



YAKAMA NATION

WILDLIFE, RANGE, AND VEGETATION MANAGEMENT PROGRAM

WETLANDS AND RIPARIAN RESTORATION PROJECT



*VALLEY RESTORATION AREAS  
WILDLIFE VIEWING AND ENVIRONMENTAL  
EDUCATION MANAGEMENT PLAN*





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## **I. Introduction**

### **Purpose of the Plan**

The Yakama Reservation's Wetlands and Riparian Restoration Project was launched in 1994 with a goal of protection, restoration and management of 27,000 acres of floodplain lands along the Yakima River, Satus Creek, and Toppenish Creek. As of 2012, over 21,000 acres (Fig. 1) have been secured by the Yakama Nation's Wildlife, Range, and Vegetation Program (Wildlife Program) and improvements in hydrology, vegetation, and fish and wildlife abundance have been dramatic. Perhaps the best example is restoration of the Satus Wildlife Area (SWA; alternatively known as the Satus Wildlife Recreation Area), encompassing over 4,500 acres of Yakima River floodplains. On all of our wetland and riparian properties, management seeks to reestablish the natural river side channels and hydrology, and restore the diverse native vegetation, wildlife, and aquatic communities. Public use is limited, keeping disturbance levels low. Access to these areas is provided for Yakamas to utilize traditional resources. Most areas are open during the hunting season for non-tribal members with permits and Yakamas to hunt waterfowl and small game. Some of our river areas such as the Satus Wildlife Area are open only three days a week to hunting by non-tribal members, and some areas are managed as refuges within which no hunting is allowed (Fig. 1). There are also occasional staff-led educational tours to some of the properties to highlight restoration techniques and value of wetland habitats.

This plan (hereafter referred to as the Wildlife Viewing Plan) supplements the existing property management plans such as the Satus Wildlife Area Management Plan (YN Wildlife 2005). The Wildlife Viewing Plan proposes to implement the intended wildlife-based recreational and educational uses of the restoration areas, to help people deepen their understanding and appreciation of these natural places while enjoying pursuits such as hiking, bird watching, paddling, and photography. The Wildlife Viewing Plan sets parameters to ensure that such uses do not compromise the primary resource and cultural values of the areas, and defines goals for wildlife-centered recreational and educational opportunities. It proposes specific actions to accomplish these goals and monitoring to avoid harmful impacts and ensure quality visitor experiences.

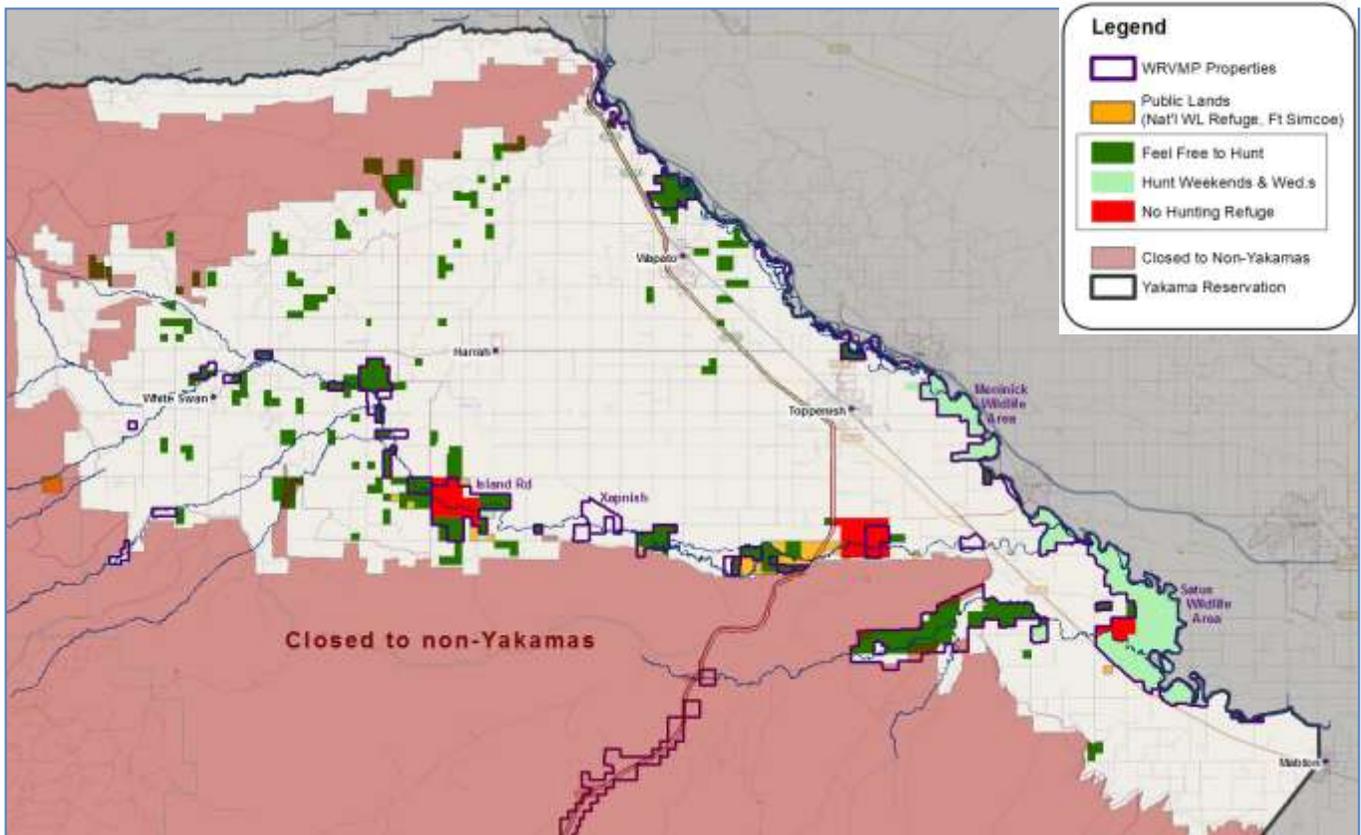


Figure 1. Properties managed by the Yakama Nation Wildlife Program, public lands, and hunting areas.

### Need for the Plan and Significance of the Wetland Restoration Areas

In an era where people are increasingly disconnected from the natural world, there are few areas in the lower Yakima Valley conducive to enjoying intact natural places. Books like Richard Louv’s *Last Child in the Woods: Saving Children from Nature Deficit Disorder* chronicle how important time in nature is for healthy development of children and for emotional and physical health of children and adults alike. Time spent in nature, especially when facilitated by interpretive materials to deepen understanding, strengthens our will to protect these places and resources.

The relationship between man and nature is central to Yakama culture, and tribal members have exclusive access to the large Closed Area of the Reservation. Yet even among Yakama people, many may not have the means or time to travel from homes in the valley to forests perhaps 30 miles away. School groups and non-Yakamas have even fewer options for nearby areas open for (and conducive to) environmental education and outdoor recreation. Most of the valley is privately owned and developed for agriculture, with parks featuring natural habitat including only the 200-acre Fort Simcoe State Park and the Toppenish National Wildlife Refuge (Fig. 1). The National Wildlife Refuge encompasses a total of over 2,000 mostly wetland acres, and includes trails and interpretive materials. However, the area in the contiguous parcel accessible from the headquarters is only about 1,000 acres (the rest lying in small scattered blocks). Boating is prohibited at the Refuge, and there are next to no places to paddle a small boat in the entire Yakima Valley other than the often treacherous Yakima River.

Many of the Yakama Nation Wildlife properties are much larger than the National Wildlife Refuge. For instance, the Satus Wildlife Area features about 8 miles of meandering Yakima River shoreline and interconnected oxbow slough wetlands interspersed with mature riparian forests and

grasslands. These diverse habitats support some of the highest concentrations of wintering and breeding waterfowl in the region, and a remarkable diversity of other birds and wildlife. Much of the infrastructure for public use, such as roads, gates, and parking areas, are already in place for the existing public hunting program. Properties are widely distributed, such that some are reasonably accessible from major travel routes such as Interstate 82 and State Route 22, while others lie along smaller paved or well-maintained gravel roads. While areas near travel corridors may attract more visitors from outside the Reservation, well-distributed opportunities to see wildlife and wetland habitats benefit local residents and schools.

In order to provide these opportunities for appreciating wildlife and wetlands, the Yakama Tribal Council approved the Wildlife Program's application for a Farm Services Agency Voluntary Public Access Grant in 2011. We received this grant, making the Yakama Nation the first Native American tribe included in the program, and enabling us to launch the project.

## **II. Resources and Current Management of the Wildlife Areas**

### **Habitats**

As further detailed in the 1994 Lower Yakima Valley Wetlands and Riparian Restoration Project Environmental Assessment (BPA YN and BIA 1994) and 2005 SWA Management Plan (YN Wildlife 2005), the vegetation communities of the properties include shrub-steppe habitats, grasslands, riparian shrublands, emergent wetlands, and some of the best examples of mature riparian cottonwood gallery forests in the area. Many of these vegetation communities, particularly the uplands, have been highly disturbed due to grazing and intensive agricultural - including leveling and installation of irrigation ditches - and are severely altered from their natural state. However, past and ongoing restoration efforts are making great progress toward restoring natural hydrology and plant and animal communities. Successes include restoration of the wapato, a once-important Yakama food plant that had largely disappeared from the valley. The plant reappeared on the Xapnish property after wheat fields were restored to wetlands. Another example is the restoration of tule marshes in the large oxbow sloughs of the Satus Wildlife Area. Thanks to major engineering projects, the Program can now manage water levels within these interconnected water bodies for the optimal benefit of waterfowl and natural vegetation.

### **Wildlife Resources**

The properties - particularly larger wildlife areas along the Yakima River and Toppenish Creek - support healthy populations of mammals such as deer, bobcats, cottontail rabbits, porcupines, beavers, minks, and river otters. Bird diversity and abundance is truly remarkable, with over 130 species tallied on the Satus Wildlife Area (SWA) by Yakima Audubon volunteer surveyors, and 51 species in a single day on the Xapnish (Zimmerman's) property. The SWA supports abundant raptors, a heron rookery, and some of the highest concentrations of wintering and breeding waterfowl in the region. Bald eagles have also begun nesting in the area in recent years. Properties along Pumphouse Road feature very rare nesting areas for great egrets and bobolinks. The opportunity to view a large number of common to rare species is a major draw for bird watchers and photographers.

### **Cultural Resources**

Portions of the properties were used extensively by Yakama people in the past. Many of the physical artifacts left by such use have been lost due to flooding and disturbance from past

management for agriculture and grazing. Those artifacts and sites that surveys have detected are protected from disturbance, but management must consider which areas have the highest potential for harboring as-yet-undetected resources. As for continuing traditional uses, restoration of the natural resources on this property enables resumption of activities such as hunting and gathering of important plant materials such as tules.

### **Current Uses and Management Direction**

Current management (funded largely by the Bonneville Power Administration) emphasizes restoration of hydrologic processes and native habitats. Livestock grazing is permitted on some properties, but at lower levels than occurred prior to our management. Some areas are also leased for haying and other agriculture through crop share agreements. The overall Restoration Project EA also states that activities are to include “development of interpretive trails, kiosks, and hunting and photographic blinds” (p. 6 BPA YN and BIA 1994). Of these activities, only construction of hunting blinds has occurred.

Standard language for management plan goals on our properties includes: “Provide access for traditional resource utilization for Yakama enrolled members. Provide supervised access for the non-enrolled public for the purposes of small game hunting, non-consumptive wildlife activities, and educational purposes.” In practice, only a few Yakamas request this access, although we have been working to make more tribal members aware of resources available for their use and assist them in harvesting these traditional resources. Yakama and non-Yakama community members participate in waterfowl banding on the SWA as Wildlife Program volunteers, and a few volunteers conduct bird surveys on the SWA and other properties for the Program. Aside from these activities and perhaps a few educational field tours per year, access for non-Yakamas is only for hunting and fishing. Hunting is in designated areas only, and in Yakima River corridor properties such as SWA is restricted to Wednesdays, Saturdays, and Sundays during the hunting season. Fishing occurs year-round, although anglers must walk in from locked gates when properties are not open for hunting. Fishing has been poorly regulated in the past, so we are in the process of implementing clear guidelines that will be compatible with management goals and other uses of the area. There is currently no mechanism for non-Yakamas who are not registered volunteers to access Wildlife-managed properties for activities such as bird watching.

## **III. Goals for Wildlife Viewing and Environmental Education**

### **Consistency with Natural Resources, Public Hunting Program, and Cultural Use Goals**

The primary purpose of the Wildlife-managed properties is to provide healthy floodplain and upland habitats for the benefit of native wildlife, fish, and plants, and continued traditional use by Yakama people. Access for watching wildlife needs to be managed in such a way as to not compromise these primary goals and values.

Placement of infrastructure and parameters for when and where access is allowed must seek to balance wildlife viewing opportunities against the need to avoid harmful impacts from disturbance or from those who would engage in unlawful activities. Areas designated as hunting refuges are generally important wildlife breeding areas and recreational development will usually be inappropriate within these. Where recreation is permitted on Wildlife-managed properties, signs and brochures should remind users to keep as quiet and concealed as possible to avoid causing animals to change their behaviors. Visitors will also need to be reminded that non-Yakamas may not remove any resources or materials unless specifically permitted to do so.

Expansion of wildlife-based recreation must also be managed such as to not compromise the long-standing use of the area for waterfowl and upland game bird hunting. The Yakama Nation manages one of the longest-running public hunting programs in Indian Country, selling with non-member hunting permits since 1952. This program is important in asserting and reinforcing the Yakama Nation's standing as sole manager of wildlife resources on the Yakama Reservation and in building support within the hunting community. The Public Hunting Program is also a very important source of revenue for the Wildlife Program. Sales of permits bring in about \$150K per year, helping us to keep staff employed protecting the Yakama Nation's resources. The hunting program also benefits local businesses, with over half of the approximately 3-4,000 hunters who buy permits each year traveling from outside of the Yakima Valley area. Expansion of opportunities for viewing wildlife should build on that program's success rather than creating any conflicts between the user groups.

Generally the improvements in infrastructure, interpretive materials, and increased awareness of resources available on the YN Wildlife properties can be expected to facilitate increased use of the areas by Yakamas for harvesting traditional resources and simply enjoying wildlife. However, implementation of the project should be mindful to ensure that Yakamas feel comfortable in using the areas and that no damage of cultural or archaeological resources occurs.

### **Interpretive Themes and Education Goals**

The Satus Wildlife Area and other large floodplain properties are ideal for demonstrating the value of floodplain and wetland ecosystems, traditional stewardship of the Yakama people carrying into modern times, and effectiveness of various restoration techniques. Some properties encompass shrub-steppe habitats which are similarly useful for highlighting importance of these threatened habitats and benefits of restoration for many diminishing species.

Some specific themes signs and brochures could highlight include:

- How rivers "breathe" and how these systems need to remain dynamic to function properly.
- How restoration of hydrology in important groundwater recharge zones benefits anadromous fish.
- Biological diversity of floodplains, gallery forests, grasslands, and shrub-steppe. How to identify some of the species found here and signs of their presence.
- Migrations: how bobolinks and the waterfowl that concentrate in such huge numbers in YR wetlands link us to the rest of the hemisphere.
- Human uses through the centuries and cultural practices still very much alive today.
- Practices that have degraded these landscapes and successful restoration methods.

### **Additional Wildlife-Based Recreation Goals**

Management should work toward ensuring a high-quality user experience. Ideally visitors become advocates for the Yakama Nation's resource stewardship efforts. To foster these goals management needs to continue to improve the natural environment, control potential problems such as trash, vandalism and overuse, ensure visitor safety, and have staff periodically on-site during wildlife viewing days to interact with visitors.

### **Economic Goals**

Although a Farm Services Agency Voluntary Public Access Grant will allow us to initiate the project, years 2 and 3 of the grant we were awarded have thus far been defunded by Congress. We requested about \$135K per year in years 2 and 3 to continue building the infrastructure to

implement the program. At a minimum, about \$20K per year would be needed to manage the project well, including maintaining portable toilets and infrastructure and updating brochures and maps. We would like this to be a self-sufficient program.

A permit system for non-Yakama users (with funds returning directly to a Wildlife Program revenue account) is pivotal for continuation of the wildlife viewing program. Permits for a day and for the season would be a logical starting point. To further increase revenues next steps could include development of high-quality photography blinds and an associated paid reservation system, hosting photography workshops, and eventually tying the project in with the hunting/recreation lodge the Wildlife Program has been proposing as part of our plan to increase economic self-sufficiency. Special event days and local and regional media should be used to raise awareness of the program. Management costs may be defrayed by hosting volunteer days when members of the public and school groups could assist with construction of trails, structure repairs, weed control, etc. We would also actively pursue small grants that are available for specific projects such as construction of photography blinds.

#### IV. Proposed Wildlife Viewing and Education Development Activities

##### Appropriate Recreational Uses

In addition to the current uses for hunting and gathering of traditional resources, the following activities (if properly managed) are **most compatible** with the goals of the Wildlife-managed properties:

- Hiking
- Bird/wildlife viewing
- Photography
- Nature study
- Educational field visits



The following uses **may be compatible on some properties**, but if allowed would need careful monitoring to ensure they do not cause too much wildlife disturbance or degrade the experience of other users:

- Paddling
- Walking dogs on-leash
- Mountain biking, jogging, and/or horseback riding on designated roads and trails (not visible from open water areas, due to risk of disturbing waterfowl)

Camping and campfires are generally **not consistent** with management goals, particularly given that closing areas at night is important for ensuring visitor safety and minimizing vandalism. However, occasional camping by educational groups under a limited-use special permit could be a compatible use.

Development for picnicking is better left to the urban parks in the vicinity rather than these properties. Although small groups having lunch together would not be a problem, facilities built to encourage picnicking may lead to overly concentrated use and large groups creating a high level of disturbance and leaving trash scattered.

Use of off-road vehicles (e.g. ATVs and dirt bikes) or motorized boats are incompatible with natural resource protection goals.

## **Infrastructure Development and Vegetation Management**

### **Vegetation and Water Management**

Substantial improvements of the natural environment have already been made on these properties by the Wildlife Program, and these hydrology and vegetation restoration efforts will continue. Considerations for non-consumptive recreation might include prioritizing areas where recreation will occur for weed control projects. In some areas poison hemlock grows in dense thickets over 6 feet high and the weed is of particular concern because contact can cause severe skin irritation and it is highly poisonous if ingested. Control along trails combined with prominent notices advising people to avoid this plant will be necessary. As mentioned in the section on trails below, vegetation clearing is also important for keeping ticks away from people.

On some properties parking areas and roads used by hunters have not been well-defined. Better definition of where vehicles can be driven coupled with revegetation of adjacent areas damaged by off-road use will be important, particularly where those compacted areas occur right along shorelines (such as south of Corral Lake and Sumac Lake on the SWA).

Management of water levels should continue to emphasize mimicking natural hydrology and providing for waterfowl and cultural plants while controlling populations of invasive species. Adjustments to restore habitats currently in short supply, particularly mudflats, have been suggested by Yakima Valley Audubon members as a way to increase habitat for shorebirds on the SWA. Balancing needs of multiple plant, fish, and wildlife species in water management will continue to be a dynamic process, and (in those rare instances where they conflict) takes precedence over maintaining ideal conditions for recreational use.

### **Waste Management and Concentrated Use**

Some trash is evident in various areas from current uses, and this problem could certainly increase with increased use. Fortunately recreationist such as hikers, birdwatchers, photographers, and paddlers tend to be conscientious users. For instance, a 2007 survey of 534 Washington State paddlers found a high level of concern about wildlife disturbance, and high environmental awareness and specifically of “Leave No Trace” practices (Hodge 2007). Signs and interpretive materials should reinforce these principles as well as emphasizing the need to avoid unnecessary disturbance of wildlife as mentioned above. Well-secured trash cans should be made available at parking areas and emptied regularly. At the SWA, portable bathrooms should also be installed and maintained year-round at at least one central location, such as the parking area south of Corral Lake (Figure 2). Installation of permanent restroom facilities should be incorporated into long-term planning for this property, and for any others with high levels of all-day use.

### **Gates, Parking, and Access Management**

Most of the Wildlife-managed properties have some existing infrastructure conducive to controlled access. The following figures illustrate examples of initial proposals for enhancing properties for recreational access. These should by no means be considered final plans or a complete list of all improvements that could occur. Emphasis for our initial planning for enhanced wildlife viewing has been within the Satus Wildlife Area because of the combination of excellent diverse restored floodplain habitats and good existing infrastructure there. On the SWA there is a single main access point from Totus Road (Figure 2), with a lockable metal gate and cattle guard. Roads, fences and gates have been installed to allow vehicle access to be restricted to portions of the property, and the main roads are maintained well enough to be accessible by the average car. All gates except the main entrance would be kept locked, and roads beyond these would function as foot trails.

Parking areas are to include those areas already driven and/or used for parking (Figure 2). Areas that have been used for parking but that are not well-defined are to be improved to better delineate the footprint of the driveable area and allow for revegetation outside of this area. A buffer of intact vegetation between parking areas and water bodies will be beneficial to hunters and other users in reducing the likelihood that arriving vehicles will flush waterfowl or disturb other wildlife.

Other properties now open to hunting and with good potential for wildlife viewing may need new parking areas and/or cable gates to control access (Figures 3, 4, and 5). The properties shown in these figures are highlighted because they have high-quality bird viewing habitat, good gravel roads, and areas suitable for parking far enough from open water that waterfowl are unlikely to be affected. Additional properties with similar characteristics may be added over time.

To avoid conflicts with the Public Hunting Program, non-consumptive uses need to occur outside of areas open to hunting and/or when no hunting is occurring. This is to avoid additional disturbance to waterfowl during hunting season or flushing birds while people are hunting, as well as for the safety of non-consumptive users. Infrastructure for wildlife viewing also needs to be mindful of how it might affect quality and safety of hunting.

Constraints on days, and hours of use are necessary to reduce wildlife disturbance, ensure safety of users, and to minimize vandalism and inappropriate uses. They may also need to be adjusted based on the capability of the Wildlife Program and Game Wardens to have someone open and close gates and patrol use. To further reduce risks, no access is to be enabled near areas where there are concentrations of archaeological resources. Installation of new gates may be necessary in places to accomplish this, but will aid in protection of such areas during the hunting season as well.

**Our initial proposal will be to limit access for wildlife viewing to only one day a week during the most sensitive waterfowl breeding period (March through June) then only two days per week through the summer (July through September).** Sundays will be given the highest preference for such access to minimize likelihood that recreationists will be in an area when Yakamas are harvesting traditional resources. Further seasonal restrictions may also apply in areas where nesting occurs, and where wet conditions necessitate area closures. Immediate closures may occur if serious problems arise.

These guidelines may require adjustment from year to year to respond to resource concerns. The procedures for setting these parameters are described in Section V under "Methods for Setting Days and Hours of Use". Allowances would still be made for educational trips outside of these time frames and special permits could be made available for activities such as use of a photography blind when a property is closed to general access.



Figure 2. Initial proposal for recreational enhancements within the Satus Wildlife Area.

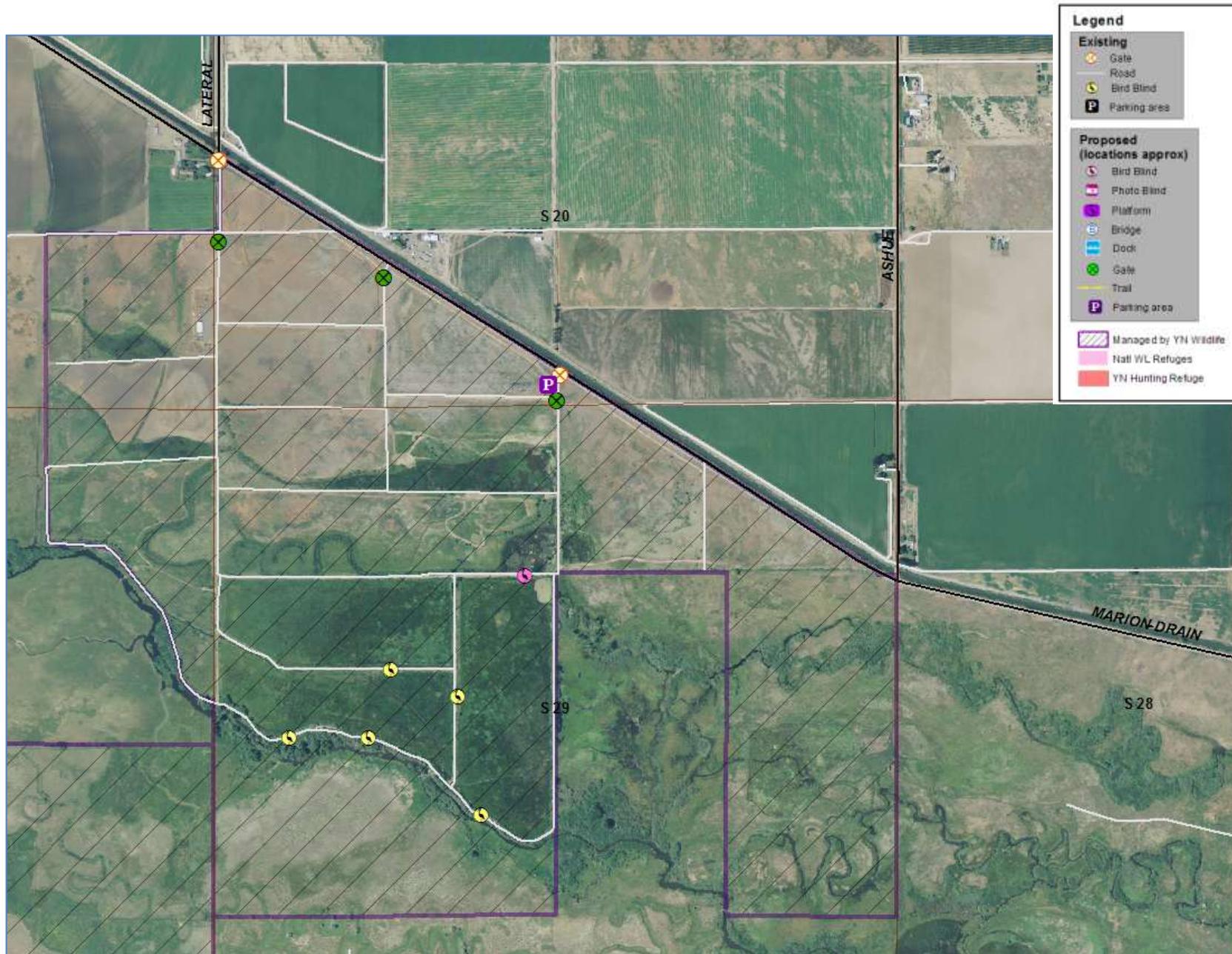


Figure 3. Initial proposal for recreational enhancements on the Xapnish (aka Zimmerman's) property. Additional gates enable access to birding areas (on unmapped road paralleling Marion Drain) while preventing access to equipment storage areas.

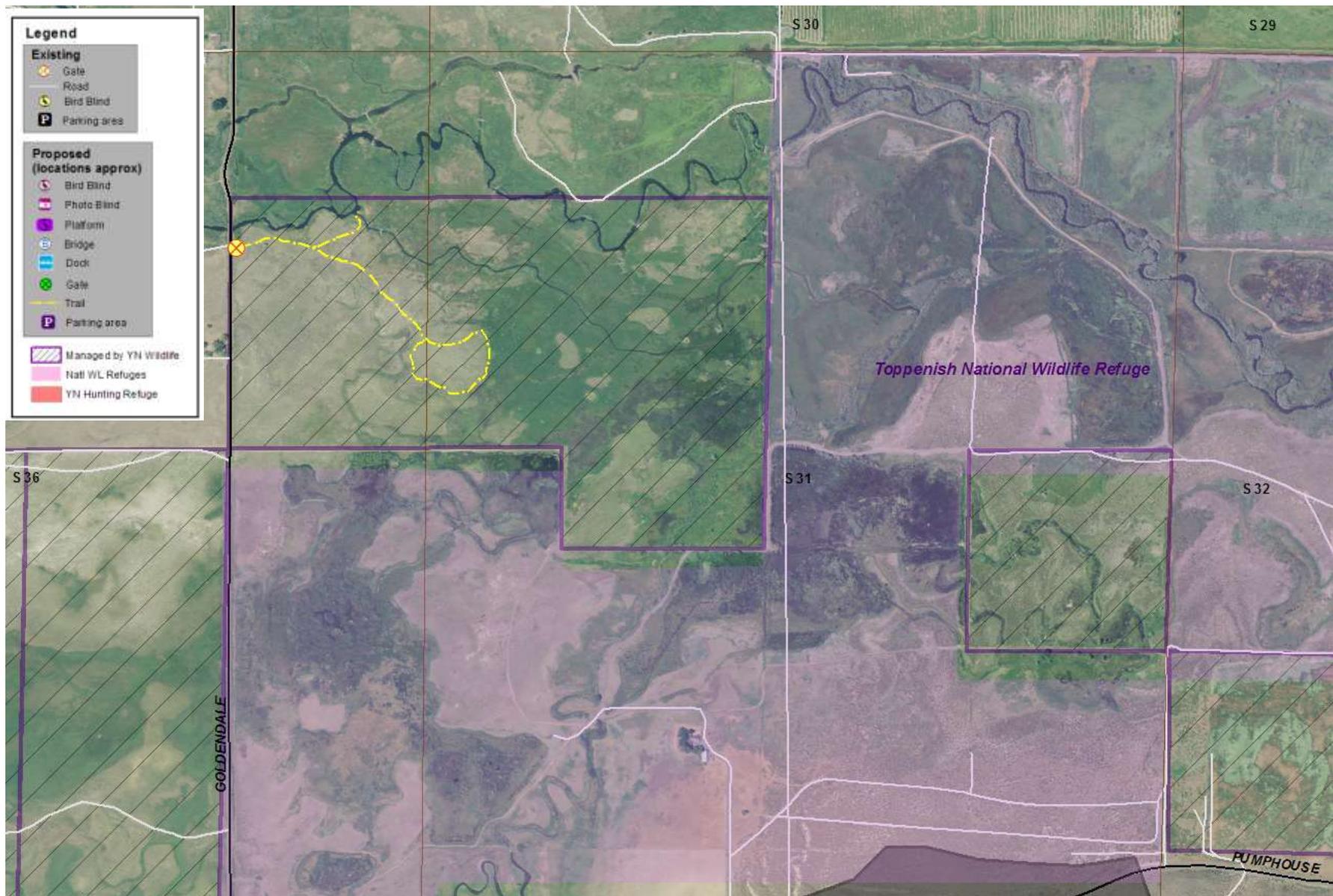


Figure 4. Initial proposal for recreation in the Old Goldendale Hwy Wildlife Area (trails mostly along existing roads).

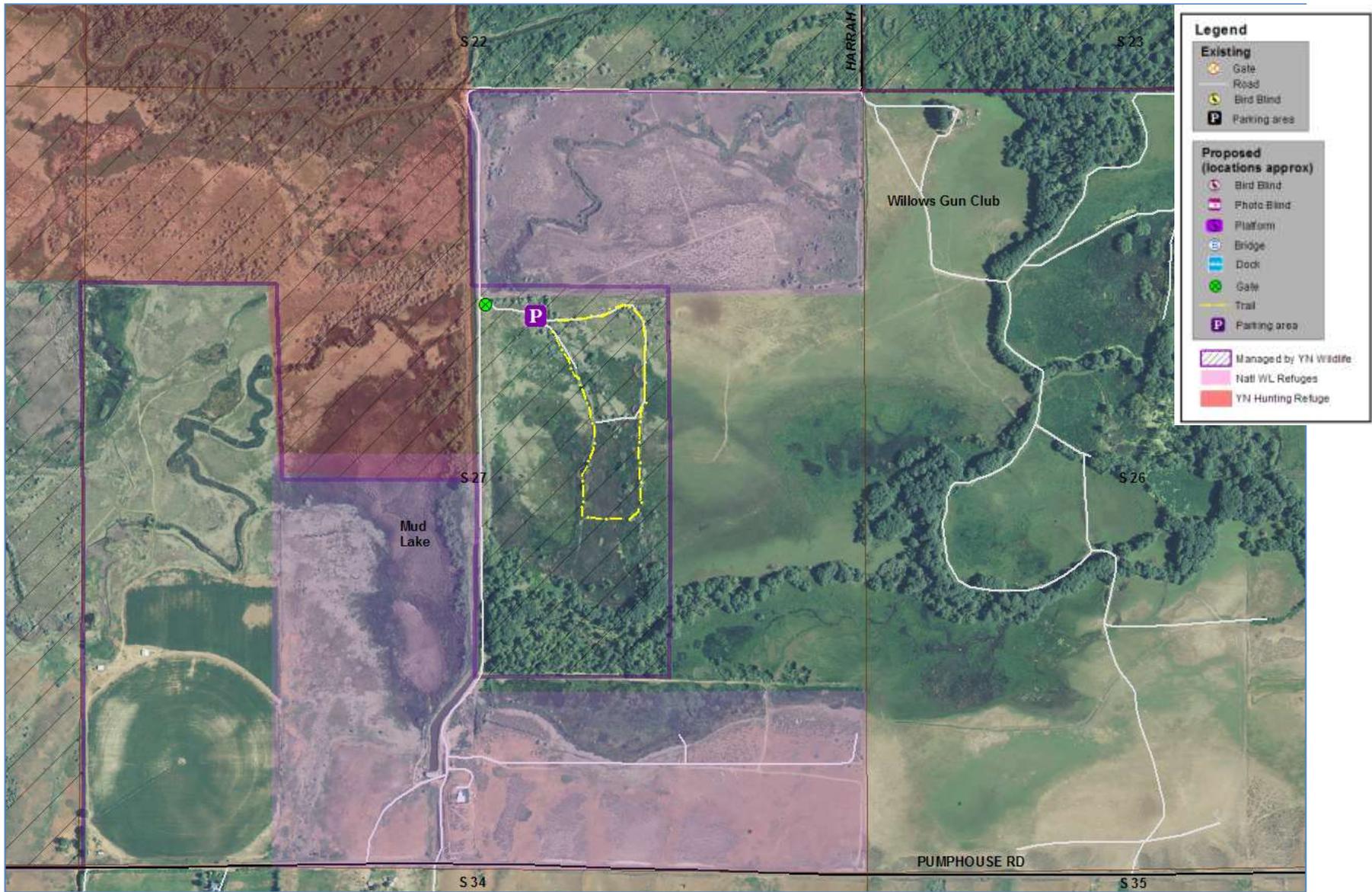


Figure 5. Initial proposal for recreational enhancements on the Island Road property, Mud Lake vicinity.

## Signs and Interpretive Materials

Signs presenting at least a map, hours, regulations, and a number to call to report suspicious activities should be posted at the main gate of the SWA and at parking areas on properties open for wildlife viewing. Assuming a permit system for non-Yakamas is authorized, these signs should include information on permit prices and sales locations. A sturdy fee collection box (e.g. Iron Ranger model PT836) should be installed for on-site purchase of permits on the SWA and should be considered for other sites if they become popular enough to justify the initial expense.

Signs at parking areas should additionally present detailed maps of nearby trails, guidelines for leaving no trace and avoiding wildlife disturbance, and safety information (such as how to identify and avoid potentially hazardous plants and wildlife). Further illustrations and information to assist users in appreciating unique features of areas (as per “Interpretive Themes” above) can be presented in a combination of posters and more detailed brochures. Rugged copies of posters should be made for use in presentations in the field or indoors at the many educational events the Wildlife Program develops or is invited to participate in.

## Trails, Blinds, Bridges, and Platforms

Current roads on most properties provide good access to at least portions of the best wetland and upland habitats. At the SWA roads form a perimeter around the most interesting features, looping around the oxbow slough lakes and through portions of the riparian gallery forests that lie between the sloughs and the Yakima River (Figure 2). On this wildlife area and wet areas of other properties foot travel off of roads can be challenging, with wet channels and pools surrounded by dense thickets of roses and other shrubs, and ticks abundant at times. These conditions serve to reduce disturbance from people venturing off of roads and trails, but drier areas may present more temptation for venturing off-road to see birds and other wildlife. A well-designed trail system reduces the incentive to walk off-trail by providing access to a variety of interesting habitats and sites.

Our plan for initial trail construction on the SWA focuses on accessing varied features such as a stretch of beach along the Yakima River (“Shell Beach in Figure 2), and looping through a mix of grassland and lakeside habitats between Corral and Circle Lakes. Most stretches of proposed trails make use of existing cattle trails, with minor clearing and marking needed to better define the designated path. An important proposed trail connects the parking area south of Sumac Lake to the closed road east of the lakes to greatly enhance access to the Yakima River side of the SWA (Figure 2). Making this connection would require installation of a footbridge across a small channel. Because winter conditions and spring floods can be severe on the SWA, structures such as this bridge are best constructed to facilitate removal to higher ground in winter and spring. This is also useful in enabling managers to reinstall structures only when human access is unlikely to cause unacceptable wildlife disturbance or damage to muddy trails.

The existing roads on the Xapnish (aka Zimmerman’s) property are sufficient to serve as a trail system, although users should be encouraged to keep to the eastern and southern perimeter road to take advantage of natural cover (Figure 3). Good access is provided to areas best suited to non-hunting recreation on the Old Goldendale Highway property (Figure 4) by existing roads, although some additional lengths of trail would be desirable. This property would be well-suited for a photography emphasis, as it a picturesque old home as well as wetland habitats. In the Mud Lake vicinity of the Island Road property (Figure 5) mapped roads appear to form a good loop trail, but these are now overgrown and would need some clearing to define the trails.

Where practicable, trails and other structures should be designed to provide access for people with impaired mobility or in a wheelchair, with firm, unobstructed tread surfaces and a minimum 36" width. Even where this is not possible, vegetation should be kept very low on and adjacent to trails so hikers are not brushing against plants that may harbor ticks.

In general, trails should not be built through areas that will be wet during the season of use and should not intercept and channel water. Well-established techniques are available for avoiding such problems, or using boardwalks to cross persistently wet habitats (USDA Forest Service 2007, Kusler 2006). They should meander naturally through the landscape and afford wildlife viewing opportunities while keeping hikers concealed where possible.

Blinds are appropriate where use by waterfowl and/or other species is reasonably consistent, concealment of viewers by natural vegetation is inadequate to prevent disturbing wildlife, and people will not be visible on their approach to the blind (Colorado Dept of Wildlife 2007). Blinds may need to be moved as conditions change over time. Blinds should be constructed for users of various ages/heights (including people in wheelchairs, where accessibility is possible). Openings in blinds are intended to provide effective concealment, but some openings should be large enough to accommodate use by hunters in waterfowl season, and use of a spotting scope or long-lens camera on a tripod at anywhere from chest to eye height. Blind placement should also consider direction light will fall over the course of the day. A south-facing orientation should be avoided, as back-lighting of birds creates poor viewing conditions. For safety, blinds that may be used for hunting should be spaced well apart (at least 200 yards; further if they face one another).

Effective photography blinds are more expensive to build than simple viewing blinds, but should be considered for locations with high-quality conditions for photographing birds. These should be fully-enclosed structures with multiple camera slots, oriented to take advantage of good morning and perhaps evening light.

Viewing platforms can greatly enhance enjoyment of flat wetland habitats, and at least one should be constructed overlooking an area with consistently high waterfowl concentrations. For safety, railings on platforms must be at least 42 inches high with gaps of no more than 4 inches between rails. Platforms should incorporate visual screening to conceal users, and interpretive panels to help them identify common species and generally gain as much as possible from the experience and unique vantage point. They should be placed close enough to parking areas for use by elders and the mobility-impaired (but with enough distance for a sound buffer between the parking area and the overview site). They should also incorporate wheelchair ramps if budget allows and the approach can be made wheelchair-accessible.

## Docks

Hunters are currently allowed to use non-motorized boats in our hunting areas. Initial guidelines for non-consumptive recreation continue this access only in designated areas and seasons when waterfowl are not highly impacted by disturbance. Our initial proposal for boat access is only on the SWA, and there only on Sumac and Corral Lakes from mid-July through September. The largest concentrations of waterfowl occur on Circle Lake, and use of boats on this lake should be discouraged to minimize disturbance. Small docks for watercraft such as canoes and kayaks are proposed on Sumac and Corral Lake, with placement to allow "paddling trails" to connect to walking trails (Figure 2). These two lakes combined are about 2.5 miles long and over 500 feet wide in places, with numerous side channels to explore.

If the initial paddling trails on the Satus Wildlife Area are well-received and cause little impact, possibilities on other properties should be investigated further. However open water bodies such

as those on the Xapnish (Zimmerman's) property should be kept closed to paddling to protect waterfowl and allow visitors traveling on foot to see birds.

### **Permit System Development**

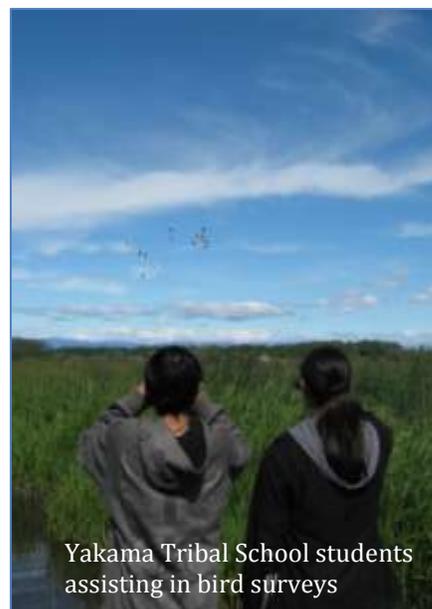
The Wildlife Program has been selling hunting permits for decades, so the infrastructure for sales through local vendors and the internet is in place. A Wildlife Viewing Permit system could be managed within the same revenue account as the Public Hunting Program. We envision a daily or annual recreation pass being required per vehicle for non-Yakamas. These could be issued as hangtags to be hung from the rear-view mirror of a car. Yakamas would just need to write their enrollment number on a tag rather than paying the fee. Just as with the Public Hunting Program, Wildlife Program staff could occasionally patrol to interact with users and remind them of the rules and need for permits, while Game Wardens could check parking areas and issue tickets for vehicles without permits. Fees and fines would be proposed by the Wildlife Program and approved by the Fish, Wildlife, and Law and Order Committee of the Yakama Nation Tribal Council.

### **Facilitation of Environmental Education**

Signs and brochures developed for use on the properties will be useful education tools for events such as at our annual youth camp. However, the Wildlife Program's capacity for environmental education is currently highly constrained by lack of funding targeted to these activities or flexible general funding that allows staff time to work with students. Actively seeking grants for these activities should be part of this effort, and the implementation of this Plan will aid in our ability to compete for such grants.

Materials should be developed not only for Wildlife Program staff to lead activities, but also for enhancing local educators' abilities to lead projects for their students. Outreach to local schools and science teachers will be necessary for area students to benefit from the environmental education opportunities afforded by the proposed wildlife viewing and wetland habitat access improvements. If possible, activity packets should be made available to educators to help them develop focused lesson plans that incorporate field time. The practice of allowing access for specific educational activities should continue, to accommodate field trips even if they need to be scheduled outside of established access days.

In long-term planning, the Wildlife Program should consider pursuing larger grants for developing a greatly expanded environmental education program. The overall plan should include the eagle aviary and perhaps construction of an environmental education building in the same area.



## **V. Framework for Regulations and Monitoring**

### **Method for Setting Days and Hours of Use**

Days and hours of use would be proposed by the Wildlife Program and approved by the Fish, Wildlife, and Law and Order Committee of the Yakama Nation Tribal Council. These are to reflect the need to protect breeding birds and other wildlife from disturbance while also considering goals for wildlife viewing and environmental education.

## General Regulations

Some general regulations are to apply across all properties, and regardless of season of use. These include:

- No alcohol.
- No removal of materials by non-Yakamas except by special permit.
- No overnight camping or fires except by special permit.
- No use of motorized vehicles off of established roads.

## Monitoring and Revision

Active monitoring of use and impacts will be essential to ensuring goals are met. We will work with the game wardens to implement some level of patrolling of parking areas, but anticipate that establishing a visible presence will fall primarily to the Wildlife Program. Wildlife employees will need to visit the areas a substantial proportion of the days they are open to talk to users, gather feedback, issue warnings (as only officers can issue tickets), and monitor effects of ongoing use. This serves both to discourage bad behavior and to establish rapport with recreationists.

Revision of guidelines, days and hours of use, publicity activities, etc. is to be a dynamic process that responds quickly to any observed problems. In addition to ongoing adaptations to address issues arising during the season, an annual meeting should be held by the Wildlife Program for an internal discussion of successes and shortfalls of the program and this discussion should be incorporated into an annual report for the Fish, Wildlife, and Law and Order Committee. The Committee can then provide direction as to further revisions required to the program.

## VI. References

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