OUTLET BAY
Environmental Assessment

Idaho Panhandle National Forests
Priest Lake Ranger District
ENVIRONMENTAL ASSESSMENT

for

TEMPORARY SPECIAL USE PERMIT TO THE
OUTLET BAY SEWER DISTRICT
FOR COLLECTION SYSTEM IMPROVEMENTS

Idaho Panhandle National Forests
Priest Lake District
T60N, R4W, Section 31 - SE1/4 SE1/4
T59N, R4W, Section 06 - SE1/4 NE1/4
Bonner County, Idaho

Abstract:

The Outlet Bay Sewer District (OBSD) proposes to construct a new wastewater system to replace the current system. A new system is needed to replace the existing system which is not in compliance with State of Idaho Division of Environmental Quality (DEQ) standards due to nonreparable leakage out of the lagoons. The Forest Service would issue a temporary special use permit in order to begin construction of new facilities. This is an interim measure for the management of the affected National Forest System lands. The Chain Lakes Assembled Land Exchange is in progress to trade the affected land to OBSD for other suitable lands.

A number of individuals have expressed concerns with the design and cost of this project. These concerns are not within the scope of this interim decision.

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CHAPTER I. PURPOSE AND NEED

A. PURPOSE AND NEED

The need for this project is based on several factors. The current lagoon treatment and storage facilities are leaking severely, far beyond tolerances permitted by the State of Idaho Division of Environmental Quality (DEQ) guidelines for allowable leakage loss. This leakage presents a potential health hazard from pollution of groundwater as well as posing the threat of pollution to Priest Lake. The existing system, even if working properly, is inadequately sized to treat wastewater flows currently received, and would require significant expansion to accommodate projected service growth within OBSD’s service area. OBSD is currently operating under a Voluntary Consent Order with DEQ to bring the wastewater system into compliance with DEQ standards within a defined schedule for compliance.

B. PROPOSED ACTION

The Forest Service proposes to issue a temporary special use permit that would allow the Outlet Bay Sewer District (OBSD) to begin construction on two lagoons and a proposed irrigation area in T59N, R4W, Section 6 and T60N, R4W, Section 31. Implementation of this proposal would occur following issuance of the temporary permit.

It is important to note that this is an interim measure for the management of the affected National Forest System Lands. The Chain Lakes Assembled Land Exchange is presently in progress to trade the land described in this proposal to OBSD for other suitable lands.

OBSD would construct a new wastewater system on Forest Service lands to replace the current system. This proposal is described and documented as Alternative 3 - Preferred Alternative in a report titled Wastewater Treatment/Storage and Land Application Plan for the Outlet Bay Sewer District - Priest Lake, Idaho, 1998 Wastewater Facilities Plan (WFP) by James A. Sewell and Associates dated July 23, 1999. This document is incorporated by reference into this report. The suitability of this site for a sewage treatment plant has been approved by the Department of Environmental Quality (DEQ) and documented in a Finding of No Significant Impact.

The new system would replace the existing 8-acre system currently under a special use permit in T59N, R4W, Section 6 and would include a new treatment plant and land application system. The permit area would total approximately 56 acres. The treatment plant would include two lined lagoons of approximately 12 acres for treatment and storage. The land application system consists of forested land to be irrigated between May and September with hand-set sprinklers. The irrigation system would cover 44 acres. A small storage building would be constructed near the lagoons. The permit would also include constructing a new access road of approximately 600 feet. The lagoon area would be fenced and the access road gated. Some clearing and harvesting of trees would be done as part of this action.

A 300-foot setback zone as shown on the project area map would be required by the State of Idaho Division of Environmental Quality (DEQ) as a setback or buffer from the proposed irrigation area. This is required for odor control and public health and safety. The only activity that would occur in this buffer area is placement of signs at the edge of the buffer informing the public of the restricted area.

The old system would be decommissioned by the permittee. All improvements associated with the existing system would need to be removed including the fencing and building. Once the lagoon is dry, the
CHAPTER II. ALTERNATIVES

A. SCOPING

The OBSD originally presented the proposed wastewater facilities upgrade plan and cost projections at their Annual Meeting held on August 22, 1998, and solicited public comment on the proposed improvements at their board meeting held September 17, 1998. A public hearing on the plan was held October 22, 1998. Notices for the hearing were posted during the month of September, 1998 and advertisements were published in the Priest River Times newspaper on October 14 and 21, 1998. All landowners and interested parties were notified. No public comments were received at the hearing, nor did the OBSD receive any written responses. The Priest Lake Ranger District did not receive any comments following this hearing.

Another public hearing was held on July 29, 1999. At this hearing over 75 people attended with numerous discussions regarding the need for the new sewage treatment system and landowner assessment costs. Alternative 3 - Preferred Alternative was presented in detail. No objections were raised concerning the construction of this system on Forest Service lands and other connected actions described in the Proposed Action. The annual general meeting of the Sewer District was held on August 21, 1999, with over a hundred individuals in attendance. At this meeting, the construction of the proposed sewage treatment facilities as presented in The Wastewater Treatment/Storage and Land Application Plan for the Outlet Bay Sewer District - Priest Lake, Idaho, 1998 Wastewater Facilities Plan was approved by a vote of the attendees.

The Wastewater Treatment/Storage and Land Application Plan for the Outlet Bay Sewer District - Priest Lake, Idaho, 1998 Wastewater Facilities Plan (WFP) was sent to numerous public agencies and made available to the public. Comments were received from the U.S. Army Corps of Engineers, U.S. Fish & Wildlife, Idaho Fish and Game Department, Idaho State Historical Society, Idaho Parks and Recreation and the Bonner County Commissioners. These comments and responses are documented on pages 29-32 and Appendix H of the WFP.

This project has been included on the IPNF Quarterly Schedule of Proposed Actions in April, July and October 1999. Two requests to be on the mailing list were received. When the need for a new sewage facility was first proposed in 1994 the project also appeared in the IPNF Quarterly Schedule of Proposed Actions.

An Interdisciplinary Team (ID Team) of resource specialists reviewed this proposal, identified issues, developed alternatives and analyzed environmental effects for this document.

B. ISSUES

The Interdisciplinary Team identified three types of issues. "Key issues" are those that, because of the extent of their geographic distribution, the duration of their effects, the intensity of the interest or resource conflict, and their site-specificity to the Proposed Action, are used to formulate alternatives to the Proposed Action. Another category of issues is "Issues Affected by Alternative Actions". These issues are important in the effects analysis disclosed in Chapter III. The final type of issues are "Issues Not Addressed in Detail." They represent resource concerns which could be satisfied in all action alternatives through project design and/or the use of management requirements or mitigation measures. There is no further discussion of these issues in Chapter III.
berms would be pushed in and the ground returned to natural contour. The disturbed areas would be revegetated to grasses and trees per Forest Service specifications.

Other connected actions include abandonment and obliteration of approximately 1300 feet of Woodrat Road 1048 that presently runs through the site and relocating about 1800 feet of this road along the west side of the site. The relocated road would be no closer than 300 feet from Lamb Creek. Approximately 900 feet of Woodrat Trail 235 located within the 300-foot setback requirement bordering the irrigation areas would need to be relocated outside of this zone. The abandoned stretches of the road and trail would be blocked and obliterated to public use because of public health and safety considerations.

The IPNF Forest Plan, which is incorporated by reference and its accompanying EIS, to which this document tiers, provides information at a broader, forestwide scale. This proposal is consistent with the Forest Plan.

C. SCOPE OF DECISION

The scope of the decision is limited to whether or not to issue a temporary special use permit to the Outlet Bay Sewer District (OBSD) to begin construction of a wastewater system and other connected actions on Forest Service lands. The temporary permit would not be issued until the final design plans are approved by the State of Idaho Division of Environmental Quality (DEQ) and the contract is awarded for construction.

The design and costs of the proposed wastewater system were approved at a general public meeting of the Outlet Bay Sewer District on August 21, 1999. At that meeting, a number of individuals expressed concerns with the cost of this project and the type of facility. The design and cost of the facility are not within the scope of this decision.

The Forest Service presently has the Chain Lakes Assembled Land Exchange in progress to trade the land described in this proposal to OBSD for other suitable lands. This decision for a land exchange will be made through a separate environmental analysis and is outside the scope of this document.

The decision of whether or not to proceed with the proposal would be made by the District Ranger at the Priest Lake Ranger District.
Key Issues

1) Other sites on private lands or other National Forest lands would have less environmental impact.

2) The existing Woodrat Road 1048 should either be used or the road relocated to another location besides along Lamb Creek.

3) The existing lagoon system should be expanded on the present 8-acre site under special use permit.

Issues Affected by Alternative Actions

1) Effects on Soils

The proposed activities would have a detrimental effect on the long-term productivity of the soil. Land would be taken out of production by the creation of sewer lagoons and road construction.

2) Effects on Vegetation

The construction of two sewage lagoons and an irrigation area would require removal of trees and other vegetation. Other activities such as the relocation of Woodrat Road 1048 and Woodrat Trail 235 also would cause vegetation removal.

3) Effects on Wildlife (Management Indicator Species)

The proposed management activities may affect Management Indicator Species or their habitat. The area serves as winter range for white-tailed deer. Other species including the northern gray wolf, black-backed woodpecker, piledated woodpecker, pine martin and northern goshawk are known to exist in the project area or suitable habitat exists. These species are important to the biodiversity of the area.

4) Effects on Noxious Weeds

The proposed action would result in ground-disturbing activities which would increase the potential for noxious weeds in the project area.

5) Effects on the Recreational Use

Outlet Campground, a public campground on National Forest lands, lies adjacent to the project area. Osprey Campground lies approximately one quarter mile northeast. A segment of a locally popular recreation trail, Woodrat Trail 235, lies within the restricted buffer of the irrigation area. These developed recreation resources potentially would be affected by the Proposed Action. There are several dispersed recreation activities such as hiking, huckleberry and mushroom picking, and mountain bike riding that also would be affected.

6) Effects on Public Health and Safety

Currently, the existing system is out of compliance with DEQ regulations because of excessive leakage affecting both groundwater and surface waters.
For public health and safety considerations, a minimum 1000-foot buffer zone from the proposed lagoon sites to any dwellings and a minimum 300-foot buffer surrounding the proposed irrigation sites is required under State regulations.

7) Effects on Adjacent landowners and other Publics

The proposed action would have the potential for increasing noise and traffic during the construction of the facilities. Once built, there is the possibility of odor affecting adjacent landowners. There are several existing special use permits within the project area including water transmission and telephone lines. These improvements may be affected during the relocation of the Woodrat Road 1048.

Issues Not Addressed in Detail

1) Effects on water quality and fisheries in Lamb Creek and Priest Lake

Priest Lake is an oligotrophic lake with outstanding water quality. The confluence of Lamb Creek and Priest Lake is located just upstream of the Outlet dam. Lamb Creek has been identified by DEQ as a Water Quality Limited Segment because of sediment. In addition to the DEQ listing, the stream is listed in the IPNF Forest Plan as an Unscheduled Drainage (See Forest Plan page CC-3). This listing in the Forest Plan suggests that the stream has a problem with excess sediment and that management activities could occur if analysis shows that the original concern was not justified or if the project would produce a net benefit to water resource conditions.

Lamb Creek contains remnant populations of westslope cutthroat trout and a fairly strong population of brook trout. Because of brook trout introductions, cutthroat trout have been displaced to headwater reaches or eliminated all together in most of the stream, including the segment that flows through the project area.

The watershed and fisheries analysis for this project included a site-specific review of the proposed project area, a review of the literature pertaining to the site’s soil landtypes, a literature review of sediment transport, and an analysis of the existing as well as reasonably foreseeable actions that may occur within the larger Lamb Creek basin.

The proposal submitted by the Outlet Bay Sewer District to the Forest Service estimates that approximately 14 acres would have ground-disturbing activities. The proposed action would include 12 acres of clearing for the sewage lagoon, plus 1 acre of clearing for the road construction, and 1 acre of clearing for laying the irrigation line for a total of 14 acres. In addition, 1800 feet of road would be constructed to replace the existing Woodrat Road 1048 and 900 feet of Woodrat Trail 235 would be relocated. The new road would be constructed no closer than 300 feet from the edge of Lamb Creek. This distance meets the objectives of the Inland Native Fish Strategy (INFISH).

The analysis of the potential direct effects of increased water or sediment yield from the proposed project are based on both the site and literature review. A site review of the proposed project along with landtype descriptions of the area indicates that the site is extremely well-drained resulting in no direct connection of the proposed project to any live stream courses. Large woody debris traps sediment and prevents its delivery to streams (Megahan and Ketchison, 1996). A review of the site surrounding the proposed project showed that there was ample large woody debris present to trap sediment should any surface runoff develop and flow off the disturbed area. The likelihood of surface runoff is very low on
this site given the soil characteristics. Based on the highly permeable soils, the lack of any natural drainage features and the proposed mitigation (i.e. stream buffers), there would be no direct or indirect delivery of either sediment or water yield to Lamb Creek or Priest Lake should the proposed project be implemented. Beneficial uses including fisheries would therefore not be affected (See Draft Biological Assessment/Evaluation (Fisheries) for Outlet Bay Sewer District).

Given that the proposed project would eliminate the current leaking of the sewer effluent (See WFP page 28, item 8), there would be a direct benefit to the groundwater from the reduction of bacterial contamination within Lamb Creek and Priest Lake.

A review of reasonably foreseeable activities and existing timber sales was conducted to determine cumulative effects. The basis of the cumulative effects analysis is the Douglas Fir Bark Beetle (DFBB) cumulative effects analysis for the Lamb Creek drainage. Two timber sales within the Lamb Creek drainage, Binarch and Bismark, were analyzed in the DFBB FEIS. These sales would not adversely impact water quality or watershed conditions (DFBB FEIS Volume 2 pp. III-484). The more recent projects which were not assessed in the Douglas Fir Project, but are included in this cumulative effects analysis, include the proposed land exchange for the Outlet Bay Sewer District, Lakeface-Lamb Fuel Reduction Project, and the proposed harvesting of timber by Stimson Timber Company.

The land exchange of 120 acres with the Outlet Bay Sewer District is a Reasonably Foreseeable Action. Future expansion plans for the Sewer District include the creation of a third lagoon and an irrigation area. Since the third lagoon would be built with the same materials as the other two and the expanded irrigation area would be irrigated at the same rate as the existing irrigated area, there would be no additional threat to groundwater contamination. No additional sediment or water yield would be produced.

Given that the proposed project would eliminate the current leaking of the sewer effluent (See WFP page 28, item 8), there would be a direct benefit to the groundwater from the reduction of bacterial contamination within Lamb Creek and Priest Lake.

A review of reasonably foreseeable activities and existing timber sales was conducted to determine cumulative effects. The basis of the cumulative effects analysis is the Douglas Fir Bark Beetle (DFBB) cumulative effects analysis for the Lamb Creek drainage. Two timber sales within the Lamb Creek drainage, Binarch and Bismark, were analyzed in the DFBB FEIS. These sales would not adversely impact water quality or watershed conditions (DFBB FEIS Volume 2 pp. III-484). The more recent projects which were not assessed in the Douglas Fir Project, but are included in this cumulative effects analysis, include the proposed land exchange for the Outlet Bay Sewer District, Lakeface-Lamb Fuel Reduction Project, and the proposed harvesting of timber by Stimson Timber Company.

Another Reasonably Foreseeable Action is the Lakeface-Lamb Fuel Reduction Project. An EIS is currently being prepared for this project and the preliminary watershed analysis indicates no adverse impacts in terms of water and sediment yield.

The Stimson Timber Company proposes to harvest timber on their land in Section 31, T36N, R46E WM. This would be a helicopter salvage of beetle-killed Douglas-fir trees covering 106 acres. A preliminary assessment of this project would indicate there would be no adverse impacts to watershed conditions because of the limited ground disturbing activities associated with helicopter logging.
2) Effects on Fuels

Existing fuels are low over approximately 60 percent of the project area because of past fuel treatments resulting from even-aged harvest treatments or the land-clearing for the existing sewage lagoon. On the remaining portion, fuels are somewhat higher because of mortality associated with forest insects and diseases in the standing timber. There is a high risk of human-caused fire ignition because of the proximity of residential areas, the high use of the West Lakeshore and Woodrat Roads, and recreation activities such as ATV use.

There would be a short-term increase in fuels resulting from the land-clearing activities. Fuels would be created by the removal of trees and other vegetation from the site for the construction of the sewage lagoons, roads, and irrigation pipeline system. The permittee would be responsible for the treatment of any activity fuels in accordance with the special use permit. These fuel reduction treatments would follow Forest Service guidelines. Because of the treatment of activity fuels and the use of the area for irrigation, there would be a lower potential in the future for fires. Fuel loadings would be reduced from existing conditions. Forest Plan standards for fuels would be met with the proposed action.

The land exchange of 120 acres with the Outlet Bay Sewer District is a Reasonably Foreseeable Action. Future expansion plans for the Sewer District include the creation of a third lagoon and an irrigation area. Fuels would be generated by clearing of trees and other vegetation for the lagoon and installation of the irrigation lines. These fuels would be treated by the Sewer District in compliance with State fuel reduction requirements. The Lakeface-Lamb Fuel Reduction Project is another future action, and includes areas adjacent to the project area. Fuels would be treated in these units to reduce both existing and potential fuel loadings by removing dead and dying trees and by piling. The fuel hazard and risk of ignition would be reduced by this project.

3) Effects on Threatened, Endangered and Sensitive Plants

A project area review indicated that habitat associated with the moist forest guild occurs within the project area. Specifically, habitat suited to sensitive plant species found in moist forest frost pockets, such as the sensitive groundpine (*Lycopodium dendroideum*) and moonworts (*Botrychium lanceolatum*, *B. mingenense*, *B. pinnatum*), is present. Groundpine was located approximately one-eighth mile west of the project area. No habitat suitable for the Threatened plants, water howellia (*Howellia aquatilis*) or ute ladies’ tresses (*Spiranthes diluvialis*) occurs within the project area, and therefore, there would be no effects to either species.

Intensive field surveys were conducted throughout the area, and no sensitive plant populations were located. Field surveys indicated that the majority of the project area is not suitable habitat at this time. Some moderately suitable moist (cool) forest habitat occurs northeast of the existing lagoon site, and scattered in the proposed irrigation area. In these areas, it is possible that isolated moonwort individuals were overlooked despite these intensive surveys. Moonworts are very small (typically 3-5 cm), and may not appear above ground each year.

There would be no effects to sensitive plants under the No Action alternative.

No sensitive species associated with the wet forest, dry forest, peatland, aquatic, cold forest or subalpine guilds would be directly or indirectly affected by the Proposed Action. Within the moist forest guild, only undetected moonwort individuals would be affected. It is possible that such individuals would be directly
or indirectly affected from creation of the irrigation area, or the relocation of Woodrat Road 1048. Loss of undetected moonwort individuals is not likely to trend the species to federal listing, or result in the loss of species or population viability. Cumulative impacts to moonworts would be low, as it is not likely that any populations would be affected. There would be no loss of highly suitable habitat for any sensitive plant species. Future actions would not have any additional impacts on sensitive plants. Both alternatives meet the intent of the Forest Plan regarding sensitive plants.

5) Effects on Heritage Resources

As stated on page 28 of the Wastewater Treatment/Storage and Land Application Plan for the Outlet Bay Sewer District - Priest Lake, Idaho, 1998 Wastewater Facilities Plan (WFP), the Outlet Bay area is identified as a potential prehistoric archaeological site because Native American artifacts have been found along the lake shoreline. An archaeological study of the proposed area, however, did not uncover any artifacts or other heritage resources. As noted in Appendix H of the WFP, the Idaho State Historical Society has made a determination that no historic properties were identified within the project area and the project can proceed as planned.

The possibility of discovery of Native American artifacts exists when excavation work is undertaken. As stated as a mitigation measure, ground-disturbing activities would be monitored by Forest Service archeologists. Any future discovery of cultural sites would be inventoried and protected if found to be of cultural significance. A decision would be made to avoid, protect, or mitigate these sites in accordance with the National Historic Preservation Act of 1966. There would be no cumulative effect when the land exchange is implemented with the Sewer District in the future. The Sewer District would need to be in compliance with laws protecting heritage resources. No cumulative effect likewise would occur in the Lakeface-Lamb Fuel Reduction Project because of clauses protecting cultural resources. The project would be consistent with the Forest Plan in regards to heritage resources.

6) Effects on Wetlands and Floodplains

The project area was surveyed for wetlands and floodplains. No wetlands exist because of the high permeability of the soil. The area also lies outside the 100-year flood plain. The level of Priest Lake is relatively constant, and controlled by a dam. No direct, indirect, or cumulative effects therefore, would occur to either wetlands or floodplains.

7) Effects on Scenic Integrity

The effects to the scenic integrity, or visual character, of the project area were examined. The area lies near State Highway 57 and the Outlet Bay and West Lakeshore Roads, which are both county-maintained roads. In the Forest Plan, the viewpoints and viewsheds from these roads were identified as Visual Sensitivity Level 1 travel corridors. This level is the highest visual sensitivity level.

The project area lies in an area designated as high scenic integrity area (a retention visual quality objective). High scenic integrity refers to landscapes where the valued character "appears intact." Deviations may be present but must repeat the form, line, color, texture, and pattern so that they are not evident. The existing landscape condition can be characterized as "slightly altered" because of residential development on private land adjacent to the travel corridors, and past timber harvesting on National Forest lands. The harvest units are evident from an aerial perspective but hard to detect from the ground view from those roads designated as Sensitivity Level 1.
The travel corridors outlined above were used for the effects analysis. The analysis was based from on-the-ground review to determine whether or not the site was visible from these locations, and the effects, if any, on the scenic integrity.

The landscape condition would remain as "slightly altered." Because of the flat terrain of the project area and the buffer property required for these facilities, there would be no direct effects to the foreground view (0-300 feet) from any viewpoints resulting from the proposed lagoons and irrigation area and related activities. There would be a direct effect to the scenic character from the Outlet Bay Road by the relocation of Woodrat Road 1048 connection. The road junction would be visible for users of the Outlet Bay Road. The obliteration of the Woodrat Road 1048 connection to the West Lakeshore Road would be a positive effect from that road viewshed as this junction would be closed and revegetated. Through time, the road would be less visible to users of the West Lakeshore Road as vegetation grows. No effects would occur to the midground (1/2 mile to 4 miles) and background (over 4 miles) viewpoints or viewsheds because of the flat terrain of the project area. The proposed action would be consistent with visual quality guidelines of the Forest Plan.

The land exchange with the Outlet Bay Sewer District was identified as a future action. No cumulative effects to scenic integrity would occur. A third sewage lagoon potentially would be constructed if use increases. Because the site lies on flat land and would be buffered because of the required safety restrictions, the lagoon site would not be visible from any viewpoint. Expansion of the irrigation area in the future also would not be visible because of the required buffer. The Lakeface-Lamb activities also would be in compliance with scenic integrity as mandated by the Forest Plan (Forest Plan, pages II-1, II-4, II-25 and II-26).

8) Effects on Environmental Justice

In February of 1994, President Clinton signed an executive order on Environmental Justice requiring federal agencies to conduct activities related to human health and the environment in a manner that does not discriminate or have the effect of discriminating against low income and minority populations.

Within Bonner County, there are populations of minority groups. At the time the IPNF Forest Plan was developed, there was a two percent minority population. Also within the county, a substantial proportion of the population falls below the poverty line. Although minority and low income populations do live in the vicinity of the project area, the proposal would not discriminate against these groups. The likelihood of beneficial effects would exist due to increased employment opportunities. There would be no effect in the future resulting from the proposed land exchange with the Sewer District.

9) Effects on Air Quality

Air quality for the planning area is considered good to excellent. Seasonal variations occur, resulting from weather conditions such as temperature inversions. Smoke and dust accumulations cause seasonal deteriorations of air quality. Throughout the year, smoke is generated from the burning of debris on private land, campfires, slash burning, and smoke from fireplaces and wood-burning stoves. During the summer months, dust from traffic, especially on the Woodrat Road 1048 and West Lakeshore Road, also locally affects air quality.

No change in air quality would occur in the No Action Alternative. With the Proposed Action, there would be a short-term reduction of air quality resulting from burning the debris from site-clearing. Any
burning would comply with State of Idaho air quality laws and guidelines. The permittee would be required to obtain a burning permit to ensure compliance with these air quality guidelines. No increase in dust would occur except during the construction phase of the facilities because of increased vehicle use. The Proposed Action would be consistent with air quality standards of the IPNF Forest Plan.

C. ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

To address "Key Issue #1", the possibility of locating the treatment plant on private lands was explored. In 1997 the Forest Service conducted a review of potential private lands that might be suitable. Using aerial photos and topographic maps, three potential sites were located. These were located in Sec. 6, R4W, T59N; Sec. 25, R5W, T59N; and Sec. 31, R4W, T60N. A field visit was made to each site. These three private land parcels were determined not to be suitable due to a variety of site characteristics including steep slope gradients, topography, wetlands, existing residential and commercial development, or the size of parcel. There are no other possible sites located on private lands within or near the boundaries of the Sewer District.

Another alternative was to locate the site on other Forest Service lands. Other locations besides the existing site within or adjacent to the OBSID were considered. Due to slope gradients, topography, wetlands and streams the only practical suitable site on Forest Service lands was near the existing treatment plant, which is on Forest Service lands.

The option of keeping Woodrat Road 1048 open to public use and not relocating the road along Lamb Creek was considered (Key Issue #2). However, this alternative is not viable in order to be in compliance with DEQ guidelines concerning public health and safety since the existing road is located within the proposed irrigation area. Other potential relocations of Woodrat Road 1048 would result in more construction, effecting additional deer/winter range, or impacting Lamb Creek.

Expansion of the existing lagoon on the present site was explored (Key Issue #3). Anticipated growth within the service area would require a system capacity of approximately 29.5 million gallons annually. This would require a corresponding surface area of the new lagoon(s) of approximately 4.5 times the area of the existing storage lagoon. To expand the existing lagoon system to this size would not be cost effective, as very little of the existing facility could be reused, the site has insufficient area and is poorly located relative to residential properties (See WFP, page 17). Also, this would not comply with the Voluntary Consent Order from DEQ. Therefore, utilization of the existing lagoon system was not considered a viable alternative for this improvement project.

D. ALTERNATIVES CONSIDERED IN DETAIL TO THE PROPOSED ACTION

Alternative A - No Action

Under this alternative the existing wastewater treatment plant would continue in operation on the existing eight acres of Forest Service land presently under special use permit. There would be no opportunity for expanded facilities of an additional lagoon and irrigation facilities to handle the needs of the Sewer District. The Outlet Sewer District would remain out of compliance under DEQ guidelines because of the leakage of the existing lagoon. Woodrat Road 1048 and the Woodrat Trail 235 would remain in their present location and not be relocated. No timber would be harvested.
Alternative B - Proposed Action

The Proposed Action is described in Chapter I.

E. MITIGATION MEASURES

1) All slash disposal, earth moving, and facilities development would be approved by the Forest Service prior to being implemented by OBSD.

2) Within the 300 foot setback requirement bordering the irrigation areas only limited public access would be allowed. Signs would be posted warning the public not to enter due to possible wastewater.

3) Relocated Woodrat Road 1048 would be designed by OBSD to meet Forest Service road construction stipulations (See Forest Service Standard Specifications for Construction of Roads and Bridges). The designed plans would be approved by the Forest Service prior to any construction. Annually the road would be treated for dust abatement.

4) Noxious weeds would be treated in accordance with the Priest Lake Noxious Weed Control Project, 1997 Environmental Impact Statement (EIS) including the following mitigation measures:
   a. Provisions would be made for the prevention and control of noxious weeds within new and existing special use permits. Permittee would be responsible for the continued treatment of noxious weeds.
   b. To prevent the establishment and spread of noxious weeds, all ground disturbances would be revegetated with an appropriate seed mix and fertilized as necessary.
   c. Revegetation of all treated areas would use a certified noxious weed-free seed.
   d. All noxious weed control activities would comply with State and local laws and agency guidelines.
   e. Cleaning of construction equipment would be required before operating.

5) Ground-disturbing activities would be monitored by Forest Service archeologists to ensure the protection of heritage resources.

6) Any burning would require issuance of a burning permit.

7) Warning signs and/or flagmen would be required during operations, as needed, to ensure public safety. Signs would be required to meet Manual of Uniform Traffic Control Devices (MUTCD) standards.

F. MONITORING

The plans and drawings for construction prepared by Sewell and Associates would be reviewed for adequate resource protections before being approved. As construction proceeds, the projects would be inspected by a Forest Service engineer to ensure the plans are being implemented as approved. After completion and during operation, the site would be inspected monthly to ensure that the permit provisions are being followed. The permit inspection reports would be filed into the permit folder.

DEQ is the responsible agency for issuing a Wastewater Land Application Permit and monitoring the safe application of this product within the irrigation area.
CHAPTER III. AFFECTED ENVIRONMENT/ENVIRONMENTAL EFFECTS

The National Environmental Policy Act (NEPA) requires the Forest Service to consider every significant aspect of the environmental impacts of the proposed action and to inform the public that environmental concerns have been considered in the decision-making process. This section discloses the direct, indirect, and cumulative effects of the Proposed Action and Alternatives upon the human environment.

Many of the effects disclosed in this section are obtained from the Lakeface-Lamb Fuel Reduction Project and thus this document is incorporated by reference into this report.

A. PHYSICAL EFFECTS

Soils

The flat terrain is characterized by landtypes which were shaped by water influences. The jumble of mostly granitic rocks, sand, and silt that was deposited by glaciers (glacial outwash) and by the actions of running water (alluvium) typify the project area. A layer of volcanic ash overlies this subsoil. This material came from several of the Cascade Mountain volcanoes with the most ash coming from Mt. Mazama (Crater Lake) in Oregon about 6700 years ago. The volcanic ash is covered by an organic layer at the surface where the leaves, needles, and other organic litter have decomposed into a dark-colored material known as humus. Humus has high water-retaining capabilities, and contains a high percentage of the soil nitrogen and microbes which are important to soil productivity. Soils are deep and well-drained with high permeability.

A land system inventory using landtypes has been completed for the project area. Landtypes are units of land which have similar biophysical characteristics and management implications. The differentiating characteristics for landtypes include geology, elevation, slope, aspect, landforms, position on the landscape, relief, rock outcrops and slope shape. For each landtype, a soil erosion rating measures the relative susceptibility of exposed soils to soil erosion. The mass failure potential, defined as the relative potential of downslope movement of masses of soil, also is rated. Two different landtypes were identified in the project area, both are rated as having low potential for either soil erosion or mass failure because of the essentially flat character of most of the project area.

The No Action Alternative would result in no additional loss of soil productivity resulting from soil displacement or compaction. No additional direct, indirect, or cumulative effects would occur.

The proposed action would cause the direct effects of displacement and compaction on the soils resource. The two lined treatment lagoons totalling 12 acres would result in the irretrievable loss of soil productivity on these acres. The relocation of the Woodrat Road 1048 road totalling 1800 feet and construction of a new access road would result in the irretrievable loss of soil productivity on .8 acre. Other impacts to soils would be temporary soil displacement when irrigation lines are installed in parallel lines over the remaining 43.5 acres; displacement would occur on approximately one acre. Included in the irrigation area would be the rehabilitation of the 8 acres of the existing lagoon and .4 mile of Woodrat Road 1048 that would be obliterated. Because of the landtypes and flat terrain, no indirect effect of surface erosion or mass displacement would occur.

The land exchange with the Sewer District has been identified as a Reasonably Foreseeable Action. In the future depending on need, another 6-acre lagoon and 22 acres of additional irrigation would be
developed. This would result in the irretrievable loss of soil productivity on the lagoon site. Soil
displacement and compaction would occur on an estimated one acre of the future irrigation area to lay
pipelines. Because of site conditions, no surface erosion or mass failure would occur.

B. BIOLOGICAL EFFECTS

Vegetation

The area is characterized as a western hemlock habitat type. This relatively moist habitat type is very
productive and contains a diversity of plant species. Tree species include western hemlock, grand fir,
lodgepole pine, Douglas-fir, western red cedar, western larch, white pine, and birch.

Past timber sale activity has occurred over the entire project area. The entire area was logged as a sal-
vage sale in the early 1970s. Approximately 22 acres of past regeneration harvests are included in the
project area; these units were logged in the late 1980s and mid-1990s and are stocked with sapling-sized
trees. Sawtimber stands with patches of sapling-sized trees or seedlings characterize the remaining acres
except for the existing sewage lagoon (8 acres) which was constructed in the early 1970s. These older
trees date from the 1890 fire which was a large stand-replacing fire which stretched from the lower West
Branch of Priest River northward to the lake.

There would be no effects to existing vegetation in the No Action Alternative.

For the Proposed Action, the construction of the two sewage lagoons would require removal of the trees
and other vegetation now occupying the sites. The two lagoons would cover a 12-acre parcel. Another
direct effect would be the removal of vegetation on the 43.5-acre irrigation area to lay pipes. An esti-
mated 1-2 acres of vegetation would be removed in the immediate areas of the irrigation lines to allow
installation. The right-of-way to relocate Woodrat Road 1048 and to construct an access road would
also require tree and vegetation removal on approximately one acre. All work would be done with a
dozer or similar ground-clearing equipment. Any merchantable trees would be cruised and sold to the
permittee, and removed. The Proposed Action therefore, would result in the irretrievable loss of 14
acres of area currently vegetated.

As another direct effect, the 8 acres of the existing special use permit would be rehabilitated by planting
trees and other vegetation after the existing containment dikes of the lagoon are levelled. The site pre-
sently is cleared, and includes the existing 1.6 acre lagoon. These acres would be included as part of the
irrigation area for the treated wastewater.

An indirect effect would be the increased growth of tree and other vegetation on the 43.5 acres of ir-
grigated land. The application rate would be based on the nutrient needs of the cover crop, which would
be predominantly conifer tree species. The treated wastewater would then irrigate using either a surface
or diffused aeration system from May to September.

A land exchange with the Outlet Bay Sewer District was identified as a Reasonably Forseeable Action.
Depending on need, future expansion capabilities of the Sewer District would include an area for a third
sewage lagoon covering 6 acres. An additional 21.8 acres is available for future irrigation needs. The
land clearing associated with the construction of the lagoon, and the laying of irrigation pipe on the re-
mainning acres would result in an additional irretrievable loss of 7 acres of land currently vegetated. No
other developments are planned in the future.
The Lakeface-Lamb Fuel Reduction Project also is a future action. Approximately 4 acres of proposed fuel reduction treatments would occur within the project area as part of Lakeface-Lamb. These treatments would remove dead and dying trees in the overstory, and pile and burn existing fuels in addition to any activity fuels produced by the harvesting. An additional 18 acres of treatment are projected within the land exchange area. These treatments also would focus on removing the dead and dying trees and treating the existing high fuel loading to avoid a crown fire in this urban-wildland interface area.

**Wildlife (Management Indicator Species)**

To facilitate the management of all wildlife species and ensure population viability, the National Forest Management Act (NFMA) directed the Forest to select Management Indicator Species (MIS) to help assess the impacts of land management decisions on the wildlife resource. The MIS concept assumes that by maintaining viable MIS populations, viable populations will also be maintained for other wildlife species which have similar habitat requirements.

The designated Forest MIS are as follows:

**Threatened and Endangered Species**
- Bald eagle, *Haliaeetus leucocephalus*
- Northern gray wolf, *Canis lupus*
- Grizzly bear, *Ursus arctos horribilis*
- Woodland caribou, *Rangifer tarandus caribou*

**Sensitive Species**
- Peregrine falcon, *Falco peregrinus anatum*
- Flammulated Owl, *Otus flammeolus*
- Black-backed Woodpecker, *Picoides arcticus*
- Coeur D'Alene Salamander, *Plethodon vandykei idahoensis*
- Harlequin Duck, *Histrionicus histrionicus*
- Common Loon, *Gavia immer*
- Boreal Owl, *Aegolius funereus*
- Northern Bog Lemming, *Synaptomys borealis*
- Townsend's Big-eared Bat, *Plecotus townsendii*
- Lynx, *Felis lynx*
- Fisher, *Martes pennanti*
- Wolverine, *Gulo gulo*
- Northern Goshawk, *Accipiter gentilis*
- Boreal Toad, *Bufo boreas*
- Northern Leopard Frog, *Rana pipiens*

**Other Management Indicator Species**
- Pileated Woodpecker, *Dryocopus pileatus*
- Pine Marten, *Martes americana*
- White-tailed Deer, *Odocoileus virginianus*

Sighting records, literature, previous planning records and habitat characterizations were reviewed to screen MIS for their relevancy to the project. Relevancy was based on evidence of, or potential for MIS species to occur in proximity of the project area, and the risk that MIS and/or their habitat could be affected by the proposed action.
This review determined that from the list of potential threatened and endangered species which may be found on the Priest Lake Ranger District, the gray wolf would potentially be impacted by proposed activities associated with the project area. The only sensitive species considered relevant to the project is black-backed woodpecker and northern goshawk. Other relevant MIS include pileated woodpecker, pine marten, and white-tailed deer.

**Northern Gray Wolf**

The gray wolf was listed as an endangered species in the lower 48 states in 1978. Currently the gray wolf is listed federally as an endangered species north of Interstate 90 and as an experimental population south of Interstate 90. The first Northern Rocky Mountain Wolf Recovery Plan was developed by an interagency team in 1980. A revision of the recovery plan was approved in 1987, after an extensive review and evaluation.

Potential habitat for wolves exists in the project area as a result of the diversity and abundance of prey species. As discussed below the planning area is utilized as extended winter range by white-tailed deer. However, the project area is an area of high level of human activities with residential areas lying immediately to the east, south, and west; county and Forest Service roads located 300 feet from the boundary; and a recreational trail on the east side of the project area. Because of these human activities, there is a low probability of the use of the area by wolves.

The Proposed Action would result in a slight short-term increase in the risk of mortality as a result of the construction of the lagoons, irrigation areas and relocation of Woodrat Road 1048 and other connected actions. This short-term effect would occur over a span of 4-6 months. This mortality risk would be reduced once construction is completed. The use would return to pre-construction levels. This slight temporary increase in mortality would not likely have an adverse impact on the wolves.

The impact to prey species such as white-tailed deer would impact wolves as a result of prey availability. The irreplaceable loss of 12 acres for the lagoon site and the temporary loss of one acre of 1-2 acres of cover in the irrigation area The slight reduction of 44 acres of moderate quality winter range would not likely have an adverse impact on wolves.

There would be no direct increase in mortality risk with the relocation of Woodrat Road 1048 and Woodrat Trail 235. No increase in use above existing levels would be expected resulting from the proposed action. The road construction would result in the loss of one acre of existing cover in extended winter range, and this reduction would not likely have an adverse impact on wolves.

Alternative A would have no effect to the wolves.

The land exchange with the Sewer District has been identified as a Reasonable Foreseeable Action as well as the actions proposed in the Lakeface-Lamb Fuel Reduction Project. The loss of 6 acres of forage for a third lagoon site and the loss of one acre of cover from the placement of irrigation lines of moderate quality winter range through the land exchange would not likely adversely affect the wolf populations. A short-term displacement could occur resulting from the proposed units planned in the Lakeface Lamb Reduction Project, but would not likely adversely affect wolf populations.
Black-Backed Woodpecker

Black-backed woodpeckers nest in snags or in live trees with heartrot which are at least 5 inches in diameter. They often use clumps of snags for nesting, and are known to nest in spruce, lodgepole pine, aspen, ponderosa pine, Douglas-fir, and western larch. These tree species exist in the project area. Black-backed woodpeckers feed primarily on wood-boring beetles and specialize on large areas of burned forests or recently killed, beetle-infested timber.

Snag habitat is limited in the project area because of the past harvest treatments and the existing open road system. Regeneration harvests have occurred on 22 acres within the boundaries of the project area boundary. The 22 acres were logged largely prior to the issuance of the Forest Plan when snag retention guidelines were implemented. There are no snags on the 8-acre site of the existing sewage lagoon. Snag habitat also is considered to be void or non-existent within 200 feet of open roads because of firewood-gathering and 100 feet either side of power lines because of hazard tree removal. When considering the overall project area, snag densities average less than 3 snags per acre.

Over the larger cumulative effects analysis area, snag habitat is also minimal in both developed campgrounds as well as dispersed recreation sites and areas of existing special uses including commercial and recreational residential areas. Snag habitat on all acres of private land have been reduced primarily by timber harvest or by land development. Those areas adjacent to commercial establishments or residences have been eliminated for safety reasons. Continued residential development on private lands would continue to maintain snag levels at minimal levels.

The Proposed Action would reduce the availability of snag habitat for both foraging and nesting through the construction of the two proposed lagoons, irrigation areas, and the relocation of Woodrat Road 1048. The 12 acres included in the proposed lagoon sites would be located in previously harvested stands with low snag numbers. There would be one acre of tree removal associated with the relocation of Woodrat Road 1048 and another 1-2 acres in the proposed irrigation area where trees and snags would be removed in linear strips to allow the pipeline to be laid. Therefore, slight reductions in population may occur within the project area but overall viability of the species would not be affected because of the small number of acres impacted. No loss of snag habitat would occur with the other connected actions including the trail relocation, building construction, fencing, construction of 600 feet of access road (because it would be located in an harvest unit), and rehabilitation of the existing lagoon site.

Alternative A would have no direct effects on black-backed woodpeckers. No immediate change would occur as a result of implementation of this alternative.

Future actions within the 120-acre land exchange with the Sewer District would include the construction of a third lagoon and expansion of the irrigation area covering 22 acres. The expansion of the proposed irrigation area, would remove 1 acre of snag habitat, in which the live and dead trees would be cut to allow equipment to lay the irrigation pipeline. Because the major portion of the proposed third lagoon site would be located in old harvest units, there would be minimal loss of snag habitat on these 6 acres.

The availability of snag habitat would be further reduced in the action alternatives proposed in the Lakeface-Lamb Fuel Reduction Project due to the salvaging of timber based on the preliminary analysis. Snag guidelines of the Forest Plan would be followed to reduce the impact. If monitoring indicates that snag levels are below standards, snag creation would occur to ensure adequate snag levels.
None of these reasonably foreseeable actions would affect the overall viability of the species because of the small number of acres impacted by this action and Forest Plan standards for snag retention in the Lakeface-Lamb project.

**Northern Goshawk**

The northern goshawk has a preference for multi-layered mature and old-growth timber stands. They usually nest in the oldest stand, with a high canopy cover and a high basal area. Goshawk nest surveys have been conducted within the project area over the past 2-3 years, but no goshawk nesting territories were located. Suitable nesting habitat for goshawks is located near Lamb Creek outside the project area. Foraging habitat is generally abundant and distributed throughout the project area and is not thought to be limiting to the species.

No known active goshawk nests would be disturbed through the Proposed Action. If any goshawk nests are located during project implementation, timing and operations would be changed to eliminate disturbance to nesting goshawks. The removal of down wood and snag habitat would reduce habitat quality for northern goshawks within the project area. The removal of down wood would reduce the availability and effectiveness of small mammal habitat which is a primary food species of the northern goshawk. The loss of snags in the planned development area would result in a minor loss of habitat because the area does not contain large-diameter Douglas-fir, larch, or other species suitable for nesting. Because of the large home range of goshawk, it is anticipated that these effects would be minor, as other suitable nesting habitat is available. Overall viability of the species would not be affected because of the small number of acres impacted.

Future actions included in the Lakeface-Lamb Fuel Reduction Project and the land exchange with the Sewer District would result in no additional effects to this species than that which has been discussed in the previous paragraph.

**Pileated Woodpecker**

Pileated woodpeckers have specific requirements for nesting which make them appropriate indicators of old-growth or late-successional forest. They are year-round residents that prefer forests with tall, large diameter dead or defective trees for nesting. Nest cavities are usually located more than 30 feet above the ground. Pileated woodpeckers feed primarily on carpenter ants and other insects, excavated from deep within dead and decaying wood. Because foraging habitat represents a wider ecological range of forest age structure, nesting habitat is considered the most critical and limiting feature for pileated woodpeckers. A pileated nesting area should be at least 100 contiguous acres with an overall canopy cover of at least 50 percent.

The existing condition is described above in the discussion of black-backed woodpeckers as pileated woodpeckers use snags and defective trees for foraging. There would be a loss of foraging habitat with the construction of the two lagoons; these acres have been previously harvested, however, so have limited foraging and no nesting habitat. There would also be a loss of foraging habitat with the tree removal associated with the placement of the irrigation lines and the relocation of Woodrat Road 1048. This timber removal would occur over 3 acres, and the affected stands would remain suitable nesting habitat as the overall canopy cover would remain above 50 percent. The other connected actions would have no effect on pileated woodpeckers or their habitat.
Future actions within the 120-acre land exchange with the Sewer District would include the construction of a third lagoon and expansion of the irrigation area. No nesting and low-quality foraging habitat would be affected with the construction of the third lagoon as it would be built in stands which were regeneration cuts dating from the 1970s. There would be a reduction of one acre of foraging and nesting habitat in the irrigation area expansion. The stand would remain suitable as nesting and foraging habitat because of the limited tree removal.

The availability of snag habitat would be further reduced in the action alternatives proposed in the Lakeface-Lamb Fuel Reduction Project due to the salvaging of timber based on the preliminary analysis. Snag guidelines of the Forest Plan would be followed to reduce the impact. If monitoring indicates that snag levels are below standards, snag creation would occur to ensure adequate snag levels.

**Pine Marten**

The pine marten was selected by the Idaho Panhandle National Forests as an indicator species. It represents species that use mature and old-growth habitats, particularly the downed woody components. Pine martens are closely associated with mature or old-growth timber stands, preferring moist habitat types where small mammals are more abundant. Marten prefer stands with greater than 40 percent canopy closure, and avoid those stands with less than 30 percent closure. In addition to a closed canopy, martens require an abundance of large downed logs and snags. This provides secure resting locations, denning habitat and winter access to small mammals living beneath the snow. Pine martens are easily trapped and are highly vulnerable to over-harvest in areas accessible by fur trappers. Martens are known to exist in the vicinity of the proposed action based on winter track surveys and incidental sightings.

Within the project area, there exists high quality denning and foraging habitat in those areas which have not been previously harvested. Regeneration harvests have occurred on 22 acres within the boundaries of the project area boundary, and contain no denning habitat and low-quality foraging habitat. These stands are immature stands with less than 30 percent canopy cover of mature timber. The 8-acre site of the existing sewage lagoon also is void of marten habitat as it was cleared of trees and downed wood during its construction. The remaining 26 acres provide both high quality denning and foraging habitat.

The Proposed Action would slightly reduce the availability of habitat for both foraging and denning through the construction of the two proposed lagoons, irrigation areas, and the relocation of Woodrat Road 1048. The 12 acres included in the proposed lagoon sites would be located in previously harvested stands, which currently are rated as low quality foraging habitat. There would be one acre of tree and downed wood removal associated with the relocation of Woodrat Road 1048 and another 1-2 acres in the proposed irrigation area where trees and snags would be removed in linear strips to allow the pipeline to be laid. This proposed irrigation area would still be suitable as both denning and foraging habitat as downed wood would be available and the canopy closure would remain above 40 percent. No loss of habitat would occur with the other connected actions including the trail relocation, building construction, fencing, construction of 600 feet of access road (because it would be located in an old harvest unit), and rehabilitation of the existing lagoon site.

Alternative A would have no direct or indirect effects on pine marten. No immediate change would occur as a result of implementation of this alternative.

Future actions within the 120-acre land exchange with the Sewer District would include the construction of a third lagoon and expansion of the irrigation area covering 22 acres. The expansion of the
proposed irrigation area would result in one acre of tree removal to allow equipment to lay the irrigation pipeline. The area would still serve as pine marten habitat except the 8-acre parcel which is the existing sewage lagoon (these acres presently are not habitat as described above). Because the major portion of the proposed third lagoon site would be located in old harvest units with no denning habitat and low foraging capacity, there would be minimal loss of pine marten habitat on these 6 acres.

The other Reasonably Foreseeable Action is the Lakeface-Lamb Fuel Reduction Project. This project would result in little change to available marten foraging and denning habitat because canopy cover would be maintained in treatment areas. Though the proposed action would reduce the amount of down wood components in the treatments areas, requirements for down wood as stated in the Forest Plan also would be met to ensure maintenance of marten habitat.

**White-tailed deer**

The area serves as winter range for white-tailed deer. White-tailed deer are medium-sized animals which are found over much of North America with the exception of the northern latitudes. Socially, this species is important because of sport hunting and viewing opportunities. Many people participate in and enjoy having opportunities to view wildlife species, of which white-tailed deer is a predominant and common species. Biologically, this species is important because it serves as a prey species for many of forest carnivores and also as carrion for bird species such as the bald eagle and golden eagle.

Habitat for white-tailed deer is commonly divided into seasonal categories, such as winter, spring, summer, or fall habitat. Compared to other seasonal ranges, winter range is considered most limiting due to its relative small size. Spring, summer, and fall ranges generally have tens of thousands of acres available throughout the landscape. Winter ranges, on the other hand, may consist of isolated geographic areas.

Winter range is divided into extended winter range and mid-winter or critical winter range. Extended winter range is generally utilized by deer during the early and late portions of the winter season. Mid-winter or critical winter range is utilized during periods of greatest snow depths, usually from February through mid-March. This is considered the most critical of winter ranges since its use generally occurs when the deer are the most stressed due to colder temperatures and deep snows. Generally, the areas within a few hundred yards of the lakeshore of Priest Lake are considered to be the critical mid-winter range. The 56 acres of the project area falls outside of this zone and is considered extended winter range.

The Proposed Action would cause the direct effect of an irretrievable loss of 12 acres of extended winter range due to the construction of the two lagoons. The area would be fenced because of public safety, which would eliminate deer movement through the lagoon site. This acreage includes 7 acres of existing forage and 5 acres of cover. Following construction, these acres would have no value as either cover or forage.

The 44 acres within the irrigation area would include 13 acres of forage and 22 acres of existing cover. There would be no change on the 13 acres, which would continue to provide forage. For the 22 acres of existing cover, the quality of the cover would be reduced because a portion of the trees would be removed for the installation of the irrigation lines. Approximately 1-2 acres of the 22 acres would have trees removed to allow placement of the irrigation lines. The remaining 9 acres has limited value as forage, and no cover value as it is the existing lagoon site. The existing lagoon site would be rehabilitated.
and revegetated, and would have forage values in the future. The existing fence would be removed from this site.

Connected actions would include the relocation of Woodrat Road 1048 and Woodrat Trail 235. There would be a direct loss of cover habitat, totalling approximately 1 acre, resulting from the relocation of .4 miles of Woodrat Road 1048. Approximately .25 mile of the existing road would be obliterated. The Woodrat Road 1048 is an open road, and the proposed action would not alter use of the road. Minimal, if any, effect would occur from the relocation of Woodrat Trail 235. There would be no change in existing conditions with the relocation of the trail. Approximately 900 feet would be relocated. Minimal, if any, change in cover or forage would occur with this relocation. During the winter season, this recreational hiking trail receives minimal, if any, use because of the snow.

The No Action Alternative would have no effect on the existing deer winter range.

The land exchange with the Sewer District has been identified as a Reasonable Foreseeable Action as well as the actions proposed in the Lakeface-Lamb Fuel Reduction Project. The 120-acre land exchange would include the 56 acres of the proposed action. The 120 acre land exchange would eliminate an additional 6 acres of extended winter range due to the construction of a third lagoon. The 6 acres included in the proposed third lagoon site currently is forage. Another 22 acres of extended winter range would be included in a future extension of the irrigation system. Approximately 18 of these acres are existing cover with the remaining acres being forage. The condition of the existing cover would be reduced because of clearing for irrigation lines, which would occupy approximately one acre. There would be no change over the remaining area as those acres would serve as buffer areas.

Preliminary analysis of the Lakeface-Lamb Fuel Reduction Project would reduce suitable extended winter range by 40 acres in the 7200 acre Lakeface project area including approximately 5 acres in the Outlet Bay land exchange area. None of these acres would be involved in this special use permit. These acres would become a forage stand. Over the Lakeface project area, there also would be a reduction of 165 acres of high quality cover habitat which would become moderate quality because of the reduction of canopy cover including 15 acres in the land exchange area (i.e. none for the project area of this proposed action).

**Noxious Weeds**

Noxious weed surveys have been conducted within the project area beginning in 1989. The site was scheduled for treatment under the Priest Lake Noxious Weed Control Project FEIS which was completed in 1987. The results of surveys as well as an evaluation of effects can be found in that document as well as its project file and the file for the Lakeface-Lamb Fuel Reduction Project.

The project area exhibits varying degrees of weed infestation with the largest populations associated with disturbed sites associated with road and user-constructed trails. Infestations of spotted knapweed (*Centaurea maculosa*), common tansy (*Tanacetum vulgare*), goatweed (*Hypericum perforatum*), and meadow hawkweed (*Hieraceum pratense*) are documented along the roads and in previously harvested units. These sites were treated by the Forest Service in 1998. Bonner County periodically has treated noxious weeds along the Outlet Bay Road with the last treatment occurring in 1999. The State of Idaho also has treated the Highway 57 corridor the past couple years.
No direct or indirect effects would occur under the No Action Alternative. No road construction or obliteration would be completed. Treatment and monitoring of noxious weeds in accordance with the Priest Lake Noxious Weed Control FEIS would occur as funding allowed.

With the Proposed Action the risk of weed spread and new weed invaders would increase during and following project implementation. The construction of the sewage lagoon, pipeline system for the irrigation system, rehabilitation of the existing lagoon, and road construction and obliteration all would be ground-disturbing activities which would increase the risk of spread. The total acres of these ground-disturbing activities would be an estimated 22.2 acres. To reduce the effects of these activities, the mitigation measures outlined in Chapter II would be implemented. Preventive seeding and cleaning of equipment on disturbed sites would reduce the risk of spread over time. The road obliteration and the rehabilitation of the existing lagoon, with successful revegetation, would reduce the risk of weed spread and new weed invaders. As a clause in the special use permit, the Outlet Bay Sewer District would be responsible for the control of noxious weeds on the special use permit area. The Proposed Action would comply with Forest Plan standards.

Future actions included the Lakeface-Lamb Fuel Reduction Project and the land exchange with the Sewer District. As specified in Lakeface-Lamb, treatment areas would be pre-treated for noxious weeds with post-activity monitoring and treatments also occurring. With the land exchange, the Sewer District would need to comply with county and state ordinances regarding noxious weeds which state that landowners are responsible for treatment of noxious weeds on their properties. No cumulative effects to noxious weeds therefore, should occur.

C. SOCIAL-ECONOMIC EFFECTS

Recreational Use

Outlet Campground borders the project area on the east. This 28-site Forest Service facility includes a small beach area and flush toilets, which are serviced by the Sewer District. In the past, there have been occasional reports of odor at the campground from the existing lagoon. No change would occur in the No Action Alternative.

With the selection of the proposed action, there would be an increase in noise during construction activities. This would be a short-term direct effect, and would occur partly outside the time period between Memorial Day and Labor Day when the campground is open. Most of the construction activities would occur at the lagoon sites, located a quarter mile from the campground. No other direct effect would occur. As an indirect effect, less potential for odor would result because of the increased distance from the lagoons and the vegetative buffer area surrounding the irrigation area. Improved odor control methods as specified on pages 19 and 20 of the Wastewater Treatment/Storage and Land Application Plan for the Outlet Bay Sewer District - Priest Lake, Idaho, 1998 Wastewater Facilities Plan (WFP) would reduce the potential for odor.

The land exchange with Outlet Bay Sewer District and an expansion of facilities has been identified as a Reasonably Foreseeable Action. The expansion of facilities would result in a short-term increase in noise during construction phases. Odor would not increase from this expansion according to the engineering report. No other cumulative effects would be known to occur that would affect Outlet Campground. No effects to noise or odor would occur from the Lakeface-Lamb project.
The Osprey Campground, a 20-unit developed recreation site lies a quarter-mile from the project area. Because of the increased distance and the required buffer strip, no direct or indirect effects would occur to the campground. Similarly, no cumulative effects would occur from the proposed land exchange.

A segment of the Woodrat Trail 235, a popular hiking trail on National Forest Land, would be affected by the proposed action. A 900-foot segment lies within the 300-foot restricted setback buffer of the irrigation area. The buffer is a safety requirement restricting access to the area irrigated with treated wastewater. As part of the Proposed Action, this segment would be relocated outside the buffer area in a location which would be approved by the Forest Service. The existing trail would be obliterated to restrict public access. There would be the direct effect of a short-term closure of the trail because of its relocation. Relocation of the trail and obliteration would require an estimated 5 days or less. With the relocation of the trail, odor should not be a problem with the prescribed odor measures and vegetative buffer. The cumulative effects of the land exchange would be the same as for Outlet Campground as discussed above.

Dispersed recreation provides outdoor recreation activities that occur apart from developed or concentrated activities such as campgrounds. Such activities as huckleberry picking and mushroom picking are examples of dispersed recreation. Other activities include mountain bike riding, jogging, hunting, walking, and pleasure driving. Winter recreation activities involve snowmobiling and cross-country skiing along Woodrat Road 1048. Most of these activities are located close to open roads or trails in the project area. The West Lakeshore Road and Woodrat Road 1048 especially are popular for such activities. No change would occur in the No Action Alternative.

Dispersed recreation activities would be affected by the Proposed Action. There would be a loss of the recreational opportunity of huckleberry and mushroom picking over the project area. Public access to the area would be restricted to the area because of the public health and safety concern of the sewage lagoons and the irrigation area for the treated wastewater. The lagoon areas would be fenced and the buffer area surrounding the irrigation area would be signed advising the public of the restricted area. The relocation of the Woodrat Road 1048 and Woodrat Trail 235 would change the existing pattern of such dispersed recreation opportunities as mountain bike riding, jogging, hunting, walking, and pleasure driving as well as snowmobiling and cross-country skiing. These activities would still occur but the route would be slightly altered for these activities. No additional change in dispersed recreation would happen under the proposed land exchange.

A number of "user-created" All-Terrain Vehicles (ATV) trails are located through the project area. These trails also are used by mountain bikers, motorbikers, and hikers. Some of these trails are causing resource damage especially adjacent to Lamb Creek. Because of the public health and safety concerns with the sewage lagoons and irrigation area, these trails would be closed throughout the project area and signed. Some additional trails would be included in the land exchange. As a resource improvement project, the Lakeface-Lamb Fuel Reduction Project is identifying the obliteration of the trails causing resource damage and working with user groups in identifying which trails to retain. Upon implementation of Lakeface-Lamb, that project would be initiated.

Public Health and Safety

The Proposed Action would correct the severe leakage of the existing treatment/storage facilities. As stated on page 28, Item 9 of the WFP, this leakage poses a significant potential threat of contamination to groundwater, as well as possible pollution of the lake. Under the No Action Alternative, the leakage
within the existing lagoon would continue posing a threat to possible groundwater contamination and surface water pollution of the lake as well as Lamb Creek.

For public health and safety considerations, a minimum 1000-foot buffer zone from the proposed lagoon sites to any dwellings and a minimum 300-foot buffer surrounding the proposed irrigation sites is required under State regulations. Actual distance to any existing residences is 1900 feet from the residential development along Outlet Bay and 1780 feet to the Shady Pines Addition west of Lamb Creek (WFP, page 20). No private land lies within the 1000 feet of the sewage lagoon so no future residential development would occur. For safety considerations, the sewage lagoon would be fenced to prevent public entry. Signs also would be placed along the perimeter of the 300-foot buffer surrounding the irrigation area to restrict public access. As part of the Proposed Action, public facilities including Woodrat Road 1048 and Woodrat Trail 235 would be moved outside this buffer area to ensure public health and safety. No public health impacts are foreseen from the proposed facility, except the beneficial effect resulting from a properly operating wastewater treatment facility. No additional health and safety concerns would occur if the proposed land exchange is implemented. The public health and safety requirements would be mandated to occur with any additional expansion of the facilities.

As part of the Proposed Action, the existing lagoon would be rehabilitated. It would be drained and pumped into the new treatment facilities after their completion. The dikes would be leveled, and the area incorporated into the treated wastewater irrigation area. No public health and safety concerns would result from the rehabilitation of the existing lagoon.

The Woodrat Road 1048 and Woodrat Trail 235 would be relocated as part of this action. During the construction of this road and trail, safety warning signs would be required to be installed informing forest users of the construction. The junction of the Woodrat Road 1048 with the Outlet Bay Road would follow site distance guidelines and signing requirements to ensure public safety.

Adjacent Landowners and Other Public

The Outlet Bay Sewer District services the area from approximately the Luby Bay Road southward to Outlet Bay. Several residential tracts and commercial businesses on private land are included in the district as well as the local school, two churches, and a golf course. Several seasonal recreation residences and two campgrounds on National Forest land also are included within its boundaries. The permanent resident population is estimated to be approximately 250 with the population swelling to over 1200 seasonally during the summer months.

The project lies on National Forest lands in the Outlet Bay area on the south end of the Sewer District. Neighboring residential lands including the Outlet Bay, Three Waters, and Kokanee developments lie to the east and south of the project area. Within a half mile to the west are private lands including the Shady Pines subdivision. State regulations stipulate that a sewer lagoon cannot be closer than 1000 feet to a residential area. As stated above in the previous section on public health and safety, the closest residential areas are Outlet Bay (1900 feet) to the southeast and Shady Pines (1780 feet) to the west. No private lands or other residential areas lie within a 1000-foot radius of the lagoons.

The direct effect to the adjacent landowners would be the potential for increased noise and traffic during the construction phase which would occur over several weeks. Most of these activities would occur during the construction of the lagoons. The closest residential area is about 1800-1900 feet from the lagoon site so the level of disturbance from that location would be minimized at that distance. Installation of
the irrigation pipelines would be closer as well as the rehabilitation of the existing sewer lagoon and relocation of Woodrat Road 1048 but these activities would be more short-term, occurring over a period of several days. The construction of the Kalispell Bay wastewater treatment facilities, which would be similar to those proposed for Outlet Bay, occurred over a four-month period between June and October, 1999. No complaints regarding noise and traffic were received by the Forest service during that period.

An indirect effect would be the potential for odor affecting adjacent landowners. There have been periodic complaints in the past from residents located to the southeast of the existing lagoon. The increased distance from the lagoons would reduce the potential for odors. A vegetative buffer strip of trees also would be maintained for odor control. Other odor-controlling measures are also specified in the engineering plan (WFP, pages 19-20). These measures would reduce the potential for odors reaching residential areas.

There are several existing special use permits near the project area. One special use permit is issued to the Outlet Bay Water Association for their storage tank, pumphouse, and transmission lines located immediately south of the project area. Both Northern Lights and General Telephone and Electric have permits for their lines which parallel the Outlet Bay Road. The General Telephone and Electric lines are underground with periodic above-ground access boxes, and would be susceptible to damage from digging or other ground-disturbing activities. Another special use permit is issued for a portion of a driveway on National Forest lands on the east edge of the parcel. The only potential direct effect to these special uses would be the possibility of ground-disturbing activities affecting the water transmission and telephone lines during the relocation of the Woodrat Road 1048. The locations of these facilities would be protected during construction as part of the special use permit.

These existing special uses all lie outside the project area of the Proposed Action, but would be included within the future area of the land exchange. These existing special uses would continue to be honored as part of the land exchange.
CHAPTER IV. LIST OF PREPARERS

The following individuals are members of the interdisciplinary team for the Outlet Bay EA:

John Cleeves              Lands Specialist and ID Team Leader
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Tim Layser                Wildlife Biologist
Diane Penny               Botanist
Jill Cobb                 Hydrologist
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CHAPTER V. LIST OF AGENCIES AND PERSONS CONSULTED

The following agencies have been contacted by OBSD or the Forest Service:

- U.S. Army Corps of Engineers
- U.S. Fish & Wildlife
- Division of Environmental Quality
- Idaho Fish and Game Department
- Idaho Historical Society
- Idaho Parks and Recreation
- Bonner County Commissioners
- Panhandle Health District

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Eric Eldenberg            Sewell and Associates
John Tindall              Division of Environmental Quality, Coeur d’Alene Office
CHAPTER VI. LITERATURE CITED


Finding of No Significant Impact by Department of Environmental Quality.

Wastewater Land Application Permit by Department of Environmental Quality.


Forest Service Standard Specifications for Construction of Roads and Bridges by United States Forest Service.

Predicting Downslope Travel of Granitic Sediments from Forest Roads in Idaho, 1996 by Megahan and Ketchison