

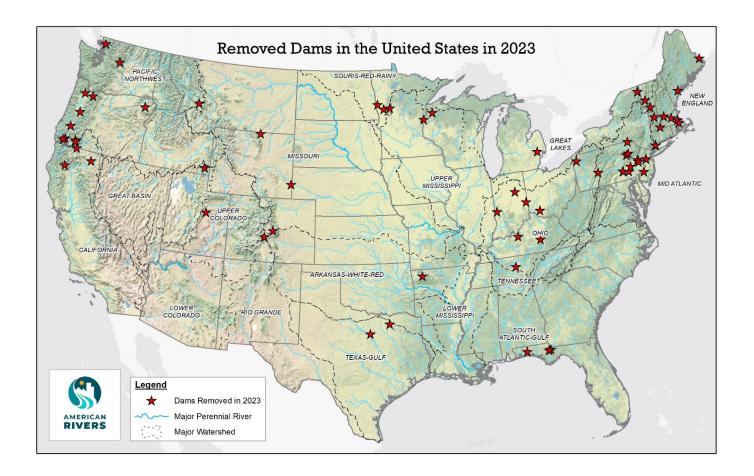
Summary: 2023 U.S. Dam Removals



Copco 2 Dam, Klamath River, California Credit: Swiftwater Films

2023 Dam Removal Summary Statistics

- Number of dams removed in 2023: 80 removals
- Number of upstream river miles reconnected in 2023: More than 1,160 miles
- Top states for dam removals in 2023:
 - o Pennsylvania (15 removals)
 - o Oregon (9 removals)
 - o Massachusetts (6 removals)
- 25 states removed dams in 2023: Arkansas, California, Colorado, Connecticut, Florida, Idaho, Indiana, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming



Historical Dam Removal Summary Statistics

- Total number of dam removals from 1912-2023: 2.119 removals
- Years with the highest numbers of dam removals:
 - o 2018 (109 removals)
 - o 2019 (106 removals)
 - o 2017 (101 removals)

The following are highlights of 2023 dam removals (see Table 1 for the full list).

- 1. Copco No. 2 Dam, Klamath River, California
- 2. Milltown Power Station Dam, St. Croix River, Maine
- 3. Oakland Dam, Susquehanna River, Pennsylvania

<u>Note</u>: This list includes all dam removals reported to American Rivers (as of February 2, 2024) that occurred in 2023, regardless of the level of American Rivers' involvement. Inclusion on this list does not indicate endorsement by American Rivers.

Contact information is provided for dam removals, if available. For further information about the list, please contact Jessie Thomas-Blate, American Rivers, Director of River Restoration at 202.347.7550 or jthomas@americanrivers.org.

Copco No. 2 Dam Removal, Klamath River, California



Photo Credit: Swiftwater Films

QUICK FACTS

- Dam Height: 63 feet
- Dam Length: 278 feet
- Year Built: 1925
- Dam Use: Hydropower
- Upstream Miles
 Reconnected: 40 miles

For nearly 100 years, dams on the Klamath River have blocked salmon and steelhead trout from reaching more than 400 miles of habitat, encroached on Indigenous culture, and harmed water quality for people and wildlife. But now, four dams – J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate – built between 1908 and 1962, are coming down. The construction of this series of dam removals began in 2023 with Copco 2 Dam. The project will have lasting benefits for the river, salmon, and communities throughout the Klamath Basin.

The Klamath River dam removals will be among the largest dam removals in the nation's history. On November 17, 2022, the Federal Energy Regulatory Commission (FERC) approved the hydropower license surrender to remove these four dams from the Klamath River. This exciting progress is thanks to years of leadership by the Tribes that live along the river– including the Hoopa, Karuk, Yurok, Shasta, Klamath, and Modoc people– as well as efforts by the states of California and Oregon, the dams' owner, federal agencies, and several nonprofits, including American Rivers. This is the first stage of a multi-step dam removal process that will improve water temperatures, increase the levels of dissolved oxygen in the water, and reduce algal toxins, thus reconnecting coldwater habitat and allowing salmon to reproduce in safe and healthy conditions. The overall water quality improvements resulting from dam removal will bolster healthy communities and expand access to recreation.

Visit the <u>Klamath River Renewal Corporation's website</u> to find out more about the project, and to stay updated as work progresses.

CONTACT

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Milltown Power Station Dam, St. Croix (Lower Skutik) River, Maine



Photo Credit: International Joint Commission

QUICK FACTS

Dam Height: 23 feetDam Length: 590 feet

• Year Built: 1881

 Dam Use: Hydropower/Cotton Mill

Miles reconnected: 10 miles

The Milltown Power Station Dam on the St. Croix River, situated along the U.S./Canada border, was among the oldest hydroelectric generating stations in Canada. It had a power capacity of four megawatts with its seven turbines. This was the first removal of a dam in international waters.

In 2019, New Brunswick Power, the dam's owner and operator, initiated planning and design for the decommissioning of the dam and restoration of fish passage past the site. The design involved the removal of dam

infrastructure and associated structures, installation of a 500-foot-long channel-spanning nature-like passage to ensure fish are able to navigate the 10-foot vertical drop at the site, and selective bedrock excavation in the upstream area. The project aimed to restore access to 10 miles and 60,000 acres of habitat for alewife and five other migratory fish species.

This dam was originally built on top of natural waterfalls to power the historic St. Croix Cotton Mill. In 1957, New Brunswick Power purchased the dam and began producing hydropower. Eventually, the facility reached the end of its service life, needing maintenance that was uneconomical to address. In addition, the facility was blocking passage for Atlantic salmon, river

herring, and other species important to the Peskotomuhkati Nation in this traditional territory.

This project is part of a broader initiative to improve fish passage at other dams and barriers throughout the watershed. Early results of restoration work led by the Peskotomuhkati Nation have shown a doubling of alewife, one of the river's major environmental health indicators.

CONTACT

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Oakland Dam, Susquehanna River, Pennsylvania



Photo Credit: Lisa Hollingsworth-Segedy

QUICK FACTS

- Dam Height: 16 feet
- Year Built: 1929
- Dam use: Hydropower

Dam Length: 755 feet

• Miles Reconnected: 250 miles

Once a dangerous and obsolete former hydropower dam, the Oakland Dam along the North Branch Susquehanna River Water Trail is no longer a safety hazard for recreational users. This project not only made the river safer, it also reconnected 250 miles of aquatic habitat for sportfish, iconic freshwater mussels, and other fish and wildlife. The project is the largest dam removal to date in Pennsylvania, which leads the nation in dam removals (390 removals as of 2023).

The Susquehanna Borough Council is planning to create a new riverfront park for camping, now that the site is safer for the community. This will improve public access and help bolster economic growth for the area.

Oakland Dam once provided electricity to Barnes Kasson Hospital and to Susquehanna Depot, a major railroad hub for the northeastern U.S., located on the banks of the Susquehanna River in what is now Ira Reynolds Riverfront Park. Hydropower generation was abandoned in the early 2000's due to an accidental breach in the center of the dam.

American Rivers worked in partnership with the Boroughs of Susquehanna and Oakland, Endless Mountains Heritage Region, Upper Susquehanna Coalition via Tioga County Soil & Water Conservation District, PA Department of Environmental Protection, PA Fish & Boat Commission, and the U.S. Army Corps of Engineers on this project.

CONTACT

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Table 1. Reported Dam Removals from 2023

| Dam Name | City/County | River | State |
|--|--------------------|--------------------|-------|
| Huntsville Dam | | | |
| (War Eagle Creek Dam) | Huntsville/Madison | War Eagle Creek | AR |
| Copco 2 Dam | Siskiyou County | Klamath River | CA |
| Double U Fish Ranch Dam | Modoc County | Howards Gulch | CA |
| East Weaver Creek Dam | Weaverville | East Weaver Creek | CA |
| Lake George Diversion Dam | | | |
| (Lower Eleven Mile Dam) | Park County | South Platte River | CO |
| Mt Shavano Dam | | | |
| (Salida Lowhead Dam) | Salida/Chaffee | Arkansas River | CO |
| Dana Dam (Merwin Meadows | | | |
| Dam; Strong Pond Dam) | Wilton | Norwalk River | CT |
| Smith Dam | Wilton/Fairfield | Comstock Brook | CT |
| Sternheim-Gardner Dam | | | |
| (Comstock Brook Dam) | Wilton | Comstock Brook | CT |
| Crooked Creek Dam | | 0 10 | |
| (Clearwater Dam) | Gadsden County | Crooked Creek | FL |
| Pearl Creek Pond Dam | Okaloosa | Pearl Creek | FL |
| (Duke Field Dam) | | | |
| Sweetwater Creek Dam Stauffer Creek Oxborrow | Liberty | Sweetwater Creek | FL |
| No. 1 Dam | Montpelier | Stauffer Creek | ID |
| Stauffer Creek Oxborrow | Montpeller | Stauffer Creek | |
| No. 2 Dam | Montpelier | Stauffer Creek | ID |
| Charles Mill Dam | Marion | Mississinewa River | IN |
| Hickey Martin Dam | Lawrence County | Henderson Creek | IN |
| Markle Mill Dam | Vigo County | Otter Creek | IN |
| Markie Milli Barri | vigo courity | East Fork | 1111 |
| Weir Dam | Richmond | Whitewater River | IN |
| City of Vine Grove Weir Dam | Vine Grove/Hardin | Brushy Fork | KY |
| Roundstone Creek Dam | Mount Vernon | Roundstone Creek | KY |
| Ames Pond Dam | Braintree | Monatiquot River | MA |
| Armstrong Dam | | | , . |
| (Hollingsworth Dam) | Braintree | Monatiquot River | MA |
| Jenkins Pond Dam | | · | |
| (High Street Dam) | Bridgewater | Town River | MA |
| Lower Bemis Dam | Chicopee | Abbey Brook | MA |
| River Street Dam | Acton | Fort Pond Brook | MA |
| Whites Mill Pond Dam | Winchendon | Millers River | MA |
| Burr Pond Dam | Freeport | Frost Gully Brook | ME |
| | | Frost Gully Brook | |
| Fire Pond Dam | Freeport | tributary | ME |
| Maine Water Company Dam | Freeport | Frost Gully Brook | ME |
| Milltown Power Station Dam | Calais | St. Croix River | ME |

| Dam Name | City/County | River | State |
|----------------------------|-----------------------------|-------------------------------------|-------|
| | | Spring | |
| | Orion Twp/Oakland | Creek/Tributary to | |
| Bald Mountain Pond Dam | County | Trout Creek | MI |
| | | Buffalo River South | |
| Ganz Dam | Clay County | Branch | MN |
| Little Pine Dam | Otter Tail County | Otter Tail River | MN |
| | City of Pelican | | |
| Pelican Rapids Dam | Rapids/Otter Tail County | Pelican River | MN |
| Pelican Rapids Dam | County | Upper Clark Fork | IVIIN |
| Broken Circle Pump | Deer Lodge County | River | MT |
| Broker energy armp | | Tributary to East | |
| Camp Cromwell North | | Branch of Middle | |
| No. 2 Dam | Bridgewater/Somerset | Brook | NJ |
| | | Tributary to East | |
| Camp Cromwell South | , | Branch of Middle | |
| No. 1 Dam | Bridgewater/Somerset | Brook | NJ |
| Centura-Normandy Dam | Cherry Hill/Camden | Tindale Run | NJ |
| Indian Rapids Dam | Plattsburgh | Saranac River | NY |
| Fredenburgh Falls Dam | Plattsburgh | Saranac River | NY |
| 5 | | Tributary to Salt Lick | |
| Dieckbrader Lake Dam | Brown County | Creek | OH |
| Baker Creek Dam | Washington County | Baker Creek | OR |
| Krumwiede Diversion 1 & 2 | Jackson County | Calt Craal | OD |
| Pushup Dams | Jackson County | Salt Creek | OR |
| Lost Creek Dam | Jackson | Lost Creek | OR |
| Lovelace Dam | Jackson County | Slate Creek | OR |
| North Fork Eagle Creek Dam | Clackamas County | North Fork Eagle Creek | OR |
| Parrott Creek Dam | Douglas County | Parrott Creek | OR OR |
| Poley Allen Diversion Dam | Wallowa County | Lostine River | OR OR |
| Takelma Creek Dam | | | |
| Whiskey Creek Hydro Dam | Josephine | Takelma Creek | OR |
| Bushkill Dam No. 3 | Lan County | Whiskey Creek | OR |
| (Silk Masters Dam) | Northampton | Bushkill River | PA |
| Crest Dam | Dauphin | Spring Creek | PA |
| Cussewago Dam | Meadville/Crawford | Cussewago Creek | PA |
| Hanover Dam | Luzerne | Tributary to Espy Run | PA |
| Homestead Dam | Dauphin | Spring Creek | PA PA |
| | • | <u> </u> | |
| Lafayette College Dam | Northampton | Bushkill Creek | PA |
| Laurel Run Dam No. 2 | Plains Township | Laurel Run | PA |
| Lower Crest Dam | Dauphin | Spring Creek | PA |
| Oakland Dam | Susquehanna | Susquehanna River | PA |
| Red Oak Dam | Dauphin | Spring Creek | PA |
| Stutz Dam | Ducks | Unnamed tributary to Delaware River | PA |
| Stutz Dam | Bucks Datton/Combrid | | |
| Unnamed Dam | Patton/Cambria | Chest Creek | PA |

| Dam Name | City/County | River | State |
|------------------------------|--------------------|-------------------------|-------|
| Upper Brooke Drive Dam | Dauphin | Spring Creek | PA |
| Vance Dam | Lancaster | Gross Run | PA |
| Willow Creek Dam | Berks | Willow Creek | PA |
| Sam Davis Dam | Smyrna/Rutherford | Stewart Creek | TN |
| Pilot Grove Creek Soil | | | |
| Conservation Service Site 77 | | Unnamed tributary | |
| Dam | Collin | to Hickory Creek | TX |
| | | Unnamed tributary | |
| Vaquero Crossing Dam | Parker | to Hart Branch | TX |
| Gigliotti Diversion Dam | Carbon County | Price River | UT |
| Beaver Brook Dam | Wilmington | Beaver Brook | VT |
| Connolly Pond Dam | Shrewsbury | Tributary to Mill River | VT |
| Dow Pond Dam | Middlebury/Addison | Muddy Branch | VT |
| Beaver Creek Dam No. 1 | Chelan County | Beaver Creek | WA |
| Beaver Creek Dam No. 2 | Chelan County | Beaver Creek | WA |
| Nelson Dam | Yakima County | Naches River | WA |
| Spore Dam | Alger | Barrel Springs | WA |
| | | Tributary of Wood | |
| Stenberg Mill Dam | Burnett County | River | WI |
| | | Unnamed tributary | |
| Wolf Springs Dam No. 4 | Washburn County | to Frog Creek | WI |
| Acme Diversion Dam | Sheridan County | Tongue River | WY |
| Lawrence Diversion Dams | Goshen County | Horse Creek | WY |



City of Vine Grove Weir Dam, Brushy Fork, KY; Photo Credit: Ward Wilson

Learn More

Full Database of Dam Removals 1912-2023: www.americanrivers.org/DamRemovalDatabase

Map of U.S. Dams Removed Since 1912: www.americanrivers.org/DamRemovalMap



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