Sabin Dam Removal & River Restoration Photo Report – December 2018

(Unless noted otherwise, all report content was provided and prepared courtesy of Conservation Resource Alliance)

Aerial view from 2013 of Sabin Dam & Sabin Pond, looking upstream or south.
Boardman Pond is in the background. Photo by John Russel

Aerial of Sabin Dam June 7, 2018. Photo by GTB Natural Resources.

Aerial view of Sabin Dam & Pond drawn down 7’ on August 28, 2018. Photo by GTB Natural Resources.

Aerial of Sabin Dam September 14, 2018. Photo by GTB Natural Resources.

Aerial of Sabin Dam October 13, 2018. Photo by GTB Natural Resources.

Aerial of Sabin Dam November 13, 2018. Photo by GTB Natural Resources.

Aerial of Sabin Dam December 11, 2018. Photo by GTB Natural Resources.

Aerial of Sabin Dam December 19, 2018. Photo by GTB Natural Resources.

Spillway being broken apart & used as a water control structure to draw down Sabin Pond.

Fish rescue effort in isolated pool below powerhouse before demolition, GTB Fisheries staff, Aerial taken by GTB

A series of 7 sediment traps were installed & are being maintained throughout the project area. Here, equipment operators remove sediment from downstream of the spillway.

Sediment & accumulated fallen trees & branches that have floated down to the dam over the years are being removed in preparation for the powerhouse removal. The pond was dewatered 3' just from cleaning out this area so that water could better flow through the powerhouse & spillway.

The above ground structure was demolished in less than 2 hours on September 25, 2018.

A moonscape. Engineer & contractor confirm location of planned river channel.

Tree stumps peek out of sand bars formerly under water & a pontoon boat staged by the contractor for potential safety needs sits high & dry. Seeps on the right are rust colored from the naturally occurring iron in the soils.

An amphibious excavator bails sediment out of the future river channel.
A sea of tree stumps reminds us of the forest that once was before the dam was originally built in 1906.

Aerial of channel excavation through exposed stump field, photo by GTB Natural Resources

Off-road dump trucks with extra large tires back right into the water to collect sediment & haul it to a series of designated spoil areas that are outside of the reach of the future channel & floodplains.

The amphibious excavator has extra wide & tall tracks that enable it to go into areas with soft soil & flowing water.

Looking upstream at the pond in August 2018. The pond was already drawn down 6' in 2012 for safety reasons & the bright green vegetation is what has taken hold on the fringes since then.

Looking upstream at the pond in early September 2018 after it has been drawn down 3'.

Looking upstream at the pond in late September 2018 after the pond has been drawn down 9'. Muck & sand flats remind us how dams built on ever flowing streams collect much more than just water. Muck forms from the breakdown of organic materials like trees, branches, leaves, & by-products from fish, wildlife & insects.

Building a river. Equipment operators start sculpting the adjacent floodplains needed for a stable river channel.

Finding creeks. With the former pond being 50 acres, some small feeder streams were also buried. These areas will be graded out & restored. Meanwhile, a sprayed log & a culvert allow equipment operators to travel over these creeks.

A large pile of muck in the background waits to be smoothed out. In the foreground, a tree stump is hidden in a pile of sand. Equipment operators leave these stumps intact & use them as indicators of what once was upland.

Nailed it. Leaning tree stumps on either side confirm that engineers found the original channel in the design plans, & the equipment operators worked carefully to uncover it, leaving stumps intact.

Aerial view of “relic” channel settling back into its comfortable pattern. Note the stumps along the banks signaling the design indeed brought the river back from the past. Photo taken by GTB Natural Resources.

When the dam was originally built, the surrounding forest was cut by axe.

Rivers in Northwest Michigan often have gravel & cobble. The Boardman River though, is a superstar when it comes to having beds of this throughout its channel. Aquatic insects need these rocks to attach to & these bugs provide the base of the food chain for fish & aquatic wildlife. Fish need these beds to lay their eggs.

Dams impound woody debris – fallen trees & branches that float through a river system.