



GRASSE RIVER Remediation Update

Enníska/February 2022

The Kanien'kéha name for Grasse River and Massena Village is Nikentsiá:ke meaning "full of big fishes." Kanien'kéhaka people fished, hunted, and harvested traditional foods and medicines here, while using it as a transport route. Akwesashró:non recognize ancestral land on both banks of the lower Grasse River, known as the Indian Meadows or Tsi iehontakwáhtha meaning "where the grass is picked."

Historically, Akwesashró:non maintained a reciprocal relationship with Nikentsia:ke and Tsi iehontakwáhtha based on mutual respect and responsibility. These resources and their traditional uses were impacted by industry chemicals, and the Grasse River remediation and restoration projects are a positive step towards restoring this relationship.

The SRMT Environment Division aims to prevent disease and injury while, at the same time, promoting lifestyles that respect, protect and enhance the environment for the next seven generations.

259
acres
capped

435,000
man-hours

48
acres
dredged

220,000
cubic yards
removed

Remediation

The Grasse River Superfund site is adjacent to the Village of Massena and falls within the boundaries laid out in the 1796 Treaty reserving territory for the Mohawks. Akwesasne is located approximately eight miles to the east. The 2,700-acre Alcoa/Arconic West Facility is an aluminum production and fabrication plant that has been in operation since 1903. The facility is east of the Power Canal and north of the lower Grasse River. Alcoa's past production processes generated various waste materials, including hydraulic oils that contained PCBs. In the 1950s, when the Power Canal was taken out of service, Alcoa began using and discharging PCBs through outfalls to the Grasse River, the Power Canal, and an unnamed tributary. The PCBs accumulated in sediments deposited on top of bedrock in the river.

As a result of the discharges, sediments in the river system surrounding the Alcoa/Arconic West facility and approximately seven miles downstream have been contaminated. Analysis of fish in the Grasse River revealed high levels of PCB contamination. In 1990, the New York State Department of Health issued a consumption advisory recommending that no fish be eaten from the Massena Power Canal to where it flows into the St. Lawrence River.

The Saint Regis Mohawk Tribe (SRMT) is a support agency for the U.S. Environmental Protection Agency (USEPA) led remediation of the Grasse River Superfund Site. The SRMT Project Manager, Jay Wilkins, is responsible for day-to-day oversight of the remediation activities that include dredging and capping of contaminated sediments. Along with this, an intense amount of technical review of the implementation

plans for the remediation have taken place over the last seven years. It is also his responsibility to review all daily environmental monitoring activities and weigh in on corrective action measures.

Active construction activities began 2017 and 2021 marked the 5th year of active construction. The onsite crews worked six days a week, 24 hours a day from April/Onerahtókha through November/Kentenhkó:wa. The total number of safe man-hours worked on the project were over 435,000.

Snug Harbor Dredging

Additional dredging outside of the original project was conducted to accommodate a new Seaway Development Corporation tug boat. Sediment samples taken from the area came back above the project's 1 part per million (ppm) cleanup level for PCBs. Arconic agreed to pay for and conduct the additional dredging of 19 acres in 2020 and 0.79 acres in 2021.

This completed the dredging of contaminated sediments

from the Grasse River with a total of 48 acres dredged resulting in 220,000 yd³ of material removed.

Main Channel Capping

An incredible amount of capping material was trucked to the State Highway 131 and Haverstock Road staging areas. On average, between 105-130 trucks crossed the scales each day. The first level was a sand base with 2% granulated activated carbon. The upper layers were bank run sand, gravel or armor stone depending on the river location. The capping covered 259 acres with 288,000 yd³ of armored capping and 524,000 yd³ of sand placed.



The capping plant in the early morning



Fish cribs on the stagg area pad

Habitat Reconstruction

Habitat reconstruction took place in 2020 and 2021. Twenty rock clusters and 17 root wad trees were placed in the river to create habitat for fish, wildlife and plants. Arconic placed 400 fish cribs made out of hardwood pallets into the river for fish habitat. Replantings of 196,429 aquatic vegetation species were placed into the river. Three wetland areas dredged out during construction were rebuilt. Habitat reconstruction work will continue in 2022 and 2023 with additional plantings.

Monitoring and other activities

A full spectrum of PCB, noise monitoring, turbidity, total suspended solids and volatile organic compounds sampling continues for the soils/sediments, air and water. To date, over 10,000 samples have been collected making the Grasse River one of the most sampled Superfund sites in the United States.

NYS Dept. of Environmental Conservation (NYSDEC) through a contractor, relocated freshwater mussels out of the impacted areas. SRMT assisted the crews with tagging some of these mussels for future placement back into remediated areas.

Wild Rice

In late fall of 2021, Arconic provided SRMT with 25 pounds of wild rice seed to plant in an area of the Grasse River. This activity is part of a three-year process where SRMT is hoping to establish a wild rice bed in an area that may have historically had it.

Wrap-up

SRMT, NYSDEC joined USEPA and Arconic in September/Seskehkó:wa for the Grasse River Five-Year Review inspection site visit.

The remediation work with PCB sediments has been completed at the Grasse River Superfund Site. This means all the dredging and capping of PCB contaminated sediments is done. The on-site, secure landfill was closed and capped and the two staging areas have been decommissioned.



Top: Wild rice seed mudballs made by SRMT Staff.



Right: Sateiokwen casting seed balls into a wetland.

Reconstruction

196,429
replantings

400
fish
cribs

20
rock
clusters

17
root
wads

Next Steps

The USEPA, NYSDEC, and SRMT are currently in the review process of the *Operations Maintenance & Monitoring Plan* which outlines cap maintenance and monitoring as well as fish and water contaminant sampling for years to come, with year one occurring in 2022.

The staging area on State Highway 131 is expected to remain as it is until 2027 and be used for cap monitoring and maintenance.

The USEPA Great Lakes National Program Office (GLNPO) is working with SRMT and NYSDEC to implement a 30-acre biosubstrate habitat restoration project for in-river placement in 2022-2023 using Great Lake Restoration Initiative (GLRI) funds.

Arconic's project update is available online at thegrassriver.com.



For any questions or additional information about this project, please reach out to:

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