (KCC), which may affect county policy discussions. King County is currently in a dispute with WSDOT regarding the Surface Water Management fee (SWM), putting a monetary hole in the SWM base rate. No rate increase has occurred in the latest budget cycle. There have been many considerations regarding the rate. WLRD is corresponding with the Executive's Office on what is politically possible, but Executive Constantine has requested quick advancement on these considerations. Equity and Social Justice (ESJ), the Clean Water Healthy Habitat Initiative (CWHH), and the Strategic Climate Action Plan (SCAP) are also driving forces in WLRD's work on rate proposals. There is an anticipated modest increase in the rate around targeted priority issues.

- **Internal budget process:** This process will begin tomorrow (12/14) and will occur for the next six months to deliver a recommendation to the Executive's Office by the deadline on July 1, 2022. DNRP is collaborating with DLS through their joint work program to achieve mutual goals. Executive Constantine will forward his final decisions and budget recommendation to the KCC on September 27, 2022. After deliberation, the KCC will then approve items for the 2023-24 budget in late November 2022.
- **Capacity gaps:** The SWM is difficult to obtain as there are many competing needs and is just one method to add capacity. Other methods are capital investment strategies with FCD, targeted road investments and studies, and watershed management grants using FCD funding. New funding from FEMA and the federal infrastructure bill has allocated \$1 billion for fish passage; however, there is funding competition with Washington State. King County has completed a prioritized list of fish barriers to invest in with the help of various fish agencies, local tribes, and partners once funding is received. WLRD is also considering reprogramming existing resources to accommodate current priorities.
- **Policy interpretation:** Interpretations may either be near-term or long-term, and the pathway to obtain permits can be difficult. DLS has an obligation to follow existing code; however, WLRD is working with DLS to explore where code can be interpreted differently or changed to advance objectives through FFF. Baldi invited IOC members to provide feedback on moving forward.

b. Caucus Priority Input on Gap Analysis and Need for Resources

Regarding gap analysis and need for additional resources, caucus co-chairs for each group presented the following from their respective caucus discussions:

- **Flood:** Two caucus priorities will be sunsetted. There are strong partners within King County making progress on roads and flood resiliency. However, a more resilient and integrated watershed management plan, more funding, and support outside of FFF are strongly desired as they would meet caucus needs.
- **Farm:** Questions were raised concerning items at risk for SWM fee dollars, "equity" overriding critical work, the need for a timeline for funding and staffing the priorities, and notifying caucuses when barriers are slowing work progress. Possible alternative funding from FCD and tribes for a fish biologist and keeping caucuses updated with yearly milestone timelines were also requested.
- **Fish:** The major gap for the caucus is staffing, specifically for an FTE basin steward and a fish biologist. Other issues included seeking funding for multiple projects, timelines, reporting on project progress and staffing, and developing minimums and incentives for the Buffer Task Force.

c. Discussion to Achieve Outcomes Not Currently Funded in County Budget

Upon review of the IOC transmittal letter to Executive Constantine in June 2017, Libby Reed suggested formalizing the participation of FFF IOC partners; specifically, the Snoqualmie Valley Watershed Improvement District (WID). WID's involvement would encourage a cultural perspective and promotion of multi-benefit projects. Elissa Ostergaard proposed more availability of grant funding programs to fund more multi-benefit projects and more staffing capacity and capital project implementation from the FFF Project Manager. Finally, producing a funding strategy for fish habitat feasibility studies via a Project Coordinator was also considered.

d. Priority Topics for Letter to Executive

The final priority topics for the transmittal letter are to include long-term funding, appropriate resources, and creating bigger funding strategies to complete FFF work.

e. Next Steps and Timing for Draft Letter to Executive Constantine on Resource Needs

Libby Reed stated the need for non-governmental organizations to participate in FFF IOC meetings. Daryl Williams offered to help with the letter to the Executive on the indicated possible funding strategies with funds from the recent federal infrastructure bill.

IV) Letter Requesting Participation of FCD in FFF

Tamie Kellogg reviewed an updated draft letter by flood caucus co-chair Angela Donaldson and Beth leDoux to transmit to King County FCD Chair Dave Uptegrove requesting FCD's participation in FFF meetings. The draft letter is based in part on a previously submitted letter. IOC member Denise Krownbell recommended a small amendment to the letter to add the duration of each quarterly meeting (2-3 hours) to reflect the amount of time FCD's participation would be needed. Krownbell motioned to approve the letter for submission. Angela Donaldson seconded the motion, which was unanimously approved. Kellogg mentioned the letter will most likely be signed in January when co-chairs reconvene.

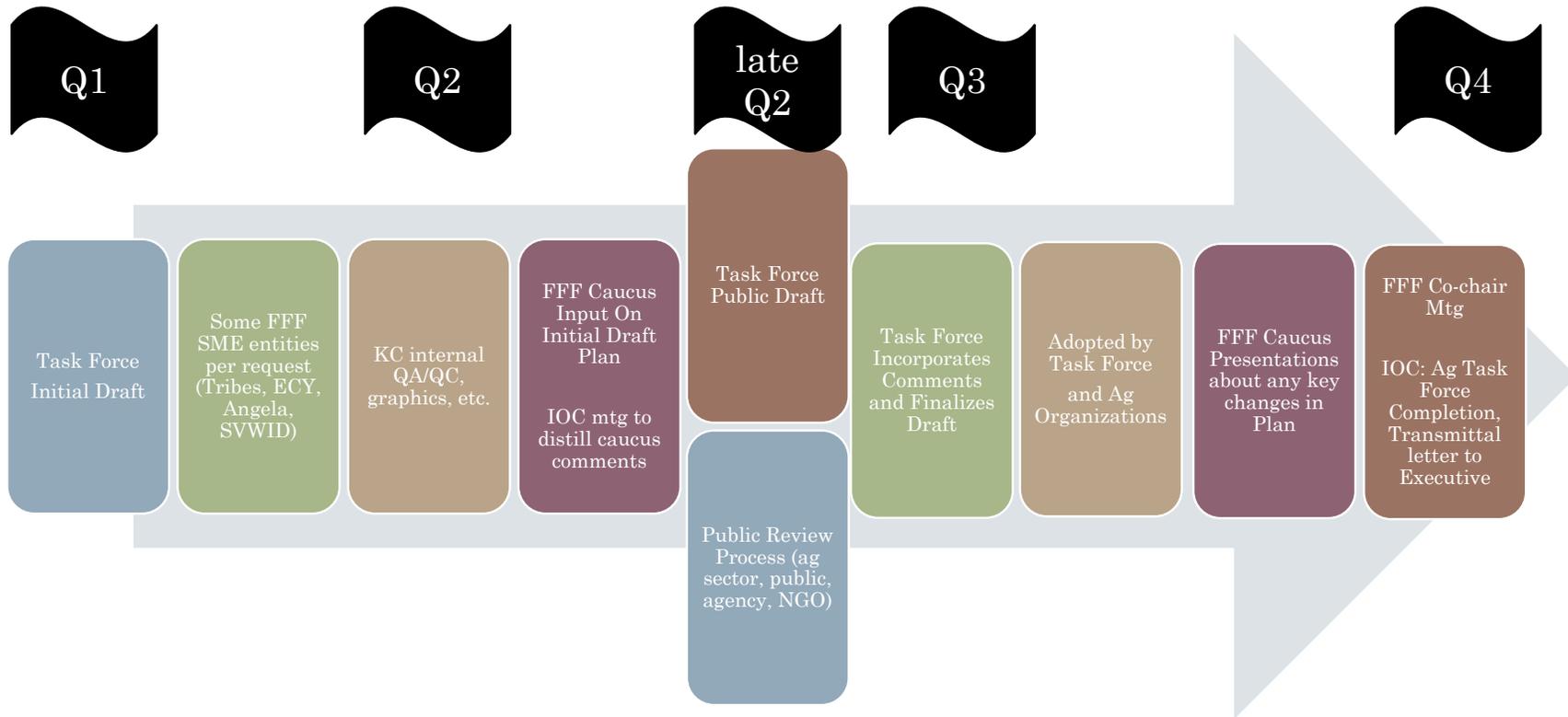
V) Next Steps/Follow-Up and Public Comment

Beth leDoux is drafting the FFF project managers annual report to DNRP leadership to provide an update on work performed by FFF throughout 2020 and 2021. The report will be worked on the next couple of weeks and will be distributed to IOC members once completed. leDoux also announced that FFF will receive a Flood Hazard Management grant of \$320,000 for 2-D modelling of the Snoqualmie Valley. Over the next few months, FFF will also be entering into a contract with FEMA and hiring a contractor to do the modeling work.

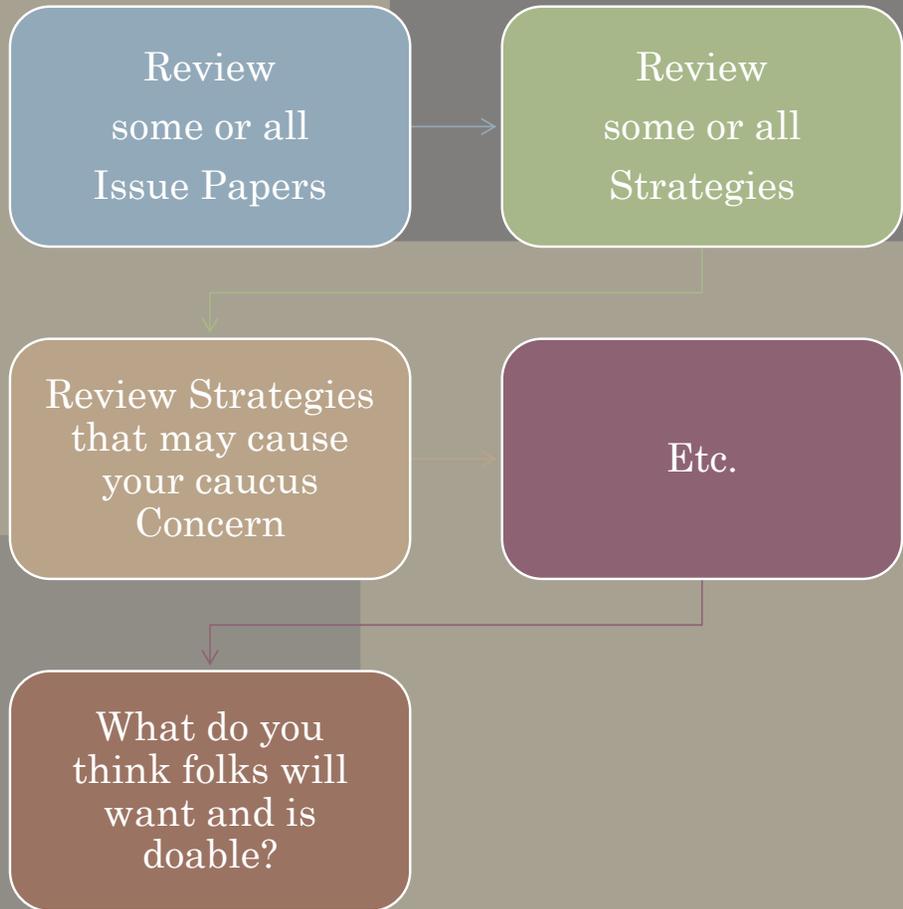
Tamie Kellogg announced that a poll will be sent to IOC members via e-mail shortly to confirm FFF meeting dates for the coming year. The tentative schedule is to hold five meetings in 2022. Kellogg also reminded IOC members to send feedback regarding the IOC Work Plan to caucus co-chairs by early January.

Daryl Williams disclosed in the public comment period his appointment as chairman of the Washington State Conservation Commission (SCC). Tamie Kellogg adjourned the meeting at 11:02 a.m.

Plan Review Process

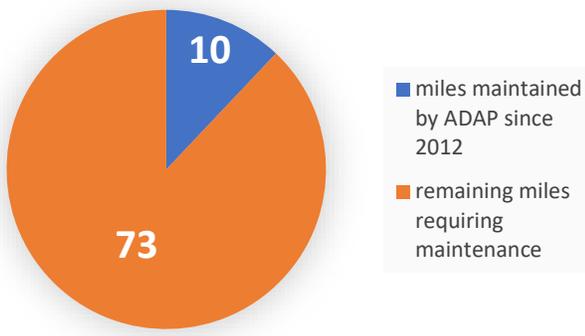


Note: while the TF encourages and welcomes review and input, the TF will make final decisions about edits and revisions. TF leaning toward this process. Want Caucus Chair thoughts.



Review Process Considerations for Caucuses and IOC Members

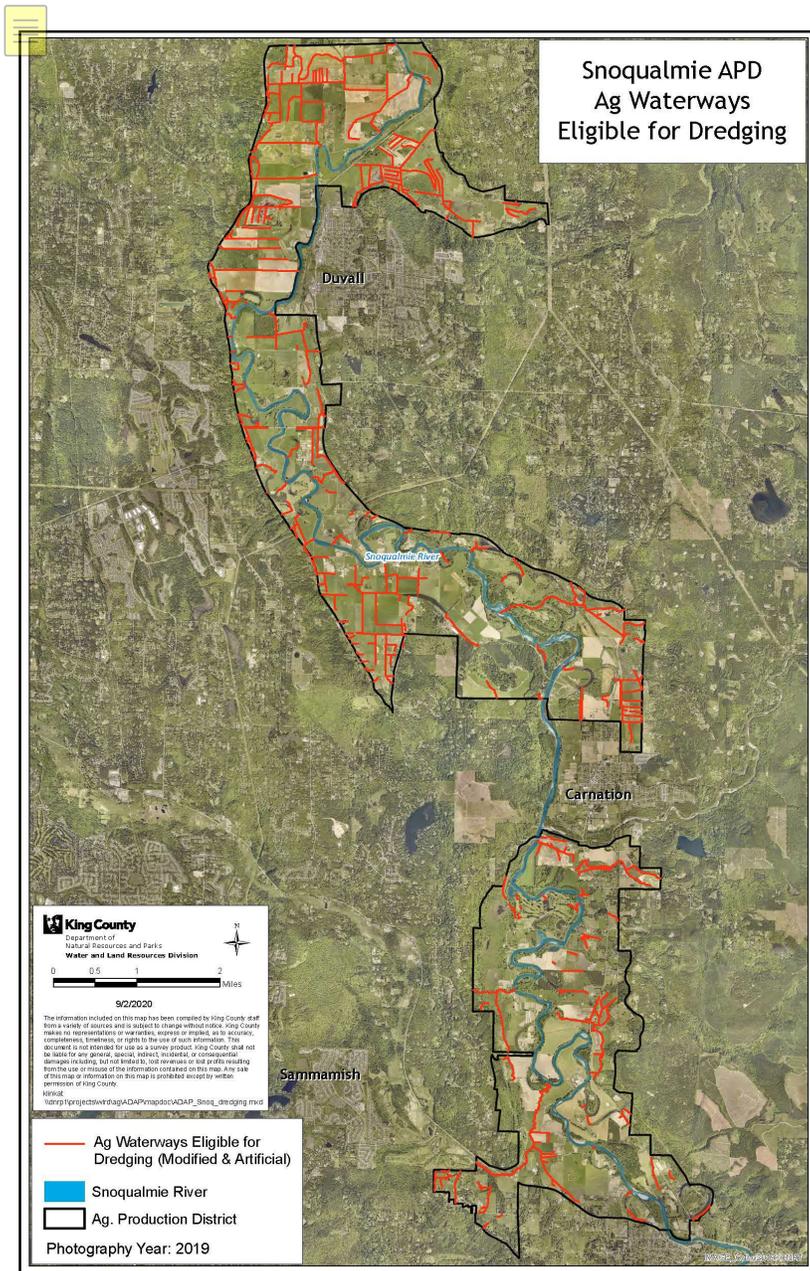
1.1.1: Drainage Maintenance for ADAP Eligible Waterways

| Current Condition | | Desired Condition by 2046 | | | | | | | |
|---|---------------------------------------|---|-------------------------------------|----|---|---------------------------------------|----|---|--|
| <div style="text-align: center;"> <h3>ADAP Eligible Waterway Maintenance</h3> <h4>Snoqualmie Valley APD</h4>  <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="color: blue;">■</td> <td>miles maintained by ADAP since 2012</td> <td>10</td> </tr> <tr> <td style="color: orange;">■</td> <td>remaining miles requiring maintenance</td> <td>73</td> </tr> </table> </div> <p>There are 83 miles of ADAP eligible waterways in the SVAPD. Each year, approximately 10,000 feet (~2 miles) of agricultural waterways are maintained in the Snoqualmie Valley, which equates to about 2% of all eligible waterways and a return interval of about 45 years. It would take approximately 37 years to complete waterway maintenance on the existing 73 miles in the SVAPD at the current rate of 2 miles each year.</p> <p>Costs for agricultural waterway dredging can vary based on complexity of the project. As of 2018, projects cost about \$50 per linear foot from the planning through the monitoring stages, meaning that initial dredging of the remaining 73 miles of the 83 miles of eligible waterways would cost roughly \$19,272,000. On average, 71% of these costs are covered by King County, 18% by King Conservation District or the SVWID, and 10% by landowners.</p> | | ■ | miles maintained by ADAP since 2012 | 10 | ■ | remaining miles requiring maintenance | 73 | <p>All eligible waterways are maintained, on recurring, scheduled maintenance, with alternative mitigation options available.</p> | |
| ■ | miles maintained by ADAP since 2012 | 10 | | | | | | | |
| ■ | remaining miles requiring maintenance | 73 | | | | | | | |
| | | Timeline | | | | | | | |
| | | <ul style="list-style-type: none"> 2023: Funding gap met; additional ADAP crews added; timeline of dredging projects developed (starting with landowner requests and priority sub-basin and moving to lower priority basins in SVAPD); recurring maintenance interval is determined by evaluation criteria and scheduled for ongoing maintenance 2026: Alternative mitigation scenarios are tested, approved, and added to ADAP agreement 2031: Initial maintenance of remaining 73 miles completed 2032: Recurring maintenance continues per schedule and/or emergency needs | | | | | | | |
| Background | | Service Providers | Priority | | | | | | |

| <p>Agricultural waterways direct water out of agricultural fields into larger waterways and streams. Over time, these waterways can fill with sediment and become blocked by overgrown weeds, slowing or stopping the movement of water and leading to poorly drained fields.</p> <p>King County’s Agricultural Drainage Assistance Program (ADAP) works under a memorandum of understanding with Washington Department of Fish and Wildlife (WDFW) that incorporates best management practices (BMPs) to protect fish and water quality¹. Through ADAP, landowners only need a single permit to conduct maintenance which can include dredging, beaver dam management, and culvert replacement. Currently, ADAP is the only permitted program for agricultural waterway maintenance in the Snoqualmie Valley. ADAP is limited to working on drainage improvements in artificial drainage channels and relatively small, modified waterways².</p> | <p>Lead:</p> <ul style="list-style-type: none"> King County Stormwater Services Program: ADAP <p>Partners:</p> <ul style="list-style-type: none"> SV Watershed Improvement District King Conservation District | HIGH |
|---|---|------|
| Strategies | | |

- Increase long-term funding to \$17M for drainage service providers including outreach and education for landowners to assess and maintain remaining 73 miles of waterways and establish recurring maintenance intervals. \$13.5M of the \$17M will be for King County ADAP and \$3.5M for KCD and SVWID. \$2M will be covered by landowners as part of a cost-share program.
- Secure multi-benefit partnerships and long-term funding from King County Stormwater Management (SWM), the King County Flood Control District, special district assessments, and multi-benefit project grants such as Floodplains by Design and the Family Forest Fish Passage Program (FFF2P), etc. to increase capacity for ADAP waterway maintenance in tandem with fish habitat and flood improvement projects.
- Reduce cost to landowners through creating or increasing cost-share programs to further help with farmer/landowner, planting, and fencing costs.
- Conduct maintenance through SVWID's priority basin or emergency needs rather than first come, first serve basis.
- While undergoing maintenance, waterways are assessed and scheduled for follow-up maintenance.
- Expand program's fish and water quality capacity to match increased pace and timeline.
- Alternative mitigation strategies for required plantings are tested, approved, and added to ADAP agreement.

Figure 1. ADAP Eligible Waterways in the Snoqualmie Valley APD (83 miles of waterway classified as modified and artificial by ADAP)



¹ King County Department of Natural Resources and Parks, “Hydraulic Permit Approval Memorandum of Understanding” December 2011. [\[LINK\]](#) Accessed 10/28/21.

² Modified streams are human-made channels that carry a previously existing stream. Artificial ditches are human-made ditches that do not carry a previously existing stream.

1.5.14: Invasive species, pathogens, and diseases

| Current Condition | Desired Condition by 2046 | |
|---|---|------------|
| <p>Climate change and globalization have increased the impact and costs¹ of invasive species², pathogens, and diseases³ for agriculture and the environment.</p> <p>For example, in regard to climate change exacerbating these problems, knotweed “which are not required for control above the mean highwater mark on certain rivers in King County and are otherwise not managed on other rivers.... recent and projected future flooding could certainly spread invasive knotweeds more widely through the overall landscape and impact agriculture, flood control, and fish habitat.”⁴</p> <p>Even without climate change, globalization has added agricultural pressures by increasing the rate of pest and disease migration from ports and other transportation nodes. Recent examples include the spotted wing drosophila that arrived from Asia in the continental US in 2008 and in the Pacific Northwest in 2010;⁵ the Asian Giant Hornet that threatens pollinators, first detected in the U.S. and Washington State in 2019, whose sting can also be fatal to humans;⁶ and nutria, 12–40-pound rodents spreading quickly in western Washington that feed on wetland plants, “burrow in levees... and embankments, causing bank collapse and erosion.”⁷</p> <p>The Washington State Department of Agriculture (WSDA) currently sets up to over 45,000⁸ traps annually to track over 120 pests and diseases in the state, including the gypsy moth, Asian giant hornet, apple maggot and Japanese beetle.⁹ Although WSDA has programs to limit the spread of pests and disease arrival, local climate-informed planning can help further reduce future impacts to the Snoqualmie Valley APD.</p> | Timeline | |
| | <ul style="list-style-type: none"> ○ 2023: Ongoing outreach and education ○ 2027: Develop climate change invasive species strategy for SVAPD agriculture ○ 2028: Establish response network ○ 2029: Establish pest & disease research and education priorities ○ 2030: Continue deploying strategy recommendations ○ 2035: All invasive species, pathogen, and disease prevention actions are in place & are updated on a regular basis | |
| Background | Service Providers | Priority |
| <p>Along with much of Western Washington in nearby latitudes, the Snoqualmie Valley APD is predicted, “to have similar growing conditions to Santa Cruz County, CA....” by 2040.¹⁰ The changing climate will influence crop selection, as well as the pest and disease threats farmers must face.</p> <p>Studies have found that pests and disease on agricultural crops migrate north/south at roughly 1.6 miles annually, very close to the rate of warming caused by climate change (though this rate varies for different groups and species).¹¹ It should be noted that surface temperatures have been rising since the 1880’s, and the rate of warming has doubled since 1981.¹² As such, pests and diseases have already been advancing towards the Washington, and their rate of travel will potentially increase in coming years.</p> <p>While the arrival of more invasive species in the APD is inevitable, some current, potential invasive species and diseases have already been identified, though determining whether they will migrate to the APD requires further study. Initial concerns include the European Chafer (grass and crops)¹³ Fall Armyworm (most vegetable crops, hay¹⁴), the Western Corn Rootworm (corn)¹⁵ as well as African Swine disease.</p> | <p>Leads:</p> <ul style="list-style-type: none"> ○ WA State Dept. of Agriculture ○ WA Invasive Species Council <p>Partners:</p> <ul style="list-style-type: none"> ○ King County WLRD ○ King County Emergency Management ○ University of Washington ○ Washington State University ○ USDA APHIS ○ USDA FSA | Medium/Low |

Strategies

- Increase soil health¹⁶ education, cost-share, and incentive programs in order to combat pest and pathogens.
- Increase SVAPD farmer enrollment with USDA FSA so farmers are eligible for invasive species disaster relief from the federal government.
- Support a population study/inventory of invasive species in SVAPD including pests, pathogens, and diseases).
- Support and participate in development of a direct response network to include the WA State Department of Agriculture, WA Invasive Species Council, USDA APHIS, WA university research and identification testing programs, King County WLRD, King County Emergency Management, and King County farmers to support a climate impacts strategy implementation such as:
 - Monitor pest, pathogens, and disease with expanded network of farmer participation
 - Establish and highlight network of plant pest and disease testing facilities,
 - Mitigate impacts, conduct research to mitigate impacts,
 - Conduct outreach, training, and education on proactive techniques to reduce impacts from pest, disease and pathogens moving into this region, and
 - Liaise with universities, state department of agriculture, WA Invasive Species Council, and USDA APHIS on invasive species, pathogens, and diseases harmful to agriculture.
- Support development of a Western Washington climate change and invasive species (pest, pathogen, and disease) strategy for agriculture. The strategy should utilize climate modelling and anticipated projected crop selection changes due to changing climate conditions¹⁷, newly detected invasive species, as well as integrating existing tools for mitigation such as pheromones, sterile insects, pest-eating insect releases for pests¹⁸ and pursuing phenotyping to predict pest and disease-resistant traits and proactively breed resistance.¹⁹

¹ Nita Bhalla, "Pests on the march as climate change fans spread of crop destroyers," Reuters, June 2, 2021. [\[LINK\]](#). Accessed 8/23/2021.

² Montalvo, "Insects feast on plants, endangering crops and costing billions," CNBC – Science, May 9, 2015. [\[LINK\]](#). Accessed 10/31/2021

³ Carroll, Christine et al., "Crop Disease and Agricultural Productivity," National Bureau of Economic Research (NBER) working paper series, June 2017. [\[LINK\]](#). Page 1. Accessed 10/31/2021.

⁴ Justin Bush, Executive Coordinator, Washington Invasive Species Council, Washington Recreation and Conservation Office, email communication, November 2021.

⁵ Beers, Elizabeth, "Spotted Wind Drosophila," Washington State University (WSU) Tree Fruit site, posted 2010; updated June 2021. [\[LINK\]](#). Accessed 10/31/2021.

⁶ Gamillo, Elizabeth, "The First Living Asian Giant 'Murder' Hornet of 2021 Has Been Found in Washington State," Smithsonian Magazine, August 6, 2021. [\[LINK\]](#). Accessed 11/13/2021.

⁷ Washington Invasive Species Council, "Stop the Invasion: Nutria," June 2016. [\[LINK\]](#). Accessed 1/20/22.

⁸ Lets GrowTogether, "Invasive Insect Detection in Washington State," November 13, 2015. [\[LINK\]](#). Accessed 10/31/2021

⁹ MyEdmonds News, "Department of Agriculture starts invasive pest trapping season," June 7, 2020. [\[LINK\]](#). Accessed 10/31/2021.

¹⁰ Snohomish Conservation District, "Agriculture Resilience Plan for Snohomish County," December 2019. [\[LINK\]](#). Page x. Accessed 9/7/2021.

¹¹ Barford, Eliot, "Crop pests advancing with global warming," Nature, September 1, 2013. [\[LINK\]](#). Accessed 8/23/2021.

¹² Lindsey, Rebecca and Luann Dahlman, "Climate Change: Global Temperature," National Oceanic and Atmospheric Administration (NOAA) News & Features, March 15, 2021. [\[LINK\]](#). Accessed 10/31/2021.

¹³ Washington Invasive Species Council, "European Chafer," October 25, 2019. [\[LINK\]](#). Accessed 12/7/21.

¹⁴ Flanders, Kathy, Donald Ball, Patricia Cobb, "Management of Fall Armyworm in Pastures and Hayfields," Alabama A&M & Auburn Universities Extension, Farming, June 24, 2019. [\[LINK\]](#). 10/20/2021.

¹⁵ de Sousa, Agnieszka, and Michael Hirtzer, "The Six Pests Coming to Eat Your Crops," Bloomberg Green, December 15, 2020, [\[LINK\]](#).]. Accessed 8/23/21

¹⁶ Snohomish Conservation District, "Agriculture Resilience Plan for Snohomish County," December 2019. [\[LINK\]](#). Page x. Accessed 9/7/2021.

¹⁷ USDA, "Climate Change and Agriculture in the United States," February 2013. [\[LINK\]](#). Accessed 8/23/21. Page 49

¹⁸ Weinberger, Hannah, "Climate change forces WA apple cider industry to adjust," Crosscut, October 12, 2021. [\[LINK\]](#). Accessed 10/20/2021.

¹⁹ Doody, Alison, "Pests and diseases and climate change: Is there a connection?" International Maize and Wheat Improvement Center (CIMMYT), News Feature, February 27, 2020. [\[LINK\]](#). Accessed 10/27/2021.

SVAPD Agriculture Land Resource Strategic Plan

Draft Overview

The Plan starts with a vision statement describing the desired future for the Snoqualmie Valley Agriculture Production District Agriculture Land Resource.

The Vision describes the Agriculture Land Resource we are seeking to create in the Snoqualmie Valley Agriculture Production District in the next 25 years.

*1) Long-term **farmland productivity**, with more acres in production, especially food production, and increased opportunities for farmers to develop the necessary infrastructure to support or increase their farm businesses.*

*2) Sufficient acreage of **permanently protected farmland** for a viable farming sector (FFF rec #32).*

Key values and themes incorporated into the plan highlight the lens through which the task force has developed goals and objectives including: responsible stewardship/sustainable farming, equity and social justice, flood and climate change preparedness, innovative thinking, regulatory certainty, resource investments, and alignment with related plans and programs.

The plan has important links to and works to support other critical strategic plans and programs including:

- King County's
 - Farm Fish Flood 1.0
 - Local Food Initiative
 - Equity and Social Justice
 - Clean Water, Healthy Habitat
 - Strategic Climate Action Plan, and
- *Snoqualmie Valley Watershed Improvement District's (SVWID) Wetness Prioritization Plan*
- *SnoValley Tilt*
- *Snoqualmie Valley Preservation Alliance (SVPA)*
- *WSU's Food System Program and CSANR*
- *King County Agriculture Commission*
- *Snohomish Conservation District's Agriculture Resiliency Plan*

- *King Conservation District*
- *WA State Farm Bureau*

The plan provides goals and sub-goals, objectives and measures, issue dashboards, and references.

A. **Goals** articulate the conditions we will create in the Snoqualmie Valley Agriculture Production District Agriculture Land Resource by 2046. [This groups existing chapters into higher level bins featuring the two goals above].

1. **Improved Farmland Productivity**
2. **Increased Farmland Protections**

B. It also allows for **Sub-goals** within the two main goals:

Goal #1: Improved Farmland Productivity

1. All farmable acreage in the SVAPD is routinely improved through **drainage** so that the land can be productively farmed for the full length of the growing season.
2. **Transportation** infrastructure including revetments, roads and bridges is fully functioning to support the movement of agricultural products while managing traffic to increase safety for all and prioritize routine operation of farms every day.
3. Every commercial farm has sufficient access to water for **irrigation** and uses best management practices and technology to minimize water usage. Farms keep existing water rights, continue water transfers through SVWID, and increase access to water transfers.
4. Every commercial farm has sufficient access (close proximity and enough space) to high ground for equipment, storage, and livestock, and every farm home below the base flood elevation is elevated to ensure **flood safety** and continued productivity on the farm.
5. Commercial farms maintain and increase agricultural productivity through adaptively managing changing plant pathogens, crop varieties, animal diseases, precipitation changes affecting water flows and irrigation needs through **climate change** research and education relevant to Western Washington and the Snoqualmie Valley APD.

Goal #2: Increased Farmland Protections

6. Farm homes in the APD (that are safer from floods (cite ~BFE) are saved so that families can live on the property or close to the property they farm while education about known patterns of flooding, climate change predictions, farm preparation and flood monitoring occurs in order to support **flood safety**.
7. The APD is increasingly protected from **Population Growth and Development impacts**, through increased enforcement of unpermitted zoning uses that negatively affect productive farmland and traffic studies to limit interference with commercial farm activities. In addition, run-off from any new development is strenuously reviewed to prevent any negative impacts to the productive farmland in the floodplain or flood safety.
8. Protections for commercial farmland and crops in the APD allows for adaptive management of **wildlife** impacts using a variety of tools including policy, partnerships with Tribes and hunters,

new research and educational resources for BMPs, on-call service providers, cost-share programs, and enrollment in crop insurance to recover from wildlife damage.

9. All farm properties in the APD are protected through King County **Farmland Preservation** Program easements to ensure farmability in perpetuity, testing new tools such as required farming of FPP properties to additionally limit land value escalation over time in order to improve the barrier to purchasing access to productive farmland.

10. SVAPD farmland is protected at the minimum of a **proposed xx farmable acres for a long-term, viable agriculture sector**. Any acres removed from production from other uses such as development, road expansions, other infrastructure, and salmon habitat needs are replaced acre for acre with equally farmable and quality ground. To that end, the APD is expanded to the south as an agricultural acreage reserve for any impacts, intended or unintended, in perpetuity.

C. **Objectives** measure progress toward each goal. [This is the chapter level dashboard that will be key to tracking progress over time]. SEE BELOW.

| Goal 1: Improved Farmland Productivity Objectives | | | |
|--|--|---|---|
| | Sub-goals (desired condition) [chapter level] | | Objective (how it will be measured) |
| 1 | Drainage | All farmable acreage (9,095 acres) in the SVAPD is routinely improved improved through drainage so that the land can be productively farmed for the full length of the growing season. | Acreage put back into production after drainage maintenance: <ul style="list-style-type: none"> • ADAP eligible waterways • Multi-benefit waterways • Culverts • Flood Control Gates and Pumps • Tiles |
| 2 | Transportation | Transportation infrastructure including revetments, roads and bridges is fully functioning to support the movement of agricultural products while managing traffic to increase safety for all and prioritize routine operation of farms every day. | No net loss of operational and load bearing capacity of bridges in APD and adjacent transportation corridors: <ul style="list-style-type: none"> • DLS Roads Report on bridges and roads • DNRP Rivers report on revetments to protect APD roads and bridges • Increase of APD signage and tractor safety signage |
| 3 | Irrigation | Every commercial farm has sufficient access to water for irrigation and uses best management practices and technology to minimize water usage. Farms keep existing water rights, continue water transfers through SVWID, and | Measure combination of water access, education and technology adopted for water saving: <ul style="list-style-type: none"> • SVWID's water bank meets 100% of farmer demand • Increased water usage technology education and participation by valley farmers • Increased irrigation technology adoption on farms through cost- |

| | | | |
|---|----------------|---|--|
| | | increase access to water transfers. | share programs (NRCS, KCD, SVWID, KC) including fish screens by technology adopted |
| 4 | Flood Safety | Every commercial farm has sufficient access (close proximity and enough space) to high ground for equipment, storage, and livestock, and every farm home below the base flood elevation is elevated to ensure flood safety and continued productivity on the farm. | Measure combination of increased high ground access and home elevations: <ul style="list-style-type: none"> • Increased high ground access including farm pads for commercial farm storage to areas currently without sufficient access • Increased home elevations through <ul style="list-style-type: none"> ○ Outreach ○ Contractor list ○ Public/Private partnership ○ Outside funding sources for participants |
| 5 | Climate Change | Commercial farms maintain and increase agricultural productivity through adaptively managing changing plant pathogens, crop varieties, animal diseases, precipitation changes affecting water flows and irrigation needs through climate change research and education relevant to Western Washington and the Snoqualmie Valley APD. | Measure research, education and practices adopted for climate change impacts on farm productivity: <ul style="list-style-type: none"> • Increased climate change research specific to SVAPD/Western WA • Increased climate change education and participation by valley farmers • Increased climate change strategies and practices implemented on farms |
| Goal 2: Increased Farmland Protections | | | |
| 6 | Flood Safety | Farm homes in the APD (that are safer from floods; cite BFE) are saved so that families can live on the property or close to the property they farm while education about known patterns of flooding, climate change predictions, farm preparation for flood events and flood monitoring occurs to support flood safety . | Measure combination of home reviews by DNRP WLRD, increased education, monitoring technology, and flood preparation practices adopted: <ul style="list-style-type: none"> • # of home reviews by DNRP WLRD in the SVAPD • Increased flood preparation and recovery education • Increased (SVPA, KC, USGS) monitoring technology • Increased flood preparation practices adopted such as USDA FSA enrollment, Farm Conservation Management Plan with flood components |

| | | | |
|---|--------------------------------|---|--|
| 7 | Population Growth, Development | The Agricultural Production District is increasingly protected from Population Growth and Development impacts , through increased enforcement of unpermitted zoning uses that negatively affect productive farmland, traffic studies to limit interference with commercial farm activities, and stormwater run-off from any new development should be strenuously reviewed to prevent any negative impacts to the productive farmland. | Measures show how increased protection is in place as the population grows. Items to include in this measurement are: <ul style="list-style-type: none"> • US Census • DLS Permitting Division Enforcement cases reported • DLS Permitting Enforcement cases resolved • DLS Roads and WSDOT Traffic Studies • DLS Permitting Building Permits/Stormwater compliance |
| 8 | Wildlife | Protections for commercial farmland and crops in the APD allow for adaptive management of wildlife impacts using a variety of tools including policy, partnerships with Tribes and hunters, new research and educational resources for BMPs, on-call service providers, cost-share programs, and enrollment in crop insurance to recover from wildlife damage. | Measure research, education and practices adopted for adaptive management of wildlife impacts on farm productivity: <ul style="list-style-type: none"> • Increased (beaver), elk, and waterfowl research specific to SVAPD (similar to the DNRP Beaver Working Group [2018]) • Increased wildlife management education (WSU, WID, WDFW, DNRP, Tribes) • SVWID's beaver services utilization over time, including cost-share(?) • Increased crop insurance enrollment such as USDA RMA and FSA programs |
| 9 | Farmland Preservation | All farm properties in the APD are protected through King County Farmland Preservation Program easements to ensure farmability in perpetuity, testing new tools such as required farming of FPP properties to additionally limit land value escalation over time in order to improve the barrier to purchasing access to productive farmland. | Measure easements, education and new tools adopted for farmland preservation: <ul style="list-style-type: none"> • Increased # of FPP easements • Expanded education and outreach about KC FPP program easements • Impacts of additional tools that limit farmland value escalation |

| | | | |
|----|---|---|--|
| 10 | Proposed acreage needs for long-term, viable sector | SVAPD farmland is protected at the minimum of a proposed xx farmable acres for a long-term, viable agriculture sector . Any acres removed from production from other uses such as development, road expansions, other infrastructure, and salmon habitat needs are replaced acre for acre with equally farmable and quality ground. To that end, the APD is expanded to the south as an agricultural acreage reserve for any impacts, intended or unintended, in perpetuity. | Using current acreage maps designed for this process, measure impacts to the overall acreage: <ul style="list-style-type: none"> • on a project by project basis, • with further review and recommendations every five years to ensure farmland acres are protected • progress on expanding and preserving expanded APD acreage |
|----|---|---|--|

D. **Supplemental Materials** include **22** farmland resource **issue dashboards** arranged under the two main goals and each of the 10 sub-goals. The dashboards contain specific action recommendations that planners and service providers will need to implement the plan. It also includes a table that links the priority strategies to the issue papers. [This is the source material and/or the fine detail that was in issue papers].

Table of Contents

- 1. Improved Farmland Productivity
 - 1.1 Drainage
 - 1. Waterway Maintenance – ADAP eligible
 - 2. Agricultural Drainage Tiles
 - 3. Flap/Flood Control Gates and Pumps
 - 4. Culverts
 - 5. Natural Waterways
 - 6. Beavers
 - 1.2 High Ground and Home Elevations for Flood Safety
 - 7. Farm Pads and High Ground Refuge
 - 8. Homes and home elevations
 - 1.3 Irrigation
 - 9. Water Rights and Irrigation
 - 1.4 Transportation
 - 10. Revetments
 - 11. Transportation Corridors and Bridges
 - 1.5 Climate Change
 - 12. Invasive Species

- 13. Climate change predictions
- 2. Increased Farmland Protections
 - 2.1 Flood Safety, saving homes in the APD (home elevations)
 - 14. Known patterns of flooding
 - 2.2 Population Growth and Development Impacts
 - 15. Population Growth and Development
 - 2.3 Wildlife
 - 16. Elk
 - 17. Waterfowl
 - see issue 1.1.6 Beavers
 - 2.4 Farmland Preservation
 - 18. Farmland Preservation Program
 - 2.5 Proposed xx farmable acres for a long-term, viable agriculture sector
 - 19. FALLOW Areas of high-quality agricultural soils that are not currently farmed
 - 20. Riparian buffers, restoration, and mitigation projects
 - 21. Areas of low or no agriculture potential and thus could be kept out of ag production permanently with little impact to current or future farm operations
 - 22. Proposed acreage needs for sector

E. Strategies for Issue Papersⁱ

a. Drainage Maintenance for ADAP Eligible Waterways

- 1. Increase long-term funding to \$17M for drainage service providers including outreach and education for landowners to assess and maintain remaining 73 miles of waterways and establish recurring maintenance intervals. \$13.5M of the \$17M will be for King County ADAP and \$3.5M for KCD and SVWID. \$2M will be covered by landowners as part of a cost-share program.
- 2. Secure multi-benefit partnerships and long-term funding from King County Stormwater Management (SWM), the King County Flood Control District, special district assessments, and multi-benefit project grants such as Floodplains by Design and the Family Forest Fish Passage Program (FFF2P), etc. to increase capacity for ADAP waterway maintenance in tandem with fish habitat and flood improvement projects.
- 3. Reduce cost to landowners through creating or increasing cost-share programs to further help with farmer/landowner, planting, and fencing costs.
- 4. Conduct maintenance through SVWID's priority basin or emergency needs rather than first come, first serve basis.
- 5. While undergoing maintenance, waterways are assessed and scheduled for follow-up maintenance.
- 6. Expand program's fish and water quality capacity to match increased pace and timeline.
- 7. Alternative mitigation strategies for required plantings are tested, approved, and added to ADAP agreement.

b. Drainage Tiles

1. Secure multi-benefit partnerships and long-term funding to increase SVWID and partner program capacity, allowing for expanded drainage tile repair projects in the APD.
 2. Secure long-term funding to purchase equipment for drainage tile installation.
 3. Explore options for King County water quality cost share funding for water control structures.
 4. Research, test, and implement innovative practices for improving subsurface drainage.
 5. Educate farmers on multi-benefit approaches to managing water flow through water control structures.
- c. **Flap gates, Floodgates and Pumps**
1. Clarify and streamline permitting process for installation, replacement, and repair to ensure regulatory certainty.
 2. Use sub-basin hydrological analysis to identify key points and strategic locations for gate repair and pump installation.
 3. Secure long-term funding for installation, replacement, and repair projects as needed throughout the Snoqualmie APD.
- d. **Culverts**
1. Strengthen collaboration between SVWID, KC programs, KCD, and other partners and secure multi-benefit partnerships and long-term funding to increase capacity and efficiency and reduce costs for culvert replacement.
 - a. Identify or create long-term culvert replacement funding source for improving water quality and hydraulic processes, decoupled from fish passage, riparian buffer width, large woody debris placement, or multiple landowner involvement.
 2. Pursue additional funding mechanisms that allow for multiple culvert projects with a single funding source.
 3. Explore options for pre-approval of standard culverts and bridge designs.
 4. Streamline permitting process to accelerate project timelines.
 5. Prioritize culvert replacement within the ADAP program.
- e. **Drainage Maintenance for ADAP Eligible Waterways**
1. Increase long-term funding to \$17M for drainage service providers including outreach and education for landowners to assess and maintain remaining 73 miles of waterways and establish recurring maintenance intervals. \$13.5M of the \$17M will be for King County ADAP and \$3.5M for KCD and SVWID. \$2M will be covered by landowners as part of a cost-share program.
 2. Secure multi-benefit partnerships and long-term funding from King County Stormwater Management (SWM), the King County Flood Control District, special district assessments, and multi-benefit project grants such as Floodplains by Design and the Family Forest Fish Passage Program (FFF2P), etc. to increase capacity for ADAP waterway maintenance in tandem with fish habitat and flood improvement projects.
 3. Reduce cost to landowners through creating or increasing cost-share programs to further help with farmer/landowner, planting, and fencing costs.

4. Conduct maintenance through SVWID's priority basin or emergency needs rather than first come, first serve basis.
5. While undergoing maintenance, waterways are assessed and scheduled for follow-up maintenance.
6. Expand program's fish and water quality capacity to match increased pace and timeline.
7. Alternative mitigation strategies for required plantings are tested, approved, and added to ADAP agreement.

f. Beavers

1. Manage beaver dams and beaver populations for the goal of farming the land for food production.
 2. Leverage ADAP to provide maximum allowable range of drainage services (year-round) for beaver management, including dredging after beaver dam removal to solve sediment build up in emergencies.
 3. Streamline the King County permitting process within APDs for beaver dam removal so that clearing and grading permit for critical areas is not required and only WDFW HPA is needed.
 4. Streamline the existing King County clearing and grading permit process for critical areas by developing guidance that scales the County clearing and grading permitting requirements for non-ADAP-eligible waterways based on potential critical areas impacts from beaver dam management. (Note: No new permits are required for this process.)
 5. Create guidance on regulations for farmer/landowners showing what can be done to manage beaver dams with and without permits.
 6. Secure long-term funding to increase long-term beaver-related technical assistance, including educational workshops and cost-share options for landowners.
 7. Secure long-term funding to support research and pilot projects that explore alternatives to trapping and removal, such as increasing depth and width of ag waterways, pond levelers, water notch exclusion fencing, crop and planting modifications, new ideas and technology, and population studies over time.
 8. For buffer plantings, limit willows and tree species that beavers love to eat in favor of conifers and other species they don't like to eat.
 9. Ensure King County regulations continue to match the State regulations for fur-bearing trapping seasons and rules.
-



King County

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SNOQUALMIE VALLEY FISH, FARM, FLOOD PROJECT MANAGER ANNUAL REPORT

February 4, 2022

TO: Christie True, Department Director, DNRP
Josh Baldi, Division Director, WLRD, DNRP
Megan Smith, Assistant Division Director, WLRD, DNRP

VIA: Joan Lee, Rural and Regional Services Section Manager, RRSS, WLRD, DNRP **Lee, Joan** Digitally signed by Lee, Joan
Date: 2022.02.04 13:09:57
-08'00'

FM: Beth leDoux, FFF Project Manager, RRSS, WLRD, DNRP **Ledoux, Beth** Digitally signed by Ledoux, Beth
Date: 2022.02.04 12:57:02
-08'00'

RE: Annual Report of Fish, Farm, Flood Work for 2021

Introduction

This is the first annual report of the Snoqualmie Valley Fish, Farm, Flood (FFF) Project Manager. This document will cover work done over 2020 and 2021. Priorities for that period included:

- Progress on funded aspects of FFF 1.0-recommended Collective Action items, including three task forces.
- Forward progress on bundled action items: habitat restoration projects (Fish 1), and a comprehensive drainage maintenance program (Farm 2).

Names of staff members involved are included to provide a sense of the level of integration across the Division, as well as community members and consultant support.

Work of the Implementation Oversight Committee (IOC)

- **IOC continued to stay engaged despite pandemic/on-line meetings**
 - Beth leDoux, Project Manager; Tamie Kellogg (Kellogg Consulting), Facilitator
 - Co-Chairs: Cindy Spiry, Fish; Maria Shimada, Farm¹; Angela Donaldson, Flood
 - Caucus Liaisons: Josh Kubo, Fish; Melissa Borsting, Farm; Joan Lee, Flood

IOC members and interested parties met five times in 2021. Attendance was consistent with an average of 13 of 16 IOC members at each meeting. Prior to each IOC meeting, each of the fish, farm, and flood caucuses met to ensure viewpoints of each caucus were fully represented in IOC discussions.

¹ Bobbi Lindemulder will assume Farm co-chair role as of 1/15/22.

- **Progress on the Collective Actions**

The FFF 1.0 transmittal letter reflected the pursuit of funding for recommended actions that would be needed to make progress on many of them. Despite lack of explicit funding, staff have pursued grants or realigned existing bodies of work to make progress on many of the collective actions listed. Work continues to create internal multi-interest teams across silos (such as the Integrated Drainage Program below). Getting sustained participation from DLS-Permitting staff continues to present a challenge related to substantive progress on key agricultural drainage actions.

- **Reconfirmed Milestones**

To best use existing resources, the IOC, working within their caucuses, reconfirmed and updated their milestones for progress. This work was completed in December 2021 and is being used to inform the 2022 work plan.

- **FFF Quarterly Newsletter**

FFF launched a quarterly newsletter to highlight partner work and key news pieces of interest to the larger FFF community; it was reported to be favorably received by the larger community of interested parties. (<https://content.govdelivery.com/accounts/WAKING/bulletins/2c4139d>)

- **Transmittal Letters to the Executive**

Two recommendation letters were transmitted to the Executive in 2020. One letter supported the findings and recommendations of the Buffer Task Force and the second supported the multi-benefit aspect of the Fall City Floodplain Restoration Project. In 2021, one recommendation letter was sent to Executive Constantine asking for support and resource commitment for the implementation of Regulatory Task Force recommendations. In fall of 2021, a second transmittal letter was being prepared requesting participation of the King County Flood Control District at the IOC table. The IOC also voted to support the ultimately successful pursuit of a grant to undertake 2D hydraulic modeling of the Snoqualmie Valley.

Internal Work (Efforts within the County in response to FFF recommendations)

- **Maintaining Internal Alignment** (*Lead: Beth leDoux*)

Regular meetings were held with Liaisons, task force leads, FFF Management Sponsor, and Unit leads with key product delivery and with Division Leadership to ensure flow of information, no surprises, and clear direction from Management to staff.

- **Changed protocols in WLRD RRS Open Space Acquisition Unit due to discussion at FFF**

- Internal checks with each section/Division (RFMS, AFI, RRSS, SWS, and Parks) when a purchase of land occurs in agriculture production districts and elaboration concerning considerations related to agriculture, or when an agricultural acquisition may affect property restoration potential.
- Detailed documentation of how agriculture lands are considered during the development of salmon recovery capital projects.
- Recommendation “Farm 5” called for earlier and more robust outreach measures with landowners and agricultural interest groups around large-scale salmon recovery projects. In 2020, in response - with particular focus on the Snoqualmie at Fall City Reach project - there were five landowner meetings, one open house, and one public meeting. The open house and public meeting included mailing 1,746 postcards to residents within a few miles of the project site. In 2021 there were seven landowner meetings to discuss the two-year rise event and project design update. Prior work included a third-party review of hydrologic modeling.

- **Farmland Preservation Program impact on ability to plant maximum Buffer Task Force recommended variable-width buffers**
Internal document prepared by the Deputy Prosecutor's Office to provide analysis of how FPP may prevent achievement of recommended buffer widths from the Buffer Task Force.
- **Agriculture Procedures Committee (APC) and consideration of agricultural land during feasibility and design of salmon recovery projects in the Snoqualmie APD**
An internal WLR staff team looked at how the APC is meeting the needs of the farming community and recommended to WLR Management earlier consideration of agricultural land in the project review process to support farming in the Snoqualmie Valley while achieving restoration goals.
- **Farm Practices Illustrated** (*lead: Eric Beach*)
Completed three chapters of Farm Practices Illustrated, a document that compiles information about permitting and regulations relevant to farmers and agricultural landowners, that were most important to the FFF IOC committee: Farmworker Housing, Agriculture Buildings, and Agriculture Drainage (<https://www.farmkingcounty.org/permitting-regulations.html>).
- **FFF website**
Continued to update website with relevant information on IOC meetings, key deliverables, and documents (<https://kingcounty.gov/services/environment/watersheds/snoqualmie-skykomish/fish-farms-flooding.aspx>).

Task Forces

- **Buffer Task Force** (*lead: Beth leDoux*)
In 2019, this task force finished Phase 1, which set the leading-edge recommendations for variable buffer widths. Funding is available, but exploration is underway for how to staff Phase 2 (Buffer Implementation Task Force) to explore buffer minimums, incentives for landowners to plant, and goals for getting the buffers in the ground. Phase 2 is a high priority to the Fish Caucus and the Tulalip Tribes in particular. State riparian buffer width recommendations will also need to be considered.
- **Regulatory Task Force** (*lead: Eric Beach*)
Working with a nine-member representation of fish, farm, and flood interests, the Regulatory Task Force prioritized issues that would improve drainage, research mitigation requirements for agricultural drainage and farm infrastructure development, and determine regulatory changes to make farms safer during floods. This work was done and led to: a signed letter of concurrence with DLS-Permitting that clarified regulatory interpretations that had been in question within the Farm caucus, Final Issue Papers on topics recommended the DLS-approved clarifications, and, if needed, outlined next steps for further progress on challenging regulatory issues for agriculture.
- **Agricultural Strategic Plan Task Force** (*lead: Patrice Barrentine*)
Significant progress in understanding the level of need for infrastructure and key farm actions (such as ongoing drainage maintenance) to support a thriving local food economy. Intense pandemic response demands on agricultural staff during the 2020 summer and the distribution of federal funds delayed progress on the Agricultural Strategic Plan; current target for review draft of the plan is April 2022.

Progress on key caucus priorities

- **Snoqualmie Valley 2D model** (*lead: Flood Caucus, Beth leDoux*)
Worked with a consultant to explore pros and cons of alternative computer modeling software to answer questions raised by FFF 1.0; the recommendation underscored the benefits of a 2D unsteady state hydraulic model for looking at issues from vulnerable road segments to cumulative results of restoration. Also worked with consultant to explore IOC request to determine the effect of vegetation on model accuracy. Consultant work was used as a basis for submittal and securing of a FEMA Flood Hazard Mitigation Grant to produce a Snoqualmie Valley wide 2D model. Will be integral in understanding flooding on vulnerable road segments, to potentially inform routing of an additional flood-tolerant cross-valley road and potentially support understanding of cumulative effects (impacts and benefits) of capital projects and climate change in the Valley.
- **Sub-regional opportunity fund grant to map alluvial fans County wide** (*Lead: Sevin Bilir*)
This work builds on the alluvial fan mapping done in 2018 in river mainstems. This project will potentially be integrated with a BRIC grant from STSS to map landslide hazards in the County.
- **Integrated Drainage Process** (*Co-leads: Beth leDoux, Lou Beck, Eric Beach*)
The Integrated Drainage Process (IDP) is a way to package and route drainage projects into appropriate work programs. The IDP has the foundational goal of providing agricultural drainage solutions while supporting multi-benefit outcomes. This approach emerged as a recommendation of the Farm Caucus in FFF to tackle drainage work that could not be addressed by ADAP. The IDP will draw on the proficiency of WLRD staff to successfully design and implement creative drainage projects that address the practical financial and regulatory hurdles and contribute to salmon recovery and habitat restoration efforts.
 - This process is achieving work across sections, Divisions, and Departments– trailblazing methods to encourage cross section, division, and department alignment through working on agricultural drainage issues that require more holistic approaches.
 - Two key pilot projects – Griffin Creek and Cherry Creek are moving forward to understand how to actualize a multi-benefit drainage project. This requires cooperation across WLRD Sections, and partnership with the SVWID and documenting regulatory lessons learned to better understand how to provide drainage services in the APD more reliably with longer results and positive impacts to habitat.
- **Fall City Floodplain Restoration Project fully funded through design and construction, on track for 2024 construction** (*Fauna Nopp, Project Manager; Andrea Mojzak, Project Sponsor*)
The WLRD/RRSS project team developed a funding strategy that resulted in this project being awarded top ranking in both the PSAR and Floodplains by Design (FbD) grant programs. In the case of FbD, the funding package also included \$250K for drainage work in the FbD grant award, which underscored the compelling partnerships that exist in the Snoqualmie Valley. The Snoqualmie Tribe have been partners from early in the project and have led restoration planting at the site. FFF IOC continues to strongly support the project.

Key Challenges

- Determining and securing the body of work and position for the Project Manager.
- Sustaining the energy and enthusiasm of the IOC members who are volunteers.

- Sustaining trust - critical to FFF 1.0 success and best done in person - until we can gather again. There is an undercurrent of concern from the agricultural community about “commensurate progress’ on comprehensive drainage programs opposite progress on the Fall City Floodplain Restoration Project. Continued progress on Farm Caucus priorities is expected to help relieve this undercurrent, including completion of the Agricultural Strategic Plan for the Snoqualmie APD.
- Attaining alignment and confirmation on how to reimagine existing resources to allow for meaningful progress on key priorities and action items where explicit funding is lacking.
- Continuing to break down work silos within WLRD to create multi-benefit project teams with varying expertise and knowledge while respecting individuals’ work plans.
- DLS-Permitting delays and inability to participate in a meaningful way in the conversation.
- Need for comprehensive funding strategy including sustaining facilitation support (budget in current contract is anticipated to be expended in mid-February 2022).

Next Steps

- Create strategy for sustained progress during my three-month SDA, and long-term staffing plan.
- Integrate emerging IOC concepts for a watershed resiliency plan with other high visibility plans already moving forward (Comprehensive Plan, Flood Plan).
- Develop a funding strategy to accelerate progress on as much of the work as possible and provide options for the biennial budget process.
- Identify Project Manager to begin Buffer Implementation Task Force, a key desire of the participating tribes.
- Continue to communicate progress on key caucus priorities and the Collective Action items to promote consistent messaging at IOC, in caucuses, and in the community.
- Gain staff commitments from internal partners at Unit, Section, Division and across Departments (DNRP, DLS) for ongoing FFF support in the next biennium.
- Work with task force leads and IOC to develop a process to balance the recommendations of the Buffers Task Force and Agricultural Strategic Plan Task Force and achieve consensus on APD acreage needed for farming and habitat restoration.

Early Draft FFF – KC Comp Plan Update

1. **FFF Possible Approaches:** To date, the work of FFF includes the 42 recommendations, Task Force products, principles and practices adopted in WLR.
 - a. **R650A** is the policy that states the outcome of the FFF watershed planning effort shall be included in this Comprehensive Plan update.
 - i. **Assume the work to date constitutes “the watershed plan.”** This does not assume full implementation of the 42 recommendations. Implementation is a work in progress. Comp Plan input could also include:
 1. WLRD Comp Plan lead, Michael Murphy’s has prepared an initial draft of a “topic statement” as a placeholder for FFF IOC consideration:
 - a. *“Update policies and code to reflect current analysis steps, community and stakeholder engagement strategies, agency review processes, and watershed-scale planning efforts for projects and programs operating in geographies relevant to continued support for farms and farmers, fish habitat restoration, and floodplain management. These updates are responsive to, and build upon policy direction in the last two adopted KC comprehensive plans.”*
 - b. **R649** is a policy focused on habitat or mitigation reserve projects in ADP’s (capital project level work)
 - i. *Option that this policy could go away with an update to R650A.*
 - ii. *Option to revise R649 to share at a high level what we (FFF) have learned in habitat projects. The intent would be to re-write policy so inform other similar multi interest projects. Types of considerations such as efforts routinely undertaken in WLR Habitat Design, including: 3rd party review, public engagement, unintended impacts review, RPU/RFI land review before purchase, and FFF principles, etc.*
 - c. **R650** is the policy that established the original FFF watershed planning process.
 - i. *This could go away with update to R650A.*
 - d. **Conduct a limited focus effort** that considers “minor tweaks around the edges,” not necessarily a wholesale evaluation and update of all potential aspects of the Comp Plan/FFF nexus. Could include selected topics related to:
 - i. Floodplain management (road vulnerability)
 - ii. Agriculture (i.e. Ag Strat plan)
 - iii. Fish/Habitat
 - iv. Integrated Drainage and drainage pilot projects possibility of future policy or code changes
2. **Questions for IOC:**
 - a. Any thoughts or reactions to the above approaches?
 - b. Flood Caucus continues to support the concept of a Resilient Watershed plan – how best to integrate with other efforts including this Comp Plan Update, Flood Management Plan, etc.?
 - c. How do we help ensure the recommendations are durable and the trust that the new policies will live on? What would it take?
 - d. Level of resources to support the current comp plan update? Concept of an FFF sub-committee?
 - e. How might different futures for FFF inform the Comp Plan?

2/24/22

| R649, R650 and R650A Comp Plan Reference/Text | Related FFF Efforts |
|---|---|
| <p>R649 "...Until the county implements the watershed planning process described in R-650, such projects [aquatic habitat, floodplain restoration, or mitigation reserves program] are allowed only when..."</p> | <p>June 12, 2017 letter to The Honorable Dow Constantine and The Honorable Joe McDermott, paragraph 1: "This letter contains the recommendations of the [FFF]...and constitutes the watershed planning process contemplated in R-650a..."</p> |
| <p>R-650 "Aquatic habitat restoration projects, floodplain restoration projects and...mitigation reserve projects in an [APD] shall be evaluated through a collaborative watershed process with the goal of <u>maintaining agricultural viability, improving ecological function and habitat quality, and restoration floodplains through integrated, watershed-wide strategies.</u></p> | <p>FFF 1.0 provided a 3+ year process focused on the Snoqualmie River Valley below the Falls and included establishing a common base of understanding across F's and a goal of "lifting all boats." The resulting recommendations: "represent: 1) flood risk reduction for valley landowners, 2) accelerating habitat restoration progress in key areas, 3) accelerating comprehensive agricultural drainage progress, 4) preserving the agricultural land base, and 5) integrated multi-objective solutions. These recommendations comprise a diverse list that addresses high priority actions for salmon recovery, supporting farming and preserving farmland, and flood risk reduction." June 12, 2017 letter P.2 par1</p> |
| <p>R-650 (cont.): "A watershed planning process shall be established for an [APD] because of the number of potential restoration projects and shall:</p> <p>a. Ensure that agricultural viability in the [APD] is not reduced as the result of actions taken and that agriculture remains the predominant use in the [APD]</p> | <p>An attempt was made to define viability based on growing season and floodplain elevations during FFF 1.0 although no resolution was reached.</p> <p>However, the SAFC project is an example of FFF principles being applied through community engagement and grants (for example, inclusion of ag drainage components in Snoqualmie at Fall City Habitat Restoration Project FbD grant; and incorporation of ag recommended protocols into project design). Areas of flood elevation reduction have been demonstrated for 300 acres in proximity to the project. Some loss of ag land is associated with the Barfuse side of the project.</p> <p>The next up restoration project, Frew, is outside the APD</p> <p>Buffer implementation has the potential to remove the most acres from agricultural use. The Buffer Task Force was recommended and implemented as a result.</p> |
| <p>"b. evaluate and recommend actions at all scales across the affected watershed to maintain and improve agricultural viability, restore ecological functions and aquatic habitat and restore floodplains, including voluntary actions taken by landowners; "</p> | <p>Represented in the FFF 1.0 June 12, 2017 letter noted prior.</p> |
| <p>"c. be a collaborative effort among affected land owners, interested stakeholders, and King County and shall be updated on a periodic basis; and"</p> | <p>Represented in the FFF 1.0 June 12, 2017 letter noted prior with periodic revisiting and updating of priorities by the current IOC. R-650a calls for a policy recommendation regarding FFF in the 2024 Comp Plan update.</p> |

| R649, R650 and R650A Comp Plan Reference/Text | Related FFF Efforts |
|---|--|
| <p>“d. identify and recommend actions that King County should take or ensure are taken to maintain and improve agricultural viability in the [APD]and address any impacts to agriculture from aquatic habitat restoration projects, floodplain restoration projects and projects under King County’s mitigation reserves program constructed in the [APD].”</p> | <p>Represented in the FFF 1.0 June 12, 2017 letter noted prior. Regulatory Task Force provided clarifications subsequently agreed to by County permitting on priority ag regulatory topics. FFF 1.0 Ag recommended protocols are being implemented (third party review of project modeling, increase localized outreach, post-construction unintended impacts response, internal Fish/Farm reviews prior to land acquisitions, and inclusion of ag considerations throughout project development.)</p> |
| <p>R-650a “The Snoqualmie Valley [APD] is the first [APD] to undergo a watershed planning effort called for in R-650. King County <u>shall implement</u> the recommendations for the FFF Committee.</p> | <p>The “list of 42” comprised the referenced “recommendations.” The FFF 1.0 June 12, 2017 letter did state the following on p6.par 1 “ <i>It should also be noted that most of the items [in the list of 42] are unfunded, and that while bundling is focused on the top tier commitments, the Committee’s intent was that there be a mutual commitment to pursue funding and resources to accomplish as many of the priorities [from the list of 42] as possible in the next 3 years. We feel strongly that King County and all of the signatories to this letter should be committed to finding the necessary resources to that end.</i>” Then Project Manager Beth leDoux’s Annual Report to DNRD Director True captures the investments underway and funding gained to make progress on accomplishing FFF recommendations.</p> |
| <p>R-650a “The recommendations of the task forces and other actions identified in the final Advisory Committee Report and Recommendations will form the basis for a watershed planning approach to balance fish, farm and flood interests across the Snoqualmie valley [APD] and an agreement on <u>protecting a defined number of acres of agricultural land.</u>” “The Advisory committee, or a successor committee, will monitor progress of the task forces and will reconvene to evaluate the watershed planning approach to balancing interests prior to the next Comprehensive Plan update”</p> | <p>In the first sentence of the R-650A policy, it appears the watershed plan contemplated in R-649 has been completed as also asserted in the FFF 1.0 June 12, 2017 letter.</p> <p>However, establishing the number of acres to be preserved was an important recommendation in arriving at the conclusion of FFF 1.0 and was deferred to the next iteration of FFF. Committee Action Recommendation “Farm 4” provides the overarching intent to: “Permanently protect a certain amount of land for farm use as well as ecological restoration” anticipating that recommendation of the number of acres would be tackled following completion of the recommended Task Forces and the Agricultural Strategic Plan.</p> |
| <p>R-650a “The Advisory committee, or a successor committee, will monitor progress of the task forces and will reconvene to evaluate the watershed planning approach to balancing interests prior to the next Comprehensive Plan update”</p> | <p>Phase 1 of the Buffer Task Force has been completed with a follow-on Buffer Implementation Task Force to be initiated in the near future. The Regulatory Task Force Work has been completed and a follow-on effort – the Integrated Drainage Program is underway and piloting several projects. The Agricultural Strategic Plan is in process. It is conceivable that enough of the puzzle pieces may be in place to begin this conversation this year or next.</p> |
| <p>R-650a A policy reflecting the outcome of this effort shall be included in the next eight-year update [2024].”</p> | <p>The IOC will have the opportunity to recommend a policy for consideration in the 2024 Comp Plan Update.</p> |

