



# Wildlife and Habitat Protection

We have a history of working proactively with wildlife agencies and conservationists on research studies and stewardship projects designed to protect wildlife and its habitat.

Our commitment to communities extends beyond our relationship with the cities and towns we serve to protecting the land and natural resources surrounding Xcel Energy facilities. We manage thousands of acres of land through power line and natural gas facility rights of way and the lakes, rivers or grounds that support our power plants, substations, wind farms and other facilities.

Given our footprint, we play an important role as stewards of these locations. We take precautions to protect wetlands, threatened and endangered species, and other resources. When we upgrade, design and build facilities, we evaluate possible impacts to natural resources, such as wildlife and its habitat, and take appropriate steps to avoid or minimize potential risks.

We also look for opportunities to improve or restore habitat, with the goal of making a lasting difference. It's an approach consistent with our corporate environmental policy. Over the years we have funded and participated in studies, supported preservation efforts and worked side by side with conservation and environmental organizations on important stewardship projects.

While conservation and stewardship remain important, the most meaningful contribution we can make to protecting wildlife and nature is through our clean energy leadership. Climate change is one of the greatest threats facing wildlife and the environment. By transitioning to renewable and other clean energy sources, we help do our part to reduce carbon and other greenhouse gas emissions.

## Governance

The Operations, Nuclear, Environmental and Safety (Ones) Committee of the board of directors oversees all operational aspects and annually reviews the company's environmental strategy, compliance, performance issues and initiatives, including the wildlife, habitat and land management strategy and compliance. Within Xcel Energy, the chief operations officer reports to the CEO and oversees natural gas operations and electric distribution and transmission, which includes our land management and avian protection programs. The senior vice president of Energy Supply reports to the chief operations officer and is responsible for the company's environmental compliance.

## Highlights

- Through collaborative planting projects with community partners, we added more than 60 acres of new pollinator habitat in Colorado and Minnesota in 2021.
- As we rebuild or upgrade transmission lines in the Upper Midwest, we've installed swan-flight diverters. The coiled piece of equipment placed on overhead power line makes the lines more visible in avian pathways, reducing the hazard to birds and lines.
- Our popular Bird Cam website typically attracts more than a million visitors each year who tune in to watch bald eagles, kestrels and peregrine falcons. As early as 1989, we began working with the nonprofit Raptor Resource Project to install nest boxes at several of our Minnesota generating plants to help restore the peregrine falcon to the Mississippi River Valley. With the program's success, we began installing web-based cameras to share live video of the birds and their nesting habits with everyone. Our Bird Cam program grew from there. In addition to Xcel Energy bird cams, we also support the Minnesota Department of Natural Resource's EagleCam in St. Paul by helping band eaglets and providing camera and audio technical assistance.
- We're set to complete two new or remodeled facilities in 2022 that incorporate our sustainable site design concept and have planning underway for three additional projects to be completed in 2023. Sustainable sites are not only planned for the comfort and well-being of people, but they also incorporate environmentally friendly landscaping, materials and are designed to save water.
- The Xcel Energy Foundation and our company donated more than \$470,000 in 2021 to nearly 50 nonprofit programs that help protect and enhance the environment or offer environmental education. The investment is expected to improve or restore nearly 20,000 acres of rivers, habitats and parks and engage nearly 900,000 individuals in our communities in resource conservation exhibits or environmental education programs.
- For over a decade, we've partnered with Great River Greening, a non-profit organization in Minnesota dedicated to community-based restoration and stewardship. The organization regularly participates in Xcel Energy's annual Day of Service and employees continue volunteering to support its many projects—from planting trees and wildflowers to removing invasive plants and protecting shorelines.

## Avian Protection Plans

Transmission and distribution lines and equipment can be attractive to birds for roosting and building nests, and they can pose a collision or electrocution hazard that may result in injury or death to birds. Xcel Energy has implemented Avian Protection Plans, which were developed in collaboration with the U.S. Fish and Wildlife Service, and are essential for protecting birds, as well as meeting federal wildlife protection laws.

Under the plans, we retrofitted facilities determined to pose a higher risk for bird injuries or deaths with equipment, such as roosting deterrents and bird flight diverters. We also design new or modified facilities to meet industry standards to prevent or reduce the likelihood of avian incidents.

Reporting and monitoring are ongoing steps in complying with federal avian protection laws and acting responsibly to protect birds. Employees are required to report injured birds or fatalities using an online reporting form. As necessary, the reasonable retrofit or installation of additional avian controls at these locations can minimize the risk of incidents in the future.

## Responsible Wind Operations

Wind energy is an important resource for reducing carbon emissions and other environmental impacts. However, it's important that wind farms are properly located, constructed, operated, monitored and managed throughout their entire life cycle to achieve the full environmental benefit. To that end, we develop detailed Bird and Bat Conservation Strategies for all company-owned wind energy facilities. The strategy documents and provides a handbook for best management practices to be implemented at our facilities from early project conception through operation.

## Project Siting and Development

We use the U.S. Fish and Wildlife Service's Land-based Wind Energy Guidelines to inform the selection of company-owned wind energy facilities. The guidelines provide a framework to consistently assess potential sites and determine if wildlife protection strategies may be needed. As part of this, we work with wind project developers, the USFWS and appropriate state wildlife and natural resource agencies to avoid or minimize impacts to wildlife and habitat to the extent practicable.

## Construction

Best management practices for protection of wildlife species and habitat are implemented during construction and repowering of our wind energy facilities. To protect Lesser Prairie Chicken leks during the breeding season while constructing our Sagamore Wind Farm, we minimized traffic volume, reduced traffic speed on unpaved private access roads to 15 miles per hour, controlled access where feasible, and avoided all off-road travel in rangeland and planted grass areas. We also provide our construction contractors with site-specific environmental training on identifying and reporting wildlife issues. For example, many of our projects in Minnesota incorporate Minnesota Department of Natural Resources recommendations for avoiding and minimizing impacts to the state threatened Blanding's turtle. These practices include species-specific contractor training and installation of wildlife friendly erosion and sediment control products.

## Wind Farm Operations

With multiple new wind energy facilities recently becoming operational, we are working diligently to accurately evaluate the effects of our facilities on wildlife. We conduct avian and bat post-construction mortality monitoring at all our facilities to understand the magnitude of impacts to bird and bat species. We adaptively manage our wind facilities by evaluating the results of these studies and determining whether any operational changes or additional minimization measures are appropriate. This decision-making process is carried out in coordination with USFWS and state wildlife agencies, and avian and bat fatalities at our facilities are reported to these agencies per the conditions of our federal and state collection permits.

We are also active partners in several efforts to further the wind industry's knowledge base on wind-wildlife interactions and to advance technological solutions for reducing impacts to wildlife species. In South Dakota, our Crowned Ridge II facility is the site of a multi-year study on the movements of prairie grouse in and around wind farms. Sharp-tailed grouse are GIS tagged and tracked with the goal of better understanding the effects of wind energy development on prairie grouse seasonal habitat selection and demography. This information could be used to inform future wind energy facility siting and design decisions that minimize impacts to prairie grouse species.

We are partners in a University of North Dakota research project focused on improving technologies for detection of avian and bat carcasses at wind energy facilities. The research team is developing machine learning algorithms for identification of avian and bat species via cameras mounted on drones. Advances in this technology could help us and others in the industry more efficiently evaluate and address wildlife impacts at our facilities.

## Responsible Solar Power

Large-scale solar projects require approximately four to seven acres of land per megawatt of capacity, depending on the technology. We've aimed to make the most of the property that supports our company-owned community solar gardens in Boulder and Denver, Colorado. The solar arrays are located on the former sites of two retired coal-fueled power plants and the land around the solar panels was planted with a seed mix formulated to attract bees, butterflies or other beneficial species.

Xcel Energy is also currently developing the Sherco Solar Generating system, a utility-scale solar project in Becker, Minnesota, which is over 3,000 acres in size and will have capacity for up to 460 megawatts of solar power. We plan to establish native and pollinator friendly vegetation across the site to qualify for the Minnesota Habitat Friendly Solar Program. The project team is coordinating with representatives from multiple state agencies and native plant specialists to prepare for implementation of this plan, which would make it the largest solar site in the state to provide beneficial habitat to native birds, wildlife and insects.

## Renewable Energy Wildlife Institute

Xcel Energy supports the Renewable Energy Wildlife Institute (REWI), previously known as the American Wind and Wildlife Institute. It's an independent nonprofit organization working to solve challenges associated with wildlife and renewable energy through sound science and collaboration. We provided a significant financial contribution to the organization that encouraged its broader focus on research for mitigating environmental challenges at both wind and solar energy projects.

Our project funding also supports the organization's technology and research studies to help improve monitoring and avoid or minimize impacts to birds, bats and other wildlife at our wind farm sites. Examples of current or recent projects that we actively participate in include:

- A study to evaluate the impacts wind farm projects have on the displacement of Lesser Prairie Chicken populations
- A project to detect bat fatalities to aid in wind turbine curtailment strategies
- An ongoing study to improve the efficacy of a smart curtailment system using IdentiFlight, which is a camera-based technology for identifying the presence and potential impact to eagles, in order to initiate wind turbine curtailment to reduce the risk of collision.

Through these projects and others, we are gaining valuable insights to minimize the impact of renewable energy for our company, industry and the environment.

## Eagle Protection

Xcel Energy takes seriously the potential impact of wind energy on eagles. Because of the unique habitat surrounding each wind project, we apply a site-by-site approach to evaluating eagle risk at individual facilities. Xcel Energy conducts pre-construction eagle use and nest surveys to understand how eagles are using each potential wind farm site. Results of these surveys are used to make turbine siting adjustments and to determine whether additional eagle risk minimization efforts should be incorporated into a facility's Bird and Bat Conservation Strategy.

We own several wind farms where risk factors such as the presence of eagle nests or high eagle use have warranted development of site-specific Eagle Conservation Plans in coordination with the USFWS. These plans serve as supporting documents to Eagle Incidental Take Permits that Xcel Energy holds which allow a limited amount of eagle collision mortality at permitted facilities. These permits require rigorous eagle monitoring, regular coordination with USFWS, and continued adaptive management to reduce risk to eagles to the extent practicable.

## Lesser Prairie-Chicken Conservation

Rangelands in our Colorado, New Mexico and Texas service area provide important habitat for the Lesser Prairie Chicken (LEPC). In June 2021, the USFWS proposed to list the LEPC as a threatened and endangered species under the Federal Endangered Species Act. A final listing decision is expected in the second quarter of 2022. In advance of the listing decision, we are working with federal and state officials to avoid, minimize and mitigate potential impacts to the LEPC from Colorado's Power Pathway project in the eastern part of the state.

Since 2014, we have voluntarily spent more than \$9.5 million on minimizing and mitigating impacts and improving LEPC habitat. At our Sagamore Wind Farm in eastern New Mexico, we committed to investing in over 2,000 acres of preservation and restoration credits from the Lost Draw Conservation Bank—the first USFWS-sanctioned LEPC conservation bank. With Xcel Energy as an anchor tenant, the bank is working to expand, improve and protect high-quality LEPC habitat in a significant area of primary habitat located to the south of the Sagamore Wind Project. Lost Draw partnered with a local ranching family to permanently protect and manage the property—all while accommodating sustainable ranching operations.

Through this partnership, Lost Draw is restoring thousands of acres by reconvertng agricultural fields and removing tall woody species such as mesquite. The bank is also eliminating existing fragmentation, such as pivot irrigation, windmills and other tall structures, and will protect the conservation footprint for the LEPC through permanent easements held by a New Mexico land trust. The strategic location of Lost Draw also contributes to the goal of securing a stronghold and potentially a focal area for the LEPC in the future.

## **Support for Pollinators**

Pollinators, including bees, butterflies, some birds and even bats, are vital to flowering plant reproduction for producing most fruits and vegetables, and their populations are shrinking. According to the U.S. Fish and Wildlife Service, more than 75% of our food crops rely on pollinators to survive. Xcel Energy has been working with partners to support the development and maintenance of pollinator habitats for more than 30 years.

We have more than 50 active sites ranging from less than one to 800 acres, covering nearly 1,800 acres of pollinator habitat, in Colorado, Minnesota, North Dakota and Wisconsin. These include various company properties—under transmission lines and around substations, generating plants, office buildings, community solar gardens, and even a wind project. We are supporting and initiating projects that make a difference in the survival of pollinators, restoring native prairie ecosystems and targeting special species of concern including the monarch butterfly, rusty patched bumblebee and Karner blue butterfly.

Because we cannot achieve success on our own, we partner with state and federal agencies, communities and nonprofit organizations. In 2021, we expanded pollinator habitat under transmission lines in Bloomington, Minnesota. Partnering with the nonprofit organization, Great River Greening, and volunteers from the Shakopee Mdewakanton Sioux Community, we seeded more than nine acres in the area with a mix of grasses and more than 30 wildflowers designed to help pollinators, such as purple prairie clover, wild lupine and milkweed. Once this site is fully established in about three years, the seeds will be harvested for use in future pollinator habitats.

We also partnered with Scott County Soil and Water Conservation District and the city of Savage, Minnesota, to plant a new pollinator habitat at McColl Pond Environmental Learning and Event Center. The planting along one of Xcel Energy's transmission lines took place in fall, which is an ideal time to plant seeds for spring germination.

In Colorado, pollinator friendly seed mix was planted on approximately 50 acres surrounding three project sites constructed in 2021: the Tacoma Flowline at the Tacoma Hydroelectric Plant in La Plata County, Valmont Solar Garden in Boulder, and the Arapahoe Solar Garden in Denver. In addition, employee volunteers from Colorado are partnering with nonprofit organizations to help educate other employees on the importance of pollinator species and supporting projects for the development and maintenance of pollinator habitats in our communities. Partner organizations include the Butterfly Pavilion, Volunteers for Outdoor Colorado and the Colorado Pollinator Network.

Xcel Energy and the contractors we employ do not use chemicals that are harmful to beneficial insects in our vegetation management practices for controlling brush, trees and weeds on our rights of way and properties. This includes eliminating the use of neonicotinoids, which is of special concern to people working to improve bee populations.

As we move forward with the pollinator initiative, we are focusing on developing habitat that can be sustained, allowing time for the sites to develop. Our primary goal is to continue educating the communities we serve on the importance of pollinators in their daily lives while using company property to make a difference.

## Sustainable Site Design

We're incorporating thoughtful, sustainable site design practices into the landscaping around Xcel Energy facilities, including office buildings, service centers and substations. With the goal of minimizing the impact of our facilities on the natural environment, our new site design approach aligns with and demonstrates our corporate environmental policy in action. We've put the tools and resources in place and are applying guidelines, listed below, to incorporate sustainable design into our facility projects.

- **People:** A well-designed site fosters physical and mental wellness by providing connections to outdoor spaces, equitable access to site features with ADA compliance, and facilities that encourage alternate modes of transportation.
- **Water:** Water is one of the most precious resources we have in our landscape. Site design must look for ways to treat stormwater on-site improving water quality and recharging the local groundwater supply. Landscape design should reduce or eliminate the need for permanent irrigation systems, helping to minimize the use of potable water.
- **Vegetation:** Landscape design should consider the greater site context looking for ways to enhance existing native habitats, remove invasive species, increase plant diversity and pollinator friendly species. A focus should be made to include species that are native and adaptive to the region.
- **Materials:** A sustainable approach to specifying materials includes looking for opportunities to reuse materials already on-site, use materials with recycled content, and specifying regionally sourced materials.

Following these guidelines and design practices, we broke ground on the Brainerd Lakes Area Service Center in Minnesota in 2021. The project is expected to be completed in 2022, with landscaping that incorporates native grasses and trees, pollinator friendly vegetation, no-mow turf and wetland seed mix in stormwater management areas.

We also expect to finish remodeling the Edina Service Center and adjacent substation in 2022. It's our first retrofit of an existing site and serves as a test for applying sustainable design practices at other established locations. The Edina design focuses on sustainability, improved aesthetics and functionality. We're planting a bee lawn seed mix, pollinator friendly plants, no-mow turf and native trees, as well as installing a filtration basin to improve stormwater management.

Other sustainable site design projects expected to be completed in 2023 include: the new Marshall Operations Center in Minneapolis and the new Belle Plaine and Belgrade service centers in Minnesota.