

**Public Utility District No. 1 of Chelan County
Wenatchee, Washington**



CHELAN COUNTY
**DISTRIBUTION
SERVICES**

Avian Protection Plan

Updated: June 2023

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1.0 Introduction

The purpose of Public Utility District No. 1 of Chelan County Wenatchee, Washington's (Chelan PUD or District) Avian Protection Plan (APP) is to reduce risks to avian (bird) species that can result from electrocutions and collisions with electric utility power lines and equipment.¹ Through the development and implementation of this APP, Chelan PUD seeks to make continuous improvements in efficient, effective, compliant and risk-assessed operations while reducing avian risks.

Chelan PUD is a nonprofit municipal corporation and functions as a customer-owned public utility district. Chelan PUD provides electric, water, wastewater and telecommunications services in Chelan County, in north-central Washington. Chelan PUD's service territory includes about 330 miles of transmission line and 1,800 miles of distribution line (880 miles overhead) in which it moves power from its three hydroelectric projects – Rock Island, Rocky Reach and Lake Chelan – to serve its customer-owners in its service territory and other parts of the Pacific Northwest.

Power lines and associated electrical equipment can cause mortality of raptors, eagles and other migratory birds through electrocution and collisions. Electrocution is a particular threat to birds with large wingspans, such as eagles, hawks and owls, all species protected under the Migratory Bird Treaty Act (MBTA). Avian interactions with power lines also cause power outages, which represent added cost and inconvenience for customer-owners. Additionally, various statutory authorities establish civil, criminal or administrative penalties for the unauthorized take of migratory birds. The following section describes the federal protections afforded to avian species to provide background for the APP.

1.1 Federal Avian Protection Laws

Three federal laws protect almost all native avian species and prohibit “taking” them. The MBTA protects over 1000 species of native North American migratory birds. The Bald and Golden Eagle Protection Act (Eagle Act) protects both bald and golden eagles. The Endangered Species Act (ESA) applies to species that are federally listed. At the core of all three of these statutes is conservation and protection of the listed species.

The U.S. Fish and Wildlife Service (USFWS) is the federal agency principally responsible for compliance and enforcement of the MBTA, the Eagle Act and the ESA. Avian protection plans are voluntary plans that the USFWS recognizes will reduce avian risk as well as risk of enforcement. Since the formation of the Avian Power Line Interaction Committee (APLIC), the electric utility industry and the USFWS have worked together to reduce avian electrocution and collision mortality. The USFWS worked with APLIC to develop guidelines for voluntary APPs (APLIC & USFWS 2005). Chelan PUD is a member of APLIC and developed its first APP in 2005 consistent with the USFWS guidance. Developing and implementing an APP consistent

¹ The District has a separate Wildlife Management Plan designed to help protect and conserve wildlife as well as improve electrical reliability to customer-owners that is aligned with Chelan PUD's APP.

with these guidelines demonstrates the District’s commitment to reducing risks to birds and providing reliable service to its customer-owners.

1.1.1. Migratory Bird Treaty Act

The MBTA is the cornerstone of migratory bird conservation and protection in the United States. The MBTA implements four treaties that provide for international protection of migratory birds. The list of MBTA-protected species is vast and includes over 1,000 native bird species found in North America. Within Chelan County and central Washington, there are only a few species of birds that are not protected under the MBTA including English sparrow, European starlings, rock dove (common pigeon), and the Eurasian collared dove.

The MBTA is a strict liability criminal statute that prohibits unpermitted take of migratory birds with no citizen suit provision. The MBTA states:

“Unless and except as permitted by regulations...it shall be unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, kill...possess, offer for sale, sell...purchase...ship, export, import...transport or cause to be transported...any migratory bird, any part, nest, or eggs of any such bird...[The Act] prohibits the taking, killing, possession, transportation, import and export of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior.”

(16 U.S.C. 703.)

Although the statute does not define “take,” “take” is defined by regulation as “to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” 50 C.F.R. § 10.12. Although the USFWS issues permits for, among other things, import and export, scientific collecting, and banding and marking of MBTA-listed species, no authority currently exists for permitting incidental take associated with commercial activities. In interpreting the scope of the MBTA prohibitions, the courts are split on whether the prohibitions apply to incidental take of migratory birds. To date, the U.S. Supreme Court has not resolved the split in the circuit courts.

In December 2017, the U.S. Department of Interior’s (U.S. DOI) Office of the Solicitor issued a memorandum (Opinion M-37050) that found the prohibitions of take under the MBTA apply only to “affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs.” In April 2018, the USFWS issued clarifying guidance that the U.S. DOI does not consider incidental take a violation of the MBTA if the purpose of the activity is not to take birds. In addition, in June 2018, the USFWS issued guidance clarifying that the MBTA does not prohibit the destruction of an inactive migratory bird nest, provided that no possession occurs during the destruction and no permit or other regulatory authorization is required.

On January 30, 2020, the USFWS proposed a rule to codify Opinion M-37050 in a regulation defining the scope of the MBTA to conduct intentionally injuring birds. 85 Fed. Reg. 5,913. Conduct that results in the unintentional (incidental) injury or death of migratory birds is not prohibited under the MBTA. As a result, enforcement of the MBTA is currently limited to

actions with the purpose of killing migratory birds, their nests, or their eggs, such as hunting or poaching.

1.1.2. Bald and Golden Eagle Protection Act

Bald and golden eagles are protected under the Eagle Act as well as under the MBTA.



The Eagle Act prohibits the take of any bald or golden eagle, alive or dead, including any part, nest or egg. “Take” is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” a bald or golden eagle and includes criminal and civil penalties for violating the statute. “Disturb” means to agitate or bother an eagle to a degree that causes, or is likely to cause, (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding or sheltering behavior. 50 C.F.R. § 22.3.

The USFWS has adopted regulations to provide for eagle incidental take permits for take associated with otherwise lawful activities. 50 C.F.R. § 22.26. In 2013, the USFWS issued its Eagle Conservation Plan Guidance for Land-based Wind Energy but has not yet issued guidance for other activities.

Additionally, the USFWS has issued regulations for the “removal or relocation of (i) an in-use or alternate nest when necessary to alleviate an existing safety emergency, or to prevent a rapidly developing safety emergency that is otherwise likely to result in bodily harm to humans or eagles while the nest is still in use by eagles for breeding purposes; (ii) an alternate nest when the removal is necessary to ensure public health and safety; (iii) an alternate nest, or an in-use nest prior to egg-laying that is built on a human-engineered structure that creates, or is likely to create, a functional hazard that renders the structure inoperable for its intended use; or (iv) an alternate nest, provided the take is necessary to protect an interest in particular locality and the activity necessitating the take or the mitigation for the take will, with reasonable certainty, provide a net benefit to eagles.” 50 C.F.R. § 22.27.

1.1.3. Endangered Species Act

The ESA was passed to protect endangered and threatened species and to provide a means to conserve their ecosystems. Under Section 9 of the ESA, it is unlawful to “take” an endangered

species. 16 U.S.C. § 1532. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” The Secretary of Interior has defined the term “harm” as “an act which actually kills or injures wildlife...by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” 50 C.F.R. § 17.3. In 2019, the USFWS withdrew its blanket rule that automatically extends the Section 9 take prohibition to threatened species and instead the USFWS adopted a species-specific take prohibition under Section 4(d), thus aligning USFWS’ practice with the National Marine Fisheries Service’s longstanding approach. Violations of the ESA can give rise to civil and criminal liability, including fines and imprisonment. The ESA also contains a citizen suit provision.

1.2 Washington State Avian Protection Laws

Under Washington state law, all wild birds are classified as “protected wildlife,” unless the Washington Fish and Wildlife Commission (WFWC) has exempted them by rule and classified them as “game birds” or “predatory birds.” RCW 77.12.020(3). The WFWC has exempted some common birds (including house sparrows, European starlings, crows, and rock pigeons) from “protected wildlife” status; however, the vast majority of wild birds are considered “protected” under state law. *See* WAC 220-400-030(1). The WFWC may also afford additional protections to protected birds by further subclassifying them as “sensitive,” “threatened,” or “endangered” for purposes of state wildlife laws. *See* RCW 77.12.020.

It is an unlawful “taking” to possess or maliciously destroy the eggs or nests of protected birds without a permit issued by the Washington Department of Fish and Wildlife (WDFW). RCW 77.15.130(1)(a). For birds further protected as state endangered species, it is an unlawful “taking” to kill birds or possess or intentionally destroy their nests or eggs without a permit. RCW 77.15.120(1). WDFW follows a Standard Operating Procedure (SOP) for Bird Nest Removal and Management in Washington, adopted in 2013. Under that guidance, WDFW may issue individual or programmatic nest removal permits authorizing the relocation or destruction of protected bird nests. Owners and managers of human-built structures, including utility poles, do not have affirmative obligations to prevent nesting on those structures. However, removal of nests on human-made structures, including osprey nests, must be specifically authorized by WDFW. Chelan PUD is in the process of applying to WDFW for programmatic take authorization for osprey nests.

2.0 APP Program Overview

Consistent with the USFWS guidance issued in 2005, the District’s APP includes the following elements:

- ❖ *Policy* – A statement of Chelan PUD’s commitment to avian protection and effective implementation of the plan.
- ❖ *Training* – Programs and resources in place for increasing employees’ knowledge and awareness of avian protection issues and APP procedures.

- ❖ *Permit Compliance* – A review of current permit requirements and procedures for permit compliance.
- ❖ *Construction Design Standards* – Standards to be used for design of new construction in areas of avian risk and for retrofitting equipment where bird mortality has occurred.
- ❖ *Nest Management* – Procedures for assessing and managing nests on utility structures.
- ❖ *Avian Reporting System* – Procedures and data systems used to report, document, and track bird mortality incidents.
- ❖ *Risk Assessment Methodology* – Methods for using the Avian Reporting System data and additional data on bird activity areas to assess avian risk and prioritize areas for avian-safe new construction standards and proactive retrofit efforts.
- ❖ *Avian Enhancement Options* – Procedures for evaluating and implementing where feasible, potential proactive measures to enhance migratory bird populations or habitat.
- ❖ *Quality Control* – Procedures that may be used to periodically assess the effectiveness of the APP program and possible areas of improvement.
- ❖ *Public Awareness* – Methods that may be used to educate the public about avian protection issues, Chelan PUD’s APP, and the District’s successful avian protection efforts.
- ❖ *Key Resources* – Resources to be used by Chelan PUD in implementing the APP.

3.0 Chelan PUD’s Avian Management Policy

Chelan PUD’s four core values in its strategic plan are safety, trustworthiness, operational excellence and stewardship. Stewardship is defined as “acting on behalf of customer-owners, protecting public resources entrusted to us.”² Implementation of this APP further underscores Chelan PUD’s commitment to stewardship and its goal of providing reliable electrical service in a cost-effective manner while minimizing detrimental impacts to bird interactions with power lines and other electrical equipment, consistent with state and federal laws.

This APP is intended to serve as a reference to assist Chelan PUD in managing avian related issues and will be updated periodically to incorporate new information consistent with federal and state authorities. A successful APP involves management endorsement and support to ensure that resources are appropriately allocated, that there is a unified approach for implementing the plan and the necessary oversight to ensure that the APP is effective.

To fulfill the District’s commitments to avian protection, Chelan PUD will:

- Implement and comply with this APP;
- Ensure its actions comply with applicable laws, regulations, permits and APP procedures;

² Chelan County PUD Strategic Plan 2020 – 2024.

- Ensure that Chelan PUD's wildlife personnel will coordinate with USFWS on APP implementation and annual reporting requirements and will continue to document bird mortalities, problem poles/line/electrical equipment, and problem nests;
- Ensure Chelan PUD's distribution personnel are trained on the avian program and APP components and the District will continue to provide information, resources and training to improve its employees' awareness of avian protection issues and APP content and procedures;
- Conduct risk assessments to determine areas of high risk;
- Construct, to the extent practicable, all new or rebuilt lines (and other electrical equipment as appropriate) in identified areas with high avian risk to Chelan PUD's raptor-safe standards;
- As practicable, modify or retrofit power poles (and other electrical equipment as appropriate) where a raptor or other large bird has died or been injured; and
- Inform the community about Chelan PUD's avian protection efforts in order to raise public awareness about migratory bird protection issues and regulations.

Through these proactive procedures, Chelan PUD will strive to reduce risk to migratory birds while providing reliable electrical service in a cost-effective manner.

4.0 Chelan PUD's Avian Protection Program

Chelan PUD adopted an APP in April 2005 consistent with the guidance developed cooperatively by APLIC and USFWS in 2005. This APP provides updated information and continues to focus on Chelan PUD's policies and procedures for (1) responding to and documenting bird/electrical equipment interactions when they occur, and (2) reducing overall avian risk associated with the District's facilities. This APP specifically addresses each of the elements in the USFWS guidance.

4.1 Training

Training is an important element of Chelan PUD's APP. All appropriate personnel, including managers, supervisors, line and electrical maintenance crews, dispatch, engineering, and design personnel, will be trained in avian protection issues as applicable to their work. Training includes an understanding of the requirements and procedures in the APP; avian electrocution and collision risks; applicable laws and permit requirements; protected birds in Chelan PUD's service territory; avian mortality reporting, recordkeeping and carcass disposal; District design standards; and nest management protocols. Training will be conducted on a periodic basis to ensure that new employees are trained and to address any significant changes to regulations, permit conditions or internal procedures.

Training materials include: (1) photos and identification information for common raptors and any endangered species occurring in Chelan PUD's service area and flow diagrams and/or written instructions detailing the District's handling and reporting of dead or injured birds and procedures for nest management.

Chelan PUD's training efforts will include an overview of all sections of the APP including:

- Need for an APP
- Updates on new or improved material or standards
- Reporting requirements
- Examples of common raptors (photos) and issues
- Reporting actions/protocols
 - Incident response
 - Incident investigation and response
 - Annual reporting
- Nest management
- Annual summary of reported events and identification of trends.

4.2 Permit Compliance

Chelan PUD has a long history of working with the USFWS and the WDFW on avian issues. In 2005, Chelan PUD implemented its first APP and began coordinating and cooperating with the USFS and WDFW on salvage and collecting permits to handle avian species discovered on or around district facilities. Chelan PUD has a Special Purpose Utility (SPUT) permit (#MB 110029-2) issued by the U.S. Fish and Wildlife Service Migratory Bird Treaty Office Region 1 that authorizes temporary possession for disposal of migratory birds and management of migratory bird nests. This SPUT permit was renewed on April 7, 2023 and expires on March 31, 2026. Chelan PUD also has a Washington State Scientific Collection Permit (POPE 22-293) from WDFW to recover dead or injured birds on or adjacent to Chelan PUD facilities consistent with Chelan PUD's SPUT permit. This permit that expires on November 9 annually.

4.2.1. Handling and Disposal of Dead Birds

From one permit to another (state to federal and/or year to year), permit requirements for handling carcasses of protected bird species can vary. It is important to understand the current permitting requirements and restrictions. Typically, only permitted personnel can pick up protected species. The Chelan PUD Wildlife Biologist should have a copy of the current permit(s). Depending on the species and permit conditions, the carcass may be buried on site, recovered and stored in a freezer, or transferred to a state or federal agency or permitted entity. Chelan PUD's SPUT permit requires Chelan PUD to submit an annual report detailing the locations and dates that bird carcasses were found and how they were disposed of. As a condition of the SPUT permit, an annual report is submitted to USFWS detailing the number of migratory bird mortalities. The SPUT permit also requires special handling of eagles and threatened or endangered species. For eagle and any ESA species, Chelan PUD is required to notify the Office of Law Enforcement (OLE) and the Migratory Bird Permit Office and manage the carcass as directed by the OLE.

4.2.2. Injured Birds and Specimen Salvage

If Chelan PUD finds an injured or orphaned migratory bird, including eagles and or threatened and endangered species, Chelan PUD should immediately contact a federally permitted migratory bird rehabilitator or a licensed veterinarian. Chelan PUD is authorized under the SPUT permit to transport and care for the bird and the District should follow the rehabilitator or veterinarian's instructions for transport, care and/or disposition of birds.

4.2.3. Nest Relocation

Chelan PUD's SPUT permit authorizes the District to relocate active (containing chicks or viable eggs) migratory bird nests found on utility structures, in rights-of-way, or on hazardous trees within the fall zone when the threat of fire hazard and power outages is present at the current nest location. The USFWS must be informed of nest location and relocation details within 72 hours of the action. Chelan PUD is also required to submit an annual report to USFWS detailing any active nests relocated or destroyed.

The Special Purpose permit does not authorize relocation of eagle nests whether active or inactive. Additional permitting is required if management of an eagle or endangered/threatened species nest is necessary.

Chelan PUD is in the process of applying to WDFW for programmatic take authorization for Osprey nest relocation activities. Personnel must comply with all conditions of that permit, once issued. The Chelan PUD Wildlife Biologist should have a copy of the current permit(s).

4.3 Construction Design Standards

Chelan PUD considers avian interactions in the design and installation of new facilities as well as in the operation and maintenance of existing facilities. To the extent possible, Chelan PUD implements accepted avian-safe (APLIC 2006) design standards for: (1) new construction in identified areas with high avian risk and (2) as practicable, retrofitting existing structures where bird mortalities have occurred. Chelan PUD's avian-safe design standards have been developed with reference to APLIC guidance documents and standards used by other electric utilities.

4.3.1. New Construction

When siting new lines, Chelan PUD will consider risk factors for avian collisions and when practicable, will avoid high avian risk areas and bird concentration areas. Site specific factors such as topographic features and vegetation will be evaluated to determine line placement to minimize collision risk. When such areas cannot be avoided, Chelan PUD will use bird flight diverters and line marking devices to reduce collision risk.

Avian-safe design will be used for all new construction and line rebuilds in identified areas with high avian risk. The objective of avian-safe design is to provide 1.5 meters (60 inches) of separation between energized conductors and/or energized conductors and grounded hardware, or to insulate energized parts and grounded hardware if adequate spacing is not possible. If other system design considerations prohibit avian-safe design for a particular line segment, other

measures, such as perch guards and installation of safe alternative perch locations, may be implemented to minimize the potential for birds perching in unsafe locations.

4.3.2. Retrofitting Existing Facilities

Chelan PUD will evaluate and modify as practicable and feasible any power line structure or other equipment involved in an avian electrocution or collision incident. Other structures in the vicinity with similar design and in similar habitat will be modified when practicable and feasible. Additionally, proactive retrofits of equipment identified as high risk to birds will be conducted as feasible, particularly when work can coincide with routine maintenance activities or when significant system reliability improvements may result.

4.4 Nest Management

In the absence of other suitable nest sites, raptors often use transmission and distribution structures for nesting. All active nests (young present or eggs) of migratory birds are protected by the MBTA and under Washington State law. Chelan PUD has an established history of responsibly managing nests on utility poles and coordinating with USFWS and WDFW concerning nest locations and management needs. Whenever possible, Chelan PUD's nest management activities will occur outside of the breeding season to avoid disturbance of active migratory bird nests.

Chelan PUD's Wildlife Department has a routine nest monitoring program to monitor raptor nests on or adjacent to Chelan PUD's electrical delivery system. The primary focus of the nest monitoring program is to monitor osprey nests. Osprey numbers have increased significantly, and osprey frequently use power poles as nesting sites. (USGS 2002.)

Each spring, Chelan PUD Wildlife Biologists monitor known osprey nest sites to determine occupancy. While driving between the multiple nest locations, biologists can monitor the electric distribution system and look for any new nests on the electric system that may pose a risk to the nesting birds as well as the electric delivery system. The primary goal of the nest monitoring program is to locate and mitigate problem nests before they contain eggs or young, while collecting data on nest occupancy and success, when possible.

Any problem nest discovered on Chelan PUD's electric delivery system during routine nest monitoring or other discovery method (public, other staff, agency personnel, etc.) is investigated to assess species and risk. If the nest location poses minimal risk to the electric system or the nesting birds, the nest is documented and allowed to remain. In some cases, insulation or isolation measures may be necessary to further reduce risk for nests that remain on Chelan PUD's electric delivery system.

To date, osprey nests are the only nests Chelan PUD has had to manage on a routine basis. Osprey nests that pose a greater risk (in contact, or likely to be in contact with energized wires) are removed, provided no eggs or young are present. Nest of other species should be investigated by a Wildlife Biologist who will coordinate with State and Federal agencies. When a nest is removed, an alternate nest site will be placed to mitigate the nest removed, whenever possible. Chelan PUD uses a wood framed nest platform that is installed, either on an existing structure, or

on a stand-alone nest pole in the immediate vicinity of the area the osprey has chosen to nest. Frequently, the electric structure which is not suitable for nests is retrofitted with a nest discouraging device to prevent the osprey from building a nest on that pole, increasing the likelihood for osprey to use the provided nest platform. In most cases, once a nest start is removed, an alternate nest platform can be placed within 72 hours. However, in some cases it can take longer to get landowner permission and access to set a nest pole, but typically not longer than one week.

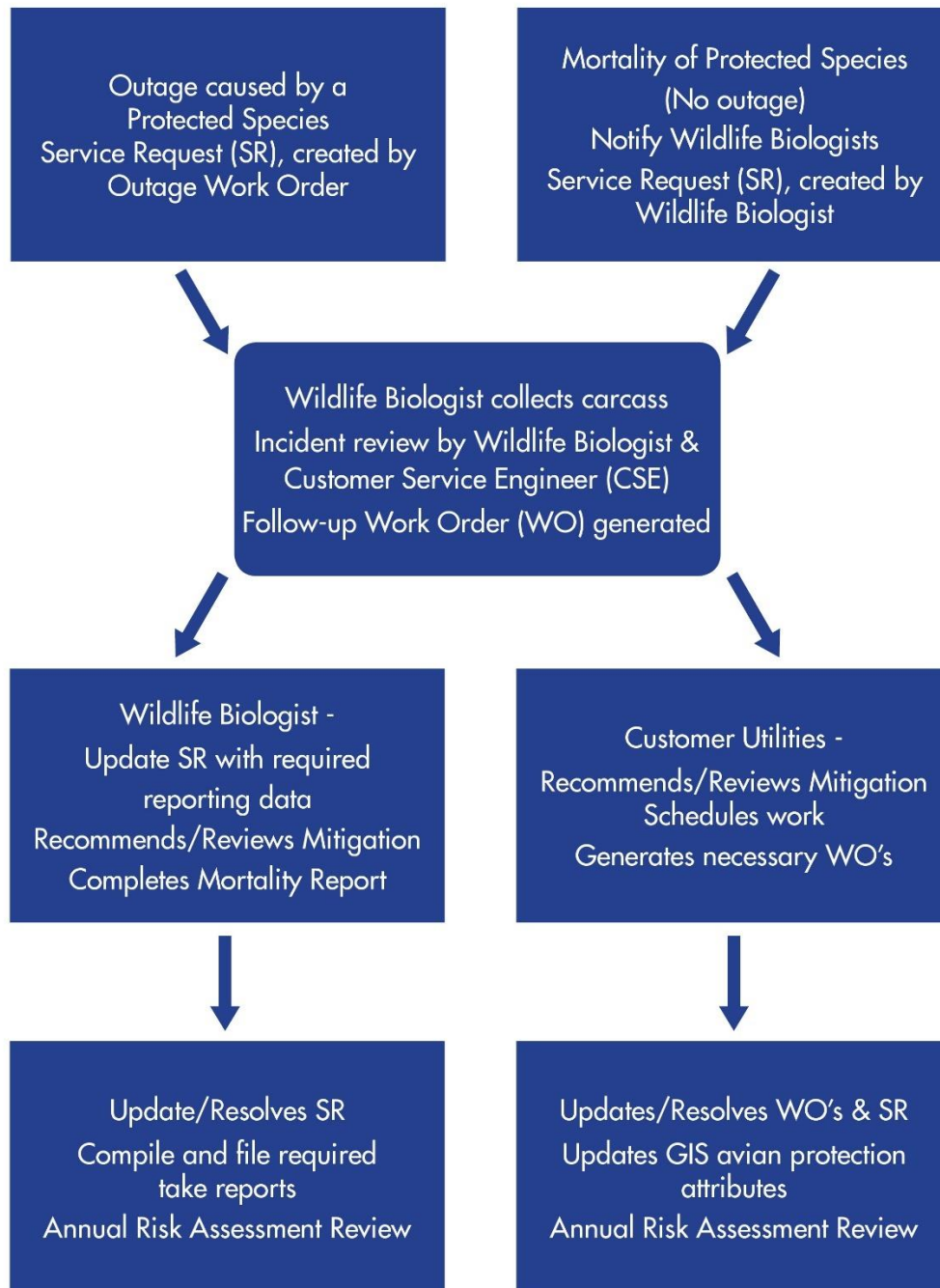
Timing and duration of active nests (eggs or young in nest) can vary greatly by species. Eagles, for example, start their breeding activity as early as mid-winter (late-December to early-January) and with eaglets typically fledging in July. However, for osprey, the breeding season begins in late-March, with young leaving the nests by late-August.

Since 2012, Chelan PUD has implemented an osprey nest platform management program to prevent Canada geese from using Chelan PUD owned and maintained nest platforms installed to accommodate nesting osprey. For nest platforms that are installed close to water, the nest platform is covered to prevent geese from using the nest structure during February and March. By late March, when the osprey returns to Chelan County to nest, the covers are taken off and made available for osprey. This program allows the osprey to use the nest platforms as intended and limits issues with osprey constructing new nests on Chelan PUD's electric system because their traditional nests are occupied by Canada geese.

Chelan PUD also conducts some nest management for double-crested cormorants. Double-crested cormorants roost and attempt to nest in the transmission towers in the forebay at Rock Island Dam. Nesting double-crested cormorants have been managed through a contract with the USDA's Wildlife Services branch. Through take permits issued to the U.S. Department of Agriculture (USDA) by the USFWS, the USDA has removed nesting double-crested cormorants, as they are a major predator to migrating steelhead and salmon smolt and pose a risk to the transmission system. Annually, Chelan PUD monitors the area below the roost site to assess the number of PIT tags deposited at this site. To date over 6,000 tags have been recovered. (Chelan PUD unpublished data.)

4.5 Mortality Reporting System

Chelan PUD has an adopted protocol for its avian mortality reporting system. Upon initial discovery of a dead bird, the following process will be initiated.



All bird caused outages will generate a Service Request (SR). From the SR, an investigation will ensue to determine the potential cause of the outage and potential solutions to resolve the cause. . Additional Work Orders (WO) may be necessary to resolve the problem. Data collected through the SR process will allow for tracking each bird caused outage including:

- where mortalities occur;
- status of corrective measures;
- generating bird mortality reports; and
- documenting which structures have been made avian safe”

These reporting procedures provide documentation of bird mortalities and contribute to a resulting database that will allow: (1) tracking of incidents to ensure that all measures are completed and documented; (2) accumulation of a long-term data set; and (3) compliance with the reporting requirements of the SPUT permit.

4.6 Risk Assessment Methodology

Historically, Chelan PUD has assessed risk based on two factors 1) species impacted and 2) geographic location. Since eagles are afforded more legal protection than other protected bird species, eagles are the highest priority regarding risk. If an eagle is electrocuted on a Chelan PUD owned or operated line, Chelan PUD will evaluate the structure as well as adjacent structures for risk. As bald eagles continue to recover from suppressed population levels, Chelan PUD has monitored their nests and wintering areas and been mindful of potential risks. Annually, the geographic distribution of bird-caused outages can be assessed to determine if there are patterns. Annually, with the submittal of annual SPUT permit, Chelan PUD will evaluate the geographic distribution protected species reported to the USFWS. In addition, Chelan PUD will examine the number of mortalities reported on the annual SPUT report by feeder, to determine which feeder has the highest protected species mortality rate (#birds/year). If there are areas where a concentration of bird-caused outages, or mortalities, has occurred, these areas will be evaluated for options to reduce risk of future problems.

In 2019, Chelan PUD developed a new Wildlife Strategy Plan for its distribution system. With this new Wildlife Strategy Plan, bird-caused outages will also be evaluated by individual circuit, in addition to species and geographic location, As a pilot program in 2019, Chelan PUD conducted line “hardening” on an entire circuit where animal (primarily eastern gray squirrels) outages had the highest animal caused outage rate. By protecting the entire circuit using best practices for avian protection, the outage rate was reduced by 87% and the customer outage hours reduced by 83%. With the Wildlife Strategy Plan reporting data, the number of animal-caused outages can be evaluated annually by circuit. Circuits with high animal caused outage rates can be evaluated for larger scale animal protection efforts. All animal-caused outage protection measures (typically squirrel guards on existing transformers) will also benefit birds that may use these structures.

4.7 Mortality Reduction Measures

Chelan PUD has a long history of avian protection and conservation for existing structures as well as new construction. Since 2005, Chelan PUD has had an APP in place that describes how bird issues on existing structures will be addressed to reduce avian mortality along with new construction standards to achieve APLIC 2006 designs and a nest monitoring and management program. For transmission line construction, Chelan PUD has coordinated with state and federal agencies to site transmission lines in a responsible manner for wildlife and associated habitat. In 2006 and 2007, Chelan PUD conducted a pre- and post-raptor migration study on the Andrew York 230 kV (Burch Mountain) transmission line. (Pope et al., 2008, unpublished data.)

Chelan PUD will maintain the reactive, preventative, and proactive mortality reduction measures described in previous sections of this document. When combined with the new Wildlife Strategy for Chelan PUD's asset management, Chelan PUD can better evaluate bird-caused (and animal-caused) outages to identify areas to further reduce mortality and improve customer service.

4.8 Avian Enhancement Options

In the last two decades, Chelan PUD has installed over 30 artificial nest platforms for osprey. Chelan PUD monitors nest occupancy and success of the species using these platforms as well as incidental observations of other raptor species that may be encountered while conducting osprey nest surveys. Chelan PUD has also installed American Kestrel nest boxes to increase nesting habitat for these small falcons. In addition, Chelan PUD manages many of its properties to benefit birds and other local wildlife. Weeds are controlled to promote native species abundance. During required habitat management (shoreline erosion, for example), Chelan PUD prescribes native plants that benefit birds and wildlife. Chelan PUD coordinates with local, state, and federal agencies, as well as community groups, to promote native habitat conservation to benefit local birds and wildlife.

4.9 Quality Control

Wildlife protection devices installed on Chelan PUD facilities are recorded as an attribute in Chelan PUD's GIS system. For every animal caused outage reported, bird or other animal, the location is evaluated for the presence of existing wildlife protection. If wildlife protection is not present, it is recommended as mitigation to prevent future incidents. If an outage occurs at a pole where existing wildlife measures already existing, according to the database, the site is visited to confirm presence or absence of wildlife protection and its condition, if present. If the wildlife protection is not present, or is in disrepair, a work request to install wildlife protection is generated and the Animal Guard database is updated with the correct install date.

4.10 Public Awareness

The Chelan PUD website provides a place for the public to view the APP and reports for work related to avian protection measures. Chelan PUD also has an education kit that can be taken to schools or community events that provides a summary of avian powerline interactions and what Chelan PUD does as compliance measures and for conservation of bird species.

4.11 Key Resources

Internal Resources – Chelan PUD, Wenatchee, WA:

- Von Pope, Senior Wildlife Biologist
- Kelly Cordell, Wildlife Biologist
- Hardy Thayer, Electrical Engineer, Distribution
- David Ulrich, Customer Utility Asset Manager

External Resources:

- USFWS – OLE Redmond, WA; Migratory Bird Treaty Office, Portland, OR
- USFWS – Steve Lewis, Wenatchee, WA
- WDFW – Region 2 Wildlife Biologist, Wenatchee WA;
- WDFW - Licensing Division, SCP Olympia, WA

Chelan PUD's Wildlife Department is the responsible department to ensure compliance and secure permits under the federal and state laws involving bird fatalities and nesting. The contact person is Von Pope, Senior Wildlife Biologist, at (509) 661-4625.

5.0 References

Avian Protection Plan (APP) Guidelines, The Edison Electric Institute's Avian Power Line Interaction Committee (APLIC) and U.S. Fish and Wildlife Service (USFWS) (2005).

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