

Exhibit D

Carmen-Smith Hydroelectric Project
(FERC No. 2242)

July 2020 Amended and Restated
Wildlife Management Plan

Submitted by:

Eugene Water & Electric Board



July 2020 Amended and Restated Wildlife Management Plan

Final Plan

Prepared by

Eugene Water & Electric Board
Eugene, Oregon

Stillwater Sciences
Arcata, California

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1 INTRODUCTION

The Eugene Water & Electric Board (EWEB) owns and operates the Carmen-Smith Hydroelectric Project (Project) under license No. 2242 from the Federal Energy Regulatory Commission (FERC). The Project is located on the upper McKenzie River in Linn and Lane Counties, Oregon. EWEB has developed this Wildlife Management Plan (“WMP”) to address wildlife-related issues at the Project during the term of the new FERC operating license for the Project.

The WMP represents the culmination of the wildlife resources planning efforts conducted as part of the relicensing process for the Project. EWEB shall implement the actions identified in this WMP. EWEB in consultation with the Terrestrial Technical Subgroup and other parties to the Settlement Agreement identified and developed these actions, which are based on the results of terrestrial resource studies (the *Wildlife Distribution* study [Stillwater Sciences 2006a] and the *Wildlife Analyses* study [Stillwater Sciences 2006b]) conducted for the relicensing of the Carmen-Smith Project.

1.1 Areas Covered by the WMP

This WMP covers all lands within the FERC Project boundary and those lands adjacent to the FERC Project boundary that are either affected by Project operations or have the potential to be affected by Project operations.

1.2 Related Resource Management Plans

A number of other resource management plans developed for the Project reference or address wildlife-related management issues. These management plans include the plans for aquatics, vegetation, recreation, roads and historical properties, which are included as part of the Settlement Agreement, and the plans for transmission line management and fire suppression, which will be developed following New License issuance. The Parties to the Settlement Agreement will resolve any inconsistency between this WMP and other resource management plans by following the dispute resolution process in Section 7 of the Settlement Agreement.

Elements of this WMP are also included in EWEB’s Employee Awareness Training Program referenced in the Final License Application (e.g., ESA-listed wildlife species, invasive non-native wildlife species, etc).

2 PLANNING AND COORDINATION

The Parties agree to coordinate and to cooperate in implementation of this WMP, including the provisions of Sections 2.2.2.1 and 2.2.2.2. Such coordination and cooperation will be assisted by creation of a permanent work group, the Wildlife Management Plan Work Group (“WWG”). EWEB shall convene the WWG in accordance with Section 2.2.2 to discuss and to coordinate the wildlife management activities in this WMP.

2.1 Roles and Responsibilities

The WWG will function throughout the period of time the New License is in effect. The WWG will include representatives from any interested Party including but not limited to EWEB, the United States Fish and Wildlife Service (“USFWS”), the United States Department of Agriculture Forest Service (“USDA Forest Service”), and the Oregon Department of Fish and Wildlife (“ODFW”). Each Party participating on the WWG will designate at least one representative and an alternate to serve on the WWG. The initial representatives and alternates are listed in Attachment A to this WMP. Changes to the initial representatives or alternates listed in Attachment A will be made in accordance with the provisions of Section 8.12 (Attachment B) of the Settlement Agreement.

EWEB is responsible for implementing this WMP. The USDA Forest Service has approval authority over activities involving National Forest System (“NFS”) lands. USFWS has regulatory authority over species listed under the Endangered Species Act of 1973 (“ESA”) and critical habitat designated under the ESA. ODFW has regulatory authority over wildlife under Oregon law.

2.1.1 In consultation with the WWG members when appropriate, EWEB shall:

- Prepare all study, design, operating or implementation plans or reports necessary to implement this AMP, consistent with Standard Construction Scheduling¹.
- Fund implementation of this WMP.
- Conduct any necessary environmental analyses and obtain any required authorizations to implement this WMP from federal, state and local governments.
- Implement and maintain all actions required under this WMP.
- Monitor actions implemented under this WMP to evaluate compliance with this WMP including performance standards.

¹ “Standard Construction Scheduling” means that EWEB will establish contractual construction schedule deadlines that are reasonably attainable by working normal 40-hour weeks. EWEB will require construction contractors to perform their work within normal working hours (Mondays through Fridays between the hours of 7 a.m. and 5 p.m.). EWEB will not require contractors to work overtime, extra shifts, or on national holidays as a baseline schedule assumption. EWEB will consider authorizing special work hour adjustment requests from a contractor on a case by case basis as necessary to accommodate fire season constraints, wildlife related restrictions, equipment/material delivery delays, or similar circumstances. EWEB’s construction contract will include liquidated damage or other appropriate penalties for late completion of work if the causes are within the contractor’s control as well as the right to require the use of overtime or additional work shifts if EWEB desires to accelerate the contractor’s work.

- Implement contingency actions when actions implemented under this WMP do not achieve compliance with this WMP including performance standards.
- Make required reports to the WWG members and Federal Energy Regulatory Commission (“FERC”) and other governmental entities, as appropriate.
- Make necessary updates or amendments to this WMP after consultation with the other Parties and receipt of any necessary approvals, as described in Section 2.2.
- Assign a designated EWEB representative knowledgeable in wildlife to the WWG.

2.1.2 USDA Forest Service will:

- Review and approve, as appropriate, any environmental compliance and permitting and other authorizations for WMP actions on NFS lands.
- Issue required permits and authorizations for WMP actions on NFS lands, which include activities within the McKenzie Wild and Scenic River corridor not otherwise included in the New License, consistent with 36 CFR 251 and other applicable laws.
- Provide WWG members with periodic updates to lists of special status wildlife species on NFS lands.
- Advise EWEB regarding any restrictions placed on habitats or activities due to listing of threatened and endangered species, critical habitat designations, and Biological Opinions related to NFS lands.
- Provide input to the WWG members on activities under this WMP that may affect wildlife within USDA Forest Service’s regulatory authority.
- Assign a designated USDA Forest Service representative knowledgeable in wildlife to the WWG.

2.1.3 USFWS will:

- Review and approve, as appropriate, any documents, including study, design, operating and implementation plans identified herein as requiring USFWS action.
- Provide WWG members periodic updates to lists of threatened and endangered species and critical habitat under the ESA and species proposed for listing in the area of the Project.
- Provide input to the WWG members on activities under this WMP that may affect wildlife within USFWS’ regulatory authority.
- Assign a designated USFWS representative knowledgeable in wildlife to the WWG.

2.1.4 ODFW will:

- Review and approve, as appropriate, any documents, including study, design, operating and implementation plans identified herein as requiring ODFW action.
- Provide input to the WWG members on activities under this WMP that may affect wildlife within ODFW’s regulatory authority.
- Assign a designated ODFW representative knowledgeable in wildlife to the WWG.

2.1.5 Representatives of any Party may:

- Provide input to the WWG members on activities under this WMP.

2.2 Implementation, Coordination, and Approval

2.2.1 Implementation

EWEB shall implement and maintain the actions in this WMP according to the timelines in this WMP.

2.2.2 Coordination and approval

EWEB shall:

- Coordinate, consult with, and convene meetings of the WWG.
- Convene a meeting of the WWG at least annually. There may be times when a more frequent or less frequent schedule for convening meetings than annually will be necessary. Meetings will be scheduled less frequently than annually only with the consensus of the WWG. For purposes of this WMP, consensus means that any decision must be acceptable to, or not opposed by, all representatives of the members of the WWG.
- Make best efforts to prepare and distribute to the WWG members an agenda and all meeting materials at least fourteen days before each meeting.
- Prepare draft notes of each meeting including a list of attendees and meeting handouts, agreements or decisions made in the meeting and actions to be taken, provide the notes to the WWG members for review and comment within a reasonable period of time, and provide to the WWG members final notes that include the comments.
- Provide at least 30 days' written notice before each meeting unless unexpected circumstances require input from the WWG members on shorter notice.

For annual meetings, EWEB shall convene the WWG within the first quarter of each calendar year, unless EWEB determines it is appropriate to convene the annual meeting in a different quarter based on activities implemented under the New License. For any annual meeting, EWEB shall summarize the actions implemented under the WMP for the previous calendar year and shall provide the summary to the WWG members either in writing or by posting on EWEB's website. In the summary, EWEB shall also summarize the actions EWEB plans to implement under the WMP for the current calendar year.

2.2.2.1 Consultation process

EWEB shall, where this WMP requires consultation with the WWG before EWEB files with FERC any study, operating or implementation plan, report, or facility design: (i) where specified in this WMP, consult with the WWG during the development of the draft study, plan, report, or design, (ii) provide the WWG members with a copy of the draft study, operating or implementation plan, report, or facility design and all data supporting that draft study, operating or implementation plan, report, or facility design, and (iii) allow a minimum of 30 days (which EWEB may reasonably extend upon request of a member of the WWG if needed to facilitate

consultation) for the WWG members to comment and to make recommendations, unless a different time period is established under the New License or this WMP or is directed by FERC.

During the consultation period, EWEB shall convene at least one meeting of the WWG to discuss the draft study, operating or implementation plan, report, or facility design and reach consensus and if consensus cannot be reached proceed as described below. EWEB shall provide to the WWG members a final version of the study, operating or implementation plan, report, or facility design at the time that EWEB provides the final version of the document for approval pursuant to Section 2.2.2.2 below.

If a member of the WWG does not respond to a request for consultation within 30 days, or as such period may have been extended, that member is not considered for purposes of obtaining consensus. If no members of the WWG respond to the request for consultation within 30 days, or as such period may have been extended, EWEB may file the study, operating or implementation plan, report, or facility design with FERC.

When consultation is required under this WMP and consensus is not reached by the WWG prior to the date EWEB is required to make a submission to FERC, EWEB shall make the submission to FERC according to the schedule provided in this WMP or the New License, or as directed by FERC, and shall describe to FERC how EWEB's submission accommodates any comments and recommendations of the WWG members. If EWEB's submission does not adopt a recommendation, the submission shall include EWEB's reasons based on Project-specific information. EWEB shall provide FERC with a copy of any comments and recommendations provided by the WWG members during the consultation. Any WWG member may seek to resolve the consultation disagreement in accordance with the dispute resolution process in Section 7 of the Settlement Agreement. The WWG members may submit their own comments to FERC. If applicable, once the dispute resolution process is completed, EWEB shall file the study, operating or implementation plan, report or facility design with FERC.

2.2.2.2 Agency approval process

Where this WMP or the New License requires consultation with the WWG and approval by one or more Governmental Parties, EWEB's submission of a study, operating or implementation plan, report, or facility design to the WWG members will also constitute submission for approval to such Governmental Party, if a member of the WWG. When approval of a Governmental Party is required, EWEB shall provide to the Governmental Party a final version of the study, operating or implementation plan, report, or facility design on which approval is sought. Unless a different time period is established in the New License or in this WMP or is directed by FERC, EWEB shall, where approval by a Governmental Party is required, allow a minimum of 30 days for the Governmental Party to provide its approval before EWEB files any study, operating or implementation plan, report, or facility design with FERC. If consensus is achieved by the WWG pursuant to Section 2.2.2.1, such approval shall be deemed to have been obtained. Each Governmental Party who is a member of the WWG with approval authority will document its approval in writing to EWEB, which approval or approvals EWEB shall include in any filing with FERC. Unless otherwise required by the New License or this WMP or directed by FERC, EWEB shall, if requested by any Governmental Party with approval authority, grant a 30-day extension for the completion of consultation. Any Governmental Party or Parties will endeavor to make approval decisions during consultation whenever possible.

If a Governmental Party does not respond to a request for approval within 30 days, or as such period may have been extended, the obligation for obtaining approval from that Governmental Party will be deemed to have been satisfied for purposes of meeting the requirements of the New License and this Settlement Agreement. If no Governmental Parties with approval authority respond to the request for approval within 30 days, or as such period may have been extended, EWEB may file the study, operating or implementation plan, report or facility design with FERC.

When approval of a Governmental Party is required under this WMP and approval has not been provided, EWEB or the Governmental Party may seek to resolve the lack of approval in accordance with the dispute resolution process in Section 7 of the Settlement Agreement. If the dispute has not been resolved after the dispute resolution process outlined in Sections 7.1, 7.1.1, and 7.1.2 of the Settlement Agreement or approval has not been provided prior to the date that EWEB is required to make a submission to FERC, EWEB shall make the submission to FERC according to the schedule provided in this WMP or the New License, or as directed by FERC, and shall describe to FERC why approval was not provided. In such instance, the Governmental Party whose approval was required may submit its own explanation as to why approval was not provided. EWEB or the Governmental Party may seek to resolve the lack of approval in accordance with the dispute resolution process in Section 7 of the Settlement Agreement. If applicable, once the dispute resolution process is completed, EWEB shall file the study, operating or implementation plan, report or facility design with FERC. If resolution was not achieved through dispute resolution, then the Governmental Party may submit its own explanation as to why resolution was not achieved.

2.2.2.3 Expedited consultation and agency approval process

When consultation under Section 2.2.2.1 above or Governmental Party approval under Section 2.2.2.2 above is required and the time provided for consultation in Section 2.2.2.1 or approval in Section 2.2.2.2 is not reasonably available because EWEB must implement an action under the New License within a shorter period of time due to extraordinary circumstances beyond EWEB's reasonable control, EWEB shall provide notice to the Work Group and Governmental Party, as applicable, that: (a) an expedited consultation and approval process will occur within the time available, (b) the location, date and time for the process, (c) the subject for the process, and (d) why EWEB must take action within the shorter period of time. EWEB shall complete as much of the consultation and approval process as can occur in the time reasonably available before EWEB must implement the action. If consultation is not completed or an approval is not obtained within the time available, EWEB may implement the action to the extent allowed by law, but the Parties may still require that the consultation process in Section 2.2.2.1 above and the approval process in Section 2.2.2.2 above, as applicable, be completed after EWEB has implemented the action.

2.2.2.4 Consultation and Approval Process for Measures in the McKenzie Wild and Scenic River Corridor

Where this WMP requires consultation with the WWG and approval or authorization by the USDA Forest Service for measures that will be undertaken in the McKenzie Wild and Scenic River corridor that FERC does not require in the New License, EWEB shall follow the consultation requirements described in Section 2.2.2.1 and the agency approval process described in 2.2.2.2.

Before initiating any habitat or ground-disturbing measures in the McKenzie Wild and Scenic River corridor located on NFS lands, EWEB shall obtain from the USDA Forest Service and file

with the Commission any appropriate authorization for the occupancy and use of NFS lands for measures not otherwise included in the New License.

2.3 Periodic Plan Review and Revision

EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, shall periodically review this WMP to determine if revisions are needed. The first such review will occur 5 years after New License issuance unless otherwise agreed to by consensus of the WWG in consultation with the WWG. Subsequent reviews will occur every 5 to 10 years after that time unless otherwise agreed to by consensus of the WWG in consultation with the WWG to determine if and what specific revisions are needed. EWEB shall summarize any needed revisions at a meeting of the WWG, and 30 days prior to that meeting, distribute draft revisions to the WWG for review. Based on discussion at the WWG meeting, EWEB shall develop a revised draft WMP for review within 90 days after the meeting. EWEB shall provide all members of the WWG an opportunity to review and to comment on, and to reach consensus on the revised draft WMP in accordance with the procedures in Section 2.2.2.1 of this WMP. Any WWG member may seek to resolve a lack of consensus in accordance with the dispute resolution process in Section 7 of the Settlement Agreement. EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, shall then prepare a final revised WMP. If a required approval is not obtained, any WWG member may seek to resolve the lack of approval in accordance with the dispute resolution process in Section 7 of the Settlement Agreement.

In submitting the final revised WMP to FERC, EWEB shall also submit documentation of all WWG and agency consultation, agency approvals, copies of comments and recommendations on the draft and revised WMP, and specific descriptions of how the comments and recommendations were accommodated by the final revised WMP. If EWEB does not adopt a recommendation, the filing shall include EWEB's reasons, based on project specific information.

Revisions to the WMP will not be required to be implemented until EWEB is notified by the Commission that the revisions to the WMP are approved. Upon Commission approval, EWEB shall implement the revised WMP, including any changes required by the Commission.

EWEB may make minor (non-substantial) changes to this WMP consistent with the provisions of Articles 2 and 3 of the New License, provided, however, that EWEB provides a minimum of 30 days advance notice of the minor changes to the WWG (unless circumstances beyond the reasonable control of EWEB require shorter advance notice) and no member of the WWG contends that the proposed changes are not minor. If any member of the WWG objects that the proposed changes are not minor, EWEB shall proceed through the consultation process in Section 2.2.2.1 above for the proposed changes. If EWEB elects, the objection by the member of the WWG that the proposed changes are not minor may also be considered during the consultation process.

3 OBJECTIVES

The objectives of this plan are to:

- Protect special-status wildlife species on Project lands and at Project facilities.
- Limit potential impacts from Project-related activities on wildlife species on National Forest System lands and private Project lands.
- Limit potential impacts from Project-related activities on invasive non-native wildlife species on Project lands and at Project facilities.

4 ELEMENTS

4.1 Maintain Seasonal Activity Restrictions for Special-status Species

Three wildlife species that are listed as threatened, or recently delisted, under the federal or state Endangered Species Act (ESA) have been documented to occur in the Project vicinity: (1) bald eagle (state threatened; federally delisted but protected under the Bald and Golden Eagle Protection Act [Eagle Act] and the Migratory Bird Treaty Act and managed by the USDA Forest Service as a Region 6 Sensitive Species); (2) peregrine falcon (federally and state delisted but protected under the Migratory Bird Treaty Act and managed by the USDA Forest Service as Region 6 Sensitive Species); and (3) northern spotted owl (federal and state threatened). The USDA Forest Service applies seasonal activity restrictions for these species, based on USFWS Biological Opinions (BO) received for proposed USDA Forest Service activities, as well as for the harlequin duck, which is a State Sensitive species (undetermined status) in Oregon, a USDA Forest Service Sensitive Species, and protected under the federal Migratory Bird Treaty Act.

EWEB shall implement the following actions for the term of the New License for these species:

- For normal Project operations (i.e., under conditions not associated with new construction activities), EWEB shall continue seasonal activity restrictions in place for these species as specified in this WMP, which are designed to prevent the potential disturbance of special-status wildlife. For new construction activities, EWEB shall, in consultation with the WMP Working Group and subject to approval of the USFWS and USDA Forest Service, develop seasonal restrictions applicable to new construction activities. EWEB shall develop, in consultation with the WMP Working Group and subject to approval of the USFWS and the USDA Forest Service, and implement seasonal activity restrictions for any additional wildlife species listed as endangered or threatened under the federal or state endangered species laws as provided below in Section 4.6.
- EWEB shall review the most recently available information for assessment and minimization of disturbance as supplied by the USDA Forest Service and/or USFWS in accordance with Section 2.0 on an annual basis with the goal of minimizing effects of the Project on the breeding activities of the protected species.

EWEB shall implement the seasonal restrictions described below.

Northern spotted owl

During breeding seasons, EWEB shall implement the applicable restrictions as provided in Table 4-1. EWEB shall adhere to general Late Successional Reserve (LSR) and known spotted owl activity center or managed owl site noise restrictions (no noise above ambient). EWEB shall consult with USFWS and USDA Forest Service if noise or other disturbances are expected to occur during restricted periods. Activities that may disturb spotted owls shall be delayed as late as possible into the nesting season. EWEB shall consult with the USFWS and USDA Forest Service for all northern spotted owl habitat removal. USFWS may lift the seasonal restrictions on EWEB activities for a specific area in a given year if it determines that there is no reasonable potential for disturbance (e.g., surveys performed according to the established survey protocol indicate that the area of potential disturbance is unoccupied by the northern spotted owl). To the extent reasonably possible, adverse effects will be avoided (i.e., EWEB will schedule noise and habitat removal activities outside the spotted owl breeding season).

Table 4-1. Disturbance and disruption distances¹ for the northern spotted owl during the breeding period (USFWS 2008).

Source of disturbance/ disruption	Disturbance distance	Disruption distance	
	Entire breeding period (1 March – 30 September)	Critical breeding period (1 March – 15 July)	Late breeding period (16 July– 30 September)
Blasting	1,760 yards (1 mile)	1,760 yards (1 mile)	440 yards (0.25 mile)
Burning	440 yards (0.25 mile)	440 yards (0.25 mile)	0 yards
Chainsaw use	440 yards (0.25 mile)	65 yards	0 yards
Hauling on open roads	0 yards	0 yards	0 yards
Heavy equipment	440 yards (0.25 mile)	35 yards	0 yards
Helicopter – Type I ²	880 yards (0.5 mile)	440 yards (0.25 mile)	440 yards (0.25 mile)
Helicopter – other ³	440 yards (0.25 mile)	120 yards	0 yards
Rock crushing	440 yards (0.25 mile)	180 yards	0 yards

¹ Noise distances were developed from a threshold of 92 dB (Livezey 2003). Smoke disturbance distances are based on a USFWS white paper (USFWS 2007a).

² Type I helicopters seat at least 16 people and have a minimum capacity of 5,000 lbs. Both a CH 47 (Chinook) and UH 60 (Blackhawk) are Type I helicopters.

Kmax helicopters are considered “other” for the purposes of disturbance. Sound readings from Kmax helicopter logging on the Olympic NF registered 86 dB at 150 yards (S. Piper, Forest Wildlife Biologist, Olympic National Forest, Olympia, Washington, pers. comm., 8 May 2006).

³ All other helicopters (including Kmax).

Disturbance and disruption distances (Table 4-1) are defined as follows:

- **Disturbance distance:** The distance from the source of disturbance outward to the nearest breeding area within which the action is likely to cause a northern spotted owl, if present, to be distracted from its normal activity. Except as stated in Table 4-1, the disturbance distance is 0.25 mile from nesting spotted owls. The USFWS unit wildlife biologist may increase these disturbance distances according to the best available scientific information and site-specific conditions.
- **Disruption distance:** The distance from the source of disruption outward to the nearest breeding area within which the action is likely to cause a northern spotted owl, if present, to be distracted to such an extent as to disrupt its normal behavior and create the likelihood of harm or loss of reproduction. The disruption distance is a subset of the disturbance distance (Table 4-1). Proposed activities that would occur within the distances shown in Table 4-1 of northern spotted owl might disrupt the normal behavior patterns of individual owls or breeding northern spotted owls. The USFWS unit wildlife biologist may increase these disturbance distances according to the best available scientific information and site-specific conditions. If a known site is surveyed to protocol and the owls are determined to be non-nesting, the USFWS unit biologist may lift restrictions on activities within disruption distances during the year of survey.

For all proposed construction sites and construction activities (excluding blasting activities using greater than 2 pounds of explosives) within 0.25 miles of suitable habitats for northern spotted owl, EWEB shall prepare a plan to address potential disturbance of northern spotted owls during the breeding period (1 March through 30 September) two years in advance of proposed activity and submit the plan for review and approval by the USFWS. For construction activities that include blasting using greater than 2 pounds of explosives, the range of potential disturbance is 1.0 mile, and EWEB shall modify the plan according to Table 4-1. Each plan shall address (a)

the need for northern spotted owl surveys at each site, (b) the type, timing and distance of surveys to be conducted at each site based on current USFWS- disturbance requirements and the types of activities proposed, and (c) potential contingency actions for each proposed site to avoid or minimize disturbance if survey information indicates presence, activity, or nesting of northern spotted owls. If such surveys are required by USFWS during the ESA consultation, these requirements will not be considered inconsistent with this WMP or the Settlement Agreement. If new survey information indicates that there are nesting northern spotted owls that could reasonably be disturbed by construction activities, EWEB, in consultation with the WWG and subject to approval by USFWS, shall develop and implement a plan to shift the work schedule and construction activities, to the extent reasonably possible while still attempting to adhere to proposed construction schedules identified in the approved regulatory documents, including the New License, this WMP and any schedule developed pursuant to the New License or this WMP, to a time that avoids or minimizes any potential disturbance to nesting owls.

Bald eagle

EWEB shall implement the applicable requirements for the USDA Forest Service Region 6 special-status species (<http://www.fs.fed.us/r6/sfpnw/issssp/agency-direction/>) and current applicable *National Bald Eagle Management Guidelines* (USFWS 2007b) for activities involving vegetation and tree removal and disturbances in the breeding areas for bald eagles in the vicinity of the Project, including the transmission line corridor, during the breeding season (Table 4-2). EWEB shall follow activity restrictions required for blasting and helicopter use for bald eagles during the nesting period from 1 January to 31 August. The USFWS and USDA Forest Service may lift the restrictions on EWEB activities for a given area in a given year if it determines that there is no reasonable potential for impact (e.g., surveys performed according to the *Observations at Bald Eagle Nest Sites in the Carmen-Smith Project Area: Monitoring Protocol & Reporting Guide, Attachment C, April 2020*, or other similar protocol as modified and approved by the USFS and USFWS indicate that no bald eagle nesting or roosting activity is occurring within a zone of potential disturbance).

Table 4-2. Disturbance distance for the bald eagle during the breeding period.

Activity	Disturbance distance
Road brushing and maintenance	440 yards (0.25 mile); 880 yards (0.5 mile) line-of-sight
Use of chainsaws	440 yards (0.25 mile); 880 yards (0.5 mile) line-of-sight
Use of heavy equipment	440 yards (0.25 mile); 880 yards (0.5 mile) line-of-sight
Burning	440 yards (0.25 mile); 880 yards (0.5 mile) line-of-sight
Use of a Type I or II helicopter*	880 yards (0.5 mile)
Use of a Type III or IV helicopter*	880 yards (0.5 mile)
Use of fixed-wing aircraft	880 yards (0.5 mile)
Use of a pile driver	440 yards (0.25 mile); 880 yards (0.5 mile) line-of-sight
Blasting	1,760 yards (1 mile)

*Incident Command System (ICS) definitions:

Type I helicopters seat at least 16 people and have a minimum capacity of 5,000 lbs. Both a CH-47 (Chinook) and UH-60 (Blackhawk) are Type I helicopters.

Type II helicopters seat at least 10 people and have a minimum capacity of 2,500 lbs. Both a Bell UH1-H and a Bell 212 are Type II helicopters.

Type III helicopters seat at least 5 people and have a minimum capacity of 1,200 lbs. Both a Bell 206 and a Hughes 500 are Type III helicopters.

Type IV helicopters seat at least 3 people and have a minimum capacity of 600 lbs.

For construction activities that will be conducted within 0.25 miles, or 0.5 miles line of sight from a bald eagle nest, of proposed construction sites, EWEB shall consult with the USFWS and USDA Forest Service unit biologist on reasonable measures designed to avoid disturbance during the bald eagle nesting season. Rare exceptions (see USFWS 2007b) may occur if there are conflicts with other resources, and in these cases, EWEB shall obtain the appropriate take permits under the Eagle Act from USFWS, if necessary. For construction activities that include blasting activities using greater than 2 pounds of explosives, the range of potential disturbance is 1.0 mile. The breeding period for bald eagles is 1 January through 31 August. In any bald eagle nest management plans developed as described in Section 4.2 below, EWEB shall address potential disturbance issues and other potential project effects, including any proposed construction and maintenance activities during the breeding period, associated with each nest.

Peregrine falcon

EWEB shall implement the following applicable construction activity restrictions near potential peregrine falcon nesting habitat from 15 January to 31 July: (1) within 0.5 mile of potential peregrine falcon nesting habitat (the primary nest protection zone), no activity is allowed; (2) within 1.5 mile of potential peregrine falcon nesting habitat (the secondary nest protection zone), vegetation management and the use of heavy equipment may be seasonally prohibited; and (3) within 3 miles of potential peregrine falcon nesting habitat (the tertiary management zone), the use of explosives and helicopters may be seasonally prohibited. The USFWS and USDA Forest Service may lift the restrictions on EWEB activities for a specific area for a given year if it determines that there is no reasonable potential for impact (e.g., surveys performed according to the established survey protocol indicate that the area of potential disturbance is unoccupied by the peregrine falcon). The USFWS may permit take under the Migratory Bird Treaty Act, if necessary.

Harlequin duck

EWEB shall implement applicable seasonal activity restriction requirements for harlequin ducks, from March 15 to July 15, designed to minimize or avoid disturbance of any nesting harlequin ducks along streams that may be affected by EWEB activities, such as fisheries habitat enhancements. EWEB shall consult with the USDA Forest Service on the development of applicable construction activity restrictions for harlequin ducks on a case-specific basis. Restrictions may include limiting operations to appropriate time periods or distance restrictions. The USFWS also may permit take under the Migratory Bird Treaty Act. The restrictions shall be designed to minimize or avoid disturbance to nesting harlequin ducks within stream channels or riparian zones within ¼ mile of the Carmen Bypass Reach, the Smith Bypass Reach, Deer Creek, and the mainstem McKenzie River downstream of Trail Bridge Dam. EWEB, after consultation with the WWG, subject to approval by the USDA Forest Service, may reduce the restrictions on Project-related construction activities or habitat enhancement projects conducted as part of New License implementation, such as the addition of gravel, wood, and/or a gauging station to the Smith or lower Carmen bypass reaches. Harlequin duck nest surveys cannot be effectively conducted due to the camouflaging nature of these ground nests, and the tendency for hens to remain quietly on nests. Entire areas near suitable streams are impossible to survey for reasons that include surveyor safety. The USFWS and USDA Forest Service may lift the restrictions on EWEB activities for a given area for a given year if they determine that the ecological benefits of performing aquatic or riparian habitat enhancements outweigh the risks of disturbance.

4.1.1 Post-implementation monitoring

No monitoring applies to this element.

4.1.2 Performance standards

For routine operations and maintenance, and activities to implement and maintain the protection, mitigation, and enhancement (PME) measures required under the New License that could create disturbances to the northern spotted owl, the bald eagle, the peregrine falcon or the harlequin duck, EWEB shall implement the requirements of this Plan.

4.1.3 Maintenance actions

No maintenance actions apply to this element.

4.1.4 Contingency actions

If activity restrictions required by this Plan are not correctly implemented, EWEB shall take corrective actions designed to achieve the applicable activity restrictions. If corrected actions do not achieve the applicable activity restriction in the case of federally listed species ESA Section 7 consultation will be reinitiated with the USFWS. Subsequent actions by EWEB may include mitigation measures.

4.1.5 Timeline

EWEB is currently implementing seasonal activity restrictions, and will continue to do so throughout the term of the New License. EWEB, in consultation with the WWG and subject to approval of the USFWS and USDA Forest Service, shall evaluate and update the activity restrictions annually.

4.2 Bald Eagle Surveys and Nest Site Monitoring

Bald eagles are known to occur within the Carmen-Smith Project area (Stillwater Sciences 2006a). Suitable foraging habitats include Project reservoirs and the McKenzie River. Suitable nesting habitat includes large, mature trees surrounded by groups of smaller trees near water features such as river systems, large lakes, and reservoirs. During studies conducted by EWEB during the relicensing of the Carmen-Smith Project (Stillwater Sciences 2006a), bald eagles were observed at or near each of the Project reservoirs, but no indication of nesting near the Project was observed.

Ongoing surveys of bald eagles conducted by EWEB at Project reservoirs will provide useful information to EWEB, the USFWS and the USDA Forest Service when planning activities that could potentially disturb bald eagles, such as construction of fish passage facilities at Trail Bridge Dam and reconstruction of Lakes End Campground on Smith Reservoir. The information could also be used, if nests are identified, to impose temporary restrictions on recreational uses near nest sites designed to reduce the risk of disturbance to bald eagles.

EWEB shall implement the following actions to monitor eagles at Project reservoirs without a known nest site:

- Annually, EWEB shall conduct a minimum of two four-hour surveys of each Project reservoir without a known nest site. EWEB shall monitor and map bald eagle presence and movement within 0.5 mile, or 1 mile line-of-sight, of the three Project reservoirs. EWEB shall use a ground-based approach consistent with the bald eagle survey procedure described in the *Wildlife Distribution* technical report (Stillwater Sciences 2006a), unless a boat survey from the reservoir itself will provide data on how eagles are using parts of the reservoir that are not easily visible when following the ground-based protocol in the technical report.
- EWEB shall complete the first year of surveys between 1 April and 30 June after New License issuance. EWEB shall complete the subsequent surveys annually between 1 April and 30 June for the term of the New License, but shall survey earlier in the calendar year if requested by USFS or USFWS.

EWEB shall implement the following actions to monitor eagles at Project reservoirs with a known, nearby nest site:

- If a construction, tree removal, or similar type project is expected, planned for, or underway at or around the reservoir with a nest site, EWEB shall complete at least five surveys annually, with at least one survey each in March, April, May, June, and July.
- If no construction, tree removal, or similar type projects are expected, planned for, or underway at or around the reservoir with a nest site, EWEB shall complete at least two surveys annually, between 1 April and 30 June, but shall also survey earlier in the calendar year if requested by USFS or USFWS.
- For each survey, EWEB will monitor and map bald eagle presence and movement within 0.5 mile, or 1 mile line-of-sight, of the reservoir. EWEB shall use a ground-based approach consistent with the bald eagle survey procedure described in the *Wildlife Distribution* technical report (Stillwater Sciences 2006a), unless a boat survey from the reservoir itself will provide data on how eagles are using parts of the reservoir that are not easily visible when following the ground-based protocol in the technical report.
- EWEB shall use a qualified bald eagle surveyor to conduct the surveys.
- EWEB, in collaboration with the Forest Service, shall monitor Bald Eagle nests occurring within the Project Boundary. Nest monitoring will be conducted according to the current Forest Service protocol, as provided in Attachment C, or other similar protocol as modified and approved by the USFS and USFWS.
- EWEB shall note and report any nesting activities observed around Project reservoirs to the USDA Forest Service, USFWS, and ODFW within 48 hours.
- EWEB shall report the results of the annual surveys, including any bald eagle nesting, roosting, or foraging activities observed around Project reservoirs, to the WWG annually.
- EWEB shall consider information from the surveys and nest monitoring in the planning of construction, operations, and maintenance activities, including the management of recreation at Project reservoirs, and will adhere to all relevant protections as described in Section 4.1.

4.2.1 Post-implementation monitoring

Nest monitoring will be conducted according to the methodology described in Section 4.2 above.

4.2.2 Performance standards

Annual eagle surveys will be conducted according to the methodology specified in Section 4.2 of this WMP. Nest monitoring will be conducted according to the current Forest Service protocol, as provided in Attachment C, or other similar protocol as modified and approved by the USFS and USFWS.

4.2.3 Maintenance actions

No maintenance applies to this element.

4.2.4 Contingency actions

If surveys are not correctly implemented, EWEB shall take actions as quickly as reasonably practical to implement the applicable survey protocol.

If eagle survey and/or nest monitoring data indicate that bald eagles may not be sufficiently protected, EWEB, in consultation with the WWG and subject to the approval of the USFWS and USDA Forest Service, shall:

- Revise Project construction and operations, and/or make necessary changes at recreation sites to minimize the effects of these impacts on the eagles.
- Follow relevant guidelines of the *National Bald Eagle Management Guidelines* (USFWS 2007b), or current applicable document approved by the USFWS.

In the event that an eagle is harmed, harassed, or killed due to Project activities or operations, EWEB shall implement contingency actions. These contingency actions will be determined through consultation with the WWG and will be subject to the approval of the USFWS and USDA Forest Service. If necessary, EWEB shall apply for any anticipated take of bald eagles from the USFWS, as required by the Eagle Act.

4.2.5 Timeline

EWEB shall conduct the first year of surveys as specified in Section 4.2 above. EWEB shall implement the surveys annually throughout the term of the New License.

4.3 Improve Transmission Line Visibility

Project facilities can pose a risk of collision to raptors, special-status birds, and other bird species. The collision hazards posed by the Project facilities to avian species were assessed using current Avian Power Line Interaction Committee (APLIC) standards (APLIC 2006, Stillwater Sciences 2006b). The assessment noted that the transmission line crosses water bodies in several locations, and because birds tend to use water bodies as flight paths and foraging areas, the water crossings increase the collision hazard (CEC 2002). The primary water bodies that the transmission line crosses include Trail Bridge Reservoir, Deer Creek, and the mainstem McKenzie River.

EWEB shall install visibility-enhancing devices to the transmission lines, in order to reduce the risk of injury from collision with the lines where they cross Project reservoirs, Deer Creek, and the McKenzie River (Table 4-3). These devices will be of a type, spacing, and alignment on the transmission line plane according to the most recent standards of the Avian Power Line Interaction Committee at the time of installation and replacement. An example of one type of visibility enhancing device is shown in Figure 1.

Table 4-3. Primary transmission line water crossings without and with realignment proposed at Deer Creek.

Location	Tower numbers	Span without realignment ft (m)	Span with realignment ft (m)
Carmen Bypass Reach	1–2	756 (230)	Same
Trail Bridge Reservoir	4–5	845 (258)	Same
Trail Bridge Reservoir	5–6	1,202 (366)	Same
Trail Bridge tailrace	6–7	1,579 (481)	Same
Deer Creek	20–21	750 (229)	Same
Deer Creek	24–26	665+675 (203+206)	0
Deer Creek	26–27	690 (210)	0
Deer Creek	27–28	610 (186)	0
Mainstem McKenzie River	41–42	750 (229)	Same
Mainstem McKenzie River	42–43	847 (259)	Same
Mainstem McKenzie River at Rainbow	132–133	810 (247)	Same
Total		10,179 (3,103)	7,539 (2,299)

In addition to installing visibility-enhancing devices to the lines, the realignment of the transmission line along Deer Creek will remove 2,640 ft of line from the riparian area (Table 4-3). By reducing the amount of line running down Deer Creek, the collision risk posed by the Project will be further reduced.

4.3.1 Post-implementation monitoring

EWEB shall visually inspect the structures added to improve the visibility of the transmission lines pursuant to this Section 4.3, from the ground using binoculars, every two years for the term of the License. EWEB shall note any missing or damaged structures and schedule replacement or repair during the next maintenance period (see Section 4.3.3 below). EWEB may conduct the monitoring in conjunction with other transmission line inspection and maintenance activities.

EWEB shall implement a reporting system in which all observed injuries or mortalities of raptors, waterfowl, and other birds at Project reservoirs or along Project transmission lines will be recorded. EWEB shall record all pertinent reasonably available information, such as species, apparent injury, location, date and time, person(s) that discovered or observed the bird. This information shall be relayed within 24 hours to EWEB's Environmental Management Department, and EWEB shall then notify the USDA Forest Service and, in the case of species listed under the federal Endangered Species Act, the Migratory Bird Treaty Act, and the Eagle Act, the USFWS, within 48 hours of the observation. EWEB shall summarize and provide to the WWG annual records of any observed or reported injuries or mortalities.

4.3.2 Performance standards

Visibility-enhancing devices of the type and at the locations and spacing described above, without damage, shall be in place and functioning properly.

4.3.3 Maintenance actions

EWEB shall perform maintenance of any noted deficiencies within 6 months of the inspection noting the deficiency. In addition, every 5 years or when replacements are necessary, whichever is sooner, EWEB, in consultation with the WWG, shall review the latest standards and technology and will evaluate the need to upgrade the devices.

4.3.4 Contingency actions

If installation of visibility-enhancing devices at locations and distances provided in this Section 4.3 is not reasonably feasible, EWEB shall, in consultation with the WWG and subject to approval by the USDA Forest Service if on National Forest System (NFS) lands, determine the appropriate contingency actions that EWEB shall implement. If (1) collision with a Project transmission line results in injury or mortality of a raptor or waterfowl species that is listed under the federal or state Endangered Species Act occurs, or (2) a pattern, as defined by the WWG, of injury or mortality to other raptor or waterfowl species emerges over several years, EWEB shall develop, in consultation with the WWG and subject to approval by the USDA Forest Service and the USFWS, a plan that identifies actions to address the continued impacts. EWEB shall complete and implement the plan, in consultation with the WWG, within one year of completion of the monitoring report in which the problem is identified.

4.3.5 Timeline

EWEB shall install visibility-enhancing devices within 18 months after issuance of the New License. The first monitoring cycle shall occur within two years of installation.

4.4 Restrict Access to Roads to Improve Elk Habitat

The current and anticipated future quality, quantity, and distribution of elk habitat were analyzed for the elk emphasis areas that overlap the Project reservoirs, transmission line corridor, and associated access roads. The analysis identified the following elk emphasis areas Gate Ikenick, Upper West Side McKenzie, Belknap/Paradise, and Florence Mills (Stillwater Sciences 2006b). Elk habitat conditions in the elk emphasis areas that overlap Project features generally satisfy the management objectives of the Forest Plan as amended for elk habitat (Stillwater Sciences 2006b). The habitat effectiveness values for size and spacing of forage and cover areas tend to be high, values for forage quality tend to be low, and values for road density tend to be intermediate (Stillwater Sciences 2006b).

Because elk can be stressed during fall and winter months due to hunting pressure, the rutting season, migration, and harsh winter conditions, as well as during the late gestation and calving periods, EWEB shall implement year-round access restrictions specified in this Section 4.4 on six roads (identified in Table 4-4, and Figure 2) used by the Project, which restrictions are designed to help create diverse, high quality habitat patches that offer as little human disturbance as reasonably possible. These restrictions on road access could increase the value of habitat patches surrounding the roads.

Table 4-4. Roads identified for year-round access restriction.

Map code	Road(s) affected		Primary EWEB usage
	USDA Forest Service Road Number	Common road name	
1	FR 2650611	Dusty Road	Towers 51, 53, 54 access
2	FR 2654782	N/A	N/A
3	FR 2600263	Tower 100–102 Access Road	Towers 100 to 102 access
4	FR 2600261	Tower 104–106 Access Road	Towers 104 to 106 access
5	FR 2600258	Tower 107 Access Road	Tower 107 access
6	FR 2633706	Powers Creek Road	N/A

EWEB shall implement the road closures by installing gates with locks to provide access to Project and other National Forest System facilities for maintenance, instead of implementing permanent road closure mechanisms, such as berms or revegetation. Access shall be restricted to EWEB and USDA Forest Service personnel, and any other entities that the USDA Forest Service and EWEB determine have a need for access.

EWEB shall cooperate with the USDA Forest Service on their public process for evaluating and deciding on road restrictions. EWEB, in consultation with the WWG and subject to the approval of the USDA Forest Service, shall install and maintain the gates throughout the term of the New License. EWEB shall install and maintain informational signs at locked gates according to the standards to inform the public about the reason for restrictions in accordance with the *Roads, Waste Areas, and Staging Areas Management Plan* (Martha Goodavish Planning & Design and Stillwater Sciences 2008a).

4.4.1 Post-implementation monitoring

EWEB shall annually inspect all gates installed pursuant to Section 4.4 of the WMP to determine if they are functional (e.g., are not vandalized) or need maintenance (e.g., painting). EWEB shall check and lock gates on a regular basis on roads used for routine Project operations and maintenance.

4.4.2 Performance standards

EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, shall develop and implement specifications for locations and mechanisms for restricting road access. EWEB shall install gates that are the tube steel type according to USDA Forest Service standards (see Martha Goodavish Planning & Design and Stillwater Sciences 2008a).

4.4.3 Maintenance actions

EWEB shall perform any necessary maintenance of road closures and associated informational signs on Project roads specified in this Section 4.4 that are managed by EWEB. If a gate is damaged, missing, or in need of repair or repainting, EWEB shall repair or replace the gate within 3 months of discovery.

4.4.4 Contingency actions

If EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, determines that it is not feasible to install or maintain a road restriction required in this Section 4.4, EWEB in consultation with the WWG and subject to approval of the USDA Forest Service shall develop reasonably practical contingency actions or other reasonably practical mitigation.

4.4.5 Timeline

EWEB, in consultation with the WWG and subject to USDA Forest Service approval, shall finalize plans for road restrictions within 12 months after issuance of the New License. EWEB shall implement identified road restrictions within 18 months of New License issuance. EWEB shall initiate monitoring within six months of the closures.

4.5 Terrestrial Habitat Management

EWEB shall manage a minimum of 343 acres of terrestrial wildlife habitat for the duration of the License, as described (and including the lands and acres listed) below.

- EWEB shall fund and manage a Terrestrial Wildlife Habitat Fund (Fund) for the term of the New License. To create the Fund, EWEB shall deposit \$20,000 per year (2008 dollars, adjusted annually for inflation as provided below), into an interest-bearing account for the duration of the License. The money in the Fund shall be used for the creation and management of terrestrial wildlife habitat, including early seral habitat. Expenditures from the Fund shall be proposed by EWEB, discussed through consultation with the WWG, and approved by the USDA Forest Service. EWEB shall develop guidelines for expenditures from the Fund in consultation with the WWG and subject to approval by the USDA Forest Service. Expenditures from the Fund allowed and approved include, but are not limited to, early seral vegetation restoration, management and maintenance; improvement measures for early seral vegetation including weed eradication associated with actions taken to create high quality early seral habitat under this WMP, site preparation and re-vegetation; conservation easement purchase and management; and road gate installation and management for improved wildlife habitat quality. Money remaining in the Fund at the conclusion of any given calendar year shall be maintained in the interest-bearing account for use in successive years in accordance with this WMP.
- The \$20,000 payment amount specified above shall be deemed to be stated as of the year 2008, and EWEB shall escalate such sum as of September 1 of each following year (starting in September 2009 according to the following formula:

$$AD = D \times (NGDP/IGDP)$$

Where:

AD = Adjusted dollar amount as of September 1 of the year in which the adjustment is made.

D = Dollar amount prior to adjustment.

IGDP = GDP-IPD for the second quarter of the year of the previous adjustment date (or, in the case of the first adjustment, the second quarter of the year before the Effective Date).

NGDP = GDP-IDP for the second quarter of the year before the adjustment date. “GDP-IPD” is the value published for the Gross Domestic Product Implicit Price Deflator by the U.S. Department of Commerce, Bureau of Economic Analysis in the publication Survey of Current Business, Table 1.1.9 (begin on the basis of year 2000 = 100), in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by the agreement of the USDA Forest Service and EWEB. If the base year for GDP-IDP is changed or if publication of the index is discontinued, EWEB shall promptly make adjustments

or, if necessary, select an appropriate alternative index acceptable to the USDA Forest Service to achieve the same economic effect.

- EWEB shall manage the 79 acres of the existing Carmen-Smith 115-kV transmission line right-of-way on NFS land for early seral habitat for the term of the New License. These acres shall count toward the minimum acreage of 343 acres to be managed by EWEB for terrestrial wildlife habitat.
- EWEB shall manage the acres of the widened transmission line right-of-way corridor on NFS land for the benefit of terrestrial wildlife habitat for the term of the New License. These acres shall count toward the minimum acreage of 343 acres to be managed by EWEB for terrestrial wildlife habitat. EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, shall identify the portion of the widened transmission line right-of-way that can be managed for early seral habitat, and EWEB shall manage that portion for early seral habitat for the term of the New License.
- EWEB shall, with the WWG's assistance, use best efforts to acquire conservation easements on private lands located along the Project's 115 kV transmission line that qualify as terrestrial wildlife habitat, as determined by EWEB, in consultation with the WWG and with subject to approval by the USDA Forest Service, and manage these lands for their appropriate terrestrial wildlife habitat objectives for the term of the New License. Lands identified by conservation easements obtained under this agreement shall count toward the minimum acreage of 343 acres to be managed by EWEB for terrestrial wildlife habitat.
- EWEB shall manage terrestrial wildlife habitat on appropriate EWEB-owned lands above the Leaburg Canal for the term of the New License in accordance with a *Wildlife Habitat Management Plan* that will be developed by EWEB in consultation with the WWG and subject to approval by the USDA Forest Service. EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, shall determine the number of acres to be managed and the habitat objectives for those acres. Lands from the appropriate EWEB-owned lands above the Leaburg Canal shall count toward the minimum acreage of 343 acres to be managed by EWEB for terrestrial wildlife habitat, and shall be identified and determined to be included in the *Wildlife Habitat Management Plan* only to the extent necessary to achieve the minimum of 343 acres.
- Money from the Fund can also be allocated by EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, for early seral habitat improvement projects in the general vicinity of the Carmen-Smith Project, including the vicinity of the 115-kV transmission line. Lands improved for early seral habitat using money from the Fund shall count toward the minimum acreage of 343 acres to be managed by EWEB for terrestrial wildlife habitat.

4.5.1 Post-implementation monitoring

EWEB shall report annually to the WWG on the number of acres of terrestrial wildlife habitat being managed under this Section 4.5. EWEB shall include in the report the location and current condition of the habitat, along with any habitat improvement activities undertaken during the previous year.

4.5.2 Performance standards

EWEB shall manage and maintain a minimum of 343 acres of terrestrial wildlife habitat for the duration of the License, as described in Section 4.5.

4.5.3 Maintenance actions

EWEB shall manage and maintain a minimum of 343 acres of terrestrial wildlife habitat for the duration of the License, as described in Section 4.5.

4.5.4 Contingency actions

If EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, determines that it is not feasible to implement the measures described above regarding the identification and management of the specified acreage of land for terrestrial wildlife habitat, EWEB in consultation with the WWG and subject to approval by the USDA Forest Service, shall propose and implement alternate terrestrial wildlife habitat management actions.

4.5.5 Timeline

- EWEB shall provide initial funding to the Terrestrial Wildlife Habitat Fund in the first full calendar year following License issuance, and shall provide subsequent annual funding each year through the end of the New License.
- EWEB shall manage the existing Carmen-Smith 115-kV transmission line right-of-way for early seral habitat beginning in the first full calendar year following issuance of the New License, in coordination with the vegetation management activities described in the *Vegetation Management Plan* (Stillwater Sciences 2008).
- EWEB shall, in consultation with the WWG and subject to approval by the USDA Forest Service, develop a plan for (1) widening the transmission line right-of-way, including management of the right-of-way for early seral habitat, and (2) attempting to acquire conservation easements on private lands located along the right-of-way, within two years after issuance of the New License.
- EWEB shall, in consultation with the WWG and subject to approval by the USDA Forest Service, develop the Wildlife Habitat Management Plan for appropriate EWEB-owned lands above the Leaburg Canal within two years after issuance of the New License.

4.6 Ongoing Review of ESA-Listed Wildlife Species

EWEB shall, in consultation with the WWG, review on an annual basis the most recent available information on the occurrence or potential occurrence in the Project area of species listed under the federal or state Endangered Species Act after the effective date of the Settlement Agreement, with the goal of minimizing effects of the Project on any newly listed species. EWEB, in consultation with the WWG and subject to approval by the USFWS (or NMFS if appropriate), shall determine if any additional seasonal activity restrictions and other requirements are necessary for any newly listed state or federal endangered or threatened species found to occur within the Project area and potentially affected by Project activities.

EWEB, in consultation with the WWG, shall also annually review the list of species listed under the federal or state Endangered Species Act that may be present in the Project area to determine if any new or updated wildlife surveys are necessary to determine the presence of a newly listed species, determine potential Project-related effects to these newly listed species. EWEB shall report to the WWG a minimum of 30 days prior to the next WWG Annual Meeting on any identified changes to the known listing status or occurrence information for ESA-listed wildlife species that may be present in the Project area which may be adversely impacted by Project operations or maintenance, and shall propose measures designed to address the changes in information, as necessary.

4.6.1 Post-implementation monitoring

No monitoring applies to this element.

4.6.2 Performance standards

No performance standards apply to this element.

4.6.3 Maintenance actions

No maintenance applies to this element.

4.6.4 Contingency actions

No contingency actions apply to this element.

4.6.5 Timeline

EWEB, in consultation with the WWG, shall annually review the current information on ESA-listed wildlife species as provided in Section 4.6, above.

4.7 Review of Construction Activities

Prior to initiating construction activities, including activities related to recreational use and developments, EWEB shall evaluate the potential impacts of ground-disturbing construction activities on wildlife species and habitats, and modify construction plans as appropriate and reasonably feasible, with an overall goal of preventing or minimizing impacts. EWEB shall consult with USFWS, ODFW, and the USDA Forest Service, as applicable, to address potential construction impacts on special-status wildlife species.

4.7.1 Post-implementation monitoring

Any post-implementation monitoring of new construction projects shall be developed by EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, as part of the specific plans for a given construction project.

4.7.2 Performance standards

The performance standards for new construction projects relating to wildlife are provided above in this WMP

4.7.3 Maintenance actions

The maintenance actions for new construction projects relating to wildlife are provided above in this WMP

4.7.4 Contingency actions

The contingency actions for new construction projects relating to wildlife are provided above in this WMP.

4.7.5 Timeline

Review and modification of construction plans shall occur intermittently over the course of the License term, according to the timeline of proposed construction activities.

4.8 Invasive Non-Native Wildlife Species

EWEB shall develop, in consultation with the WWG and subject to approval of the USDA Forest Service, and in coordination with the Recreation and Aesthetics Management Plan Work Group (RAWG) where recreation facilities or activities would be affected, and shall implement a program designed to prevent the introduction of non-native wildlife species to Project reservoirs, and to stream reaches and lands within the Project boundary. EWEB shall implement the program as part of the overall Project interpretation and education program (I&E Program) included as an element of the *Recreation and Aesthetics Management Plan* (Martha Goodavish Planning & Design and Stillwater Sciences 2008b).

4.8.1 Post-implementation monitoring

Any post-implementation monitoring of the program designed to prevent the introduction of non-native wildlife species to Project reservoirs, and to stream reaches and lands within the Project boundary shall be developed by EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, and in coordination with the RAWG where recreation facilities or activities would be affected, and subject to approval by the USDA Forest Service, as part of species-specific strategies for preventing and/or controlling introductions.

4.8.2 Performance standards

The performance standards for addressing invasive non-native wildlife species are provided above in this WMP.

4.8.3 Maintenance actions

Any maintenance actions shall be developed by EWEB, in consultation with the WWG and subject to approval by the USDA Forest Service, and in coordination with the RAW where

recreation facilities or activities would be affected, and subject to approval by the USDA Forest Service, as part of species-specific plans for preventing and/or controlling introductions.

4.8.4 Contingency actions

The contingency actions for addressing invasive non-native wildlife species are provided above in this WMP.

4.8.5 Timeline

EWEB, in consultation with the WWG, and in coordination with the RAWG where recreation facilities or activities would be affected (Martha Goodavish Planning & Design and Stillwater Sciences 2008b), and subject to approval by the USDA Forest Service, shall develop the timeline for this element as part of species-specific plans for preventing and/or controlling introductions.

5 REPORTING REQUIREMENTS

EWEB shall prepare an annual report regarding EWEB's implementation of this WMP. EWEB shall provide a draft of the annual report to the WWG for a 30-day comment period on the draft report. At the request of a WWG member, EWEB shall extend the comment period for an additional 30 days. EWEB shall submit a final report and response to comments on the draft report to the Commission within 90 days after the end of the comment period. EWEB shall include, at a minimum, the following information in the annual report:

1. A summary of the actions that EWEB implemented during the previous calendar year.
2. A discussion of any substantial differences between the actions provided in this WMP and the actions that EWEB implemented, including explanations for any substantial differences.
3. A summary of the actions EWEB plans to implement for the current calendar year.
4. A discussion of any substantial differences between the implementation schedule in this WMP and the schedule for the actions EWEB plans to implement in the current calendar year, including an explanation for any substantial differences.
5. Documentation of consultation with the WWG and approval by the agencies with approval authority regarding actions EWEB implemented under this WMP in the previous calendar year.
6. Results of any monitoring that occurred during the previous calendar year, conclusions that EWEB draws from the monitoring results, and any changes to this WMP EWEB proposes based on the monitoring results. EWEB shall consult with the WWG and obtain any necessary approvals as provided in Sections 2.2.2.1, 2.2.2.2, 2.2.2.3, and 2.3 of this WMP regarding any proposed changes to this WMP based on the monitoring results.
7. Results of the annual bald eagle survey, including any bald eagle nesting, roosting, or foraging activities around Project reservoirs.

EWEB shall also report any bald eagle nesting activities around Project reservoirs that are noted during bald eagle surveys to the USDA Forest Service, USFWS, and ODFW within 48 hours of observing the nesting activities.

6 OVERALL TIMELINE

The overall timeline of the work described in this WMP is illustrated in Figure 3.

7 REFERENCES CITED

APLIC (Avian Power Line Interaction Committee). 2006. Suggested practices for avian protection on power lines: the state of the art in 2006. Pier Final Project Report CEC-500-2006-022. Edison Electric Institute, Washington D.C., Avian Power Line Interaction Committee, Sacramento, California and the California Energy Commission, Sacramento, California.

CEC (California Energy Commission). 2002. A roadmap for PIER research on avian collisions with power lines in California. Commission Staff Report, P500-02-071F. Prepared by Kevin Hunting, Wildlife Consultant, Sacramento for California Energy Commission, Sacramento.

Livezey, K. 2003. Estimates of distances at which incidental take of murrelets and spotted owls due to harassment are anticipated from sound-generating, forest-management activities in Olympia National Forest. Prepared by U.S. Fish and Wildlife Service, Western Washington Office, Lacey, Washington.

Martha Goodavish Planning & Design and Stillwater Sciences. 2008a. Roads, waste areas, and staging areas management plan. Final report. Prepared by Martha Goodavish Planning & Design, Walnut Creek, California, and Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

Martha Goodavish Planning & Design and Stillwater Sciences. 2008b. Recreation and aesthetics management plan. Final report. Prepared by Martha Goodavish Planning & Design, Walnut Creek, California, and Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

Stillwater Sciences. 2006a. Wildlife distribution at the Carmen-Smith Hydroelectric Project, upper McKenzie River basin, Oregon. Final report. Prepared by Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

Stillwater Sciences. 2006b. Wildlife analyses at the Carmen-Smith Hydroelectric Project, upper McKenzie River basin, Oregon. Agency draft report. Prepared by Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

Stillwater Sciences. 2008. Vegetation management plan. Final plan. Prepared by Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

USFWS (U. S. Fish and Wildlife Service). 2007a. 2007 observations of smoke effects on northern spotted owls. Prepared by USFWS, Oregon Fish and Wildlife Service Office, Portland, Oregon.

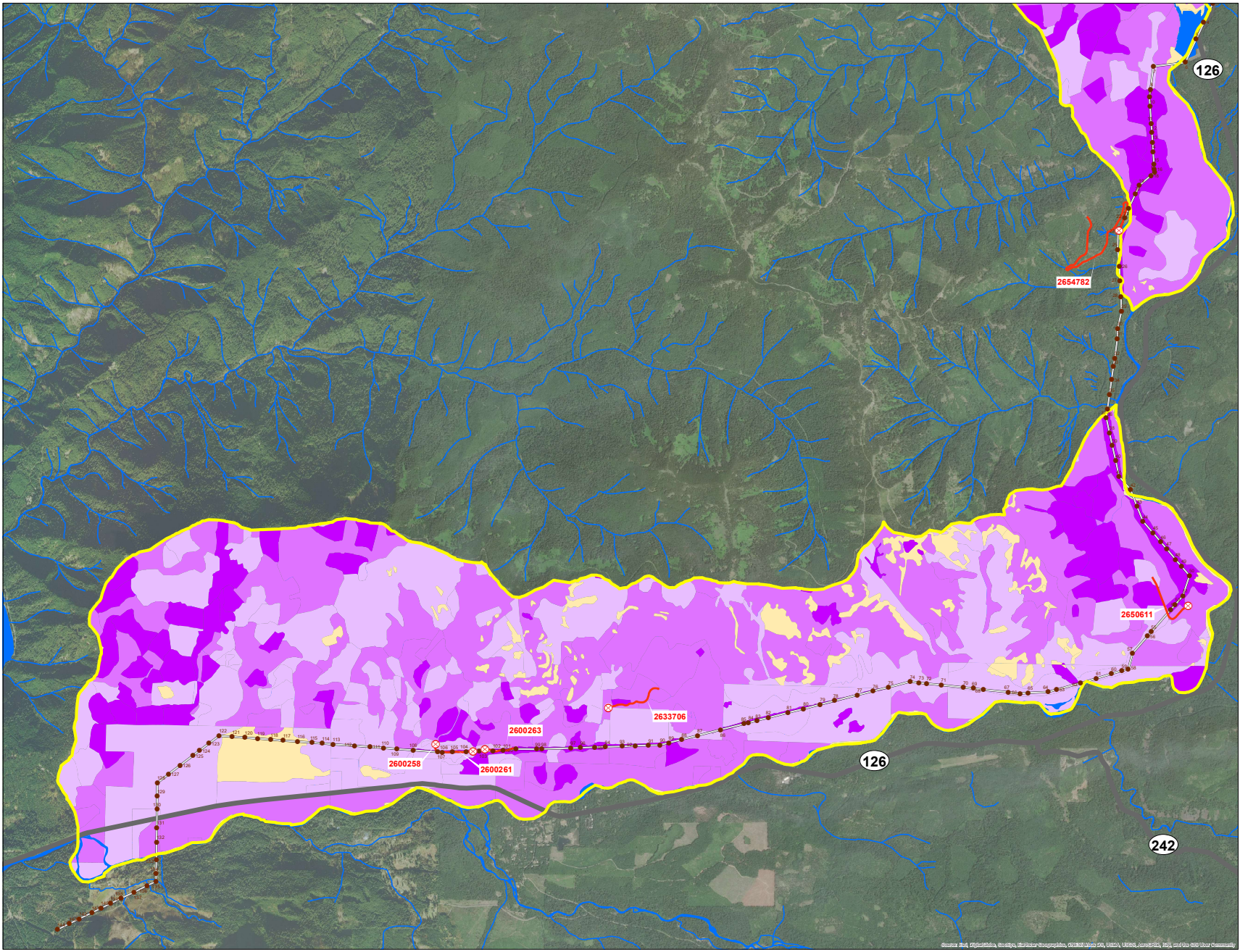
USFWS. 2007b. National bald eagle management guidelines.
www.fws.gov/pacific/eagle/NationalBaldEagleManagementGuidelines.pdf.

USFWS. 2008. Informal consultation on four vegetation management projects within the Willamette Planning Province, which may affect northern spotted owls and spotted owl critical habitat (FWS reference: 13420-2007-I-0038). Letter of concurrence. Prepared by USFWS, Oregon Fish and Wildlife Office, Portland, Oregon.

Figures



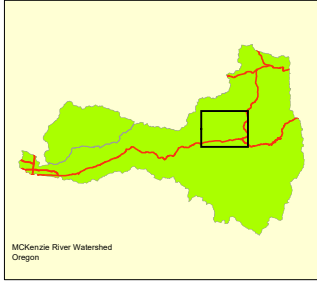
Figure 1. TYCO Swan Flight Diverter Type.



**EWEB Carmen-Smith T-line:
Elk habitat and proposed
road closures**

Legend

- | | |
|--------------------|--------------------|
| Elk Habitat | — Closed Roads |
| ■ No Veg | ■ ElkManagmentArea |
| ■ Forage Areas | ■ Reservoirs |
| ■ Optimal Cover | — Streams |
| ■ Thermal Cover | — State Highway |
| ■ Hiding Cover | — T-Line |
| ⊗ Gates | ● T-Line Towers |



0 1 Miles



1:24,000

This is not an official map but for reference use only. The data was compiled from the best sources available. Various errors may be inherent on the map. EWEB is not responsible for liable for any derivative or misuses of this map.

Figure 2. Proposed road closures to protect natural resources.

Attachments

Attachment A

Wildlife Management Plan Representatives

**ATTACHMENT A
WILDLIFE MANAGEMENT PLAN REPRESENTATIVES**

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Attachment B

Section 8.12 of the Settlement Agreement

8.12 Notice.

Except as otherwise provided in this Section 8.12, any notice required by this Agreement will be written and will be sent by first-class mail or comparable method of distribution (including e-mail) to all Parties still in existence or their successors and will be filed with FERC if required by this Agreement. For the purpose of this Agreement, a notice will be effective seven days after the date on which it is mailed or otherwise distributed. When this Agreement requires notice in less than seven days, notice will be provided by telephone, facsimile, or electronic mail and will be effective when provided. For the purpose of notice, the list of authorized representatives of the Parties as of the Effective Date is attached as Exhibit I. The Parties will provide notice as provided in this Section 8.12 of any change in the authorized representatives designated in Exhibit I, and EWEB will maintain the current distribution list of such representatives.

Attachment C

Observations at Bald Eagle Nest Sites in the Carmen-Smith Project Area: Monitoring Protocol & Reporting Guide

Observations at Bald Eagle Nest Sites in the Carmen-Smith Project Area: Monitoring Protocol & Reporting Guide

April 24, 2020

Revised from 2007 protocol developed by Frank Isaacs.

- 1) INTRODUCTION
- 2) PROTOCOL
- 3) REPORTING
- 4) EXAMPLES OF REPORTS
- 5) WHERE TO SEND REPORTS
- 6) LITERATURE

1 INTRODUCTION

Some thoughts on attitude and approach:

- The bald eagle nesting population in Oregon has been increasing and the distribution of nest sites has been expanding for 30+ years. It is rare for a breeding area to not be occupied by at least one adult bald eagle.

There are two sources of error that observers should be aware of and try to keep at a minimum:

- Error 1 is concluding that a breeding area is unoccupied after minimal survey effort. What we perceive as a failure by bald eagles to occupy a site is more likely a failure of the observer to find the eagles. If eagles are not found on the first visit, then follow-up visits are necessary. If all known nests in a breeding area appear to be unused, then a search for a new nest is warranted. Fresh material will usually be present on the edge of the nest in use.
- Error 2 occurs when trying to determine the number of eaglets on a nest. Eaglets can be out of view for long periods of time. Minimal survey effort can result in nests with young being classified as failures, or only one eaglet being counted where there are actually two or three.

If no chicks are immediately visible on a nest, look for evidence of young. White feces on the tree trunk or limbs adjacent to the nest surface may indicate the presence of unseen young. Eaglets defecate over the edge of the nest and much of the feces ends up on tree trunk and branches. Down feathers stuck to sticks on and around the nest surface also might indicate there are young present. If you see either of those clues, suspect young and spend more time observing. If you see one chick on a nest and don't have a clear view of the nest surface, then suspect two or three chicks, and wait until an adult visits the nest with prey before concluding there is just one chick. Upon arrival of an adult a second, or even two more chicks may stand or move into view. The extra time spent observing the nest will often be rewarded with interesting eagle action that would otherwise be missed.

2 PROTOCOL

Nests should be observed from a distant location that does not disturb the eagles. Use a spotting scope from a distance greater than 800m (1/2 mile), however you may need to be closer to view the nest site. If you disturb an eagle, leave the area.

The objective is to determine the outcome of nesting which requires at least two visits to the nest site at strategic times during the breeding season, which lasts from January through August.

The goal of the first monitoring session is to determine if a breeding area is occupied. The second session is conducted to determine the outcome of nesting. More than two visits may be required to determine nesting outcome.

The best timing for the first monitoring session is late March or early April, if the site is accessible. If no eagles are observed during that visit, the breeding area should be checked weekly until one or more adult bald eagles are observed, or 15 May, whichever comes first.

The second monitoring session should take place within a week of June 1. If mostly-feathered nestlings are observed; i.e., stage 3b or older (Carpenter 1990), and you are sure how many there are, or you are sure that the nesting attempt failed, no further visits are required. If the number of nestlings is uncertain, downy nestlings are observed (stage 3a or younger), or outcome is uncertain, additional monitoring is required. If nestlings are feathered and you need to verify the number of nestlings, then return within a few days. If outcome is uncertain, then return weekly until outcome is determined. If nestlings are downy during the late-May/early-June visit, then return in 4 weeks. Be aware that early nesting pairs may have eaglets that are at or near fledging on June 1.

When conducting a monitoring session, assume it will take 2 hours to determine nest status. Usually it doesn't take that long, but it is better to expect 2 hours and use 30 minutes than to think you will be done in a few minutes and then be disappointed for 2 hours. When looking for nestlings, assume there are nestlings and don't give up hope until you are certain none are present; it can take 2 or more hours or return visits to be positive. At places where nests are easy to observe, short monitoring sessions weekly or every two weeks are as effective as two long sessions.

Complete a report for every day a site is observed. If a site is observed very frequently, a report is only needed for significant events such as nest building, start of incubation, hatching, nesting outcome determined, fledging, etc. The goal is to determine the number of feathered nestlings. Fledging dates are not essential but provide valuable information and should be reported when known.

The earliest nesting pairs begin incubating in mid-February; late nesters begin incubating in late April. Egg laying has not been observed after May 1 in Oregon. If a nest is not being used by May 15, it will probably not be used that season. If you know that a pair are unusually early or late nesters, adjust your observation schedule accordingly.

Age of young should be described following the attached aging guide from Carpenter (1990).

3 REPORTING

Document the following information in your field notebook or on a field form.

Field notes or written summaries of observations provide the best descriptions of bald eagle nesting activities. They can follow a variety of formats or writing styles, and they can be as concise or extensive as needed. Abbreviations can be used, as long as the meanings are obvious. Ideally you would submit your completed observation form to the wildlife biologist within one week of observations, or sooner if you are aware of any activities that are in progress or may be planned that may disturb the eagle nest site.

The goal of each report is to accurately describe what was observed during a monitoring session.

Reports should contain the following information:

Observer(s) Name and Contact Information (email and phone number)

Date of Monitoring Session

Site Name

Survey Method (ground-based or aerial)

Location of Observation Point (ideally provide a UTM in NAD83) and/or a map

Number, Age Class, and Behavior of Each Bald Eagle Observed, including plumage stage of eaglets

Nest and Nest Tree Condition (if there has been a change)

Observation Times

Other Notes on anything that seems pertinent i.e. human activity that appears to be disturbing, weather that could have affected eagle behavior or the accuracy of the report, prey, eagle interactions with other species, etc.). For new nests, describe the nest, the nest tree, and the location of the new nest tree (send a detailed map if possible). If you use GPS coordinates to describe observation points or nest tree locations, include the datum used (NAD83/WGS84). If you use compass bearings, indicate if they are based on magnetic north or true north.

4 FIELD FORM

EAGLE SURVEY FORM

McKenzie River RD, Willamette National Forest

1 - SITE NAME:

2 – OBSERVER(S) AND SURVEY DATE:

3 - SURVEY METHOD: G

4 - OBSERVATION POINT (LAT/LONG IN DECIMAL DEGREES):

5 - NUMBER OF ADULT BALD EAGLES OBSERVED:

6 - NESTING STATUS:

7- DEVELOPMENT OF NESTLINGS:

8 – OBSERVER PHONE AND EMAIL:

9 - OBSERVATION START AND END TIMES:

10 - NOTES:

Please show observations and movement patterns of eagles on a map. Drawings or photos are also helpful.

Use this area to report any unusual or notable observations and delete these orange comments before submitting the form. Include the following information if it applies:

- New nest(s).
- Nest building at existing or new nests.
- Copulation(s).
- Successful hunting attempt(s), and prey caught and eaten, or delivered to the nest.
- Adult(s) apparently feeding unseen nestlings.
- Subadult(s) in a nesting pair (describe plumage of subadult and sex if possible). Remember: females are larger than males, but usually that can only be determined if both members of the pair are perched close together.
- Subadult(s) observed (describe plumage and behavior).
- Extra adult(s) observed (describe behavior).
- Condition of nest tree(s) if there has been an obvious change, e. g., the tree died.
- Unusual human activity nearby that did or did not disturb the eagle(s).
- Sick, injured, or dead eagle(s) observed or reported.
- Interactions between eagle(s) and other species.
- Other species using an eagle nest.
- Reports from other observers that may be relevant.
- Obvious changes in habitat, e. g., trees logged or dying, human development, drought or flood conditions, etc.
- Weather or viewing conditions, if they affected the observation.
- Anything else that was interesting, unusual, or relevant.

5 WHERE TO SEND REPORTS

Please submit your bald eagle monitoring report to the McKenzie River Ranger District Wildlife Biologist Ruby Seitz, ruby.seitz@usda.gov, 541-822-7256.

For specific bald eagle monitoring questions, you may also contact Frank Isaacs at: fbisaacs@gmail.com, 541-929-7154 or cell phone:541-231-1674

6 RELEVANT LITERATURE

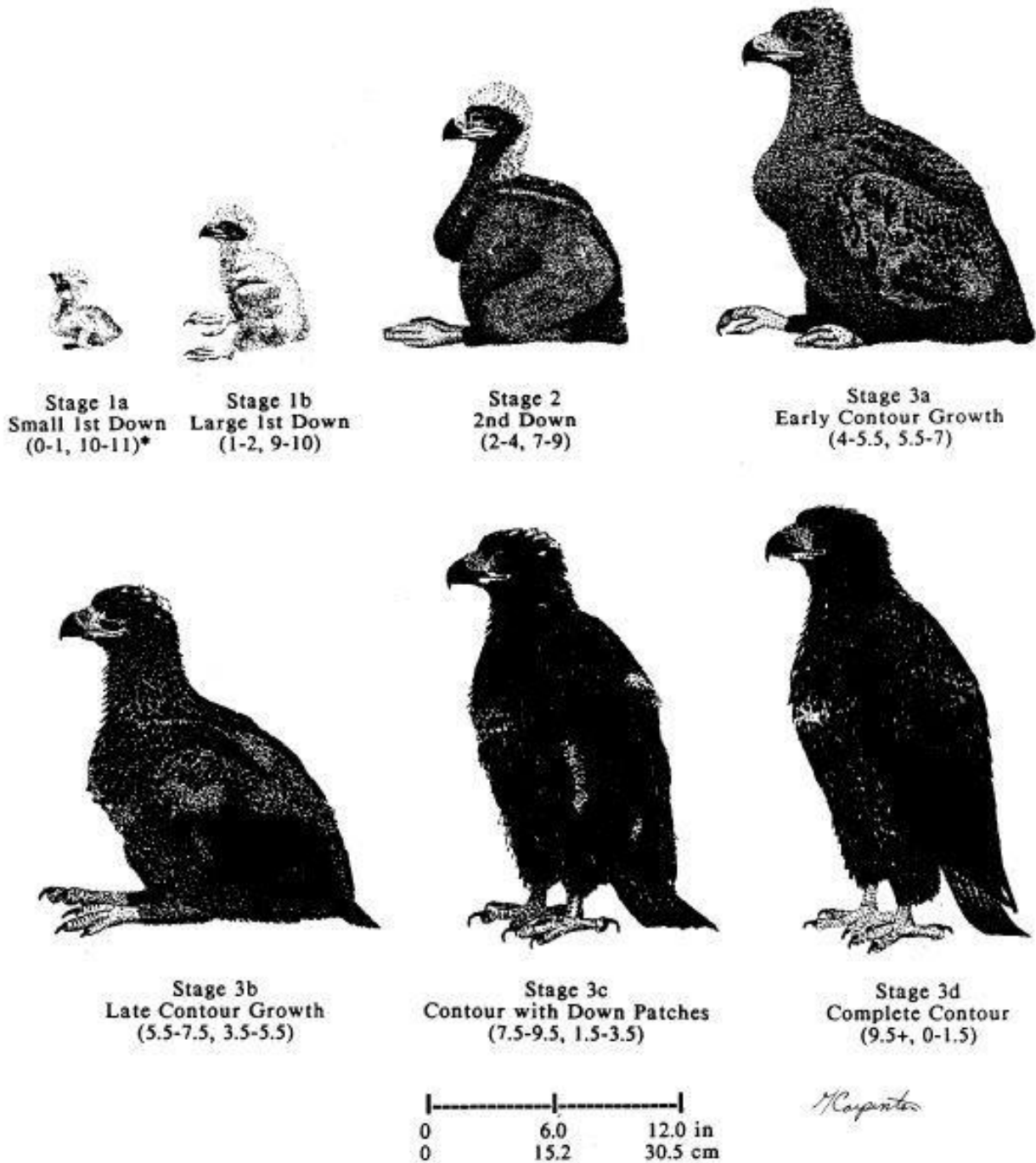
Carpenter, G.P. 1990. An illustrated guide for identifying developmental stages of bald eagle nestlings in the field. Final draft, April 1990. San Francisco zoological society, Sloat Blvd. At the Pacific Ocean, San Francisco, California 94132 (415-753-7080).

[attached]

Isaacs, F.B. and R.G. Anthony. 2011. Bald eagles (*Haliaeetus leucocephalus*) nesting in Oregon and along the lower Columbia River, 1978-2007. Final report. Oregon cooperative fish and wildlife research unit, oregon state university, corvallis, oregon, usa.

242pp.<http://www.fs.fed.us/r6/sfpnw/issssp/documents/inventories/inv-rpt-bi-hale-oregon-1978-2007-2011-03.pdf>

Mccollough, M.A. 1989. Molting sequence and aging of bald eagles. The Wilson bulletin. 101:1-10. [available upon request]



* (approximate number of weeks since hatching, approximate number of weeks until fledging)

FROM: Carpenter, George P. 1990. An illustrated guide for identifying developmental stages of bald eagle nestlings in the field. Final draft, April 1990. San Francisco Zoological Society, San Francisco, CA 94132.