



Wetland Program Plan

2011 - 2017

Kalispel Natural Resources Department

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Revised 2011

submitted to

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Introduction

The Kalispel Natural Resources Department wetland program goal is to protect, enhance and/or restore wetland/riparian habitats throughout Kalispel ceded lands as opportunities and funding allows. We will continue to focus on two main program core elements which are 1) wetland monitoring and assessment and 2) voluntary wetland restoration/protection. Both core elements will be implemented in an ongoing basis as opportunity and funding allows.

The Kalispel Reservation is about 4,600 acres in size and occupies a ten-mile stretch along the banks and floodplain of the Pend Oreille River in northeast Washington. Kalispel aboriginal land encompassed the lower two-thirds of the Clark Fork/Pend Oreille River drainage. This area included the lower Pend Oreille River in Washington, the Priest and Lake Pend Oreille drainages in north Idaho, and the lower Clark Fork in western Montana and north Idaho (Fig. 1). The Reservation is surrounded by the Calispell-Cusick Valley that has more than 20,000 acres of significantly modified wetlands that have been ditched and diked since the early 1900s. The Bonneville Power Administration (BPA) has funded purchase of mitigation lands for wildlife resource losses caused by Columbia Basin hydropower projects. The Kalispel's mitigation property totals about 4,000 acres, of which, about 2,800 acres consist of meadow and emergent wetlands with another 350 acres of forest and shrub riparian areas (Figure 2).

The Kalispel Natural Resources Department began active wetland restoration and assessment activities in 1993 and has continued to implement wetland restoration projects as financial resources allow.

Wetland Monitoring and Assessment (ongoing 2011 - 2016)

The Kalispel Tribe currently conducts, and intends to continue, a monitoring and assessment program of wetland and other habitat which has evolved from a monitoring and evaluation plan developed in 2001 by an interagency workgroup for mitigation of the Albeni Falls hydropower project. An updated monitoring and evaluation program was regionalized in 2008 and is being cooperatively conducted by the five-tribe consortium known as Upper Columbia United Tribes (UCUT) in association with Eastern Washington University.

The UCUT Wildlife Monitoring and Evaluation Program (UWMEP) establishes a regional monitoring and evaluation design for quantitatively characterizing direction and magnitude of changes in habitat and wildlife populations over several habitat types including wetland/riparian habitat within the BPA mitigated lands of the Upper Columbia Basin (Hallett *et al.*, 2009). The Kalispel mitigation/restoration lands are comprised of about 70% percent wetland and 10% riparian habitat representative of the predominant habitat lost from Kalispel ceded lands. The UWMEP design has been reviewed and endorsed by the Independent Scientific Review Panel (ISRP) of the Northwest Power and Conservation Council for UCUT and is funded under BPA's Columbia Basin Fish and Wildlife Program.

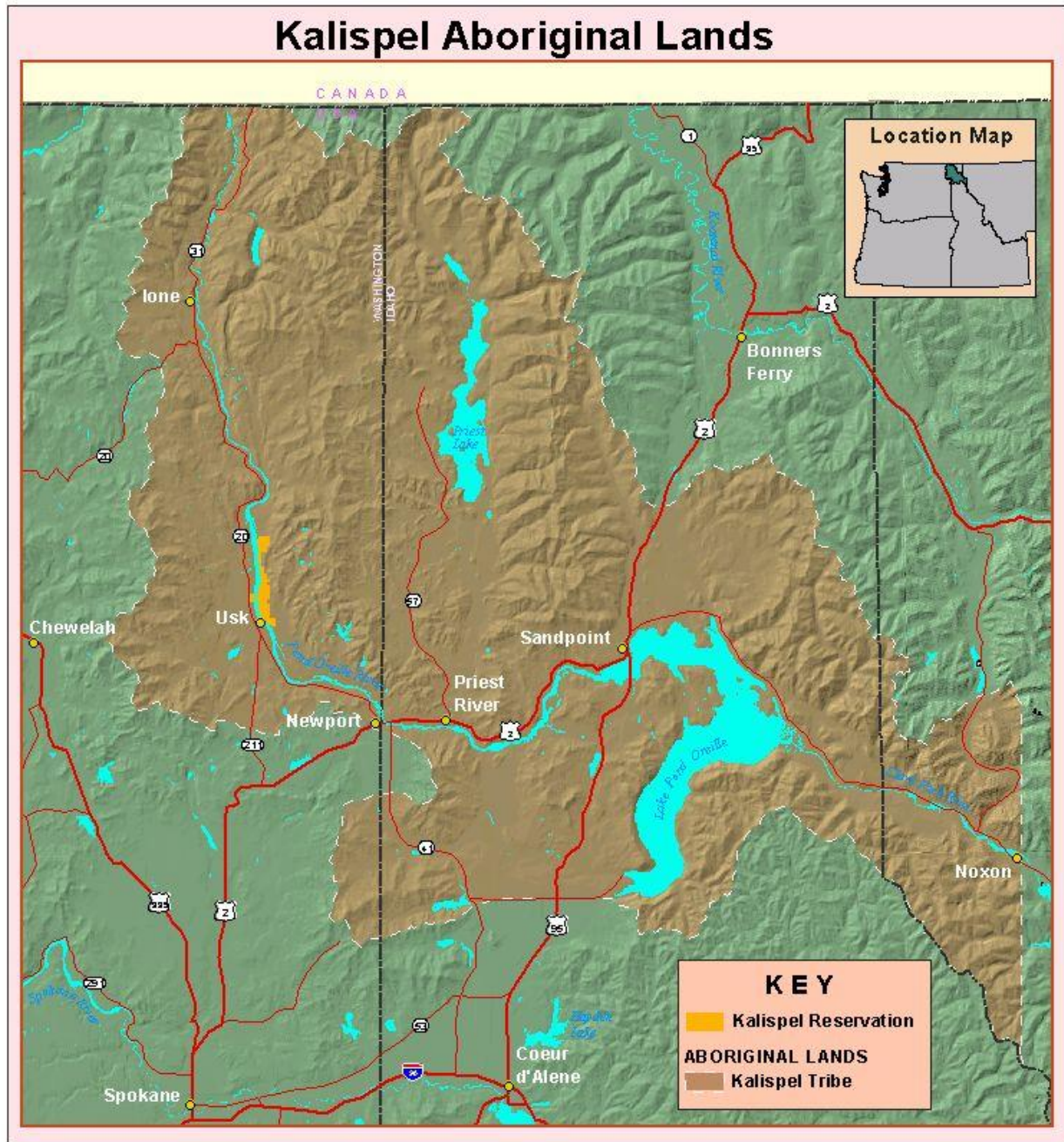


Figure 1. Kalispel Reservation boundary and ceded lands.

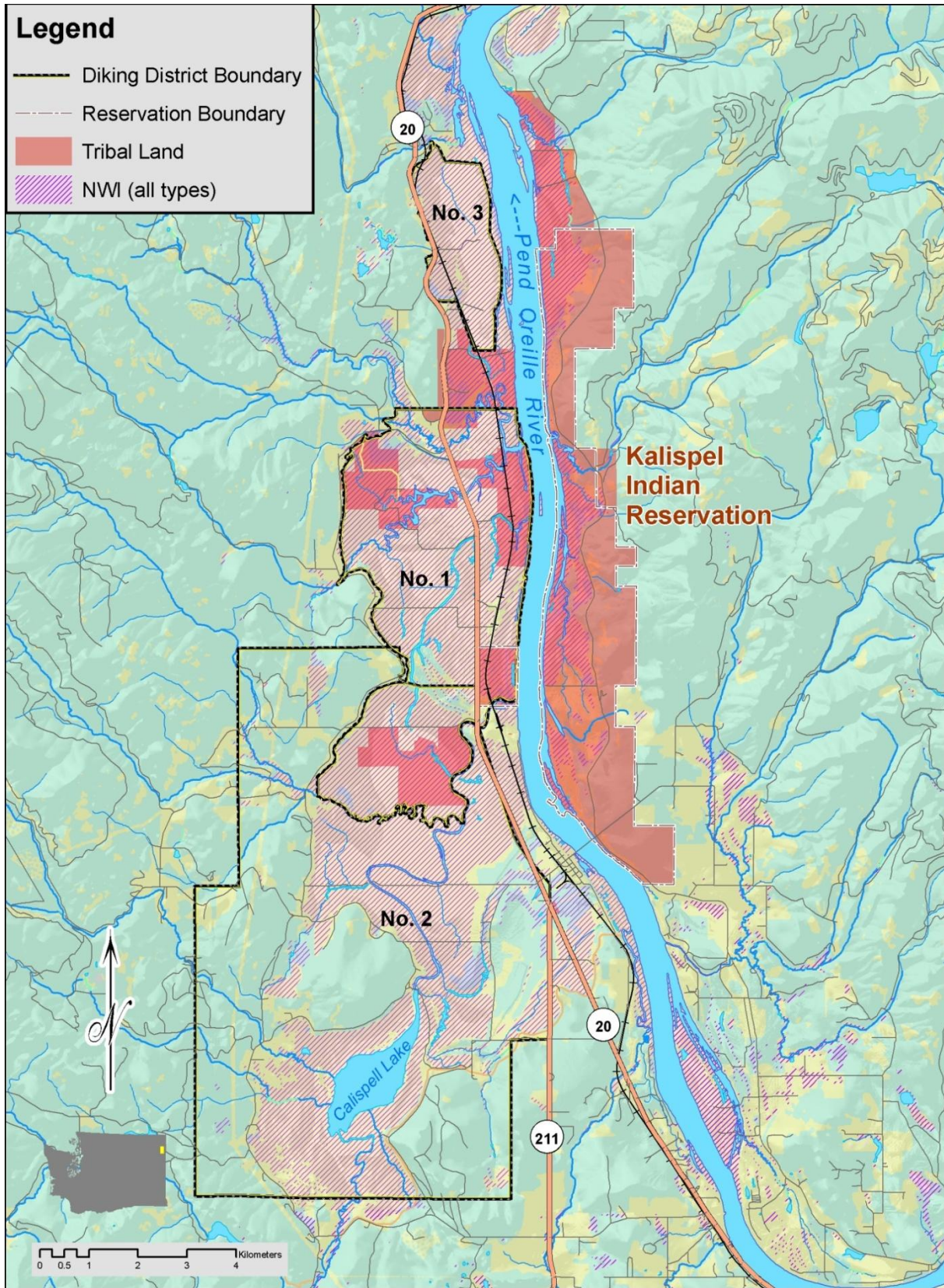


Figure 2. Calispell-Cusick Valley Wetlands and Kalispel Tribal Land

Monitoring and Assessment Design

The Kalispel/UWMEP approach was developed to be cost effective, samples species that are likely to respond to habitat change, provides a dataset that allows for a long-term perspective on meeting management objectives, is adaptive to a regional scale, and is flexible enough to incorporate new restoration properties as they are acquired. It uses a habitat-based approach comparing species guild and vegetation data to determine habitat quality based upon a reference site or desired future condition. Small mammal, breeding bird, amphibian, and vegetation are the four areas of data collection used to build a description of the reference site over a three year period. Once the baseline is completed, permanent sites are selected on each of the managed parcels and data from the restoration sites is compared against the reference to describe each habitat types' similarity to the reference. Each permanent sample point is generated randomly and revisited on varying time frames to track changes toward the reference site.

Once restoration is complete and habitat types are showing strong similarity to the reference condition, the active portion of mitigation would be considered completed and the actions a success. Information from this analysis will be stored in a common database and developed to be accessed via a web interface. This information will be used to adaptively manage each project and the site-specific techniques used to restore, enhance, or manage each area and habitat type. This approach will reduce costs and increase continuity of data collection, data interpretation, data presentation, and collection methods.

The assessment methodology will continue to be reviewed and modified as program capacity is increased with gained expertise and financial resources.

Aerial LiDAR and Photogrammetric Survey

The Kalispel Tribe recently completed an aerial survey of the Calispell-Cusick Valley lowlands with funding provided by the Tribe and EPA's Wetland Program Development Grant. The large-scale aerial survey resulting in detailed bare-earth topography, high resolution photographs, and vegetative classification models (calibrated with UWMEP data) will allow for wetland restoration planning and evaluations throughout more than 20,000 acres of wetlands both on and off Kalispel land. It is anticipated that the geo-referenced aerial data combined with ongoing collection of UWMEP data will provide powerful GIS tools for future wetland evaluations and restoration planning activities. The application of the aerial data was used as part of a matrix to develop a prioritized wetland restoration guide for the most desirable restoration sites within the Calispell-Cusick Valley (Fig. 3).

Wetland Restoration and Protection (Ongoing 2011 -2016)

The relatively small Kalispel Reservation is located mostly within the Pend Oreille River flood plain. Due to the limited area of Reservation, it is important to the Tribe that opportunities for restoration are pursued throughout the ceded lands. Reservation land is a mix of private allotments and Tribal government ownership. The health of wetlands is recognized by the Kalispel culture to be very important even with the limitations placed on the Tribe with a small reservation. Most multiple use lands are highly balanced with Tribal needs while protecting of the surrounding wetlands. Wetland restoration on privately owned Tribal land is voluntary, but KNRD has implemented past restoration projects with the cooperation of multiple land owners and continues to search for more implementation funding of projects.

The protection of existing wetlands on the Reservation and Tribal trust land is governed under federal laws regulated by EPA and the USACE. The KNRD staff provides guidance and assistance to the Tribe on wetland issues as needed. The recently acquired wildlife mitigation land has allowed KNRD to expand wetland restoration activities and implement active restoration as limited financial resources become available. Continued knowledge gained from monitoring and assessment methods using UWMEP and the newly acquired aerial data previously discussed to promote well informed planning of wetland protection and restoration. The following actions will used to achieve the program goal to protect, enhance and/or restore wetland/riparian habitats.

- 1) Provide surveys and assessments of all wetlands of interest to define restoration goals for Kalispel land and inform Tribal management (ongoing through 2016).
- 2) Prioritize wetland restorations by type, size, associated species, communities, and/or populations using integrated geo-referenced data from UWMEP and aerial survey products (2011 – 2012 and continually refine).
- 3) Promote partnerships with appropriate land/resource managers and coordinate efforts to assist in wetland protection and restorations (continuing through 2016).
- 4) Use peer-accepted methods for management of wetlands for benefit of high priority associated species, communities, and populations (continuing through 2016).
- 5) Provide continued monitoring and evaluation of restoration projects for adaptive management implementation (ongoing through 2016).
- 6) Provide operations and maintenance for water control structures as developed and adopted by KNRD (ongoing through 2016)

References

Hallet, J. G., M.A. O'Connell, and K.L Kimmet. 2009 (draft). Monitoring and Evaluation Plan for the UCUT Wildlife Monitoring and Evaluation Program. BPA Project# 200800700. Available at: <http://www.uwmepdata.org/document/draft%20UWMEP%20M&E%20plan.docx>

Ranking Result of 37 Sites by Categories

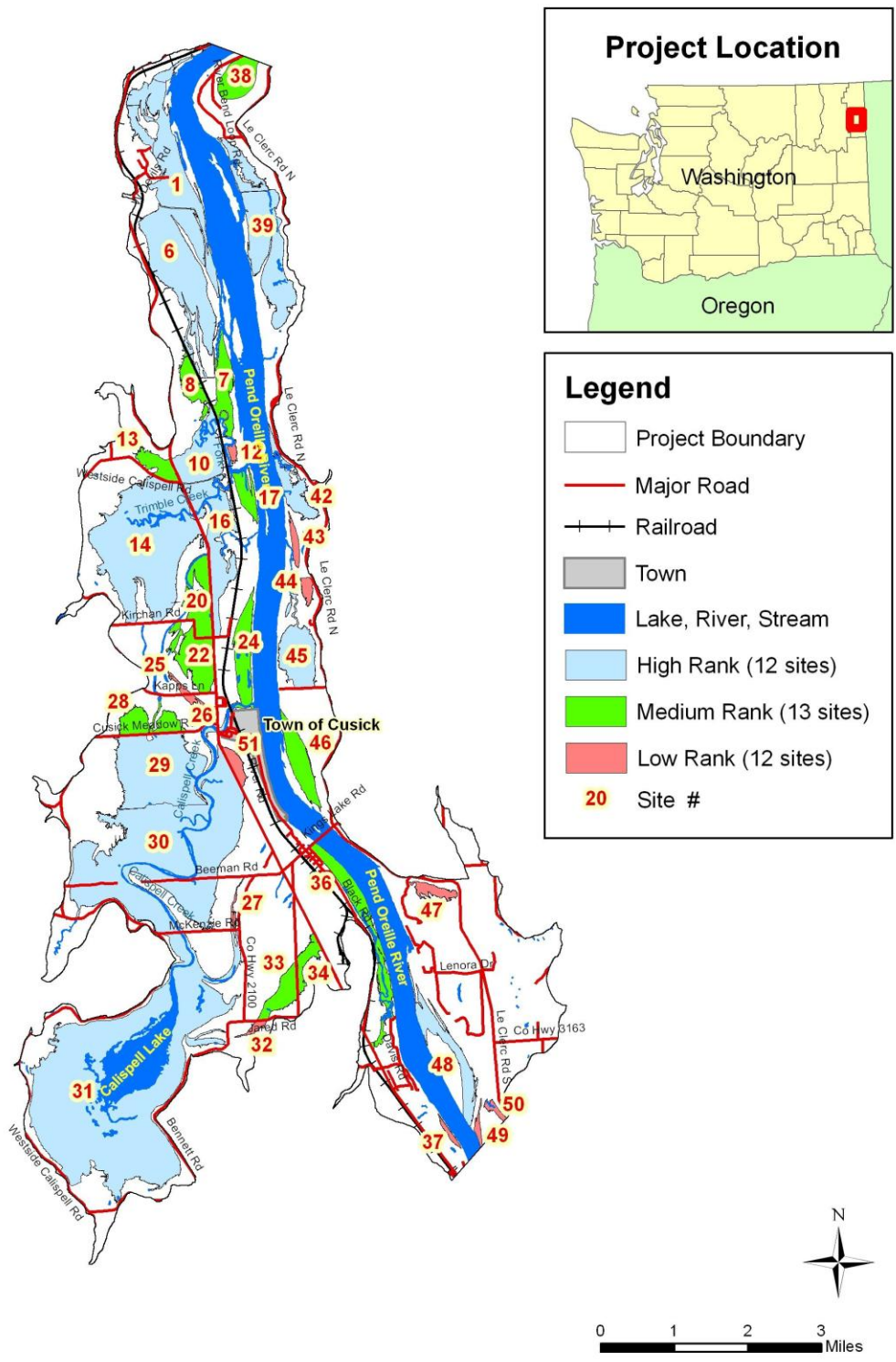


Figure 3. Proposed Calispell-Cusick Valley restoration sites with priority classes