

Lower Milton Creek Restoration Project

Landowner Meeting Notes

November 29, 2018

6:00 – 8:00 pm

Lower Milton Creek (LMC) Restoration Project – Presented by Pat Welle, SBWC

LMC is part of Milton Creek, which is contained within the Scappoose Bay Watershed.

LMC is an arbitrary term, comprised of the lower part of the creek and its tributaries and consists of smaller parcels of privately-owned land. Upper MC is composed primarily of large parcels of industrial houses and forests above Smith Creek.

Milton Creek has many natural resource concerns that contribute to the declining Coho salmon population, including:

- Elevated surface water temperatures
 - In 2015, temperatures were well above 25°C (77°F), which are lethal for salmon.
- Loss of native riparian vegetation
 - Reduces shade cover that contributes to high water temperatures.
- Prevalence of invasive species
 - Contributes to reduce shade cover by outcompeting native species that provide shade.
- Erosion and channel incision
 - Reduces connection with the floodplain and causes water quality concerns.
- In-stream low amounts of large wood, and spawning gravel densities
 - Presence of wood is important for slowing down the water and creating pools, reducing the temperature, and raising the water table to connect with the floodplain.
 - Gravels are important for spawning habitat and loss is caused by lack of channel complexity to capture and sort them.

There is a lot we still don't know about the watershed conditions, and this is where the landowners come in. Resource concerns are identified along "reaches" – or segments of a river than can range from 1000 ft to 1+ miles long and have similar characteristics. There may be multiple landowners who own property along these different reaches.

Scappoose Bay Watershed Council (SBWC) is entirely grant funded, primarily by the Oregon Watershed Enhancement Board (OWEB), and funds for restoration are obtained on a six-month basis. Restoration proposals are submitted to OWEB every 6 months, and grant decisions are determined another 6 months later. When we do a project and put in on the ground (i.e., vegetation planting, adding wood), we are required by our funders to go out and monitor for a period of 3-5 years. If there is a die off or predation, we go in and replace it.

Resource concerns were identified by a Limited Factor Analysis (LFA) in 2012 that was based upon the needs of Coho salmon, however, the LFA is beneficial to many other salmonid and migrating fish populations.

Temperature and water quality data was collected in a program from 2008 through 2010 at 37 sites over the course of two years and were more recently completed at six locations in Scappoose Bay in 2015 and 2016. Current water quality monitoring is conducted on a seasonal basis by the Columbia Soil and Water Conservation District (CSWCD).

Specific characteristics – such as shade assessment – have not been done in detail. Shade assessment is how much stream coverage has been provided by foliage. Shade is extremely important as it is an indicator of riparian health, including root health, species diversity, habitat, etc. Vegetation coverage providing shade over the creek has only been determined using aerial photos. We need to perform field checks to obtain a holistic picture of the coverage, including the vegetation species, in which we need permission from landowners. Riparian restoration was done on a mile-long section of the mainstem just above Dart Creek.

We also need to perform field checks of channel form, that is, whether it has been cut down, incised (when the water cuts into the land, raising the bank and lowering the water level), whether it has side channels to connect to, whether it is narrow or broad, all of these are important in terms of how we apply restoration treatments.

Regarding Current Conditions Map – Fish passage barriers are identified as dots on the map; color indicates if they are full barriers (red), partial barriers – either barriers at high flow or barriers to juvenile, or other considers (yellow), and corrected barriers (blue); 11 barriers have been corrected by SBWC in the Milton Creek watershed.

Due to resource limitations, several factors will be considered in reviewing potential restoration projects. Existing condition, required restoration elements, landowner interest and potential participation, length of area to be restored, and location with respect to other relatively good quality habitat will be important. The 2012 LFA identified multiple **Anchor Habitats** – areas that provide all the necessary habitat features to support the complete life history of the Coho, from spawning to migration. This does not mean they are pristine areas, it just means they are the best potential for enhancement and likely places we can build off from that may have beneficial effects downstream.

Restoration projects will also be considered holistically, that is, we will not correct a problem on one parcel simply to have it move downstream and become a problem for another landowner. We need landowner participation to enhance our understanding of this.

Projects can be performed at multiple scales and are determined by the needs of the area. Some recent examples of previous SBWC restoration projects were shown – on the South Scappoose Creek, restoration actions included excavating back some of the bank to widen the floodplain, plus reconnect with historical side-channels. Another project at the Scappoose Creek confluence involved adding multiple large wood structures along the side of the channel, and planting approximately 5000 plants on 5 acres, which increased the diversity and complexity of the streambank area.

Pat's contact is: pat@scappoosebay-wc.org

Pasture Management – Presented by Nathan Herr, CSWCD

Grass height should always be kept between 3-8 inches as this is the most nutritional stage for livestock. Everything that pasture management starts and stops with is trying to maintain the grass height in this range. Once the seed head start on the grass, you must hay it or get rid of it as it loses its nutritional value.

One of the biggest pasture management problems is that it gets really muddy in the PNW. A prominent issue is the collection of mud around barns, as they collect a lot of rain and drop it right into the dirt where the horses and livestock are walking in to be fed. A lot of people try to put down hog fuel or bark chips to alleviate the problem, but this only prevents it for about a year. Mud will eventually form.

Problem with grazing in the winter time is that the livestock, because of their weight, break up the root structure in the grass from walking on it and causing a reduction in grass growth. Management practices to reduce mud and preserve grass growth include:

- Heavy use pad (HUP) – pick an area you know is going to be your “sacrifice lot.” Dig out the area where you will put down pit run, gravel, and sand and pack them stiff, making a hardened area that will be graded at 3% in which heavy rainwater will bounce off and run into your pasture where the animals are not grazing. If the water is slow and dewy, it will infiltrate through the HUP and filter into the ground.
- Manure Compost Facility (MCF) – in addition to your HUP, you will need a MCF as you cannot leave organic material on your HUP as it will create mud. The idea is you put manure in bay for six months, then transfer it to another bay. You do this a few times over a period of 18 months, and the manure will turn into fertilizer for your field.
- Pasture Rest – maintain the ideal range of grass by mowing when the grass exceeds 8 inches and keep the animals off the land until the grass reaches 3 inches again, in which the animals can be let out and graze.

When the grasses die in the summer, it is in the dormant phase. As soon as the fall/winter rains begin, the grass grows again. Without the rains, the pasture won't grow, and currently, there are very low levels of water in the streams, according to one landowner. It is anticipated to be a drier winter this year and is already 3 inches lower than averages. The last few years there has been a serious drought where the trees and riparian are getting “toasted” – not getting enough rain and too much sun.

You can contact Nathan at Nathan.herr@columbiaswcd.com.

Noxious Weeds – Presented by Crystalyn Bush, CSWCD

Noxious weeds are a special classification of unwanted plants in that they are non-native to our area, such as Himalayan blackberry, Scotch broom, and English Ivy. They do not play nice with other plants – they are very aggressive, competitive, and dominate entire stream banks and fields. They are a major problem for people who are trying to manage land for production or for environmental health.

Some other examples that are causing major issues include:

- Knotweed – extremely difficult to control; we have to rely on herbicides because the roots are so tough.
- Garlic mustard – a priority weed in which we have been granted funding to eradicate. Has not been previously known about in Milton Creek, but one landowner claimed to have it on his property. It can get up to 3 – 3 ½ feet and emits chemicals underground that prevents the rooting of other plant species.
- Spurge laurel – looks like a rhododendron but is different and is a new invader to Columbia county. We're currently trying to understand how prevalent it is and to track its infestations.
- English ivy – big threat to forest habitats, really damaging once it climbs into trees as it completely outshades them so there is no light, no energy, no growth, and eventual tree death, which is dangerous in wind and ice storms.

Technical assistance is free to landowners who want more information about what is happening on their property regarding noxious weeds and how to manage it. If you have any concerns and would like a visit, email Crystalyne at weeds@columbiaswcd.com.

Next Steps:

1. We want to talk individually with you and identify specific concerns you may have.
2. It is much more beneficial from both an ecological and economic perspective if projects can occur adjacent to, or near other projects along the watershed. We are typically more effective if there are multiple landowners participating in a project, or if longer parcel lengths being restored.
3. Our goal with this planning project is to identify projects and project locations to address the concerns, then use funds we have for restoration designs to complete them and submit for funding to complete the restoration activities.
4. We would like to identify projects by early winter, and complete designs to submit proposals by the end of April.
5. Restoration activities that occur in the stream or at the stream bank, must occur in July-August when water levels are low.
6. Riparian planting projects are typically designed all year round, but actual planting usually occurs from November through March when the rain supply is higher.
7. Contact SBWC about concerns you have, and we will get you the most appropriate assistance for your needs.

Landowner Questions:

Q: *On the entire length of Milton Creek, what is ODFW saying about the Coho population?*

A: It varies, there are places where its better and where it's not. Have seen chinook and lamprey, but not much Coho. Landowner has seen some Coho fry on his property. There has been over 350 pieces of LWD put into the stream in upper Canaan Rd to try and restore the Coho population.

Q: *How many trees were taken down to do that? (Regarding the 350 pieces of LWD)*

A: Not any that would've damaged the riparian area, though there were trees that were calculated to take, and much of the wood was imported from areas that would've been logged anyway.

Q: *Do the pieces of property involved in restoration have to be large and contiguous?*

A: No, we can do a lot of work on smaller pieces of property and often results can be seen much quicker and be very beneficial. We provide free technical assistance for all land owners on any size of property.

Q: *Does the geology of the bedrock have anything to do with the restoration projects, because a lot of it is solid rock?*

A: It changes what we can do, but it doesn't mean we can't do anything.

Q: *Prior to the 1996 flood, I used to see huge salmon coming up to spawn. After the flood, the gravel got flushed away and now there is no salmon, what is going on with that?*

A: We're working on creating areas where gravel can be store and sorted, this is part of the restoration work we are trying to accomplish.

Q: *There are lots of beavers that are pulling trees from really far away from the creek and dragging them. What do we do about them?*

A: The beaver make for very interesting neighbors. We put in restoration projects knowing they will come, so we plan our projects to provide wood and food for the beavers to take for forage and dam creation as they provide many solutions to our natural resource concerns and benefits to the watershed. There are ways we can learn to live with them – a good example and great video that talks about this highlights a local landowner, Dave Powers. The video describes ways to live with beaver that benefits and enhances your property; it was produced by Freshwaters Illustrated, and is available here: <https://vimeo.com/96040603>.

More Information:

As more information becomes available, it will be posted on our Lower Milton Creek Project web page at <http://www.scappoosebay-wc.org/project/lmc-restoration/>. You can also contact Pat at 503-397-7904, or email pat@scappoosebay-wc.org.