AVISTA CORPORATION

COEUR d’ALENE RESERVATION

WETLAND AND RIPARIAN HABITAT PLAN

4(E) CONDITION NO. 8

Spokane River Hydroelectric Project
FERC Project No. 2545

Prepared By:
Avista Corporation
and the
Coeur d’Alene Tribe

September 29, 2015
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Coeur d’Alene Reservation

Wetland and Riparian Habitat Plan

September 29, 2015

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ABBREVIATIONS USED IN THIS REPORT

Avista – Avista Corporation
BPA – Bonneville Power Administration
Council – The Northwest Power and Conservation Council
CDR Fund – Coeur d’Alene Reservation Trust Resources Restoration Fund
FERC – Federal Energy Regulatory Commission
FPA – Federal Power Act
HED – Hydroelectric development
NAWCA – North American Wetland Conservation Act
NRCS – United States Natural Resources Conservation Service
NWI – National Wetland Inventory
Plan – Coeur d’Alene Indian Reservation Wetland and Riparian Habitat Plan
Project – Spokane River Hydroelectric Project, FERC No. 2545
Reservation – Coeur d’Alene Indian Reservation (Current Exterior Boundaries)
Interior – Secretary of the Department of the Interior
Tribe – Coeur d’Alene Tribe
UCUT – Upper Columbia United Tribes
USGS – United States Geological Survey
1.0 BACKGROUND

The Avista Corporation (Avista) operates five hydroelectric developments (HEDs) along the Spokane River in eastern Washington and northern Idaho. These HEDs are collectively known as the Spokane River Project (Project) and are operated under license from the Federal Energy Regulatory Commission (FERC). FERC issued a new license (License) authorizing Avista to continue the operation of the Spokane River Project (FERC Project No. 2545) on June 18, 2009. The Project boundary includes water storage by Avista above the Post Falls HED on the Spokane River, in Coeur d’Alene Lake and its tributaries in Idaho, including water storage on the Coeur d’Alene Tribe’s (Tribe) submerged lands in the Lake and its tributaries within the current exterior boundaries of the Coeur d’Alene Indian Reservation (Reservation).

Avista, working in collaboration with the Tribe, developed and implemented the initial 2010 Coeur d’Alene Indian Reservation Wetland and Riparian Habitat Plan (Plan) “for the restoration and/or replacement of at least 1,368 acres of equivalent in-kind emergent, scrub/shrub and/or forested lands, riparian habitat and associated uplands, preferably within the Reservation,” as specified in Appendix D of the License. This Plan identified methods for evaluating and acquiring properties, developing restoration and enhancement measures, monitoring and adaptive management, and crediting mitigation acreages consistent with condition 8 in Appendix D of the License. The Plan was approved by the United States Department of Interior (Interior) on June 17, 2010 and by FERC on October 5, 2010, and in accordance with Section 12 of the initial Plan, will be updated every five years.

2.0 2015 FIVE YEAR UPDATE

Avista and the Tribe have worked collaboratively to implement the management objectives identified in this Plan since its approval. Five properties have been purchased in the Hangman Creek watershed (totaling 656 acres), for a total purchase price of $1,517,754. On April 9, 2014, Interior approved the Hangman Creek Site Management Plan and agreed that 508 acres qualify as replacement acres under 4(e) Condition No. 8.

In accordance with Tribal Council’s Resolution CDA 164-2013, and the Interior and FERC approved Erosion Control Implementation Plan (ECIP), in lieu of implementing erosion control measures on the Lower St. Joe River, an additional 56 acres (the equivalent of 63,130 feet of linear footage) will be preserved, enhanced or restored under this Plan. This increased the total acreage required under 4(e) Condition No. 8 from 1,368 to 1,424 acres.

Avista and the Tribe developed the Hangman Creek Site Management Plan (Management Plan) in March 2014 and are currently in the process of implementing the Management Plan to ensure that Plan objectives are met on the acquired properties. Work tasks include planting native trees
and shrubs at predetermined locations and densities, conducting herbicide treatments in areas of heavy noxious weed infestation, and installing protective fencing, where needed, around areas of immature and establishing trees and shrubs. In addition, areas that are actively being restored will be monitored for planting survival and percent cover. Areas that are being preserved and are not actively being restored will be monitored to ensure that the habitat continues to provide the proper functions, such as habitat for wildlife, hydrologic functions and water quality.

As of 2015, the total amount of acreage credited under 4(e) Condition No. 8 is 508 acres. The remaining amount of acreage to be credited (including the additional 56 acres) is 916 acres.

3.0 INTRODUCTION

Avista and the Tribe are implementing this Plan preferably on the Reservation, however they can pursue properties elsewhere within the Coeur d’Alene Lake Basin if desired.

3.1 Regional Setting

The Coeur d’Alene Basin is located on the western slope of the Northern Rocky Mountains and drains 3,840 square miles of Idaho’s Shoshone, Kootenai, Benewah and Latah counties. The western portion of the basin is near the transition between the Northern Rockies and the Columbia Plateau. The climate is influenced by air masses from the Pacific and continental Canada. Regional hydrology is affected both by spring snowmelt with the highest flows caused by winter rain-on-snow events (NPPC 2001), and by Spokane River Project operations, including water storage by Avista’s Post Falls HED.

The balance between tectonic uplift that formed the Rocky Mountains and erosion driven by regional hydrology has caused larger flowing streams to cut deep canyons and valleys typically observed in the area (NPPC 2001). The dynamic and broad floodplains of the St. Joe and Coeur d’Alene Rivers are a patchwork of stream channels, para-fluvial ponds, riparian and wetland habitats. These areas were historically important drivers of biological productivity and have been significantly altered by habitat loss and by changes to upstream channels, wetlands and riparian areas and associated uplands. Landscape evolution aided by continental glaciation created Coeur d’Alene Lake. Spokane River Project operations now set the regional base level for that Lake and its tributaries such as the St. Joe and Coeur d’Alene Rivers.
3.2 Coeur d’Alene Indian Reservation

The current exterior boundaries of the Reservation encompass a total of approximately 334,410 acres and include submerged lands located within the approximate southern one-third of Coeur d’Alene Lake and the lower St. Joe River, as well as portions of the Hangman Creek watershed, also tributary to the Spokane River (Figure 1).1

1 Consistent with Section 1.1 of the Settlement Agreement between Avista, the Tribe, and the United States Department of the Interior (DOI), executed on December 16, 2008, nothing in this Plan, including Figure 1 or Figure 2, is intended or shall be construed to address or resolve: (a) any claims by the Tribe and/or DOI regarding alleged trespass by Avista on Reservation lands or annual charges Avista may owe pursuant to §10(e) of the Federal Power Act, 16 U.S.C. §803(e), for Avista’s occupancy, use and enjoyment of those Reservation lands; or (b) any claims the Tribe may have with respect to the submerged lands of Coeur d’Alene Lake that are located outside the current Reservation boundaries or that lie within the boundaries of Heyburn State Park within the current Reservation boundaries.
Figure 1. Current Exterior Boundaries of the Coeur d’Alene Indian Reservation
The majority of the Reservation is located within Benewah County with a small portion located within Kootenai County.

The Reservation contains a variety of different habitats owing to its diverse landforms that range from gently rolling hills and gentle slopes in the western part of the Reservation to steep mountainous valleys in the east. Land within the Reservation but outside the Spokane River Project boundary is utilized for commercial agriculture with crops that include wheat, barley, lentils, peas, canola, and Kentucky blue grass (CDA Tribe 2010).

3.3 Major Surface Waters

The Reservation is located within both the Coeur d’Alene and Spokane subbasins. The portions of the Coeur d’Alene River, St. Joe River, and Coeur d’Alene Lake within the Reservation are located in the Coeur d’Alene subbasin. Within the Spokane sub-basin, the upper portions of both Hangman Creek and the North Fork of Rock Creek are located on the Reservation. Major surface waters flowing within or into the Reservation are summarized below.

3.3.1 Coeur d'Alene River

The Coeur d’Alene River, which enters above its mouth into the Reservation near the town of Harrison, is comprised of more than 78 tributary streams that drain a watershed area of 1,489 square miles. The Coeur d’Alene River flows between steep slopes of the Coeur d’Alene Mountains in the upper portion of the watershed, and through wider alluvial valleys in the lower watershed as it approaches Coeur d’Alene Lake. The Coeur d’Alene River is formed by the North Fork, flowing through the Coeur d’Alene National Forest and the South Fork, which drains the Silver Valley mining district (Funk 1975). The exploitation of mineral and timber resources in the watershed, as well as Project operations since 1907, have significantly impacted floodplain, riparian, wetland and in-stream habitat.

3.3.2 St. Joe and St. Maries Rivers

The St. Joe and St. Maries Rivers and tributaries comprise a network with over 740 miles of waterways draining 1,726 square miles. The St. Maries River is a lower gradient system than the St. Joe and Coeur d’Alene Rivers and contains finer alluvial and floodplain deposits (NPPC 2001). The lower reaches of the St. Maries and St. Joe Rivers have broad floodplains and deeper, low gradient channels. The St. Maries River empties into the St. Joe River just east of the Reservation near the town of St. Maries. Approximately 15 river miles of the St. Joe River are located within the Reservation. The mouth of the St. Joe River enters into the southern end of Coeur d’Alene Lake well within the Reservation.
3.3.3  *Coeur d'Alene Lake*

Coeur d'Alene Lake and its tributaries (not including the St. Joe, St. Maries and Coeur d’Alene rivers) are comprised of over 200 river miles with a combined watershed area of 625 square miles. The Reservation includes the approximate southern third of Coeur d’Alene Lake (Figure 1).

3.3.4  *Hangman Creek Watershed*

The Reservation contains the upper reaches of Hangman Creek, Moctelme Creek, Little Hangman Creek, Rose Creek, and the North Fork of Rock Creek, all of which are located within the Hangman Creek Watershed that drains to the Spokane River. This watershed is located in the western portion of the Reservation (Figure 1). Within the Reservation, these creeks predominantly consist of low gradient headwaters that drain forested mountains and agricultural uplands.

4.0  **CONDITION 8 TO APPENDIX D OF THE LICENSE**

Avista and the Coeur d’Alene Tribe (Tribe) will work collaboratively to implement condition 8 of the License and to achieve the goals, objectives and requirements of this Plan.

4.1  **Full Text of Condition 8**

Avista will establish the Plan including the following requirements and components as identified in Appendix D, Section 8 of the License as follows:

A.  *Wetland and Riparian Habitat Plan*

Within one (1) year of license issuance, the Licensee shall file with the Commission for approval a Coeur d’Alene Indian Reservation Wetland and Riparian Habitat Plan, which shall be prepared in collaboration with the Tribe. The Licensee shall submit the Plan to the Secretary for review and approval at least 60 days before filing it with the Commission. When filing the Plan with the Commission, the Licensee shall include documentation of collaboration with the Tribe, and copies of any comments and recommendations from the Tribe. If the Licensee files the Plan with the Commission without first obtaining the Secretary’s approval, the Licensee shall include specific reasons for doing so. The Licensee shall implement the Plan upon its approval by the Secretary and the Commission.
The Plan shall provide for the restoration and/or replacement of at least 1,368 acres of equivalent in-kind emergent, scrub-shrub and/or forested lands, riparian habitat and associated uplands, preferably within the Reservation. The Plan shall describe proposed restoration and/or acquisition of replacement lands and related operation and maintenance activities, as described in part B of this condition.

B. Restoration and Acquisition of Replacement Lands

1. The Licensee shall use the CDR Fund for: (1) restoration of equivalent in-kind emergent, scrub-shrub and/or forested lands, riparian habitat and associated uplands; and (2) the Tribe's acquisition of such lands, habitat and uplands. The Licensee shall receive credit for any land restored or acquired for this purpose upon completion of any needed restoration activities on the acquired lands.

2. If lands acquired for purposes of this condition are within the Project Boundary, the Licensee shall obtain from the Tribe a conservation lease, easement, or other interest in land for operation and maintenance activities that provides for timely prior notice to the Tribe. The Licensee shall hold any such interests in lands for the term of the license and any subsequent annual licenses.

3. Within 18 months after lands described in Condition 8(B)(2) are identified or acquired, the Licensee shall, in collaboration with the Tribe, develop and implement a management plan for each parcel located within the Project Boundary describing any activities (e.g., restoration, monitoring, operation and maintenance) and the schedule for implementing those activities. These management plans shall be appended to the appropriate Annual Implementation Report prepared pursuant to Condition 3.

4. The acquisition of any lands described in Condition 8(B)(1) located outside the Project Boundary and funding for initial restoration projects thereon shall be a one-time obligation using CDR Funds.

5. Lands or interests in lands acquired with CDR funds pursuant to Condition 8 may be disposed of and replaced with equivalent lands held by the Tribe if the Licensee and the Tribe mutually agree and provide appropriate provision for reimbursement to the CDR Fund from the proceeds of disposition. Such disposal is subject to approval by the Secretary and the Commission.

4.2 Plan Goal

The goal of this Program is to satisfy the requirements of Appendix D, Section 8 (Wetland and Riparian Habitat Replacement and Maintenance) of the FERC License to restore and/or replace at least 1,424 acres (revised from 1,368 acres) of equivalent in-kind emergent, scrub/shrub and/or forested lands, riparian habitat and associated uplands, preferably within the Reservation.
4.3 Objectives

The objectives of this Plan are to establish processes for:

- Identifying, securing, and restoring replacement lands;
- Developing site specific Management Plans for lands or habitats affected by the Project or acquired as replacement lands; and
- Crediting restoration and replacement lands against the requirement of mitigating at least 1,424 acres (revised from 1,368 acres) of equivalent in-kind emergent, scrub/shrub and/or forested lands, riparian habitat and associated uplands, preferably within the Reservation.

4.4 Definition of Key Terms in Condition 8

As required by the License, Avista’s obligation, working in collaboration with the Tribe, is to implement the Plan to restore and/or replace “at least 1,424 acres of equivalent in-kind emergent, scrub/shrub and/or forested lands, riparian habitat and associated uplands, preferably within the Reservation.” After collaboration with the Tribe, the following definitions shall be applied in implementation of this requirement.

4.4.1 Wetlands

The U.S. Fish and Wildlife Service has completed an inventory of wetland habitats within the Reservation for inclusion in the National Wetland Inventory (NWI) database. Wetlands within the Reservation are supported by three major hydrologic sources: lacustrine (lake), palustrine (inland non-tidal) and riverine types. Several different classes of wetlands exist in each of these hydrologic types. Samples of the different classifications of wetlands that occur within the Reservation are described below.

4.4.2 Emergent Wetlands

The emergent wetland class is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants and can be located in lacustrine, palustrine and riverine environments.

4.4.3 Scrub-shrub Wetlands

Scrub-Shrub wetlands are dominated by woody vegetation less than 6 meters (20 feet) tall. Species typically include true shrubs, young trees, and trees or shrubs that are immature or stunted because of environmental conditions. Within the Reservation, they occur in palustrine and riparian systems.
4.4.4 **Forested Wetlands**

Forested wetland class is characterized by woody vegetation that is at least 6 meters tall. Forested wetlands are most common in areas where moisture is relatively abundant, particularly along rivers and in mountainous areas. Forested wetlands are often further classified by the type of dominant vegetation (i.e. broad leaf deciduous, needle-leaved deciduous, or needle leaved evergreen) common in associated upland areas.

4.4.5 **Riparian Habitats**

Riparian areas include streambanks and the floodplain and can be defined as the vegetative portion of the streamside environment. Forested riparian zones in the Coeur d’Alene Lake Basin typically include a canopy layer of black cottonwood and willow, a shrub layer dominated by Douglas spirea, willow, red-osier dogwood, and a diverse herbaceous layer that includes redtop, non-native invasive reed canarygrass, and various sedges.

4.4.6 **Associated Uplands**

Associated uplands include any lands directly connected to and buffering the functionality of the above defined wetland or riparian areas. Such associated uplands can create shade or provide water for tributaries, provide ecological function or corridors, or otherwise protect the continuing functionality of wetlands and riparian habitats.

5.0 **PLAN FUNDING**

Avista and the Tribe collaboratively develop the annual budgets for implementing this condition for Interiors’ approval. The budgets are included in the Annual Implementation Reports (AIR) described in Section 12.0. The amount of funds allocated for wetland and riparian habitat projects vary on an annual basis according to opportunities and activities. All activities under this Plan are funded through the Coeur d’Alene Reservation Trust Resources Restoration Fund (CDR Fund) in accordance with Appendix D, Section 2.D of the License.

In accordance with the conditions of the License, Avista established the CDR fund to be utilized by Avista and the Tribe for the acquisition and management of properties and projects implemented through this Plan. According to the License condition, acquisition of any land outside the Project boundary and funding for initial restoration projects thereon shall be a one-time obligation using the CDR Fund. If advantageous for a project, other funding sources may also be pursued by Avista and the Tribe. A list of potential funding sources is included in Appendix A.
6.0 LAND IDENTIFICATION AND ACQUISITION

Investigations of potential habitat replacement properties will be completed to assist in project planning, identifying potential liabilities, and identifying habitat types present. Purchase and sale agreements and cost negotiations will not be finalized or signed until completion of the due diligence tasks identified below.

6.1 Spokane River Project Boundary

The Project boundary is specific to the FERC licensed hydroelectric operating boundary which is the 2,128 foot water elevation of Coeur d’Alene Lake (Figure 2) and includes the approximate nine miles of the Spokane River upstream of Post Falls Dam, Coeur d’Alene Lake, and the lower reaches of the St. Joe, St. Maries, Coeur d’Alene rivers, and other tributaries to Coeur d’Alene Lake. The location of potential habitat replacement activities in relation to the Project boundary will be established in order to determine management plan and implementation requirements as defined in 4(e) Condition 8.B.2 to 8.B.4 of Appendix D to the License.
Figure 2. Coeur d’Alene Lake and Spokane River (Post Falls HED) Project Boundary
6.2 Habitat Identification

A general investigation into the types of habitat available on a property is completed in order to identify the types of wetland and wildlife-related functions that are present. This will utilize readily available existing information and the use of existing Geographic Information System (GIS) databases. One of the largest benefits of GIS-based information is the ability to use existing data sets to remotely evaluate properties for their potential to possess valuable natural resources. Examples of potential information to review include the following:

- Historical aerial photographs
- Current aerial photographs
- NRCS soil maps
- National Wetland Inventory maps
- Information gathered from local natural resource professionals
- Information obtained from Tribal documents and personal accounts of the area
- Wildlife population data and distribution maps

Reviewing this information allows Avista and the Tribe to estimate the compositions and extents of different habitat types present. This information also assists Tribal and Avista staff in prioritizing properties for acquisition, aid in the development of management plans, and an estimate of potential habitat credits pursuant to section 8 of this Plan.

6.3 Identification of Liabilities

The initial effort includes a letter of intent, or other agreed upon method, which defines the interest of parties to the transaction. Once completed, and prior to a Purchase and Sale Agreement, Avista or the Tribe will order a preliminary title report and chain of title to identify conditions or circumstances that could represent a liability to Avista or the Tribe such as:

- Deed restrictions
- Existence of liens or past taxes due on a property
- Issues pertaining to legal property access or existing easements across the parcel
- Other encumbrances that may affect ownership

Additionally, any properties that are located downstream or in close proximity to known occurrences of hazardous waste should be evaluated for the presence of hazardous waste that would require formal remediation, mitigation, and clean up. The most common method for the identification of potential hazardous waste is the completion of a Phase I assessment by a qualified independent consultant. A full Phase I is not warranted until a research (part of which is the 50 year chain of title) and preliminary ground survey of potential occurrences is conducted. Should a Phase I be warranted and hazardous waste is found, the cost of cleanup may be cost prohibitive and other properties be sought for purchase.
6.4 Appraisal

Upon review of the preliminary title report, a Uniform Standards of Professional Appraisal Practice summary appraisal will be ordered for the property. The appraiser will be mutually selected by Avista and the Tribe. If an appraisal is required by the seller, then the appraiser is also subject to the seller’s approval. If a seller appraisal is required, the seller will share associated costs with Avista and the Tribe. The appraiser must meet the Federal Blue Book standards. The appraisal report will be provided to Avista and the Tribe, and the seller, where costs are shared.

6.5 Property Survey

A record of survey of the property boundary will be conducted in order to confirm management boundaries or settle disputes.

6.6 Property Acquisition / Management Right Acquisition

This section identifies the various legal methods to obtain properties for habitat replacement activities. The methods to achieve this are listed below in order of general preference.

6.6.1 Fee Title

“Fee title” means the type of ownership giving the owner the maximum interest in the land, entitling the owner to use the property in any manner consistent with federal, state, and local laws and ordinances.

6.6.2 Donation

Several land trusts and conservation groups have been successful in obtaining properties through charitable donations. Donations will be fee-title or perpetual easements, with appropriate tax benefits to be legally determined by, and the sole responsibility of, the seller.

6.6.3 Easements

An easement represents a legal right to use a portion of property owned by another individual. An easement is usually created through language in a deed or an easement agreement that is recorded with the County assessors’ office. Easements will “run with the land” meaning that they will continue to remain even when the property is bought or sold in the future. Any easement purchased with CDR funds must protect the site for the license term or the credited acres (see section 8) must be replaced. The easement must also include access and management clauses and appropriate revisionary clauses to insure management objectives are being accomplished. If an easement is reversed, then the acres will be replaced pursuant to condition 8.B.5 in Appendix D of the License.
6.6.4 Long-term Lease

A long-term lease or term agreement is a method that provides the ability to manage a property for a specified period. This period typically ranges from 20 to 50 years but any time frame agreeable to both parties can be established. This is the least preferred mechanism as it has a defined end-point that could impact any prior restoration efforts once the lease sunsets. Long-term leases should be pursued in perpetuity prior to negotiating leases that have a terminal end. Any long-term lease purchased with CDR Funds must protect the site for the license term or the acres replaced pursuant to condition 8.B.5 in Appendix D of the License when the lease expires.

6.6.5 Third Party Ownership

Third party ownership may be pursued if Avista and the Tribe agree, and if approved by Interior and FERC. This means fee-title or perpetual easements will be held by the third party. Non-profit organizations can often hold a property with less cost to both the seller and the purchaser with less tax burden. The transfer of title to an agency or third party is contingent upon the title being held in perpetuity for the purpose of meeting the goals and objectives of the management plan.

6.7 Project Prioritization

Properties for potential acquisition and subsequent preservation, restoration or enhancement will continue to be evaluated by the Tribe and Avista prior to purchase. Table 1 identifies evaluation criteria that will be used to prioritize potential properties/projects.

Table 1. Project Evaluation Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential projects consistent with management directions</td>
<td>Projects address management directions/objectives</td>
</tr>
<tr>
<td>Presence of hazardous materials</td>
<td>Property should not require formal hazardous material clean up operations</td>
</tr>
<tr>
<td>Ability to acquire fee-title lands or implement perpetual conservation easements</td>
<td>To ensure permanent protection, lands should be acquired by these two mechanisms</td>
</tr>
<tr>
<td>Availability of legal private or public access to the property</td>
<td>Access for operations and maintenance should be available</td>
</tr>
<tr>
<td>Projects that include multiple funding sources for acquisitions (cost-share) and restoration projects</td>
<td>Multiple funding sources preferred to maximize leverage of available funds</td>
</tr>
<tr>
<td><strong>Location of parcel within the Coeur d’Alene Reservation</strong></td>
<td><strong>Parcels within or contiguous with reservation boundaries are preferred</strong></td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Presence of existing habitats</strong></td>
<td><strong>Intact, diverse, and contiguous (wetlands, riparian or associated upland) habitats are preferred</strong></td>
</tr>
<tr>
<td><strong>Adjacency of other critical areas or habitats</strong></td>
<td><strong>Proximity to other non-threatened or perpetually protected natural resources are preferred</strong></td>
</tr>
<tr>
<td><strong>Total size of parcel(s)</strong></td>
<td><strong>Properties in excess of 100 acres or with no fragmentation are preferred</strong></td>
</tr>
<tr>
<td><strong>Acquisitions are within the Project Boundary</strong></td>
<td><strong>Preference for projects within the Project Boundary</strong></td>
</tr>
<tr>
<td><strong>Culturally significant areas and/or resources on or near the property</strong></td>
<td><strong>Preservation of culturally significant areas or resources are preferred</strong></td>
</tr>
<tr>
<td><strong>Cost of property per acre</strong></td>
<td><strong>Properties that are reasonably priced and available for the appraised value are preferred</strong></td>
</tr>
</tbody>
</table>

### 7.0 HABITAT ACREAGE REPLACEMENT ACTIVITIES

In addition to acquiring new acreage, habitat acreage replacement credits will continue to be generated through the completion of habitat restoration on existing controlled parcels. Specific habitat restoration measures (including restoration, enhancement, creation and preservation as appropriate) will be identified and evaluated as property management rights are secured or restoration opportunities on existing parcels are identified. During the term of the License it is anticipated that restoration priorities may shift as projects are completed and new information pertaining to watershed conditions becomes available.

Areas identified for crediting will be managed in a manner that promotes or maintains a properly functioning ecosystem in accordance with the intent of the license requirement. As such, a landowner agreement, easement, or Tribal resolution that preserves the acquisition or restoration site will be secured prior to implementing any restoration measure or receiving credit for the site. The agreement or easement will include access, management, and a reversionary clause to insure the landowner or managing entity supports the intent of the action or purchase for the License term and will include language that allows for the completion of management activities.
For the purpose of this Plan, potential projects will be divided into four basic categories: preservation, restoration, enhancement, and creation. These four categories are not mutually exclusive and any one particular project may include activities classified under each category.

### 7.1 Preservation

The term preservation is often used interchangeably with the term conservation. The focus of preservation efforts is to acquire and protect for at least the term of the License intact habitats and native wildlife. For the purpose of this Plan, the most likely candidates for preservation would be newly acquired habitats. Ideal candidates for preservation would include habitats that have not been degraded in the past or have naturally rebounded from past impacts.

Preservation can be carried out in several ways although the most prevalent method is to purchase the entire property outright (or purchase an easement over a portion of a larger parcel) and place the property under a conservation covenant that protects the land from future development. For properties under Tribal ownership, a Tribal resolution can be passed to commit to the project objectives in lieu of a formal conservation covenant running with the land. While preservation does not include management activities focused on restoring or enhancing natural resource functions, lands under preservation may require some amount of management. Management activities for preservation lands may include: routine monitoring for the presence and spread of invasive species, management of property access and utilization by the public, and monitoring of surrounding land use changes that may negatively affect the preservation area. A landowner agreement, easement, or Tribal resolution to ensure continued habitat function over the license term is required in advance of implementing preservation projects on private or Tribal lands.

#### 7.1.1 Preservation Examples

Examples of habitat types for potential preservation areas include the following:

- Intact tracts of mature forested riparian areas.
- Properly functioning wetlands dominated by native vegetation.
- Associated uplands that serve to protect and maintain wetland and riparian functions.

### 7.2 Restoration

Restoration is the return of a degraded habitat to a naturally functioning condition, or a condition as close to that as possible, by means of reinstating the fundamental processes that support or create natural habitat. Implicit in the restoration definition is the understanding that a non-functioning habitat will be returned to a natural, self sustaining and properly functioning condition.
Restoration activities can be further divided into passive and active restoration. Passive restoration is most appropriate when a system is not heavily degraded and the mechanisms for functional decline can be removed. An example of passive restoration would be the cessation of cattle grazing in wetlands or riparian areas to allow for native plant regeneration. Successful passive efforts in this example would require that the area contain remnants of native vegetation and be subject to natural hydrologic regimes. If these conditions are present, the site could be expected to rebound to a more natural condition without large amounts of management effort.

Active restoration typically requires more effort and involves directly controlling or altering site processes to achieve the desired goals. Active restoration examples include: grading areas to remove fill within wetlands, restoring natural hydrologic regimes within streams and wetlands, replanting native vegetation, and eradicating non-native vegetation. Ultimately, the decision of active or passive methods depends on the goals and objectives of the proposed project, funding, and acceptable time frames. A landowner agreement, easement, or Tribal resolution to ensure continued habitat function over the license term is required in advance of implementing restoration projects on private or Tribal lands. Areas that are restored will be managed consistent with the purpose of the restoration actions.

### 7.2.1 Restoration Examples

Examples of potential restoration projects include the following:

- Eliminating land use practices that degrade habitats
- Restoring hydrology in drained wetlands
- Re-connecting floodplains with stream channels
- Removal of water control structures/ drainage infrastructure
- Replanting of native vegetation communities
- Removal of toxic compounds

### 7.3 Enhancement

Enhancement measures are meant to increase the overall value or amount of functions that a particular habitat provides. Enhancement and restoration are often times used interchangeably as projects may contain both types of activities. Habitats suitable for enhancement measures should be self sustaining and contain the fundamental processes for the habitat to continue to function properly. A landowner agreement, easement, or Tribal resolution to ensure continued habitat function over the license term is required in advance of implementing enhancement projects on private or Tribal lands.

Potential habitat enhancement measures are designed to increase habitat suitability for a particular species or range of species. Enhancement measures can be as simple as native vegetation planting and seeding to the installation of complex in-stream habitat structures.
7.3.1 Enhancement Examples

Examples of potential enhancement projects include the following:

- Installation of native plant communities
- Creation/installation of terrestrial species habitat structure
- Grading of wetlands/floodplains to increase habitat complexity
- Inoculating rangeland habitats with cryptogrammic crust organisms
- Seeding of prairie habitats with native herbaceous vegetation
- Eradication of invasive species

7.4 Creation

Creation involves creating entirely new habitats where they did not exist historically. Creation activities can range from creating new wetland or riparian areas to the creation of new stream channels. Depending on the complexity of the system being created, this form of replacement may require the highest degree of planning efforts. Collection of necessary data and a careful examination of the physical processes that influence and sustain individual habitats are required when creation activities are being pursued. A landowner agreement, easement, or Tribal resolution to ensure continued habitat function over the license term is required in advance of implementing creation projects on private or Tribal lands.

7.4.1 Creation Examples

Examples of potential creation projects include the following:

- Creation of wetlands from upland habitats
- Creation of ponds and stream meanders
- Creation of riparian complexes

8.0 SITE MANAGEMENT PLANS

For sites within the Project boundary, Management Plans will be created within 18 months of acquisition as required in Appendix D, Section 8.B.3 of the License. Management Plans for sites outside the Project boundary will be optional, however the Licensee must demonstrate that any sites receiving credit towards the obligation of restoring or replacing at least 1,424 acres of equivalent in-kind emergent, scrub-shrub and or forested lands, riparian habitat and associated uplands will be maintained as such for the license term.

At a minimum, Management Plans will contain the following sections:
8.1 Existing Conditions

Management Plans contain information about the existing physical conditions of the property. The amount of detail within this section will be commensurate with the proposed habitat restoration measures. Information contained in this section may come from review of existing information or completion of specialized assessments by Avista and Tribal staff or professional consultants. Information contained in this section will include, but may not be limited to:

- Identified habitat types by acre.
- Existing vegetation communities and density assessments.
- Stream types by river miles and locations.
- Soil types and distributions.
- Known wildlife occurrences.
- Other information pertinent to the proposed activities.

8.2 Site Goals

Management Plans establish the goals and objectives for the site. The site goal is a broad statement that describes the desired outcome of all measures implemented at the site including the acreage of individual habitat types intended for crediting. The site goal will assist in determining which potential restoration measures are most appropriate.

8.3 Habitat Restoration Measures

Management Plans contain the details of the proposed restoration measures. The depth of information within this section will be dependent on the complexity of the proposed restoration measures. The Management Plan will include detailed plans for any active enhancement or restoration measure, schedules for implementation and if applicable, cost estimates for construction and maintenance over the life of the project and license term.

8.4 Objectives and Performance Standards

Objectives and performance standards developed for each restoration measure are based upon the site goals. Objectives for each restoration measure are necessary to determine whether the stated site goal has been achieved. Performance standards will include quantifiable components that can be measured during monitoring and maintenance activities to allow project managers to evaluate whether a particular objective is being met. Performance standards can vary from general standards (e.g., install 1,000’ of fencing) that only require periodic inspection to very specific measures (i.e. >80% of installed plants surviving at the end of 5-year monitoring period) that will require extensive monitoring efforts.
8.5 Operations and Maintenance

Operations and maintenance measures are developed for each site as appropriate and are included in the overall Management Plan. An important component of the operations and maintenance section of the Management Plan will include monitoring, which will help assure the success of a project and serve as a valuable planning tool for upcoming years. Review of monitoring data will allow managers to evaluate the need for adaptive management, identify which restoration measures succeeded or failed, and identify which measures were most cost effective. Monitoring activities will include data collection sufficient to determine if the performance standards and objectives of the Management Plan are being met. The Management Plan will also include provisions for ongoing access to the site.

8.6 Budget

The Management Plan contains budget estimates that take into account the proposed restoration measures, project monitoring, and contingencies for the implementation of adaptive management tasks. Cost estimates for project design, project implementation, and operations and maintenance are included with the Management Plan budgets.

8.7 Schedule

The Management Plan contains detailed timelines for key deliverables. The level of detail provided within the implementation schedule is dependent on the nature of the particular measures.

9.0 HABITAT ACREAGE REPLACEMENT ACCOUNTING

As specified by the License, Avista “shall receive credit” against the 1,424-acre requirement (revised from 1,368 acres) “for any land restored or acquired” pursuant to condition 8 “upon completion of any needed restoration activities on the acquired lands.” Once the appropriate property rights are acquired and a site-specific Management Plan is approved by Interior, Avista, in collaboration with the Tribe, shall propose to BIA the extent of credit, calculated on a 1:1 or acre-for-acre basis, requested for acquired or restored lands that meet the definitions set forth in Section 3.4 herein.

Upon acquisition of any fully functional wetlands, riparian habitats or associated uplands, upon completion of any needed restoration activities on restored or acquired lands, and following acquisition of a landowner agreement, easement, or Tribal resolution to ensure continued habitat function over the license term (see section 6 of this Plan), Avista shall receive credit for such lands. Receipt of credit shall not be contingent upon a showing that lands restored or acquired
are fully functional at the time BIA approves any credit. However, to maintain credits received, affected lands must become and continue to be functional, as defined in approved site-specific Management Plans, through the life of the License.

No credit against the 1,424-acre requirement shall be received for any lands restored or acquired unless such lands meet the definitions set forth in Section 3.4 herein. The 1,424-acre requirement is the minimum, with additional lands above that requirement being able to be restored or acquired if sufficient funds are available in the CDR Fund.

10.0 SUCCESS CRITERIA

The intent of this Plan is to achieve 1,424 acres of restoration/ replacement within 50 years of license issuance. Success will be determined by achieving specific wetland and/or riparian habitat project goals and/or performance standards, monitoring or survey results or other mutually agreed upon and appropriate criteria as established within the site-specific Management Plans. Acquired/restored lands will be maintained for the duration of the License in a manner consistent with the site-specific Management Plan(s) approved by the Interior.

Establishing success criteria will enable project staff to track the progress of each credited parcel to ensure that its specific management objectives are being met.

11.0 SCHEDULE

Avista and the Tribe will restore and/or replace at least 500 acres by 2015, an additional 500 acres by 2020, and the remaining 424 acres by 2025, pursuant to the procedures identified in this Plan, to achieve the goal of restoring and/or replacing a minimum of at least 1,424 acres of equivalent in-kind emergent, scrub/shrub and/or forested lands, riparian habitat and associated uplands. This schedule may be influenced by property availability and other factors that are beyond Avista’s and the Tribe’s control. In such cases, revisions to this schedule will be proposed in the Annual Implementation Reports, which are submitted to Interior and FERC on an annual basis for approval.

12.0 ANNUAL IMPLEMENTATION REPORT

In order to meet the annual reporting requirements, Avista and the Tribe collaboratively develop the required AIRs that are submitted to Interior and FERC by Avista. The AIRs contain the proposed goals, activities, schedules, budgets and management plans for the upcoming calendar year and an annual summary of tasks and achievements as they relate to implementing the Plan.
The following milestones will be included in the AIRs to document the status of achieving Program goals:

- Acreage targeted for acquisition/crediting
- Annual amount of acreage credited.
- Cumulative amount of acreage credited.
- Remaining amount of acreage to be credited.

13.0 PLAN REVIEW AND REVISION

Every five years, continuing for the term of the License, Avista and the Tribe will review and update the Plan as appropriate. Avista and the Tribe will implement the Plan upon Interior and FERC approval, recognizing that Interior reserves the right to require changes to this Plan at any time during the license term.
14.0 LITERATURE CITED


APPENDIX A

OTHER POTENTIAL FUNDING SOURCES
OTHER POTENTIAL FUNDING SOURCES (NOT LIMITED TO THE FOLLOWING)

- **U.S. Fish and Wildlife Service- North American Wetland Conservation Act (NAWCA).**
  The NAWCA was established in 1989 to fund restoration actions in the United States, Canada, and Mexico that benefit wetland-associated migratory birds and wildlife. There are two separate grant programs; the standard grant that funds projects in Canada, Mexico, and the United States, and the small grants program that funds only projects in the United States. NAWCA grant applications are submitted and reviewed by the U.S. Fish and Wildlife Service’s Division of Bird Habitat Conservation. Grant requests must be matched by partner contributions at no less than a 1:1 ratio. The standard grant does not have a fixed monetary limit, whereas the small grants program contributions are limited to $75,000 per grant. More information about the program can be found at: [http://www.fws.gov/birdhabitat/Grants/NAWCA/index.shtm](http://www.fws.gov/birdhabitat/Grants/NAWCA/index.shtm)

- **U.S. Environmental Protection Agency (EPA) Natural Resource Damages (NRD) program.**
  The NRD is a subset of the Federal Super Fund program. The fund was established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The general purpose of the program is to help fund restoration of natural resources that have been negatively affected by improper use or disposal of hazardous materials. Under CERCLA, trustees (in this case, the Tribe) can avail of funds to help mitigate for hazardous waste impacts on natural resources. The program requires close coordination between the Tribe and EPA during the discovery, assessment, and remediation of a superfund site. Monies recovered from the polluter(s) can be channeled to the trustees through the NRD program for the purpose of natural resource enhancement/restoration. More information about the NRD program can be obtained at: [http://www.epa.gov/superfund/programs/nrd/](http://www.epa.gov/superfund/programs/nrd/)

- **U.S. Fish and Wildlife Service- Partners for Fish and Wildlife Program.**
  The Partners for Fish and Wildlife Program is designed to assist private and tribal landowners who want to voluntarily improve fish, wildlife and plant habitat on their lands. The program provides cost-share funding and technical expertise to interested parties. The program requires that a cooperative agreement between the service and interested party is developed that will last a period of at least 10 years. Although there is a degree of flexibility, the program typically requires at least a 50% cost-share with the interested party. More information concerning the program within the state of Idaho can be obtained here: [http://www.fws.gov/idaho/Landowners.htm](http://www.fws.gov/idaho/Landowners.htm)
o U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) - Wetland Reserve Program

The Wetlands Reserve Program is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. The USDA Natural Resources Conservation Service (NRCS) provides technical and financial support to help landowners with their wetland restoration efforts. The program offers three enrollment options:

(1) A Permanent Easement is a conservation easement in perpetuity. USDA pays 100 percent of the easement value and up to 100 percent of the restoration costs; (2) a 30-Year Easement is an easement that expires after 30 years. USDA pays up to 75 percent of the easement value and up to 75 percent of the restoration costs; and (3) a Restoration Cost-Share Agreement is an agreement to restore or enhance the wetland functions and values without placing an easement on the enrolled acres. USDA pays up to 75 percent of the restoration costs. Information on the WRP can be found at: http://www.id.nrcs.usda.gov/programs/wrp/index.html

o Columbia River Basin Fish and Wildlife Program Funds

The Northwest Power and Conservation Council (Council) was authorized in the Northwest Power Act of 1980 and is funded by wholesale power revenues generated by the Bonneville Power Administration (BPA). One of the principal goals of the Council is to assist in the protection and rehabilitation of fish and wildlife resources that are impacted by the continued operation of hydroelectric dams on the Columbia River and its tributaries. The Council reviews and recommends funding of a wide range of projects that are consistent with the Council’s wildlife mitigation goals and objectives. Target species, priority habitats, and subbasin mitigation goals and objectives are summarized within individual subbasin plans. These plans are developed through extensive coordination of various stakeholders, state and federal agencies, and the general public. Funding for tribal-identified property acquisitions and restoration/enhancement projects that will benefit fish and wildlife and are consistent with the Council’s goals and objectives should be sought.

o Donation / Grants

Private landowners familiar with Avista and the Tribe’s restoration efforts may choose to donate parcels or easements on parcels for the purpose of completing mitigation activities. One potential advantage for donors is a reduction in property taxes. Depending on the current tax classification of the property, conservation lands can likely be recorded as agricultural or timberland and be taxed at a much lower rate than prime developable land.
August 4, 2015

Stanley M. Speaks, Regional Director
Bureau of Indian Affairs
911 NE 11th Avenue, Suite 2
Portland, OR 97232

Subject: Spokane River Hydroelectric Project, FERC Project No. 2545
Revised Coeur d’Alene Indian Reservation Wetland and Riparian Habitat Plan, a Requirement of License Ordering Paragraph G, Appendix D, Condition No. 8

Dear Mr. Speaks:

Appendix D, Condition No. 8 of Avista’s Federal Energy Regulatory Commission (FERC) Spokane River Hydroelectric Project (FERC No. 2545) required Avista to develop, in collaboration with the Coeur d’Alene Tribe (Tribe), and submit a Coeur d’Alene Indian Reservation Wetland and Riparian Habitat Plan (Plan) to the Secretary of Interior (Interior) and FERC for approval. Interior and FERC approved the Plan in 2010, which Avista and the Tribe have been implementing.

One of the requirements of the approved Plan is that Avista and the Tribe review and update it, if necessary, every five years. Avista and the Tribe have found it necessary to update the Plan; based on the Tribal Council’s Resolution CDA 164-2013, and the 2014 Interior and FERC approved Erosion Control Implementation Plan (ECIP). Upon Interior’s and FERC’s approval of the ECIP Avista is required to preserve, enhance or restore an additional 56 acres (the equivalent of 63,130 feet of linear footage along the Lower St. Joe River) under this Plan, in lieu of implementing erosion control measures on the Lower St. Joe River. This requirement increased the total acreage to be preserved, enhanced or restored under the Plan from 1,368 to 1,424 acres.

With this, we have enclosed the updated Plan, which was developed collaboratively with the Tribe, for your review and approval. We would appreciate your review by September 4, 2015, which will allow us time to incorporate any comments that you may have before we submit it to FERC for approval. Upon FERC’s approval we will begin implementing the Plan in cooperation with the Tribe.

If you have any questions please feel free to call me at (509) 495-4998.

Sincerely,

[Signature]

Elvin “Speed” Fitzmigh
Spokane River License Manager

Enclosure

cc: Bob Dach, BIA Portland
Phillip Cernera, Coeur d’Alene Tribe
United States Department of the Interior
Bureau of Indian Affairs
Northwest Regional Office
911 NE 11th Avenue
Portland, Oregon 97232-4169

SEP 02 2015

Elvin “Speed” Fitzhugh
Spokane River License Manager
Avista Corporation
1141 East Mission Avenue
Spokane, Washington 99220-3727

RE: Approval of 2015 Updates to the Coeur D’Alene Reservation Wetland and Riparian Habitat Plan, 4(e) Condition No. 8, Spokane River Project, FERC No. 2545

Dear Mr. Fitzhugh:

Thank you for providing us with your August 4, 2015 letter and proposed updates to the Coeur D’Alene Reservation Wetland and Riparian Habitat Plan (Plan). Pursuant to the original Plan, approved by the Bureau of Indian Affairs (BIA) in 2010, Avista Corporation (Avista) and the Coeur D’Alene Tribe (Tribe) are to review and update the Plan as necessary every five years. The BIA, through the Secretary of the Interior, reserved the authority to approve Plan updates.

In your review, you determined that Plan updates were required to address the additional 56 acres being added to the initial 1,368 acre requirement. The additional acreage (the equivalent of 63,180 feet of linear footage along the Lower St. Joe River) was added to the Plan to address modifications to the Erosion Control Implementation Plan (ECIP). In 2014, the Coeur D’Alene Tribe (Tribe) elected to forgo bank stabilization measures along the Lower St. Joe River, as required by the ECIP, due to cost concerns and the likelihood that the proposed measures would not be successful. In the alternative, the Tribe and Avista agreed to acquire, preserve, enhance or restore an additional 56 acres of wetland and riparian habitats, for a Plan total of 1,424 acres.

In addition to adding 56 acres, Avista has proposed editorial revisions throughout the Plan document. After reviewing the proposed editorial revisions, and suggesting certain modifications, we have determined that the edits do not modify the substance of the Plan or 4(e) Condition No. 8. As such, substantive modifications to the Plan are limited to the additional acreage.
Thank you for your efforts to implement the 4(e) Agreement. Pursuant to 4(e) Condition 10, I approve the 2015 updates. If we can be of any further assistance, please contact Bob Dach, Hydropower Program Manager at (503) 231-6711 or robert.dach@bia.gov.

Sincerely,

GREGORY A. NORTON

ACTING Northwest Regional Director

cc: Chairman, Coeur d’Alene Tribal Council
Secretary, Federal Energy Regulatory Commission (electronic submission)