Our Bird Story

Protecting Birds of Prey
Improving Reliability for Customers

IDAHO POWER®
An IDACORP Company

Protecting Birds and Providing Power

In a shared environment, we do both

At Idaho Power, our mission is to safely and responsibly provide reliable, fair-priced energy to the communities we serve today and tomorrow. We understand that keeping the power on is essential to our customers. It is important to us, too. In accomplishing this goal, we strive to be good stewards of the environment we share with birds of prey. So while we work to deliver the power our customers need, we also work to protect birds of prey that sometimes interact with our electric system. This is our story.

Front cover:
A golden eagle peers out across Swan Falls Reservoir.

Back cover:
Idaho Power crews install a safe nesting platform while an osprey soars above.

Southern Idaho and eastern Oregon—Idaho Power's service area—are home to a large number of eagles, hawks, falcons and owls. These birds of prey share the region with hundreds of thousands of people who depend on us to deliver fair-priced electricity safely and reliably.

As stewards of this shared environment, we must balance our obligations as an electric utility with the needs of our service area and the safety of its birds of prey. We're mindful that the power-delivery infrastructure that serves our customers reliably can conflict with the activities of birds of prey.

Unfortunately, these interactions can have consequences for the birds and our customers. When large birds land and take off from power poles, or use them for nesting and perching, their outspread wings may connect high-voltage components, creating a pathway for electricity to flow through the bird, which can lead to electrocution of the bird and power outages that impact our customers. Idaho Power is an industry leader in protecting birds that use power poles and encounter power lines. We accomplish this through our proactive Avian Protection Program. The program includes making our power poles and lines safer for birds and training employees as well as providing public education activities and fostering conservation partnerships.

While advances have been made in developing solutions, it remains a challenging endeavor. Yet we are committed to being a good steward and complying with laws protecting raptors. These laws include:

- Migratory Bird Treaty Act
- Endangered Species Act
- Bald and Golden Eagle Protection Act

Ospreys are among the most frequently seen birds of prey in Idaho Power's service area. We work continually to protect them, and to provide power to our customers safely and reliably.

Our Shared Heritage

Birds of prey—also referred to as raptors—are part of our natural heritage. Their abundance and diversity is reflected at two unique resources for raptor conservation and public education: the Morley Nelson Snake River Birds of Prey National Conservation Area in southwestern Idaho, and the headquarters of the Peregrine Fund's World Center for Birds of Prey.

Home to one of the world's densest and most diverse concentrations of nesting birds of prey, the national conservation area protects the habitat of 24 raptor species—American kestrels, golden and bald eagles, prairie falcons, red-tailed hawks, northern goshawks and burrowing owls, to name a few. Yet these birds live throughout Idaho Power's 24,000-square-mile service area—in the forests, deserts, canyons and farmlands, and along the rivers. So we travel far in our work to protect them, and to safely assure power reliability for our customers.

Idaho Power linemen move an osprey nest to a safe location on power poles near Phillips Lake in eastern Oregon.

Identifying the Problem, Developing Solutions

The electric utility industry learned in the early 1970s that large birds needed to be protected from electrocution. Awareness grew out of an investigation into the reported shooting and poisoning of eagles in Wyoming. The investigation confirmed those reports, but it also found electrocuted eagles.

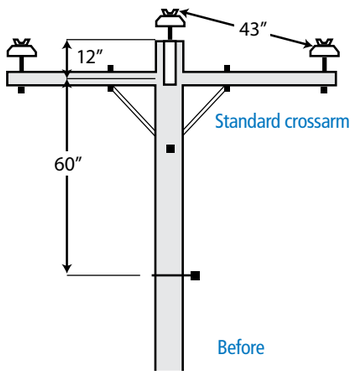
Idaho Power began working toward solutions in 1972 when it joined forces with Morlan "Morley" Nelson. The renowned birds of prey authority, who died in 2005, is the namesake of today's conservation area. Morley partnered with our engineers and biologists to study the problem and implement solutions.

They looked at power poles first. What was it that made them so dangerous to birds of prey?

The team found that most of an eagle's problems with power poles involved its broad wingspan. The span could allow the wings to simultaneously touch two conductors, or one conductor and a ground wire. To avoid electrocution of the birds, utilities needed to prevent the birds from making these two points of contact.

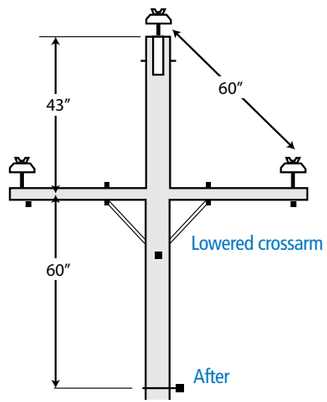
To learn more about the risks of that activity, our line crews built mock-ups of various types of poles in Morley's backyard in the Boise foothills. That enabled him to study the behavior of his own trained eagles as they landed and took off from poles. That early research helped us develop our Avian Protection Program.

To protect birds with broad wingspans from electrocution, Idaho Power lowers the cross arms on power poles (right) to increase the distance between energized components.



How We Protect Raptors from Electrocution

Protecting raptors from electrocution is a major goal of our Avian Protection Program. We respond to bird issues when they occur, and continually implement effective measures to eliminate or minimize the risk of electrocutions. But with hundreds of thousands of poles in our system, we can't fix all of them at once. So we identify high-priority areas and focus on areas where raptors will benefit most.



Idaho Power linemen install protective covers on energized components to allow birds to perch safely on power poles.

The ongoing measures we implement to minimize electrocutions include:

- Incorporating raptor-safe designs, devices and modifications in all new and rebuilt poles
- Replacing poles' standard cross arms with wider cross arms, or lowering standard cross arms, to increase the distance between electrical conductors (see diagram on page 3)
- Covering jumper wires, conductors and other equipment so birds can perch safely on poles
- Installing perches that encourage birds to land at a safe location on a pole

How We Protect Nesting Raptors

Our Avian Protection Program includes measures to safeguard birds, such as ospreys, that fish the rivers of our service area. Ospreys build messy nests and are attracted to power poles that are close to rivers and lakes.

We build safe nesting platforms for ospreys on utility poles. We've also placed hundreds of nesting platforms either above energized wires or on separate, nonelectric poles we erect near the original nest.

While these nesting platforms protect the birds, they also protect the reliability of our power system. That's because nests on power poles can cause power outages.

Ospreys, for example, build nests with dangling debris. Such a nest can pose safety risks to the bird and operational risks to the power system when nest material provides a pathway for electricity to flow.

When such a risk is apparent, we will move the nest to a safe platform built nearby, or to a safer location on the same pole or tower.

Nests are relocated when there are no eggs or young present. Active nests are only relocated if there is an imminent threat to the nest. All raptor nests are protected by federal laws. In fact, we are required to apply for a permit from the U.S. Fish and Wildlife Service to relocate an active nest.

In some cases, we will install devices on the original pole to discourage future

Messy osprey nests on poles can pose risks to the birds and the power system. Nests often need to be moved from dangerous locations to safe nesting platforms (inset).

nest building. Ospreys are the most common raptors that use power poles for nesting. Red-tailed hawks, golden eagles, ferruginous hawks and other raptors also sometimes use poles for nesting.

How We Protect Birds from Power Lines

Our Avian Protection Plan also addresses the safety of birds in flight, focusing on collisions with overhead power lines. Such collisions are uncommon. When collisions do occur, they typically involve large-bodied, less-maneuverable birds such as Canada geese and waterfowl species that fly at high speeds and low altitudes, or in large flocks.

Collisions occur most often near ponds, reservoirs and rivers, where power lines exist near concentrations of waterfowl, along migratory paths, and where lines cross feeding and nesting sites.

Often cited as factors in power line collisions are birds' height of flight, nocturnal flights, poor vision, weather and how often birds in flight must cross a power line within their daily use area.

To address the problem of power-line collisions, Idaho Power installs marking devices on lines at problem sites and high-use areas. These devices make the lines more visible, reducing the number of collisions.

Pelicans, Canada geese and swans are some of the wetland species that benefit from line markers.

An Idaho Power contractor places a reflective marking device (inset) on a power line to make the line more visible to birds in flight. The devices help large birds avoid colliding with the lines.

Partnering to Protect Birds of Prey

We work in partnership with organizations such as the Avian Power Line Interaction Committee. We also collaborate closely with others in the utility industry, U.S. Fish and Wildlife Service and state wildlife agencies to manage conflicts between our poles and lines and birds of prey.

We are continually improving our understanding of the birds' behavior, and our development and implementation of effective protective measures. Our goal is to continue delivering fair-priced power safely, reliably and in ways that reflect our commitment to responsible stewardship of the environment we share.

Idaho Power worked with renowned raptor authority Morlan "Morley" Nelson (inset) to develop ways to protect birds of prey—including red-tailed hawks—from risks posed by power poles and lines.

OSPREY
(*Pandion haliaetus*)
Size: 20–26 inches long
Wingspan: 59–72 inches
Weight: 2–4.5 pounds

BALD EAGLE
(*Haliaeetus leucocephalus*)
Size: 30–42 inches long
Wingspan: 78–96 inches
Weight: 9–14 pounds

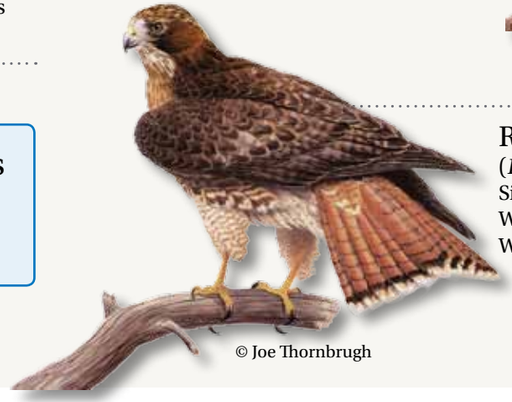
GOLDEN EAGLE
(*Aquila chrysaetos*)
Size: 30–42 inches long
Wingspan: 74–90 inches
Weight: 7–13 pounds

AMERICAN WHITE PELICAN
(*Pelecanus erythrorhynchos*)
Size: 50–67 inches long
Wingspan: 96–114 inches
Weight: 11–20 pounds

FERRUGINOUS HAWK
(*Buteo regalis*)
Size: 20–26 inches long
Wingspan: 48–60 inches
Weight: 2.2–4.5 pounds

GREAT HORNED OWL
(*Bubo virginianus*)
Size: 18–27 inches long
Wingspan: 40–60 inches
Weight: 2–5 pounds

Birds that sometimes interact with power lines and poles



RED-TAILED HAWK
(*Buteo jamaicensis*)
Size: 18–26 inches long
Wingspan: 43–57 inches
Weight: 1.5–3.5 pounds

Printed on recycled paper with soy-based inks.

CID#50533 / 500 / 02-2011

For more information, please visit

www.idahopower.com/OurBirdStory

IDAHO POWER®
An IDACORP Company