

Consumers Energy

Count on Us

Consumers Energy has a long tradition of restoring, protecting and caring for its lands, working hard to meet the growing needs of the world, while taking special care to maintain and renew the precious resources we all share. Management and employees have worked hard to assure the careful and responsible stewardship of our lands and natural resources. Based in Jackson, Michigan, Consumers Energy is one of the largest combination gas and electric utilities in the United States, and is the principal subsidiary of CMS Energy. As a long-standing member of the Wildlife Habitat Council (WHC) since 1988, Consumers Energy has been involved with projects and partners within local communities to promote economic and social sustainability.

The thousands of students who visit Consumers Energy's generating or wildlife habitat facilities each year carry away potentially life-shaping messages about the value of environmental activities. The company also conducts student environmental education and helps landowners to pursue wildlife management projects. It was one of the first utilities to develop formal environmental and wildlife habitat plans for its properties. Beginning with its early acquisition of land along major Michigan rivers, the company has been a leader in planting millions of trees and in providing outstanding public recreation opportunities.

The company has transferred nearly 100,000 acres of land to state and federal forest ownership for public use over the past 30 years. The utility's Wildlife and Forestry Management Plan is also consistent with the Northern States Bald Eagle Recovery Plan and North American Waterfowl Management Plan to assure positive contributions to broad-scale wildlife management beyond regional needs.

"Green places" abound on Consumers Energy carefully protected hydro lands, rights-of-way and buffer zones taking special care to craft an individual plan for each site. Activities range from restoring native prairie habitat, constructing hundreds of bird nesting boxes and platforms and safeguarding fragile riparian corridors, wetlands and upland areas.

The activities and programs combine community involvement, employee volunteerism, environmental education, increase public recreation activities in natural settings and significant efforts to increase the population of endangered or threatened species. As each program expands, thousands of acres of wildlife habitat will benefit from these collaborative management efforts. Nine Consumers Energy sites have implemented *Wildlife at Work*SM programs, and several participate in Michigan's Watchable Wildlife program. The "Michigan Watchable Wildlife Viewing Guide," for which the company provided major funding, encourages community experiences in many of the natural areas.

In 2000, the utility garnered top laurels by winning Edison Electric Institute's (EEI) National Land Management Award. EEI's National Land Management Awards annually honor one or more electric companies with the most outstanding records of caring for the lands they manage.

As an advocate for biodiversity, Consumers Energy builds an enduring and expanding base of support, helping people to make the connection between wildlife habitat conservation and their surrounding communities.

A Portfolio of Consumers Energy activities with the Wildlife Habitat Council



"The life of a business cannot be separated from its impact on the natural environment. It is people who, by each action, determine whether that impact is small or large. Consumers Energy employees are extremely dedicated to serving our customers. The spirit that drives customer service also drives a dedication to both minimal environmental impact and environmental enhancement. This allows us to strike a good balance between meeting customer demand and honoring the environment around our electric generating facilities. After more than a decade of partnership, WHC programs are more than ever one of our most effective tools in achieving that important balance."

Robert A. Fenech, Senior Vice President
of Nuclear, Fossil & Hydro Operations



Trumpeter swans on the Consumers Energy Loud Hydroelectric Plant's reservoir.



Bat conservation in action: Protecting an important link in the ecosystem

The Tippy Dam spillway chamber at Consumers Energy's Manistee River Hydroelectric Plant shelters one of the largest populations of hibernating bats in Michigan, and it is the only known hibernaculum in the state's Lower Peninsula.

The bat species using the spillway include the little brown bat (*Myotis lucifugus*), northern long-eared bat (*Myotis septentrionalis*), eastern pipistrelle - a Michigan species of special concern - (*Pipistrellus subflavus*) and federally endangered Indiana bat (*Myotis sodalis*).

Bats comprise one-fourth of the world's 4,000 species and are most often found near forested areas near water, which are insect-rich. Since bats are so distinctive, they have their own scientific order. Chiroptera is a Greek word that means "hand-wing" because the wing is similar to a human hand with a thumb and four long fingers. Also, they are our only true flying mammal, and valuable members of the ecological community.

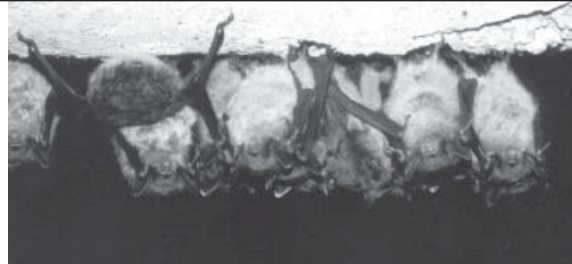
Surveys by Eastern Michigan University (EMU) professor and bat expert, Dr. Allen Kurta, in cooperation with Consumers Energy confirm that 17,000 to 21,000 bats hibernate inside the hollow spillway of Tippy Dam. Banding during the surveys over the past five winters has resulted in the banding and release of twelve Indiana bats and nine eastern pipistrelles. Temperature and humidity of the hibernaculum are also monitored. Consumers Energy protects the entire population of hibernating bats by limiting human disturbance to only that which is essential for dam operation or safety and to the monitoring by Dr. Kurta and his EMU graduate student team.

To provide optimum conditions for the bats, Consumers Energy limits human access to the spillway from September 1 to June 1 to minimize disturbances during hibernation. They also manage spill gate operation and testing during hibernation and halt timber harvests near the Tippy facility from May to October to avoid accidental harm to the bat species. Although Consumers

Energy's FERC license commitment has not required monitoring beyond the winter of 1999, the company has voluntarily continued to cooperate with Dr. Kurta and support his monitoring program. Current activities include a fall swarming survey, and early winter and late winter hibernation counts. During these surveys, members of the Hydro Wildlife at Work Team facilitate safe access into the spillway and assist in counting and banding bats.

Bats are of considerable ecological and economic importance. All bats are nocturnal, and feed nearly exclusively on flying insects (including moths, beetles and mosquitoes) and thereby are a natural control for both agricultural pests and insects. These flying

Closeup of hibernating bats at the Tippy Dam. Bats hibernate upside down in clusters, often with two or three layers on top of each other.



mammals are also instrumental in the pollination and seed dispersal of numerous plant species. The following are options to consider when managing bat habitat, from the Michigan Department of Natural Resources (DNR): Maintain water quality for proper bat management, which can affect the number and kind of insects available. Minimize the use of insecticides. Their broad use can seriously impact bats. Preserve and protect wooded corridors, riparian areas and trees along streams, rivers, lakes and ponds to increase the availability of natural roosts and ensure foraging habitat by protecting permanent water sources and providing a consistent insect supply.

Reintroducing the Trumpeter Swan in Michigan

The distinctive hoot of the trumpeter swan (*Cygnus buccinator*) is more likely to be performed on Michigan's wetlands, according to the most recent census that points to successful restoration efforts. The trumpeter swan is the largest waterfowl in North America and the largest swan in the world. It is a majestic bird, with snowy white feathers; jet-black bill, feet and legs; and eight-foot wingspan. Their habitat includes riverine wetlands, lakes, ponds and marshes, open wooded regions and prairies. To many people it is the embodiment of strength, grace, beauty and unspoiled wilderness.

Trumpeter swans were extirpated from Michigan sometime in the early 1900s due largely to unregulated hunting and the introduction of European mute swans, a more aggressive species that competes for the trumpeter's habitat. The first official management action that was and still is of great benefit to the trumpeter swan population was the inclusion of swans as protected species under the Migratory Birds Convention of 1916. Biologists began trumpeter restoration efforts in the 1960s, but it wasn't until the early 1990s that Michigan's wild trumpeter population was re-established.

Over the past four years, Consumers Energy has participated in efforts to restore a self-sustaining trumpeter swan population in the state. In partnership with the Michigan State University –

Kellogg Bird Sanctuary, Detroit Zoological Institute and Michigan DNR, Consumers Energy provided funding for and participated in the release of twenty-four trumpeter swans on the Au Sable and Manistee rivers. Fourteen trumpeter swans were released on the Au Sable River in 1997 and 1998; ten more swans were released on the Manistee River in 1999. Also, the partnership effort involved the release of two-year-old trumpeter cygnets (young swans) raised at the Sanctuary.

"The trumpeter swan's presence in Michigan is one indicator of a quality wetland. It is also a move toward large-scale habitat restoration, the key to maintaining biodiversity," said Joe Johnson, chief wildlife biologist, Kellogg Bird Sanctuary. Fisheries and wildlife experts manage the Sanctuary's resources and use it as a center for research and education.

Monitoring of the released birds has documented some nesting pairs in the areas near the release sites. The most successful pair raised three cygnets in 1999, five in 2000 and six in 2001. The trumpeter swan restoration project was selected as a winner of the 2001 Consumers Energy Corporate Environmental Award. As of September 2001, the Michigan trumpeter swan population estimate from the Kellogg Bird Sanctuary included 303 adults, 126 cygnets and 36 wild broods – a remarkable comeback for this gracious species.

Certified Habitat Programs at Consumers Energy

Consumers Energy understands and values the qualities that make green places so special to people and wildlife, and takes special care to ensure that natural areas are protected. Currently, eight of the company's sites throughout Michigan have achieved WHC certification, which adds value to programs by providing third-party credibility and an objective evaluation of projects. Visit www.wildlifehc.org for more detailed descriptions of the following certified facilities.

Within the Au Sable River watershed, 6,258 acres of wildlife habitat are associated with six hydroelectric projects, including the Mio, Alcona, Five Channels, Loud, Cooke and Foote Dams. The **Au Sable River Hydroelectric Projects** adopt the management standards and guidelines of the surrounding Huron-Manistee National Forests' Land and Resource Management Plan to achieve a seamless and unique approach to ecosystem land management. It also includes a Wildlife and Forestry Management Plan with activities such as a bald eagle program involving aerial eagle productivity census flights to determine nesting status and locate new territories and field banding and monitoring, both managed in cooperation with the Michigan DNR. Also, nearly 200 avian nesting structures for wood duck, eastern bluebird, American kestrel and purple martin are maintained on the project lands.

The **B.C. Cobb Plant** is located at the mouth of the Muskegon River and comprises 300 acres of fields, ponds and woods. The environmental enhancement team and community groups manage the open fields to maintain breeding areas for waterfowl that use the adjoining wetlands. Several wildflower areas have been established in the fields to provide food and cover for a variety of insects and songbirds, and a butterfly garden is kept near the plant entrance. The team continuously expands its Nest Monitoring Program, adding American kestrel and wood duck boxes (nearly 200) while re-evaluating their bluebird and waterfowl hen house program and managing for eastern screech owl, peregrine falcon, purple martin and house wren.

The **J.R. Whiting Plant**, located along the shore of Lake Erie and bordered by the Erie Marsh, contains more than 500 acres of wetlands, ponds and fields that are managed by the wildlife team. Consumers Energy cooperates with its neighbor, The Nature Conservancy, to protect the ecologically valuable Erie Marsh Preserve by managing adjoining habitat in a complementary manner. Local conservation groups, including the Lotus Garden Club of Monroe and Pheasants Forever, are engaged in developing and maintaining the critical habitat resources, such as the endangered American lotus. The Michigan Department of Environmental Quality and U.S. Fish & Wildlife Service also help with site projects: managing a wetland area with a giant reed eradication program, planting beneficial species and seasonally adjusting the water levels to optimize wildlife value.

The **Ludington Pumped Storage Plant** covers approximately 1,000 acres on the eastern shore of Lake Michigan, including an 840-acre reservoir. The remaining acreage contains hardwood and conifer forest, grasslands, shrub swamp and rocky shoreline. As a major corridor for bird migrations, the site provides excellent habitat for waterfowl, wading birds and passerine (perching birds and songbirds) species, as well as visitor viewing opportunities. The Oceana Audubon Club and local Scout Troops assisted with installing more than 30 bluebird boxes, which they regularly monitor. Also, hummingbird and butterfly gardens are maintained on-site.

A 3,832-acre project area is managed around the Tippy and Hodenpyl Dams on the Manistee River through the Wildlife and

Forestry Management Plan. These areas and their associated impoundments, wetlands, riparian zones and uplands create a unique corridor ringed by more than 65 miles of relatively undeveloped shoreline. The management of the **Manistee River Hydroelectric Projects** focuses on wilderness objectives with limited recreation facilities, wildlife habitat protection and limited timber harvesting designed to improve wildlife habitat and develop old growth forest characteristics with a focus on preserving bald eagle habitat. Three bald eagle territories exist within the Tippy and Hodenpyl Project areas. The wildlife program is an integral component in the monitoring studies that support a goal of one eaglet being fledged each year in each of the identified territories.

The Wildlife and Forestry Management Plan addresses the 6,130 acres of land of the **Muskegon River Hydroelectric Projects**. It establishes river-wide standards and guidelines and project-specific protection and enhancement measures for Muskegon River wildlife and vegetation communities at the Hardy, Croton and Rogers Dams consistent with the protection of the adjacent Huron-Manistee National Forests. To meet avian nesting objectives, nest boxes for bluebird, wood duck and American kestrel were placed throughout the areas along with osprey platforms. Specific areas of the Hardy and Croton project lands were identified, through vegetative and wildlife inventories, as appropriate for management of the federally endangered Karner blue butterfly. The natural resources of the areas create recreational and environmental education opportunities for employees and community groups. As part of the community outreach and education initiatives, the Hardy Dam Nature Trail, boat launch and new parking areas provide easy access for the community to experience the area's natural features.

See other articles in this portfolio on the **J.H. Campbell Plant** and **Karn-Weadock Complex**.

Consumers Energy Activity

Over 28,325 acres of Consumers Energy lands are managed for the benefit of wildlife habitat.

- 9 sites currently participate in WHC's *Wildlife at Work*SM program
- 8 sites have WHC certified wildlife habitat programs
- 3 sites achieved WHC recertification in 2001
- 1 site is active in the *Wildlife at Work* program, but is not yet certified
- 7 sites have been featured in WHC's *Corporate Homes for Wildlife* Calendar since 1993
- 5 sites have participated in WHC's Nest Monitoring Program since 1992
- 1 site is recognized as having a WHC certified *Corporate Lands for Learning*SM program

www.consumersenergy.com

Educational Value

Preparing our future caretakers of the environment

Research, environmental education and conservation. The J.H. Campbell Complex, located on the shore of Lake Michigan between Holland and Grand Haven, affords a unique opportunity for these programs on the 1,600-acre wildlife habitat surrounding the plant. Through an extensive *Corporate Lands for Learning*SM program, each year hundreds of schoolchildren visit the Biological Field Station, which includes a classroom and five miles of self-guided nature trails, to learn about protecting the environment.

Teachers initially attend a two-hour training session at the station, which helps maximize their ability to provide quality science classes to students, yet minimize the risk of insensitive visitors, protecting the native wildlife. The site employees are very active, maintaining the classroom and trails, as well as providing maps and other logistical help. The philosophy of the program is “awakening children to the reality that they are essential to the web of life and as adults they will be caretakers of their environment upon which all life forms depend.” Students engage in preparatory activities, such as choosing an area of study and learning relevant vocabulary. They are encouraged to use all their senses while learning about animals, trees and objects, and understanding concepts such as habitat and life cycles as related to points of interest along the trails.

Local professors and students from nearby Hope College also use the site for scientific research on nesting birds, since the site lies along a major migratory bird flyway. The mosaic of wetlands/grasslands and

second-growth forest that comprise the area attract a large variety of bird species in migration. This stopover is of critical importance for these migrating populations, and the employees and community members contribute numerous hours to not only maintain the site, but also to answer all the calls and requests from interested groups.

“Local students are able to take advantage of the opportunities that this site offers – from learning about stream water quality monitoring and testing to nest monitoring and studying the effects of habitat on migratory bird reproduction. I am very pleased with the team building that has resulted from students, community members and employees being able to interact with each other through a fun learning process,” said Dr. Kathy Winnett-Murray, Professor of Biology, Hope College. One particular employee’s son working toward his Eagle Scout badge was building a nest box, but after his learning experiences on-site, he was encouraged to ask Dr. Kathy Winnett-Murray to teach him more – truly the reward.

Wildflowers bloom at the J.H. Campbell Complex.



A BIRD’S EYE VIEW

Raptors are birds of prey – owls, eagles, falcons, hawks, ospreys – with three specific anatomical features: strong grasping feet equipped with sharp talons, a hooked upper beak and excellent binocular vision that allows depth perception for hunting. Two scientific orders are used to refer to raptors. *Falconiformes* are diurnal - they hunt mainly during the day - and include all birds of prey except the usually nocturnal owls, *Strigiformes*. These birds are in many cases misunderstood and persecuted. By educating people about raptors, their role in our environment will change.

The Karn-Weadock Complex lies on approximately 1,000 acres at the mouth of the Saginaw River in eastern Michigan, where important coastal wetland acreage is protected, including cattail marsh and rare wet coastal prairie. The River’s End Nature Trail, built with the help of the Chippewa Nature Center and Essexville-Garber schools, provides public access for wetland study and outstanding bird-watching opportunities. Another unique program involves raptor rehabilitation.

Since 1993, a 16-foot-high, 176-foot-long raptor flight pen has been used to rehabilitate injured birds from throughout the state. The flight pen, which contains three flight cages that can be further divided for holding pens, was initiated and designed by Sandy Miner, President, Tri-County Wildlife Support Team, and John Badour, former Consumers Energy employee. It is one of the biggest in Michigan, and creates an environment allowing the birds to hunt on their own so that they will not become dependant or accustomed to

human interference. The injured birds can exercise and rehabilitate their injuries until they are ready to return to their natural environment. Sandy and her team, who have the necessary permits from the U.S. Fish & Wildlife Service and Michigan DNR, have rehabilitated more than 200 raptors in the flight pen and returned them to the wild: from northern goshawk, red-shouldered hawk and Coopers hawk to long-eared owl, screech owl and great-horned owl. Plans to enlarge the flight pen will allow the team to care for larger raptors such as bald eagles, with the help of Dr. James Sikarskie, College of Veterinary Medicine, Michigan State University.

Sandy is also the Earth Science teacher at Bay-Arenac Community High School Charter School, which meets the needs of at-risk students. They look forward to helping with projects on-site – cleanups along the nature trail, weeding the butterfly garden and maintaining the bluebird nest boxes, as well as bird watching and helping with details in the raptor pen. Sandy teaches the students about the raptors’ flight, physiology, habitat, food and natural history. “I feel blessed to have this partnership with Consumers Energy,” said Sandy.

“We are happy to provide the land and protect the area, so Sandy can rehabilitate and release the birds. She receives a great deal of donor and outreach support from the community. The land surrounding the pen is maintained for perfect conditions for the released raptors – a nearby lake provides habitat and food,” said Susan Hewitt, Karn-Weadock Technical Supervisor. With this ongoing effort, we can continue to watch for graceful raptors soaring high above the Michigan landscape.

The Wildlife Habitat Council (WHC) is a nonprofit, non-lobbying organization dedicated to increasing the quality and amount of wildlife habitat on corporate, private and public lands. WHC devotes its resources to building partnerships with corporations and conservation groups to create solutions that balance the demands of economic growth with the requirements of a healthy, biodiverse and sustainable environment. www.wildlifehc.org

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