EAGLE BEND PRESERVE BASELINE DOCUMENTATION REPORT



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Eagle Bend Preserve Baseline Documentation Report

I. Purpose of Report

The purpose of this Baseline Documentation Report is to provide an accurate record of the condition of the approximately 40.33 acres conservation property conveyed from William and Josephine Boone to the Kittitas Conservation Trust. BPA funded the fee title acquisition of the property on behalf of Kittitas Conservation Trust (KCT). KCT (grantor) conveyed a conservation easement to the United States of America acting by and through the Bonneville Power Administration (BPA or Grantee) to ensure permanent protection of conservation values for which the property was purchased. The property is located on the mainstem Yakima River (~RM 180) to the east of the City of Cle Elum, State of Washington. Elements reported include significant conservation features, current land usage (including adjoining lands), human-made structures, improvements and alterations of the natural environment, and current legal encumbrances. The information in this report will provide visual and descriptive information that will be used in monitoring the terms of the conservation easement granted to BPA, including site visits, aerial photos, and meetings with owners. Photo documentation of the current condition of the property is included as Appendix A to this report.

Easement Grantor and fee title holder: Kittitas Conservation Trust

Easement Grantee: The United States of America

Acquiring federal agency:
US Department of Energy, Bonneville Power Administration

II. Property Description

The property has been owned by William W. and Josephine M. Boone since 1982. It is vacant land. The property consists of five tax parcels adding up to 40.33 acres. The Property is located off of McDonald Road about 1200 feet Southeast of Cle Elum, WA. The property is of irregular shape, with general level ground, containing native grasses, brush and some trees. The north boundary is the Yakima River, with about 1980 feet of frontage, and there is a large pond of varying size, usually about 9.5 - 12 acres and a small pond of 1 acre on the property. The property site is level with moderate sloping along the I-90 right of way. The elevation varies from 1860 feet at the surface of the 12 acre pond to 1900 feet at the south end. The property is bordered on the southwest by Interstate 90. Access is by public road located along the southeastern portion of the property where rural electric and phone are located. There are designated floodplains and wetlands present.

BPA is funding the fee acquisition of this property for KCT to mitigate for impacts to wetlands caused by one of its groundwater wells associated with the Cle Elum Supplementation and Research Facility hatchery. BPA and the Department of Ecology agreed that the protection of the Eagle Bend property will satisfy BPA's obligations for mitigation. The Eagle Bend Wetland Mitigation Plan is attached hereto as Appendix F.

A. Legal Description

There are five parcels being conveyed and described within this baseline documentation report:

Kittitas County Parcel #	Kittitas County Parcel Map #
365135	20-16-31030-0004
385135	20-16-31030-0009
20473	20-16-31030-0022
20474	20-16-31030-0023
20475	20-16-31030-0024

For a complete legal description, see Appendix B. Legal Description.

B. Physical Description

The property is approximately 40.33 acres in size. Primary features include two 1960's constructed ponds, associated wetlands and side channels, and a small riparian forest. It is bordered on the north by the Yakima River (the larger pond is mostly separated from the river by a constructed berm, with a small channel connecting the pond to the river), to the east by McDonald Road, to the west by Interstate 90 and to the west by land owned by the city of Cle Elum.

There are no water rights or wells associated with the property.

Electrical power and telephone service runs along the road of the east border of the property. There is a utility pole that extends into the property with what appears to be an end of the line and was installed to support potential future development of the property. It appears that the line terminates at the pole and there was never any development that occurred to require this need. This line and pole was installed prior to the ownership of the current landowner. (See appendix map for detail of location)

There is existing irrigation infrastructure on this property that supports the return flow from a lateral of Kittitas Reclamation District's lateral ditch to the Yakima River. There is also a diversion structure, open ditch, headworks, and pipe that feed off this to support irrigation needs of adjacent property owners assessed through KRD and are located to the North of Interstate 90 (see appendix map for detail of locations and photo documentation for detailed documentation of current conditions of infrastructure).

III. Location of the Property

The property is located off exit 84 off of I-90 on McDonald Road, off Lower Peoh Point Road in unincorporated Kittitas County, near Cle Elum, Washington.

Access. The property can be accessed off of McDonald Road, which is a public, paved two lane county maintained road. Access to the property can be found at two locations. The southeasterly access has a gate that opens to a short maintenance road that provides access to the existing irrigation infrastructure mentioned in the Physical Description (see map(s) in appendix D for locations and details). There is also a gate located on the northeastern end of the property off of McDonald Road that opens to the east/northeast berm and edge of the larger pond on the property. This was most recently used as the access point for coho supplementation experiment that was attempted by the Yakama Nation about a decade ago and mentioned later in this report.

IV. Significant Features of the Property

A. Conservation Values

The property comprises approximately 40.33 acres which includes Yakima River floodplain, historic side channels, riparian forest, approximately 25.86 acres of Category I/II riverine wetlands, and off-channel aquatic habitat important to fish and wildlife, including ESA listed fish species. While many of the aquatic features, specifically the two ponds, are artificial in nature, the property provides year-round habitat for a variety of wildlife species, refugia and foraging habitat for juvenile salmonids, and side channel and backwater habitat for migrating salmonids. A bald eagle nest is located south of the smaller pond, though no eagles were present during the site visits for this baseline report. Mallard and Merganser ducks were observed in both the large and small ponds. In addition, the wetlands provide habitat for great blue heron.

Wetlands

The 25.86 acres of riverine wetland is considered a Category I wetland based on the Wetland Rating System for Eastern Washington (Hruby, 2014) as delineated in 2016 by the Yakama Nation for BPA (Clayton, 2016). The Category I rating was given due to the stands of Aspen found within its bounds and is recognized as an important intersection of two different priority habitats (aspen and wetlands) and provide a diverse assemblage of species and habitat value. The wetlands also support life histories of a diverse array of other migratory waterfowl and wetland species including great blue heron and Columbia spotted frog.

Floodplain

The property lies largely in the floodplain of the Yakima River and includes side channels, back channels, and intermittent streams that serve as winter and summer refuges, as well as spawning and rearing habitat for several native salmonids including spring/summer Chinook, coho, Mid-Columbia Steelhead, rainbow trout, and bull trout. The property also potentially provides suitable habitat for other important species including Pacific lamprey and west slope cutthroat trout.

• Floodplain/Riverine Forests

The upland riparian habitat within the property is dominated by ponderosa pine and balsam popular with an understory of composed largely of common snowberry, nootka rose, and Oregon grape. The property is a part of a biodiversity corridor connections the priority habitats of the Yakima River within the City of Cle Elum. This supports a diverse array of mammals and bird species including deer, elk, black bear, and bald eagle and is in the range of other Washington Department of Fish and Wildlife priority species including sharp-tailed snakes and gray wolves.

B. Topography

The property topography is largely the result of historic gravel mining that created the larger pond. An earthen berm/impoundment separates the larger pond from the Yakima River along the northern boundary of the property. The depth of water in the pond varies seasonally, to a maximum of approximately 4-5 feet during artificial high flow of the Yakima River in July-August (See Appendix C. Wetland Delineation Report). There is a smaller pond located west of the larger pond, that is seasonally connected to both the larger pond and the Yakima River via relict side channels and a

small wetland area. Historic information on this pond is lacking, but it is probable that it was also an area excavated during the construction of the interstate.

C. Soils and Geology

Three primary soil types are found on this property. Approximately 22 acres, generally northwest of the larger of the two ponds, are predominantly Xerofluvents. Seven acres, directly south of the larger pond, are Patnish-Mippon-Myzel complex soils. The three acres directly south of this are predominantly Quicksell loam. The large pond covers approximately 12 acres, while the smaller pond in the western area of the property covers approximately one acre. The property is devoid of large erratics and other rocky areas. (Source: https://websoilsurvey.sc.egov.usda.gov).

D. Hydrology

A Wetland Delineation Report was completed by the Yakama Nation in August 2016, identifying the wetland area on the property as Category I/II under the Washington State Wetland Rating System for Eastern Washington. Hydrologic indicators examined for this determination include surface water, high water table, ground saturation, hydric soils, and hydrophytic vegetation. See Appendix C. Wetland Delineation Report for additional information on the categorized wetlands. The larger pond is connected to the Yakima River by a small channel at the western end of the constructed berm along the northern property boundary, but only seasonally during artificially high river flow. Two small in-flow/outflow culverts running under McDonald Road deliver/remove water from the property. There is also a larger in-flow irrigation structure and ditch on the southern boundary of the property that supports the Kittitas Reclamation District (KRD) irrigation infrastructure and provides return flow to the Yakima River, through the property and larger pond. The lateral begins at the West Side Canal along Upper Peoh Point and running north to the Yakima River. There is a diversion at the terminus of KRD's lateral that has the headwork's diversion, ditch, and debris screen that runs for about 200' and flows into a pipe on the property that flows east under McDonald Road and services additional water users that pay assessments to KRD to the north of I-90 and to the east of McDonald Road. At the time of the report, the structure appears to be owned by the State of Washington (see title document recorded under Vol. 114 page 512 of Deed records, Kittitas County, Wa., and maintained by the adjacent water users who are serviced by the irrigation ditch. It is thought that the US Bureau of Reclamation funded the construction of the outflow and diversion ditch around the time of the last improvements to the adjacent I-90 and an easement for this infrastructure was acquired by Washington State on (Feb. 24th, 1963, Book 114 of Deeds, Page 512, Instrument # 310708). KCT will work to discover who or whom currently have the right to access the site for maintenance and operations but this is unknown at the time of the writing of the baseline report. There is a benefit provided to the wetland habitats by the return flow provided through the property from the KRD lateral. During August there was over 4 cfs of flow that was entering a open channel from is structures and spreads out to support a broad riparian and wetland habitats that are some of the main reasons for the documented for protection of conservation values. KCT will continue to work with KRD to see if there are ways to provide additional benefits through flow manipulation at the lateral, particularly at base flow conditions, to further support the conservation values and fish use of the property.

E. Habitat Types

Habitat types on the property include excavated palustrine emergent wetland, excavated palustrine aquatic bed, riverine floodplain, riparian forest, historic side channels, and off-channel aquatic habitat.

G. Flora and Fauna

Fauna

Western osprey (Pandion hailiaetus)
Red-winged blackbird (Agelaius phoeniceus)
Mule deer (Odocoileus hemionus)
Stellar's jay (Cyanocitta stelleri)
Black-capped chickadee (Poecile attricapillus)
American robin (Turdus migratorius)
Mallard (Anas platyrhynchos)

Flora

Trees

Ponderosa pine (Pinus ponderosa)
Scouler's willow (Salix scouleriana)
Narrow-leaf willow (Salix exigua)
Big-leaf maple (Acer macrophyllum)
Balsam popular/black cottonwood (Populus balsamifera/trichocarpa)
Sitka alder (Alnus sinuate)
Common chokecherry (Prunus virginiana)
Quaking aspen (Populus tremuloides)
Wild plum (Prunus americana)
Black hawthorn (Crataegus douglasii)

Shrubs

Common snowberry (Symphoricarpus albus)
Woods' rose (Rosa woodsii)
Thimbleberry (Rubus parviflora)
Red-osier dogwood (Cornus sericea)
Black twinberry (Lonicera involucrate)
Saskatoon serviceberry (Amelanchier ainfolia)
Bitterbrush (Purshia tridentata)

Herbs Common yellow lake sedge (Carex utriculata) Water sedge (Carex aquatilis) Reed canary grass (Phalaris arundinaceae)-Noxious weed Pointed rush (Juncus oxymeris) Inland sedge (Carex interior) Awl-fruited sedge (Carex stipata) Lakeshore sedge (Carex lenticularis) Geyer's sedge (Carex geyeri) Skunk cabbage (Symplocarpus foetidus) Common cattail (Typha latifolia) Tufted hair grass (Deschampsia cespitosa) Silver wormwood (Artemisia ludoviciana) Creeping Oregon grape (Mahonia repens) Kentucky bluegrass (Poa pratensis) Fragrant bedstraw (Galium triflorum) Pacific starflower (Trientalis latifolia)

False Solomon's seal (Maianthemum stellatum)

Mountain sweet cicely (Osmorhiza berteroi)

Blue wild rye (Elymus glaucus)

American vetch (Vicia americana)

Common horsetail (Equisetum arvense)

Dalmatian toadflax (Linaria dalmatica)

Ox-eye daisy (Leucanthemum vulgare)-Noxious weed

Orange honeysuckle (Lonicera cilosa)

Bentgrass (Agrostis sp.)

Giant blue-eyed Mary (Collinsia grandiflora)

Common yarrow (Achillea millifolium)

Diffuse knapweed (Centaurea diffusa)-Noxious weed

Spotted knapweed (Centaurea maculosa)-Noxious weed

Bulbous bluegrass (Poa bulbosa)

Dandelion (Taraxacum officianale)

Douglas aster (Aster subspicatus)

Arrowleaf balsamroot (Balsamorhiza sagittata)

Stinging nettle (Urtica dioica)

St. John's wort (Hypericum perforatum)-Noxious weed

Canada thistle (Cirsium arvense)

H. Rare Species Occurrences or Habitat

While not observed on the property during the site visits for this baseline report, the property provides critical habitat for several listed fish species, including spring/summer Chinook (Oncorhynchus tshawytscha), coho (Oncorynchus kisutch), summer steelhead (Oncorynchus mykiss), and bull trout (Salvelinus confluentus).

I. Invasive Weeds

There are several listed noxious weeds occurring on the property, including spotted and diffuse knapweed, Dalmatian toadflax, oxeye daisy, St. John's wort, Canada thistle, and reed canarygrass. All but reed canarygrass are found on the exposed upland areas and are relatively minor occurrences that can be easily managed. Reed canarygrass is dense along the entire edge of the larger pond, and scattered throughout the wetland area between the two ponds. This infestation is a major contributing factor to the degraded condition of the pond and wetland habitat—managing it will be both a significant challenge and a critical element in improving the ecological function of the ponds and wetland.

V. Land Use

A. Historic Land Use

While the property is naturally occurring Yakima River floodplain, significant alterations occurred during the 1960s. The large pond on the property, and its most dominant feature, was excavated as a gravel/borrow pit during the construction of Interstate 90. When excavation activities ceased, the pit was allowed to fill with water, becoming the pond as it is today. The Boone family purchased the property in 1982, wanting to ensure the property remained in a largely natural state. They undertook several habitat enhancement projects. They designated the property as a Tree Farm around the year 2000, hoping to create more shading around the ponds. Several attempts were made to plant Ponderosa pines, with limited success. From 2008-2013, the Boones also worked with biologists from the Yakama Nation to use the ponds as acclimation sites for coho parr. Due extremely low fish

survival this activity was discontinued in 2013. It is thought that the way the ponds were excavated, lack of suitable cover from predators, and degraded wetland conditions were all contributing factors to the near 0% coho parr survival rate.

B. Current Land Use

The property is considered conservation land by the Boone family, who have kept it protected and intact since their purchase. They allowed very limited waterfowl hunting on the land (and intended to end even this) and passive recreation (hiking, birding, etc).

C. Zoning

The property is zoned Rural 5, and Rural 5 Forest and Range.

D. Subdivision and density

Subdivision of the property will be prohibited by the conservation easement held by BPA as part of this acquisition.

E. Designated wetlands or critical areas

There is a Category I/II wetland designated on the property. For more information, see Appendix C. Wetland Delineation Report.

E. Water use and rights

There are no water rights associated with the property. In developing this report, KRD researched the history and potential responsibility for the irrigation structure located along the south boundary, as well as the water it carries. Water flows from the north under I-90 into a headworks structure that laterals to the east in an open ditch, then into an underground pipe to support irrigation needs from adjacent property owners paying assessments to KRD for water use. The remaining flow through the main lateral is then the terminus of KRD's lateral and is the point for return flow to the Yakima River through and open channel and the larger pond on the property. KRD does not claim ownership or operate the structure just above the outfall of the ditch as shown on the map in the appendix. It appears that the State of Washington acquired an easement to the irrigation ditch as recorded under Volume 114 Page 152 records of Kittitas County. The structure was constructed around the time of the I-90 improvements to the area (early 1960's). Some of the infrastructure appears to have been installed around or shortly after the easement date listed and is constructed out of concrete either poured in place or poured offsite or installed at the site. The ditch that services adjacent property owners for irrigation purposes looks older and consists of an open ditch approximately 250 feet in length before heading through a control gate and screen as it goes subsurface into a pipe as it crosses McDonald Road and into adjacent private property to the east. KCT is dedicated to determine who has the right to maintain and operate the infrastructure to ensure that no harm will occur to the conservation values in the near future, but could not complete this research at the time of this baseline report. Once this information is obtained, KCT will attach it to this document and other monitoring materials and update periodically as a part of its monitoring obligations.

F. Archaeological features

There are no known archaeological features on the subject property.

VI. Improvements and Disturbances

A. Buildings and Structures

There are no buildings on the property. There is an old derelict duck blind, as well as part of an old hunting tree stand on the north side of the large pond, along the berm separating the pond from the Yakima River. Near the southeast comer of the property, there is an old irrigation paddle/weed wheel, quite rusty and non-functioning. There is also a larger in-flow irrigation structure on the southern boundary of the property that appears to be a KRD irrigation structure, beginning at the West Side Canal along Upper Peoh Point and running north to the Yakima River.. KCT will continue to work closely with KRD on this research and water rights available to adjacent landowners to ensure that conservation values are protected when maintenance and improvements are sought for this infrastructure as previously mentioned in Section E. Water use and rights.

B. Roads and Trails

There are no formal roads on the property, and one clear trail leading from the gate at the northeast corner of the property along the berm bordering the Yakima River to the channel connecting the river to the large pond. Several seasonal game trails can also be found across the property. There is also an old two-track road near the south boundary that appears to have been the access for the culvert/irrigation structures along this boundary. Please refer to the map(s) in appendix D for detailed locations.

C. Fences, Gates, and Walls

There is fencing along the eastern property boundary (separating the property from McDonald Road), and along the southern boundary (separating the property from Interstate 90). The fencing consists of steel wire and posts with an average height of approximately 4'-5'. Both are largely in good repair with a few compromised areas on which trees/vegetation are resting, and one small area on the southeastern corner where it appears the fencing has been intentionally removed, perhaps by the neighboring private landowner. Three gates are installed along the eastern boundary fence, two at the northeast end of the property and one at the southeast end, all in good repair. There are no other fences, gates, or walls on the property.

D. Powerlines, Pipelines and Utilities

Above-ground utility lines run along approximately one-third of northeastern property boundary to the house that borders the property along at the northeast corner. These lines bend to the southwest at their southern-most point and appear to dead-end within the dense vegetation of the property. Please refer to the map(s) in appendix D for detailed locations.

E. Agricultural

There are no current agricultural practices within the subject property.

F. Fill, excavation, ditches, ponds or impoundments

The property is largely a constructed artifact of the building of Interstate 90. The large pond was excavated as a gravel/borrow pit, while the berm separating the large pond from the Yakima River is likely also a part of this construction. A constructed channel connects the large pond to the Yakima River. There are two culverts/drainages running from the large pond, under McDonald Road onto the neighboring property. There is also a larger in-flow irrigation structure and ditch on the southern boundary of the property that appears to be a KRD irrigation structure, beginning at the West Side Canal along Upper Peoh Point and running north to the Yakima River. At the time of this report, KRD was researching their history and potential responsibility for this structure and the water it carries. KCT will continue to work with KRD, BPA, and the State of Washington to determine who has easement rights to maintain and operate this irrigation infrastructure to ensure that preservation

of conservation values found on the property are priority as such activities are planned and implemented.

G. Other improvements or disturbances

There are no other improvements or disturbances on the property.

VII. Current Encumbrances:

There are several current encumbrances on the property, including power, telecommunications, road, irrigation infrastructure easements- In addition, as part of this property acquisition, Bonneville Power Administration (BPA) will hold a conservation easement on the property to ensure it remains in protected conservation status in perpetuity. A list of current encumbrances can be found in Appendix E of this document and also in the Conservation Easement granted to BPA from KCT and in the Warranty Deed.

VIII. Adjoining Lands:

A. Potential for Encroachment or Disturbance

There are several areas of minor concern regarding encroachment or disturbance to the property. The property fronts along McDonald Road, with private property on the northern and southern ends of this eastern boundary line. While good fencing exists along the northern area, the southern end of the eastern boundary appears to have been intentionally removed. The western property boundary with City of Cle Elum land is not fenced or marked in any way. The property also borders the Yakima River, but the riverbank in this area is not conducive to river travelers stopping to access the property.

Acknowledgement of Property Condition

The undersigned hereby acknowledge and agree that the Baseline Documentation Report for the Boone Property in Kittitas County, Washington, prepared by Lisa Younger, Consulting Ecologist for Kittitas Conservation Trust and dated September 2019, is an accurate representation of the biological, physical and historical conditions of the subject property as of the Effective Date of the Conservation Easement. All of the undersigned parties have received copies of the Baseline Documentation and is on file with the Bonneville Power Administration.

Grantor: Kittitas Conservation Trust

By: Mitchell Long

Its: Executive Director Kittitas Conservation Trust 12/29/19 Date

Bonneville Power Administration:

Heidi Haserot Realty Specialist

Bonneville Power Administration

12/24/2019 Date