

Draft Compatibility Determination

Title

Draft Compatibility Determination for Environmental Education and Interpretation at Little Pend Oreille National Wildlife Refuge

Refuge Use Category

Environmental Education and Interpretation

Refuge Use Type(s)

Environmental Education (NWRS staff and authorized agents)

Interpretation (NWRS staff and authorized agents)

Environmental Education (not conducted by NWRS staff and authorized agents)

Interpretation (not conducted by NWRS staff and authorized agents)

Refuge

Little Pend Oreille National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

"... as a Refuge and breeding ground for migratory birds and other wildlife..."
(Executive Order 8401, dated May 2, 1939)

" ... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (16 U.S.C. 715d [Migratory Bird Conservation Act])

"... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ..." (16 U.S.C. 460k-1) ... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ... 16 U.S.C. 460k-2 (Refuge Recreation Act (16 U.S.C. 460k-460k-4), as amended).

"... for the development, advancement, management, conservation, and protection of fish and wildlife resources ..." (16 U.S.C. 742f(a)(4) ... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ... 16 U.S.C. 99 742f(b)(1) (Fish and Wildlife Act of 1956).]

... for conservation purposes. Consolidated Farm and Rural Development Act (7 U.S.C. 2002).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes. This Compatibility Determination (CD) reviews and replaces the CD for “Environmental Education, Interpretation, Wildlife Observation and Photography” in the 2000 Little Pend Oreille National Wildlife Refuge Comprehensive Conservation Plan (CCP) and associated Environmental Assessment and Finding of No Significant impact (USFWS 2000). Wildlife Observation and Photography are being reviewed in a separate CD.

What is the use?

Environmental education consists of public outreach and onsite activities conducted by Refuge staff, volunteers, teachers, university professors, and other authorized agents. Interpretation occurs in less formal activities with Refuge staff and volunteers or through exhibits, signs, and brochures. Environmental education is designed to develop a citizenry that has the awareness, concern, knowledge, attitudes, skills, motivations, and commitment to work toward solutions of current environmental problems and the prevention of new ones. Interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource (i.e., interpretation is more than just information). Both are necessary to form relationships between the Service and public and improve a joint stewardship of our natural resources. Environmental education and interpretation are wildlife-dependent public uses as defined by the National Wildlife Refuge Improvement Act of 1997. The use of environmental education and interpretation also includes means of access, such as by vehicle, hiking, bicycling, horseback riding, boating, cross-country skiing, and snowshoeing, as well as incidental use of picnicking or other infrastructure, such as trails, blinds, or observation decks.

Is the use a priority public use?

Yes

Where would the use be conducted?

Environmental education and interpretation can occur on the main unit of the Little

Pend Oreille NWR (LPO) as well as the Kaniksu and Cusick units. However, staff led programs will occur primarily on the main unit at the Office, foot trails, boardwalks and overlooks, and along the Auto Tour Route (Figure 1).

Two new interpretative sites on the main portion of LPO are being assessed and planned for future construction. The River Gorge Overlook project concept includes upgrading an old gravel road to accommodate two-way vehicle traffic; construction of a parking lot; construction of a 1/3-mile accessible gravel trail; and an overlook viewing area with interpretive panels. This site will interpret the history of the railroad bridge that once spanned the gorge at that site and the riverine ecology of the Little Pend Oreille River.

An additional site plan is being developed to support an interpretive display describing the pre-Refuge community of the Biarly Post Office, the Bear Creek Schoolhouse, the ecology of “old field” habitat, as well as serve as a trailhead for an expanding trail system. This site may be developed in the future as funding becomes available.

Entry to all or portions of the Refuge may be temporarily suspended and posted closed due to unusual or critical conditions affecting public safety or any of the resources managed by the Refuge.

When would the use be conducted?

Environmental education can occur throughout the year although it is done primarily during the school year. Interpretation occurs primarily as visitors self-guide throughout the Refuge. This mostly takes place during the spring, summer, and fall.

The Auto Tour Route, where the majority of the interpretive kiosks are located, is closed seasonally to the public January 1 through April 14 each year. However, visitors can still access this road and other gated roads by foot, snowshoe, cross-country skiing, bicycle, and horseback riding, unless otherwise posted. Bicycling, snowshoeing, cross-country skiing, and horseback riding on Little Pend Oreille NWR are addressed in separate CDs.

How would the use be conducted?

All environmental education and interpretation activities are conducted with the Refuge’s primary goals, objectives, habitat management requirements, and history as the guiding principles.

Refuge staff have worked with the Friends of the Little Pend Oreille NWR to develop educational special events as well. Approximately 250 elementary school-aged children engage in environmental education and interpretation activities led by Refuge staff/ Refuge Friends volunteers annually on the Refuge. This program helps to inform school aged children as well as teachers and parent volunteers about the natural environment and specifically the Refuge. Many of these students gain an appreciation for the Refuge and return on family outings. In addition to planned

events, staff and volunteers provide programs upon request if available.

Other Refuge special events open to the public include the annual winter bird count, Earthday! Cleanup, 4th of July Butterfly Count, and the Blue Goose Family Fun Bicycle Ride; all of which integrate environmental education and interpretation into the format.

Interpretation is primarily done as visitors explore the Refuge. Kiosks with interpretive signs containing maps and information are located along the Auto Tour Route and at trailheads, boardwalks and pullouts. Exhibits provide visitors information about the Refuge history, purpose, wildlife and activities available to them during their visit. Currently, Refuge staff-led interpretive programs occur one to two times a year. Most of the interpretation occurring on the Refuge is through visitors reading information presented on kiosks along the Auto Tour Route.

For programs led by non-FWS staff or volunteers, the program leader must contact the Refuge Manager in advance to obtain approval for the program, including location and time when the activities will take place to minimize conflicts with other groups, safeguard students and resources, and to allow tracking of use levels. The Refuge Manager, at their discretion, may issue a Special Use Permit for groups less than 25 participants. Groups with 25 participants or larger must obtain a Special Use Permit.

Each request for a SUP (if warranted) will be evaluated for impacts to wildlife, habitats, and other Refuge resources; and priority wildlife-dependent public uses. Conditions may be added to the SUP on a case-by-case basis to minimize the anticipated impacts to resources, and to ensure that any impacts which cannot be avoided, minimized, or mitigated remain temporary and negligible. Some requests may require further analysis of the impacts of the proposed activity on special status species or cultural resources, which may require additional compliance with the National Environmental Policy Act (NEPA), and consultation under any other relevant laws.

If the use conflicts with Refuge resources, Refuge management programs, or priority wildlife-dependent uses, the participant(s) must identify in advance the methods/strategies required to minimize or eliminate the potential impact(s) and conflict(s). If unacceptable impacts cannot be avoided, then a SUP would not be issued.

Why is this use being proposed or reevaluated?

This use is being reevaluated in accordance with Service policy, 603 FW 2.11H(2).

Availability of Resources

The administrative needs to manage the existing Refuge environmental education and interpretation programs can be met with existing staff resources. Annual maintenance of existing facilities, including kiosks, signs, and roads requires

approximately \$5,000. Updating Refuge brochures annually costs approximately \$4,000. Design and fabrication costs for new interpretive panels at the planned sites is estimated at \$20,000. Maintenance of Refuge roads incur costs, but costs are not directly related to environmental education and interpretation since facilities are shared with other priority public uses.

Anticipated Impacts of the Use

This CD includes written analyses of the environmental consequences on a resource when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Based on best professional judgement and nearly 25 years of managing this use at the Refuge, air quality, flood plains, cultural resources, and socioeconomics will not be more than negligibly impacted by the action and have been dismissed from further analyses.

Potential impacts of a proposed use on the Refuge's purpose(s) and the Refuge System mission

Environmental education and interpretation are priority public uses as defined by the Refuge System Administration Act of 1966, as amended by the Refuge System Improvement Act of 1997. If compatible, these priority public uses are to receive enhanced consideration over other general public uses on national wildlife refuges.

Environmental education and interpretation are popular activities and are expected to continue into the future. These uses are conducted to provide compatible educational and recreational opportunities for visitors to enjoy the Refuge's resources, and to gain or increase their understanding of and appreciation for fish, wildlife, wildlands ecology, the relationships of plant and animal populations within the ecosystem, and wildlife management. These uses will provide opportunities for visitors to directly observe and learn about wildlife and habitats at their own pace in an unstructured environment. These uses will enhance the public's understanding of natural resource management programs and ecological concepts to enable them to better understand the problems facing natural resources and to realize what impact the public has on wildlife resources. Additionally, the public can learn about the Service's role in conservation and better understand the biological facts upon which Service management programs are based, consequently fostering an appreciation for the importance of wildlife and habitats.

Participation in these uses is expected to contribute to a more informed public, with an enhanced stewardship ethic and greater support for wildlife conservation. Furthermore, these uses will provide an intrinsic, safe, outdoor recreational opportunity in a scenic setting, with the realization that those who come strictly for recreational enjoyment will be enticed to participate in the more enhanced facets of the visitor use program and can then become informed supporters for wildlife conservation. By allowing these uses, we will provide opportunities and facilitate

programs in a manner and at locations on the Refuge that offer high quality, wildlife-dependent recreation while maintaining the current levels or increased levels of natural resource values.

Therefore, use of Little Pend Oreille National Wildlife Refuge for environmental education and interpretation is expected to benefit and promulgate the Refuge's purposes and the Refuge System's mission.

Short-term impacts

The principal impacts associated with environmental education and interpretation are loss of vegetation, soil compaction, and erosion from trampling in localized areas, and the displacement or habituation of wildlife due to human presence and activities.

Periodic maintenance or upgrades performed by Service staff or volunteers to existing supporting facilities (public roads and trails) also have the potential to cause short-term impacts to fish and wildlife in the form of visual disturbance, noise, vegetation loss, soil manipulation, runoff, and dust and vehicle emissions.

Immediate responses by wildlife to human activity can range from behavioral changes including nest abandonment, altered nest placement, and change in food habits to physiological changes such as elevated heart rates, increased energetic costs due to flight or flushing, or even death (Belanger and Bedard 1990; Kight and Swaddle 2007; Miller and Hobbs 2000; Miller et al. 1998; Morton et al. 1989). According to Knight and Cole (1990), there are three wildlife responses to human disturbance: avoidance, habituation, and attraction. The magnitude of the avoidance response may depend on a number of factors including the type, distance, movement pattern, speed, and duration of the disturbance; the time of day, time of year, weather; and the animal's access to food and cover, energy demands, and reproductive status (Fernández-Juricic et al. 2007; Gabrielsen and Smith 1995; Cole and Knight 1990). Habituation is defined as a form of learning in which individuals stop responding to stimuli that carry no reinforcing consequences for the individuals that are exposed to them (Alcock 1993). A key factor for assessing how wildlife will respond to disturbance is the predictability of the use. Often, when a use is predictable—for example, when visitors stay on a trail, boardwalk, or viewing deck—wildlife will habituate to and accept human presence (Oberbillig 2000).

The impact of environmental education and interpretation, and the use and periodic maintenance of existing roads, trails, and support facilities is expected to be adverse, but minor and localized, due to the relative low-level of anticipated use, the relatively large size of the Refuge, and stipulations imposed on the use. With stipulations described below, this use generally would result in negligible animal mortality; minor, short-term wildlife disturbance; localized compaction of soil and loss of vegetation; and no introduction of contaminants.

Long-term impacts

General Effects from Environmental Education and Interpretation:

The effects from environmental education and interpretation are expected to be minimal and in general are considered to be of low impact to wildlife and their habitats due to these activities occurring in controlled areas within the Refuge. Most uses addressed in this compatibility determination fall within one of two categories. The first group is the formalized school group or other scheduled activity that uses established trails, campsites, or classrooms designed to minimize impacts to the surrounding area. School groups and other scheduled groups are often accompanied by Refuge staff or other trained individuals. The second group is the largely secondary users that value environmental education and interpretation and related activities greatly, and participate in these uses regularly, but are more often visiting the Refuge for other primary purposes (i.e. hiking or bicycling). These visitors visit the Refuge in part to see wildlife and signs of wildlife and to learn more about them but would probably continue to hike or bicycle even if such secondary opportunities did not always arise. Impacts associated with these visitors include such issues as littering, erosion and ground disturbance, and increased wildlife disturbance. These impacts are discussed in CDs for those activities.

Potential Impacts to Habitat:

Habitat effects associated with vehicle use on roads opened to the public are primarily vegetation loss and soil erosion. Seasonal vehicle restrictions on most unimproved roads within the Refuge mitigate impacts to fish, wildlife and road conditions and ensure the wildlife-dependent uses which these road support remain compatible with the purposes for the Refuge.

The primary impact to habitat by visitors engaged in environmental education and interpretation is walking off road and the subsequent trampling of vegetation and the potential creation of social trails. Pedestrians can cause structural damage to plants and increase soil compaction and erosion (DeLuca et al. 1998; Whittaker 1978). However, over the course of this use, no adverse long-term impacts have been observed.

Most invasive plants need some form of transportation to reach new areas (Trombulak and Frissell 2000). Several potential modes of transportation, or “vectors,” continually travel throughout Little Pend Oreille National Wildlife Refuge in the form of vehicle traffic on roads, people, pets, domestic stock, wildlife, and tools and equipment taken onto the Refuge. However, such an impact to the Refuge by participants engaged in environmental education and interpretation would be considered minor.

Monitoring of public use in identified sensitive wildlife habitats would be used to determine if impacts from environmental education and interpretation could impact the health, vigor, or productivity of fish, wildlife, or their habitats in these areas. If

such potential for impact is identified, the Refuge would increase public notification and education regarding those impacts and/or close the areas to public use for critical periods or longer if necessary.

Potential Impacts to Wildlife in General:

The long-term effects of wildlife disturbance are more difficult to assess but may include altered behavior, decreased vigor or productivity, or death of individuals; altered population abundance, distribution, or demographics; and altered community species composition and interactions. However, while impacts of the use can be serious for individual plants and animals and perhaps localized rare populations, they are generally of little significance to populations or species, landscape integrity, or regional biological diversity. Moreover, unless a localized, rare population is impacted by a single impacted site, the intensity, size, and distribution of impacts are not relevant to the significance of impacts assessed at large spatial scales (Cole 1989).

Potential Impacts to Cultural Resources:

Nearly all of the Refuge is currently opened to public use, including hunting, fishing, wildlife observation, wildlife photography, environmental education, interpretation, and horseback riding. All recreation uses and activities are regulated and managed to avoid significant effect to biological integrity, diversity, and environmental health. The most noticeable disturbance effects occur along the network of maintained roads and trails which support recreation uses and activities within the Refuge. As such, it is unlikely that this relatively low-use activity would negatively affect cultural resources. The possible threat of inadvertent collection of prehistoric artifacts would be further mitigated through outreach, education, and enforcement of Refuge regulations.

Mitigation of Potential Impacts:

To prevent or minimize these potential long-term impacts, Refuge staff would work to ensure that visitors follow stipulations through law enforcement, Refuge and volunteer presence, and various forms of outreach. Refuge staff and law enforcement would regularly assess roads, trails, and support facilities for safety and quality of visitor experience, wildlife disturbance, cultural resources, and impacts to soil and vegetation. The Refuge would also monitor these areas for non-native invasive species and implement appropriate control measures. If use levels are resulting in unacceptable impacts to Refuge resources, visitor experience, or public safety, the use may be modified or relocated to prevent additional impacts and restore habitat.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 calendar days to provide comments following the day the notice is published. The public will be made aware of this comment opportunity through our social media outlets and letters to potentially interested parties. A hard copy of this document will

be posted at the Refuge Headquarters (1310 Bear Creek Road, Colville, WA 99114). It will be made available electronically on the Refuge website (https://www.fws.gov/refuge/little_pend_oreille/). Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final Compatibility Determination.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

1. Environmental education/interpretation activities not led by Refuge staff or volunteers will require approval by the Refuge Manager to minimize conflicts with other groups, safeguard students and resources, and to allow tracking of use levels. The Refuge Manager, at their discretion, may issue a Special Use Permit for groups less than 25 participants.
2. Groups with 25 participants or larger must obtain a Special Use Permit.
3. The permittee and all associated personnel agree to conduct activities in a safe manner, in compliance with all Refuge regulations and policies, and with precaution to avoid damage to resources, property, or personnel. Refuge staff will not be held responsible for loss of, or damage to, equipment.
4. A copy of the Special Use Permit must be in the permittee or associate's possession at all times while exercising the privileges of the Permit. A copy of the Permit must be shown to any USFWS employee or Federal law enforcement officer upon request.
5. Failure to abide by any part of the Special Use Permit; violation of any Refuge-related provision or Code of Federal Regulations; or violation of any pertinent state regulation (e.g., fish or game violation) will, with due process, be considered grounds for revocation of the permit and could result in denial of future permit requests for lands administered by the USFWS. This provision applies to all persons working under the authority of the permit.
6. Visitors are prohibited from collecting and removing any archaeological or historic artifacts, samples, or mementos from the Refuge. If cultural resources, or archaeological or historic artifacts are encountered, leave the item(s) in place and contact the Refuge Manager or nearest USFWS employee.
7. Youth educational groups are required to have a sufficient number of adults

to supervise their groups, which is generally 1:10 (one adult for every ten youths) for ages 14 and up, and 1:6 for ages 14 and under. These ratios are subject to change at the discretion of Refuge staff based on discussions with class leaders, comfort level of staff, and best judgement.

8. Activities associated with the proposed uses are restricted to the auto tour, trails, observation blinds/platforms, photography blinds, parking lots/pullouts, and educational study sites during daylight hours throughout the year.
9. Activities requiring off road/trail access or access between sunset and sunrise would require a Special Use Permit or be managed by Refuge staff.
10. Directional, informational, and interpretive signs and publications will be posted and maintained to keep visitors on roads and trails as well as help educate the public on minimizing wildlife and habitat disturbance.
11. Refuge staff and volunteers will monitor uses to ensure compatibility, refine user estimates, and evaluate compliance. Potential conflicts between user groups will also be evaluated. The Refuge will maintain an active law enforcement presence to ensure visitor compliance with all Refuge rules and regulations.
12. Regulations will be available at information kiosks on site, through a Refuge brochure, and will be posted on the Refuge website. Regulations are also available by contacting Refuge staff for information.

Justification

The National Wildlife Refuge System Administration Act of 1966 (as amended) identifies environmental education and interpretation as two of six priority public uses on national wildlife refuges. The law states that, when managed in accordance with principles of sound fish and wildlife management and administration, environmental education and interpretation, and the other priority wildlife-dependent recreational uses “have been and are expected to continue to be generally compatible uses.” The Act further states that these priority public uses should receive enhanced consideration over other general public uses in Refuge planning and management and directs the USFWS to provide increased opportunities for the public to safely engage in outdoor activities such as fishing and hunting.

Environmental education and interpretation, as outlined in this compatibility determination, would not conflict with national policy to maintain the biological diversity, integrity, and environmental health of Little Pend Oreille NWR. Based on the stipulations outlined above, it is anticipated that wildlife populations will find sufficient food resources and resting places such that their abundance and use of the Refuge will not be measurably lessened as a result of allowing environmental education and interpretation on Little Pend Oreille National Wildlife Refuge. The

relatively limited number of individual wildlife expected to be adversely affected by these uses will not cause wildlife populations to materially decline, the physiological condition and production of species present will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Based on available science and best professional judgement, the Service has determined that environmental education and interpretation at Little Pend Oreille NWR, in accordance with the stipulations provided here, will not materially interfere with or detract from the National Wildlife Refuge System mission or the purposes of the Refuge. Rather, appropriate and compatible environmental education and interpretation would be a use of Little Pend Oreille National Wildlife Refuge through which the public can develop an appreciation for wildlife and their habitats, as well as the role of the National Wildlife Refuge System in resource conservation.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director, NWRS, Pacific Region 1 Signature and Date

Mandatory Reevaluation Date

2039

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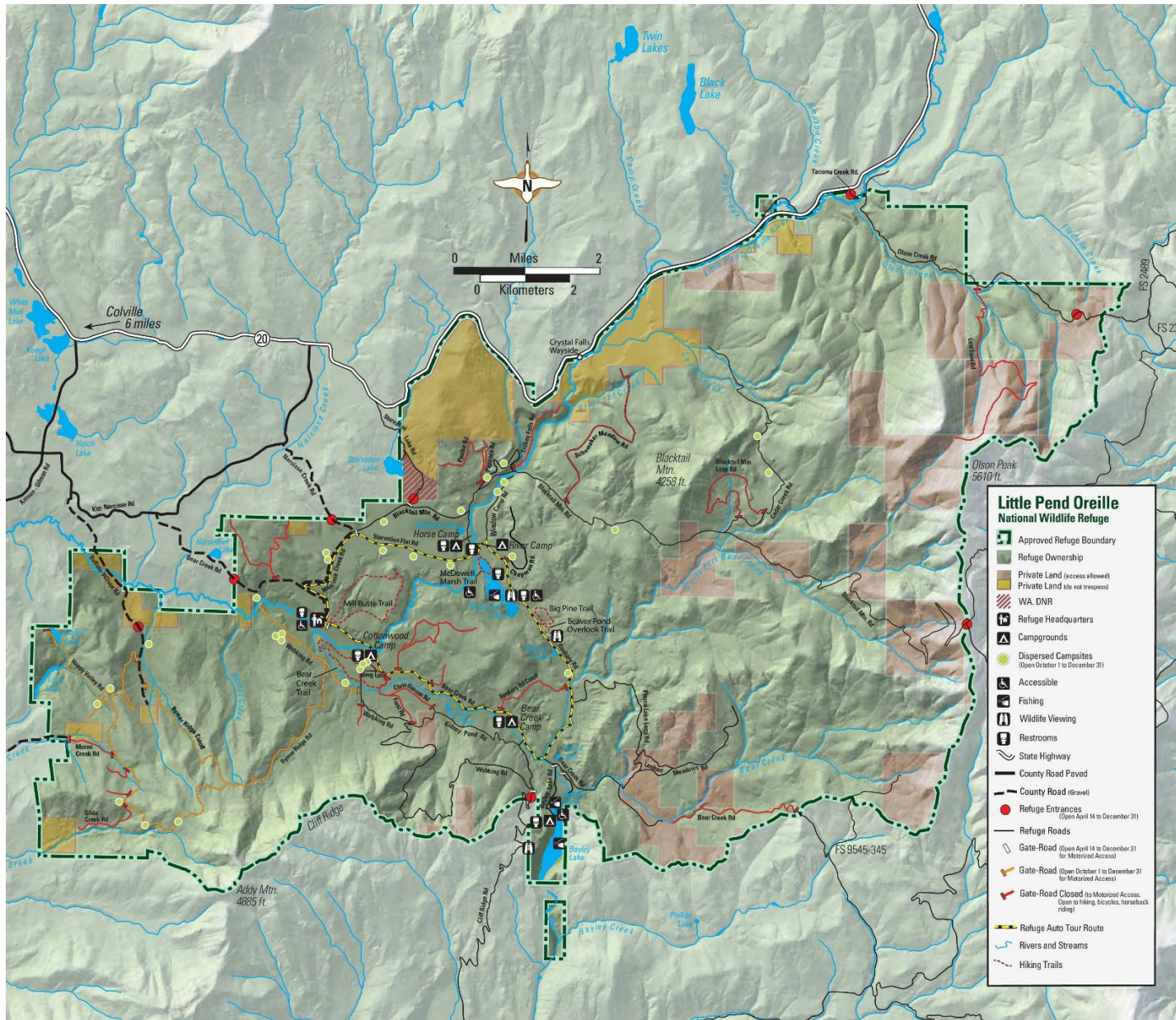


Figure 1. Public access, Little Pend Oreille National Wildlife Refuge