

Snoqualmie Fish, Farm, Flood Advisory Committee
Snoqualmie Valley Senior Center, Great Room
December 10, 2013 at 4:30 p.m.
Meeting Notes

Facilitator: Tamie Kellogg

Committee Members Present: Rick Bautista, Lawrence Carlson, Siri Erickson-Brown, Bryan Holloway, Jarvis Keller, Bobbi Lindemulder, Josh Monaghan, Scott Powell, David Radabaugh, Cindy Spiry, Lara Thomas, Heather Trim, Micah Wait, Daryl Williams

King County WLRD Staff Present: Claire Dyckman, Kollin Higgins, Janne Kaje, Sally King, Rick Reinlasoder, Joan Lee, John Taylor

Other Attendees: Matt Baerwalde, Josh Kubo, Alan Painter, Ward Roney, Nancy Hutto, Ross Marzolf

Key points of agreement:

- No objections to proposed meeting schedule
- No objections to committee guidelines

Outstanding action items:

- Kollin will get back to Josh Monaghan re: slide clarification

Part 1: Welcome, Introductions and Follow-up (Janne Kaje)

Confirmation of proposed meeting schedule – 2nd and 4th Wednesdays, alternating between 3-6 (Preston) and 4:30-7:30 (Sno-Valley Senior Center), no objections. Final meeting locations to be confirmed based on facility availability.

Part 2: Committee Purpose, Boundaries, Timeline, Logistics

Overview of handouts and discussion of questions on R650.

How is “agricultural viability” measured?

This may vary depending upon the scenario. The partners on this committee may help develop some approaches to getting at that issue.

Is viability being used as economic viability or in a biological sense (conditions for a viable population)? Depending upon use, different priorities for Ag.

R650 is pretty broad. Is this group going to define the detail?

Directive applies to “across watersheds.” We’re test-driving in the Snoqualmie, though the outcome of this committee may spillover in other places. It is unrealistic to think this

committee will solve everything for the County, but the hope is you will help develop some principles. Consider: Are there things that would really make a difference in the near-term? Is there longer-term thinking about what we want the County to do? Strive for balance between these two. Hopefully some brainstorming will lead to answers on this issue.

Are there limits to what we can/can't do or recommend?

No, there are no sharp lines on what the committee can address. This committee's job is not necessarily to figure out exactly what it would take to implement a recommendation, such as identifying an appropriate funding source. That will be the county's job. But, it would be helpful for the committee to identify some "next steps." Some issues might be identified as unrealistic, and, therefore, unable to give meaningful input. Staff may try to keep the committee on a realistic track and away from paths that will certainly not yield progress.

Text refers to "County obligations", "Commitments" and "Compliance", at what point will we talk about the existing structures?

You'll hear about some of that today, including policy drivers.

Also regarding parameters, since Snoqualmie is a bit of test case, when it comes to big pictures questions about ag where do we involve other people in our region who are invested in these issues or responsible for some of the conditions?

Important to understand other actors/agencies, note those and, in some cases, bring people in for a conversation (e.g., a regulatory issue ripe for solution). We must be mindful of the time the committee has, but be diligent about documenting issues raised.

Presume that R-650 was drafted before steelhead were listed under ESA, correct?

No – R650 was drafted last fall. It is the responsibility of those who know of the listing to be aware of the inclusion of steelhead. Not drafted by technical people, but by policy writers.

When was the steelhead included in the listing?

2007 – but there is not yet a plan developed specifically for steelhead.

Discussion: Any questions, comments and/or reactions to committee timeline and milestones?

Refers to question brought up last time – should we have additional public engagement around these topics?

It would be really helpful to hold multiple public meetings (north end/south end) to get input, so everyone feels vetted. The public feels more reassured when they have the opportunity to participate or provide comment.

A March meeting was proposed, but that can be moved. When would you have it and to what end?

Engage people when we're half-baked so we can obtain feedback and provide education on course (e.g., are we focusing in the right areas?).

Just to note, half-baked mark may be fairly late in this process, due to the short timeframe.

The committee's recommendations will still have the benefit of public process. How much do the committee members want feedback? Reminder: north end/south end has sounding board groups for the ag community. We could establish these for other groups too. Key is to find a balance within aggressive timeline.

Will these recommendations be going to the Executive to further flesh out? Sent to the Council for response? This will dictate what should happen. Items going to Council should go through public process, 4 months isn't enough time.

Intent is committee's products and recommendations will be available for anyone to see (including Council). Ideas will be set forth without a clear path, so some will require work done by the Executive Branch before they're ready for Council action. This will be a transparent process, they'll see the recommendations, but won't be expected to take action.

Would like to include the Snohomish Forum, because they have a broader representation than Snoqualmie.

They are definitely included in this. The Snoqualmie Forum was called out because of its particular relation to this basin.

Discussion: Questions, comments and/or concerns regarding Committee operating guidelines?

No objections

Part 3: Fish 101 (Kollin Higgins)

Purpose is to provide background, foundation to help you understand needs and drivers of fish habitat restoration; questions are welcome during the presentation to the extent we have time for them.

Q: As long as oxbows reconnect, are they are a valuable salmon-spawning habitat?

Most of the floodplain habitats are primarily rearing habitat, not spawning.

What % of fish that get stuck in oxbow actually live? Drive recovery forward?

The plan estimates that 80% of historic off-channel habitat has been disconnected (no in/out for much of the year); some of that is natural, not artificial. Historically, the amount of artificially disconnected habitat has likely been over-stated. We currently do not think that improved oxbow habitats will provide much in the way of promoting Chinook recovery.

To try to get a picture, you said “fish in the floodplain”, are these just in oxbows or all over?

All over.

What length of time do flooded areas usually stay in this condition?

It depends on where you are in the floodplain, but generally not as long as the fish would like.

It can take anywhere from a couple days to a few weeks for a field to drain.

What percent of rearing habitat is in this oxbow condition? What’s the breakdown of the various habitats?

We don’t have a ready break down of the off-channel habitats into oxbows, side-channels, back water channels. Also, the amount of available habitat depends upon the time of year.

As a fish biologist, where’s the best habitat when there isn’t flooding?

Subyearling Chinook generally focus in mainstem river habitats (Jan-June), though we’ve found yearling Chinook in smaller streams even in September (e.g., Cherry Creek, Tributaries to Ames Creek and other small channels, etc.). Because we don’t know a lot about the yearling life history type, salmon recovery efforts usually focus on the Jan-June fish. Most oxbow have a lot of non-native predators (e.g., bass), so juvenile salmon don’t seem to last very long there.

Historically, where did the perch and bass come from?

East coast, brought over by bucket biologists, or sports fishermen. Multiple “pan fish” have been introduced. Bass can live in the oxbows, but don’t do well in the mainstem of the Snoqualmie. He doesn’t recommend putting a lot of effort into the oxbows because of the volume of predators.

Discussion: Would the committee members with fish specialties like to highlight a takeaway for the group?

Regarding oxbows, it seems like they aren't that important for Chinook, because they're loaded with non-native species. Focusing on habitat restoration of oxbow probably wouldn't be great for Chinook.

If close to a river, creating a backwater would be good.

Even though they don't have fish rearing in them, doesn't mean they aren't ecologically important.

The longer the fish rear in freshwater, the better chance they have in the marine environment when they get to the ocean (Puget Sound). Skagit system research finds the fry migrants have a very low chance of survival when they get back, therefore, the longer you can facilitate their residence in the floodplain environment, the better chance they have.

Differences in systems is interesting. You need to look at the character and shape of basin to determine how to best help.

Does habitat availability drive fry to stay in the river longer?

To some extent yes. However, studies in various basins have shown a proportion of fry leave early irrespective of habitat condition. We don't know why. It is possible that 1 out of 10 years or so they do really well.

Not a fish expert, but habitat knowledge; it is important to remember that gravel is super important for spawning habitat and is sometimes missed.

Similar to Scott's comment, geology of Skykomish makes for good Chinook habitat in side channels and oxbow, which is very different from Snoqualmie.

Kollin referred to the fact that we want them to get big, one factor is food, but another is how much energy they have to expend to stay in the river. If they have to work hard to stay in the river channel they burn up energy versus getting bigger.

Re: Clean Water Act, tribes have authority to implement within their boundaries

Monaghan: Seeking clarification on what aspect of productivity this slide depicts: Total Abundance of Snohomish Chinook

Higgins: Would hope the productivity (returning adults) data points match the number of spawners below it. Even it doesn't, because the number of spawners are roughly the same for most of the graph, it still shows a clear decline in productivity.

Doesn't know for certain because the graph was borrowed from a larger report as an example **(Kollin will get back to him)**

On the point about riparian vegetation (slide suggesting habitat in the floodplain is in poor condition), do we have reference points?

Yes, UW researchers have provided this information using the General Land Office maps from the 1850s. It was generally forested, with much of the floodplain as forested wetland.

Issue is temperature of water related to actually being in the floodplain vs. groundwater; high energy systems that go through a lot of flooding can cause a situation where water is actually out in the sun.

Temperature is not a problem that starts entirely in the lower valley. It is actually warm when it flows in. This may be due to some naturally occurring warmer waters in certain parts of the watershed, not just driven by riparian. Temperature issue is not straightforward in the lower valley.

Are you going to talk more about harvest?

Not tonight.

Harvest rates on wild Chinook have been greatly reduced, a benefit of the Tulalip Tribe's good work. For example, in the Skagit, harvest rates are up to 50%, but in the Snohomish they are around 22%.

The salmon plan called for a reduction in harvest of wild Snohomish Chinook to no more than 24%.

Is the work at Tolt MacDonald a good example of the term "restore ecosystem processes"?

Yes, river setback has allowed the Tolt to move into that floodplain without constraint.

Do you have examples of reconnecting off-channel habitat that isn't oxbow?

Yes, such as the Camp Gilead project in Tolt-MacDonald Park as well as the McElhoe Pearson project.

Shouldn't the plans goals for reconnecting off-channel habitat be re-assessed?

Yes, when the 10 years is up (roughly 2015).

Some of these priorities could be more important in Skykomish, not so much the Snoqualmie; learning is going on and adaptation of the plan as we move forward

Is temperature the limiting water quality factor in the Snoqualmie?

Generally, yes. Sometimes other issues such as low oxygen levels; but the more pervasive issue is temperature (July-Sept).

Studies have shown fish may be able to live in warmer water, but it can cause sub-lethal effects (e.g., two heads in developing embryos, etc.).

If in 2015 (during the plan update) we will be looking at the next 10 years, is that already on the books?

Conversations have begun. He predicts there will be some recalibrations to the plan given information gained. However, because we're so behind in restoration (due to lack of funding), we haven't seen a population response by the Chinook to the restoration work yet. Therefore, the 10 year update will likely be fairly minor in terms of major changes in direction, but more like minor course corrections. The process will be run through Snohomish County as lead entity.

How do we know on a year to year basis what the harvest levels are?

Difficult, some areas have resources for prediction or in-season monitoring where sampling is happening in the ocean. Historically, a lot of data came from coded wire tags (placed before salmon go out and when they're caught, those tags are returned to show where they are being caught; then this becomes a modeling exercise), then tribes and other managers can do a pre-season estimate and then a post-season calibration based on info gained in season and calibrate accordingly. It isn't perfect, but it's the best information we have and it has greatly improved over the last 10 years.

Moving toward genetic analysis for this data.

Part 4: Flood Risk Reduction 101 (Sally King)

Discussion: What's missing from the draft outline? What do you hope to learn about?

Summary – additional areas of interest:

- Smaller scale flood storage
- Gravel management study
- Maintenance obligations for levees and revetments
- Regulations limiting new construction on farms
- Future flood predictions in light of climate change

Specific comments:

Has heard some farmers talk about using small dams for collecting water for irrigation. What are some other ways to collect water to control flood?

Area of interest – smaller scale flood storage to slow flows downstream

Which existing levees or revetments are public facilities? What can an owner expect in terms of maintenance? Which get setback? Which get ignored? What about the new facilities that are constructed? What is the commitment there?

Constructing new houses, barns, etc., to make farms more functional – who gets to decide that question? What's allowed under the existing regulations? If it's not allowed, is that one of the things on the table? Can we talk about it? Some farms where additional infrastructure would be very valuable.

Next meetings discussion will address existing laws that affect the inability to build new houses in the APD.

Will the presentation address future expectations for flood in the future as it relates to climate change or accruing development or logging activity? Maybe too broad? She'd like to know that someone is tracking that somewhere – what's flood going to look like in the future? If impacts are going to be even worse in 10-15 years, activities should take this into consideration.

Would like to learn more about gravel management study.

Please contact Sally directly with any additional suggestions.

Part 5: Farm/Agriculture 101 (Claire Dyckman)

Discussion: What's missing from the draft outline? What do you hope to learn about?

Summary – additional areas of interest:

- Farmland conservation easements and TDR program
- Economics of a farm in compliance with regulations and impact on viability
- Frame viability goals for farming (different types)
- Global impacts of reduced local production
- Nutrient management techniques
- Possibility of using lagoons for irrigation

Specific comments:

Issues related to farmland conservation easements and TDRs as it applies to ag.

Rick will cover the different types of Ag next time. They may call on a few committee members to present on the various types.

It would be helpful to see a farm penciled out, even roughly, and then a farm penciled out that maximized its salmon protection. Basically, he'd like to understand the economics of a farm and then economics of a farm that has complied with all regulations, rough threshold where we crossed over into non-viability.

Erickson-Br: Fieldtrip to her farm? Lots of takers!

No two farms are equal, markets are completely different (e.g., veggies vs. cows); one template would lead to inferences that don't apply elsewhere.

Suggests looking at it in general areas (e.g., dairy farms, vegetable farms, etc.); curious to know yield per acre in different categories of farming in the valley.

We need to frame what our viability goal is for farming.

Clarify limitations in the FPP and TDR Program – how these programs affect opportunities to perform restoration or other activities on enrolled properties.

Would like to hear more about nutrient management techniques in the valley.

Would like to consider if we do less here, what are we asking other areas of the world to take on? She thinks we can do farming here with a small ecological footprint (vs. other places with a larger ecological footprint).

Could lagoons be used for irrigation? Also consider decommissioning of lagoons, people don't understand the expense.

Please contact Claire directly with any additional suggestions.