





## 2023 Completed Activities

1. **May 3, 2023- Cottonwood planting (6 plants) in the McCully fan area.** These cottonwood plants were purchased from Upland Nursery, Terrace BC. The cottonwood plants were between 6 and 10 feet and had established roots. These were planted behind the area which is now the emergency bank structure area. The idea was to add some diversity to the creek banks in this area. These plants will also seed the banks downstream when they mature.



**Figure 1.** Cottonwood plants (6 to 10 ft tall) planted on the river left bank in the fan area.

2. **May 17, 2023-** AGAT Laboratories high water sampling and analysis (with an emphasis on particle size distribution of the Total Suspended Solids during peak flood stage).
3. **June 5, 2023-**Emergency creek diversion in the fan area with fish salvage.



**Figure 2.** Emergency creek diversion to prevent the main stem of the creek from flowing directly into MC1. June 5, 2023.

4. **June 5, 2023- Fish salvage efforts.** The fish salvage operation was also carried out on June 8, 2023, June 23, and July 13. Approximately 500 coho (with 1 steelhead fry and 1 Dolly Varden fry) were salvaged from the McCully MC1 & MC3 reaches, with another 150 (unidentified) from the Kispiox river gravel bar at the bottom of MC2.



**Figure 3.** Fish relocation from MC1 into MC2. The fish were identified and counted.

5. **July 31, 2023- Bank stabilization/channel diversion prevention in the fan area.** In this activity we re-organized some of the components of the emergency bank structure, and as well, we added a whole new structure. The new structure was put in place to prevent the creek from carving out a new channel towards MC1 in the next spring flood. **Figure 4** is an image of the new structure. A similar structure was built immediately above the emergency bank structure (no



photo); it was built at roughly the same angle (perpendicular to anticipated flow direction) as the structure below.



**Figure 4.** Bank structure put in place to prevent flood waters from channelizing towards MC1. The structure was created by roping 5 cottonwoods together and burying them with rock and gravel approximately 3-4 ft down into the streambed.

6. **August 2, 2023- Kispiox school youth field trip.** Amongst other activities the kids took part in the re-vegetation of the MC1 banks with 75 cottonwoods and 20 red osier plants. The idea here was to add some plant diversity to the channel banks, while at the same time, adding bank stabilization. The seedlings were purchased from Woodmere Nursery.



**Figure 5.** The youth took part in cottonwood and red osier planting in the MC1 reach. The principals of plant restoration were discussed and the youth learned about how their actions will affect this reach in a positive manner. The key concept introduced was **stewardship**.

**7. August 3, 2023- Conifer planting on river right banks on Clint Larson's property.**



**Figure 6.** This image illustrates the section of bank which was planted with two rows of spruce seedlings (80 total). The seedlings were planted to prevent bank erosion/land loss.

**8. August-November 2023-Creek walks.** This year we observed pink salmon and coho salmon (and 1 steelhead), and as well, we observed 1 mortality each of Chinook and chum salmon. Towards the end of October, we had 1 large count of coho (94), which were mostly found in the MC2 reach; with about 15 above the new beaver dam at MC7 (above the bridge). In the first week of November, another 30 coho may have moved into the McCully creek as these were lively still



and fighting each other to spawn. In the weeks prior to this observation, the coho activity slowed down since the big count of 94. One point of interest is that we observed a large school of coho which was pooled up ~200 yards below the old MC2 mouth of McCully creek. I say old, because in the two previous years the Kispiox would drain McCully directly at the MC2 mouth. This year the Kispiox jumped to the other side of the gravel bar at the bottom of McCully, and now the McCully needs to travel an additional 200 yards to drain into the Kispiox. The coho held in this pool and they moved up periodically with the surges in high water that came sparsely throughout the fall.



**Figure 7.** This image illustrates coho holding 200 yards below the old MC2 mouth. This is the confluence of the McCully creek and Kispiox river in 2023. Approximately 90-120 of these coho moved into McCully at different times with the fall surges in water levels.

### **Pending Activities**

Some of the activities we had planned for this year we could not get around to. These activities include bank stabilization refurbishing at the large cutbank in the MC7 area, bank stabilization on the cutbank on Clint Larson's property, bank stabilization in the low-tech stream in the upper fan area, and plant reclamation in the lower fan. As we proceed, I would like to note that we should also plan to protect the

vegetation in the upper fan area with strategically placed large woody debris. Below are images which illustrate areas we had planned to carry out these activities.

#### MC7



**Figure 8.** This image was taken at MC7 in 2021, where bank stabilization structures were placed in 2018-2019. The structures have subsided slightly and this site needs to be refurbished as of 2023. The red and green lines represent how the original structure looked when it was first built in 2018-2019. The green lines represent upright logs and the red lines represent horizontal logs.



## Clint Larson's Cutbank/Low-Tech Cutbank Stabilization



**Figure 9.** An aerial image of the fan area. On the left side of the image, you can see the 'Low-tech cutbank' which may benefit from some bank protection structures, and on the right, you can see 'Clint Larson's cutbank', which also needs some bank protection re-furbishing. As a side note, the green lines at the top of the image illustrates where cottonwood and red osier were planted in August. The green circle in the bottom middle area illustrates where 6 large cottonwoods were planted in early May. The green line in the bottom middle illustrates the section of bank which was seeded with spruce seedlings in mid-August.