

NEEF Report for April 2020 to March 2021- NWSCC

This was the seventh year of operation for the Nechako White Sturgeon Conservation Centre (NWSCC). During this reporting period the world experienced unprecedented challenges related to the COVID-19 Pandemic. Through carefully planned core business protection protocols, the Freshwater Fisheries Society of BC (FFSBC) was able to protect its most important functions and deliver the services that are so critical for Nechako White Sturgeon conservation.

The 2020 broodstock collection took place from May 4, 2020 to May 22, 2020. A total of 10



adult males, three adult females, and one unknown sex were captured. One female was held for spawning this year, and two were released. Three brood males were kept for this year's spawn, and seven were released. Important biological data was collected on all captures and that information was added to the Nechako White Sturgeon Recovery Initiative (NWSRI) Database. Radio tags were deployed on all adults that were used for

spawning at NWSCC, and one additional radio tag was deployed on one of the adults that was released during the collection/sampling effort.

Following direction from Provincial Decision Makers (BC-FLNRORD) the two-year-old release strategy (for larger size) was implemented and we released 199 two-year-old juvenile Nechako White Sturgeon into the Nechako Watershed. Fifteen of these juvenile white sturgeon were collected in 2018 as eggs in the Nechako River, and the other 184 were from hatchery crosses in 2018 that maximized genetic diversity. The releases took place on June 18, 2020 and June 19,



2020. Five unique sites were utilized: Nechako River at Fort Fraser (RKM 196.4), Nechako River at Vanderhoof (RKM 136.4), Nechako River at RKM 116.9, Fraser Lake at White Swan Park, and Fraser Lake at Beaumont Park. All juvenile white sturgeon had biological information collected which was saved to the NWSRI Database prior to release. Ten individual juvenile white sturgeon at each release location also received a radio tag that will help researchers follow post-release movements. The COVID-19

Pandemic prevented public in-person participation in the releases, but NWSCC staff were able to get some virtual opportunities for schools and interested parties.

Spawning in 2020 utilized one ripe female collected during the 2020 brood collection program, and three ripe females that had been held from the previous year in our Adult Holding Tank. On May 14, 2020 to May 15, 2020 the first three females were each spawned with two males. Brood capture continued after the first spawn event, and an additional female was captured on May 20, 2020. Another male was also captured on May 22, 2020. The second spawning event took place on June 1, 2020 where the new female was spawned with all three males. This made a total of four maternal families.

From May 19, 2020 to June 12, 2020 NWSCC staff deployed egg mats in the Nechako River directly downstream of the known spawning location in Vanderhoof, BC as part of the spawn monitoring program that is coordinated by the Carrier Sekani Tribal Counsel (CSTC). Eggs collected from this program were added to production numbers at the NWSCC to provide even more genetic diversity.



In 2020 Provincial Decision Makers (BC-FLNRORD) decided to increase hatchery production goals from 200 two-year-old juveniles to 300 two-year-old juveniles. So, hatchery crosses and wild collected as egg groups were combined to create the most genetic diversity with 300 individuals scheduled to be released in June 2022.

In 2020 the NWSCC participated in the juvenile indexing program organized by the NWSRI in cooperation with CSTC and Lheidli T'Enneh First Nation. This was also supported in part by staff from a Rio Tinto Student Work Experience Program. From July 9, 2020 to September 4, 2020 NWSCC staff contributed a total of 42 days effort. The result was 24 individual juvenile Nechako White Sturgeon caught and sampled. Nine were caught in the Nechako River (four recaptures and five released in 2020), and of particular interest 15 were caught in Fraser Lake (three recaptures and ten released in 2020). Of the 24 total juveniles caught 22 were hatchery origin, and two were wild origin.

In the Fall NWSCC staff did some adult white sturgeon sampling for the NWSRI, and tried to catch some brood stock for 2021. These efforts took place September 16, 2020 to September 18, 2020. Eleven adult white sturgeon were captured, but none of those were suitable candidates for holding until 2021 spawning.

The major capital projects in this reporting period were a new primary outboard engine, and an auxiliary 9.9 horsepower kicker motor for our jet boat. This boat gets a lot of use, and a dependable engine with emergency backup will be critical moving forward.

Work Plan for April 2021 to March 2022

Fiscal Year 2022 is shaping up to be very similar to last year fiscal year. We are very optimistic that COVID-19 restrictions will lift, so that we can expand our outreach program to include onsite visitors.

We will be releasing 200 large sized two-year-old (Brood Year 2019) hatchery raised juvenile Nechako White Sturgeon into the Nechako Watershed in mid-June. These juveniles will be released at three sites in the Nechako River and two sites in Fraser Lake. Ten individual juvenile white sturgeon at each release site will also be outfitted with radio tags to allow researchers to monitor movements.

We will also continue to rear 300 juvenile white sturgeon that were hatched in June 2020 (Brood Year 2020). These are healthy and growing fast. They will be released in June 2022 as large-sized juveniles.

Brood capture targets are the same as last year. We are aiming for the maximum genetic diversity possible which will target eight females each crossed with 12 males. BC-FLNRORD will set stocking numbers for this brood year.

In the coming year FFSBC crews will cooperate with the NWSRI Technical Working Group (TWG) and Community Working Group (CWG) in various programs including spawn monitoring, adult sampling, research experiments, predator monitoring and research, radio telemetry tag tracking, juvenile indexing, and data management. Many of these programs are also supported by local First Nations, Universities, and Government organizations.

Capital projects in Fiscal Year 2022 include some flow meter upgrades at the NWSCC. These upgrades will allow us to monitor fish health parameters better, increase alarm capabilities to avoid loss, and provide a more efficient use of energy.

FRESHWATER FISHERIES SOCIETY OF BC
Nechako White Sturgeon Recovery Facility

FUNDING SUMMARY	ACTUAL 2020	ACTUAL 2021	BUDGET 2022
Funding accumulated shortfall	(133,223)	-	-
Balance of building funding	-	-	-
NEEF Total Invoiced	523,287	429,324	439,008
RTA Funding	50,000	50,000	50,000
Funds for operating expenses	(439,608)	(435,121)	(482,008)
Funds for operating capital	(456)	(44,203)	(7,000)
Surplus (deficit)	-	-	-
NEEF Agreement Maximum Funding	566,706	444,896	452,320
Balance of Funding	43,419	15,572	13,312
<i>Accumulated Funding Balance</i>		58,991	72,303

ACTUAL for Operating Year Completed	FISCAL 2021			
April 1, 2020 - March 31, 2021	TOTAL	NEEF 1061	RTA 1060	FFSBC/OTHER
Operating Expenses				
Salaries	260,507	210,507	50,000	-
Travel	1,680	1,680	-	-
Contract services	560	560	-	-
Operating Supplies & Services	31,254	31,254	-	-
Vehicle Expenses	5,049	5,049	-	-
Fish Feed	6,322	6,322	-	-
Facilities	29,918	29,918	-	-
Utilities	23,261	23,261	-	-
Property Taxes & Permits	15,758	15,758	-	-
Administration	40,368	40,368	-	-
Sub-total	414,677	364,677	50,000	-
GST payable	20,444	20,444	-	-
Total Operating Expenses	435,121	385,121	50,000	-
Operating Equipment				
Vehicles (net)	-	-	-	-
Production Equipment and computers	44,203	44,203	-	-
Total Operating equipment	44,203	44,203	-	-
Total Operating Costs	479,324	429,324	50,000	-

BUILDING				
Building capital costs (including gate)				
April 1, 2016 - March 31, 2021	18,150	18,150	-	-
Prior years cumulative costs	5,459,676	3,810,741	1,648,935	-
Total Building and Gate Cost	5,477,826	3,828,891	1,648,935	-

BUDGET for Current Operating Year	FISCAL 2022			
April 1, 2021 - March 31, 2022	TOTAL	NEEF 1061	RTA 1060	FFSBC/OTHER
Operating Expenses				
Salaries	280,807	230,807	50,000	-
Travel	7,828	7,828	-	-
Contract services	800	800	-	-
Operating Supplies & Services	41,409	41,409	-	-
Vehicle Expenses	10,507	10,507	-	-
Fish Feed	6,600	6,600	-	-
Facilities	33,550	33,550	-	-
Utilities	30,100	30,100	-	-
Property Taxes & Permits	18,900	18,900	-	-
Administration	30,602	30,602	-	-
Indirect expense allocation	-	-	-	-
Sub-total	461,103	411,103	50,000	-
GST payable	20,905	20,905	-	-
Total Operating Expenses	482,008	432,008	50,000	-
Operating Equipment				
Vehicles (net)	-	-	-	-
Production Equipment and computers	7,000	7,000	-	-
Total Operating equipment	7,000	7,000	-	-
Total Operating costs	489,008	439,008	50,000	-