Why is the Graue Mill dam being removed?

As a conservation agency, the Forest Preserve District of DuPage County's purpose is "to acquire, preserve, protect, and restore the natural resources in DuPage County," and removing dams has shown to benefit habitats as well as humans.

Dams like the one at Graue Mill are a problem for aquatic habitats. Large, unnatural pools called "impoundments" form behind the dams. These impoundments trap sediment as well as a stew of slowly rotting leaves, grass clippings, dead plants, fish, and bacteria. As these materials decompose, they use up a lot of dissolved oxygen in the water. When the amount of dissolved oxygen drops too low for too long, aquatic animals, which need this oxygen to survive, begin to die off.

One particular group of animals affected by low levels of dissolved oxygen are aquatic invertebrates (aka aquatic insects), which include dragonflies. Known more from their flying adult stages, these insects spend a significant part of their early lives in the water and need healthy, clean water to thrive.

Aside from lower oxygen levels, dams also create unnatural barriers for fish. Fish can't cross dams and, as a result, become trapped in sections of the river, unable to reach areas containing food and spawning habitat. This means species may disappear from large sections. In Salt Creek, 16 native fish including blackside darters, emerald shiners, johnny darters, northern pike, and rock bass are all absent upstream of the dam. When a dam is removed, fish can again establish themselves in these areas.

Removing a dam also eliminates a dangerous obstruction for paddlers and allows continuous navigation of the river.

After the dam is removed, what will the restored river look like?

The easiest way to illustrate how Salt Creek will look is to visit the river downstream of the dam or upstream near the Rainbow Bridge within Fullersburg Woods Forest Preserve. The restoration area will also feature boulders and riffles that will not only generate dissolved oxygen and provide habitat for wildlife but also create the pleasing sounds of rushing rapids.

Will the Graue Mill be removed?

No. The Forest Preserve District, which owns the mill, will continue to offer educational programming and events at the mill. Additionally, to preserve the spirit and historical importance of the site, upcoming work will add informational signs and recreational opportunities, such as a boat launch, trails, and fishing areas.

Is the dam a historic structure? Doesn't it power the mill?

The dam is not original, and the dam and raceway do not supply a reliable flow of water to the water wheel. An electric motor powers the gears and millstones inside the mill. As part of the dam-removal project, though, the Forest Preserve District plans to install a water source and a motor to turn the wheel so water will again cascade over the wheel in motion.

What is the cost of the project?

Removing the dam and enhancing the surrounding stream corridor will cost about \$5 million, which will be funded by the nonprofit DuPage River Salt Creek Workgroup.

The DuPage River Salt Creek Workgroup is a nonprofit 501(c)(4) formed in 2004 that works to improve water resources in the Salt Creek, East Branch DuPage River, and West Branch DuPage River watersheds

in DuPage and Cook counties. Its members include 26 wastewater treatment plants; 38 government agencies (counties, cities, forest preserves, park districts); and environmental advocacy groups and consulting firms. Since 2005 its members have implemented cost-effective projects and programs to meet the goals of the Clean Water Act.

It's worth noting that the project will actually *save* taxpayers about \$200 million dollars. If the dam remained, local wastewater treatment plants would need to upgrade their facilities at a cost of \$213 million, which would be paid by taxpayers in the form of increased utility bills. There would also be ongoing expenses to maintain and repair the dam if it remained.

Savings aside, scientific studies prepared by the DuPage River Salt Creek Workgroup, which you can link to here, and the Illinois Environmental Protection Agency have shown that even if the treatment plants were upgraded, they wouldn't solve any water-quality issues or improve conditions for fish, which means the dam would likely need to be removed anyway.

How long will it take to remove the dam?

Active construction is expected to last just a few weeks and will take place during low-flow conditions in the fall of 2022. Additional work (placing rocks and boulders, planting the initial round of vegetation) will be completed in 2022 and 2023. After this, there will be three to five years of vegetation management, including plantings, weed control, and mowing.

Will Fullersburg Woods or the mill be closed during the project?

No. Fullersburg Woods Forest Preserve, the nature education center, and Graue Mill will all remain open during construction. There will, however, be periodic trail closures to allow for construction equipment. This will likely include the underpass below York Road downstream of the mill. This means that visitors parking at the York Road lot near the Ben Fuller House will need to use the pedestrian crossing at the light at York and Spring roads to reach the mill and the Night Heron Trail. The Forest Preserve District will post signs during these times.

Will removal increase flooding above or below the dam?

No. The dam plays no part in flood mitigation or management, and per DuPage County's strict permitting standards, the project design has demonstrated there will not be an increase in post-project flood elevations.

Will the dam removal leave large mud flats that will fill in with weeds?

Once the dam is removed, the wide stretch of water that currently makes up the upstream impoundment will shrink, leaving behind a narrower flowing river surrounded by exposed soils previously covered with the stagnant water. Crews will immediately plant these areas with vibrant native grasses and flowers that will provide valuable habitat for birds, butterflies, and other wildlife. In addition to increasing habitat, these plantings will help stabilize the bank and reduce erosion.

Will removing the dam hurt wildlife that lives in Salt Creek and adjacent Fullersburg Woods?

No. Data show conclusively that the diversity of fish and insects increase following a dam removal. Removing the dam will restore Salt Creek to its natural condition and provide better habitat for fish, amphibians, dragonflies, reptiles, and birds. Additionally, the enhanced vegetation will create preferred habitat for many desirable species such as turtles, frogs, songbirds, and shorebirds.

Will removing the dam cause more pollution in Salt Creek?

The dam has no effect on pollution in Salt Creek.

How quickly will Salt Creek recover after the dam is removed?

Rivers are dynamic, resilient systems. Experience has shown that natural river systems can be restored relatively rapidly after a dam removal. For example, after the removal of the Churchill Woods Forest Preserve dam on the East Branch DuPage River in 2012, nine species of fish including johnny darters and channel catfish previously observed only downstream of the dam were observed upstream only months after the removal.

Will trees be removed along Salt Creek?

The project will remove invasive species along both sides of the creek primarily between the trail and the creek. The majority of the low-lying brush is nonnative honeysuckle and buckthorn. Some large nonnative trees may also be removed, but the majority of large trees will remain on site to provide shade and habitat. Future plans include adding native oaks, hickories, indigo bushes, and hackberries.

How many dams have been removed in the U.S.?

Nationwide, 1,722 dams have been removed between 1912 and 2019, including 90 in 2019 alone. Six were in DuPage County (McDowell Grove in 2010, Warrenville Grove in 2011, Churchill Woods in 2012, Oak Meadows in 2017, Springbrook Prairie in 2005, and Blackwell Arrow Road in 2020). Another 18 were in bordering Kane, Kendall, Cook, and Will counties. The DuPage River Salt Creek Workgroup has documented improved water quality and wildlife at all of these sites.