AVISTA CORPORATION

2013

SPOKANE RIVER PROJECT

BALD EAGLE MONITORING REPORT

LICENSE ARTICLE 414

SPOKANE RIVER HYDROELECTRIC PROJECT

FERC PROJECT NO. 2545

Prepared By:

Avista Corporation

December 2013

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1.0 INTRODUCTION

On June 18, 2009, the Federal Energy Regulatory Commission (FERC) issued a new license for Avista Corporation's (Avista) Spokane River Project (Project), FERC Project No. 2545, for a 50-year license term. The Project consists of five hydroelectric developments (HED) located on the Spokane River in northern Idaho (Kootenai and Benewah Counties) and eastern Washington (Spokane, Stevens, and Lincoln Counties). The FERC licensed Project boundary generally follows the normal full pool elevation of the impoundment associated with each HED. The five HEDs, from upstream to downstream, include:

- Post Falls (River Mile [RM] 102)
- Upper Falls (RM 74.2)
- Monroe Street (RM 74)
- Nine Mile (RM 58)
- Long Lake (RM 34)

Article 414 of the License required Avista to develop a Bald Eagle Management Plan (Plan) which was approved by FERC on May 11, 2011, and included: bald eagle (*Haliaeetus leucocephalus*) nests associated with Project waters (waters impounded by the Project within the FERC Project Boundary); a framework for annual occupancy and productivity monitoring (Monitoring); annual surveys to identify new nests (Surveys); investigations to identify bald eagle nesting territories including primary use areas, home ranges, and key use sites (Investigations); and reporting requirements.

Monitoring, Surveys and Investigations were completed for nests within the Monitoring Area, which is defined by the Plan as the area that encompasses bald eagle nest sites associated with Project waters. The Monitoring Area encompasses the Planning Area, which is defined by the Plan as areas that include Avista owned lands where an active or alternate nest associated with Project waters is present and select additional nesting territories where investigations indicate that (1) Project operations may have negative effects on bald eagle productivity or habitats, and (2) opportunities for protection are available.

Avista hired David Evans and Associates, Inc. (DEA) to assist in implementing of the Plan. This annual monitoring report includes the results for implementation during year two of the Plan. Original and electronic copies of all field forms, photographs, geographic information system (GIS) databases, and reports are on file at Avista.

2.0 OCCUPANCY AND PRODUCTIVITY MONITORING

2.1 Methods

Location of Territories Monitored. Twenty-three nesting territories that were associated with Project waters were monitored in 2013 to determine annual occupancy and productivity. *Figures 1and 2* show the locations of these territories. The Mission Slough territory nest that was active in 2012 and 2013, and located at Rose Lake, was renamed as the Rose Lake territory.

Dates of Monitoring. Monitoring occurred between February 1 and July 31 and followed the methods described in the Plan. Supplemental efforts included additional observation dates and extending the observation period to midday for watercraft and some land-based monitoring.

Each known nest was observed a minimum of three occasions during the nesting season to determine occupancy and productivity. The first observation was an initial determination of occupancy that occurred between February 1 and April 15; the second observation, an update of nesting status, occurred between April 1 and June 15; the third observation, a determination of productivity, occurred between June 15 and July 31.

Observations were generally made from first light to midday. Observations required up to one and one-half hours determining occupancy and productivity. High-resolution optics were used to facilitate observations. Observations were conducted from watercraft, land vehicle, and on foot. Land-based observations took place from a vehicle whenever possible to avoid disturbance to eagles. Nests approached on foot, took place with the observer remaining at least 330 feet from the nest and/or hidden from view. Observers retreated if eagles displayed agitated behavior. During each visit, recorded data pertinent to the determination of nest occupancy and productivity, included:

- Nest condition
- Nest repair or construction
- Presence and behavior of adults
- Adult incubation or brooding posture
- Number of eggs (if possible)
- Number and age of young using a standardized aging key based on plumage, size, and posture (Carpenter 1990)

Observers also noted any habitat alterations or activities that have occurred near the nest site that may affect eagle productivity. Based on the results of observations and professional judgment, one of the following occupancy determinations was made for each monitored territory.

1. Active: Two adults present in a territory containing a nest during the nesting season, or one adult observed incubating with young, or near a known nest. Nesting determination is the activity status of the nest. "Active" is a transitional designation. A nest that is deemed "Active" at the beginning of the nesting season will receive a determination of "Successful", "Active, Not Successful", "Nest Abandoned", or "Active, Success Unknown" at the completion of monitoring.

> **Active Successful:** One or more young fledged from the nest. When the "Successful" determination is used, the annual report includes the number of eagles fledged from the nest. According to the Plan, productivity results assume the young noted in the nest during the last observation have successfully fledged. However, the pre-fledging period is considered a very sensitive period. Nestlings at this stage are developing flight abilities, may flush from the nest prematurely, and perish due to disruption (USFWS 2012). Therefore, actual numbers of fledglings and percentages may be the same or lower.
>
> **Active, Not Successful:** An occupied territory where no young were produced. When the "Active, Not Successful" determination is used, observers try to determine the cause of reproductive failure where possible, and note this cause in the annual report.
>
> **Nest Abandoned:** Bald eagles were observed in the nesting territory, but deserted or stopped attending a nest, and did not subsequently return and successfully raise young in a nest for the duration of the breeding season. When the "Nest Abandoned" determination is used, observers

document activities and/or habitat alterations that may have contributed to abandonment of the nest. The annual report includes information on the nature, extent, and location of such activities or habitat alterations. "Nest Abandoned" determinations are included in "Active, Not Successful" for productivity results.

Active, Success Unknown: Occupied territory not adequately monitored to determine success. The use of this determination will require an explanation as to why the territory was not adequately monitored to determine success. The annual report includes recommendations to rectify inadequacies in subsequent monitoring. These nests are not included in the analysis of Project area productivity, nest productivity, and nest failure rates.

2. Not Active: No nesting activity and no adults in a nesting territory. When the "Not Active" determination is used, observers recorded any modifications or disturbances to habitat that have occurred near the nest site and the distance to those disturbances. The nature, extent, and proximity of habitat modifications/disturbances should be included in the annual report. These nests are not included in the analysis of Project area productivity, nest productivity, and nest failure rates.

3. Status Unknown: Territory not checked or incompletely checked to determine occupancy. The use of the "Status Unknown" determination will require an explanation of why the territory was not checked or why observations were not adequate to determine occupancy. The annual report includes recommendations to allow for adequate observations during subsequent monitoring.

All territory occupancy, nesting activity status, and productivity data was recorded on standardized data forms. Copies of these forms are included in *Appendix A.*

2.2 Results

Territory Occupancy, Nesting Activity Status, and Productivity Determination

Twenty-three nests in Project waters were monitored in 2013 compared to nineteen nests in 2012. The 2013 monitoring results are shown in *Table 1* and summarized as follows:

- Occupancy: 91%. 23 known nesting territories were monitored; 21 nesting territories had active nests and were considered occupied. Two territories did not have active nests and were considered unoccupied.
- Active nests: 21 nests; 16 with known productivity.
  Active, Successful: 13 nests.
  Active, Not Successful: 3 nests (1 abandoned).
  Active, Success Unknown: 5 nests.
- Not Active nests: 2.
- Status Unknown nests: 0.
- Project area productivity: Twenty young were fledged from the sixteen active nests with known productivity. The average number of young per nest was 1.25.
- Failure rate: Three of 16 active nests, or 19% with known productivity were not successful.
- Successful nest productivity: Thirteen of 16 active nests or 81% with known productivity were successful. The average number of young per successful nest was 1.54.

Annual productivity of nesting territories in Project waters is summarized in *Table 2.*

Table 1. 2013 Bald Eagle Territory Nest Monitoring Results

Territory Name	Nest Number	Within Planning Area/Land Ownership	Potential Disturbance Factors	2013 Nest Determination	# of Fledglings 2013	2012
IDAHO						
Anderson Lake	07I03101	No/private	Many osprey nests, Trail of CDA	Not Active	0	0
Blessing Slough	07I07601	No/IDFG	None	Not Active	0	unknown
Cougar Bay	07I03502	No/Federal & private	Residential, osprey nests	Active, Success Unknown	unknown	0
Eddyville	07I07701	No/private	Residential	Active, Successful	2	2
Falls Creek	07I03703	No/private	Ranch operations, jet boat race	Active, Not Successful	0	0
Fernan*	07I03402	No/private	Residential	Active, Successful	1	NA
Hepton Lake *	07I10101	No/private	Residential, near Hwy 3.	Active, Successful	2	NA
Heyburn Park	07I05702	No/IDPR	Park roadways, hiking, Trail of CDA.	Active, Successful	2	0
Killarney Lake	07I01702	No/IDFG	None	Active, Successful	1	2
Mica Bay	07I05401	No/private	Residential	Active, Successful	1	2
Post Falls Dam	07I08001	Yes	Residential, roadway, osprey nests	Active, Successful	2	1
Rainy Hill	07I07402	No/USFS & IDFG	None	Active, Success Unknown	unknown	unknown
Rose Lake	07I01902	No/private	Residential	Active, Successful	1	0
St. Maries	07I04301	No/private	None	Active, Successful	2	1
Swan Lake	07I02002	No/private	Picnic area recreation on island	Active, Success unknown	unknown	2
Turner Bay	07I06603	No/private	Near highway	Active, Successful	1	2
Turtle Lake	07I02402	No/private	Ranch, residence, jet boat race	Active, Successful	2	0
Upper Spokane River*	07I10201	No/private	Development opposite side of river	Active, success unknown	unknown	NA
Windy Bay	08I00103	No/private	None	Active, success unknown	unknown	1
WASHINGTON						
Charles Maas	6W3055	No/WA Parks	WA Park and residential	Active, Successful	1	1
Long Lake South	6W2209	Yes	Other Eagles	Active, abandoned, Not Successful	0	2
Lower Spokane River*	6W10101	Yes	Numerous: osprey, Hwy 291, residential	Active, Not successful	0	NA
Whalen	6W2973	Yes/Avista & Conservancy	Osprey	Active, Successful	2	3
Total fledglings					20 (n= 16)	19 (n=17)
Fledglings/ nest					1.25 (n=16)	1.12 (n=17)
Fledglings/ successful nest					1.54 (n=13)	1.73 (n=11)

*/ NA=monitoring start in 2013, no information in 2012

Table 2. Annual Summary of Project Area Bald Eagle Productivity

	2012	2013
Number of territories checked	19	23
Number of active territories	19	21
Percent active	100	91
Number successful nests	11	13
Number of nest failures	6	3
Number success unknown	2	5
Number of fledglings	19	20
Percent nest success	65	81
Percent nest failure	35	19
Fledglings /nest	1.12	1.25
Fledglings/ successful nest	1.73	1.54

2.3 Discussion

The occupancy and productivity percentages of the nest territories are similar to 2012 and previous studies conducted by Idaho Fish and Game (IDFG) from 1979 to 2006 in the Idaho Eagle Management Area 7 of north Idaho and Montana (Sallabanks 2006). There were a higher percentage of unsuccessful nests in 2012 than in 2013. That may be attributed to a 2012 mid-summer snowstorm during the incubation and nestling period. However, the number of fledglings per successful nest was slightly higher in 2012 than 2013. The 2012 nesting adults may have had greater opportunity for success with less competition from nearby occupied territories.

The following section discusses the factors affecting occupancy and productivity of the individual nesting territories. They are ordered according to the final nesting activity status.

Active, Successful. Thirteen of the 16 active nests were successful. Seven nests successfully fledged two nestlings; six nests successfully fledged one nestling. Generally nesting eagles were acclimated to the existing level of human activities. Most of these nest sites experience some human caused disturbance and habitat alterations from nearby residences, transportation elements, or human recreation as shown in *Table 1*. Only a few of the nests are in isolation from these types of ongoing disturbances. Osprey nests were considered a natural disturbance, except where nesting platforms have been erected.

Active, Not Successful: Three of the 16 active nests were not successful**.**

Falls Creek had eagles within the vicinity of the nest on March 6 and June 12, 2013, but none were observed on the nest. The USFWS observations on April 16 and May 21 observed eagles on the nest (USFWS pers. comm. 2013). Incubation of eggs is assumed, but no young were observed. On June 12 there were no adults observed at the nest. This date would be considered a little too early for potential

young to fledge. This nest territory, as well as Turtle Lake is located in the St. Joe River basin. No disturbance or habitat alterations were noted during the observations, but the ranches in this basin use the meadows for grazing and hay production. A jet boat race occurred May 17-19, 2013 along the St. Joe River from St. Maries to Caldwell, Idaho. This event started in 2012 with two days of racing, each with two legs up and two legs down the river. Seventeen boats participated in 2013. The boats pass by the Falls Creek and Turtle Lake (active, successful) nests, both located near the river shoreline. In 2013 the Turtle Lake Nest was successful producing two fledglings. The Falls Creek nest was observed as active two days after the race. This nest was determined unsuccessful, cause unknown.

Long Lake South had two adult eagles incubating on the nest from early March through mid-April. However from April 30th on, both eagles were only seen upriver and at the opposite shore. No young were observed. There was no habitat alteration observed near the nest. However up to two immature eagles often flew by the nest and lingered in the territory during the incubation period. Furthermore, on two other occasions another adult eagle was observed above the ridge about one-half mile directly west of the active nest. By May 15th the nesting pair attempted an alternate nest on the opposite shore. It looked completed by mid-June, but shortly afterwards both eagles dispersed from the area and this second nest attempt fell into disrepair. The ranch residence activities near the alternate nest site were observed to disturb the eagles, because the eagles were observed leaving the nest area from the start through the finish of the residence activities. Further details are included in the Site-Specific Plan of **Appendix C**. The active nest was determined abandoned and unsuccessful likely due to competition from other eagles.

Lower Spokane River had two adult eagles at the nest from early March through mid-May. Adults were observed incubating and on May 2nd, two young were observed. However, by late May neither adult was tending the nest or young. Insects and swallows were observed flying around the nest, mortality was assumed. From that time on, the adults were only observed upstream at the east extent of the territory. Several disturbances were observed affecting the eagles during nesting, brood rearing, and foraging activities. There were aggressive osprey and an osprey nest 500 feet east of the eagle nest. In April, Hwy 291 bridge maintenance personnel were using a compressor to clean the bridge about 400 feet from the nest. The male did not forage or defend the territory during that event but appeared agitated, perching in the night roost area. The female was incubating and visibly distressed during that event. Other ongoing potential disturbances and habitat disruptions include nearby residential use, summer camp, boaters, anglers, a communal turkey vulture roost located on the ridge ¼ mile south of the nest, and Hwy 291 located 400 feet from the nest. Despite these disturbances however, this nest site has been active for over five years according to local residences. As a result of these factors, the nest was determined unsuccessful, due to numerous, non-specific causes.

Active, Success Unknown. Five nests: Cougar Bay, Rainy Hill, Swan Lake, Upper Spokane River, and Windy Bay were active, but with success unknown.

Cougar Bay had two adult eagles present that actively utilized the territory through the entire monitoring period. In 2013 the eagles were not observed at the 2012 active nest location and the earlier alternate nest appeared to have collapsed. For this reason was it assumed active, but with a new undiscovered nest location and success unknown.

Rainy Hill, Swan Lake, Upper Spokane River, and Windy Bay all had an eagle observed at the nest during the two early observation periods and incubation is assumed to have started. But no young or adults were observed on June 26 during the late nesting and fledgling observation period of June 15-July 31. With the monitoring information available, it was possible for the eggs to hatch and young to

fledge within this time period, but not conclusive. Therefore, these nests were assumed active but with success unknown.

Not Active. Two nesting territories, Anderson Lake and Blessing Slough were not active. There were no eagles seen in the Anderson Lake nest area during the monitoring period. The Anderson Lake nest is near the Trail of the Coeur D'Alenes (CDA) and trailhead, but trail use is minimal during early nesting season. The nest is in poor condition. At the Blessing Slough territory, an eagle was observed in late March but not at the nest site, and there were no subsequent observations of eagles during the monitoring period. There were no observed disturbances or habitat alterations at either nest site. Therefore these nests were determined inactive, the cause was not determined.

3.0 SURVEYS TO IDENTIFY NEW NESTS

3.1 Methods

The methods described below follow those detailed in the Plan, with a minor adjustment that extended the survey period through the monitoring period.

Avista coordinates with the USFWS, IDFG and the Washington Department of Fish and Wildlife (WDFW) to identify potential new bald eagle territories or nests. Supplemental efforts included communications with local and nearby residents of the Project area during the course of ongoing investigations.

Survey Routes. The survey routes by watercraft followed the shorelines of Project waters. Other surveys were conducted by land-based vehicle, watercraft, or on foot to locations where there were new observations of adult eagles. Investigators tracked adult eagles outside of known territories and looked for nests in other likely locations.

Survey Dates. Surveys were conducted on March 6, March 7, March 21, and March 22, 2013. Supplemental survey efforts occurred during the ongoing monitoring and territory investigations. Documentation for any new nest, or suspected new nest, encountered during surveys included a minimum of two nest photographs, GPS location, and relevant descriptive information indicating nest location, nest condition, proximity to known nests, and significant habitat alterations. All new nest data was recorded on standardized data forms.

3.2 Results

Six new nests were located during the survey efforts. Two of the new nests were new alternate nests located within existing territories. Four of the new nests were in new territories. The new alternate nests were included in the 2013 monitoring effort.

Table 3, *Figures 1 and 2*, and attached *Appendix B* provide:

- Locations of previously undocumented territories and nests
- Relationship of new nests to known nests
- Photographs of new nests
- Descriptions of new nests
- Notes regarding significant alterations to habitats

Table 3. 2013 New Bald Eagle Nests

Territory Name	Number	Latitude, Longitude	Within Planning Area	Location / Relationship to known nests	Notes
NEW NEST, EXISTING TERRITORY					
Charles Maas	6W3055	47.790553, -117.566262	No	500 ft. west of 2012 nest	WA Parks
Windy Bay, ID	08I00103	47.474230, -116.888613	No	0.7 miles apart east of 2012 nest	On south shore of Windy Bay.
NEW NEST, NEW TERRITORY					
Harrison West, ID*	08I10001	47.443097, -116.807408	No	Douglas-fir snag on slope above S. Overlook Dr. 3.5 mi. from Anderson Lake nest.	West shore across from Harrison.
North Shore, WA*	06W10401	47.826817, -117.813433	Yes	Ponderosa pine ~2 mi. from Lower Spokane River and Long Lake South nests.	North shore of Long Lake, 1.5 mi. east of HED. Near access area.
Suncrest, WA*	06W10301	47.825981, -117.6156	No	Ponderosa pine ~3-5 mi. from Charles Maas and Willow Bay nests.	East side of river below Suncrest residence.
Willow Bay, WA*	06W10201	47.885625, -117.655538	No	Ponderosa pine,1 mi. from Whalen and 5 mi. from Suncrest nests.	At ridge east of river above residences.

* Monitoring to start in 2014

The new alternate nests and new territories found in 2013 are shown in *Figures 1 and 2* and included in the GIS database along with the locations of the previous years' bald eagle nests. Documentation of the four new nests in new territories found in 2013 along with the Upper Spokane River nest and the Lower Spokane River nest found in 2012 are included in *Appendix B.*

At the conclusion of the 2013 investigations, a total of 27 territories have been determined to be within the monitoring area. These nests are planned to be monitored in 2014 and subsequent years in accordance with the Plan. Any adjustments to the monitoring area will be made with concurrence of the USFWS, IDFG and WDFW during the annual coordination meeting. Alternate nest locations that have collapsed or been destroyed will remain on the maps for three complete breeding seasons, in the circumstance that eagles may reoccupy the site, according to USFWS National Bald Eagle Guidelines (USFWS 2007). The alternate nest locations will be retained in the GIS database.

Additionally, communications with local residents provided leads to several other potential eagle nesting areas to survey in 2014 that may be within the Project monitoring area. This includes areas of Mission Slough (S. River Road), upper St. Maries River, and St. Joe City area in Idaho; the Seven Mile/ Nine Mile areas, Sandy Road area, and South Bank Road areas in Washington.

4.0 NESTING TERRITORY INVESTIGATION REPORT

The purpose of the investigations is to identify nesting territories and associated primary use areas, home ranges, and key use sites of all known bald eagle nesting territories within the monitoring area. Nesting

territories are only omitted from investigation with mutual agreement of USFWS, IDFG, and WDFW as appropriate. New nest territories documented within the monitoring area during the course of annual surveys to identify new nests will be added to scheduled territory investigations.

The nesting territory investigation report will include the results of habitat use investigations for those nesting territories that are not part of the planning area. For those territories with active or alternate nests within the planning area, the results of the habitat-use investigations are reported within each site-specific management plan in the appendix. The Whalen and Long Lake South territories in Washington were within the planning area therefore, the 2012 and 2013 investigation results are included in *Appendix C. Site-Specific Management Plans* and summarized in *Table 4.*

4.1 Methods

The methods summarized below follow those detailed in the Plan. Professional judgment was used when required to modify these methods for site-specific circumstances.

Location of Territories. Territory locations were identified by water body; Washington or Idaho county; Section, Township and Range; parcel owners; nearby developments; and land use.

Study Dates and Schedules. Observers collected two nesting seasons of habitat-use data at each of the nests. Observation periods were scheduled once every two weeks, for each nest under investigation, from March 1 through July 31st. Observation periods occurred from either (i) first light to mid-morning or (ii) two to three hours before sunset to dusk. A combination of morning and evening observation data was collected for each territory under investigation. The observation periods were extended into early afternoon for investigations conducted with watercraft.

Study Methods. During each observation period, eagle activity was recorded on standardized data forms in a time-interval format referenced to locations marked on a map and/or recorded by GPS. The information documented included: begin and end time, eagle (female, male, or juvenile), location (referenced to map/ or with GPS), activity, disturbances, and other pertinent information described in the Plan. Observers summarized habitat use by the number of minutes each eagle spent using each habitat feature. Time-interval records that include observations of agitated behavior were summarized by the type of disturbance, frequency, duration, and distance to the source of disturbance.

Observers followed nesting eagles as safely and legally possible during the observation period. Observations were conducted from water and/or land, and a variety of vantage points were used. The observation locations were marked on a map or recorded by GPS.

Eagle activities, locations, and habitat features referenced during the investigation were entered into a spatially-linked GIS database after two years of investigations. Habitat use was summarized by the number of minutes each eagle spent using each habitat feature. GIS analysis was used to identify, delineate and quantify the bald eagle nesting territories, home range, primary use areas, and key use sites from the data collected during the field investigations.

Home Range, Nesting Territory, Primary Use Areas, Key Use Sites, and Disturbances. Territory size and shape are affected by topography, available tree structure and prey base. Home range is defined as the geographic area defined by movements and locations of bald eagles. The area may be defined annually, seasonally, daily or any part thereof (Montana Bald Eagle Working Group 1994). Territory observations were conducted from March 1 through July 31st; during the nesting and brood rearing periods. Therefore the home range boundaries were delineated using the extent of eagle movement

during this observation period and supplemented with relevant information from other sources. Movement and location during the fall and winter were not investigated and were therefore not included as part the home range in this report.

The nesting territory includes primary use areas and key use sites occupied by eagles during the period of March 1st through July 31st. Primary use areas were defined as areas occupied by eagles greater than 75% of the time recorded during investigations. Key use sites include nests, primary perches, and roosting stands. Nesting territory boundaries were delineated by incorporating a 660-foot buffer around the active nest sites and a 300-foot buffer around the primary perches to encompass the flight patterns between these sites.

Disturbances are those activities noted during investigations or from other sources that resulted in disturbance or agitation to nesting eagles and/or reduced the quality or availability of local nesting habitat.

4.2 Results

Table 4 summarizes the results of the two consecutive seasons of nesting territory investigations for the Whalen and Long Lake South bald eagle territories. The detailed results are reported within the Site-Specific Management Plans in *Appendix C.*

Table 4. Bald Eagle Nesting Territory Investigation Summary

Territory Name	Territory Number	Planning Area	Distance to Nearest Nest	Location	Study Dates	Home Range Estimate	Nesting Territory Estimate	Disturbance to Eagles or Habitat
Whalen, WA	06W2973	Yes	1 mile	RM 44.5	2012/ 2013	675 ac.	120 ac.	Osprey, other eagles, anglers.
Long Lake South, WA	06W2209	Yes	2 miles	RM 39.5	2012/ 2013	800 ac.	260 ac.	Other eagles, ranching operations.

5.0 REFERENCES

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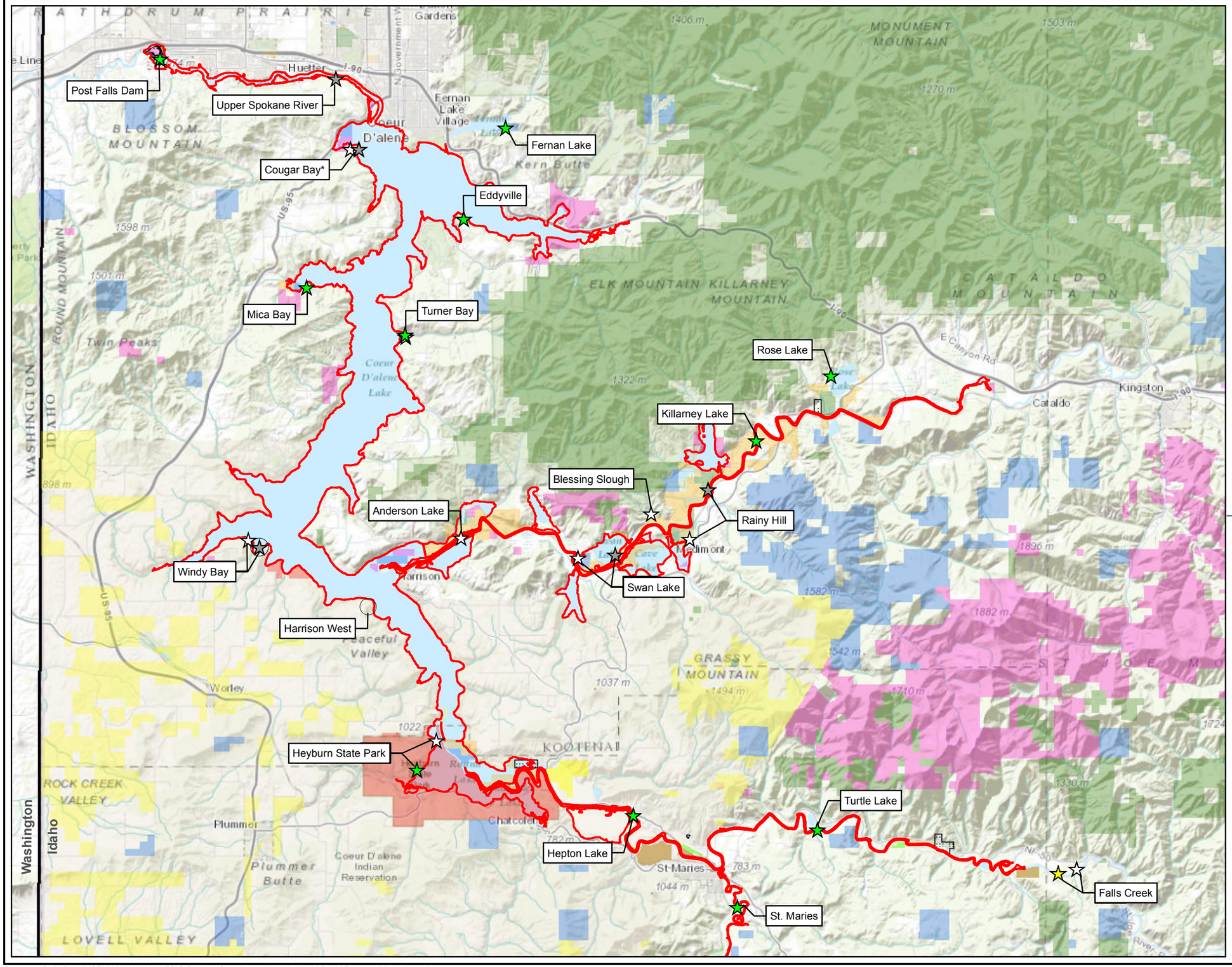
FIGURES



LEGEND

2013 Bald Eagle Nests

- New
- Active, Successful
- Active, Not Successful
- Active, Success Unknown
- Not Active/Alternate
- Post Falls HED Boundary
- State Boundary

Surface Land Management/Ownership

- Benewah County
- City of St. Maries
- Tribal Land
- Bureau of Land Management
- Idaho Department of Lands
- Idaho Department of Fish and Game
- Idaho Department of Parks and Recreation
- Other Idaho State Agencies
- Forest Service
- Avista-Owned Land

* Inactive nests; adults present in territory

Bald eagle nest location data are confidential and are not for public circulation

N

0 4

Scale in Miles

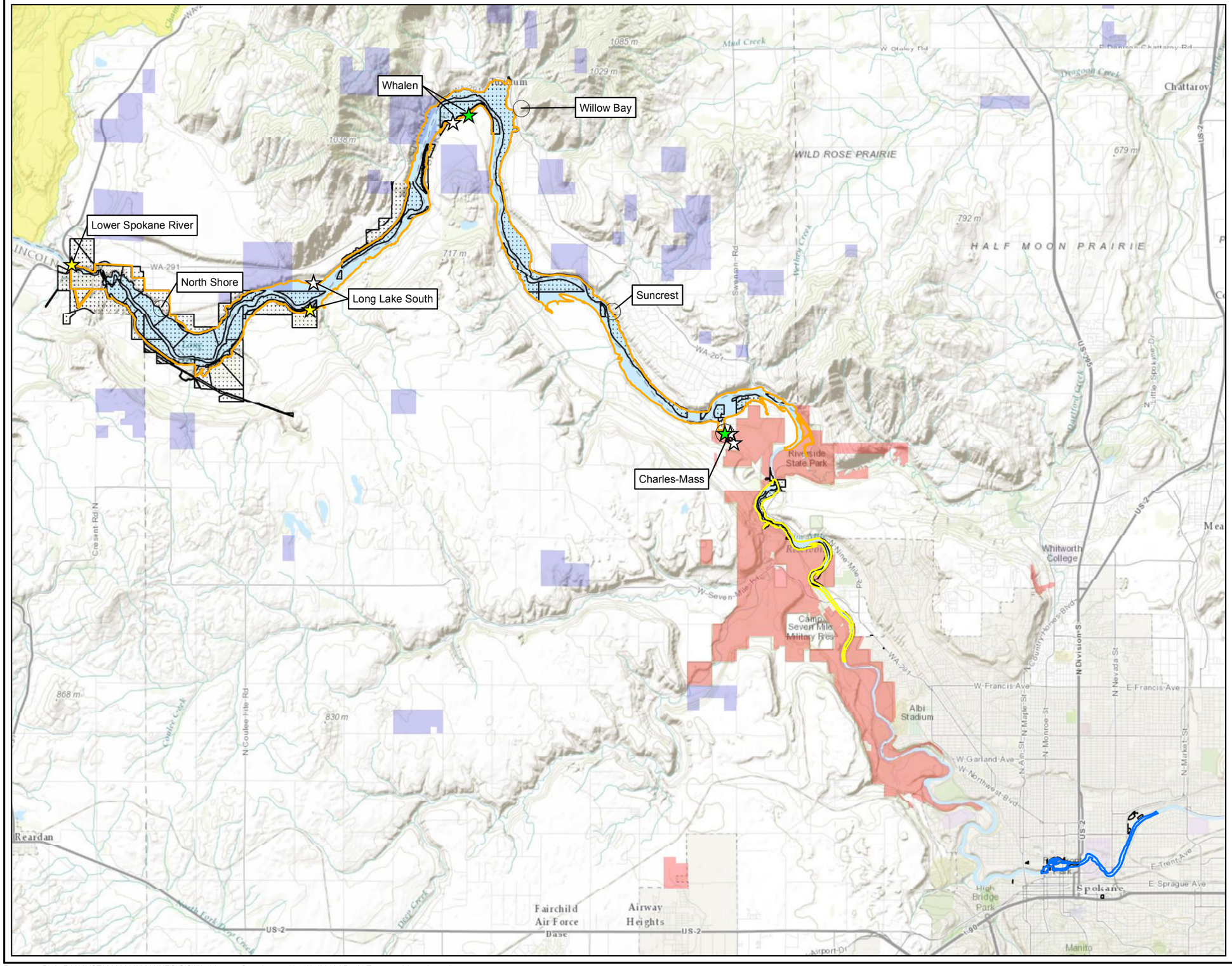
Map Projection:
Idaho State Plane
West Zone (ft) NAD 1983

Source:
Avista (HED areas, land ownership),
USDA-NRCS (quadrangle county mosaics),
Bureau of Land Management (surface land management),
WDFW (bald eagle locations),
David Evans and Associates, Inc. (bald eagle locations),
Background Service Layers: ESRI, DeLorme, NAVTEQ, TomTom, Intermap, USGS

FIGURE 1

BALD EAGLE NESTING LOCATIONS ASSOCIATED WITH WATERS IMPOUNDED BY THE SPOKANE RIVER PROJECT IN IDAHO

AVISTA/ECOLOGY 401 CERT/WA



LEGEND

2013 Bald Eagle Nests

- New
- Active, Successful
- Active, Not Successful
- Active, Success Unknown
- Not Active/Alternate
- Monroe St./Upper Falls HED Boundary
- Nine Mile Falls HED Boundary
- Long Lake HED Boundary
- Avista-Owned Land

Surface Land Management/Ownership

- Tribal Land
- Washington State Land
- Riverside State Park

Bald eagle nest location data are confidential and are not for public circulation

N

0 4

Scale in Miles

Map Projection:
Washington State Plane
North Zone NAD 1983

Source:
Avista (HED areas, land ownership),
USDA-NRCS (quadrangle county mosaics),
Bureau of Land Management (surface land management),
WDFW (bald eagle locations),
David Evans and Associates, Inc. (bald eagle locations),
Background Service Layers: ESRI, DeLorme, NAVTEQ, TomTom, Intermap, USGS

This figure was originally produced in color. Reproduction in black and white may result in a loss of information.

FIGURE 2

BALD EAGLE NESTING LOCATIONS ASSOCIATED WITH WATERS IMPOUNDED BY THE SPOKANE RIVER PROJECT IN WASHINGTON

AVISTA/ECOLOGY 401 CERT/WA

APPENDIX A - 2013 OCCUPANCY AND MONITORING FORMS

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SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: ANDERSON LAKE Territory/Nest Number: 0710301 Observer Initial: DF Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☒ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☐ (2) Good ☐ (3) Fair ☒ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☒ (2) Not Active ☒ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 0 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/22	(4)	NO BAEA PRESENT			0	
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	4	NO BAEA PRESENT			0	
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26	4	NO BAEA PRESENT				
						0	

Territory/Nest Number: ANDERSON LAKE / 0710310

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	–	Date of adult dispersal:	–
Date of egg laying:	–	Clutch size:	–
Date of hatching:	–	Date/Number of fledglings at dispersal:	–
Date of fledging:	–	Banding data:	–

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date: YES, PRIOR TO NESTING

Reason for abandonment: UNKNOWN

Disturbing Activities (record type, duration, and proximity to nest)

Habitat Alterations (record type, extent, and proximity to nest)

Ongoing Disturbances (record type, extent, and proximity to nest) Close to trail.

Prepared by: David Armes Date: 10/2/13

Reviewed by: J. Stagis Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. **ID**

Territory Name: BLESSING SLOUGH Territory/Nest Number: 0710701 Observer Initial: DA Reviewer Initial: LS

II. **SURVEY SUMMARY**

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey. Productivity Determined

Status Code
☒ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☐ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☒ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 0 young (at or near fledging age)

III. **SURVEY RESULTS**

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/22	(2)	- BAEA in area, but not at nest				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2)	NO BAEA OBSERVED				
	6/6*		N BAEA OBSERVED				
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26		NO BAEA OBS.				

* found Alt. Nest South of existing nest + West ~ 2nd Ridge in from River - Not occupied or active

Territory/Nest Number: 0710760 Blessing Slough

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	—	Date of adult dispersal:	—
Date of egg laying:	—	Clutch size:	—
Date of hatching:	—	Date/Number of fledglings at dispersal:	—
Date of fledging:	—	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: _____

Reason for failure: _____

_____

Nest Abandoned (Yes/No), date: _____

Reason for abandonment: _____

_____

Disturbing Activities (record type, duration, and proximity to nest) _____

_____

_____

Habitat Alterations (record type, extent, and proximity to nest) _____

_____

_____

Ongoing Disturbances (record type, extent, and proximity to nest) _____

_____

_____

Prepared by: David Arnes Date: 10/2/13

Reviewed by: L. Stragio Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. ID

Territory Name: Cougar Bay Territory/Nest Number: 07103501 07103502 Observer Initial: DA Reviewer Initial: SS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☒ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☒ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: N/A young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/24	Good	2 AD BAEA Flying but not on nest				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	Good (2)	2 AD BAEA PRESENT	UNSURE OF NEST (F or M?)			
			COULD NOT SEE (M) NEST				
	6/6		NO BAEA OBSERVED; CAN NOT LOCATE ACT NEST				
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26		1 AD BAEA	PER (Active Area, can not locate Active Nest)			

Territory/Nest Number: COUGAR BAY 07I03501(02)

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	prior to 3/21	Date of adult dispersal:	—
Date of egg laying:	—	Clutch size:	—
Date of hatching:	—	Date/Number of fledglings at dispersal:	—
Date of fledging:	—	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: Unknown

Reason for failure:

Nest Abandoned (Yes/No), date: Unknown

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest)

Prepared by: DAVID ARMES Date: 10/2/13

Reviewed by: J. Stragis Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
201?

I. ID

Territory Name: EDDYVILLE Territory/Nest Number: 07707701 Observer Initial: DA Reviewer Initial: SS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: ______

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/21	(2)	No BAEA observed				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2)	(4) 2 AD BAEA Present	(4) M + F	(1)(or more)? JUV	1	
			Occupied		BROODING		
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/27	GOOD	(1) AD BE		PER	2	F 3d

Territory/Nest Number: Eddyville / 07I07701

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	NA
Date of egg laying:	Prior to 5/3	Clutch size:	2
Date of hatching:	Prior to 5/3	Date/Number of fledglings at dispersal:	2
Date of fledging:	Prior to 5/3	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: _____

Reason for failure: _____

Nest Abandoned (Yes/No), date: _____

Reason for abandonment: _____

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) Near lake & lake front homes

Prepared by: David Arnes Date: 10/2/13

Reviewed by: J. Stagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: FALLS CREEK Territory/Nest Number: 07103702 Observer Initial: DA Reviewer Initial: ES

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☒ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☒ (4) Active. Not Successful ☐ (5) Active. Success Unknown ☐ (6) Successful

Number of Fledglings: _____ young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy February 1 – March 31 (pre-egg laying and early incubation)	3/6	Good	1 BAEA present @ Falls Creek				
			Near Falls Cr. / St Joe River Tributary				
[redacted] 4/16			USFWS observed	eagle sitting on Falls Creek Nest		Unknown	
Update Nesting Status April 1 – June 15 (late incubation and nestlings)	5/10	Good	BAEA observed				
5/21	Good		USFWS Observed 2 Eagles coming to Nest but no young			Unknown	
Determine Productivity June 15 – July 31 (late nestling and fledging)	6/12	Good	1 AD BAEA present, but ~~none~~ None		Nest		

Territory/Nest Number: 07103702 Falls Cr.

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/6	Date of adult dispersal:	—
Date of egg laying:	N/A	Clutch size:	—
Date of hatching:	N/A	Date/Number of fledglings at dispersal:	—
Date of fledging:	N/A	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: Unknown

Reason for failure:

Nest Abandoned (Yes/No), date: Unknown

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) Jet Boat Race

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) None

Prepared by: DAVID ARMES Date: 10/2/13

Reviewed by: J. Stagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: FERNAN Territory/Nest Number: 07I02402 (DFG 2006) Observer Initial: DA Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/7	(2)	BAEA flying nearby; not on nest				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/10	(2)	1 AD BA PER	PER	INC		
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/20	2		1 AD PER Near Nest		1 (2?)	3b

Territory/Nest Number: OTI 034 02 Ferran

IV. SUPPLEMENTAL NESTING INFORMATION (if known)

Date of adult arrival:	Prior to 3/7	Date of adult dispersal:	
Date of egg laying:	Unknown	Clutch size:	
Date of hatching:	Unknown	Date/Number of fledglings at dispersal:	
Date of fledging:		Banding data:	

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: ______

Reason for failure: ______

______

Nest Abandoned (Yes/No), date: ______

Reason for abandonment: ______

______

Disturbing Activities (record type, duration, and proximity to nest) ______

______

______

Habitat Alterations (record type, extent, and proximity to nest) ______

______

______

Ongoing Disturbances (record type, extent, and proximity to nest) ______

______

______

Prepared by: DAVID ACAMBS Date: 10/2/13

Reviewed by: ______ Date: ______

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: HEPTON Territory/Nest Number: OTT 1010 Observer Initial: [illegible] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey. Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/6/13	Good (2)	Pair spotted ~ 1/4 S of Nest perched in Cluster				
	3/20/13		(1) · 2 birds present	1 present			
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	[illegible]						
	5/10	Good	(4) 1 AD BAEA	INC.			
	6/12	Good	(4) 1 AD BAEA	PER	PER	2	
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26		No AD BAEA Present	None		2	3J

Territory/Nest Number: 1 07I 10101 Hepton

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/6	Date of adult dispersal:	—
Date of egg laying:	Unknown	Clutch size:	2
Date of hatching:	Unknown	Date/Number of fledglings at dispersal:	—
Date of fledging:	Unknown	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) Residential w/in ¼ mile,

Ongoing Disturbances (record type, extent, and proximity to nest) Located near highway 3

Prepared by: DAVID ARMES Date: 10/2/13

Reviewed by: Date:

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: HEYBURN Territory/Nest Number: 07105701 Observer Initial: [illegible] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey. Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/20	(2)	2 Adults present, 1 appeared to [illegible]	(N) nest by bridge			
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2) (Good)	2 Ad present	1 on NST → INC	INC	?	
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/21	(2)	1 Ad EA	PER	PER	2	FJ

Territory/Nest Number: 0710570i / Heyburn Park

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/20	Date of adult dispersal:	—
Date of egg laying:	Prior to 5/3	Clutch size:	
Date of hatching:	Unknown	Date/Number of fledglings at dispersal:	
Date of fledging:	Unknown	Banding data:	

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) Located in Heyburn State Park near trail.

Prepared by: David Jones Date: 9/3/13

Reviewed by: J. Skagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: KELLARNY LAKE Territory/Nest Number: 0710702 Observer Initial: PH Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/7	(2)	2 BAEA present, 1 on nest				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2) (ad)	1 AD BAEA ON NEST	INC(?)			
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26		1 [redacted] PRESENT			1	3C

Territory/Nest Number: 07 to 162 / Killarney

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/7	Date of adult dispersal:	/
Date of egg laying:	Prior to 3/7?	Clutch size:	1
Date of hatching:	UnkN	Date/Number of fledglings at dispersal:	/
Date of fledging:	UnKN	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) N/A

Ongoing Disturbances (record type, extent, and proximity to nest) N/A

Prepared by: PA Date: 10/2/13

Reviewed by: J. Stragis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)

BALD EAGLE NEST MONITORING FORM

2013

I. ID

Territory Name: Mica [redacted] Bay Territory/Nest Number: 07105401 Observer Initial: [redacted] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code

☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined ☐ (6) Complete Survey, Productivity Determined

Status Code

☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☒ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code

☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination

☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/24	Good	(4) 2 AD IN AREA PRESENT @ NEST	INC ?	INC		
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	Good	2 AD IN AREA PRESENT @ NEST PERCHED IN SNAG				
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26	Good	1 JUV PRES NO AD	PER		1 (?)	3C

Territory/Nest Number: 07105401 Mica Bay

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/21	Date of adult dispersal:	/
Date of egg laying:	UnKn	Clutch size:	1
Date of hatching:	UnKn	Date/Number of fledglings at dispersal:	/
Date of fledging:	UnKn	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) None

Prepared by: David Acmes Date: 10/2/13

Reviewed by: J Staggs Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. ID

Territory Name: Post Falls Territory/Nest Number: 0710 8001 Observer Initial: DA Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: ____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy	3/21	(2)	(1?) (3) - 1 AD 1 JUV → Flew over nest. AD perched in tree S. of nest				
February 1 – March 31	3/21		1 AD ON NEST				
(pre-egg laying and early incubation)							
Update Nesting Status	5/2	(2) Good	(1) (4) PER	INCUBATION		1 JUV	1B
April 1 – June 15							
(late incubation and nestlings)							
Determine Productivity	6/20	GOOD	1 AD BACA PER	PER		2	3C.
June 15 – July 31							
(late nestling and fledging)							

Territory/Nest Number: 0710801 / Post Falls

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 5/2	**Date of adult dispersal:**	/
Date of egg laying:	UnKn	**Clutch size:**	2
Date of hatching:	UnKn	**Date/Number of fledglings at dispersal:**	/
Date of fledging:	UnKn	**Banding data:**	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) None

Prepared by: David Arnos **Date:** 10/2/13

Reviewed by: J. Staglis **Date:** 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: RAINY HOLE (N) Territory/Nest Number: 07107401 (2) Observer Initial: DH Reviewer Initial: SS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☒ (5) Productivity Not Determined
☐ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☒ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/22	(2)	(4) 1 AD BAEA ON NEST				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2) GOOD	(4) 1 AD BAEA ON NEST	PER	PER		
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26	GOOD	NO BAEA PRESENT			UNKNOWN?	

Territory/Nest Number: 0710 740 1(2) Rainy Hill (N)

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Unkn	Date of adult dispersal:	—
Date of egg laying:	Unkn	Clutch size:	—
Date of hatching:	—	Date/Number of fledglings at dispersal:	—
Date of fledging:	—	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure: Unkn

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) Unkn

Habitat Alterations (record type, extent, and proximity to nest) Unkn

Ongoing Disturbances (record type, extent, and proximity to nest) Unkn

Prepared by: Dave Ames Date: 10/2/13

Reviewed by: J. Stagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. ID

Territory Name: ROSE LAKE Territory/Nest Number: 0270740 2 Observer Initial: [illegible] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active. Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/7	GOOD (2)	OCCUPIED (4) 2 BAEA Present; 1 on nest	2 BAEA; 1 on nest			
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/10	GOOD	(4) 1 AD BAEA ON NEST INC				
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/21	GOOD	Active		AK	1	3C

Territory/Nest Number: Rose Lake 07I07402

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/7	Date of adult dispersal:	—
Date of egg laying:	—	Clutch size:	1
Date of hatching:	—	Date/Number of fledglings at dispersal:	—
Date of fledging:	—	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: —

Reason for failure: —

Nest Abandoned (Yes/No), date: —

Reason for abandonment: —

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) None

Prepared by: P. Ames Date: 10/2/13

Reviewed by: J. Shagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. ID

Territory Name: ST. MARIES Territory/Nest Number: 07104301 Observer Initial: [illegible] Reviewer Initial: SS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: ____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy	3/6	Good (2)	(4)(5) Not occupied				
February 1 – March 31	3/26		(5)(4) occupied (2 birds present)				
(pre-egg laying and early incubation)							
Update Nesting Status	5/16	Good	(4) 1 AD BAEA	INC	ON NEST		
April 1 – June 15							
(late incubation and nestlings)							
Determine Productivity	6/21	Good	ACTIVE			2	3C
June 15 – July 31							
(late nesting and fledging)							

Territory/Nest Number: St. Maries / 07I04301

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/6	Date of adult dispersal:	/
Date of egg laying:	/	Clutch size:	3
Date of hatching:	/	Date/Number of fledglings at dispersal:	/
Date of fledging:	/	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) None

Habitat Alterations (record type, extent, and proximity to nest) None

Ongoing Disturbances (record type, extent, and proximity to nest) None

Prepared by: David Arnes Date: 10/2/13

Reviewed by: Jo Stagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: SWAN LAKE Territory/Nest Number: 07102001 07102002 Observer Initial: [signature] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☒ (5) Productivity Not Determined
☐ (6) Complete Survey. Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☒ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☒ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active. Not Successful ☒ (5) Active. Success Unknown ☐ (6) Successful

Number of Fledglings: _____ young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/22	(2)	(5) 2 BAGA present, 1 appeared to be on nest – Island Location				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2)	1 AD BAGA ON NEST				
	6/6		1 AD BAGA PER Nest Nest		NO YOUNG OBSERVED		
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26		NO BAGA OBS.			?	UNK.

Territory/Nest Number: Swan Lake 07I02002

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Prior to 3/22	Date of adult dispersal:	
Date of egg laying:	/	Clutch size:	N/A
Date of hatching:	/	Date/Number of fledglings at dispersal:	/
Date of fledging:	/	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure: Unk

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) N/A

Ongoing Disturbances (record type, extent, and proximity to nest) N/A

Prepared by: David Hines Date: 10/2/13

Reviewed by: J. Staggs Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20__

I. ID

Territory Name: Turner Bay Territory/Nest Number: 07106001/07/03 Observer Initial: [illegible] Reviewer Initial: LS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/22	(2)(Good)	(4)	1 ADASA on NEST			
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	(2)(Good)	(4)	1 ADASA on NEST			
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/27	2(Good)				1	[redacted]
							3)

Territory/Nest Number: 07106601 / 02 / 03 Turner bay

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	Fair to 3/22	Date of adult dispersal:	/
Date of egg laying:	/	Clutch size:	1
Date of hatching:	/	Date/Number of fledglings at dispersal:	/
Date of fledging:	/	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure:

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) N/A

Ongoing Disturbances (record type, extent, and proximity to nest) N/A

Prepared by: Paul Agnes Date: 10/2/13

Reviewed by: J. Stagis Date: 10/8/13

Page 1 of 2

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
20 13

I. ID

Territory Name: Turtle Lake Territory/Nest Number: 0710240102 Observer Initial: AH Reviewer Initial: RS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/6	Good (2)	1 ADULT BAEA on nest (4) (5)				
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/10	(Good)	(4) INC	1 AD ON NEST			
	6/12	Good	1 AD BAEA Present	PER		1 (or 2?)	
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/28	Good	FLDG.	FLDG	PER	2	3D (F

Territory/Nest Number 07102401/02 Turtle Lake

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:	/	Date of adult dispersal:	/
Date of egg laying:	/	Clutch size:	2
Date of hatching:	/	Date/Number of fledglings at dispersal:	2
Date of fledging:	/	Banding data:	/

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: No

Reason for failure:

Nest Abandoned (Yes/No), date: No

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) N/A

Ongoing Disturbances (record type, extent, and proximity to nest) N/A

Prepared by: DAVID AMES Date: 10/8/13

Reviewed by: J. Stagis Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Upper Spokane River Territory/Nest Number: 07I 10201 Observer Initial: [illegible] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☒ (5) Productivity Not Determined
☐ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☒ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: ____________

Nesting Determination
☒ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☒ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: ________ young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy	3/21	Good (2)	(3) (1)	1 BAEA perched E. of nest			
February 1 – March 31							
(pre-egg laying and early incubation)							
Update Nesting Status	5/3	Goo (2)	OCCUPIED (4)(5)	1 AD on nest, 1 AD PEZ Nearby	INCUBATING POSSIBLE JUV?	1?	
April 1 – June 15							
(late incubation and nestlings)							
Determine Productivity	6/26	Good	NO BAEA PRESENT	Active	NONE PRESENT	0?	
June 15 – July 31							
(late nestling and fledging)							

Territory/Nest Number: OTT 10201 Upper Sp. Riv.

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	
Date of egg laying:		Clutch size:	
Date of hatching:		Date/Number of fledglings at dispersal:	
Date of fledging:		Banding data:	

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: No

Reason for failure: UNK

Nest Abandoned (Yes/No), date:

Reason for abandonment:

Disturbing Activities (record type, duration, and proximity to nest) N/A

Habitat Alterations (record type, extent, and proximity to nest) N/A

Ongoing Disturbances (record type, extent, and proximity to nest) N/A

Prepared by: David Ames Date: 10/2/13

Reviewed by: Date:

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. **ID**

Territory Name: Windy Bay Territory/Nest Number: OB100101 (2) Observer Initial: DA Reviewer Initial: LS

II. **SURVEY SUMMARY**

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☒ (5) Productivity Not Determined
☐ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☒ (5) Active ☐ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☒ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☒ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: N/A young (at or near fledging age)

III. **SURVEY RESULTS**

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/21	UNKNOWN	1 AD flying in territory	/ NEST NOT located			
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/3	UNKNOWN	2 AD SEEN PER OB	TREE ALONG RIDGE (flew to Nest)			
	5/3	OCC.	1 AD BAEA ON	NEST			
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/26	(2) GOOD	NO BAEA	PRESENT			

Territory/Nest Number: 08100102 / Windy Bay

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	
Date of egg laying:		Clutch size:	
Date of hatching:		Date/Number of fledglings at dispersal:	
Date of fledging:		Banding data:	

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: _____

Reason for failure: _____

_____

Nest Abandoned (Yes/No), date: _____

Reason for abandonment: _____

_____

Disturbing Activities (record type, duration, and proximity to nest) _____

_____

_____

Habitat Alterations (record type, extent, and proximity to nest) _____

_____

_____

Ongoing Disturbances (record type, extent, and proximity to nest) _____

_____

_____

Prepared by: David Hague Date: 10/7/13

Reviewed by: J. Stagis Date: 10/8/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Charles-MASS Territory/Nest Number: 63053/54 Observer Initial: [illegible] Reviewer Initial: JS

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 1 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	4/4/13	(2) Good	(4) AD BALD on nest		INC		
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	5/8		(4) 1 AD on NEST		INC.		
Determine Productivity **June 15 – July 31** (late nestling and fledging)	6/19		1 AD PER N on NEST		1 FLED. ON NEST	1	~~FLED.~~ 3c

Territory/Nest Number: 63053/54 Charles Maas

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	
Date of egg laying:		Clutch size:	/
Date of hatching:		Date/Number of fledglings at dispersal:	
Date of fledging:		Banding data:	

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: _____

Reason for failure: _____

_____

Nest Abandoned (Yes/No), date: _____

Reason for abandonment: _____

_____

Disturbing Activities (record type, duration, and proximity to nest) _____

_____

_____

Habitat Alterations (record type, extent, and proximity to nest) _____

_____

_____

Ongoing Disturbances (record type, extent, and proximity to nest) _____

_____

_____

Prepared by: David Ames Date: 10/2/13

Reviewed by: L. Staggs Date: 10/2/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Long Lake South Territory/Nest Number: CW2209 Observer Initial: LS Reviewer Initial: DA

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☒ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☒ (1) New ← ☒ (2) Good ☐ (3) Fair ☒ (4) Poor ☐ (5) Nest Destroyed: ____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☒ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 0 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy	3/7/13	good	active,	M + F	incubating	--	—
February 1 – March 31	3/21/13	good	active	"	"	—	—
(pre-egg laying and early incubation)							
Update Nesting Status	4/2/13	good	"	"	"	—	—
April 1 – June 15	4/16/12	good	"	F, male not seen much	incubating	—	—
(late incubation and nestlings)	4/30/	poor	-nest may have fallen	M: perched above nest, so opp. river			
			no birds @ nest	F opposite river - neither @ nest		—	
Determine Productivity	5/15	new alt nest started - failed		M + F at new nest			
June 15 – July 31		north shore + upstream		building w/sticks + grasses			
(late nestling and fledging)							

Territory/Nest Number: Long Lake South 62209/7

IV. SUPPLEMENTAL NESTING INFORMATION (if known)

Date of adult arrival:	--- —	Date of adult dispersal:	NA
Date of egg laying:	lst prior to 3/7/13/	Clutch size:	NA
Date of hatching:	NA	Date/Number of fledglings at dispersal:	NA
Date of fledging:	NA	Banding date:	NA

V. NARRATIVE INFORMATION ? incubating/or brooding till 4/15/13

Nesting attempt failed (Yes/No), date/nesting period of failure: prior to 4/30 /second nest started prior to 5/15

Reason for failure: no disturbances observed, or knowledge of causes, hatch may have failed or see below

Nest Abandoned (Yes/No), date: prior to 4/30

Reason for abandonment: saw another AD BASA at ridge west of nest - may have bumped this pair. 7/24/13 saw AD again @ ridge to west = competition BASA

Disturbing Activities (record type, duration, and proximity to nest) Immature eagles chased off by adult male, mostly when in territory or near nest - through March no other disturbances.

Habitat Alterations (record type, extent, and proximity to nest) NA

Ongoing Disturbances (record type, extent, and proximity to nest) NA, only Immatures in March.

Prepared by: J. Spagis Date: 7/25/13

Reviewed by: David Ames Date: 10/2/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Long Lake South Territory/Nest Number: LL2009 / 2nd attempt Observer Initial: LS Reviewer Initial: DA

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☐ (4) Occupied ☐ (5) Active ☒ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☒ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☒ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 0 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy February 1 – March 31 (pre-egg laying and early incubation)							
		See	#LL2009				
Update Nesting Status April 1 – June 15 (late incubation and nestlings)	5/15/13	good	construction	M+F			
	5/30	good	none	M+F	nearby bald eagle nest tree		
Determine Productivity June 15 – July 31 (late nestling and fledging)	6/12/13	good	none / near Long Lake	M+F	"		
	6/24/13	good		M+F	perch in nest tree		
	7/11/13	fair	NA	M+F	disposing		
	7/24/13	poor	NA	M+F	"		

Territory/Nest Number: LL South 62209

IV. SUPPLEMENTAL NESTING INFORMATION (if known)

Date of adult arrival:	4/30/13 from aban. nest	Date of adult dispersal:	start 7/11/13
Date of egg laying:	NA	Clutch size:	NA
Date of hatching:	NA	Date/Number of fledglings at dispersal:	NA
Date of fledging:	NA	Banding data:	NA

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure:

Reason for failure: late start 5/15 - first observed nest.

Nest Abandoned (Yes/No), date: ~7/11/13

Reason for abandonment: either late start or disturbance from ranch were the only observed disturbances.

Disturbing Activities (record type, duration, and proximity to nest) During 4 consecutive obs. dates ranch owner was training retrievers within 300' feet, on foot, dog, gun shots. Over an hour. Don't know if this was daily.

Habitat Alterations (record type, extent, and proximity to nest) Near ranch house, ~500' from nest

Ongoing Disturbances (record type, extent, and proximity to nest) residence, 500' - cattle under nest, boaters, anglers, osprey, turkey vultures, RT hawk, TMN RASA,

Prepared by: L. Stagis   Date: 7/25/13

Reviewed by: David Arnes   Date: 10/2/13

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Lower Spokane River Territory/Nest Number: 06W1010.1 Observer Initial: LS Reviewer Initial: DH

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☒ (4) Occupied ☒ (5) Active ☒ (6) Unsuccessful ☐ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: _____

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☒ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☐ (6) Successful

Number of Fledglings: 0 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy **February 1 – March 31** (pre-egg laying and early incubation)	3/6/13	good	active	M + F	inc	—	—
	3/20/13	good	"	"	"		
Update Nesting Status **April 1 – June 15** (late incubation and nestlings)	4/3/13	good	"	"	"		
	4/18/13	good	"	"	"		
	5/2/13	good	"	"	Brood	2	2a
	5/14/13	good	"	"	Brood	2	3a/b
Determine Productivity **June 15 – July 31** (late nestling and fledging)	5/29/13	good	Ø	M + F	not on nest but nearby	Ø	Ø
	6/12/13	good	Ø	M + F	away from nest	Ø	Ø
	6/25/13	"	Ø	"	"	Ø	Ø
	7/11/13	"	Ø	"	"	Ø	Ø
	5/24/13		Ø	"	Dispersing	Ø	Ø

Territory/Nest Number: Lower Yakima River, 06W10101

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	7/24/13
Date of egg laying:	prior to 3/6/13	Clutch size:	NA
Date of hatching:	NA	Date/Number of fledglings at dispersal:	NA
Date of fledging:	NA	Banding data:	NA

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes)/No), date/nesting period of failure: 5/14 - 5/29

Reason for failure: Disturbance - one of several

Nest Abandoned (Yes)/No), date: see above

Reason for abandonment: failed nest

Disturbing Activities (record type, duration, and proximity to nest) Osprey nest - arrived early april - just upstream of bridge ~500 ft from nest. - harass each other upstream of the bridge. The eagles still hunt there but stay on north shore + perch hidden

4/18/2013 Highway crews on bridge with compressor nearly two hours. Female stayed on nest, male unable to

Habitat Alterations (record type, extent, and proximity to nest) defend territory, but brought branch to nest, broken from tree, male perched in thicket downstream near nest. Bridge ~200'. Also Turkey Vulture roost w/ ¼ mile

Ongoing Disturbances (record type, extent, and proximity to nest) Dam operation, Hwy 241 operations. In march, I-82 + other adult eagles flew through + above territory & dam spillway - disturbances not observed to affect eagle. Residents walk river area. Turkey Vultures. roost one a ~200'

Prepared by: L. Stiagis Date: 7/25/13

Reviewed by: David Ames Date: 10/2/13

continued: this nest has lots of ongoing disturbance from bridge, dam, + dam building + recreational utilities, park, picnic area, boaters, remote campsites, Gospel Mission camp. *territorial aggressive osprey 2 nests.

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
BALD EAGLE NEST MONITORING FORM
2013

I. ID

Territory Name: Whalen Territory/Nest Number: WA973 Observer Initial: [illegible] Reviewer Initial: DA

II. SURVEY SUMMARY

Survey Code
☐ (1) Not Checked ☐ (2) Not Located ☐ (3) No Initial Occupancy Determination ☐ (4) No Nesting Status Update ☐ (5) Productivity Not Determined
☒ (6) Complete Survey, Productivity Determined

Status Code
☐ (1) Unoccupied ☐ (2) Other Species ☐ (3) Single Adult ☒ (4) Occupied ☒ (5) Active ☐ (6) Unsuccessful ☒ (7) Successful

Nest Condition Code
☐ (1) New ☒ (2) Good ☐ (3) Fair ☐ (4) Poor ☐ (5) Nest Destroyed: ______

Nesting Determination
☐ (1) Status Unknown ☐ (2) Not Active ☐ (3) Nest Abandoned ☐ (4) Active, Not Successful ☐ (5) Active, Success Unknown ☒ (6) Successful

Number of Fledglings: 2 young (at or near fledging age)

III. SURVEY RESULTS

OBSERVATION PERIOD	Date Checked	Nest Condition	Nesting Activity (construction etc.)	Adult Presence / Behavior	Incubation/Brooding Posture	Number of Young	Stage of Young
Initial Determination of Occupancy	3/7/13	good	active, incubating	M + F	inc	–	–
February 1 – March 31	3/19/13	Good	" "	"	inc	–	–
(pre-egg laying and early incubation)							
Update Nesting Status	4/5/13	good	"	M + F	inc	–	–
April 1 – June 15	4/17/13	good	"	"	inc	–	–
(late incubation and nestlings)	5/1/13	good	active, brooding/FY	"	brooding	2	1b/2
	5/16/13	good	active [illegible]	"	not at nest TOEF	2	3a
Determine Productivity	5/29/13	good	active	M + F	"	2	3b
June 15 – July 31	6/13/13	"	"	"	FY, AF	2	3c
(late nestling and fledging)	6/24/13	"	"	"	TOEF FY, AF	2	3d (fldg)
	7/12/13	"	"	"	TOEF AF, FY	2	3d (fldg)
	7/25/13	"	" fledged 'out 1 on@ dam "		TOEF AF	1	3d fldg "

Territory/Nest Number: Chasen 62973

IV. SUPPLEMENTAL NESTING INFORMATION (If known)

Date of adult arrival:		Date of adult dispersal:	NA
Date of egg laying:	prior to 3/7	Clutch size:	2
Date of hatching:	prior to 5/1	Date/Number of fledglings at dispersal:	2
Date of fledging:	6/24/13 first, 7/23/13 last	Banding data:	—

V. NARRATIVE INFORMATION

Nesting attempt failed (Yes/No), date/nesting period of failure: _____

Reason for failure: _____

Nest Abandoned (Yes/No), date: _____

Reason for abandonment: _____

Disturbing Activities (record type, duration, and proximity to nest) osprey, 3 active nests on north shore within 1/2 mile of nest. They hunt the River. osprey showed up 1st week of April, thru end of July

Habitat Alterations (record type, extent, and proximity to nest) In territory — McClellan Core Area trail head, trails, but these are outside of nesting territory. Near perch + roosting locations

Ongoing Disturbances (record type, extent, and proximity to nest) roads, residential @ Turn Turn, Immature eagles (2) flying by nesting territory every few hours. Boats w/anglers, Osprey, Red-tailed hawk, & BASA in territory w/nest east of Whalom by Willow Bay

Prepared by: L. Stragis Date: 7/25/13

Reviewed by: David Ames Date: 10/2/13

APPENDIX B - 2013 NEW NEST DOCUMENTATION

Harrison West
New Nest territory
2013
Lake CDA

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: Bald Eagle Nest

Territory name (if known): Harrison West, ID

Territory/nest number (if known): 081/0001

Reported by: David Arnes Date: 5/3/13

Location: T 47N R 4W Section 2 ¼ NW ¼ SW

State: ID County: Kootenai

Elevation: 2580 Aspect: E

Lat/Lon: 47°26'35.15"N // 116°49'26.67"W
47.443097 // -116.807408 Hydrologic unit: Lake CDA

Nest stratum: TOP Nest height (circle ft or m): 100

Position on slope: Near Top Nest condition: Good

Tree species: Doug. Fir Tree height (circle ft or m): 100 DBH (circle in or cm): 36

Land ownership: Kaat Co.

USGS Quad name: Harrison

Directions to nest: West shore of CdA Lake across from Harrison

Comments: Nest located on top of a Douglas fir snag
Above S. Overlook Dr

Observer Initial: DA Date: 10/16 Reviewer Initial: LS Date: 10/22/2013

Attach locator map and photos showing nest site and nest


HARRISON WEST
EAGLE NEST SITE
Gasser Point
BDY
Cottonwood Bay
Peaceful Valley
Fullers Bay
Sixteen
Zehm Hill
Browns Bay
Talbot
Harrison
SEC 2
T47N, R4W
SEC 3
T47N, R4W
SE SEC 3
T47N, R4W
Legend
Eagle Nest Sites
N
W
E
S
Date: 10-15-2013
1:2,400
0
405
810
Feet
HARRISON WEST EAGLE NEST SITE


Harrison West

Harrison West

Upper Spokane R
New nest & err.
(2012)

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: BAEA

Territory name (if known): Upper Spokane River (new)

Territory/nest number (if known): 07I10201

Reported by: D. Armus, L. Staglis Avista Date: 4/10/2012

Location: T 50N R 4W Section 9 ¼ NE ¼ SE

State: ID County: Kootenai

Elevation: 2200' Aspect: East

Lat/Lon: 47.696751, -116.830384 Hydrologic unit: Spokane River

Nest stratum: Live tree/top Nest height ~~(circle ft or m)~~: top of tree

Position on slope: at shoreline Nest condition: good / new location

Tree species: PIPO, live Tree height (circle ft or m): 100'+ DBH (circle in or cm): large

Land ownership:

USGS Quad name: Post Falls

Directions to nest: View from East Selice Way, or West Shore View Lane between Post Falls & CDA

Comments: Aerial view, from across spokane River, from plane
Incubating adult

47.696751, -116.830384

Observer Initial: LS Date: 4/10/12 Reviewer Initial: DD Date: 11/4/13

Attach locator map and photos showing nest site and nest

 Upper Spokane River, New Territory

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google

Lower Spokane River
New nest + territory
2012

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: BAEA

Territory name (if known): Lower Spokane River. (new)

Territory/nest number (if known): 06N10101

Reported by: L. Stragis Date: 3/20/12

Location: T 27N R 39E Section 14 ¼ center ¼

State: WA County: Stevens

Elevation: 1400' Aspect: South

Lat/Lon: 47.840231, -117.853732 Hydrologic unit: Spokane River

Nest stratum: branches Nest height (circle ft or m): top ¼; 15' from top

Position on slope: midslope Nest condition: good

Tree species: PIPO, live Tree height (circle ft or m): 80'+ DBH (circle in or cm): large

Land ownership: Avista

USGS Quad name: Long Lake

Directions to nest: 3pm Bridge - drive west on Eagle Nest Road to see N. side of River, W. of 291

Comments: nest located between cables + roadway can be seen just past first house on the right.

adult on nest

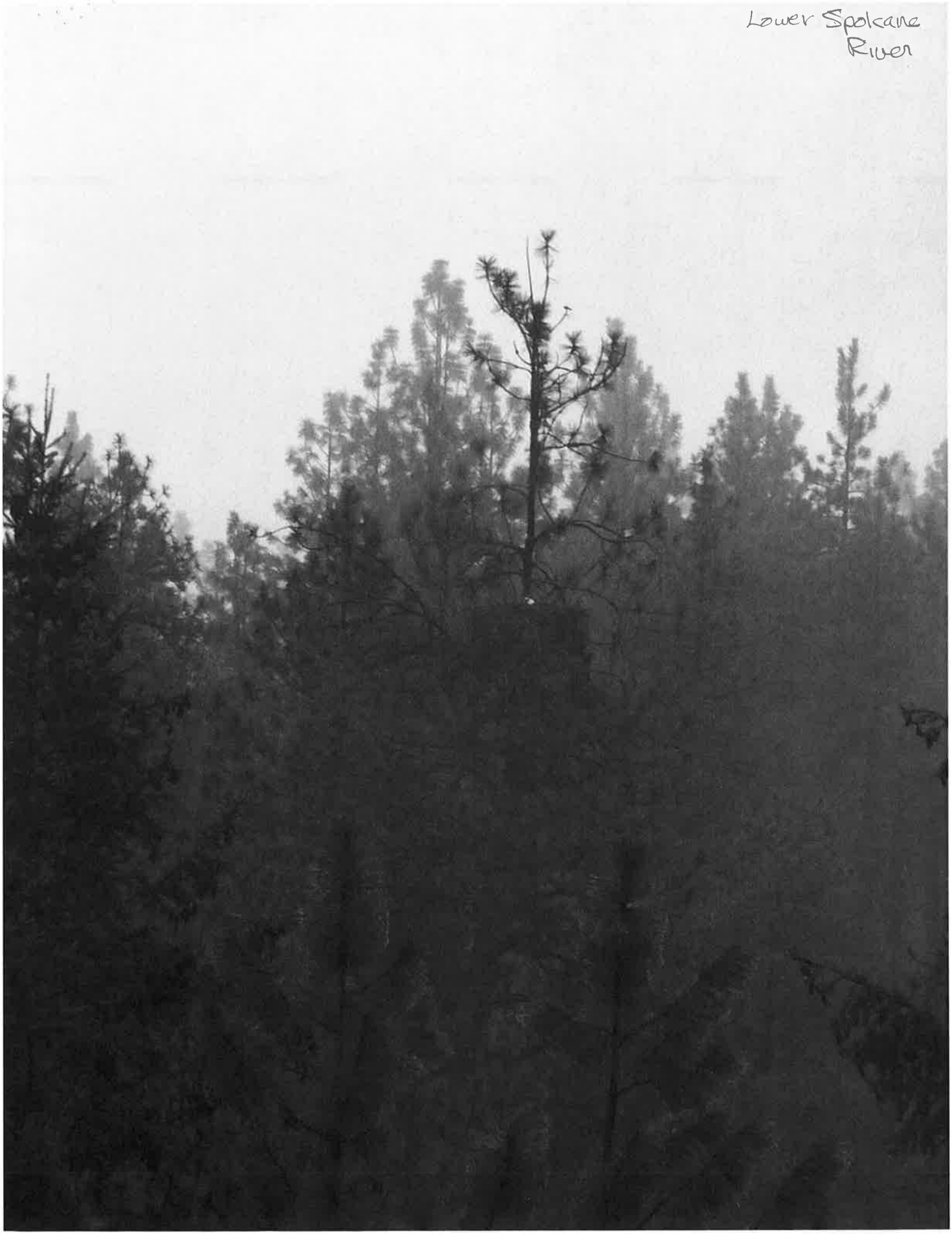
Observer Initial: L. Stragis Date: 5/30/2012 Reviewer Initial: DH Date: 9/27

Attach locator map and photos showing nest site and nest

Golder Associates

To see all the details that are visible on the screen, use the "Print" link next to the map.


Lower Spokane River


Lower Spokane
River

North Shore
New nest territory
2013

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: Bald Eagle Nest

Territory name (if known): NORTH SHORE, WA

Territory/nest number (if known): 06W10401

Reported by: David Arnes Date: 10/16/

Location: T 27N R 40E Section 19 ¼ NW ¼ SE

State: WA County: Stevens

Elevation: 1750 Aspect: SW

Lat/Lon: 47° 49' 36.54" / 117° 40' 48.36" Hydrologic unit: Spokane River

Nest stratum: TOP 47.826817, -117.813433 Nest height (circle ft or m): 70

Position on slope: Near top Nest condition: GOOD

Tree species: Pinus ponderosa Tree height (circle ft or m): 80 DBH (circle in or cm): 24

Land ownership: AVISTA

USGS Quad name: LONG LAKE

Directions to nest: Located on the North shore of Long Lake approx. 1½ miles east of Long Lake HED.

Comments: 1 AD BEEA on nest

Observer Initial: DA Date: 10/16 Reviewer Initial: LS Date: 10/22/2013

Attach locator map and photos showing nest site and nest


LAKE SPOKANE
Stevens
NORTH SHORE
EAGLE NEST SITE
Long Lake
Devils Gap
SPOKANE
LONG
Legend
Eagle Nest Sites
N
W
E
S
Date: 10-15-2013
1:1,200
0
200
400
Feet
NORTH SHORE EAGLE NEST SITE


North Shore


North Shore

Suncrest, WA
Neo Nest Location
2013

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: Bald Eagle Nest

Territory name (if known): SUNCREST, WA

Territory/nest number (if known): 06W10301

Reported by: Tim Vere Date: 4/13/13

Location: T 27N R 41E Section 22 ¼ NW ¼ SE

State: WA County: Stevens

Elevation: 1640 feet Aspect: SW

Lat/Lon: 47°49'34.43"N / 117°36'36.64" Hydrologic unit: SPOKANE RIVER / LONG LAKE
47.825981 / -117.6156

Nest stratum: 13 Benches Nest height (circle ft or m): 90

Position on slope: 150 feet from water Nest condition: GOOD

Tree species: P Pine Tree height (circle ft or m): 110 ft DBH (circle in or cm): 30

Land ownership: Private

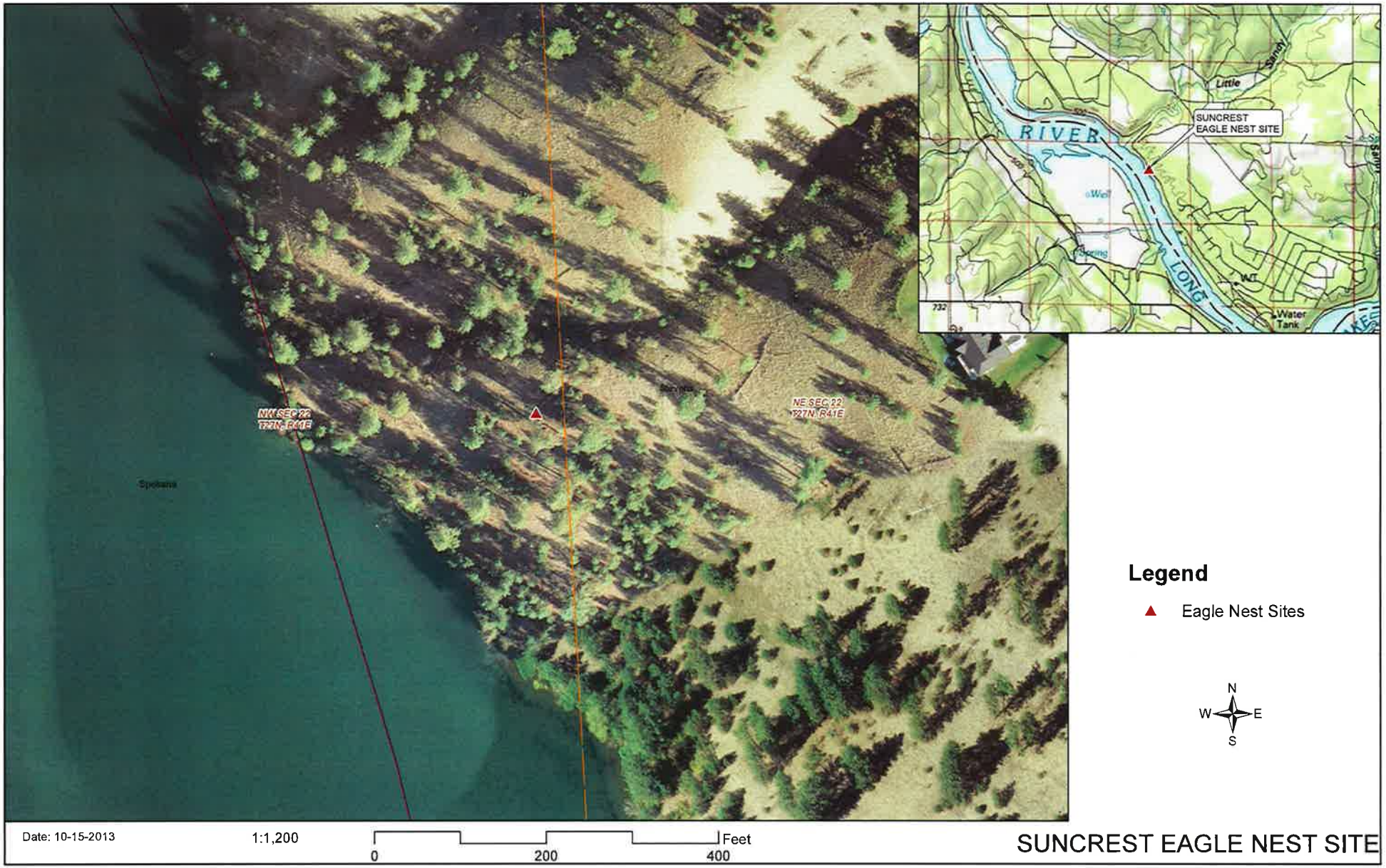
USGS Quad name: Nine Mile Falls

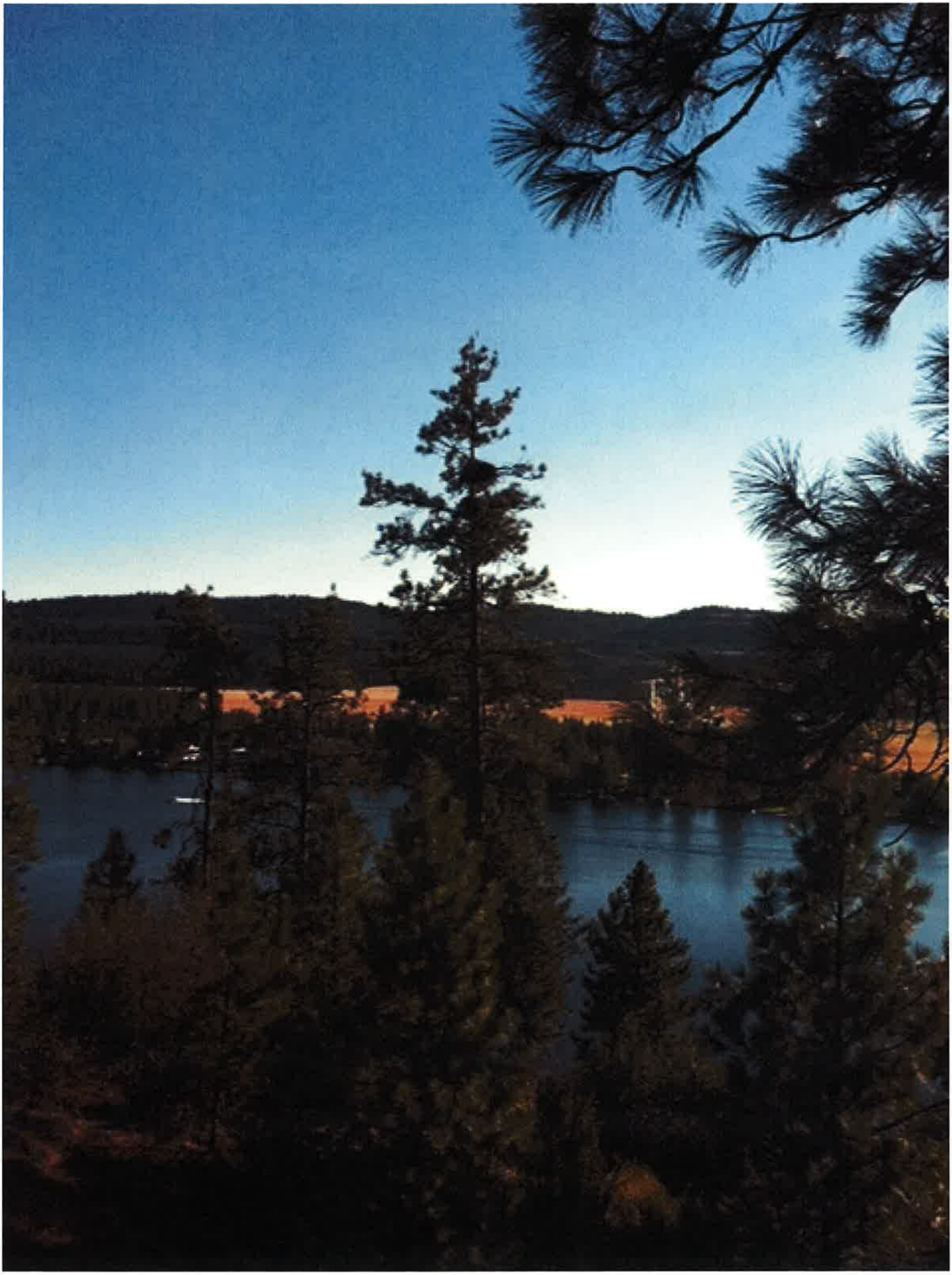
Directions to nest: Located along the east shore of Long Lake @ Suncrest

Comments: Adults present & on nest
Road access - Hwy 291 > Moriah Dr. > Brennan Ct, below end of cul-de-sac home. Access to north.

Observer Initial: DT Date: 6/16 Reviewer Initial: LS Date: 10/22/2013

Attach locator map and photos showing nest site and nest


SUNCREST
EAGLE NEST SITE
RIVER
Little
Sandy
LONG
Water
Tank
NW SEC 22
T27N R41E
NE SEC 22
T27N R41E
Spokane
Legend
Eagle Nest Sites
N
W
E
S
Date: 10-15-2013
1:1,200
0
200
400
Feet
SUNCREST EAGLE NEST SITE



Willow Bay, WA
New Nest + territory
2013

SPOKANE RIVER HYDROELECTRIC PROJECT (FERC Nos. 2545-091 and 12606-000)
RAPTOR NEST RECORD

Species: BAEA

Territory name (if known): Willow Bay

Territory/nest number (if known): 06W10201

Reported by: L. Straals Date: 5/29/13

Location: T 27 N R 41 E Section 4 ¼ NW ¼

State: WA County: Stephens Co.

Elevation: ~2107' Aspect: west

Lat/Lon: 47.885625, -117.655538 Hydrologic unit: Long Lake

Nest stratum: tree top / broken Nest height (circle ft or m): 70', 5' from top

Position on slope: hillslope Nest condition: good

Tree species: Ponderosa Tree height (circle ft or m): 70' DBH (circle in or cm): large

Land ownership: Private

USGS Quad name: Four Mound

Directions to nest: take 291 toward Turn Turn, @ Willow Bay Resort parking are

Comments: 1st seen one month ago AD seen at nest 2 week ago + today

Nest can be seen from resort parking, views to north, located on the ridge in pair of trees. ½ way up ridge @ corner see topo

Private drive on other side of ridge also has a view

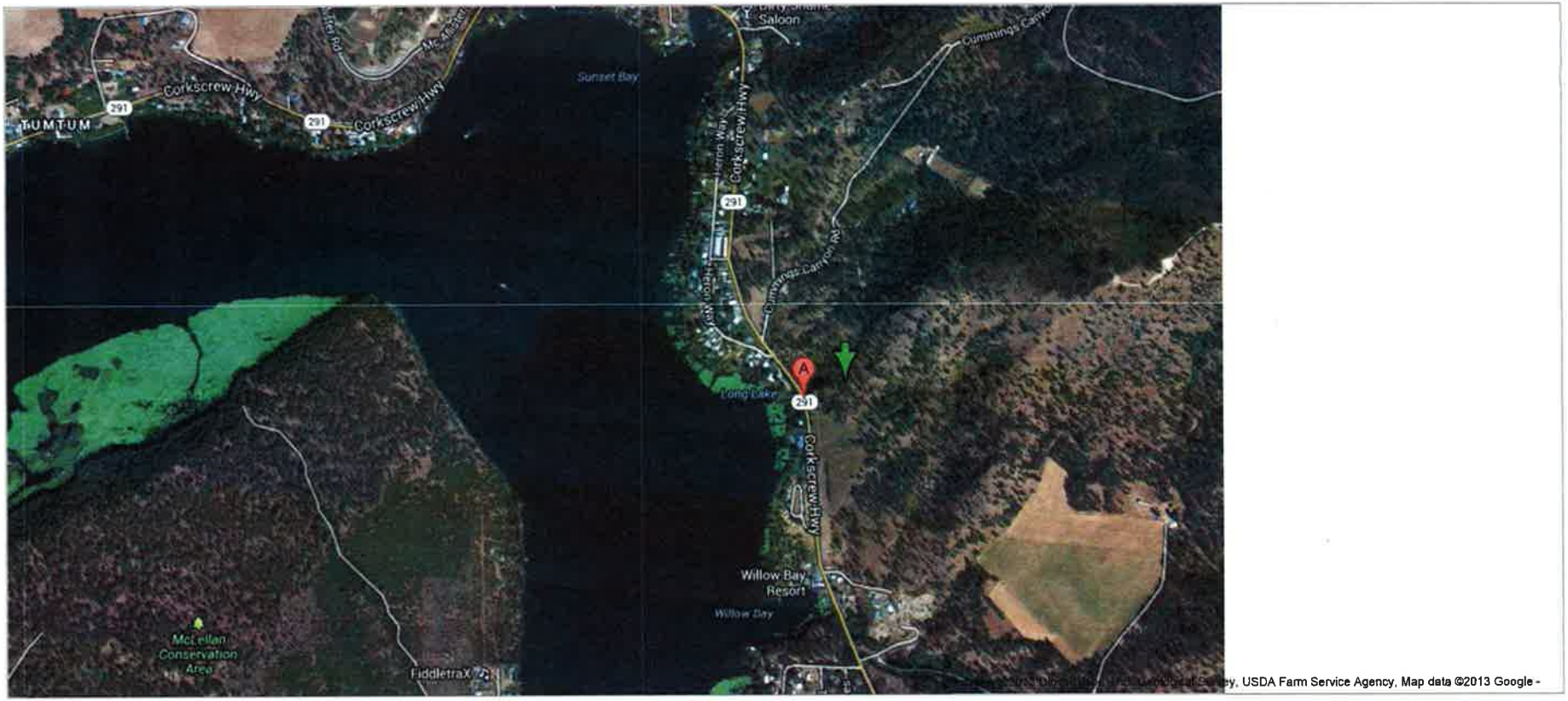
this nest can be seen from obs #3 of the Whalen nest - barely. and probably the Whalen nest.

Observer Initial: LS Date: 5/29/13 Reviewer Initial: DA Date: 9/27/13

Attach locator map and photos showing nest site and nest

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google




Willow Bay

APPENDIX C - 2013 SITE-SPECIFIC MANAGEMENT PLANS: WHALEN AND LAKE SPOKANE SOUTH TERRITORIES

SITE-SPECIFIC MANAGEMENT PLAN
Whalen Bald Eagle Territory

Introduction

Avista's 2010 Bald Eagle Management Plan (Plan) requires the preparation of a Site-specific Management Plan for nesting territories located within the Planning Area. The Plan defines the Planning Area as Avista owned lands where an active or alternate nest associated with Project waters is present and select additional nesting territories where investigations indicate that (1) Project operations may have negative effects on bald eagle productivity or habitats, and (2) opportunities for protection are available. This Site-specific Management Plan contains the results of the habitat-use investigations and identifies nesting territory, home range, primary use areas, and key sites used during nesting, brood rearing, and fledging periods as well as activities that result in potential disturbances to nesting eagles and ongoing activities that result in loss or degradation of habitat within a nesting territory. Additionally, measures are proposed to reduce bald eagle/human conflicts based on identified threats primarily on areas where Avista has some management authority to protect habitat and may have the ability to enforce seasonal restrictions on activities found to disturb nesting eagles. Avista will coordinate with United States Fish and Wildlife Service (USFWS), Idaho Department of Fish and Game (IDFG), and Washington Department of Fish and Wildlife (WDFW) as appropriate to determine whether management plans are already available.

This Site-specific Management Plan may need periodic updating as home ranges, nest territories, nest sites, perch trees, night roost stands are not permanent locations. Therefore, spatial and temporal restrictions in regard to buffer zones for nest sites, perching, foraging, and roosting stands may require updating.

Whalen Nesting Territory Investigation Report

Location

The Whalen bald eagle territory is located along Lake Spokane (Spokane River) at river mile 44.5 in Spokane and Stevens County, Washington. The center channel of Lake Spokane defines the county's boundary line. The Whalen territory is primarily located in Spokane County along the south shore in Section 31, Township 28 north, Range 41 east, but also extends into adjacent sections. Parcel owners on the south shore territory include Avista-owned lands along the shoreline; Spokane County McLellan Conservation Area, adjacent Department of Natural Resources (DNR), and private properties in the upland areas.

The Avista-owned lands, Conservation Area, and DNR lands are generally undeveloped seral conifer forest with nearshore riparian, wetland, and aquatic habitat. These areas have limited forest access roads and a few non-motorized trails for dispersed recreation opportunities. On the north shore, SH 291 closely follows the shoreline; the small town of Tum Tum is located directly to the north. Sunset Bay and Willow Bay are located northeast and east, respectively. Tum Tum, Sunset Bay, and Willow Bay contain minor urban developments, year-round or summer residences, boat launches, and boat docks. Other land use in the vicinity includes forest practice operations, ranching operations, and

rural residences. A transmission line corridor is located about 250 feet northwest of Lake Spokane and has structures that are used by nesting osprey. Water levels in Lake Spokane are controlled by Avista.

Study dates and Schedules

Territory observation periods in 2012 and 2013 were conducted once every two weeks from March 1 through July 31st as detailed in the Plan. A combination of morning and evening data was collected. A total of 11 territory investigations observation were conducted per year, for a total of 22 territory investigation observation dates.

Study methods

Study methods detailed in the Plan for investigations produced time-interval records about eagle activities, locations, habitat use, and potential disturbances in order to characterize nesting territories, primary use areas, home ranges, and key use sites. The data identified disturbances or potential disturbances to nesting eagles. Background research of the territory area, annual monitoring reports, landowner communications, agency communications; and supplemental notes provided information about ongoing activities and those that may or have caused loss or degradation of habitat within a nesting territory.

Results

The results of habitat-use investigations include a brief narrative and map conveying the information about home range estimates, primary use areas, key use sites, and disturbances to nesting eagles or eagle habitat.

Home range estimates. The home range is approximately 675 acres: about 2.3 miles long and about 0.6 miles wide as shown in *Figure 1*. The home range primarily includes the south half of the lake and the undeveloped south shore. The home range ownership includes Avista-owned lands, some Conservation Area lands, and other converted land use. Eagles were seen on occasion northeast across the lake to more developed sites at the Sunset Bay communal roosting stands, west across the lake, and above the home range.

Nesting territory estimates. The nesting territory is approximately 120 acres; about 1.0 mile long along Lake Spokane and about 0.3 miles wide as shown in *Figure 1*. Nesting territory boundaries were delineated on the maps incorporating primary use areas. The method to determine the nesting territory used a 300-foot buffer around primary perches to encompass the flight patterns between these sites. A 660-foot buffer is a maximum buffer used at active nest sites following USFWS guidelines as shown in *Table 1*. For the purposes of this management plan the primary prey capture areas are also included in the nesting territory.

Habitat in the nesting territory is primarily undeveloped and managed seral conifer stands and aquatic areas. The upland nesting territory is located primarily on a steep hillslope with a northwest aspect. Upland areas are within about 0.25 miles of Lake Spokane. Aquatic areas used for prey capture generally extended up to 500 feet from the shore. Prey capture sites were typically in the marshy bays and nearshore areas of the Lake Spokane between the two nest sites. Prey species were primarily aquatic fish species, and there were also prey capture attempts on goslings or other waterfowl hatchlings. Eagles were observed acquiring aquatic prey from osprey on occasion. Upland prey captures were less frequently observed. Upland prey species were unknown.

Primary use areas defined as occupied by eagles greater than 75% of the time, included the two nest sites, six primary perches, and the night roost stand.

Key use sites (including nest sites, primary perches, and roost stands)

Nest sites. The active nest in 2012 and 2013 was located in a Ponderosa pine with an overhead canopy. It was in one of the tallest trees on the ridge overlooking the territory, less than 300 feet to shore. This nest was located near the border of Avista and the Conservation Area. The alternate nest location was further southwest located on Avista-owned lands, also about 300 feet to shore but close to a trail from the Conservation Area. The alternate nest has collapsed.

Primary perches. Perch locations for territory defense were typically tall trees or snags situated to give a view above the nest, upstream, downstream or east to a neighboring territory. They appeared to be strategically located to view approaches to the nesting territory as well as the nest. Perch locations overlooking prey capture sites were live ponderosa or snags located on the shoreline or along the ridge top.

Roost stands. The Whalen night roosting stand was located in a thick grove of trees near the alternate nest site on Avista-owned lands and near a trail from the Conservation Area. Communal roosting stands were identified during observations and communicated by local residents at two areas of thick timber near the homes of Sunset Bay.

Disturbances

Typically eagles were not disturbed by routine use of roads, homes, or other facilities particularly where such use was present prior to successful nesting in a given area. The Whalen breeding pair appeared acclimated to existing human activities and habitat conditions. There were no ongoing activities observed that resulted in loss or degradation of habitat within a nesting territory.

Productivity of the breeding pair was not negatively impacted in 2012 or 2013. In 2012 the pair fledged three young. In 2013 the pair fledged two young. The site is generally isolated from direct disturbances. Activities noted below were observed during investigations to disturb nesting eagles, listed according to highest frequency.

Osprey. Ospreys were observed to be the most frequent disturbance of the nesting pair. The Whalen territory had three osprey nests within about a mile of the nest, all on the opposite side of the lake. One was located on a nest platform and two were located on utility pole structures. The ospreys were first observed in the project area in the first week of April. At this point the eagles had been incubating for at least one month. Osprey generally stayed to the northwest side of the lake but would often fly through the home range, nest territory, and occasionally near the nest. Typically the male eagle drove them off. The nesting eagles typically stayed east of the lake and the osprey nests. Osprey presence and disturbances were unrelated to human–caused activities, except where the nesting substrates are man-made structures.

Competition from other eagles. Immature eagles were observed lingering in the adult territory until mid-March. By the first week of April they were no longer present in the nesting territory. The nesting adults drove them out. The immatures then perched across the lake or flew high above the home range, outside of the nesting area.

Other adult eagles were occasionally observed at a distance or at the margins of the home range during territory defense. The closest occupied nest of another bald eagle pair was near Willow Bay, upstream and about one mile due east of the Whalen nest. The Willow Bay nest and eagles could not typically be visible from most primary use areas and key use sites of the Whalen territory because of the northwest aspect. However from the nest or perches on the ridge, the Willow Bay nest may have been visible to the Whalen nesting pair at the nest or ridge top perches.

Human activity. There was a single boating observation in 2012 where a boat of anglers approached within 200 yards of shore for about one minute. The male was perched at a foraging location in the nesting territory near the water and flushed to a perch location at the ridge. There were no other observations of humans approaching the nesting territory that disturbed eagles.

Other human recreation activities observed but without disturbance included target practice noise, boating, and personal aircraft use. Very little recreational activities by humans were observed prior to the July 4th holiday. This timing was advantageous to bald eagles productivity as nests were built, eggs laid and hatched, and the two juvenile birds were both fledged by July 25, 2013.

There are many established sites for dispersed recreation with numerous boat docks along Lake Spokane that are within the home range. None are located in the nesting territory. Hiking trails were located in the Conservation Area as indicated on the map. The west trail extends into the nesting territory near the night roost stand and the alternate nest site. No hikers or other users were observed during the investigations at the Conservation Area and the trails appeared little used. There is limited land based-motorized vehicle access for authorized personnel to the nest territory, primary use areas, and key use sites through the Conservation Area access point

Avista project operations. There are no Avista infrastructure elements located in the Whalen nesting territory. There were no observed Avista operational activities during the territory investigations except the seasonally changing water levels.

Whalen Management Plan

The primary objective of the site-specific management plan is to identify and characterize activities that result in disturbance to nesting eagles. The site-specific management plan will also describe ongoing activities that result in loss or degradation of habitat within a nesting territory. Site-specific bald eagle management plans will include proposed measures to reduce bald eagle/human conflicts based on identified threats.

Avoidance and Protection Measures

To meet the objectives of the Plan, measures may be proposed to reduce bald eagle/human conflicts based on identified threats. This site-specific management plan will focus on areas where Avista has the management authority to protect habitat and the ability to enforce seasonal restrictions on activities found to disturb nesting eagles.

There are no proposed measures to reduce bald eagle/human conflicts at this time. The existing level of human activities, including Avista's Project operations and the existing level of osprey nests on man-made structures have not had a deleterious effect on the eagles. Avista does not have management authority on public or other private lands where activities may disturb nesting eagles.

The following guidance is specifically for new or a new change in activities or development such as: timber and forestry operations, vertical infrastructure, linear infrastructure such as roads, trails, canals, power lines, other utilities (USFWS 2007), or recreation facilities. To avoid disturbing nesting bald eagles, the USFWS recommends (1) maintaining natural forested (or vegetative) buffers around nest trees to minimize visual and auditory impacts associated with human activities and (2) avoiding certain activities during the nesting season or breeding season. The breeding season extends from January 1 through August 15 in the Pacific Northwest (USFWS 2007). These recommendations are applicable only to those key sites and activities where Avista owns property and has management authority.

Table 1. Recommended Spatial and Temporal Restrictions to Protect Bald Eagles Key Sites from New Disturbances

Bald Eagle Use	Buffer Zone Size	Temporal Restriction	Other Restrictions
Nest sites	330 feet (660 feet if action is visible from the nest.)	January 1 through August 15	Year round: avoid permanent development, pesticides, clear cutting, trails, or removal of over story within 330 feet of nest.
Primary perches	case-by-case*	January 1 through August 15	Retain snags. Avoid or minimize impacts
Prey capture sites	case-by-case*	January 1 through August 15	Avoid or minimize impacts
Roost stands	case-by-case*		Avoid or minimize impacts

* Primary perches, prey capture sites, and roost stands do not have a defined buffer by USFWS. However to minimize potentially disruption in the eagles nesting territory, buffers will be determined on a case-by-case basis as needed.

Additional Guidelines and Management Practices

The following list is a compilation of guidelines and management practices that may be applicable to the Whalen territory (USFWS 2007).

1. Maintain forested habitat in the home range to provide secure habitat for eagles.

2. Retain mature trees and old growth stands in the nesting territory, particularly within one quarter mile from water as applicable on Avista-owned lands, to allow for recruitment of snags and other perch trees.

3. Habitat enhancement, i.e. restoration, thinning, burning, or other activities can be conducted outside of breeding season.

4. Avoid blasting and other activities that produce extremely loud noises within one half mile of active nests during breeding season, unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area.

5. Monitor nest alternate sites for up to three years.

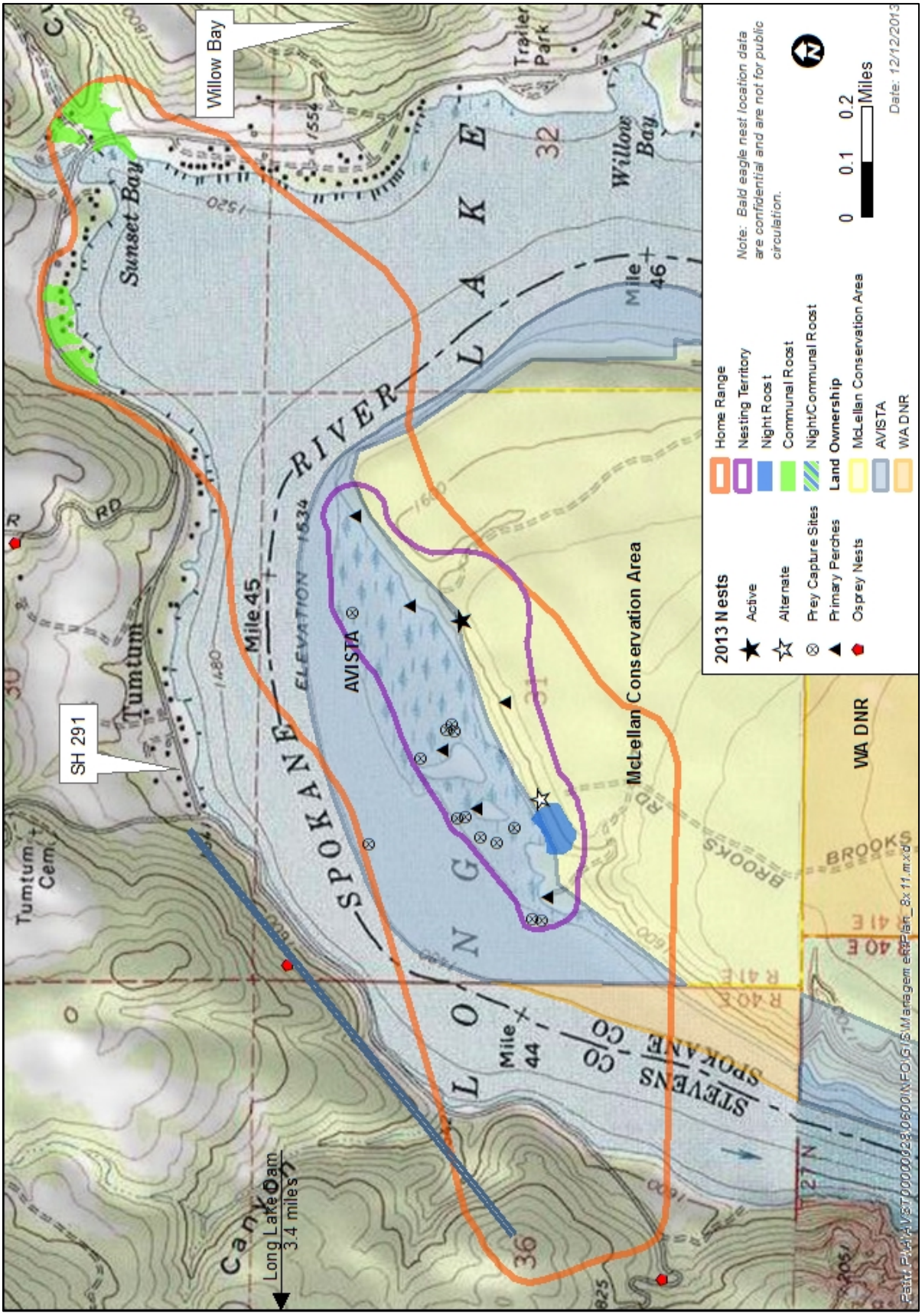
6. Verify nest sites, key sites and regulatory buffers prior to permanent or intense development activities in order to avoid deleterious effects to nesting pairs.

7. Continue conscientious use of pesticides, herbicides, fertilizers, and other chemicals only in accordance with Federal and State laws to avoid impacts to eagles directly or indirectly thru prey species.

References

USFWS 2007. National Bald Eagle Management Guidelines. U.S. Fish and Wildlife Service. May 2007. http://www.fws.gov/pacific/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf. Retrieved August 20, 2013.

Figure 1. Whalen Bald Eagle Territory



SITE-SPECIFIC MANAGEMENT PLAN
Lake Spokane South Bald Eagle Territory

Introduction

Avista's 2010 Bald Eagle Management Plan (Plan) requires the preparation of a Site-specific Management Plan for nesting territories located within the Planning Area. The Plan defines the Planning Area as Avista owned lands where an active or alternate nest associated with Project waters is present and select additional nesting territories where investigations indicate that (1) Project operations may have negative effects on bald eagle productivity or habitats, and (2) opportunities for protection are available. This Site-specific Management Plan contains the results of the habitat-use investigations and identifies nesting territory, home range, primary use areas, and key sites used during nesting, brood rearing, and fledging periods as well as activities that result in potential disturbances to nesting eagles and ongoing activities that result in loss or degradation of habitat within a nesting territory. Additionally, measures are proposed to reduce bald eagle/human conflicts based on identified threats primarily on areas where Avista has some management authority to protect habitat and may have the ability to enforce seasonal restrictions on activities found to disturb nesting eagles. Avista will coordinate with United States Fish and Wildlife Service (USFWS), Idaho Department of Fish and Game (IDFG), and Washington Department of Fish and Wildlife (WDFW) as appropriate to determine whether management plans are already available.

This Site-specific Management Plan may need periodic updating as home ranges, nest territories, nest sites, perch trees, night roost stands are not permanent locations. Therefore, spatial and temporal restrictions in regard to buffer zones for nest sites, perching, foraging, and roosting stands may require updating.

Lake Spokane South Nesting Territory Investigation Report

Location

The Lake Spokane South bald eagle territory is located along Lake Spokane (Spokane River) at river mile 39.3 in Spokane and Stevens County, Washington. The center channel of Lake Spokane defines the county's boundary line. The territory is located in both Spokane County and Stevens County in Sections 15 and 22, of Township 27 north, Range 40 east, but also extends into adjacent sections. Parcel owners in the territory area include Avista lands along the south shoreline and some upland areas, DNR, Washington State Parks and Recreation, with adjacent private farm and ranchlands. The habitat includes undeveloped seral conifer forest on the south shore and open pine/bunchgrass on the north shore with some nearshore riparian habitat and aquatic habitat. These lands have limited access roads or non-motorized trails for dispersed recreation opportunities. SH 291 is located about one quarter mile north of Lake Spokane. The Lake Spokane Campground on the north shore owned by DNR is administered by Washington State Parks and Recreation and contains campgrounds, picnic areas, fishing access and a boat launch. It opens mid-April and is open through September. Other land use in the vicinity includes ranching operations and a few rural residences. Water levels in Lake Spokane are controlled by Avista.

Study dates and Schedules

Territory observation periods in 2012 and 2013 were conducted once every two weeks from March 1 through July 31st as detailed in the Plan. A combination of morning and evening data was collected. A total of 11 territory investigations observation were conducted per year, for a total of 22 territory investigation observations.

Study methods

Study methods detailed in the Plan for investigations produced time-interval records about eagle activities, locations, habitat use, and potential disturbances in order to characterize nesting territories, primary use areas, home ranges, and key use sites. The data identified disturbances or potential disturbances to nesting eagles. Background research of the territory area, annual monitoring reports, landowner communications, agency communications; and supplemental notes provided information about ongoing activities and those that may or have caused loss or degradation of habitat within a nesting territory.

Results

The results of habitat-use investigations include a brief narrative and maps conveying the information about home range estimates, primary use areas, key use areas, and disturbances to nesting eagles or eagle habitat.

Home range estimates. The home range is approximately 800 acres: about 1.6 miles long and about 1.0 mile wide as shown in *Figure 1*. The home range includes the north and south shore of Lake Spokane. The home range ownership includes Avista-owned lands, private lands, DNR lands, Washington Parks and Recreation lands, and other converted land use. Eagles were seen soaring above the home range, up and down the lake, and toward the Long Lake Dam over three miles west of the home range.

Nesting territory estimates. The nesting territory is approximately 260 acres; about 0.6 miles long and about 0.8 miles wide as shown in *Figure 1*. Nesting territory boundaries were delineated on the maps incorporating primary use areas. The method to determine the nesting territory used a 300-foot buffer was used around primary perches to encompass the flight patterns between these sites. A 660-foot buffer is a maximum buffer used at active nest sites following USFGS guidelines as shown in *Table 1*. For the purposes of this management plan the primary prey capture areas are also included in the nesting territory.

The nesting territory included both shores and the connection across Lake Spokane. The north shore is private land; the south shore is Avista lands and private. Upland areas are contained within about 830 feet (0.16 miles) of Lake Spokane. Upland habitat is primarily terrace grasslands with seral conifer stands on the south shore. Some of the grasslands have been altered by grazing. Upland prey capture attempts included roosting turkey near the active nest and ground squirrels on the north shore. Upland prey captures were less frequently observed than aquatic prey captures. Aquatic areas used for prey capture generally extended about 150 feet from the shore, typically in small bays and nearshore areas close to the nests and primary perches. Prey species were primarily aquatic fish species.

Primary use areas are defined as occupied by eagles greater than 75% of the time, included the nest sites, seven primary perches, and the night roost stands.

Key use sites (including nest sites, primary perches, and roost stands)

Nest sites. The 2012 and the early 2013 active nest was located in a Ponderosa pine with an overhead canopy. It was located in one of the tallest trees on the south side ridge overlooking the lake, about 100 feet to water. This nest was successful in 2012 but failed in late April 2013.

This nest is located on Avista-owned lands. An alternate nest was attempted in mid-June 2013 on a north shore terrace east of the campground about one half mile north of the failed active nest about 300 feet from shore. This nest is located on private ranch lands.

Primary perches. Perch locations for territory defense were typically tall trees and snags situated to give a view above the nest, upstream, or downstream. They appeared to be strategically located to view approaches to the nesting territory as well as the nest. Perch locations overlooking prey capture sites were live trees or snags located on the shoreline or in tall trees near clearings.

Roost stands. There were two night roosting stands, both located in a thick grove of trees. One was on the south shore east of the active nest and the other on the north shore where the alternate nest was eventually built. Three communal roosting stands were identified during observations. One was about a mile upstream of the nesting territory and used primarily by immature eagles. Another was used early in the nesting season by the nesting eagle and immature eagles in a snag east of the nest. And the third site was at Long Lake Dam, over four miles west of the active nest, used by a group of adult and immature eagles throughout the nesting season during high discharge periods.

Disturbances

Typically eagles were not disturbed by routine use of roads, homes, or other facilities particularly where use was present prior to nesting. In 2012, the breeding pair appeared acclimated to existing human activities and habitat conditions. Productivity was not negatively impacted. The pair fledged two young. There were no ongoing activities observed that resulted in loss or degradation of habitat within the nesting territory.

In 2013 the active nest failed. The active nesting territory was generally isolated from habitat disturbances. Activities noted below were observed during investigations to disturb nesting eagles, listed according to highest frequency.

Competition from other eagles. Competition from other eagles was observed to be the most frequent disturbance of the nesting pair. Up to five immature eagles were observed lingering together with the adult male in a snag about 500 feet east of the nest from the nest in the nesting territory in 2013 during the March incubation period. Immatures were regularly observed within the home range and in the nesting territory, across the lake, or flying high above the nesting territory, although often out of sight of the nest. They were occasionally observed flying by perched adults or one of the nests. The adults were observed driving off the immatures, but not at all times. In 2012 there was one observation of an immature eagle in the nesting territory.

During the 2013 investigation, another adult eagle was observed perched at the ridge one half mile directly west of the nest on two occasions. The perched eagle was visible from the nest. One occasion resulted in territory defense behavior from the nesting male. By late April the active nest was abandoned. By mid-June the alternate nest was under construction across the lake. In 2012 there were no documented disturbances to the nesting pair by other eagles.

Because of the number of eagles in close proximity to the nest in 2013 we conclude that competition from other eagles resulted in degradation of the nesting territory and ultimately in nest failure of the active nest.

Human activity. Human activity was observed to disturb the nesting pair at the 2013 alternate nest site. In late May, two weeks after nest construction and for the next two consecutive territory investigations (conducted two weeks apart), the landowner was observed field training a Labrador retriever for approximately two hours usually starting at 9:30 or 10:00 a.m., concluding with a short session using a shotgun. The training area was in the meadow and in the near shore

area, about 500 feet west of the nest. During this time frame, the nesting pair would leave the immediate area of the nest and either fly across the lake to perch sites or leave the nesting area entirely. During the last two investigation periods the eagles left the nesting area when the pickup truck arrived at the dog training area, prior to the actual training session. Although these three observations that may have documented the only three occurrences of disturbance, it is possible that they occurred more frequently and ultimately contributed to the failure of the alternate nesting attempt. The nesting pair was never observed incubating at the nest. At the conclusion of the investigation during July, the adults were only observed in the north part of the nesting territory at one or two primary perches at that were successfully used in prey capture.

Other human recreation activities observed but without apparent disturbance include boating and personal aircraft use. Very little recreational activities by humans were observed prior to the July 4th holiday. This timing was advantageous to bald eagles productivity as nests were built and incubation initiated. The main established site for dispersed recreation within the home range is the Lake Spokane Campground. Other land based-motorized vehicle access to the home range and nest territory are limited from the neighboring private lands. The Avista-owned lands and the Lake Spokane Campground did not contribute to human activities that disturbed the nesting pair. There were no documented disturbances from boaters or anglers during the territory investigation. There were no other observations of humans approaching the nests, primary use areas, or key sites.

Osprey. Although osprey were regularly seen flying along and above the lake, there were no documented disturbances to the nesting pair. The ospreys were first observed in the 1st week of April. At this point the eagles had been incubating for at least one month. There were no osprey nests documented within the Long Lake South home range. There was a high concentration of osprey nests about 2.5 miles southwest of the Long Lake South home range on the poles of a transmission line corridor. Osprey presence in the area is unrelated to human–caused activities, except where the nesting substrates are man-made structures.

Avista Project operations. There are no Avista infrastructure elements located in the Lake Spokane South nesting territory. There were no observed Avista Project activities during the territory investigations except the seasonally changing water levels.

Lake Spokane South Management Plan

The primary objective of the site-specific management plan is to identify and characterize activities that result in disturbance to nesting eagles. The site-specific management plan will also describe ongoing activities that result in loss or degradation of habitat within a nesting territory. Site-specific bald eagle management plans will include proposed measures to reduce bald eagle/human conflicts based on identified threats.

Avoidance and Protection Measures

To meet the objectives of the Plan, measures may be proposed to reduce bald eagle/human conflicts based on identified threats. This site-specific management plan will focus on areas where Avista has the management authority to protect habitat and the ability to enforce seasonal restrictions on activities found to disturb nesting eagles.

There are no proposed measures to reduce at this time. The existing level of human activities, including Avista Project operations have not had a deleterious effect on the eagles. Avista does not

have management authority on public or other private lands where activities may disturb nesting eagles, such as the alternate nest attempt location on the north shore.

The following guidance is specifically for new or a new change in activities or development such as: timber and forestry operations, vertical infrastructure, linear infrastructure such as roads, trails, canals, power lines, other utilities (USFWS 2007), or recreation facilities. To avoid disturbing nesting bald eagles, the USFWS recommends (1) maintaining natural forested (or vegetative) buffers around nest trees to minimize visual and auditory impacts associated with human activities and (2) avoiding certain activities during the nesting season or breeding season. The breeding season extends from January 1 through August 15 in the Pacific Northwest (USFWS 2007). These recommendations are applicable only to those key sites and activities where Avista has management authority.

Table 1. Recommended Spatial and Temporal Restrictions to Protect Bald Eagles Key Sites from New Disturbances

Bald Eagle Use	Buffer Zone Size	Temporal Restriction	Other Restrictions
Nest sites	330 feet (660 feet if action is visible from the nest.)	January 1 through August 15	Year round- avoid permanent development, pesticides, clear cutting, or removal of over story within 330 feet of nest
Primary perches	case-by-case*	January 1 through August 15	Retain snags. Avoid or minimize impacts
Prey capture sites	case-by-case*	January 1 through August 15	Avoid or minimize impacts
Roost stands	case-by-case*	January 1 through August 15	Avoid or minimize impacts

* Primary perches, prey capture sites, and roost stands do not have a defined buffer by USFWS. However to minimize potentially disruption in the eagles nesting territory, buffers will be determined on a case-by-case basis as needed.

Additional Guidelines and Management Practices

The following list is a compilation of guidelines and management practices that may be applicable to the Whalen territory (USFWS 2007).

1. Maintain forested habitat in home range to provide secure habitat for eagles.

2. Retain mature trees and old growth stands, particularly within one quarter mile from water as applicable to Avista-owned lands, to allow for recruitment of snags and other perch trees.

3. Habitat enhancement, i.e. restoration, thinning, burning, or other activities may be conducted outside of breeding season.

4. Avoid blasting and other activities that produce extremely loud noises within one half mile of active nests during breeding season, unless greater tolerance to the activity (or similar activity) has been demonstrated by the eagles in the nesting area.

5. Monitor nest alternate sites for up to three years.

6. Verify nest sites, key sites and regulatory buffers prior to permanent or intense development activities in order to avoid deleterious effects to nesting pairs.

7. Continue conscientious use of pesticides, herbicides, fertilizers, and other chemicals only in accordance with Federal and State laws to avoid impacts to eagles directly or indirectly thru prey species.

References

USFWS 2007. National Bald Eagle Management Guidelines. U.S. Fish and Wildlife Service. May 2007. http://www.fws.gov/pacific/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf. Retrieved August 20, 2013.

Figure 2. Long Lake South Bald Eagle Territory