

HYDRO REPORTER

2018

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TIPPY AND FOOTE HYDROS

• SERVICE FOR A CENTURY • 1918 – 2018 •



The HYDRO REPORTER

Consumers Energy publishes the Hydro Reporter annually in conjunction with the Manistee-Muskegon-Au Sable Coordination Team to keep neighbors of the hydro plants and other interested citizens informed about progress in implementing the Federal Energy Regulatory Commission 40-year licenses issued in 1994. The MMAC Team, which includes representatives from Consumers Energy, state and federal Resource Agencies and an environmental coalition, coordinates the license implementation process. Contact information for MMAC Team members is listed below.

MANISTEE-MUSKEGON-AU SABLE COORDINATION TEAM MEMBERS

BILL SCHOENLEIN
MMAC Team Chair
Consumers Energy Hydro Generation
330 Chestnut Street
Cadillac, MI 49601
231-779-5504
email: william.schoenlein@cmsenergy.com

KRISTEN THRALL
U.S. Forest Service
1755 S. Mitchell Street
Cadillac, MI 49601
231-775-5023, ext. 8756
email: kthrall@fs.fed.us

KYLE KRUGER
Michigan Department of Natural Resources
191 S. Mt. Tom Road
Mio, MI 48823
989-826-3211, ext. 7073
email: krugerk@michigan.gov

BURR FISHER
U.S. Fish & Wildlife Service
East Lansing Field Office
2651 Coolidge Road
East Lansing, MI 48823
517-351-2555
email: Burr_Fisher@fws.gov

JIM SCHRAMM
Ex-Officio Member
Michigan Hydro Relicensing Coalition
P.O. Box 828
Pentwater, MI 49449
231-869-5487
email: jdschramm@oceana.net

For questions about the Hydro Reporter, contact Consumers Energy Natural Resources Administrator and Editor Richard Castle Jr. at 231-779-5507 or richard.castlejr@cmsenergy.com.

Consumers Energy Hydroelectric Plants

MMAC Hydroelectric Plants

Au Sable River



Alcona Dam
In-service: 1924
Capacity: 8 MW



Cooke Dam
In-service: 1911
Capacity: 9 MW



Five Channels Dam
In-service: 1912
Capacity: 6 MW



Foote Dam
In-service: 1918
Capacity: 9 MW



Loud Dam
In-service: 1913
Capacity: 4 MW



Mio Dam
In-service: 1916
Capacity: 4.9 MW

Manistee River



Hodenpyl Dam
In-service: 1925
Capacity: 17 MW

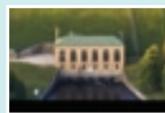


Tippy Dam
In-service: 1918
Capacity: 21 MW

Muskegon River



Croton Dam
In-service: 1907
Capacity: 8.85 MW



Hardy Dam
In-service: 1931
Capacity: 30 MW



Rogers Dam
In-service: 1906
Capacity: 6.75 MW

Non-MMAC Hydroelectric Plants



Grand River
Webber Dam
In-service: 1907
Capacity: 3.225 MW



Kalamazoo River
Calkins Bridge Dam
In-service: 1936
Capacity: 2.55 MW

Note: MW = megawatts; 1 MW = 1,000 kilowatts (kW)
One megawatt is enough to power 1,000 homes.

FAST FACT: Our hydroelectric plants have a combined generating capacity of about 130 MW, enough to serve about 70,000 people.

Cheers for 100 YEARS!

IN THE LATE 1800s, Consumers Energy founder William A. Foote envisioned hydroelectric plants along Michigan's mighty rivers that would produce electricity for homes and businesses throughout the state.

Before his sudden death of a heart attack in 1915, Foote lived to see his dream come true. Between 1906 and 1931, Consumers Energy built 12 dams that are still operating (the company bought the 13th dam, Calkins Bridge Dam, in 1968). The plants were designed and built under the supervision of Foote's younger brother, James B. Foote, the company's Chief Engineer until his death in 1924.

This year, Foote and Tippy dams join seven Consumers Energy hydro plants that have achieved 100 years of continuous operation: Cooke, Five Channels, Loud and Mio dams on the Au Sable River; Croton and Rogers dams on the Muskegon River; and Webber Dam on the Grand River.

"Our heritage as a generator of electricity began along our state's pristine rivers, which have provided clean, reliable and renewable energy for over a century. Foote and Tippy dams have played an important role in that history," said Bill Schoenlein, Manager of Hydro and Renewable Operations for Consumers Energy.

"We're proud that our hydroelectric plants were built to last. The continued operation of Foote and Tippy dams is a testament to the ingenuity and diligence of employees who designed, constructed and cared for these dams for 100 years."

Plans for a public centennial celebration are underway and will be announced this summer.





Foote Dam: Au Sable River Gem

FOOTE DAM was named in honor of William A. Foote, who died three years before the dam was completed. The dam is located 9 miles west of Lake Huron in Oscoda Township on the Au Sable River and is surrounded by the magnificent Huron-Manistee National Forests. It was the fifth dam built by Consumers Energy on the Au Sable River between 1911 and 1924.

The dam, which was under construction during World War I, was completed in 1918, the year the war ended. At the time, it was common to install horizontal shaft units in the powerhouses; however, three vertical direct connected turbine-generators were installed at Foote. The simplified design proved to be more efficient.

In terms of capacity, Foote Dam is small (9 megawatts). Its operation has been classified as re-regulation since the issuance of the 1994 Federal Energy Regulatory Commission (FERC) license. Since Foote is the most downstream dam on the Au Sable River, the re-regulation aspect of its operation is designed to adjust the river flow coming out of the dam to mimic the river flow as if the dams on the river were not in place. This function is accomplished based on formulas that require data from various river gauges throughout the

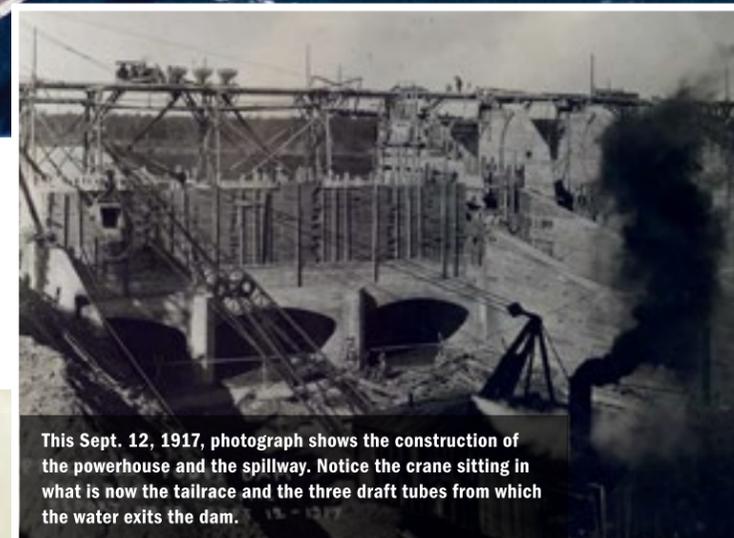
river system and sets the parameters for the amount of water that is allowed to exit the dam. This concept also allows for maintaining the water level of Foote Pond behind the dam.

Foote Dam Pond encompasses 1,824 acres and is 40 feet deep at its deepest point and is well known both locally and regionally for its fishery and boating opportunities. In 2013, Consumers Energy redeveloped its popular downstream fishing site to feature four fishing decks and an American Disabilities Act (ADA) accessible walkway. The access site is operated by the Michigan Department of Natural Resources (MDNR) under a lease agreement with Consumers Energy. Besides trout, anglers can land salmon, steelhead, walleye and various pan fish at this facility.

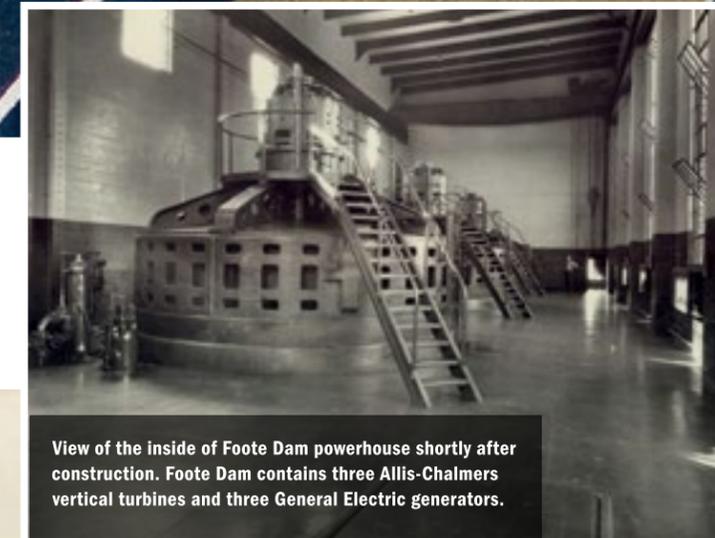
Recreationally, Foote is a premier facility providing numerous activities, including canoeing, wildlife viewing, sightseeing and camping. Paddlers can park their vehicles and launch their canoes/kayaks below Foote Dam and go down the river to Lake Huron, enjoying spectacular views and stopping to picnic or swim. Foote also is the last portage and major milestone for paddlers who are involved in the 120-mile-long AuSable River Canoe Marathon.

The U.S. Forest Service (USFS) Foote Dam Pond Overlook, sometimes called Eagles Nest Overlook, offers panoramic views of the Au Sable River and Foote Dam Pond. From there, visitors can see bald eagles, deer, the endangered Kirtland's warbler and other wildlife. It's also a magnificent spot to view fall colors.

River Road National Scenic Byway, a paved highway that parallels the picturesque Au Sable River, follows the southern shore of Foote Dam Pond. Old Orchard Park, one of the largest campgrounds in northeast Michigan, is located along the byway and overlooks the pond. (See the article on page 19.)



This Sept. 12, 1917, photograph shows the construction of the powerhouse and the spillway. Notice the crane sitting in what is now the tailrace and the three draft tubes from which the water exits the dam.



View of the inside of Foote Dam powerhouse shortly after construction. Foote Dam contains three Allis-Chalmers vertical turbines and three General Electric generators.

Panoramic view of the construction of Foote Dam from the north side of the dam.



Foote Dam - The Hydro Reporter
 Volume 1
 Foote at 100 - A Centennial
 History, Michigan
 Department of Natural Resources



Tippy Dam: Manistee River Fishing Mecca

TIPPY DAM was originally named Junction Dam as it's located in the area where the Manistee and Pine rivers meet. It was renamed Tippy Dam in 1934 in honor of Charles W. Tippy, the company's popular Vice President, General Manager and Director who died from injuries in a car accident in 1933.

Located 15 miles east of Manistee near Wellston, Tippy Dam is the second largest Consumers Energy hydro (Hardy Dam is the largest), with a capacity of 21 megawatts. At the time it was built, it was the highest dam in the world constructed on sand and of sand with a spillway in it. The concrete retaining wall for the 61-foot embankment was thought to

be the highest ever built before 1918. Three vertical, direct connected turbine-generators in the powerhouse exceeded expectations for efficiency.

The design of Tippy Dam's spillway is unlike any other. Its spill gates are set above a semi-oval concrete structure with a hollow chamber. Above-freezing temperatures and moist walls mimic cave-like conditions that make the chamber an ideal location for hibernating bats.

As long as employees can remember, the bats have used the chamber as a hibernaculum, a place where bats hibernate in winter. As bats tend to return to the same hibernaculum, they continue

returning to Tippy each fall, making it the largest hibernaculum in the Lower Peninsula.

Over 24,000 hibernating bats cling upside down in furry clusters to the damp walls during the coldest months of the fall, winter and spring. Among the rare species snoozing inside are Eastern pipistrelles, petite reddish-brown bats and Indiana bats, which are listed as an endangered species under the Federal Endangered Species Act. In fact, Tippy is the farthest north known location where the Indiana bat is found in the United States.

Besides a popular spot for bats, Tippy Dam is a favorite of tourists and anglers. The water below the dam has earned a reputation as one of the finest trout, steelhead and salmon fishing areas in Michigan. It's common to find vehicles with license plates in the various parking lots from all over the United States and Canada at Tippy during the height of the steelhead and salmon runs in the spring and fall of each year.

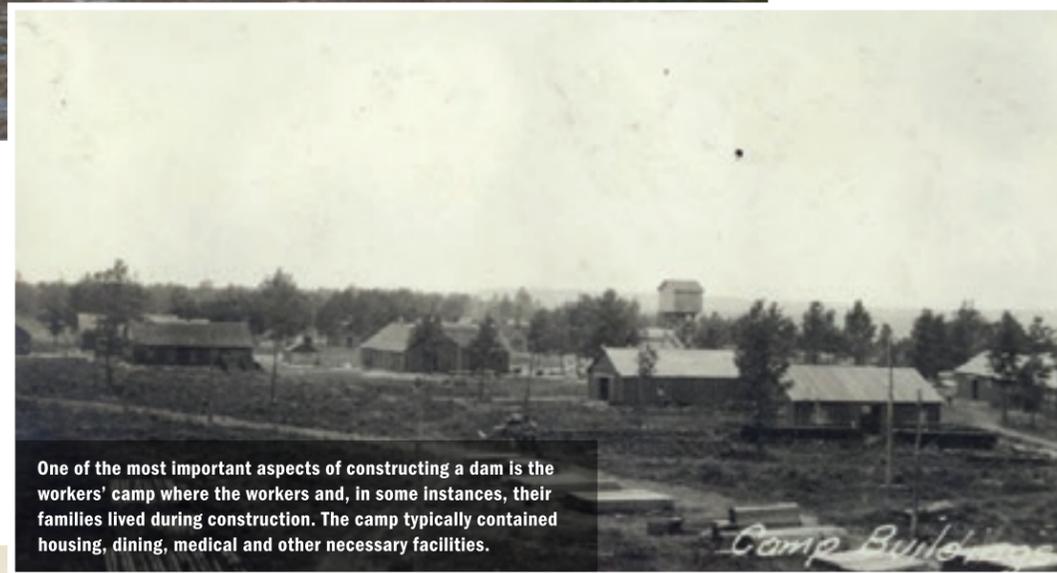
The Pine River, which has naturally reproducing populations of brown trout, brook trout and rainbow trout, is a Blue-Ribbon Trout Stream that flows into Tippy Dam Pond. The reservoir, which has a surface area of 1,540 acres and a maximum depth of 50 feet, also holds bass, pike, walleye and pan fish.

The Manistee River from Tippy Dam to the M-55 Bridge is a designated National Recreation River and is well-liked by canoers and kayakers. For hiking enthusiasts, the area north of Tippy Dam is bordered on either side by the Manistee River Trail and the North Country National Scenic Trail.

Boat launches, canoe portages, day-use areas and campgrounds operated by the Michigan Department of Natural Resources (MDNR), United States Forest Service (USFS), Norman Township and private groups are available for public use.



View of the inside of Tippy Dam powerhouse shortly after construction. Tippy Dam contains three W.S. Morgan vertical turbines and three Westinghouse generators.



One of the most important aspects of constructing a dam is the workers' camp where the workers and, in some instances, their families lived during construction. The camp typically contained housing, dining, medical and other necessary facilities.



Panoramic view of the construction of Tippy Dam from the north side of the dam.



National Trails System, Wild and Scenic Rivers Acts Turn 50

OCTOBER 2, 1968, was a banner day for the environment. On that day nearly 50 years ago President Lyndon B. Johnson signed into law the **National Trails System Act and the Wild and Scenic Rivers Act** which created the Wild and Scenic Rivers System.

This year, America is celebrating a half century of laws that protect some of the nation's favorite outdoor places, inspire stewardship and foster collaboration among environmentalists, communities and governments.

"These acts have helped safeguard the unique character of the Au Sable and Manistee rivers and authorized a national system of mostly non-motorized long-distance trails," said Kristen Thrall, Recreation and Hydropower Program Manager, Huron-Manistee National Forests, U.S. Forest Service.

The Forest Service and Consumers Energy work together to provide public access to scenic natural areas for year-round outdoor activities.

National Wild & Scenic Rivers Act

The Wild and Scenic Rivers Act selects rivers that "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, culture or other similar values," safeguards their unique character, encourages river management and voluntary stewardship by landowners and river users.

Twenty-three miles of the Au Sable River from Mio Dam Pond eastward to Alcona Dam Pond and 26 miles of the Manistee River from below Tippy Dam to the M-55 Bridge over the Manistee River are designated Wild and Scenic Rivers. As these sections flow through or are adjacent to the Huron-Manistee National Forests, they're managed by the U.S. Forest Service.

The Au Sable River is famous among anglers for its abundant stock of brown trout and is well-known among paddlers who line the shoreline to watch or compete in the annual AuSable River Canoe Marathon, a 120-mile, nonstop canoe race that began in 1947.

In spring and fall, the Manistee River is a hot spot for catching salmon and steelhead. In summer, it's popular for fishing for walleye and pike, boating, paddling, swimming and floating leisurely down the river on inflatable tubes.

National Trails System Act

The Act created national trails "to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation." The Act approved three types of trails: National Scenic Trails, National Recreation Trails and connecting-and-side trails.

"The 1968 Act also created two national scenic trails: the Appalachian Trail and the Pacific Crest Trail," Thrall said. "The North Country National Scenic Trail was designated in 1980 and is one of 30 such trails in the United States. At 4,600 miles, it's also the longest. It crosses through seven states including Michigan where it loops around Hodenpyl and Tippy dams and is one of the most popular hiking loops in lower Michigan."

In 2015, Consumers Energy was awarded the Trailblazer Award from the North Country Trail Association for the utility's work to reroute 9.3 miles of hiking trail on hydro lands along Hodenpyl Pond. The company also provided the land and funding for a suspension footbridge downstream of Hodenpyl Dam for hikers and backpackers.

More information about celebrations to commemorate the 50th anniversary of the Wild and Scenic Rivers Act and National Trails System Act is available online at www.rivers.gov/wsr50 and www.trails50.org.



Logos courtesy of the U.S. Forest Service

FAST FACT: Consumers Energy owns 12,000 acres of land and water surrounding its hydroelectric sites on the Au Sable, Grand, Kalamazoo, Manistee and Muskegon rivers.



A stretch of the Au Sable River near historic Foote Dam, one of six hydroelectric plants operating on the river.

Grant Helping Bring Back Historic Fish

THE CONSUMERS ENERGY FOUNDATION awarded a \$117,175 grant last year to Michigan's Arctic Grayling Initiative to help return the iconic fish to the watersheds of the Au Sable and Manistee rivers where it once thrived.

The Michigan Department of Natural Resources, Michigan Technological University and the Little River Band of Ottawa

Indians, which are leading the effort, are joined by some 30 agencies to reintroduce the native fish to Northern Michigan waters.

"This native species continues to be a cherished part of Michigan's history and culture and a source of fascination for anglers," said Carolyn Bloodworth, the foundation's Secretary/Treasurer.

"Consumers Energy Hydro Generation has a long history of working with the Michigan Department of Natural Resources and Little River Band of Ottawa Indians to conserve fisheries and natural resources on the rivers," she said.

The grant supports research to collect and evaluate habitat and fish community data in the upper Big Manistee River and create an outreach plan to increase awareness of grayling reintroduction efforts among Michigan residents.

"The grant is an opportunity for Consumers Energy to help bring back this historic fish and continue to be stewards of the Au Sable and Manistee rivers,"

said Scott DeBoe, Senior Environmental Analyst for the company.

"The grant will provide funding to characterize tributaries to the Manistee River and find those that offer the greatest potential for the arctic grayling to succeed. The more suitable habitat to introduce them, the better odds the grayling has of becoming re-established."

Research already conducted on several feeder streams that enter the Manistee River between the Tippy impoundment and Hodenpyl Dam concluded that some of these streams appear to be suitable for the grayling.

A member of the salmon family, arctic grayling descended from fish that flourished in cold, clear waters after the Ice Age glaciers receded. In the 19th century, the fish was abundant in only two of the lower 48 states: Michigan and Montana. The habitat in the watersheds of Michigan's Au Sable and Manistee rivers was ideal until the early 20th century.

The grayling, which is sensitive to changes in its environment, became extinct in Michigan in the 1930s mostly due to the impacts of logging, which destroyed spawning areas, caused erosion that filled streams with silt and made the water temperature warmer.

The fish's slate blue color, graceful sail-like dorsal fin and the ease with which it was caught made it attractive to anglers and resulted in overfishing. Another factor in its disappearance was competition for food with the more aggressive non-native brown trout and brook trout that were introduced into the rivers in the 1890s.

"Restoring the grayling, a symbol of Michigan's wilderness past and an indicator of pristine water quality, is a project that encapsulates the entire concept of 'Pure Michigan,'" Bloodworth said.

For information about the initiative, visit migrayling.org. To learn more about how Consumers Energy Foundation grants helping enhance the environment, visit ConsumersEnergy.com/foundation.

FAST FACT:

In the mid-1870s, residents of Crawford voted to change the name of their community to Grayling as a tribute to the fish teeming in the Au Sable River.

The arctic grayling is most recognizable due to its large dorsal fin. Photo courtesy of the Michigan Department of Natural Resources



IMPROVING FISH HABITAT: THE HIA PROGRAM

SINCE THE AU SABLE, MANISTEE AND MUSKEGON RIVER hydro project licenses were issued by the Federal Energy Regulatory Commission in 1994, Consumers Energy has provided more than \$9 million to the Michigan Department of Natural Resources (DNR) – Fish Habitat Improvement Account (HIA) program.

These HIA funds, which were agreed upon to mitigate any fish damage caused by the hydro plant turbines, have been invested in a combination of fisheries research and on-the-ground projects that include habitat improvement, fishing access and erosion control. For 2017, Consumers Energy contributed \$224,000 to the HIA. The company’s HIA contribution is increased annually at the rate of inflation.

Projects eligible for HIA funding can be located anywhere in the watersheds of the Au Sable, Manistee and Muskegon rivers. Priority for project selection is based on addressing management needs identified in the river assessments that the DNR has completed for each of the three rivers.

The assessments can be found online at the DNR website: www.michigan.gov/dnr. Once there, select “Fishing,” then “Managing Michigan’s Fisheries,” then “Library and Reports.” The river assessments are in the **Fisheries Management/Special Reports** section of the library. Fisheries Special Report No. 19 is the Muskegon River Assessment, No. 21 is the Manistee River Assessment and No. 26 is the Au Sable River Assessment.

Before and after Buhl Dam removal on the South Branch of the Pine River in Alcona County. Photo courtesy of the Huron Pines Resource Conservation and Development Council HIA Final Grant Report



HIA—Funded Projects in 2017

Since 2015, the HIA has been a major contributor to the Huron Pines Buhl Dam removal project on the South Branch of the Pine River in Alcona County. 2017 was a monumental year as the dam was finally removed and final restoration of the site was completed and the South Branch of the Pine River is now considered barrier free for fish and other species to travel upstream to native or more ideal habitat and spawning areas.

Old Orchard Park, which is a campground managed by Oscoda Township and leased from Consumers Energy, received a grant to repair their primary boat launch on Foote Pond. The campground is very popular not only from a camping perspective but also for anglers who like to fish the Au Sable River. The project consisted of dewatering and dredging the launch lagoon, widening the launch to implement a skid pier, and installation of erosion control to protect the banks around the lagoon.

FAST FACT: In 1994, the Federal Energy Regulatory Commission granted licenses to Consumers Energy to operate its dams on the Manistee, Muskegon, and Au Sable Rivers until 2034.

HIA projects continued to work on improving habitat in the upper reaches of the Au Sable River system. The grant recipients worked in cooperation with the MDNR fisheries biologists to install structures in the river that are designed to create habitat and help prevent the accumulation of sand and other fine particles that can negatively impact the productivity of the river. One of the structures implemented is the “downstream V,” which is designed to direct the force of the flow to create a small scour pool to add depth to shallow areas of the stream or river. In addition, the log portion of the structure provides cover for fish to hide from predation.

More information about the HIA project proposal and selection process is available from Michigan DNR Agency Representative Kyle Kruger, whose contact information appears in the Manistee-Muskegon-Au Sable Coordination Team listing on page 2.

Old Orchard Campground, located on Foote Pond near Oscoda, updated its boat launch in 2017 by installing new concrete planking, a new dock, and dredging the lagoon. Photo courtesy of Oscoda Township



The “upstream V,” as implemented on a stream in the Au Sable River watershed, is designed to create habitat and prevent the accumulation of fine particles from negatively impacting the productivity of a stream. Photo courtesy of the Michigan Department of Natural Resources Fisheries Division staff



Mio Dam Named to HYDRO HALL OF FAME

SINCE IT WAS FIRST COMPLETED IN 1916, the century-old Mio Dam has been a stalwart model of ingenuity and dependability. In June 2017, the 4.9-megawatt hydroelectric project on the Au Sable River received global recognition when it was inducted into the Hydro Hall of Fame.

John Broschak, Vice President of Generation and Compression Operations for Consumers Energy, accepted the award in Denver during the opening keynote session of HydroVision International. The world's largest annual hydroelectric power conference and event, HydroVision attracts more than 3,000 attendees from over 50 countries and 320-plus exhibitors.

The award recognizes hydroelectric projects that have been in continuous operation for at least 100 years and that have made significant contributions, including clean, emission-free and reliable power.

"What an incredible honor," Broschak said. "The ingenuity and history surrounding Mio Dam make it exceptional and we are thrilled the committee sees that as well."

Mio made history in 1916 when it became the first dam to use conduit or under-sluice spillways (concrete passageways) built into the foundation of the powerhouse to pass excess river flows. Previous river dams passed excess flows through an above-ground gated spillway.

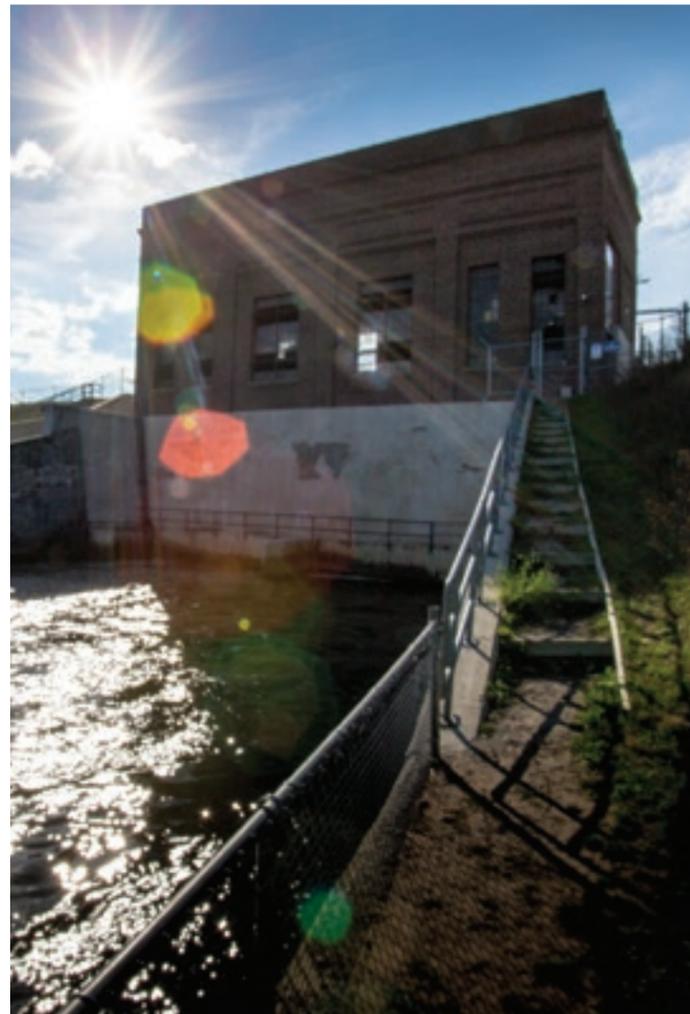
Mio Dam's spillway design, invented and patented by Consumers Energy's William Tefft, reduced construction costs and tailwater erosion during spill operation and increased the dam's efficiency.

"To get into the Hall of Fame requires something unique and different above all other hydroelectric projects being considered," said Dale Nickell, Hydro Operations Supervisor for Consumers Energy. "Mio Dam's spillway design was the first of its kind. For Mio to be inducted into the Hydro Hall of Fame is an honor."

Mio Dam continues to operate with the original turbines

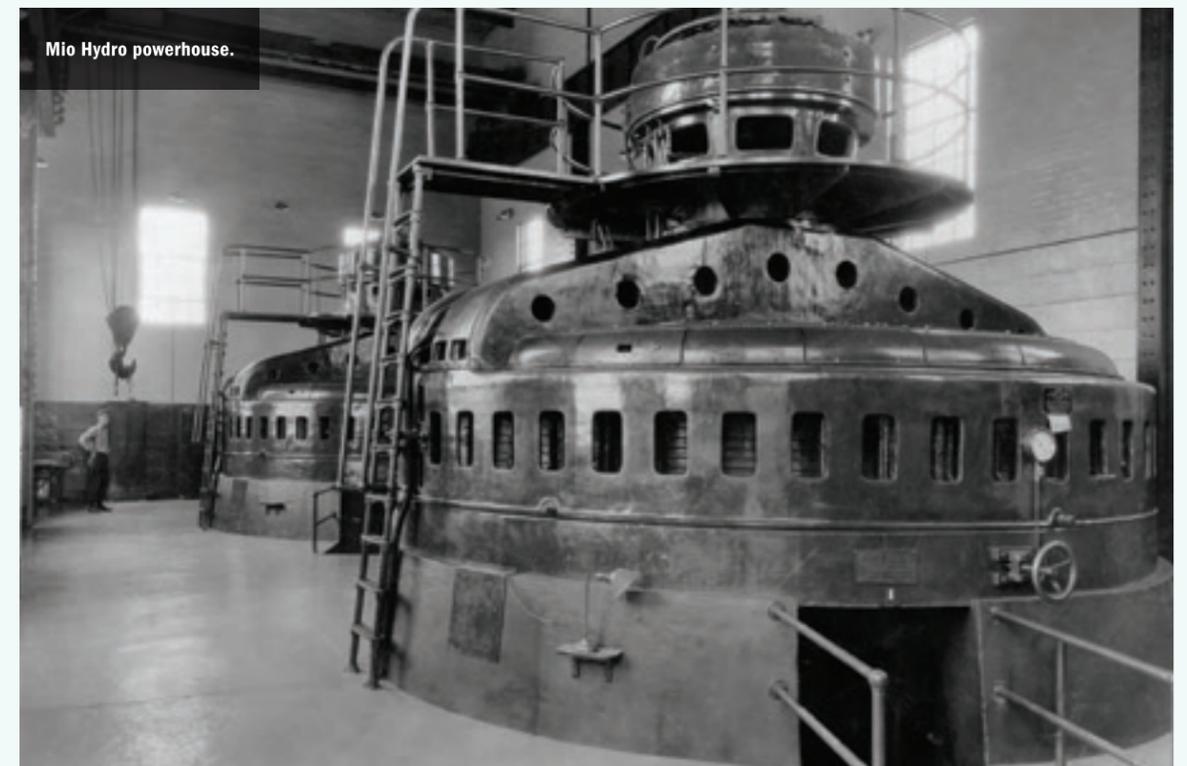
and generators installed over a century ago. "Mio's two units spinning at 80 rpm generate close to 5 megawatts of affordable, reliable and clean energy for Michigan customers," Broschak said.

"We know that our heritage is rooted in our hydroelectric plants and we are determined to take care of the original renewables."



Mio Hall of Fame

John Broschak, Vice President of Generation and Compression Operations for Consumers Energy, accepts the plaque recognizing the induction of Mio Dam into the Hydro Hall of Fame from Maria Barnes, Vice President, Group Publishing Director, Hydro and Water PennWell Corp. Photo courtesy of PennWell Hydro Group



Mio Hydro powerhouse.

Work Continues on Dragon Trail at Hardy Dam

PLANS FOR the longest outdoor recreational trail ever proposed on Consumers Energy's hydro lands are coming together. Originally referred to as the Hardy Dam Trail, the planning committee formally named it Michigan's Dragon Trail at Hardy Dam in 2016 for Hardy Pond's dragon-like outline when viewed from the air. At 47.5 miles, it's one of the most impressive large-scale recreational trails ever proposed on Consumers Energy's hydro lands.

The planning committee is comprised of over 30 public, private, educational and nonprofit groups with Newaygo and Mecosta county governments

leading the effort and each committing \$150,000 to construct the trail.

With the help of Applied Trails Research, an experienced outdoor recreation design firm, the collaborative group is finalizing the route of the single-track dirt trail, all the while focusing on wilderness preservation. The trail is expected to feature 23 footbridges and 18 scenic overlooks that will offer spectacular views along some 50 miles of Hardy Pond's shoreline.

"Since its founding in 1886, Consumers Energy has demonstrated its commitment to protecting our

environment," said Rich Castle, Natural Resources Administrator for Consumers Energy. "We'll carefully study the proposed trail route's impact on wildlife, natural resources and erosion as well as look at the long-term effects on the company's existing or future projects on Hardy Dam property."

MSU's Department of Economic Analysis reported the trail would be a major draw for tourism and projected an economic impact on west Michigan of over \$4 million a year through increased tourism, new tourism-related businesses and jobs.

The Dragon Trail is designed to go through day-use facilities, public parks and numerous campgrounds on land lease by Consumers Energy. This makes it convenient for visitors to spend a day or even longer exploring the trail. Plus, the location provides easy access to Hardy Pond's 4,000 acres of fresh water and the Muskegon River for multi-sports events.

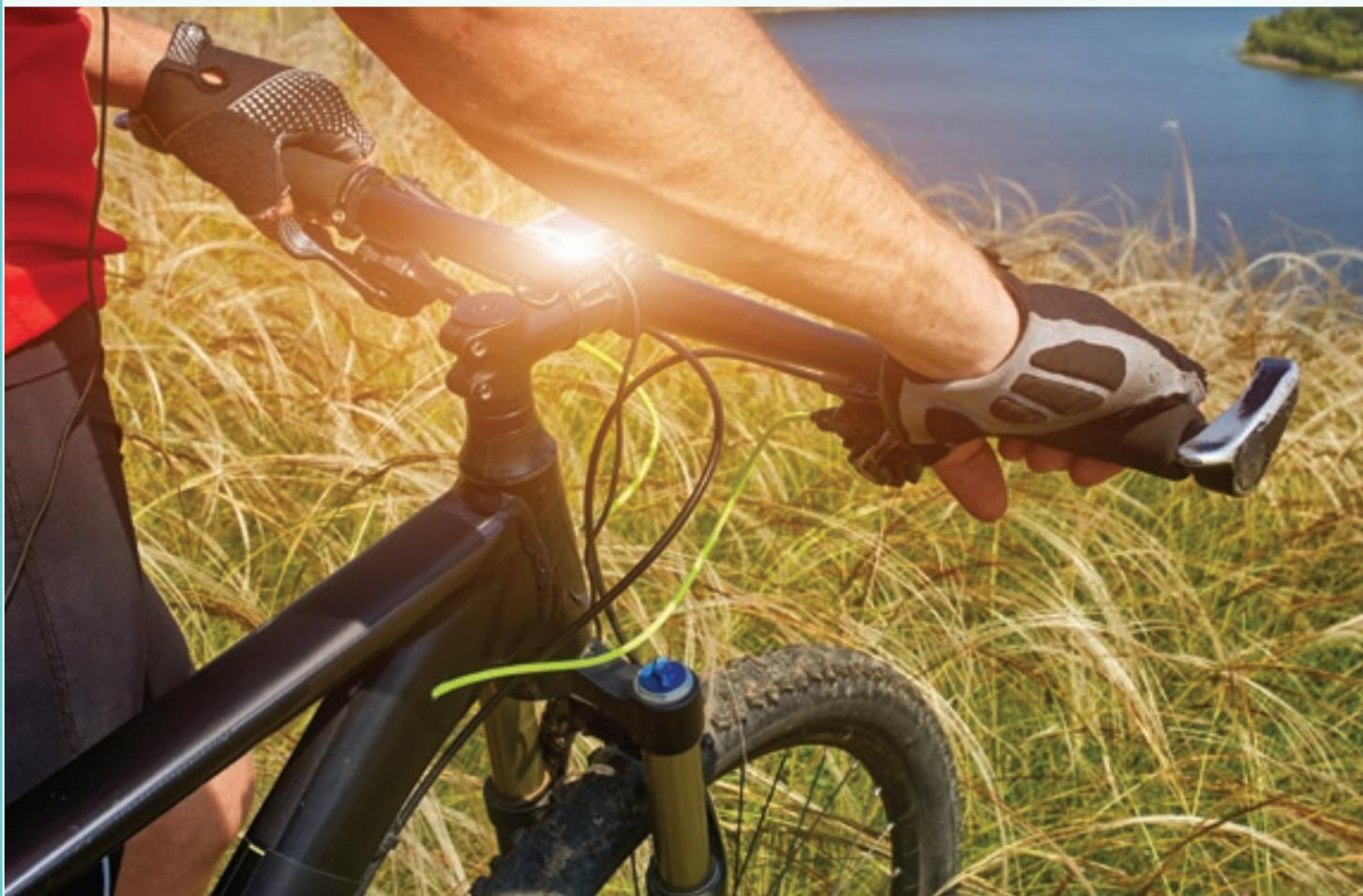
"When completed, the Michigan Dragon Trail at Hardy Dam will be a year-round destination for outdoor sports enthusiasts who enjoy hiking and mountain biking as well as snowshoeing, cross-country skiing and fat tire biking," Castle said. "It also has great potential as a site for competitive sports in one of west Michigan's most scenic areas."

Once the trail proposal is completed by the committee, it will undergo a thorough vetting process. Detailed plans must be approved by Consumers Energy's management team. After approval is given, Consumers Energy's Hydro Generation group will present the comprehensive proposal to the Manistee-Muskegon-Au Sable Coordination Team (members are listed on page 2).

After the MMAC Team's approval, the proposal will be sent to the Federal Energy Regulatory Commission for approval. "As the trail is entirely on Consumers Energy property, we have to ensure the proposal meets FERC's land management guidelines," Castle said.

Work constructing the trail could begin in mid- to late 2018 or 2019.

The trail concept was first presented to Consumers Energy in 2009 by Big Prairie Township, with assistance from the Croton-Hardy Business Alliance, Michigan State University Extension Office, the International Mountain Biking Association and Michigan State University Extension. At the request of the township, Newaygo County Parks and Mecosta County parks assumed leadership of the project in 2013.





Make ‘Smore Memories

CONSUMERS ENERGY owns 12,000 acres of land associated with its hydroelectric facilities. No matter where you look, there are incredible views.

With over 2,000 campsites along the majestic Au Sable,

Manistee and Muskegon rivers where you can pitch a tent on a rustic spot or park your motor home on a modern site. No matter what you choose, there's a campground waiting for you to make 'smore memories.

"The campgrounds and other recreational sites on our hydro lands are operated by the Michigan Department of Natural Resources, county and township governments and private businesses through lease-license agreements with Consumers Energy," said Brooke McTaggart, Land and Recreation Administrator for Hydro Generation.

"The operators of facilities on our hydro lands are dedicated to protecting the environment and improving their facilities. We're pleased to share information about three campgrounds that have made substantial upgrades for the 2018 season."

Northern Exposure Campground/RV & Recreational Park

With 300 acres and 2.5 miles of frontage on Hodenpyl Pond on the Manistee River in Mesick, Northern Exposure Campground/RV and Recreational Park offers spectacular views.

About 160 of the 240 sites have been redesigned to make them wider and longer and pull-through with 50 amp services added. All sites have water and concrete fire rings and 200 sites have water and electricity. New additions include a second playground, basketball and beach volleyball courts and the NEC Pizzeria.

The campground features 3.5 miles of paved roads, a laundromat, arcade, camp store, three modern bathhouses, and a paved double entrance boat launch, plus a swimming beach, canoe access/portage and picnic area. Dock slips, kayaks,

paddle boards and paddle boats are available for rent. The North Country National Scenic Trail winds through the campground. (See the National Trails System article on page 8.)

The nonprofit Northern Exposure Inc. leases the land from Consumers Energy. The campground is open from April 28 through October 15.

Old Orchard Park

Located near Foote Dam, Old Orchard Park in Oscoda Township features 4 miles of Au Sable River shoreline, over 500 day, seasonal, monthly, long-term and group campsites from rustic to modern (electricity and water), three cabins, four yurts, three modern bathhouses, boat docks, two sanitation stations, a camp store, playground, fitness trail, sandy swimming beach plus a sled hill that's open in winter.

Just in time for this year's visitors, the township installed a new dock, dredged the launch lagoon and widened and lengthened the single-launch ramp to make it easier for boaters to load and unload trailered watercraft. The shoreline also was stabilized to prevent erosion and the earthen slope made gentler and reseeded. (See the HIA Program article on page 12.)

The campground, on land leased from Consumers Energy and

managed by Oscoda Township, is open from March 15 through November 30.

Sandy Beach County Park

Situated on some 200 acres with stunning views of the 4,000-acre Hardy Pond on the Muskegon River, Sandy Beach County Park is a half-mile north of Hardy Dam. The park features 176 campsites, including seasonal, 21-day extended stay reservations (with a 30 percent discount) and daily reservations. Campsites range from rustic to pull-through with full hookup. To accommodate larger motor homes and RVs, 50 amp service and water are being added to 11 sites, bringing the number of sites with water and electricity to 72.

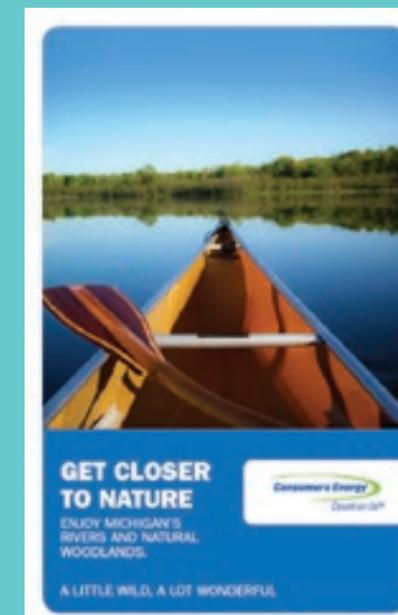
The park includes nine cabins (two of which are new for 2018), a large play area and a paved entrance to the new three-lane boat launch, 18 miles of open waterways, a sandy swimming beach, picnic area, playgrounds, group camping area, two modern bathhouses, a beachside pavilion for rental, plus day and seasonal boat slip rental.

Newaygo County Parks and Recreation Commission has a lease agreement with Consumers Energy to operate Sandy Beach County Park, which is open from May 4 through October 14.



Northern Exposure Campground located on Hodenpyl Pond near Mesick recently constructed a new campground office that houses a pizzeria and camp store.

FAST FACT:
Consumers Energy's 13 hydroelectric lands feature 78 recreational sites on five rivers.



“Get Closer to Nature”

Our free 16-page brochure, “**Get Closer to Nature,**” features things to do, maps to locate our recreational facilities, addresses for your GPS and phone numbers to call to get answers to your questions.

Download the brochure at ConsumersEnergy.com/hydro or pick one up at Michigan Welcome Centers, Chamber of Commerce offices near our dams, U.S. Forest Service Centers in Cadillac, Oscoda and Lumberman's Monument Visitor Center in Oscoda Township.

The brochure also is available at Harrisville State Park, Newaygo State Park, Tawas State Park and Tippy Dam Recreation Area. To get a brochure by mail, call Consumers Energy Hydro Generation at **231-779-5592** or email hydro@cmsenergy.com.



HYDRO REPORTER

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Hydro Generation
330 Chestnut Street
Cadillac, MI 49601