

# ENVIRONMENTAL ASSESSMENT

## FOR THE

### Lyle Klickitat Day Use Site



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## CHAPTER 1: PURPOSE AND NEED FOR ACTION

Chapter 1 provides an overview of the proposed Lyle Klickitat Day Use Site project. The history and location of the project site are presented. A summary of the public involvement process and the planning issues related to this particular site development are included. Land use regulations are also summarized.

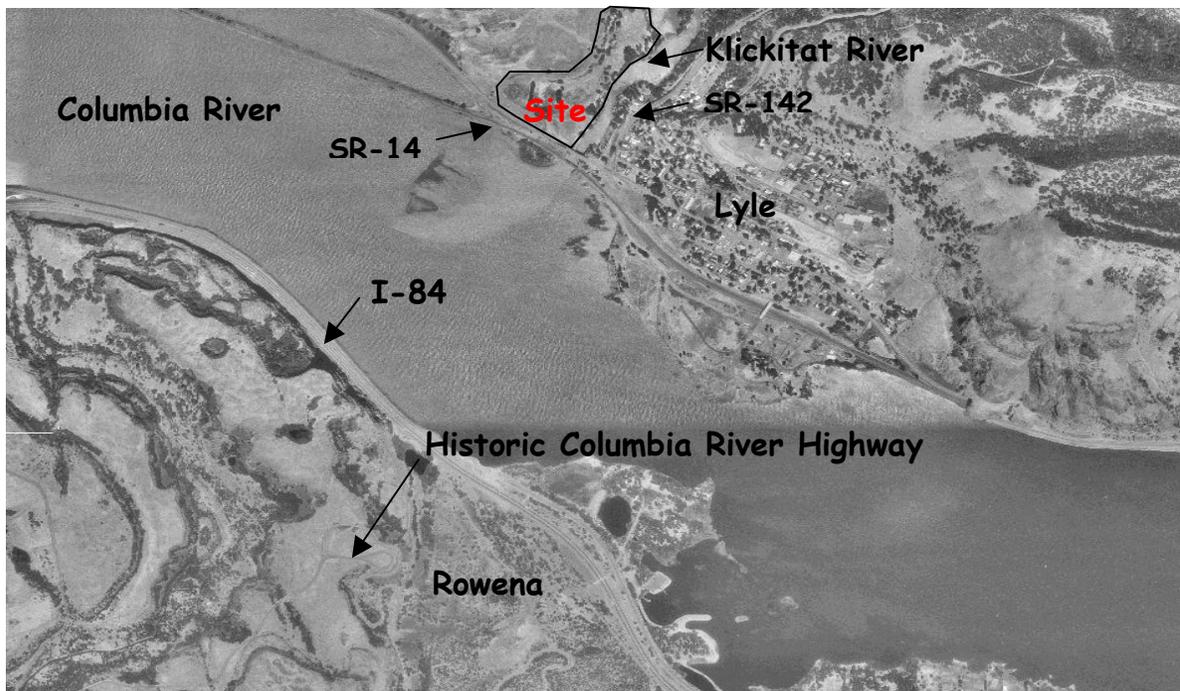
### 1.0 INTRODUCTION

The Forest Service bought 357 acres just west of the confluence of the Klickitat and Columbia Rivers in 1994, locally known as the Starr property. The property includes Klickitat and Columbia River shoreline, Chamberlain Lake, wetlands, and open pine/oak woodlands/grasslands. Formerly the location of the “Starr” quarry, the property has been rehabilitated. The quarry has been restored and numerous buildings and vehicles removed.

The site has a fascinating history and offers wonderful interpretive opportunities related to Native Americans, the Lewis and Clark Trail, and European settlement. The property was the likely site of a Klickitat Indian village visited by Lewis and Clark. English nobleman Sir Thomas Balfour developed an extensive agricultural operation in the 1890's, of which barely a trace remains today.

### 1.2 LOCATION

The day use site is proposed at T3N, R12E, Section 34, Klickitat County, Washington. The area proposed for recreation development is north of SR14, between County Road 1230 and the Klickitat River. The photo below shows the location of the proposed Lyle Klickitat Day Use Site in relation to the community of Lyle and other prominent features within this area of the Columbia River Gorge National Scenic Area.



### **1.3 PROPOSED ACTION**

The Forest Service proposes to develop a small day-use area to serve local residents, National Scenic Area visitors and SR14 travelers. A small (10 vehicles or less) parking area with hard or semi-hard surfacing (such as asphalt or chip seal), universal access restrooms, nature trail, picnic tables, fencing, tree planting, repair of site drainage problems, and interpretive/educational materials are envisioned to varying degrees. Developing access to the Columbia River is not part of this planning effort, however. For planning purposes, the project is named the Lyle Klickitat Day Use Site.

### **1.4 PURPOSE AND NEED FOR PROPOSED ACTION**

#### **The need for the proposed action**

In 1998, the Lyle Community Action Council brought a “Lyle/Klickitat Park” concept to the Forest Service. The Council viewed a small new day use park as a needed local amenity; a place of interest for travelers, and a potential economic boost for Lyle. It would serve local residents and SR14 travelers. A low intensity park was envisioned with parking, nature trail, river access and interpretation.

Responding to this community council need, the Forest Service applied for a Federal Highways Administration TEA-21 grant. The grant was approved for planning in 2000, design in 2001 and construction in 2002 of a day-use site in this area.

There is also a need to repair and stabilize an existing ditch and pipe system that is breaching and causing erosion on this proposed day-use site. The ditch and underground pipeline were constructed to move water from a pond over to a benchy area to create a wetland. This system is leaking, causing the surrounding slopes to erode. Repairs would be made to the ditch and pipeline, and slopes would be revegetated to reduce erosion potential in the area.

#### **The purpose of the proposed action**

The purpose of the proposed action is to:

Provide a local amenity, as desired by Lyle residents and recommended by the Lyle Community Action Council.

Provide a place of interest for SR14 travelers.

Provide interpretation and education of Native American and early European and American history.

Provide a recreation site on the Washington side and eastern end of the Columbia River Gorge National Scenic Area, which is a NSA Management Plan goal.

Improve the site drainage system to be more functional in water delivery.

## **1.5 DECISIONS TO BE MADE**

The environmental analysis covered in this Environmental Assessment (EA) will determine the type, siting, scale and design guidelines of recreation development, consistent with National Scenic Area Management Plan recreation guidelines (ref. EA, pages 44 & 45), and all other applicable resource and management plans as identified in Section 1.8 below. The decision maker is the National Scenic Area Manager.

## **1.6 PUBLIC INVOLVEMENT PROCESS**

As mentioned, in 1998, the Lyle Community Action Council brought a “Lyle/Klickitat Park” concept to the Forest Service. In late 1998, the Forest Service applied for and received a Federal Highways Administration TEA-21 grant for development of a day use site. The Forest Service initiated planning for the proposed day use site by sharing the status of the grant approval with the Lyle Community Action Council at its May 22, 2000 meeting. The council validated their continued interest in having the Forest Service pursue the day use site project.

The project was first published in the Spring 2000 edition of Gorge Views, a quarterly newsletter of proposed actions published by the Columbia River Gorge National Scenic Area and mailed to over 200 addresses.

A public scoping letter was mailed to over 150 interested individuals, adjacent landowners, organizations, county, state and federal agencies, tribal members, and media contacts on June 16, 2000 (ref. EA, pages 60-61 for list of agencies/organizations contacted). Over 100 Lyle residents were mailed scoping letters. Articles announcing the project’s initiation were printed in The Dalles Chronicle and White Salmon Enterprise in June and July 2000. The Forest Service received about 20 responses to this initial scoping effort.

On August 16, 2000, the Forest Service held a public open house in Lyle to display and take comments on a draft range of alternatives. A notice announcing the meeting was sent to over 100 parties, and was posted at a number of public locations in Lyle. Thirty-one people signed the open house attendance sheet. The Dalles Chronicle and White Salmon Enterprise reported on the Open House. Numerous verbal comments were recorded and eleven questionnaires were returned to the Forest Service.

## **1.7 ISSUES**

An issue is an unresolved conflict with a proposed action and its use of available resources. Significant issues are used to develop alternative courses of action, prescribe mitigation measures, or analyze environmental effects. Issues are deemed ‘significant’ because of the extent of their geographical distribution, duration of effects, or intensity of interest or resource conflict.

Issues were developed from the Lyle Community Action Council, public comments, agency comments and the Forest Service's Interdisciplinary Team (IDT). The following issues drove the development of alternatives for this day use site:

**Resource Protection and Enhancement**

**Scenic Resources:** The entire site is highly visible from a number of Key Viewing Areas (SR14, SR142, the Columbia River, I-84, the Historic Columbia River Highway and Rowena Overlook). Screening vegetation is sparse, making the site scenically sensitive to disturbance.

**Cultural Resources:** An important Native American site must be protected in site development and future management. The site offers opportunities for fascinating cultural and historical interpretation.

**Wetlands/Riparian Resources:** Water resources include a wetland (less than one acre in size) and the Klickitat River shoreline. The existing pipe/ditch drainage system is failing. Site drainage needs to be addressed with an objective of reduced soil erosion.

**Threatened, Endangered and Sensitive Species:** Bull trout, cutthroat trout, steelhead, bald eagles, Lewis woodpeckers and acorn woodpeckers may use the area.

**Level of Recreation Development**

Members of the public have varying interests in the type and scope of desired recreation development. All recreation development must comply with the type and scope allowed by the NSA Management Plan, as well as protection of scenic, cultural, natural and recreation resources. In addition, both development and maintenance costs must be considered. In sum, the issue is to balance the varying public desires with resource protection and cost constraints.

**Maintenance Costs**

The Federal Highways Administration is funding project planning, design and construction, but no outside funds will be provided for maintenance. The Forest Service will have overall responsibility for recreation site maintenance in an era of declining budgets. There will be limited Forest Service funds available for maintenance. Local community members and groups may provide some limited maintenance.

**1.8 CURRENT MANAGEMENT DIRECTION**

Four management plans provide direction for this site. The plan providing the most protective standards will apply.

**Northwest Forest Plan (NFP)**

**Land Use Designations**

This project is located within the following NFP planning designations:

- Administratively Withdrawn where designated GMA Agriculture.
- Late Successional Reserve where designated GMA Open Space.
- Riparian Reserve of 300 feet designated along the Klickitat River.

**Gifford Pinchot Land and Resource Management Plan (GPNFP)**

Forest-wide standards and guidelines that are more protective than NSA Plan or Northwest Forest Plan guidelines apply.

**National Scenic Area Management Plan (NSAMP)**

**Approval Criteria for Recreation Uses**

All proposed recreation projects outside of Public or Commercial Recreation designations, must comply with the criteria contained within the Columbia River Gorge National Scenic Management Plan. The following lists the criteria related to the proposed action. A complete list of criteria is contained within the CRGNSA Management Plan.

**A.** Compliance with all applicable guidelines in this (Scenic Area) Management Plan for the protection of scenic, cultural, recreation, and natural resources. Cumulative effects of proposed recreation projects on landscape settings shall be based on the "Compatible Recreation Use Guideline" for the landscape setting in which the proposed project is located (see Part I, Chapter 1: Scenic Resources of the Scenic Area Management Plan).

**B.** For proposed recreation projects in or adjacent to lands designated Large-Scale or Small-Scale Agriculture, Commercial Forest Land, or Large or Small Woodland, compliance with the following:

1. The use would not seriously interfere with accepted forest or agricultural practices on surrounding lands devoted to forest or farm uses. Provision of onsite buffers may be used to partially or fully comply with this criterion, depending upon project design and/or site conditions.

**C.** For proposed trail or trailhead projects, compliance with applicable trails policies in the Management Plan.

**D.** For proposed projects on public lands or proposed projects providing access to the Columbia River or its tributaries, compliance with guidelines for protection of tribal treaty rights in Part IV, Chapter 3: Indian Treaty Rights and Consultation.

**E.** For proposed projects that include interpretation of natural or cultural resources, demonstration that the interpretive facilities will not adversely affect natural or cultural resources and that appropriate and necessary resource protection measures shall be employed.

The proposed day-use site is located in the General Management Area (GMA).

**Land Use Designations**

GMA Small Scale Agriculture: Allows recreation development consistent with the Recreation Intensity Class (RIC).

This proposed development is contained within two RIC zones. RIC II follows a topographic contour beginning at the western terminus of the SR 14 bridge until it intersects county road 1230. At this point it runs parallel to the roads eastern cut in a northern direction and out of the property boundary. The remaining portions of the property are contained in RIC I.

GMA Open Space (Klickitat River Wildlife and Natural Area): Allows low intensity recreation consistent with the RIC class.

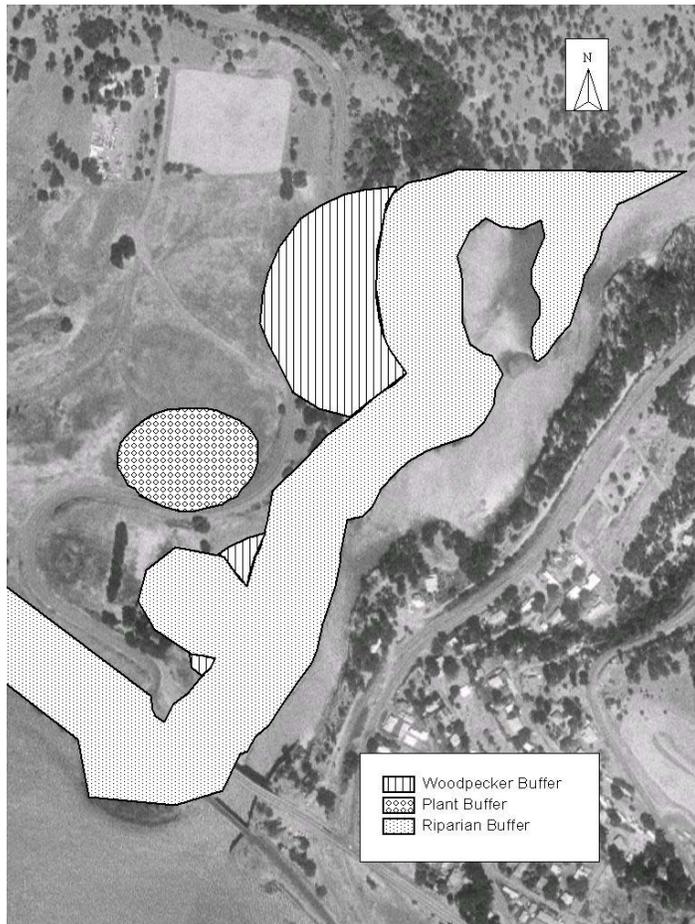
Landscape Setting: GMA Oak Woodlands.

**Resource Buffers Zones**

A variety of tools are used to protect natural resources in the GMA. Guidelines in the NSAMP require leaving a natural buffer zone around wetlands, streams, ponds, lakes, riparian areas, and sensitive plant and wildlife species. In GMA, exceptions are made for several uses, including low-intensity activities and water-related and water-dependent uses, if adequate protection of the resource is provided.

Three buffer zones were identified for this project area. The riparian buffer zone applies to the Columbia and Klickitat Rivers and the wetland, the plant buffer to a sensitive plant site and the wildlife buffer to the location for the Lewis’ woodpecker. These buffers are shown on the map below. For further discussion on buffer zones please refer to “Practical Alternative Test” discussion on the following page.

**Resource Buffer Zone Map**



### **“No Practicable Alternative” Test**

A trail is proposed within riparian and sensitive wildlife species resource buffer zones identified in photo on page 6 of this document. This trail meets the No Practicable Alternative Test (NSAMP, p. I-93) by virtue of the fact that no trail could be located on this site that totally avoids these buffer zones.

In GMA (site is in GMA), exceptions to entering buffer zones are made for several uses, including low-intensity activities such as that proposed at this site, if adequate protection of the resource is provided. If the resources were so sensitive that human influence might have unacceptable impacts, then no trail construction would be permitted. The nature of the sensitive resources at this site can tolerate the presence of people associated with this trail use, thus feasible to enter these buffer zones with a trail.

This is true for Alts. 1, 2 and 2A because as mitigation the area to the North is set aside as a refugia for flora and fauna. Under alternative 3, where the refugia is not viable (and no other potential locations exist), due to the extended trail system, the impacts to the sensitive resources could be unacceptable. Alternative 3 then becomes inconsistent with the guidelines in the NSA Management Plan because the No Practicable Alternative Test would not be met.

### **Klickitat Wild and Scenic River Management Plan**

This project lies with the boundary of the Lower Klickitat Wild and Scenic River. Designated in 1986, the Wild and Scenic Rivers Act provides direction to individuals and agencies in the protection and enhancement of the free-flowing nature of the river, water quality and the outstandingly remarkable resources that have attributed to the rivers designation. Overall management authority, which is determined by Congress, directed the US Forest Service to develop a comprehensive Management Plan. This was prepared, published and approved in 1991. This plan provides planning and management direction of the outstandingly remarkable and other resources, such as recreation use and development, within the designated boundary. This planning direction will be further addressed in Chapter 3 of this document. A number of resource goals have been identified in the Klickitat Wild and Scenic River Management Plan. Those applicable to the proposed Lyle Klickitat Day use site are:

**Resources Goal #5:** Maintain the existing character of the Shorelines Management Area.

#### **Management Direction**

*“The visual quality objective (of this zone) is Partial Retention, meaning that new activities or developments must be visually subordinate to the existing landscape.” In addition, the objective is to balance sustained yield natural resource utilization with low density recreation uses.”*

### **Recreation Opportunities**

*“ The Lower Klickitat corridor provide(s) a variety of Roaded Natural recreation opportunities in an environment free of litter and refuse.”*

*“Rustic facilities exist primarily for safety and resource protection, and secondarily for user convenience and comfort.”*

*“ Onsite controls and restrictions are limited to those necessary for user health, safety, and maintenance of Roaded National opportunities.”*

**Resource Goal # 10:** Establish an on-the-ground recreation management presence.

### **Management Direction**

Provide a Forest Service employee to *“patrol the river and public access sites (by boat and road) on a regular basis, at least once per week.”*

**Resource Goal # 11:** Provide public access and facilities appropriate for Roaded Natural opportunities.

### **Management Direction**

*“ Provide a limited number of sign and interpretive facilities”*

*“Provide sanitation facilities, designated parking areas and erosion control measures...at newly acquired access points.”*

**Resources Goal # 12:** Establish a program to monitor recreational use patterns, impacts and visitor preferences.

### **Management Direction**

*“A program is needed to monitor social, physical and biological conditions and how recreational use is affecting these conditions.”*

*“Components of the study will include installation of traffic counters at existing recreation sites and a physical inventory of recreation site conditions. In addition, a year-round survey of recreation visitors will be conducted to supplement informal observations and visitor contact by Forest Service personnel.”*

## **1.9 OTHER APPLICABLE REGULATORY REQUIREMENTS/REQUIRED COORDINATION**

### **National Historic Preservation Act**

The National Historic Preservation Act of 1966 (as amended) and the National Environmental Protection Act both require consideration be given to the potential effect of federal undertakings on historic and prehistoric resources. The guidelines for assessing effects and consultation are provided in 36CFR800. In accordance with these guidelines a cultural

resource evaluation was conducted for this project and consultation initiated with the Yakama Nation, the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, and the Warms Springs Tribes, as well as the Washington State Historic Preservation Office and the Advisory Council on Historic Preservation. For further discussion on consultation results the reader is referred to page 60 of this EA.

### **Endangered Species Act**

This act provides for the protection and conservation of Threatened, Endangered and Sensitive plant, fish and wildlife species. Biological Evaluations and Assessments, consistent with the requirements of this act, were prepared as part of this environmental document (reference Chapter 3).

### **Migratory Bird Treaty Act**

This act provides for the protection of migratory birds. Many migratory bird species utilize the Klickitat River. This action meets the requirements of the act because no alternative proposed involves the “take” of any migratory birds.

### **Federal Clean Water Act**

Implementation of the Federal Clean Water Act has been delegated to the Washington State’s Department of Environmental of Ecology (DOE). Projects need to comply with all applicable state water quality standards and the anti-degradation policy of the State of Washington and the Federal Wild and Scenic Rivers Act.

### **Americans with Disabilities Act**

Americans with Disabilities Act (ADA) was enacted by Congress and signed by the President in the summer of 1990 (P.L. 101-336). The ADA prohibits discrimination based on physical or mental disabilities in private places of employment and public accommodation. Additionally, it requires reasonable accomodation to persons with disabilities in all government facilities and developments.

## CHAPTER 2: ALTERNATIVES

Chapter 2 presents three alternatives (plus alternative 2A) for development and management of the Lyle Klickitat Day Use site in addition to a No-Action alternative. Each alternative is characterized by a particular theme. The themes are developed through the adoption of particular trail characteristics (surfaces, trailhead facilities, etc.), which enhance a particular type of experience, encourage a particular type of use, or respond to public issues. In addition, several management options are presented. The management options may be combined with any development alternative. The three Action alternatives are summarized in Table 1 located at the end of this chapter.

### 2.1 PROCESS USED TO FORMULATE ALTERNATIVES

A Forest Service's Interdisciplinary Team (IDT) developed a preliminary range of three Action alternatives in addition to a No Action alternative. These preliminary alternatives were created to address significant or driving issues that came from the internal and public scoping process identified in Chapter 1. The preliminary alternatives were presented at a public open house in August, 2000 for public review and comment. The preliminary alternatives were then revised in response to public comment. The three Action alternatives (plus alternative/option 2A) meet or exceed the purpose and need for action identified in chapter 1.

### 2.2 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

This section presents alternatives proposed, but eliminated from detailed study. Alternatives were eliminated if they were considered unfeasible, did not meet the purpose and need for action, were inconsistent with direction from existing management plans, were outside the scope or authority of the Forest Service, or considered to be only a slight variation of a proposed alternative. Alternatives eliminated from detailed study in this EA are:

#### Parking/Vehicle Access Options

**Parking North of Road 1230 in Former Gravel Pit Area** - This option was included in the preliminary range of alternatives. Citizens raised substantive pedestrian crossing safety concerns that led to this option being eliminated from further detail study.

**Parking at SR14/County Road 1230 Junction** – Due to safety concerns Washington State's Department of Transportation (WDOT) will absolutely not allow parking at this road junction.

**Parking south of Road 1230, and east of the Osage Orange trees** - Any potential parking area conflicts with cultural or natural resource buffers.

**Vehicle Access from SR14** – Due to public safety consideration, WDOT will not allow an access road off SR14 or their right-of-way.

#### Public Requests not Carried Forward in any Alternative

**Swimming Pool, Ball Field, Playground** - Not allowed by the NSA Management Plan.

**Campground and RV Park** - Inconsistent with NSA Management Plan guidelines; Forest

Service not interested in taking on a new campground.

**Columbia River Access** – Columbia River access would require construction of a new crossing over the Burlington Northern Railroad, which is outside the scope of this planning effort.

**Footbridge over Klickitat River** – This action is not considered an allowable use on public lands, by direction of the Management Plan for the Lower Klickitat Wild and Scenic River Plan.

**Boat dock:** This action, while allowed by the NSA Management Plan, is not considered an allowable use under the Wild and Scenic Act.

#### Wetland Enhancement

A proposal to mechanically enlarge the wetland was inconsistent with the need to protect cultural resources.

## **2.3 ALTERNATIVES**

### **Features Common to All Action Alternatives**

All action alternatives (including 2A) contain some common development, management and resource enhancement activities. Rather than repeat them in each alternative, they are presented here.

#### Development Features

Interpretive themes focusing on Native American history; early European American history; including Lewis and Clark; and natural resources such as the wetland, Klickitat River, pine/oak woodland, wildlife, and fish. The interpretive media varies in each action alternative.

#### Management Actions

- Day use only. No overnight use allowed.
- No fires allowed. No barbeques would be provided.
- Pack-it-in, Pack-it-out. Garbage cans can be provided if litter becomes a problem.
- Foot and dog use only. No alternative proposes horse or mountain bike use due to the few trail miles and limited size of day-use site.
- Remove barbed wire fence on property south of Road 1230.

#### Resource Enhancement Proposals

- Repair the site drainage system.

In the 1980's, water flowed south from the wetland to a pipe along SR14, then presumably flowed east in this pipe to the Klickitat River. In the late 1980's or early 1990s, the previous owner channeled water into a wetland, then a canal system that eventually discharged into the Klickitat River. This drainage system was causing erosion. During the 1996 floods, the entire drainage system failed, inundating SR14. In response, the Forest Service installed a perforated pipe, which carries water generally north several hundred feet. The pipe is broken, leaking and creating erosion.

The proposal is to replace the perforated pipe with rigid nonperf pipe and repair breaches in the canal. Pipe replacement would involve excavation and removal of the existing pipe using a small backhoe, replacing the pipe and covering it back up. Slopes would be revegetated with shrubs and trees to reduce erosion. A longer-term solution would replace the south-flowing drainage system, with an outlet on the Klickitat River. This would only be accomplished if approved by WDOT and if the original channel could be located and determined not to impact cultural resources. Additional cultural resource testing would be required, and a drainage route must be established where no cultural resources were found.

- Recontour and plant informal parking area at SR14/Road 1230 junction to eliminate parking and improve scenic quality.

Much of the non-native grasses will be removed and replaced with native bunch grasses and herbaceous flora throughout the site. This may involve use of herbicides currently covered in a noxious weed EA (1996) for this site. This action would enhance the ecological integrity of the site and would create important habitat for many sensitive species, such as the mardon skipper, Lewis' woodpecker, native pollinator bees, and numerous song bird species. This action will enhance the recreational experience and will partially meet the mitigation requirements for entering buffer zones.

### **Mitigation Measures and Design Criteria**

Mitigation measures and design criteria provide a means to minimize the full extent of the impacts associated with the implementation of this proposed action. The mitigation measures and design criteria identified below are expected to limit the degree or magnitude of this proposed action, rectify impacts through repairing, rehabilitation or restoring the affected environment, and reducing or eliminating impacts over time. Mitigation measures and design criteria that are unique to a specific alternative are identified as being applicable to that alternative as indicated in (parenthesize).

#### Site Design Requirements

Require a landscape plan for visual sub-ordinance detailed on page 15 of this EA using trees (including replants if necessary) at least 8 feet tall directly south of the parking lot and a detailed grading plan. The parking lot design shall include a grading plan that lowers the parking lot approximately two feet below existing grade (applies to alternatives 2 and 3).

A bioswale, or vegetated biofilter, will be incorporated into the final parking lot design to reduce sediment production (applies to alternatives 2, 2A and 3).

To help reduce potential erosion and sedimentation, trail construction in the steep areas (ie. sideslopes greater than 30%) that access the Klickitat River will incorporate erosion reduction materials and water handling features that discourage concentration of water flow along the trail surface (applies to alternatives 1 and 3).

Part of the mitigation for entering the buffer zones for the wetland, Klickitat River and for the various sensitive flora and fauna, shall be the preservation of a refugia in the northern portion of the site where Mill Creek joins the Klickitat River, including the mud flat and inland back-water.

Human use of this area will not be encouraged and, should the use increase, then the use will need to be discouraged to protect the integrity of the refugia. (applies to alternatives 1, 2, and 2A). All development, including trails and parking areas, will be hardened with materials appropriate for the Roaded Natural Setting.

### Signs and Fencing

The toilet building shall be dark earth-tone in color and the materials shall be non-reflective. The design of the building shall be compatible and subordinate to the landscape and sited to near the parking lot in the area graded two feet below existing grade.

To minimize effects on the nesting cliff swallows, fencing or vegetative barriers shall be established to discourage recreational activity along the edge of the cliffs above the Klickitat River. The fencing shall be non-painted two-rail wooden fencing. The surface shall be preserved using an oil finish after weathering has turned the fencing a natural gray color.

Signs shall be constructed of non-reflective materials, be of a dark earth-tone color (lettering may be a light earth-tone), conform to the sign plan, and be compatible and subordinate to the landscape setting regarding size and placement. The total area of interpretative signing shall not exceed RIC I requirements.

The installation of an instructional sign showing a bull trout and coastal cutthroat trout would help in preventing the illegal harvest of these fish.

Signs interpreting the value of springs and wetlands, and discouraging off trail traffic at the upper picnic area next to wetland, will be posted (applies to alternatives 2, 2A and 3).

Interpretive signing should be installed that explains the need to protect cliff swallow nest sites that are located on the east bank of the river. These nests are clearly visible from many areas along the trail and down by the river. Also, interpretive signs that describe winter use by eagles and encourage people to stay away from the river's edge during that time of year should be installed (applies to alternative 3).

### Construction Activity Requirements

Soil disturbance will be minimized to what is absolutely necessary for project completion. To help reduce potential erosion and sedimentation, trail construction will take place during the dry time of the year (usually June 15 to September 15) for sections that access the Klickitat River and around the big bay adjacent to the River. To minimize the disturbance during the growing season for most native plants, and nesting period for most birds species, machine work within flora and fauna buffer zones should occur during late summer and early fall (Aug. through Oct.).

To preclude weed infestations and to help re-establish the native flora, all ground disturbance will be re-vegetated within one year.

All existing dead and down woody material within Riparian Reserves will be maintained. Any trees needing to be felled, will remain on site in the Riparian Reserve. A fisheries biologist,

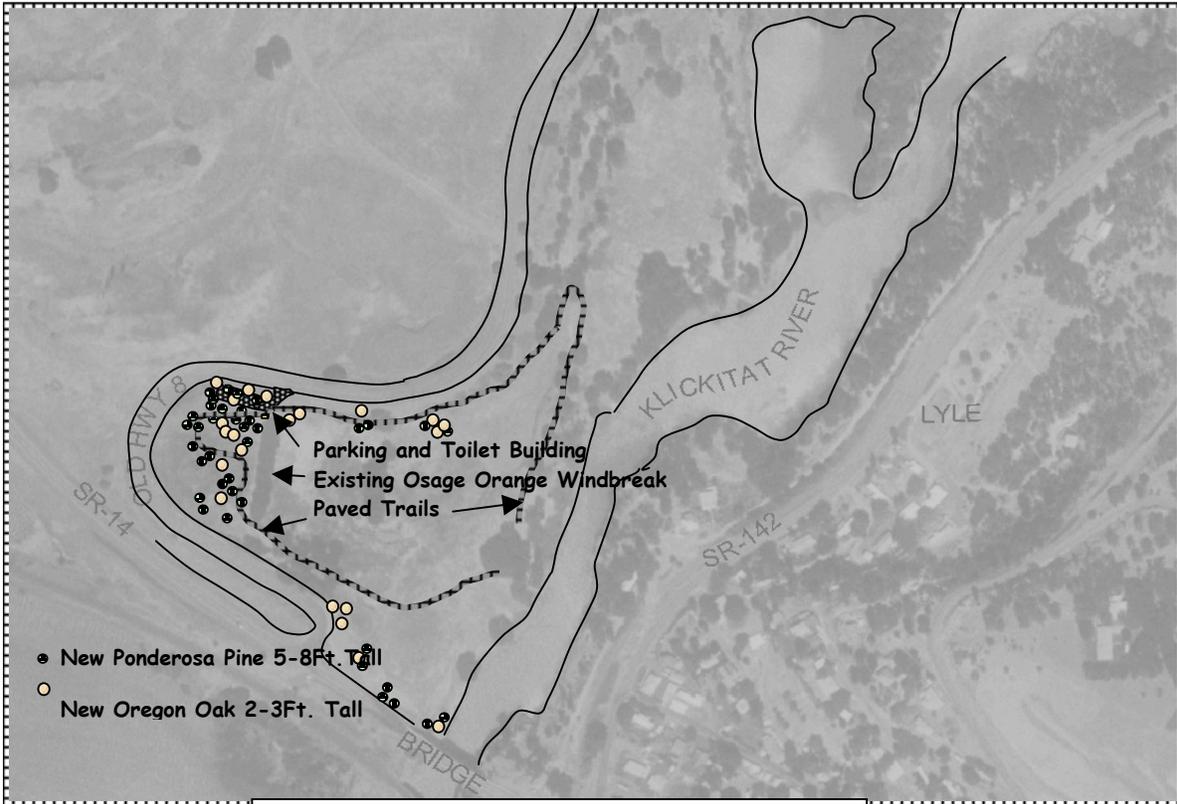
wildlife biologist, and/or hydrologist will assist in placement of this material on the existing terrace to maximize aquatic and riparian benefit from this wood.

### Site Management and Site Restoration

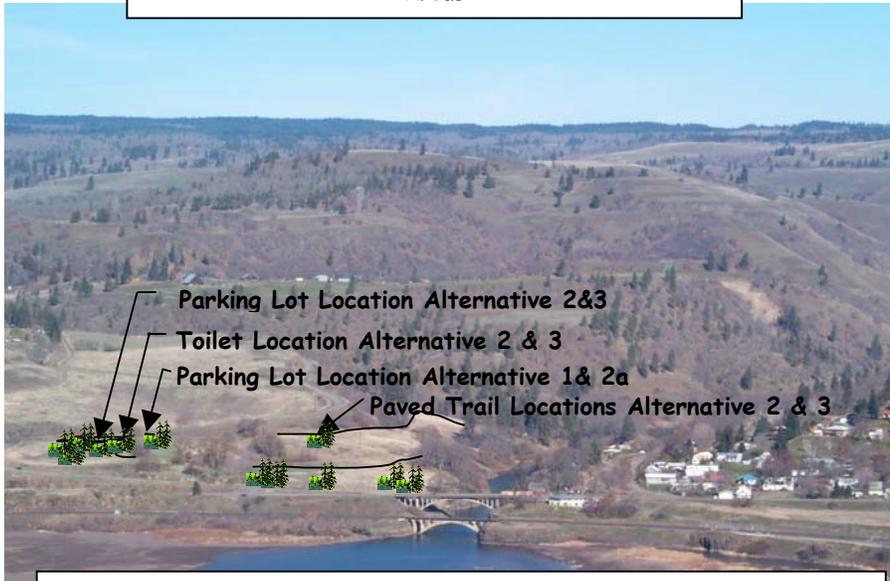
Litter exposure will be monitored and collection facilities will be incorporated if litter is reasonably visible on more than 60% of the USFS weekly maintenance visits to the site, within a calendar year.

Planting of emergent wetland flora will be required at the wetland and mud flats (leaving about 1/3 of the area as mud flat habitat) as enhancements to offset the impacts to the buffer zones.

To help mitigate the increase in disturbance by human use within the buffer zones of sensitive species, such as the nesting Lewis' woodpeckers in the large oaks, nest boxes for Lewis' woodpeckers, kestrels, and other cavity nesting birds will be placed in less disturbed areas of the site where suitable snags are lacking.



Planting Plan for Visual Subordination from Key Viewing Areas



Landscape Mitigation from Rowena Plateau

## Description of the Action Alternatives

Action alternatives incorporate, to varying degrees, the following public requests:

- Trails
- Picnic Areas
- Parking Area
- Restroom
- Interpretation
- Resource Enhancement (weed control, native plantings)

The following is a descriptive write-up, with map, of each alternative.

### Alternative 1 – “Least Development” Alternative



**Alternative 1** proposes the least amount of development of the three Action alternatives. A little over one mile of 18-24" native surface trail would be developed, and located primarily on existing roadbeds. Less than ¼ mile of new trail would be constructed, leading to a picnic spot overlooking the Klickitat River, and then down to the Klickitat River. All trails would meet the accessibility standard of “most difficult”. No safety fencing would be provided along the Klickitat River.

## Lyle-Klickitat Day Use Site

Foot access along the Klickitat River inlet would be discouraged. Game trails already exist around the inlet. Where these existing game trails are near proposed trails or picnic areas, and where they are very visually obvious, the initial sections would be obliterated and planted to discourage human use.

Two small, unpaved parking areas (3 to 4 cars each) would be located along the edge of Road 1230. Barriers, a site identification sign, and bulletin boards would be placed at each parking area. No screening would be planted at these parking areas.

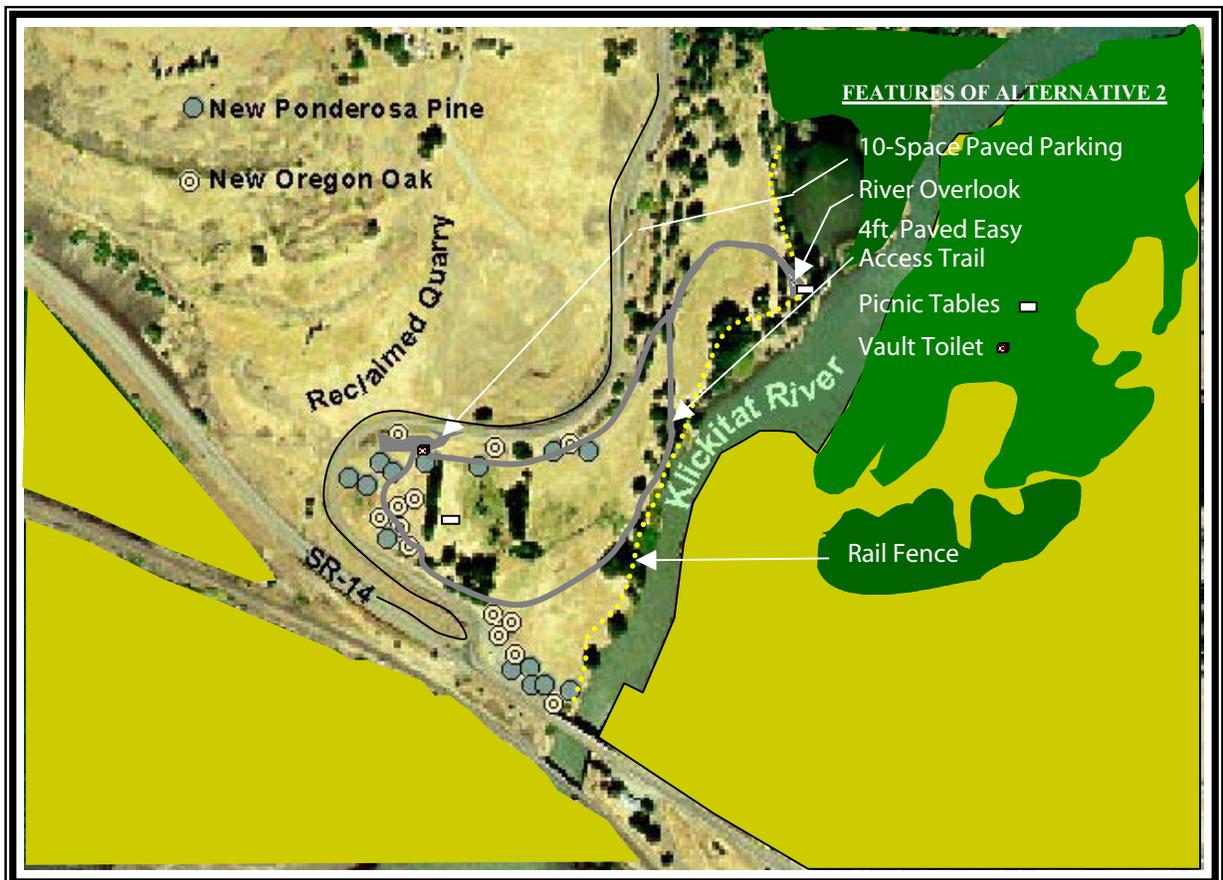
Two picnic areas would be provided; one near the north end of the Osage Orange grove, and the other overlooking the Klickitat River. Interpretive messages would be conveyed via brochures.

A single vault toilet would be located near the parking area.

The desired landscape pattern would be more of an even mix of open grass and pine/oak woodland, as compared to the current, generally open character. This would be achieved by planting ponderosa pine, native grasses, and native oaks. The open landscape character would be retained near SR14. More native forbs and flowers would be planted.

Cost of recreation improvements, interpretation, landscaping and drainfield repair is estimated to be \$88,600.

### Alternative 2 – “Easy Access” Alternative



**Alternative 2** proposes to primarily create “easy” recreation access. A total of about one mile of trail would be developed, most of it to “easy” accessibility standard. Three-fourths of a mile of trail would be 4 ft wide and hard surfaced, and would meet the accessibility standard of “easy”. About 3,000 feet of this trail would be located on existing roadbeds, while about 1,500 ft would be newly constructed. About one-fourth of a mile of trail, located on existing roadbeds, would meet the accessibility standards of “moderate”. A new trail would lead to a picnic spot overlooking the Klickitat River, but no trail would be provided down to the Klickitat River. A two-rail safety fence would be added along the Klickitat River from the SR14 bridge north, around the proposed picnic area, and along the south side of the Klickitat River inlet. This fence would discourage foot access along the Klickitat River inlet.

A ten space, paved parking area is proposed south of Road 1230 and west of the Osage Orange Grove. A 100 ft paved access road would be built to access the parking area. Earth berms and trees would be added to screen this highly visible location from Key Viewing Areas. Barriers, a site identification sign, and bulletin board would be placed at the parking area. A single vault toilet would be located near the parking area.

Two picnic areas would be provided; one at the south end of the Osage Orange grove near the wetland, and the other overlooking the Klickitat River. Interpretive messages would be conveyed at a single, central interpretive panel.

The desired landscape pattern would retain the current, generally open character, but would add scattered ponderosa pine and native oaks. More native flora would be planted.

Cost of recreation improvements, interpretation, landscaping and drainfield repair is estimated to be \$203,800.

**Option 2A:** An option to Alternative 2 that the IDT analyzed was building a 4 car parking area along the edge of Road 1230 with barriers, a site identification sign, and bulletin board in lieu of building the proposed 6 to 8 car parking lot (ie. parking areas associated with alternative 1). No screening would be planted at this parking area.

Cost of recreation improvements, interpretation, landscaping and drainfield repair is estimated to be \$170,200.

Alternative 3 - "Extensive Access" Alternative



**Alternative 3** would provide the most recreation access, and a mix of “easy” and “difficult” levels. A total of about 1 ½ mile of trail would be developed. Two-thirds of a mile of “easy”, 4 ft wide, hard surfaced trail would be located primarily on existing roadbeds.

Another mile or so of 18-24”, native surface trail would be developed, about half on existing roadbeds and half newly constructed. The new trails would lead to a picnic spot overlooking the Klickitat River, two short trails down to the Klickitat River, and around the Klickitat River inlet. A two-rail safety fence would be added along the Klickitat River from the SR14 bridge north to where the proposed trail veers away from the river.

A ten space, paved parking area and access road are proposed in the same location as in alternative 2. In addition, one 4 car unpaved parking area (proposed under alt. 1) would be located along the edge of Road 1230. Barriers, a site identification sign, and bulletin boards would be placed at each parking area. Berms and screening would be added at the larger parking area, but not the smaller parking area. In response to public comment, a flush toilet would be located near the larger parking area.

Two picnic areas would be provided; one at the south end of the Osage Orange grove near the wetland, and the other overlooking the Klickitat River. Interpretive messages would be conveyed with four interpretive signs located throughout the trail system.

The desired landscape pattern would retain the current, generally open character, but would add scattered ponderosa pine and native oaks. More native forbs and flowers would be planted.

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## Lyle-Klickitat Day Use Site

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Cost of recreation improvements, interpretation, landscaping and drainfield repair is estimated to be \$256,100.

### Alternative 4: “No Action” Alternative

Alternative 4 proposes no recreation improvements such as improved trails, a parking area, toilet, picnic facilities, interpretive materials, or fencing. This alternative does not define a desired landscape pattern, nor proposes any new resource improvements, nor repair of drainage system. No recreation development costs are associated with the No Action alternative.

People can continue to use the site for non-vehicular day use, such as walking, fishing, walking dogs off leash. Forest Service would continue to treat the noxious weeds per a 1996 Noxious Weed Environmental Assessment.

### Alternative 4: “No Action” Alternative



**TABLE 1: LYLE/KLICKITAT DAY USE SITE - SUMMARY OF ACTION ALTERNATIVES**

	<b>Alternative 1 Least Development</b>	<b>Cost</b>	<b>Alternative 2 “Easy” Access</b>	<b>Cost</b>	<b>Alternative 3 Extensive Access</b>	<b>Cost</b>
<b>Trails</b>	<u>1 mile of trail “most difficult” level.</u> <ul style="list-style-type: none"> <li>Native surface. 18-24” wide.</li> <li>Connection to Lyle.</li> <li>One river access point.                             <ul style="list-style-type: none"> <li>- 5000 ft on existing roadbed</li> <li>- 1000 ft new trail</li> </ul> </li> </ul>	\$ 5,000 <u>7,500</u> \$12,500	<u>1 mile of trail, primarily at “easy” level.</u> <ul style="list-style-type: none"> <li><math>\frac{3}{4}</math> mile “easy” level. 4 ft wide, hard surface.                             <ul style="list-style-type: none"> <li>-3000 ft on existing roadbed</li> <li>-1500 ft new trail</li> </ul> </li> <li>1000 ft “moderate” level.                             <ul style="list-style-type: none"> <li>-All on existing roadbed. Hard.</li> </ul> </li> <li>No river access point.</li> <li>Fence along Klickitat River.</li> </ul>	\$ 28,000 28,000  5,000  <u>22,500</u> \$83,500	<u>1&amp;2/3 miles of trail; both “easy” and “difficult” levels</u> <ul style="list-style-type: none"> <li>2/3-mile “easy” level. 4 ft wide, hard surface.                             <ul style="list-style-type: none"> <li>-3000 ft on existing roadbed</li> <li>- 500 ft new trail</li> </ul> </li> <li>1 mi “most difficult” level. 18-24” wide, native surface.                             <ul style="list-style-type: none"> <li>- 2,000 ft existing roadbed: to small lot.</li> <li>- 2,500 ft New Trail: to river overlook, two river access trails, trail around inlet.</li> </ul> </li> <li>Fence along Klickitat River</li> </ul>	\$28,000 9,000  2,000 19,000  <u>22,500</u> \$80,500
<b>Parking Lot</b>	<ul style="list-style-type: none"> <li>3-4 spaces in two areas along Road 1230.</li> <li>No access road.</li> <li>Minimal screening needed.</li> <li>Barriers</li> <li>Site Identification Sign</li> <li>Bulletin Boards (2)</li> </ul>	\$10,000  18,000 5,000 <u>\$ 600</u> \$33,600	<ul style="list-style-type: none"> <li>10 spaces below Road 1230, paved.</li> <li>100 ft access road, paved.</li> <li>Berm and large trees for screening.</li> <li>Barriers</li> <li>Site Identification Sign</li> <li>Bulletin Board</li> <li>6-8 spaces in two areas along road 1230 (<b>under option 2a</b>)</li> </ul>	\$20,000 20,000 12,000 18,000 5,000 300 <u>\$75,300</u> ( <b>33,600</b> )	<ul style="list-style-type: none"> <li>4 spaces in upper area along Road 1230.</li> <li>10 spaces below Road 1230, paved.</li> <li>100 ft access road, paved.</li> <li>Berm and large trees for screening.</li> <li>Barriers</li> <li>Site Identification Sign</li> <li>Bulletin Board (2)</li> </ul>	\$ 5,000 20,000 20,000 12,000 27,000 5,000 <u>600</u> \$89,600
<b>Toilet</b>	Single Vault Toilet	\$17,000	Single Vault Toilet	\$17,000	Flush Toilet	\$50,000
<b>Picnic Areas</b>	<ul style="list-style-type: none"> <li>Osage orange grove.</li> <li>River overlook.</li> </ul>	\$ 3,000	<ul style="list-style-type: none"> <li>Wetland overlook.</li> <li>River overlook.</li> </ul>	\$ 3,000	<ul style="list-style-type: none"> <li>Wetland overlook.</li> <li>River overlook.</li> </ul>	\$ 3,000
<b>Interpretation</b>	<b>Themes</b> <ul style="list-style-type: none"> <li>Native American history.</li> <li>European American history; Lewis&amp;Clark</li> <li>Natural Resources; wetland, river, pine/oak woodland, wildlife, fish.</li> </ul> <b>Media</b> <ul style="list-style-type: none"> <li>Brochures</li> </ul>	\$ 2,500	<b>Themes</b> <ul style="list-style-type: none"> <li>Native American history.</li> <li>European American history; Lewis &amp; Clark</li> <li>Natural Resources; wetland, river, pine/oak woodland, wildlife, fish.</li> </ul> <b>Media</b> <ul style="list-style-type: none"> <li>Central Interpretive Panel</li> </ul>	\$ 8,000	<b>Themes</b> <ul style="list-style-type: none"> <li>Native American history.</li> <li>European American history; Lewis &amp; Clark</li> <li>Natural Resources; wetland, river, pine/oak woodland, wildlife, fish.</li> </ul> <b>Media</b> <ul style="list-style-type: none"> <li>Interpretive Signs throughout trail system (4).</li> </ul>	\$ 16,000
<b>Landscape Pattern</b>	<b>Oak Savannah</b> <ul style="list-style-type: none"> <li>50/50 mix of open and pine/oak woodland.</li> <li>Retain open character near SR14.</li> <li>More native forbs/flowers</li> </ul>	\$10,000	<b>Retain Open Character</b> <ul style="list-style-type: none"> <li>Plant limited scattered oak/pine.</li> <li>More native forbs/flowers.</li> </ul>	\$ 7,000	<b>Retain Open Character</b> <ul style="list-style-type: none"> <li>Plant limited scattered oak/pine.</li> <li>More native forbs/flowers.</li> </ul>	\$ 7,000
<b>Repair Drainage System</b>	Yes	\$10,000	Yes	\$10,000	Yes	\$10,000
<b>Users</b>	Foot, Dogs off leash	NA	Foot, Dogs on leash	NA	Foot, Dogs on leash and off leash (Quarry) area	NA
<b>Total Cost</b>	<b>Alternative 1</b>	<b>\$88,600</b>	<b>Alternative 2 Alternative 2A</b>	<b>\$203,800 \$170,200</b>	<b>Alternative 3</b>	<b>\$256,100</b>

## **CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

Where applicable, this chapter presents the scientific and analytical basis for the comparison of alternatives displayed in chapter 2. Probable consequences of implementing the proposed action are disclosed for the resources affected. Consequences are described in the context of direct, indirect, short and long term, and cumulative effects.

### **3.1 SOIL AND WATER RESOURCES**

#### **AFFECTED ENVIRONMENT**

##### Hydrology and Water Quality

The Klickitat River is the second longest free flowing stream (no dams) in the State of Washington (second only to the Chehalis River). At 96 miles long, the Klickitat River is also the second longest free flowing river in the lower Columbia River subregion. This is why the river is considered a regionally significant value (Lower Klickitat River Wild and Scenic River Management Plan FEIS, 1991).

Water temperature data is lacking with only 1 monitoring station currently in operation near the town of Pitt. The State of Washington rates the Lower Klickitat River as Class A (excellent) for water quality, however they consider this rating to be threatened due to marginal water temperature conditions and the quantity of suspended solids. According to the Department of Ecology (DOE), both of these parameters are high due to natural causes (DOE, 1989). Temperatures during the summer months have been recorded as high as 65 degrees farenheight by the U.S. Geological Survey (USGS). These temperatures are high enough to warrant concern about additional activities that may negatively affect factors that influence stream temperature.

The Klickitat River is often turbid, particularly during periods of high flow. The major sources of sediment include glacial melt and several major tributaries that feed into the mainstem including Big Muddy Creek and the Little Klickitat River. As mentioned in the previous paragraph, the DOE considers the majority of the turbidity to be naturally derived.

Approximately 90 percent of the discharge in the Lower Klickitat River comes from the upper Klickitat, while the other 10 percent is supplied from the Little Klickitat River. Although the Little Klickitat River typically supplies 10 percent of the mean annual flow, during individual storms it has supplied up to 37 percent of the discharge to the mainstem Klickitat River (Lower Klickitat River Wild and Scenic River Management Plan FEIS, 1991). The majority of runoff in the Lower Klickitat River is due to spring snowmelt. Flows are relatively low in the summer, due partially to irrigation withdrawals from the Little Klickitat River and Swale Creek.

A series of small springs and an associated wetland (<0.5 acres) are located on the Starr property. A small pond has been created just east of the springs and is fed by the wetland. This pond maintains a relatively constant level throughout the year due to consistent spring flow. The pond outlet is currently piped to the northeast along the slope contour via a perforated pipe. The pipe has seperated in a few places, causing erosion due to water leakage.

Another noteworthy aquatic feature is located in the northwestern portion of the Starr property. A large pond or bay is directly connected to the mainstem Klickitat River. Historic air photos suggest this feature may have been a delta or large depositional feature at the mouth of a tributary stream to the Klickitat River. This feature is now seasonally flooded due to increased water elevation from dam influence on the Columbia River. This area is very unique in the lower section of the Klickitat River.

### Soils and Geology

Rocks within the Klickitat River area are of various ages and largely volcanic in origin. The majority of these lithologies are basalt that has been faulted, folded and eroded to give us these present day landforms. These basalt flows form steep canyon walls in many sections of the Lower Klickitat River and adjacent to the Starr property. Sediments associated with the Lake Missoula floods have also been reported along the west side of the Klickitat River near the confluence with the Columbia River. These sediments can be seen in the “gravel pit” area of the Starr property.

Soils in the lower Klickitat River corridor vary based on local topography and substrate characteristics. In general, the river corridor is dominated by fluvial deposits adjacent to the river and steep bedrock and talus slopes leading up to the high plateau area. Soils on the Starr Property are generally thin and have developed on fluvial deposits or basalt flows.

## **ENVIRONMENTAL CONSEQUENCES**

### **Consistency Determination**

The project must meet the following guidelines from the CRGNSA Management Plan for soil and water resources:

**Guideline:** New development and land uses shall control all soil movement within the area shown on site plan.

**Finding:** Soils movement shall be controlled in areas where this is determined to be a potential problem. The work on the trail will involve minimal disturbance and will have measures in place where necessary; the work on the parking area will have measures to prevent soil movement.

**Guideline:** The soil area disturbed by new development or land use shall not exceed 15% of project area.

**Finding:** The proposed area with soil disturbance will be less than 15 % of the project area.

**Guideline:** Within 1 year of project completion, 80% of the project area with surface disturbance, shall be established with effective native ground cover...

**Finding:** The area requiring re-vegetation as a result of soil disturbance will be completed within one year. Other portions to receive re-vegetation as an enhancement will likely be completed over a longer time frame.

**Guideline:** Stream bank and shore line stability shall be maintained or restored with natural vegetation.

**Finding:** Stream bank stability will only be changed in one alternative. In this alternative adequate measures to ensure stream bank stability are included as mitigation measures in the EA.

**Guideline:** All new development shall be carried out to comply with state water quality requirements.

**Finding:** State water quality requirements are incorporated into the design of this project.

### **Direct and Indirect, Short & Long Term Effects of Alternative 1 – Least Development Alternative**

Erosion/Sedimentation - This alternative requires construction of 1000' of new trail and construction of 5000' of trail on an existing roadbed. The trail tread will be native surface and 18 to 24" wide. Approximately 1900' of trail will be located within the Klickitat River Riparian Reserve, but only 450' will be new construction. The rest of the trail will be located on an old, existing roadbed. Most of this section of trail is located on a flat to gently sloping bench adjacent to the Klickitat River. Erosion in this area is expected to be low. Approximately 150' of the new trail construction in the Riparian Reserve involves excavation along a 40 to 50 percent slope adjacent to the Klickitat River. Construction of this section of trail will result in minor short term indirect erosion of soil in trail cutslopes, along the tread surface and along the trail fillslopes. Since this section is mostly in bedrock, the amount of fine soil material resulting from this disturbance is expected to be low. In time, as excavated surfaces revegetate, the amount of eroded material will diminish. River access will also encourage additional foot traffic along the river banks. These areas are bedrock for the most part, but the trail will access a beach along the river's edge. It is anticipated that there will be additional litter in this area and the potential for pollution derived from human excrement is increased due to the additional access and lack of toilet proposed in this alternative.

Approximately 170' of the trail will be within a GMA wetland buffer (150') and 1000' will be within a wetland riparian area of influence (300') as identified in the Gifford Pinchot National Forest Land Management Plan (GPNFLMP) as amended by the Northwest Forest Plan. Erosion and resulting sedimentation in the wetland is expected to be low to nonexistent due to 1) construction of the trail tread on an already disturbed surface (old road bed); 2) the flat topography of the area; and 3) shrub and tree sized vegetation will be retained.

One small 6-8 space parking lot will be located just on the edge of the 300' wetland riparian "area of influence" as identified in the GPNFLMP. This parking area will be located in a site that is already disturbed from previous access and parking in the area. Erosion and resulting sedimentation in the wetland is expected to be low to nonexistent due to 1) drainage from this area is actually parallel to the wetland and does not intersect it; 2) the area is already disturbed; 3) the flat topography of the area; 4) the long distance away from the wetland (approximately 300').

Alternative 1 proposes to install a toilet adjacent to the parking lot. The toilet will be located just within the 300' wetland riparian "area of influence" as identified in the GPNFLMP. This toilet should help mitigate water quality concerns associated with human excrement by providing this facility.

Two small picnic areas (2 to 3 tables) are proposed in this alternative. One is located adjacent to the osage orange grove and is within the 300' wetland "area of influence" as identified in the GPNFLMP. The other picnic site is northeast of the orange grove on a flat above the Klickitat River. This area is within the Riparian Reserve for the Klickitat River. Erosion and resulting sedimentation in the wetland and Klickitat River is expected to be low to nonexistent due to 1) the flat topography of the area; 2)

shrub and tree sized vegetation will be retained: 3) in the case of the osage orange grove picnic area, drainage is actually parallel to the wetland and does not intersect it.

In addition to the trail and picnic area construction, some restoration work is proposed in this alternative. Tree planting will occur throughout the Starr property area. The objective of the tree planting is conversion of this heavily disturbed site back to a more natural oak savannah vegetation type. This work will provide a more natural functioning ecosystem and benefit both aquatic and terrestrial habitats. Work is also proposed for the water pipe system originating at the pond outlet. Currently, the pond outlet is piped via perforated pipe as described above, to a flat approximately 750' away. The original intent was to create a wetland in this flat, but due to pipe leakage, very little water is delivered to this site. The proposal is to replace this pipe with a non-perforated pipe using a small backhoe, to eliminate erosion due to pipe leakage and to convey more water to the flat for wetland creation. This area will also be planted with native wetland plants. Additional shrub and tree planting will take place downslope of the pipe and ditch, in areas that are currently being eroded or have a high risk of future erosion. Completing this work will have a beneficial effect to soil and water resources by reducing or eliminating erosional areas next to the river

Stream Temperature - This alternative does not propose to remove any vegetation that provides stream or wetland shading. Since no large shade producing vegetation is proposed for removal and additional tree planting will occur as a result of restoration efforts, it is not anticipated this alternative will increase stream temperature.

### **Direct and Indirect, Short & Long Term Effects Common to Both Alternatives 2 & 3**

One 10 space parking lot is proposed, but it will be located outside of all buffers and Riparian Reserves for both alternatives 2 and 3. This parking area will be located in a site that is already disturbed from previous grading activities. Erosion and resulting sedimentation in the wetland is expected to be low to nonexistent due to 1) drainage from this area is actually parallel to the wetland and does not intersect it; 2) the area is already disturbed; 3) the flat topography of the area; 4) the long distance away from the wetland (approximately 300'); 5) incorporation of a bioswale or vegetated strip adjacent to the parking lot that will encourage eroded material to settle out.

Two small picnic areas (2 to 3 tables) are proposed for both alternatives. One is located adjacent to the spring/wetland complex and is within the 150' GMA wetland buffer and the Riparian Reserve. The other picnic site is northeast of the spring/wetland area on a flat above the Klickitat River and is located within the Riparian Reserve. Erosion and resulting sedimentation in the wetland and Klickitat River is expected to be low to nonexistent due to 1) the flat topography of the area; 2) shrub and tree sized vegetation will be retained; 3) in the case of the spring/wetland area, the hillslope drains away from the wetland and does not intersect it. Some loss of riparian vegetation is expected due to trampling, since use is being encouraged in the wetland riparian area. This shouldn't result in any measurable change in water quality and quantity.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2 – “Easy” Access Alternative**

Erosion/Sedimentation - This alternative requires new construction of 1500' of trail and construction of 4000' of trail on an existing roadbed. The trail tread for the most part, will be a hard surface and 4' wide to provide barrier free access. Approximately 1700' of trail will be located within the Klickitat River Riparian Reserve, but only 300' will be new construction. The rest of the trail will be located on an old, existing roadbed. Most of this section of trail is located on a flat to gently sloping bench adjacent to the

Klickitat River. Erosion in this area is expected to be low because of the gentle topography and the hardened trail surface. This alternative does not propose river access, so effects described for this section of trail in Alternative 1 will not occur in this alternative.

Alternative 2 proposes to install a toilet adjacent to the parking lot. The toilet will be located just within the 300' wetland riparian "area of influence" as identified in the GPNFLMP. This toilet should help mitigate water quality concerns associated with human excrement by providing this facility.

Similar types of effects as described in Alternative 1 are anticipated with this alternative, but the magnitude of effects will be reduced by discouraging river access, hardening the trail surface and construction of a toilet facility.

Stream Temperature - Similar types of effects as described in Alternative 1 are anticipated with this alternative.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2A – "Easy" Access Alternative With Different Parking**

This alternative is the same as Alternative 2 but proposes to reduce the size of the parking lot to accommodate 3 or 4 cars and moves it to the east just within the GPNF 300' wetland riparian "area of influence". Effects to soil and water resources are expected to be the same under this alternative as those described for Alternative 2, or alternative 1 for parking area.

### **Direct and Indirect, Short & Long Term Effects of Alternative 3 – Extensive Access Alternative**

Erosion/Sedimentation - This alternative requires construction of 3000' of new trail and construction of 5000' of trail on an existing roadbed. The trail tread will be a combination of both 18 to 24" wide native surface and 4' wide hardened surface. Approximately 3250' of trail will be located within the Klickitat River Riparian Reserve. Almost half of this will be new construction and half will be located on an existing, old roadbed on a flat bench above the river. Erosion is expected to be low in the section of trail located on the bench, due to the flat topography and hardened trail surface. Approximately 300' of new trail construction in the Riparian Reserve involves excavation along a 40 to 50 percent slope adjacent to the Klickitat River. Another 1250' of new native surface trail will be constructed in the 100' GMA buffer around the large bay discussed in the affected environment section. Construction of these sections of trail will result in minor short term indirect erosion of soil in trail cutslopes, along the tread surface and along the trail fillslopes. Since these sections are mostly in bedrock, the amount of fine soil material resulting from this disturbance is expected to be low. In time, as excavated surfaces revegetate, the amount of eroded material will diminish. River access will also encourage additional foot traffic along the river banks. These areas are bedrock for the most part, but the trails will access sand and silt beaches along the rivers edge. It is anticipated that there will be additional litter in these areas.

Approximately 170' of the trail will be within a GMA wetland buffer (150') and 1000' will be within a wetland riparian area of influence (300') as identified in the GPNFLMP. Erosion and resulting sedimentation in the wetland is expected to be low to nonexistent due to 1) construction of the trail tread on an already disturbed surface (old road bed); 2) the flat topography of the area; and 3) shrub and tree sized vegetation will be retained.

Alternative 3 proposes to install a toilet adjacent to the parking lot. The toilet will be located just within the 300' wetland riparian "area of influence" as identified in the GPNFLMP. This toilet should help mitigate water quality concerns associated with human excrement by providing this facility.

Stream Temperature - This alternative does not propose to remove any vegetation that provides stream or wetland shading. Since no large shade producing vegetation is proposed for removal and additional tree planting will occur as a result of restoration efforts, it is not anticipated this alternative will increase stream temperature.

### **Direct and Indirect, Short & Long Term Effects of Alternative 4 - No Action Alternative**

If Alternative 4 is implemented, this area will continue to slowly recover from past site disturbance. Trees will slowly seed in naturally in upland areas. Erosion will continue in areas where the pond overflow pipe has separated. It is anticipated that this situation will only get worse as the pipe continues to degrade.

### **CUMULATIVE EFFECTS FOR ALL ALTERNATIVES**

Cumulative effects of this project on soil and water resources are expected to be low to nonexistent and shouldn't create any measurable change to the hydrology or water quality of the Klickitat River. This is due to the minimal amount of new soil disturbance, the flat or near flat topography throughout most of the project area, the location of most of the trailwork on already disturbed sites and implementation of mitigation measures. No large riparian vegetation will be removed which will mitigate concerns relating to increased water temperature and soil erosion. All action alternatives propose tree planting and repair of the water line which will have a beneficial effect to the site.

## **3.2 BOTANICAL INCLUDING SENSITIVE PLANTS AND NWFP C3 SPECIES**

### **AFFECTED ENVIRONMENT**

The Lyle-Klickitat Park is located at the confluence of the Klickitat and Columbia Rivers. The Klickitat River has carved near vertical cliffs down to the water's edge along most of its lower reaches. A small backwater area is found in the northern portion of this site where Mill creek enters the Klickitat. A strong spring is found in the center of the site and has been channeled into a pond and wetland area.

Ecologically, the proposed day-use site lies within the oak-pine zone; a relatively narrow zone running parallel to the Cascade Mountains along their eastern flank. The oak-pine zone receives approximately 15 to 35 inches of annual precipitation or is found on soils with little moisture holding capacity in higher rainfall areas. The oak-pine zone is a relatively small zone in area but is very important: it provides critical habitat for many species of flora.

The specific site of this development is at approximately 100 feet above sea level. At this low elevation, the vegetation is sparse and the oaks and pines are scattered. Historically it is assumed, the Native Americans burned the area fairly frequently to ensure a fairly constant supply of acorns. As a result the oaks became very large and well spaced creating the "savannah" type of oak woodlands. Many of these large oaks are still to be found at this site. The under-story vegetation would have been rich with a variety of native herbaceous flora including lupine, balsamroot, and lomatium spp.. Shrubs, such as bitterbrush, mock orange, poison oak and other natives would also have been present.

Due to more recent developments on this site (severe over-grazing, indiscriminate land disturbance, etc), the native shrubs, herbaceous flora, and native bunch grasses have been almost entirely displaced by non-native species. Many of the native trees have likewise been cut. Non-native grasses completely dominate the landscape along with rows of non-native osage orange and locust trees. In some locations Himalayan

blackberries have begun an insidious encroachment along the steep banks of the Klickitat River and within the wetland areas. Noxious weeds, including yellow star thistle, Canada thistle, knapweeds, etc are found in abundance. Control of these species has been on-going for several years and control north of the County road 1230 is within sight; but control south of the old quarry is still wanting.

There are no known sites of sensitive flora except along the steep cliffs bordering the Klickitat River where *Heuchera grossulariifolia* var *tenuifolia* can be found. The location of these plants is such that they are relatively unlikely to be affected by increased human use on this proposed trail system. The presence of sensitive flora prior to the human impacts on this landscape were undoubtedly much greater than today. The endemic lupine (*Lupinus latifolius* var. *thompsonianus*), the *meconella oregana*, to name a couple as examples, are believed to have been far more common in this area, and would have been expected on this site. Some limited restoration completed by the U.S. Forest Service has re-introduced some native bunch grasses, bitterbrush, and sensitive species (Barrett's penstemon and *Lomatium suksdorfii*) to this site north of the County Road 1230 in the old quarry site. Reference Appendix C for summary sheet of Biological Evaluation prepared for TE&S plants.

The spring has been manipulated and developed by past owners of this parcel. In 1995 when the land was acquired by the US Forest Service, the spring was allowed to flow into a small holding pond. This pond and associated wetlands has continued to develop over time and many trees and some shrubs were planted to help establish a more functional wetland. The excess water from the pond was designed to be diverted into a pipe and carried north following the contours of the slope. The water was then emitted and allowed to percolate down the hillside to the Klickitat River. The pipe is presently breached and is causing some erosion on the hillside.

## ENVIRONMENTAL CONSEQUENCES

### Consistency Determination

The project must meet the following guidelines from the CRGNSA Plan for botanical resources:

**Guideline:** Buffer zones shall be undisturbed unless it has been shown that no practicable alternative exist.

**Finding:** Buffer zones were identified for Mill Creek and the Klickitat and Columbia Rivers, a wetland, and several sensitive flora and fauna. Activities proposed within these buffer zones did meet the 'no practicable alternative' test. Reference discussion on page 7 of this EA concerning "No Practicable Alternative" test.

**Guideline:** A 200 foot buffer zone shall be created around each sensitive plant species.

**Finding:** Several sensitive flora are identified within this project area and a 200 ft. buffer zone was designated for each.

**Guideline:** Revegetation [in riparian areas] shall use only species native to the Gorge...

**Finding:** All revegetation work shall use flora native to the Columbia Gorge.

**Guideline:** New uses shall avoid disturbance to old growth.

**Finding:** The proposed activities shall not disturb the old oak trees located on the project area.

**Guideline:** For [general] re-vegetation purposes, only plants species native to the Gorge shall be encouraged.

**Finding:** All re-vegetation will be limited to species native to the Gorge.

The design of this project in all of its respects are sensitive to the protection of natural resources, such as water quality, sensitive wildlife habitat, cultural and other resources. All disturbed soil will be re-planted with native species to preclude weed infestations and to enhance the habitat quality. Any unavoidable impacts will be fully offset by rehabilitation and enhancement. The amount of rehabilitation and enhancement will vary with alternatives as indicated below.

For summary of effects to sensitive botanical species refer to **Table 3-1**, pages 30-32 of this EA.

### **Direct and Indirect, Short & Long Term Effects of Alternatives 1, 2, and 2A**

The parking areas in these alternatives would have very little impact to the native flora and to the ecological integrity of the site. The trail system will have the most impact. The trail system as represented in Alt. 1 would have the least impact on vegetation. The native surface would permit flora to encroach upon the trail tread. The impacts due to paving the trail in Alt. 2 would be considered a minor impact. However, as in all of these alternatives, disturbed ground adjacent to the trails will create suitable habitat for weed infestations. Appropriate mitigation will be required to prevent infestations. The trail down to the river would not be considered a significant impact on the flora, although heavy use of this trail could eventually result in degraded habitat.

The parking lot, picnic areas, landscape pattern, and repair of drainage system would be considered an enhancement for the flora due to the additional plantings that would be part of the design. The use of native species will be considered as important to mitigate possible impacts.

### **Direct and Indirect, Short & Long Term Effects of Alternative 3 – Extensive Access Alternative**

The only significant difference between Alt. 3 and the other two alternatives is the extended trail system through the riverine buffer zones. This expanded trail system would have significantly more impact on floral habitat, especially along the northern portions where the trail follows around the backwater area of the Klickitat River. The trail would be located much closer to the water's edge and would lead the public into a more remote portion of the site. This area offers some less common mud flat habitat and habitat suitable for shallow emergent vegetation. It is also suitable as a potential floral refugia. Likewise, this trail would have considerably more impacts on the 'no entry' buffer zone of the Klickitat River and Mill Creek.

These impacts, in terms of the riparian buffers, are not easily offset especially considering the cumulative impacts along the Klickitat River. There will soon be extremely little un-accessible areas of the lower Klickitat River and for this reason the concept of a refugia become strikingly more pronounced. In fact, this area of the site should be specifically set aside as a nature preserve and all public access should be discouraged. This becomes clearer when the cumulative impacts are examined.

### **Direct and Indirect, Short & Long Term Effects of Alternative 4 - No Action Alternative.**

This alternative would perhaps have the least immediate impact on the flora; but the long term impacts

would be far greater. The reason for this being that the enhancement activities, which will benefit the flora would not occur. This restoration is the corner stone for improvement to flora habitat. Without this project, this type of restoration may not occur for years to come, if ever. And without this restoration, the habitat values of this site are unlikely to improve and likely to deteriorate.

**CUMULATIVE IMPACTS FOR ALL ACTION ALTERNATIVES**

The cumulative impacts as a result of this project are primarily a loss of unaltered and pristine habitat. As more recreational sites become developed, as more homes are built along the Klickitat River (estimated 15 –20 potential vacant lots), there are fewer and fewer refugia for the flora. There is a potential for another recreation site just up-stream from this location (on the east side of the river) and the potential for the rails-to-trails project along the whole of the lower section of the Klickitat River (mostly on the opposite side of HWY 142). All of these developments combined will have a very significant impact of the ‘refugia’ concept, particularly as public use increases. To offset the loss of a potential refugia in Alternative 3, extensive mitigation will be required to essentially establish other refugia sites elsewhere.

Cumulative impacts are highly dependent on the anticipated use levels within the recreation sites. The public use levels on the potential rail-to-trails is anticipated to be high. Therefore, limiting the parking at this site to as few vehicles as possible will greatly help maintain desirable habitat values for the flora.

**Table 3-1**

**SENSITIVE SPECIES BIOLOGICAL EVALUATION - SUMMARY OF CONCLUSION OF EFFECTS**

Listed USFWS	R6	State (WA/OR)	SPECIES	Habitat not Present	Alts. 1,2,3	No Action Alt. 4
		S / 2	Agroseris elata	X		
		-- / 1	+Agrostis howellii	X		
		-- / 2	+Astragalus hoodianus		MIH	MIH
		S / 1	Bolandra oregana	X		
		S / 2	Botrichium spp.	X		
		S / 1	Calachortus longeberbe var. longeberbe	X		
		S / 2	Carex macrochaeta	X		
			+Calamagrostis howellii	X		
		S / --	Chrysolepis chrysophylla	X		
		Th / 1	Cimicifuga elata	X		
		S / --	Collinsia sparaiflora var. bruceiae		MIH	MIH
		Th / 1	Corydalis aqua-gelidae	X		
		S / 2	Cryptantha rostellata		MIH	MIH
		S / --	Cryptantha interrupta	X		
			Cyperus rivularis	X		
		Th / 1	<b>Cypripedium fasciculatum</b>	X		

Lyle-Klickitat Day Use Site

		Th / --	<i>Draba douglasii</i> var. <i>douglasii</i> ( <i>Cusickiella douglasii</i> )	X		
		-- / 3	+ <i>Douglasia laevigata</i> var. <i>laevigata</i>	X		
		S / --	<i>Epipactis gigantea</i>	X		
		Th / 1	+ <i>Erigeron howellii</i>	X		
		Th / 1	+ <i>Erigeron oreganus</i>	X		
		Th / --	<i>Eryngium petiolatum</i>	X		
		S / --	<i>Githopsis specularioides</i>		MIIH	MIIH
		S / 1	<i>Hackelia diffusa</i> var. <i>diffusa</i>	X		
		S / --	<i>Heuchera grossularifolia</i> var. <i>tenuifolia</i>		MIIH	MIIH
		-- / --	+ <i>Hieracium longiberbe</i>	X		
		Th / 1	<i>Howellia aquatilis</i>	X		
		S / 3	<i>Linanthus bakeri</i>		MIIH	MIIH
		E / --	<i>Liparis loeselii</i>	X		
		S / --	+ <i>Lomatium laevigatum</i>	X		
		-- / --	+ <i>Lupinus latifolius</i> var. <i>thompsonianus</i>		BI	MIIH
		S / 2	<i>Lycopodiella inundata</i>	X		
			<i>Machaerocarpus californicus</i>	X		
		Th / 1	<i>Meconella oregana</i>		MIIH	MIIH
		S / --	<i>Montia diffusa</i>	X		
		Th / 3	<i>Navaretia tagetina</i>		MIIH	MIIH
		Th / 2	<i>Ophioglossum pusillum</i>	X		
		Th / --	<i>Orthocarpus bracteosus</i>		MIIH	MIIH
		S / --	<i>Parnassia frimbriata</i> var. <i>hoodiana</i>	X		
		Th / 1	+ <i>Penstemon barrettiae</i>		BI	MIIH
		S / 3	<i>Penstemon deustus</i> var. <i>variabilis</i>	X		
		S / --	<i>Plantanthera sparsiflora</i>	X		
			+ <i>Poa gracillima</i> var. <i>multnomae</i>	X		
		Th / --	<i>Poa laxiflora</i>	X		
		Th / --	<i>Polemonium careum</i>	X		
		Th / 1	+ <i>Ranunculus reconditus</i>	X		
		Th / 1	<i>Rorippa columbiae</i>	X		
		Th / 1	<i>Sisyrinchium sarmentosum</i>	X		
		S /	<i>Spiranthes porrifolia</i>		MIIH/BI	MIIH

		Th / 1	+Sullivantia oregana	X		
			+Synthyris stellata			
		S / --	Utricularia intermedia			
		S / --	Veratrum insolitum	X		

+ = endemic species in the Gorge.

NI = No Impact ; BI = Beneficial Impact

MIH = May impact Individuals Or Habitat, But Will Not Likely Contribute To A Trend Towards Federal Listing or Loss Of Viability To The Population Or Species

### 3.3 FISH, WILDLIFE, C3, THREATENED, ENDANGERED & SENSITIVE (TE&S) AND PROTECTION BUFFER SPECIES AND THEIR HABITATS

#### AFFECTED ENVIRONMENT

##### The Klickitat River and Aquatic Species and Habitat

The Klickitat River watershed is located in south-central Washington State. From its origin in the high country of the Yakama Indian Reservation, the river flows generally south for 96 miles, meeting the Columbia River near Lyle Washington. The entire river is free-flowing (no human-engineered dams) for its entire length. At river mile 7.0, a USGS gauge has recorded the average summer flows (1909-1985) as generally between 700 to 1000 cfs, with winter flows exceeding 2000 cfs. Designation as a Wild And Scenic River was adopted in 1986 for its lower 10.8 miles. Five outstanding resources for the lower Klickitat river was identified as the hydrology, anadromous fish, resident fish, Native American dip net fishing sites and the geology of the gorge between river miles 1.1 and 2.5 (Lower Klickitat River Wild and Scenic river Management Plan, 1991). The 1,300 square-mile Klickitat drainage descends over 5,000 feet, passing through diverse habitats and forest types. Tableland topography characteristic of the Columbia Plateau, with its grasslands and oak woodlands, is most evident on the east side and lower river. In the headwater to the west, the river's banks rise to meet Cascade foothills, covered with pine and fir forests.

The headwaters of the Klickitat receive moderate precipitation, much in the form of snow, while the rest of the river borders the semi-arid zone of Eastern Washington. The lower portion of the river receives 15 to 20 inches of precipitation annually, compared to over 60 inches in the upper reaches. The Klickitat is often naturally turbid due to glacially derived fines from several of its tributaries. Temperatures during the summer months have been recorded as high as 65° F by the U.S. Geological Survey at their Klickitat River water monitoring station #14113000 at river mile 10.3, near the town of Pitt. At this time, the Department of Ecology considers the high turbidity and temperature to be from natural causes.

The river harbors anadromous runs of steelhead (summer and winter), Chinook (spring and fall), and coho. Known resident fish species include whitefish, rainbow trout and cutthroat trout. Bull trout are documented high in the watershed, generally above river mile 60. Some other fish species likely access the mouth of the Klickitat from the Columbia River, including warm-water species such as bass, carp, and daces. There is no salmonid spawning habitat within or adjacent to the project site. The river here is considered to be primarily a migration route used by salmonids. The spring has been manipulated and piped in the past. Currently the perforated pipe needs replacement to stop small points of erosion

occurring where this pipe is broken or plugged up. The backwatered pond in the north area of the planning area currently has a mud bottom with few aquatic vegetation. Carp have been observed swimming back and forth between this pond and Klickitat River via the short but deep connecting channel. The area is 4-6 feet deep at max depth with a gradual mud bottom, and broken rock/bedrock banks. This undisturbed backwater area near the mouth of a large river system is unique in the mid-Columbia area, especially considering its size. Similiar features in the area are often adjacent to or disturbed by highways, railways, fish hatcheries, and urban boundaries. Though no formal surveys have been completed, it is likely used as a high flow winter refuge for salmonid juveniles.

Foot access to the lower Klickitat River is limited, with only 6 access points in the lower 10.3 miles of river. Two of the 6 sites are on private land. Access to the lower mile of the river is easily accessible by boat, launched from boat ramps located around the city of Lyle. The lower 2 miles of the river is popular for chinook and steelhead angling. Up to 200 anglers have been observed in the lower 1.5 miles of the river during periods of heavy use in a recreational survey by the Mt. Adams Ranger District in 1989. Fishing pressure varies greatly depending on anadromous run size and intensity. Presently, fishing pressure for resident species in the lower 2 miles of river appears to be low, perhaps in part to warmer stream temperatures and turbidity during the open season (June to November, with a 12" minimum length).

### **Terrestrial Species and Habitat around the mouth of the Klickitat River**

Terrestrial habitat in and around the project area is composed of meadow/grassland, oak/pine woodland, steep bedrock slopes bordering the river, and riparian/wetland corridors. Many current plant species are non-native with some being noxious weeds. Although adjacent to Highway 14, the railroad system, and the nearby town of Lyle, the site has low current human use. The terrestrial and riparian habitat is somewhat unique in the mid-Columbia area in that a low elevation site at the mouth of a large river is not in urban boundaries, as is the case with the White Salmon River/town of White Salmon, the Hood River/town of Hood River, Mosier Creek/town of Mosier, Fifteenmile and Mill Creeks/city of the Dalles. Wildlife or wildlife signs noted during a July 27, 2000 visit to to the site by U.S. Fish and Wildlife biologist, Kent Livezey, included great blue heron, spotted sandpiper, ring-billed gull, red-tailed hawk, belted kingfisher, downy woodpecker, common flicker, mourning dove, American robin, ash-throated flycatcher, canyon wren, scrub jay, spotted towhee, numerous deer trails and tracks, raccoon tracks, dog/coyote tracks, smallmouth bass, racer, and a colony of approximately 100 pairs of cliff swallows nesting on the east side of the Klickitat River adjacent to the project area. On a March 2002 field visit by the Scenic Area's Acting Fish/Wildlife biologist, California ground squirrels were also noted. Bald eagles have commonly been seen in and adjacent to the area in the winter months—from mid December through March, but no nests are known to exist in or near the project area. A list of potential species that have not been documented but may potentially occur is summarized in the 1991 Klickitat River Wild and Scenic River Management Plan (pages 3-25 and 26), and has been updated for the Biological Evaluation contained within this EA.

## **ENVIRONMENTAL CONSEQUENCES**

### **Consistency Determination**

The project must meet the following guidelines from the CRGNSA Plan for fisheries resources:

**Guideline:** A 200-ft buffer zone shall be created along each fish-bearing and perennial stream.

**Finding:** All fish bearing streams, the Klickitat and Columbia Rivers, were designated with a 200 ft. no-disturbance buffer. For additional discussion on buffer zones refer back to Resource Buffer Zones p. 6, and “No Practical Alternative Test”, p.7 of this EA.

The project must meet the following guidelines from the CRGNSA Plan wildlife resources:

**Guideline:** A buffer zone shall be designated for each sensitive wildlife species, including nesting, roosting and perching sites, as defined by species requirements and determined by a Forest Service biologist in consultation with other state or federal agency biologists.

**Finding:** Several wildlife sites were identified within the project area and each were designated with an appropriate buffer zone.

**Guideline:** New developments and uses shall occur during periods when fish and wildlife are least sensitive to activities.

**Finding:** The work proposed will occur during the summer and fall to avoid undue disturbance to nesting birds and wintering birds, such as the bald eagles. No in-stream work is proposed.

The project must meet the following guidelines from the CRGNSA Plan TE&S Species:

**Guideline:** A buffer zone shall be created around sensitive flora or fauna.

**Finding:** Buffer zones were established around all sensitive flora and fauna (EA, p.6). A 200 ft buffer zone was applied to each sensitive flora and a variable buffer zone was applied to the different fauna species depending on their needs.

### **Threatened, Endangered, Sensitive (TE&S) Species and Their Habitat**

For summary and rationale of effects to TE&S wildlife and aquatic species refer to narrative, pages 37 to 40, and to **Table 3-2**, pages 41, 42 of this EA.

## **Direct and Indirect, Short & Long Term Effects of Alternative 1 – Least Development Alternative**

### **Wildlife species and Terrestrial Habitat**

In the short-term (1-3 years), portions of habitat will be removed with the construction of a trail and picnic sites, but currently, the majority of this habitat is in non-native grasses and previously disturbed areas. Construction of the park will be in mid to late summer at a time least likely to disturb nesting and young rearing activity, but later (increased) use by people and dogs in early spring to summer will result in this disturbance. Wildlife harassment is not of elevated concern due to the currently limited native wildlife habitat available (of which has been highly disturbed in the near past), tread limited to trails and picnic areas, day use only, and interpretive brochures explaining how to minimize impacts (such as with dogs and the cliff swallow nesting colony on the opposite bank of the Klickitat River). In the longer term (3 years or so and onward), repair of the drainage system (to restore spring/wetland complex), planting of native upland, riparian and wetland vegetation, and removal of noxious weeds will significantly increase habitat for native species at this site.

### **Fish species and Aquatic Habitat**

The hydrologic analysis for this site reports that construction of trails and picnic areas is expected to cause little risk of sedimentation into any water body due to a combination of trail location on a gently sloping bench above the river, or in areas of solid bedrock with a thin layer of soil. Any sedimentation into the river is expected to be discountable against background levels. A spur trail on mostly bedrock shoreline would allow new access to a small "beach" of the Klickitat River. This new access would likely increase fishing pressure at this site. This is not anticipated to be a concern for fish populations due to the angling regulations that are in place by WA. Dept. of Fish and Wildlife (WDFW) which is purposely aimed at reducing harm to species of concern while allowing for angling. Further, this area could be easily patrolled by game enforcement officers due to its location adjacent to Highway 14 and the limited parking to access this site.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2 – “Easy” Access Alternative**

#### **Wildlife species and Terrestrial Habitat**

This alternative is similar to wildlife effects of Alternative 1 except, the parking lot and 100' access road will be paved, dogs are required to be leashed, and there is no river access.

The increase from 8 vehicles to 10 vehicles is not going to increase Wildlife harassment significantly, and may even be reduced in this alternative as dogs are required to be leashed (assuming compliance). The lack of river access significantly reduces potential impacts with wildlife, including the colony of cliff swallows across the river.

Some small wildlife species (nesting birds, squirrels) may be disturbed but the disturbance area will be limited and no TES species will likely be significantly impacted by this alternative.

#### **Fish species and Aquatic Habitat**

This alternative will have the least potential impact to fish and aquatic resources out of the 4 alternatives. The trails would be paved, eliminating any long-term risk of sedimentation. No river access trail, along with a fence to discourage further access, would significantly reduce any potential impacts to fish and aquatic resources.

### **Direct and Indirect, Short & Long Term Effects of Alternative 3 – Extensive Access Alternative**

#### **Wildlife species and Terrestrial Habitat**

This alternative has the same effects of alternative 1 as well as additional impacts of more people (more parking from 8 vehicles to 14), although dogs would be leashed. An additional 0.6 miles of trail adjacent to the riparian area, and an additional river access point would be constructed. This alternative has the most impact of the 4 alternatives due to the addition of new trail into the unique and previously undisturbed backwatered area of the Klickitat River as well as a new river access trail to the mouth of this inlet. This trail system allows access to the north portion of the site that would likely be used a refuge area for wildlife as it currently is the most thickly vegetated area in the project area and lies in the riparian area of Mill Creek.

### **Fish species and Aquatic Habitat**

This alternative has the most impact to fish and aquatic resources for the same reasoning as the wildlife species as stated above. This backwatered area is unique in a large riverine system and is likely used as a high-flow refuge for juvenile fish as well as potential habitat for aquatic reptiles and amphibians, such as the State Endangered western pond turtle and leopard frog. These species are declining due to a lack of adequate undisturbed marsh/pond habitat. This alternative would introduce disturbance to an area that may be of key significance to low-elevational aquatic/riparian dependent species as first mentioned in the "Existing Environment" section above.

### **Direct and Indirect, Short & Long Term Effects of Alternative 4 - No Action Alternative.**

#### **Fish and Wildlife species and Their Habitat**

As previously stated, current public use of this site is low. The occasional presence of 1 to 2 vehicle-loads of humans and their dogs may startle or disturb wildlife species and may be of some concern during spring when animals are nesting or rearing young. This may affect some individuals over natural levels of predation but is not likely to result in a decline in any of the species in the local area. No known TES wildlife species use this site for nesting or rearing young. The northern edge of this area appears to have the least human use and contains unique terrestrial/ riparian habitat in the mid-Columbia area in terms of a low elevation site at the mouth of a large river that is not in urban boundaries. The angling pressure from an occasional fisherman is at low risk to harm fish species. This site has steep rock faces adjacent to the river that currently discourages bank fishing. In addition, WA. Dept. of Fish and Wildlife angling regulations are in place that are specifically aimed at reducing harm to species of concern while allowing for angling.

The physical habitat is recovering from previous use as a residence and pasture land, but continues to have some residual erosion due to past piping/manipulation of the spring and associated wetland. Noxious weeds would continue to be treated under this alternative but other non-native plant species would persist. No native plant species will be actively planted at the site by the Forest Service to help restore native wildlife habitat. Under this alternative, no interpretive opportunities would be made available to the public about the local fauna, flora and ecosystem.

### **Cumulative Impacts**

#### **Alternative 1 and 2 (Least Development and Easy Access)**

These 2 alternatives have similar cumulative impacts. Both will remove some undisturbed habitat on the south half of the parcel but will balance that with restoration and conversion of habitat from non-native to native grass, forbs, shrubs and tree species. The north half of the parcel will likely remain undisturbed and contribute to function as refuge area in the Klickitat watershed as well as the mid-Columbia area. Formal parking for 10 vehicles equates to approximately 30 people would likely be at the park at the same time.

### **Alternative 3 (Extensive Access)**

This alternative would removed undisturbed habitat for most of the parcel. Restoration and conversion to native plants from non-native dominated plant species would occur, but wildlife use may be limited due to the disturbance from hikers and fisherman accessing the site almost year round due to its low elevation (Salmon season on the Klickitat is from May 1 to Jan 31), multiple river access points and extensive trail system. Fishing pressure may increase in the Klickitat River but would likely be below level of concern due to existing State angling regulations.

### **Alternative 4 (No Action)**

This estimated 357 acres of parcel would remain dominated by non-native vegetation and not be fully available to recover native wildlife species. The parcel would continue to provide relatively undisturbed low-elevation area refuge for wildlife, especially along its riparian corridor. The unimproved parking area for 2 vehicles (3 passengers per vehicle) means around 6 people or less would likely be at the parcel at the same time.

### **Rationale Narrative for TES species with Potential Habitat**

It is expected that most of the disturbance to terrestrial species will be from human and dog disturbance during nesting/juvenile rearing, while disturbance to aquatic species center around increased fishing access and opportunities. Both terrestrial and aquatic species will be negatively impacted by new access into the currently undisturbed northern portion of the project area containing riparian area corridors and backwatered habitat. All alternatives propose some type of interpretive material (brochures, bulletin board and/or panels) aimed at reducing human recreational impacts to fish and wildlife species. The Day Use site would be monitored at least once a week by FS personnel to assure that deleterious effects are a minor or of infrequent occurrence. Signals for concern would include: evidence of harrassment in nesting or juvenile rearing of fish and wildlife species, trash or sanitation problems, people creating their own trail tread into sensitive habitats, poaching of listed fish species, or plants/native habitat features (springs, ponds, meadows, shoreline) being noticeably degraded.

The following discussion elaborates on species specific effects determination for all TES species with potential habitat in or adjacent to the project area as noted in the Summary Table, 3-2 below.

#### **Bull trout** *Salvelinus confluentus*

Bull trout have been found in the upper Klickitat River (e.g., a total of 27 bull trout/Dolly Varden were found during snorkel and electrofishing surveys above the West Fork in Trappers Creek in 1990 and 1995; a 4-1/2 pound fish was caught a few miles upstream from Soda Springs on July 8, 1979). For most of the year, the lower 30 miles or more of the river are too warm and turbid to permit residence or rearing of bull trout.

Since Alternative 2 and 4 does not propose any river access nor is expected to cause any measurable water quality impacts, these alternatives are not expected to negatively impact migrating bull trout in the Klickitat River. Alternatives 1 and 3 propose new river access point(s). The chance of illegal harvest of these fish is minimal, but there is potential that bull trout may be hooked and handled, thus increasing potential for harassment. An instructional sign will be placed to describe the importance of releasing bull trout and other species of concern.

With the inclusion of the above mentioned mitigation items, implementation Alternatives 1 and 3 “**May Affect, but is Not Likely to Adversely Affect**” bull trout, while Alternatives 2 and 4 will have “**No Effect**” to bull trout or their habitat.

**Steelhead Trout** (Mid-Columbia River) and **Coastal Cutthroat Trout** (SW Washington/Columbia River ESU) *Oncorhynchus clarki*

Cutthroat trout and steelhead trout (both summer and winter races) are known to spawn in the Klickitat upstream of the project area. No spawning gravel or habitat is available adjacent to or downstream from the project area in the Klickitat River. Cutthroat and summer steelhead may be adjacent to the project site year round, thus river access and increased fishing may potentially result in some impacts to these cutthroat trout. Again, state fishing regulations are in place to minimize impacts to species of concern while allowing for angling opportunities. **Effects rationale for the various alternatives is similar to those for bull trout, above.**

**Steelhead trout** *O. mykiss*, **Sockeye salmon** *O. nerka*, and **Chinook salmon** *O. tshawytscha* (Snake River)

Snake River steelhead trout, Chinook salmon, and sockeye migrate upstream as adults in the Columbia River on the way to their spawning grounds and downstream as smolts on their way back to the Pacific Ocean. The implementation of this project in the Klickitat River, along with current angling restrictions, is thus at very low risk to impact these species and warrants a “**No Effect**” on Snake River steelhead trout and sockeye salmon, their habitat, or their ability to get to their spawning grounds.

**California Mountain King Snake** *Lampropeltis zonata*

This species has patchy distribution, with south-central WA thought to be its northernmost range. There is a known population in White Salmon, approximately 9 miles to the west. This snake has not been documented at the site, but the project area contains its preferred habitat of moist forest/woodland with down logs adjacent to rocky streams. Its habit is largely diurnal and its bright red/black/white color and gentle nature may increase its likelihood of contact with human and dogs with all the action alternatives. Under Alternatives 1 and 2 where trails are largely limited to the southern portion of dry grassland and meadow, it is somewhat unlikely that this snake will come into contact with recreationalists. A “**No Effect**” determination has been made, although there is some risk of an unleashed dog that may negatively impact individuals. Under Alternative 3, where a new trail proposes to access a new area adjacent to a backwatered area with mature trees and riparian vegetation, this brightly colored snake is at increased risk to be spotted and injured or killed by recreationalists and their dogs. A “**May Impact Individuals or Habitat, but will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability to the Population or Species**” determination has been made.

**Western Gray Squirrels** *Sciurus griseus*

Habitat consisting of oak woodland is present for this species, but they have not been noted at this site. There is a documented population due west in Major creek drainage, a distance of around 5 miles, and Klickitat county is considered its core habitat in WA state. There is a good possibility that this species may later colonize this site, especially as native vegetation is restored and matures. The action alternatives will likely create habitat for this species resulting in “**Beneficial Effects**”.

**Mardon Skipper** *Polites mardon*

The project area has been surveyed in June 2000 by Vince Harke, US Fish and Wildlife biologist, to determine if any individuals or habitat exists for mardon skippers. Mardon skippers seem to be associated with Idaho fescue for breeding and common vetch for nectar source. The project area has a small area on its southwest edge that contains these plants, although mardon skippers were not found. Currently the project site is dominated by non-native forbs and pasture grasses. With the restoration of native vegetation (Alt 1-3), including potential nectar plants, mardon skippers as well as other butterflies are expected to better utilize this site. A “**Beneficial Effect**” determination has been made.

**Bald Eagle** *Haliaeetus leucocephalus*

Bald eagles commonly use this site mostly in the winter, from mid December through March, during the time of year when visitor use would be the least, so disturbance to eagles should be minimal. Bald eagles are known to forage 5 to 7 miles away from their nest sites. The closest known bald eagle nest site is more than 5 miles from this project area. There are no known bald eagle nesting sites near the project area, but eagles use large pines on the north end of this project area (near the backwatered area) as perching sites. In Alternative 3, where new trail will encourage human disturbance into the north end of the site, there is some potential for increased disturbance, thus a determination of “**May Affect, but Not Likely to Adversely Affect**” (NLAA). Alternatives 1, 2 and 4 will likely have “**No Effect**” to bald eagles as there impacts are concentrated on the south end where the highway, railroad and boating activities are already concentrated and where few large trees actually occur.

**Western Pond Turtle** *Clemmys marmorata*

The historic range of the Western pond turtle used to occupy the Puget Sound lowlands extending southward, then east, through the Columbia River Gorge. The current area occupied by known populations of western pond turtles in Washington totals slightly over 1.5 miles. One population is restricted to a complex of ponds in Skamania County and the other occurs in a lake and pond complex in Klickitat County. The two populations are separated by a road-distance of about 17 mi. The Klickitat County lake site can be characterized as moderately disturbed. The area surrounding the lake was historically grazed by livestock, which has been limited in recent years. The area immediately surrounding the lake shows signs of prolonged human use in the form of a small abandoned pump-house, vehicle track-ways, and footpaths. The ponds, like the lake, are located in a mixed oak/pine/grassland habitat, with Oregon white oak and ponderosa pine (*Pinus ponderosa*) dominant (taken from WDFW Western Pond Turtle recovery plan, August 1999).

Habitat management for western pond turtles includes maintenance of open vegetation structure in the uplands to allow high sun exposure for incubating underground nests. Turtles have been observed to be active in water temperatures as low as 1-2C (37F) and as high as 38C (100F). In general, turtles avoid prolonged exposure to water above 35C (95F). Aquatic habitat should include logs or other emergent platforms for basking. Extensive shallow water areas with emergent and aquatic vegetation also contribute to ideal habitat conditions for western pond turtles.

As evident from the above excerpt, the terrestrial habitat within the project area is very similar to the described habitat currently providing a refuge for pond turtles. What is lacking at the project site, in terms of the backwater pond habitat, is emergent/aquatic vegetation (for cover) and basking sites. Alternative 3 would preclude the possibility of conversion of this site for later occupation by pond turtles, as the adjacent trail would have serious impacts to egg-laying/incubation and would create a continuous

disturbance to adults at basking sites. For this reason, a “**May Impact Individuals or Habitat, but will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability to the Population or Species**” (MIIH), determination has been made for alternative 3; while the for alternatives, 1, 2 and 4, a “**No Effect**” determination to potential pond turtle habitat has been made.

**Northern Leopard Frog** *Rana pipiens*

In Washington, museum records indicate that the leopard frog inhabited at least 18 general areas in eastern Washington, many of these along the Columbia River and its major tributaries. Field surveys conducted since 1992 confirmed the species in only two areas in the state, both of which are in the Crab Creek drainage, Grant County. The historic distribution of leopard frogs in Washington closely follows the Columbia River and several of its tributaries; the Walla Walla River, Crab Creek, the Snake River, the Okanogan River, and the Spokane River. The larger streams and rivers may have provided overwintering and dispersal habitat for leopard frogs, while the many sloughs, adjacent small ponds and backwater areas of these systems may have historically provided breeding sites. They may range widely into a wide variety of habitats, even hay fields and grassy woodlands, but apparently require a high degree of vegetative cover for concealment. Leopard frogs require permanent deep water for overwintering, in proximity to seasonal ponds and wetlands for breeding. Egg masses are typically attached to emergent vegetation, including sedges or rushes, but can be unattached. They are generally deposited in water less than 65 cm (26 in) deep and tend to be clumped in areas well exposed to sunlight.

The rationale for the northern leopard frog is very similar to the rationale for the pond turtle as both use similar habitat. Alternative 3 would preclude the possibility of conversion of this site for later occupation by leopard or other frogs, as the adjacent trail would bring humans and dog close to the water’s edge and would create a continuous disturbance to adults. For this reason, a “**May Impact Individuals or Habitat, but will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability to the Population or Species**” (MIIH), determination has been made for alternative 3; while the for alternatives, 1, 2 and 4, a “**No Effect**” determination to potential Northern Leopard frog habitat has been made.

**Ferruginous Hawk** *Buteo regalis*

The ecology of this hawk, more than any other Buteo, is dependent on the native prairie ecosystems and open scrublands that are becoming increasingly rare and fragmented largely due to conversion to agriculture. Ground squirrels, jackrabbits, and mice, as well as birds, reptiles, and amphibians are common prey. This species has not been noted in the area before. The habitat in this project area has likely always been marginal for this hawk, which prefers open prairies. The project alternatives thus have “**NO Effect**” on this species or habitat.

Bull trout, cutthroat, steelhead trout, and bald eagle species are evaluated in the Biological Assessments, which has been sent to the US Fish and Wildlife Service (USFWS) as well as the National Marine Fisheries Service (NMFS) for informal consultation. For additional discussions on consultation the reader is referred chapter 4 of this EA.

Consultation with NMFS on Essential Fish Habitat as required by the Magnuson-Stevens Fishery Conservation Act (MSA) has been included in the BA sent to NMFS.

Lyle-Klickitat Day Use Site

**Table 3-2**

Summary Table Of Effects For Federally-listed, Proposed and Candidate species found in WA (Endangered Species Act) & U.S. Forest Service Region 6 Columbia River Gorge National Scenic Area Sensitive Species & Washington State (WDFW) Threatened, Endangered, and Sensitive Species (Marine species were excluded from this Summary Table)								
Project Name: Lyle-Klickitat Day Use Site			County/State: Klickitat, WA					
SPECIES (pop. segment)	STATUS*	PREFIELD REVIEW Usual Habitat	FIELD RECON.		EFFECTS DETERMINATION			
			Habitat Present?	Species Present?	Alt1	Alt2	Alt3	Alt4
Bull trout (Columbia R.)	T	Cold streams/lakes	migration	unknown	NLAA	NE	NLAA	NE
Steelhead trout (Snake R.)	T	Streams/rivers	migration	unlikely	NE	NE	NE	NE
Steelhead trout (Mid-Columbia R.)	T	Col. streams/rivers (Mosier to Yakima)	migration/ rearing	yes	NLAA	NE	NLAA	NE
Steelhead trout (Lower Columbia R.)	T	Col. streams/rivers (mouth east to Hood R.)	no					
Sockeye salmon (Snake R.)	E	Streams/rivers/lakes	migration	unlikely	NE	NE	NE	NE
Chinook salmon (Snake R. spring/summer/fall runs)	T	Streams/rivers	migration	unlikely	NE	NE	NE	NE
Chinook salmon (Lower Columbia R.)	T	Col. streams/rivers (mouth east to Hood R.)	no					
Chum salmon (Columbia R.)	T	Col. R and lower tribs from mouth east to Bonneville dam)	no					
Bald eagle	T, WA-T	Shoreline/lg trees	wintering	likely	NE	NE	NLAA	NE
Northern spotted owl	T, WA-E	Mature forest	no					
Grizzly bear	T, WA-E	North Cascades Range	no					
Woodland caribou	E, WA-E	Boreal forests/foothills	no					
Columbian white-tailed deer	E, WA-E	Coastal/foothills floodplains	no					
Oregon silverspot butterfly	T, WA-E	Coastal salt-spray meadows	no					
Canada Lynx	T, WA-T	Subalpine/boreal forests	no					
Marbled Murrelet	T, WA-T	Coastal mature forests	no					
Gray wolf	E, WA-E	steppe, woodland, forest	no					
Pygmy rabbit	PE, WA-E	Sagebrush prairie	no	no				
Coastal cutthroat trout	P	Col. river/tribs; mouth east to Klickitat R	adult use/ rearing?	yes	NLAA	NE	NLAA	NE
Chinook (mid-Columbia spring run)	FS	Col. river/tribs (Mosier to Yakima)	yes	migration/ rearing?	NLAA	NE	NLAA	NE
Coho (lower Columbia R.)	P, FS	Col. river/lower tribs (mouth east to Hood R.)	no					
California Mtn king snake	FS	moist forest/woodland, rocky riparian, CRG	yes	possible	NE	NE	MIH	NE
Cope's giant salamander	FS	Cold streams	no					
Cascade torrent salamander	FS	fast, cold, small streams	no					
Townsend's Big-Eared bat	FS	desert scrub/coniferous forests w/caves or mines	no					
California Wolverine	FS	Forests/open plains	no					
Oregon spotted frog	C, FS, WA-E	Lakes/marshes (Conboy)						
Mardon skipper	C, WA-E	Bunch grasslands	yes	no	BE	BE	BE	NE
Washington ground squirrel	C	grasslands w/sandy soils SE WA, north central OR	no					
Pacific Fisher	FS, WA-E	Forest lands	no					
Peregrine falcon	FS, WA-E	cliff (nest) sites with sm. bird prey base	no	no				

Lyle-Klickitat Day Use Site

Sandhill crane	WA-E	Riverine wetland, isolated mtn meadows/basins	no						
Upland sandpiper	WA-E	Grasslands/migratory	no						
Western pond turtle	FS, WA-E	streams, lg rivers, slow sloughs, and quiet waters	potential	potential	NE	NE	MIIH	NE	
Northern leopard frog	WA-E	Marsh/ponds, presently in Grant county only	potential	no	NE	NE	MIIH	NE	
Western gray squirrel	FS, WA-T	Oak woodland, core range Klickitat county	yes	no	BE	BE	BE	NE	
Aleutian Canada goose	WA-T	Migrate thru coastal areas	no						
Ferruginous hawk	WA-T	open prairie/shrub steppe	marginal	no	NE	NE	NE	NE	
Sage grouse	WA-T	Sagebrush grasslands	no						
Sharp-tailed grouse	WA-T	Grasslands/sagebrush	no						
Common loon	FS, WA-S	Undisturbed forest lakes	no						
Larch mountain salamander	WA-S	Moss-covered shady Talus slopes, low-mid elev	no						
Olympic mudminnow	WA-S	Quiet waters/mud substrates Olympic penins	no						
Margined Sculpin	WA-S	Stream pools of Tucannon, Walla Walla	no						
Pygmy Whitefish	WA-S	Cold lakes/streams, of Northern WA	no						

\*FS = Region 6 sensitive species, C, P = Candidate, Proposed for Federal listing, WA = Washington State listed species, E = Endangered, T = Threatened, S = Sensitive

BE = Beneficial Effects

NE/NI = No Effect/ No Impact

NLAA = May Affect, but Not Likely to Adversely Affect

MIIH = May Impact Individuals or Habitat, but will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability to the Population or Species

**Protection Buffer and Terrestrial/Aquatic C3 Species and Habitat**

**AFFECTED ENVIRONMENT and ENVIRONMENTAL CONSEQUENCES**

The proposed Lyle-Klickitat Day Use Site is located primarily in an open grassy area. This vegetation type is not considered as habitat for any C3 or protection buffer species listed in the Northwest Forest Plan. No surveys are needed to determine the presence of these species.

There will be no effect to C3 or protection buffer species from the implementation of any alternative.

**3.4 RECREATION RESOURCES**

**AFFECTED ENVIRONMENT**

This site is identified as a Roaded Natural setting, using the Recreation Opportunity Spectrum (ROS). ROS was developed by Federal resource management agencies to determine the appropriate level of natural, managerial and social settings of recreation opportunities available within a geographic area.

**River**

There are three water features associated with the site, a small (less than one acre) spring fed pond, a

slough area of the Klickitat River and the river itself. A steep walled canyon dominates the latter two with only minimal mud/gravel bar access opportunities in one location of the shoreline. The small slough is created by fluctuating water levels in the Bonneville pool that provide a lake-type experience and opportunity. This slough is very shallow, 4-6 ft at its deepest point.

### **Pedestrian**

There currently is minimal pedestrian access to this property via the SR 14 highway bridge from the Lyle city center. This crossing is a narrow 24-inch elevated concrete walkway parallel to the bridge surface. There are no safety measures incorporated between pedestrian and vehicular traffic and this walkway does not meet any current ADA standards.

### Current Use/Opportunities

#### **Viewing wildlife/Observing Nature**

Current use of this site is low. It is estimated that few, if any, people currently use this location for this activity. Use estimates under this recreation offering are included in the Hiking/Walking visits data located in Appendix A of this EA.

#### **Fishing**

Access to the river for fishing opportunities is estimated to be low due to the steepness of the adjacent slopes and availability of other opportunities provided in the local area. Year 2000 Creel reports provided by the Washington State Department of Fish and Wildlife (WDFW) reports the amount of take of salmon and steelhead fishing within the Klickitat River for certain months within a year, this information however is not area site specific (i.e. mouth vs. river). It is reported that a greater success rate is shown for boat fishing than bank fishing.

WDFW records show that 7% of the Klickitat County population reported a catch for salmon in 1998. This data shows 1,369 catches recorded in that year. It is assumed that because of the lower catch probability of bank fishing, a maximum of 250 visit's from bank fishing for salmon and Steelhead trout occur at this site.

Trolling for game fish (steelhead trout and salmon) occurs in the pool area of the Klickitat and is licensed and regulated by WDFW. Boat access to this section of the Klickitat River is attained at Lyle. Estimated use of this section of river for this activity is estimated to be less than 1000 visitors annually (Appendix B).

Commercial use (outfitter and guided services) of this lower segment has been observed and is advertised. The extent of this activity is not known. It is however, regulated by the state and the Forest Service. It is assumed that because of increased regulation, moderate catch records reported for this river, and number of opportunities that exists elsewhere, that use in this segment is not high, less than 250 visitors per year (Appendix B).

Trout fishing is permitted in this segment of the Lower Klickitat. The habitat of this reach is not conducive to their life cycle needs and fishing for this species is not seen as a regular activity in this area. Better opportunities for this activity exist upstream of this location.

## **Trail Hiking and Walking**

Hiking use of this site is uncommon. Visitors to the site are perceived to be attracted to opportunities for viewing wildlife, wetland development/processes and accessing the river. Hiking is judged to be light for a number of possible reasons. These include lack of designated trails, misinformation on a closure posted for an area of adjacent property, over-grown nature of the vegetation, and lack of developed parking. The current assessment of use of this site has been estimated by using the data provided at other locations. Additional projections were obtained from a previously prepared Environmental Assessment for the Klickitat Rail-to-Trails. It is estimated at less than 500 recreation visitors for this activity occur annually (Appendix A).

## **Water Recreation**

According to a recently released State of Washington Department of Natural Resources report, *Changing Our Waterways: Trends in Washington's Water Systems, (2000)*, it is reported that:

*“many Washington state residents and visitors are active recreationists who demand access to beaches and water for a wide variety of sports and play. Increasingly, they are placing a higher value on water resources as sources of fun, relaxation, and beauty. In fact, many people consider outdoor recreation a significant part of the quality of their lives.”*

*“People can participate in recreational activities in any number of settings, it appears that state residents tend to prefer water-oriented ones, whether on a river, stream, lake, or saltwater shore. Surveys conducted by the Interagency Committee for Outdoor Recreation indicate that the public wants facilities in settings that include water access more than any other type of setting.”*

Additionally, Washington State Parks provides access to some body of water in 80% of their system. This includes, lakes, rivers, oceans or Puget Sound. In 1996, State Parks estimated there were nearly 52 million visits made to Washington's state parks and that nearly 97% of these visits were made to those parks that provide access to water.

Not much is known about the current and projected use of the Lyle Klickitat Day Use Site recreational use. The Recreation Use assumption is shown in Appendix B of this EA.

## **Facility Design Guidelines for All Recreation Projects with the Columbia River Gorge National Scenic Area**

Developments or improvements within the same recreation intensity class are considered as separate facilities if they are separated by at least ¼ mile of undeveloped land (excluding trails, pathways, or access roads).

Parking areas, access roads, and campsites shall be sited and designed to fit into the existing natural contours as much as possible, both to minimize ground-disturbing grading activities and to use topography to screen parking areas and associated structures. Parking areas, access roads, and campsites shall be sited and set back sufficiently from bluffs so they are visually subordinate as seen from key viewing areas.

Existing vegetation, particularly mature trees, shall be maintained to the maximum extent practicable, and used to screen parking areas from key viewing areas and satisfy requirements for perimeter and interior landscaped buffers.

Lineal frontage of parking areas on scenic travel corridors shall be minimized.

Ingress/egress points shall be consolidated to the maximum extent practicable, providing for adequate emergency access pursuant to applicable fire and safety codes.

Signage shall be limited to that necessary to provide relevant recreation or facility information, interpretive information, vehicular and pedestrian direction, and for safety purposes.

Innovative designs and materials that reduce visual impacts (such as "turf blocks" instead of conventional asphalt paving) shall be encouraged through incentives such as additional allowable parking spaces and reduced required minimum interior or perimeter landscaped buffers. If determined that potential visual impacts have been substantially reduced by use of such designs and materials, it may allow either a) reductions of up to 50 percent of required minimum interior or perimeter landscape buffers, or b) up to 10 percent additional parking spaces.

A majority of trees, shrubs, and other plants in landscaped areas shall be species native or naturalized to the landscape setting in which they occur. The landscape setting design guidelines in Part I, Chapter 1 (Scenic Area Management Plan) specify appropriate species.

All structures shall be designed so that height, exterior colors, reflectivity, mass, and siting enable them to blend with and not noticeably contrast with their setting.

Landscape buffers around the perimeter of parking areas accommodating more than 10 vehicles shall be provided. Minimum required widths are 5 feet for 20 vehicles or fewer.

Within required perimeter and interior landscaped buffer areas, a minimum of one tree of at least 6 feet in height shall be planted for every 10 lineal feet as averaged for the entire perimeter width. A minimum of 25 percent of planted species in perimeter buffers shall be coniferous to provide screening during the winter. Project applicants are encouraged to place such trees in random groupings approximating natural conditions. In addition to the required trees, landscaping shall include appropriate shrubs, groundcover, and other plant materials.

Minimum required perimeter landscaped buffer widths for parking areas may be reduced by as much as 50 percent, at the discretion of the county, if existing vegetation stands and/or existing topography are used such that the development is not visible from any key viewing area.

Grading or soil compaction within the "drip line" of existing mature trees shall be avoided to the maximum extent practicable, to reduce risk of root damage and associated tree mortality.

All parking areas and campsites shall be set back from scenic travel corridors and the Columbia River and its major tributaries by at least 100 feet. Required perimeter landscaped buffers may be included when calculating such setbacks. Setbacks from rivers shall be measured from the ordinary high water mark. Setbacks from scenic travel corridors shall be measured from the edge of road pavements.

Project applicants shall use measures and equipment necessary for the proper maintenance and survival of all vegetation used to meet landscape standards, and shall be responsible for such maintenance and survival.

All parking areas shall be set back from property boundaries by at least 50 feet.

## **ENVIRONMENTAL CONSEQUENCES**

### **Direct and Indirect, Short & Long Term Effects of Alternative 1 – Least Development Alternative**

#### **Setting**

As described this alternative would be consistent with the Recreational Intensity settings detailed the Management Plan for the Columbia River Gorge National Scenic Area.

Proposed development under this alternative includes a toilet facility. This proposal would therefore meet the goals of managing for sanitation detailed in **Resource Goal # 11** (EA, p.8) of the Lower Klickitat Wild and Scenic River Management Plan

This alternative would provide a moderate amount of access and parking facilities (6-8 spaces). This development would accommodate the estimated use during the low and shoulder seasons (winter, summer and fall). It is thought that a higher number of users would be attracted to the site during the spring. Any overflow parking is expected to use the undeveloped access directly north of this proposed parking area. Access would also be provided at the crest of the hill. This parking area would provide direct access to the slough area of the site. It is thought that fisherman would be more likely to use this parking area. This would reduce the social impacts associated with people enjoying the site for different uses.

#### **Reasonable Accommodation**

This alternative while similar in design with a trail located along the existing roadbed to the other alternatives does not provide any level of access for persons with disabilities.

#### **Recreation Use**

##### **Trail hiking and Walking**

Developed hiking opportunities at this site would be limited to the existing roadbeds that occur within the property. Improvements to the tread would be limited to a graveled surface. Use of this site is anticipated to be **3421** visits per year (Appendix B).

##### **Fishing**

Current sport fishing regulations limit the activity to Monday, Wednesday and Saturday, May-June. Users will be allowed to fish along the rivers banks and via boats. Mooring in the channel and along the banks will be permitted as a day use only. No developed launch access will be created and user trails would be the only foot access to the river. Using the assumption shown in Appendix B, use is anticipated to be **1,350** visits per year.

#### **Use Trends**

Spring and early summer use is perceived to be higher than other times of the year. The short length of the trail makes it unattractive to hikers looking for a vigorous outdoor workout.

Use of this section of river by sport anglers is directly dependant on the States ability to manage the

Steelhead and salmon fishing season. Future controls and limitations on the sport fishery are anticipated to reduce the number of users rather than increase their numbers.

### **Monetary Costs**

Initial development of the recreation facilities is limited to recreation trails, picnic areas and a toilet facility. Because of the low level of development, low-level policing and management presence is needed. Estimated labor and equipment costs are \$2,335 annually.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2 – “Easy” Access**

#### **Setting**

This alternative would be consistent with the recreational intensity settings detailed in the Management Plan for the Columbia River Gorge National Scenic Area.

Development under this alternative also meets the setting requirements of the Lower Klickitat Wild and Scenic River Management Plan. The ROS setting of this alternative is Roaded Natural. This alternative would provide paved trail access from a 10-car parking lot. This parking facility would allow handicapped access. The parking facility would be located near the Osage-orange trees. It is estimated that this development would accommodate the estimated use during the low and shoulder seasons (winter, summer and fall) 100% of the time. During high use period’s vehicles would overflow the parking area to undeveloped sites north of the county road 1230.

There is no proposed access to the river. Impacts and erosion from social trail development is expected.

#### **Reasonable Accommodation**

This alternative provides a lengthy trailed access with a asphalt harden 4ft wide surface. In addition, the restroom, picnic tables and picnic pads would be ADA compliant. This alternative would provide a high level of trail service to persons with disabilities.

#### **Recreation Use**

##### **Trail Hiking and Walking**

Developed hiking opportunities at this site would be limited to the existing roadbeds that occur within the property. Paved trails, which would meet ADA requirements, would allow a higher level of use by wheelchair of physically challenged individuals. Use of this site is anticipated to be **4,888** visits per year (Appendix B).

##### **Fishing**

Users will be allowed to fish along the rivers banks and via boats. Mooring in the channel and along the banks will be permitted as day use only. No developed trail or motorized access will be created. Use is anticipated to be **1,929** visits per year (Appendix B).

## **Use Trends**

Spring and early summer use of this site is anticipated to be higher than other times of the year. The short length of the trail makes it attractive to physically challenged hikers or people looking to stretch out. Physically challenged opportunities are not common to this area. Use is anticipated to increase as local groups and citizens become better acquainted with the site's offerings and setting. This would mirror the state trend data.

Use of this section of river by sport anglers is directly dependant on the State's ability to manage the Steelhead and salmon fishing season. Future controls and limitations on the sport fishery are anticipated to reduce the number of users rather than increase their numbers.

## **Monetary Costs**

Initial development of the recreation facilities is limited to recreation trails, a vault toilet and picnic areas. Because of the moderate level of development, moderate-levels of policing and management presence is needed. Estimated labor and equipment costs are \$2,335 annually.

## **Direct and Indirect, Short & Long Term Effects of Alternative 2A – “Easy” Access With Different Parking**

### **Setting**

This alternative would be consistent with the recreational intensity settings detailed the Management Plan for the Columbia River Gorge National Scenic Area.

Development under this alternative also meets the setting requirements of the Lower Klickitat Wild and Scenic River Management Plan. The ROS setting of this alternative is Roaded Natural.

This alternative would provide the lowest amount of access, only 3 or 4 parking spaces. It is estimated that this development would accommodate the estimated use only during the low season of use. Overflow vehicles would be required to park in undesignated and unimproved areas. This would possibly create more congestion on county road 1230 during high and shoulder season use.

There will be no access provided to the water. Impacts from off trail use to these features are expected.

### **Reasonable Accomodation**

This alternative provides a lengthy trailed access with a asphalt hardened 4ft wide surface. In addition, the restroom, picnic tables and picnic pads would be ADA compliance. This alternative would provide a high level of trail service to persons with disabilities.

## **Recreation Use**

### **Trail Hiking and Walking**

Developed hiking opportunities at this site would be limited to the existing roadbeds that occur within the property. Use of this site is anticipated to be **1,955** visits per year (use is lower due to fewer parking places). Most of the use of this site would be tied with the season.

## **Fishing**

Users will be allowed to fish along the rivers banks and via boats. Mooring in the channel and along the banks will be permitted as day use only. No developed access will be created. Use is anticipated to be 771 visits per year (Appendix B).

## **Use Trends**

Spring and early summer use is higher than other times of the year. Additionally, the short length of the trail makes it unattractive to distance hikers. Use is anticipated to increase at a moderate rate as local groups and citizens become better acquainted with the site's offerings.

Use of this section of river by sport anglers is directly dependant on the States ability to manage the Steelhead and salmon fishing season. Future controls and limitations on the sport fishery are anticipated to reduce the number of users rather than increase their numbers.

## **Monetary Costs**

Initial development of the recreation facilities is limited to recreation trails, a vault toilet and picnic table. Because of the moderate level of development, a moderate-level policing and management presence is anticipated. Estimated labor and equipment costs are \$2,335 annually.

## **Direct and Indirect, Short & Long Term Effects of Alternative 3 – Extensive Access Alternative**

### **Setting**

This alternative would be consistent with the recreational settings detailed in the Management Plan for the Columbia River Gorge National Scenic Area. Development under this alternative also meets the setting requirements as detailed in the Lower Klickitat Wild and Scenic River Management Plan, ROS setting of Roaded Natural.

### **Access**

This alternative would provide the highest amount of vehicle access points and parking facilities for 10 spaces. It is estimated that this development would accommodate use during all seasons. Parking and trail access to the slough area of the site would be provided. This would allow fisherman to access the property without conflicting with the hiking use of the wetlands area. The construction of trails to the river will reduce the impacts associated with bank fishing and viewing wildlife.

### **Reasonable Accomodation**

This alternative provides two traileed opportunities. The primary trail is proposed to be surfaced with asphalt. This 4ft wide surface would provide the same access as the previous alternative. It also would include a native surfaced trial not constructed to meet ADA standards. As in the other alternatives, the restroom, picnic tables and picnic pads would be ADA compliance. This alternative would provide the highest level of trail service.

## **Recreation Use**

### **Trail hiking and Walking**

Developed hiking opportunities at this site would be extensive. Use of the existing roadbeds, for paved ADA access and native surfaces for trails to the river and the slough area. Use of this site is estimated to achieve **6,843** visits per year (Appendix B).

### **Fishing**

Users will be allowed to fish along the rivers banks and via boats. Mooring in the channel and along the banks will be permitted as day use only. No developed access will be created. Use is anticipated to be **2,700** visits per year (Appendix B).

## **Use Trends**

Spring and early summer use is higher than other times of the year. Additionally, the short length of the trail makes it unattractive to many day hikers. Use, however, is anticipated to increase as local groups and citizens become better acquainted with the sites offerings. Fishing use of this section of river by sport anglers is directly dependant on the States ability to manage the Steelhead and salmon fish populations. Future controls and limitations on the sport fishery are anticipated to reduce the number of users rather than increase their numbers.

## **Monetary Costs**

Initial development of the recreation facilities includes recreation trails, toilets and picnic areas. Because of the high level of development, a higher level of policing and management presence is needed. Estimated labor and equipment costs are \$5,085 annually.

## **Direct and Indirect, Short & Long Term Effects of Alternative 4 - No Action Alternative**

### **Setting**

This property currently meets the desired future conditions settings of both the CRGNSA and the Lower Klickitat Wild and Scenic River.

Roaded access to this site would only be that that exists at this time. Parking would be undesignated and not controlled.

Access to the river would be provided only as social trails; what currently exists.

## **Recreation Use**

### **Trail hiking and Walking**

There would be no developed hiking opportunities. Use is expected to be less than **500** visits annually (Appendix B).

## **Fishing**

Current sport fishing regulations limit this activity to Monday, Wednesday and Saturday, May-June. Users will be allowed to fish along the rivers banks and via boats. Mooring in the channel and along the banks will be permitted as a day use only. Use is anticipated to be **500** visits per year (Appendix B).

## **Use Trends**

Spring and early summer use is perceived to be higher than other times of the year. The setting of the opportunity, however, would not likely attract too many more individuals over existing levels.

Use of this section of river by sport anglers is directly dependant on the States ability to manage the Steelhead and salmon fishing season. Future controls and limitations on the sport fishery are anticipated to reduce the number of users rather than increase their numbers.

## **Monetary Costs**

There would be no developed recreation facilities with this alternative. Management activities would be limited to policing for litter and illegal activities. Costs would average \$250 annually.

## **CUMULATIVE EFFECTS OF ALL ALTERNATIVES**

### **Physical Impacts**

#### **Use Trends**

The public's use and misuse of these facilities will increase annual operations and maintenance cost. The costs associated with each alternative and the level of annual funding necessary to perform this activity is directly tied with the services provided (i.e. high capital cost/ higher annual costs) and level of use.

#### **Social Impacts**

#### **Safety**

The steep walled canyon along the Klickitat River poses an additional safety concern to the users. Visitors are expected to have increased accidents without warning signs or physical barriers informing them of the falling hazard along the river.

#### **Displacement**

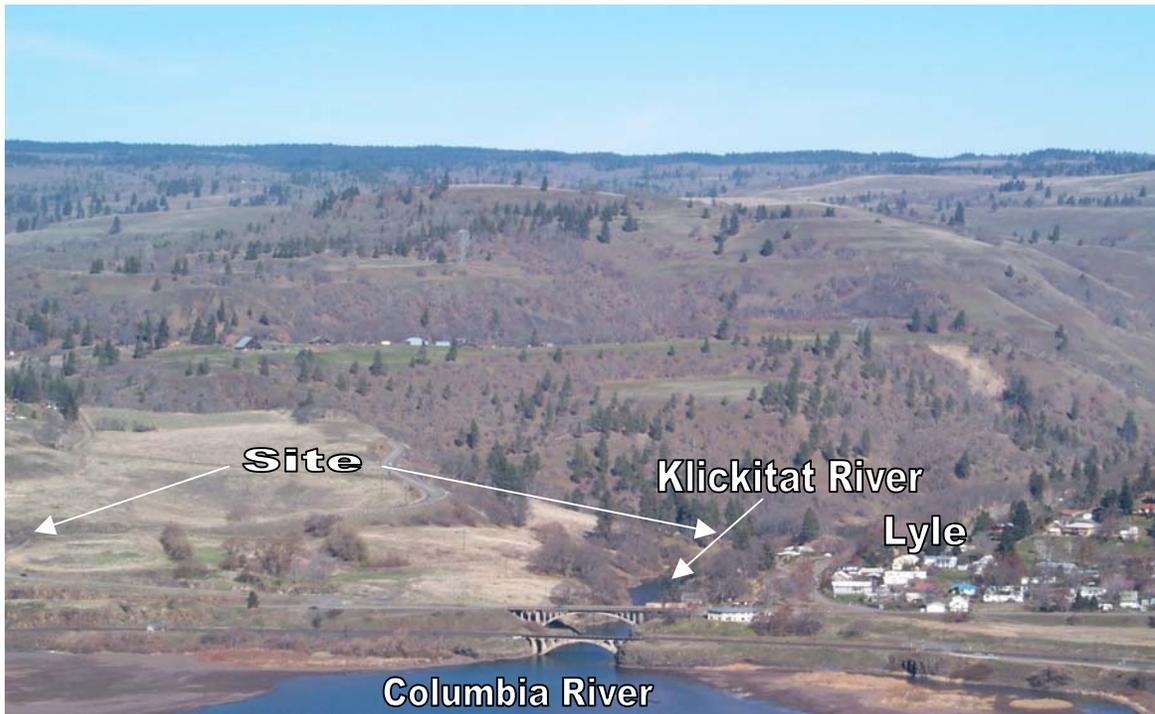
Users of this site are more than likely attracted to the site's remoteness. With the development of this site for a higher level of access and activity these users may be displaced. It should be additionally noted that these impacts are not solely associated with recreationists, but wildlife as well.

### 3.5 SCENIC RESOURCES

#### AFFECTED ENVIRONMENT

##### Setting

The Management Plan Landscape Setting is Oak Woodlands. Most of the site is open grassland. The tree cover on the site is a scattered mixture of native species and species related to the historic agricultural land use. The most notable existing vegetation is a mature windbreak of Osage-orange trees and wetland species found near the small pond on the south central portion of the site. The rest of the tree cover is oak woodland composed of Oregon oak with some ponderosa pine found near the Klickitat River.



**Lyle-Klickitat Park site from Rowena Plateau**

##### Visibility from Key Viewing Areas

The proposed site is topographically visible with little screening vegetation in the Middle-ground Distance Zone from I-84, the Columbia River, the Rowena Plateau viewpoint along the Historic Columbia River Highway and other points along the Historic Columbia River Highway. It is partially visible from the Foreground Distance Zone of SR-14 and SR 142.

The view from I-84 and the Columbia River are similar to the view from Rowena Plateau except that fewer site features are visible due to lower elevation at the viewing area. The proposed 10-car parking lot area is more visible from I-84 than from Rowena, but the duration of view may be shorter assuming that visitors linger at the Rowena viewpoints.

The site is superior to the viewer position from SR-14. Therefore, the most visible site feature is the WSDOT minimal access area located just north of SR-14 at its junction with Road 1230. This area is currently not visually subordinate to the landscape and is proposed for restoration as part of this project. The view from SR 142 is screened by vegetation along the Klickitat River.

The Rowena Plateau Key Viewing Area is representative because it provides the longest viewing duration and because the proposed site development is most exposed to this view. If the development meets visual subordination from this viewpoint, it should meet it at the other viewpoints according to field surveys.



**Potentially Visible Site Development from Rowena Plateau**

## **ENVIRONMENTAL CONSEQUENCES**

The management plan providing the most protective standards for scenic resources is the Management Plan for the Columbia River Gorge National Scenic Area. The applicable standards are quoted below from Chapter 1, Scenic Resources, GMA Guidelines and Landscape Settings:

In siting new buildings and roads, use of existing topography and vegetation to screen such development from key viewing areas shall be given priority over other means of achieving visual subordination, such as planting new vegetation or using artificial berms to screen the development from key viewing areas.

New buildings or roads shall be sited on portions of the subject property that minimize visibility from key viewing areas, unless the siting would place such development in a buffer specified for protection of wetlands, riparian corridors, sensitive plants, or sensitive wildlife sites or would conflict with guidelines to protect cultural resources. In such situations, development shall comply with this guideline to the maximum extent practicable.

Driveways and buildings shall be designed and sited to minimize grading activities and visibility of cut banks and fill slopes from key viewing areas.

Proposed projects involving substantial grading on moderately to steeply sloping lands visible from key viewing areas shall include a grading plan addressing visual impacts of grading activities.

Size, height, shape, color, reflectivity, landscaping, siting or other aspects of proposed development shall be evaluated to ensure that such development is visually subordinate to its setting as seen from key viewing areas.

The exterior of buildings on lands seen from key viewing areas shall be composed of non-reflective materials or materials with low reflectivity, unless the structure would be fully screened from all key viewing areas by existing topographic features.

The exteriors of structures shall be dark and either natural or earth-tone colors, unless specifically exempted pursuant to guidelines 11 or 12 in the "Key Viewing Areas" section of this chapter.

New developments shall be compatible with their landscape setting and maintain the integrity of that setting. Expansion of existing developments shall be compatible with their landscape setting and maintain the integrity of that setting to the maximum extent practicable.

Patterns of plantings for screening vegetation shall be in character with the surroundings. Residences in grassy, open areas or savannahs shall be partly screened with trees in small groupings and openings between groupings.

### **Direct and Indirect, Short & Long Term Effects of Alternative 1 – Least Development Alternative**

This alternative would meet the above visual subordination criteria without mitigation because the scale of the disturbance is so small that the change will not be noticed from Key Viewing Areas. The parking areas are small (approximately 4 spaces each), require minimal grading and the lot closest to the viewing area is screened by existing vegetation. These parking lots require backing out onto the county road.

The proposed trails are 18-24” wide native surface along existing old roadbeds and will require minimal changes to provide access to the site. There are no structures other than signs to be built with his alternative.

The proposed restoration plantings are Oregon oak, native wetland species, and ponderosa pine in small groupings with openings between groupings. Therefore, they meet the above criteria for vegetation.

The toilet building, fencing and signs would meet the above criteria with mitigation. The color of the building would have to be a dark earth tone and the materials would have to be non-reflective (lettering may be a light earth-tone), conform to the CRGNSA sign plan, and should be compatible and subordinate to the landscape setting.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2 – “Easy” Access Alternative**

The 10-car parking lot and toilet building will be visible from Rowena Plateau, I-84, and the Columbia River and will not be visually subordinate when filled with cars without additional vegetative planting and/or re-grading. The location for the 10-car parking lot in this alternative minimizes visibility as much as possible considering that the site contains buffers for sensitive plants, riparian areas, cultural resources, and a wetland. There was no alternate site that would not cause negative impacts to these other resources and provide an optimally safe 10-car parking lot.

This alternative would meet visual subordination criteria with mitigation such as the landscape plan for visual subordination detailed on page 14 of this EA using trees at least 8 feet tall directly south of the parking lot and a detailed grading plan. The parking lot design would benefit from a grading plan that lowers the parking lot about two feet below existing grade.

### **Direct and Indirect, Short & Long Term Effects of Alternative 2A – “Easy” Access Alternative With Different Parking**

**Alternative option 2a** proposes the parking lots from alternative 1 and would make Alternative 2 more equivalent to alternative 1 with regard to visual sub-ordination.

The proposed restoration plantings are Oregon oak, native wetland species, and ponderosa pine in small groupings with openings between groupings. Therefore, they meet the above criteria for vegetation.

The toilet building, fencing and signs would meet the above criteria with mitigation. The color of the building would have to be a dark earth tone and the materials would have to be non-reflective. The design of the building and fencing should be compatible and subordinate to the landscape setting.

Required mitigation for signs are that they be constructed of non-reflective materials, be of a dark earth-tone color (lettering may be a light earth-tone), conform to the sign plan, and be compatible and subordinate to the landscape setting.

Alternative 2a would have the same effects to scenic resources as alternative 1 with reference to the parking areas; and the same effects as alternative 2 with regards to the other developmental aspects associated with alternative 2.

### **Direct and Indirect, Short & Long Term Effects of Alternative 3 – Extensive Access Alternative**

Alternative 3 would have the same effects to scenic resources as alternative 2. It would require the same mitigation to meet the above criteria.

### **Direct and Indirect, Short & Long Term Effects of Alternative 4 – No Action Alternative**

The proposed site is a reclaimed quarry that the Forest Service recently re-graded and replanted to native species. It was a dominant feature on the landscape until restoration. Currently, the site blends with the characteristic landscape and is not dominant from most Key Viewing Areas.

The WSDOT minimal access site is currently dominant and does not blend with the characteristic landscape from the foreground of SR-14. This proposal includes reclamation of that site. No action would require that the site be reclaimed through another planning effort.

This alternative would produce no changes on the landscape that would affect scenic resources during this planning cycle. Wetland restoration, planting of oaks and removal of noxious weeds would continue under separate planning efforts. Changes to the scenic resource would be very gradual and would blend with the landscape.

### **CUMULATIVE EFFECTS FOR ALL ALTERNATIVES**

The action alternatives will not produce any negative scenic impacts that would contribute to overall scenic degradation of the Key Viewing Area view-sheds if the mitigation measures for visual subordination are implemented. The proposed project from Key Viewing Areas will be visually subordinate and thus will not contribute negatively to the view-sheds seen as a whole.

### **3.6 CULTURAL RESOURCES**

The written history of this site began on October 29, 1805 when Lewis and Clark stopped at the site:

Lewis wrote: “...at 4 miles lower we observed a Small river falling in with great rapidity on the Stard. Side below which is a village of 11 houses, here we landed to Smoke a pipe with the natives and examine the mouth of the river, which I found to be 60 yards wide rapid and deep, The inhabitants of the village are friendly and chearfull...” (Moulton 1989: 351)

Clark wrote: “at 4 miles further we landed to Smoke a pipe with the people of a village of 11 houses we find those people also friendly. Their Village is Situated immediately below the mouth of a River of 60 yards water which falling in on the Stard. Side....” (Moulton 1989: 349).

Lewis and Clark mention the village briefly by location on their return trip on Wednesday, April 16, 1806 in an unsuccessful attempt to trade for horses. No other details were given.

The site was taken as a homestead by James O. Lyle some time prior to 1867. The property went through a succession of ownerships, including the sons of Lord Thomas Balfour. The Balfours purchased the Lyle holdings and others in 1892. The sons may have been James (b. 1873) and Thomas (b. 1874). The Balfours built a large house upon the present property (McCoy 1987:116). Only the deteriorated walls of the springhouse remain.

The present town site of Lyle was sold in 1912 by the Balfours to the Lyle Company, Inc., which developed the town site. The Balfours sold the present property to the Claus Staak family in 1913. The Staaks sold the property to the Chamberlains in 1924 (McCoy 1987: 117). The property reportedly was purchased by James Starr in 1960; it was purchased by the USDA Forest Service in 1995.

Scenic Area staff recognized from the earliest planning stages that the property contained a significant prehistoric archeological site documented both in the Lewis and Clark journal as well as through surface investigation and recording. As a consequence, early emphasis was placed on a low-impact development confined to previously disturbed areas of the site, including excavated areas, prior sites of residence, and roads. The field investigations focused upon examination of these areas that would potentially be directly affected by the proposed trails, restroom and parking lot, as well as proposed alterations to the drainage systems modified by previous owners. The remainder of potential uses, including placement of picnic tables and dispersed hiking and fishing, are not ground-disturbing in nature; simple surface placement of picnic tables would not be seen as having potential effects.

Twelve shovel probes were excavated throughout the areas initially proposed for development. Later, one additional probe was placed for a proposed wetland development, for a total of 13 shovel probes. The shovel probes were excavated by shovel in a conical fashion, .5 meter in diameter and .5 meter in depth, with an approximate volume of .033 cubic meter, or 1/30<sup>th</sup> cubic meter. Hence, a direct conversion from the shovel probe to an archaeological standard unit of measure would be to multiply the number of recovered cultural materials by 30.

The excavated soils were screened through successive layers of 6mm (1/4") and 3mm (1/8") hardware cloth shaker screens. The materials recovered were bagged separately. If the soils were uniform, the materials from the entire shovel probe were placed in a single zip-lock bag. Where clearly defined soil horizons were present (SP 4), the materials were bagged by horizon. Each shovel probe was keyed to a primary datum or triangulation for this evaluation.

Great pains were taken to recover all materials practicable; the objective was to determine the presence of cultural materials at the lower threshold of detection, or at the dispersed use of the landscape as opposed to concentrated task-specific or occupational deposits. This is generally defined within the National Scenic Area as the recovery of more than 1 and less than 10 primary, secondary and tertiary waste flakes per .33 cubic meter of shovel probe unit, or less than 300 items per cubic meter. Obviously, recovery of formed artifacts within such a sample elevates it to a higher level of consideration. This did not apply to any of the shovel probes excavated for this effort.

This threshold is set for practical as well as research implications. Beyond simple counting there is little scientific data that can be derived from obsidian and CCS tertiary flakes; for example, obsidian flakes less than 10mm in diameter and 1.5mm thick cannot be reliably sourced. Tertiary CCS flakes have even less value. Their utility is restricted to general assessments of tool sharpening and use over the landscape. As a practical consideration, the research value of lithic materials that pass through a 6mm mesh is less than that necessary for an affirmative evaluation of scientific significance.

In particular reference to this area, and not necessarily universally applied, recovery counts of less than 10 items per shovel probe, with 2 or less secondary CCS flakes per unit, were not viewed as demonstrating deposits of significance for further archaeological research.

Application of criteria of adverse effects [36 CFR 800.5(a)(1)] suggest that the proposed undertaking (action) would result in a finding of "**No Adverse Effect**" per 36 CFR 800.5(b). The rationale for this recommendation lies in the proposition that the proposed undertaking would not "...alter, directly or indirectly, any of the characteristics of ...property that qualify the property in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." [36 CFR 800.5(A)(1)].

There are no reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative [36 CFR 800.5 (A)]

### **3.7 OTHER DISCLOSURES**

#### **Wetlands and Flood Plains**

A series of small springs and an associated wetland (< 0.5 acres) is located within the proposed project area, a project area that is partially within the floodplain of the Klickitat River and riparian reserve. A picnic area, and a trail to this picnic area, is proposed next to these springs under alternatives 2 and 3. A trail is a proposed down to the Klickitat River under alternatives 1 and 3. Erosion and resulting sedimentation in these wetlands and flood plain is expected to be low to nonexistent given the topography of the site and the scope and design of the proposed project regardless of which alternative is selected. Reference effects to soils and water resources, section 3.1 of this EA for further discussion on wetland and floodplain.

#### **Prime Farmland, Rangeland, and Forestland**

The proposed action is in keeping with the intent of the Secretary of Agriculture Memorandum 1827 for prime land. Based on review of NRCS soil mapping of the planning area, no “Prime Farmland” was identified. The implementation of any alternatives associated with this day use site would have no adverse effects on rangeland. “Prime” forest land does not apply to lands within the National Forest system.

#### **Energy Requirements**

There would be no unusual energy requirements associated with the implementation of the proposed action, regardless of which alternative is selected.

#### **Irreversible and Irretrievable Commitment of Resources**

Irreversible commitment of resources refers to non-renewable resources, such as cultural resources, or to those factors which are renewable only over long time spans such as soil productivity. Irretrievable commitment applies to losses of production, harvest or use of renewable natural resources. No significant irreversible nor irretrievable commitment of resources have been identified with the implementation of any alternative proposed.

#### **Compliance with Executive Order 12898 Regarding Environmental Justice**

On February 11, 1994, President Clinton issued the Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898). In accordance with this order, the proposed action has been reviewed to determine if it would result in ... disproportionately high and adverse human and environmental effects on minorities and low income populations.

A public information effort to inform and involve the potentially affected and interested individuals, agencies or organizations occurred. No specific concerns regarding minorities or low income families were identified during this public information process.

#### **Air Quality**

No significant effects to air quality are anticipated with this proposed action.

## CHAPTER 4: CONSULTATION AND LIST OF PREPARERS

### 4.1 RESULTS OF CONSULTATION

#### Washington State Historic Preservation Office (SHPO)

Based on results of the shovel probe testing, and the provision that all proposed ground disturbing activities for this proposed undertaking occur within previously-disturbed and roaded and filled areas, the National Scenic Area Archaeologist (per Section 800.5(b) of 36 CFR 800, as amended and effective January 11, 2001 recommended to SHPO a finding of “**No Adverse Effect**”. SHPO has concurred with this recommendation in a letter to the Scenic Area Manager dated December 7, 2001.

#### Tribal Consultation

The Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs of Oregon, the Nez Perce Tribe and the Yakama Indian Nation were consulted at the project initiation stage per 36CFR800 and National Scenic Area Management Plan requirements. All four tribes received all project mailings. No written comments were received from any tribe. Scenic Area staff has met on the ground with Yakama Indian Nation representatives.

#### U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)

The Scenic Area’s Fish/Wildlife Biologist has made a finding of determination that the construction of a trail to the Klickitat River (proposed under alternatives 1 and 3) “**May Affect, but Not Likely to Adversely Affect**” (NLAA) the following TE&S fish species: bull trout, Coastal cutthroat trout, Mid-Columbia River Spring Run Chinook and Mid Columbia Run Steelhead trout. The scenic area biologist also determined that alternative 3 “**May Affect, but Not Likely to Adversely Affect**” Bald eagles, and “**May Impact Individuals or Habitat, but will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Viability to the Population or Species**” (MIIH) of the California King Snake, the Western Pond Turtle, and the Northern leopard frog. Per regulations on interagency cooperation (50 CFR 402), pursuant to Section 7 of the Endangered Species Act (ESA) of 1973 (as amended) a Biological Assessments (BA) has been prepared and sent to the USFWS as well as the NMFS for informal consultation. The informal consultation on this BA is currently on-going with both Agencies. For a summary of effects to all TE&S fish and wildlife species, please referred back to Table 3-2 (pages 41 & 42).

Consultation with NMFS on Essential Fish Habitat as required by the Magnuson-Stevens Fishery Conservation Act (MSA) has also been included in the BA sent to NMFS.

### 4.2 LIST OF AGENCIES AND PERSONS CONSULTED

Adjacent Land Owners  
Interested Parties  
Bureau of Indian Affairs  
Burlington Northern Railroad  
Central Cascades Alliance  
Columbia Gorge Audubon Society  
Columbia Gorge Coalition  
Columbia River Gorge Commission  
Confederated Tribes of the Umatilla Indian Reservation

Confederated Tribes of Warm Springs  
Environmental Protection Agency  
Federal Highways Administration  
Friends of the Columbia Gorge  
Klickitat County Commissioners  
Klickitat County Planning Department  
Klickitat County Road Department  
Klickitat County Sheriff  
National Marine Fisheries  
Native Plant Society of Oregon  
Nez Perce Cultural Resources Program  
Trust for Public Lands  
US Fish & Wildlife Service  
U.S. Representative Brian Baird  
U.S. Senator Slade Gorton  
Washington Department of Fish & Wildlife  
Washington Department of Natural Resources  
Washington Department of Transportation  
Washington State Patrol  
Washington State Representative Barbara Lisk  
Washington State Rep. Jim Honeyford  
Washington State Senator Irv Newhouse  
Yakama Indian Nation

#### **4.3 LIST OF PREPARERS**

Lyle Klickitat Day Use Site Interdisciplinary Team, U. S. Forest Service

Mike Boynton	- Cultural Resources
Robin Dobson	- Botany
Virginia Kelly	- Team Leader
Mark Kreiter	- Hydrology
Richard Larson	- Biology
Diana Ross	- Scenic Resources, Graphics, Land Use Consistency
Scott Springer	- Recreation, Wild and Scenic Rivers
Arthur Guertin	- Writer/Editor

#### **4.4 APPENDICES**

There are three appendices included with this EA. Those appendices are:

**Appendix A** Recreation Use at Sites Within the Local Area (shown in visitors annually)  
**Appendix B** Recreation Use Assumptions  
**Appendix C** Natural Resources Mitigation Plan

**APPENDIX A**

**Recreation Use at Sites Within the Local Area (shown in visitors annually)**

Catherine Creek Trail (USFS) <sup>1</sup>	<u>Hiking and Viewing Nature</u> 5,500	
Rowland Lake Access Site (WDFW) <sup>2</sup>	<u>Fishing and Water play</u> 2,500	
Horsetheif Lake (State Parks) <sup>3</sup>	<u>Boating</u> 6,197	<u>Camping</u> 2196
Dalles Mountain Ranch Conservation Reserve (DNR) <sup>3</sup>	<u>Hiking</u> 300	<u>Viewing Nature</u> 340
Chamberlain Lake Rest Area (WDOT) <sup>4</sup>	<u>Walking or Viewing Nature</u> 61,816	
Doug’s Beach (State Park’s) <sup>3</sup>	<u>Windsurfing</u> 45,000	<u>Picnicking</u> 407

**1** – Use estimates are based on the assumptions shown in the Appendix A of the *Environmental Assessment for the Klickitat Rails-to-Trails* (USFS, 1996).

**2** – WDFW does not monitor use. Estimates of use of this site are provided by the USFS.

**3** – Washington State Parks use records (personal conversation Andy Kallinen, Park Ranger, Horstthief Lake State Park, 2001).

**4** – Use of this site was 187,324 in 2000 (WDOT, 2000). The Forest Service estimates 33% of people whom travel along/use a major transportation route within the CRGNSA participate or travel along that route to participate in or benefit from recreation opportunities located there.

*“All recreation activities are growing in sheer numbers. Many activities are growing at a faster rate than general population growth. According to recreation professionals statewide, from 1995 – 2001 participation will show the most growth in walking, bicycling, field sports, golfing, and camping.”*

*“Focus groups interviewed in 1994 suggested that activities including walking, bicycling, running, kayaking, and hiking will gain in popularity.”*

**Voices of Washington: Public Opinion on Outdoor Recreation and Habitat Issues**, Washington State - IAC, November 1995.

**APPENDIX B**

**Recreation Use Assumptions**

Assumption 3 people per car  
 10 parking spaces  
 Local Use will be 5% of the Lyle population = 45 people

Season of use  
 High use season – Spring – 90 days  
 Shoulder Season – Summer and Fall – 180 days  
 Low Season – Winter – 90 days

High and Low Use Periods  
 High Use is expected at 70% of trailhead parking capacity on weekends  
 High Use is expected at 30% of trailhead capacity on weekdays  
 Shoulder Use is expected at 30% of trailhead capacity on weekends  
 Shoulder Use is expected at 10% of capacity on Weekdays  
 Low Use is expected at 2% all days

**Anticipated Recreation Visitors by Use Season for Hiking/Walking**

<b>High Use Season</b>				<b><u>Totals</u></b>
Drive-in Use			Local Users	
<u>WEEKEND</u>	<u>WEEKDAY</u>	<u>WEEKEND</u>	<u>WEEKDAY</u>	
504	594	756	891	2,745
<b>Shoulder Season – Summer and Fall – 180 days</b>				
Drive-in Use			Local Users	
<u>WEEKEND</u>	<u>WEEKDAY</u>	<u>WEEKEND</u>	<u>WEEKDAY</u>	
432	396	648	594	2,070
<b>Low Season Use</b>				
Drive-in Use			Local Users	
14			59	<u>73</u>
			<b>Total Visits per Season:</b>	<b>4,888</b>

**Fishing Use Assumptions**

Assumption 2 people per car

10 parking spaces

Local Use will be 5% of the Lyle population = 45 people

Season of use

Salmon/Steelhead season – Spring – 26 days

Trout Season –Summer and Fall – 150 days

High and Low Use Periods

Salmon/Steelhead Fishing is expected at 50% of trailhead parking capacity on weekends

Salmon/Steelhead Fishing is expected at 30% of trailhead capacity on weekdays

Trout Fishing is expected at 10% of trailhead capacity on weekends

Trout Fishing is expected at 5% of capacity on Weekdays

**Anticipated Recreation Visitors by Use Season for Fishing**

		<b>Salmon/Steelhead Season</b>				
Drive-in Use				Local Users		<b><u>Totals</u></b>
<u>WEEKEND</u>	<u>WEEKDAY</u>	<u>WEEKEND</u>	<u>WEEKDAY</u>	<u>WEEKEND</u>	<u>WEEKDAY</u>	
80	126	360	810			1,296

**Trout Season**

Drive-in Use				Local Users		
<u>WEEKEND</u>	<u>WEEKDAY</u>	<u>WEEKEND</u>	<u>WEEKDAY</u>			
90	105	202	236			<u>633</u>
<b>Total Visits per Season:</b>						<b>1,929</b>

## APPENDIX C



United States  
Department of  
Agriculture

Forest  
Service

Columbia River Gorge  
National Scenic Area

902 Wasco Ave., Suite 200  
Hood River, OR 97031

File Code:

Date: Jan 27, 2002

### Mitigation Plan for the Starr EA

Portions of the proposed trail system lie within the Buffer zones of the Klickitat River, wetland and sensitive wildlife species. A “no practicable alternative” test, a mitigation plan, and a public interest test are included in this document as a requirement of the NSA Management Plan guidelines.

#### “No Practicable Alternative” Test

The trail and parking area are the new developments that are proposed within the buffer zones. The parking area, as identified in Alt. 2, 2A, and 3, is proposed within the buffer zone of a sensitive flora (*Penstemon barrettiae*). Between the parking areas and the flora is a county road. These proposed locations were finally determined to be the most feasible locations with the least impacts on the various buffer zones within the project area and other resource values, such as scenic. All other possible locations were likewise either within a buffer zone or had un-acceptable impacts on scenic and/or cultural resources. Parking was examined at off-site locations as well; but these were found to have un-acceptable safety problems associated with SR 14. There were no feasible off-site locations on the west side of the Klickitat River. Thus it is determined that this parking site met the test.

The trail system likewise met the test by virtue of its values to the public, its relatively low impact nature, and the use of existing road beds at the site. The reason for a trail is to bring the public to appreciate those natural values at the site, such as the Klickitat River, the pond, and the large oaks which harbor sensitive species, such as the Lewis’ woodpecker and the only known population of acorn woodpeckers in Washington State. Given that most of the Starr property lies within a buffer zone of one or another resource, there would be no location for a trail at all. If the resources were so sensitive that human influence might have un-acceptable impacts, this might be a logical outcome. However, the nature of the sensitive resources at this site can tolerate the presence of people associated with a trail. Thus, a trail could only be feasibly constructed by entering buffer zones and thus it met the test.

#### Mitigation Plan

To mitigate the impacts of these new developments a combination of measures were developed. These mitigation measures constitute the mitigation plan as per the Management Plan. The following mitigation measures are summarized below:

- 1). The site in general shall be enhanced with an aggressive re-vegetation effort to replace the present non-native herbaceous flora with a predominantly native composition. This shall include the re-establishment of native bunch grasses, such as Idaho fescue, and other herbaceous flora, such as balsam root and endemic lupine, etc. This should enhance the site in many ways, including creating

potential habitat for invertebrates such as the mardon skipper, and numerous native pollinators, and numerous native ground nesting sparrows, meadow larks and other neo-tropical birds that depend on invertebrates for their nutrition.

2). The native oak habitat shall be enhanced by expanding the present size of the oak savannah. This habitat is believed to have been largely eliminated through the years by active clearing for livestock.

3). The wetland and pond shall be enhanced by an aggressive effort to eliminate the invasive species, such as Himalayan blackberries, and establish native rushes and shrubs in its place. This should increase the functionality of the wetlands and should enhance the habitat for many fauna.

4). The trail system shall be designed in a manner so as to minimize the potential impacts on the wetlands and sensitive fauna. The trail shall be kept at a distance from the pond except in a location where interpretive signs may help educate the public of the need for wetlands, the importance of their protection and the need of their inhabitants for solitude. Likewise, similar philosophy shall be adhered to as much as possible in areas of other sensitive habitats and/or species.

5). To enhance cavity-nesting birds, appropriate bird boxes for a host of different species shall be maintained on the site. These should include large boxes for Lewis' woodpecker, American kestrels, and wood ducks.

6). The drainage system associated with the pond and spring shall be repaired to create a more natural functioning system which would, as a result, create a more long lasting and functional wetland-riparian system on which many species depend.

7). Because the buffer zones are being impacted over a fairly large area, there shall be an area, such as the northern portion of the site where Mill Creek joins the Klickitat and the associated mud flats, put aside with no trail system and minimal human impact as a refugia. This refugia could see dispersed use, but use should be discouraged. The concept of this refugia is to create an area where the wildlife would be least impacted by human activities considering that the rest of the buffer zones are being disturbed by increased human activity as a result of the trail.

### **Public Interest Test**

The proposed trail is designed for public use and for handicap accessibility. These trails are decidedly in the public interest and are specifically designed for such use on public lands.

*/s/ Robin Dobson*  
Robin Dobson  
Ecologist  
USDA Forest Service