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Pacific Northwest
Region

Columbia River
Gorge National
Scenic Area



August 2003

ENVIRONMENTAL ASSESSMENT

for the

Klickitat

Rails-to-Trails

USDA Forest Service

Columbia River Gorge National Scenic Area



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CHAPTER 1: PURPOSE OF AND NEED FOR ACTION

Chapter 1 provides an overview of the Klickitat Rails-to-Trails project. The history and location of the rail corridor are presented. A summary of the public involvement process and the planning issues related to trail development are included. Land use regulations and the implementation process are summarized.

1.0 BACKGROUND

The USDA Forest Service, Columbia River Gorge National Scenic Area, administers the lower 10.8 miles of the Klickitat River as a Federal Wild and Scenic River. Until 1992, Burlington Northern operated a railroad within the Wild and Scenic River boundary. The Lower Klickitat Wild and Scenic River Management Plan (1991) recognized the potential for Burlington Northern (BN) to abandon its railroad line along the river. The river plan determined as a desired future condition:

"If BN ceases this use, the right-of-way is either maintained as open space or to provide recreation consistent with Roaded Natural opportunities. Compatible uses include a tourist train, bike path, or hiking trail; incompatible uses include a paved road open to vehicle traffic, or a corridor of residential or commercial development".

In late 1992, Burlington Northern filed notice with the Interstate Commerce Commission to abandon the rail corridor from Lyle to Goldendale. The Forest Service sought to preserve the railroad corridor to fulfill the purposes of the river management plan. The National Trails System Act allows certain non-federal entities to "railbank" rail corridors which are about to be abandoned. Railbanking is the legal process that preserves rail corridors for possible future re-establishment for rail use, with interim use as public trails. Concurrently, the Rails-to-Trails Conservancy (RTC), a nonprofit organization dedicated to converting vacated rail lines to public use trails, did "railbank" 31 miles of the rail corridor, from Lyle to Uecker Road near Warwick.

In August 1993, Burlington Northern Railroad Company sold its rights in the Lyle-Warwick portion of the rail corridor to the Rails-to-Trails Conservancy, which had railbanked the 31 mile line. This interest was approved by the Interstate Commerce Commission (now the Surface Transportation Board). The transaction was completed and RTC took title to the rail corridor in March 1994. In April 1994, RTC donated its rights in the rail corridor to the Washington State Parks and Recreation Commission (State Parks), which now owns the railbanked rights to the right-of-way.

In fulfillment of its responsibility to protect the Klickitat Wild and Scenic River values, the Forest Service has cooperated with State Parks to investigate trail management. State Parks and the Forest Service are cooperating during the current National Environmental Policy Act (NEPA) trail planning phase under a Memorandum of Understanding, dated January 27, 2003.

There are two avenues by which the Forest Service may participate in management of the trail with State Parks.

First, for the trail within the Klickitat Wild and Scenic River corridor, and potentially an additional three miles up to the town of Klickitat (since this is a logical start/end and important connecting point to the community), the Forest Service could participate in trail management under the Wild and Scenic Rivers Act authorities. The Secretary of Agriculture (as delegated), in administration of any component of the National Wild and Scenic Rivers System area, may utilize the general statutory authorities relating to the national forests in such manner as deemed appropriate to carry out the purposes of the Wild and Scenic Rivers Act (16 U.S.C. 1281(d)).

Second, any portion of the corridor not subject to the Wild and Scenic Rivers Act authorities would need to be designated as a National Recreation Trail (pursuant to the National Trails Systems Act section 4 (16 U.S.C. 1243)) by the Regional Forester (as delegated by the Secretary of Agriculture) in order for the Forest Service to participate in trail management. The National Recreation Trail designation would authorize the Forest Service to expend federal funds in the operation and management of the trail. A National Recreation Trail designation is an administrative decision; it is not a decision subject to the National Environmental Policy Act, nor is it appealable.

Alternatively, the Forest Service could designate any trail portion as a National Recreation Trail, even the portion within the Wild and Scenic River boundary.

Claiming taking of their land without compensation, eight landowners adjacent to the rail right-of-way brought suit against the Washington State Parks and Recreation Commission and the Rails-to-Trails Conservancy in April 1994. The case was dismissed for lack of jurisdiction by the Eastern Washington Federal District Court in September 1994 and by the 9th Circuit Federal Court of Appeals in March 1996. No further legal challenges have been filed as of the writing of this document.

In February 1996, portions of the railbed suffered considerable flood damage, with most damage occurring between Fisher Hill and Wahkiacus. Several sections between Fisher Hill and Pitt were partially damaged. One section of about 150 feet between Pitt and Skookum Flat completely washed out. The railbed surface was highly damaged for several thousand feet between Suburbia and Wahkiacus. The Suburbia trestle was highly damaged and eventually removed by Washington State Parks. The original railbed through Swale Canyon (Wahkiacus to Warwick) is largely usable. This segment suffered relatively minor damage consisting of several landslides covering the railbed and minor bridge damage. The former railbed is passable by foot for its entire length except for the Suburbia trestle and the washout between Pitt and Skookum Flat.

The Forest Service conducted a planning process between 1994 and 1997, and in 1997 published an Environmental Assessment (EA) proposing six alternatives for management of the 31-mile corridor as a National Recreation Trail. No decision was made by then Regional Forester Bob Williams. No project planning took place between 1998 and 2003.

Project planning was reinitiated in 2003, leading to an Environmental Assessment (EA) with different alternatives, updated information and revised analysis from the 1997 EA. This EA is considered a new EA; it is not a supplement or revision to the 1997 EA.

1.1 LOCATION

The project area is the 31-mile Klickitat Rails-to-Trails right-of-way corridor, from Lyle to Uecker Road near Warwick, Washington (see Figure 1). The right-of-way varies from 60 to 200 feet wide and (with a few exceptions) is measured 30 feet, 50 feet or 100 feet wide on each side of and parallel with centerline of the railroad. For the most part, any recreation use of the trail would be limited to the railbed, and would not require full use of the right-of-way. Proposed facilities along the trail would be placed well within this right-of-way. Surveys would be conducted as necessary to ensure trailhead development is located within the right-of-way, or on adjacent land agreed to by the adjacent landowner.

The corridor begins in the Lyle Urban Area of the Columbia River Gorge National Scenic Area (CRGNSA). The first approximately 1.6 trail miles are within the CRGNSA General Management Area (GMA); the first approximately 10.5 trail miles are within the Klickitat National Wild and Scenic River corridor, Recreation Classification (because the trail does not start at the mouth of the Klickitat River, the trail mileage is not exactly the same as the Wild and Scenic River mileage). The next approximately 6 trail miles continue along the Klickitat River, passing through the communities of Pitt, Klickitat, and Wahkiacus. The trail corridor then leaves the Klickitat River at the confluence of Swale Creek to ascend about 14 miles in Swale Canyon. The railbanked portion of the rail corridor ends at Uecker Road, a county road near Warwick.

The Rails-to-Trails corridor has the following legal description: Washington State, Klickitat County, T.3N, R.12E, Sections 24, 25, 26 and Sections 5, 6, 7, 8, 17, 18, 19; T.4N, R.13E, Sections 13, 14, 22, 23, 24, 27, 28, 32; T.4N, R.14E, Sections 19, 20, 21, 28, 33; T.3N, R.14E, Sections 4, 5, 8, 9, 17, 20, 21, 22, 23, 25 W.M. (see Figure 1).



Figure 1: Vicinity Map

1.2 PROPOSED ACTION

The Forest Service proposes to develop and manage all or part of the 31-mile rail corridor, from Lyle to Uecker Road, as a public use, non-motorized trail. For planning purposes, the project is named the Klickitat Rails-to-Trails.

Included within the proposed action are the following facilities and activities:

- trail improvements (surface improvements, trestle decking and railings, short bridges, short boardwalks)
- trailheads with parking, restrooms, drinking water, signage and plantings
- foot bridge at Suburbia
- educational, regulatory and interpretive signing
- trail reroutes in limited areas
- trail regulations regarding camping, fires, smoking, dogs
- trail patrol
- identification of vehicle turn-around areas
- identification of helispots
- identification of water access points
- riparian planting to stabilize the railbed
- vegetative screening
- noxious weed survey and treatment

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

In 1994, the Washington State Parks and Recreation Commission (Commission) agreed to accept title to the 31-mile railbanked corridor, with the understanding that the Forest Service would undertake the necessary trail planning, development and associated management responsibilities. By initiating the Klickitat Trail project proposal, the Forest Service is acting to fulfill its commitment to the Commission.

The purpose and need for the proposed trail is based on recreation opportunities, economic benefits to local communities, and compatibility with the Lower Klickitat Wild and Scenic River Management Plan.

Recreation Opportunities

Management of all or part of the 31-mile rail corridor as a trail could serve recreationists' needs that are currently underserved in the area. There is a relative scarcity of flat trails, wheelchair accessible trails, equestrian terrain, and bicycle trails in the National Scenic Area.

Opportunities are very limited in the Gorge area for mountain bikes, the physically challenged and equestrians. The Forest Service currently manages 180 miles of trail in the Gorge. Fifteen percent are mountain bike trails, 16% provide equestrian opportunities and less than 1% meet barrier free standards.

Other agencies offer limited equestrian and mountain bike trails, most notably Oregon State Parks (Deschutes River Trail), Washington State Parks (Beacon Rock State Park equestrian trails) and Washington Department of Natural Resources (Buck Creek Trail System). Mountain biking has increased in the area; the most noteworthy example is Coyote Wall (near Burdoin Mountain).

A few short wheelchair accessible trails are found in Washington (Catherine Creek, Sams-Walker, St. Cloud, Fort Cascades). Longer wheelchair accessible trails are found in Oregon, including the Historic Columbia River Highway and The Dalles Riverfront Trail. Few of these trails are as flat as the proposed Klickitat Rails-to-Trails. Due to flat grade (2%) and wide width (up to sixteen feet wide), this rail corridor could provide an outstanding opportunity to serve these, and other, recreation needs.

Trails and trail use are disproportionately distributed in the Columbia River Gorge area. Over 60% of the recreational facilities and trails are concentrated west of Cascade Locks, particularly on the Oregon side. The rail corridor could provide additional trail opportunities on the eastern end of the Gorge; and especially on the Washington side of the Gorge, a need documented in the CRGNSA Management Plan.

The proposed trail would help fulfill two of the three highest priority objectives for public use trails in the General Management Area (GMA) of the CRGNSA (Management Plan page I-152), as well as one of the five other trail objectives (Management Plan page I-153):

- “Increase trail opportunities on the Washington side of the Scenic Area and in the eastern portions of the Scenic Area.” (The trail is located both in Washington and in the eastern portion of the Scenic Area.)
- “Provide trails linking Urban Areas and the Portland/Vancouver metropolitan area to recreation opportunities in the Scenic Area.” (Originating in Lyle, the trail would link the Lyle Urban Area to recreation opportunities in the General Management Area of the Scenic Area).
- “Establish trails along the major tributaries of the Columbia River.” (The trail would be located along the Klickitat River, a major tributary of the Columbia River.)

While there is a relatively large inventory of trails on the neighboring Gifford Pinchot and Mt. Hood National Forests, many of these trails are only accessible during the summer months. Hiking closer to home in a natural setting also seems to be preferred by busy recreationists of today. The Klickitat Rails-to-Trails could provide a unique year-round trail opportunity for multiple user groups to experience their activities in a natural setting, close to the Portland/Vancouver Metro area and local Gorge communities (within a 1 hour drive).

Economic Benefits to Local Communities

A trail could provide some level of economic benefit to the previously timber-dependent community of Klickitat, a goal of the Northwest Forest Plan; and to the community of Lyle, a

goal of the CRGNSA Act National Scenic Area Act and Management Plan. The unemployment rate in Klickitat is twice that of the county as a whole and over four times the Washington State average. More families in Klickitat are ranked below the 1999 poverty level income than any other community in the county.

Lower Klickitat Wild and Scenic River Management Plan.

The Lower Klickitat Wild and Scenic River Management Plan (page B-14) states:

“If BN (Burlington Northern) ceases this use, the right-of-way is either maintained as open space or to provide recreation consistent with Roaded Natural opportunities. Compatible uses include a tourist train, bike path, or hiking trail; incompatible uses include a paved road open to vehicle traffic, or a corridor of residential or commercial development.”

The proposed trail would ensure the right-of-way would be retained in a use compatible with the Lower Klickitat Wild and Scenic River Management Plan. The Forest Service, as the federal managing agency for the Lower Klickitat Wild and Scenic River, is an appropriate agency to manage the proposed trail. If the Forest Service does not manage the trail, it is not known if another entity would manage the right-of-way as a trail.

1.4 DECISIONS TO BE MADE

The Forest Service will decide whether to manage all, part, or none of the 31-mile rail corridor as a recreational trail. If it elects to a management role, it will decide how trail management would take place. Included in this decision are:

- segments of the trail to be managed by the Forest Service (if any),
- conditions associated with Forest Service management of the trail,
- appropriate trail uses (e.g., hiking, bicycling, horses),
- support development (e.g., trailheads, gates, safety devices, trail surfacing),
- management strategies (e.g., law enforcement, search and rescue, fire prevention, timing of use (e.g., dawn to dusk),
- phasing for trail use (e.g., safety improvements before trail opening)

The National Scenic Area Manager is the decision maker for the first approximately 13 ½ trail miles in the Klickitat Wild and Scenic River corridor, and up to the town of Klickitat/Suburbia (since this is a logical start/end and important connecting point to the community), under the Wild and Scenic Rivers Act authorities. The Wild and Scenic Rivers Act authorities have been delegated from the Secretary of Agriculture to the Forest Supervisors/National Scenic Area Manager.

The Regional Forester must decide to designate the corridor as a National Recreation Trail in order for the Forest Service to participate in trail management beyond Klickitat. The authority to designate a National Recreation Trail has been delegated from the Secretary of Agriculture to the

Regional Foresters, but has not been further delegated to the Forest Supervisors/National Scenic Area Manager.

Alternatively, the Regional Forester could designate any portion of the trail as a National Recreation Trail, even the portion within the Wild and Scenic River boundary.

The criteria for a National Recreation Trail are four (FSM 2353.33(b)):

1. Readiness. Designate a trail only if it is in place and available for public use.
2. Use and Availability. The trail must provide a variety of trail-related recreation opportunities within approximately 2 hours of automobile travel time from the population centers of the Region under consideration.
3. Length. The length of a proposed National Recreation Trail or Trail System may vary, depending upon its use and purpose, but it must be continuous.
4. Location. The trail incorporates the significant natural and cultural features of the area through which it passes. The trail may utilize a variety of locations if the location is in accordance with planned trail use and reasonably provides for public safety.

Consistency of the proposed trail with these criteria is provided in Chapter 3, Section 3.12.

1.5 PUBLIC INVOLVEMENT SUMMARY

The Forest Service conducted an extensive public involvement process in its planning effort from 1994 to 1997. No further planning by the Forest Service took place between 1998 and 2003.

The Forest Service reinitiated the public involvement process for this project with two public Open Houses in February 2003. It held one meeting in Lyle, Washington on February 25, and the second in Klickitat, Washington on February 27, 2003. Notice of these meetings was sent to over 1,000 contacts. Over 200 people attended the two workshops.

In early April 2003, the Forest Service requested comment on a preliminary range of alternatives and a list of preliminary mitigation/conflict resolution ideas. A summary of the public meetings was also included in the package. Over 1,200 contacts were notified of these materials. Over 100 responses were received.

The Forest Service held three workshops on May 31, June 14 and June 28. The objectives of the workshops were to bring together interest groups and adjacent property owners to develop mitigation measures that would be acceptable to all parties. Two workshops were held in the town of Klickitat, and one in the town of Lyle. All three workshops were facilitated by professional consultants. Approximately 150 parties were notified, and between 10 and 15 people attended each workshop.

Forest Service staff met with or telephoned a range of tribal and public entities:

- Yakama Tribal Council
- Yakama Tribal Fisheries Staff
- Yakama Tribal Cultural Staff

- Klickitat County Commissioners
- Klickitat County Planning Department
- Klickitat County Road Department
- Klickitat County Sheriff
- Klickitat County Health Department
- Klickitat County Fire Chiefs from a number of Rural Fire Districts
- Klickitat County P.U.D.
- Klickitat Fire Department
- Klickitat School District
- Washington State Department of Transportation
- Washington State Department of Ecology
- Washington Department of Fish and Wildlife
- Washington State Department of Natural Resources (fire protection division)
- Klickitat Community Council
- Lyle Community Action Council

Forest Service staff met with the following groups at their request:

- Landowners along the Klickitat River
- Klickitat Trail Conservancy
- Citizens Review Committee for Salmon Recovery in Klickitat Watershed

Forest Service staff also provided information to a number of individual landowners and private citizens.

1.6 ISSUES

An issue is a point of discussion, debate, or concern regarding the environmental effects of a proposed action. Identification of issues guides the analysis by determining which issues are important to address or mention for clarification and information. Significant or "key" issues are used in the environmental analysis for formulating alternatives, developing mitigation measures, and tracking effects. Issues are deemed "significant" because of the extent of their geographical distribution, duration of effects, or intensity of interest or resource conflicts.

Issues were developed from the following sources: the two February 2003 public Open Houses, meetings with public entities and private groups, written and verbal comments, the Washington State Parks and Recreation Commission's Klickitat Trail public meetings, and the Forest Service's earlier (1994-1997) planning effort.

Alternatives have been created in response to issues 1, 2 and 3. Measures have been designed into the alternatives to address issues 4 through 7. In addition, three issues were considered beyond the scope of this analysis and are not addressed further,

Issues Leading to Distinct Alternatives

Distinct alternatives were created in response to the following three issues:

1. Recreation Use
2. Cost of Trail Development and Long-Term Management
3. Economics Benefit to the Local Communities

Issue 1. Recreation Use – A central issue to this proposal concerns the types and amount of recreation use on the proposed trail. The flat grade and width (up to 16 ft) provide an opportunity for a wide range of recreation uses. Possible recreation uses include hiking, biking, horseback riding, wheelchairs, wagon trains, horse-drawn carts, pack animals, dog walking, or other non-motorized uses. (Only non-motorized recreation uses would be allowed, because Washington State Parks does not normally allow motorized vehicles on its trails, unless it is designated as an off-road-vehicle trail. One exception would be motorized wheelchairs.) Some potential users have suggested paving; others state a preference for a native surface. The hardness of the surface affects whether certain recreationists, such as those with wheelchairs and road bikes, will likely use the trail. Questions have been raised whether to allow boat launching or commercial uses. Carrying a loaded weapon or discharging firearms would be prohibited on the trail pursuant to Washington State Parks regulations.

Possible recreation support facilities include trailheads, parking, restrooms, drinking water, informational/educational signs, or other facilities. Horse riders have requested adequate parking space for horse trailers, horse hitching posts at trailheads and identification of water places on long trail stretches. Connection of this trail to other area trails and roads has also been suggested. The Forest Service identified the need to develop design guidelines for facilities.

Conflict among different users is possible. Types and amount of recreation use could influence the extent of potential resource damage. Amount of use could affect economic benefits from the proposed trail, as well as livability for nearby residents. There is concern that the potentially high number of trail users could lead to sanitation problems.

The effects of the alternatives are measured by comparing amount of trail use, the pattern and types of use, conflicts among trail users, conflicts at parking areas, accessibility and ROS compatibility.

Issue 2: Cost of Trail Development and Long-Term Management - Both initial development and long-term management of the trail and its support facilities would require funding. Forest Service and Washington State Parks budgets are not increasing. The Forest Service already has a maintenance backlog on its existing trails. The public questions the Forest Service's ability to fund trail improvement and maintenance. Local community members and volunteer groups have offered assistance in trail maintenance, including the Klickitat Trail Conservancy.

The effects of the alternatives are measured by development cost and by maintenance cost.

Issue 3: Effect on Local Communities –The rail corridor passes through several small communities, the largest being Lyle and Klickitat. The community of Klickitat is particularly economically distressed. Klickitat's lumber mill, its only industry, closed in the mid 1990's. While Klickitat County's 2000 unemployment rate was twice that of the Washington State average, the community of Klickitat was four times the State average. Both the number of

individuals and the number of families in poverty is higher in Klickitat than in any other Klickitat County community reported in the 2000 Census. Some people have stated the trail could be an economic asset for Klickitat by attracting tourism.

While economic indicators reflect a healthier economy for Lyle, its community members and local businesses have expressed interest in the potential economic benefits of the proposed trail.

Some residents believe the trail would be a community asset, providing a safe place for residents, especially children and senior citizens, to walk. Others fear that the trail may lead to an influx of new people, which could have unintended consequences such as population growth, increased development along the trail, or crime.

The effects of the alternatives are measured by the income and employment generated by trail development, and by comparing the income generated by the trail to the cost to develop and maintain the trail (a benefit to cost ratio).

Issues Leading to Design Features in the Alternatives

Measures were incorporated into the alternatives to address the following issues:

4. Effects on Nearby Residents and Landowners: Quality of Life/Resident Privacy, Access Across/Along the Trail and Cattle/Sheep Conflicts
5. Safety, Law Enforcement, Emergency Response, Fire Management
6. Cultural/Historical Resources and Traditional Native American Uses
7. Natural and Water Resources

4. Effects on Nearby Residents and Landowners - Numerous concerns have been raised about potential effects of the proposed trail on adjacent and nearby residents and landowners. This issue has been divided into three categories: A) Quality of Life/Resident Privacy; B) Access Across/Along the Trail; and C) Cattle/Sheep Conflicts

A) Quality of Life/Resident Privacy - Some landowners along the rail corridor fear the trail would diminish their quality of life. These landowners moved to a rural area for peace and quiet, and now they feel their privacy would be invaded by trail users. Some houses are located less than one hundred feet from the trail. Landowners worry they may face increased vandalism, garbage, litter, fire danger, trespass or crime from people who have access to their property from the trail. Residents next to and near the proposed trail are concerned that trail users may leave the trail and approach residences. People accessing nearby residences may be a security risk, or an intrusion on privacy. Other misgivings stem from a perceived potential liability from persons injured on the right-of-way, or those who trespass onto private lands and injure themselves. Further concerns revolve around the burden to pay for repair or cleanup from illegal uses.

B) Access Across/Along the Trail- Some landowners fear they may not be able to cross the trail to access their property, or be able to put utility, water, irrigation, or other connections across the trail. Other property owners have expressed the desire to use the railbed for vehicular access to their properties.

C) Cattle/Sheep Conflicts - The rail corridor passes through range land. Some ranchers are concerned that cattle would not be able to cross the trail to access land or water. They are concerned that gates or fences put up to control motor vehicles may block cattle access; that recreationists may leave gates open, and cattle could stray onto the trail, other property, or even the highway; that cattle could harm recreationists (leading to liability for the cattle owner); that recreationists' dogs could harass their livestock; that gates and fences could affect wildlife mobility; or that they may have to pay for additional gates or fences and their maintenance. One sheep rancher is concerned that sheep/guard dogs will protect private property and attack recreationists' dogs if they cross a fence.

The alternatives evaluate impacts to quality of life and privacy in terms of number of recreation users expected along the trail and at trailheads, and potential increased access for unlawful activity, such as trespass, crime, and vandalism. The alternatives also evaluate adjacent landowner use of the right-of-way, and potential conflicts between recreationists and cattle or sheep.

5. Safety, Law Enforcement, Emergency Response, and Fire Management - Numerous safety hazards have been identified. The trestles have broken ties, and lack safety railings. The trail crosses State Route 142 three times, and it borders the highway in places without guardrails or fences. The trail crosses four county roads. Rocks and debris slide or fall onto the trail. There is no cell phone coverage in remote portions of the trail. Rattlesnakes inhabit Swale Canyon.

Public agencies and surrounding landowners have concerns about emergency response along the trail. Concerns include which jurisdiction will respond to emergencies and who will be liable to pay for that response. The County Sheriff and local fire departments are concerned the trail would create additional enforcement or response burdens, putting additional pressure on their limited resources. Increased fire danger from trail users, smoking or setting campfires has been mentioned. In some sections, there are no access roads other than the trail for emergency, fire or law enforcement vehicles. As a result of the 1996 flooding, vehicle access along the corridor has been limited in some areas.

Trail users are concerned about what to do if they are confronted by adjacent landowners while on the trail and landowners are concerned about security issues dealing with their property and trespassing. Another safety issue that has been raised is what to do about hunting and firearms both on the trail and the land adjacent to the trail.

The alternatives are evaluated in terms of safety, vehicle access, fire prevention, fire suppression, emergency response, search and rescue, communications and law enforcement.

6. Cultural/Historical Resources and Traditional American Indian Uses - The rail corridor passes through some lands held in trust for Native American families, and other lands owned in fee by Native Americans. There are traditional fishing, hunting, gathering, and ceremonial lands along the rail corridor (potentially a Traditional Cultural Property as defined in 35 C.F.R. 800). For instance, a cemetery, extremely important dip-net fishing area, and the site of an annual First Foods Ceremony are adjacent to the right-of-way. Native Americans are concerned that

increased access on the trail by recreationists could degrade these lands, lead to harassment, interrupt their ceremonies, and infringe on the cemetery. Other concerns include the potential effects on sensitive and significant archaeological sites.

The alternatives are evaluated in terms of effects to historic or archaeological sites, and to the traditional use area at Fisher Hill.

7. Natural and Water Resources - The railbed, located along the Klickitat River and Swale Creek shorelines, has been in place for decades, although it was significantly damaged in places by flood waters in 1996. New construction is needed for support facilities such as trailheads. Placement of these support facilities could affect shorelines, floodplains or sensitive resources.

Remote areas with little current access (e.g., Swale Canyon) would be opened to increased recreation use. Some people predict increased access could affect wildlife or fisheries. For instance, increased numbers of people could harass fish in isolated summer pools in Swale Creek. Trail construction could impede the movement of water at the approaches to the Logging Creek crossing.

Concerns have been raised about the effect of flooding on the trail facility itself. The railbed historically cut off a number of seeps and springs from their natural drainage pattern into Swale Creek or the Klickitat River. Lack of maintenance has caused culverts to fail, and small wet areas to form adjacent to and on the surface of the railbed. These wet areas could be maintained, or if the culverts were replaced, the cool water could reach the bigger streams.

Knapweed, yellow-star thistle and other noxious weeds are growing along the rail corridor. Landowners, ranchers, and Klickitat County want to ensure that these weeds will be located, controlled, and prevented.

The effects of the alternatives are evaluated in terms of area of impervious surface, impacts to floodplains and shorelines, impacts to threatened, endangered and sensitive plant, fish and wildlife species, and impacts to critical habitats.

Issues Identified by the Forest Service

Forest Service staff identified the need to evaluate impacts to scenic resources, transportation and air quality.

Effects to scenic resources are evaluated against scenic resource standards, the Built Environmental Image Guide, and Recreation Opportunity Spectrum.

Effects to transportation are measured by increased traffic, and Level of Service classification.

Effects to air quality are measured by dust from construction activity, dust on unpaved access roads and increased vehicle emissions.

Issues Beyond the Scope of the Analysis

Three issues were considered beyond the scope of this analysis and are not addressed:

- i) Ownership and Status of the Right-of-Way: Numerous comments related to ownership and legal status of the right-of-way. Numerous commenters asked for a complete legal survey of the right-of-way. Since proposed facilities along the trail would be placed well within the right-of-way, a survey would not be needed. Surveys would be conducted as necessary to ensure trailhead development is located within the right-of-way, or on adjacent land agreed to by the adjacent landowner.

Some commenters asked whether the right-of-way width could be reduced. This question is under the jurisdiction of Washington State Parks, as the holder of the right-of-way, and is beyond the scope of this analysis.

- ii) Restoration of Swale Creek: The Yakama Nation has developed detailed plans to rehabilitate Swale Creek. Rehabilitation treatments propose to alter the railbed by such means as breaching or removing portions of the railbed. The Forest Service considers rehabilitation of Swale Creek a separate proposal and does not evaluate Swale Creek rehabilitation as part of the analysis, since the purpose of the current analysis is to determine whether or not the Forest Service will participate in management of the trail. The Forest Service does recognize the influence the railbed has on modifying natural channel function in Swale Canyon.
- iii) Modification of the Fisher Hill Trestle: Klickitat County officials have relayed concerns to Washington State Parks that tall logging and hay trucks on Fisher Hill Road cannot pass underneath the Fisher Hill trestle. As a result, these vehicles must drive farther to reach the State highways. This issue pertains to a conflict between vehicles on a county road and the trestle; it is not related to recreational use of the trestle. This conflict would exist whether or not the Forest Service assumes recreation management of the trail. Therefore, the Forest Service considers this issue as beyond the scope of this analysis. However, the Forest Service is willing to coordinate with Klickitat County and Washington State Parks to ensure any plans to alter the trestle are compatible with Forest Service recreation management strategies, should the Forest Service decide to manage the trail.

1.7 EXISTING LAND USE REGULATIONS

The Klickitat Rails-to-Trails corridor is affected by a number of land use controls and regulations. The first approximately 1.6 miles are within the Columbia River Gorge National Scenic Area, and the first approximately 10.5 trail miles are within the Lower Klickitat River National Wild and Scenic River. Since the proposed trail is located on a right-of-way owned by Washington State, some State and Klickitat County plans and ordinances also apply. The following land use regulations apply:

Columbia River Gorge National Scenic Area (CRGNSA) Act (P.L. 99-663, 16 U.S.C. 544) and Management Plan

The CRGNSA Act and Management Plan determine guidelines for new developments and uses, and for protection of scenic, cultural, natural and recreation resources. The CRGNSA Management Plan applies between the Lyle Urban Area Boundary and the National Scenic Area boundary (approximately the Fisher Hill trestle).

Lower Klickitat River Wild and Scenic River Management Plan

Congress designated the lower Klickitat River (the 10.8-mile segment from Wheeler Canyon downstream to the confluence with the Columbia) as a National Wild and Scenic River through the Columbia River Gorge National Scenic Area Act of 1986 (PL 99-663). The "outstandingly remarkable" resource values for which the river was designated (in addition to its free-flowing nature) are: Native American dip-net fishery; anadromous and resident fish; hydrology and geology.

Washington State Environmental Policy Act (SEPA)

SEPA is intended to ensure that environmental values are considered during decision-making by state and local agencies. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies or plans. SEPA applies to decisions by every state and local agency within Washington State.

SEPA allows the use of NEPA documents to meet SEPA requirements [WAC 197-11-610]. A NEPA document (EA or EIS) may be adopted or incorporated by reference. Environmental documents that analyze the environmental impacts of a proposal may be adopted, treated as addenda to other documents, or incorporated by reference.

Washington Shoreline Management Plan (R.C.W. 90.58) as updated by Klickitat County's Shorelines Master Plan (Ordinance #070990-1, 1990)

In accordance with the Washington State Shoreline Management Act of 1971, Klickitat County has developed a Shoreline Master Plan "to protect shoreline areas against poor management and destructive uses". The Shorelines Master Plan creates a zoning overlay for the non-federal land area along streams whose mean annual flow exceeds 20 cfs. This overlay extends laterally 200 horizontal feet from the waterway, and also includes contiguous wetlands. Shoreline areas are divided into environmental zones (called environments in the Act), which specify land uses that are allowable, conditional, or prohibited.

Klickitat County's Flood Plains Management Ordinance (#0110788-1, 1988)

The purpose of this ordinance is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas.

Klickitat County's Critical Areas Ordinance (#O022601, 2001)

The purpose of this ordinance is to protect the public health, safety, and general welfare. Use and improper use of areas defined by the State of Washington as critical to public health, safety, and welfare can result in increased local government costs. Sprawl and unwise

development in areas susceptible to natural hazards may lead to inefficient use of limited public resources, jeopardize environmental resource functions and values, subject persons and property to unsafe conditions, and affect the perceived quality of life.

The ordinance provides standards for classification and designation, and guidance for protection of wetlands, and critical fish and wildlife habitat conservation areas. It provides standards for classification and designation of geologically hazardous areas and frequently flooded areas, and guidance for reducing or mitigating hazards to public health and safety. It provides standards for classification and designation of areas with a critical recharging effect on aquifers used for potable water and whose protection is necessary to public health and safety. The County may condition land use developments that may affect the critical areas described above.

Klickitat County Zoning Ordinance (Ordinance #62678, as amended through November 20, 2000)

The Klickitat County Zoning Ordinance relates to planning and zoning for land use and developments in the unincorporated territory of Klickitat County. It creates uniform districts in which compatible uses are allowed, prescribes standards for each district, density controls, off-street parking, procedures and conditions for granting variances in hardship cases, procedures of administration, appeal, amendment and enforcement, and provides for penalties.

Consistency with the resource protection guidelines of the CRGNSA Plan, Lower Klickitat Wild and Scenic River Plan, Klickitat County Shorelines Master Plan, Floodplains Management Ordinance and Critical Areas Ordinance was incorporated into the relevant sections of Chapter 3. For instance, consistency with scenic guidelines is found in the Scenic Resources section, consistency with recreation guidelines is found in the Recreation Use section. Consistency with the allowable use regulations of the CRGNSA Management Plan and the Klickitat County Land Use Ordinances are found in Section 3.11.

A summary of consistency with all land use regulations is found in Section 3.11. Appendix A is a SEPA checklist. It is **not** an application for determination of significance under SEPA. It is included to document how the analysis responds to the SEPA requirements for the convenience of readers who are accustomed to the SEPA checklist format.

If the Forest Service chooses to manage the Klickitat Rails-to-Trails, then application for necessary approvals and permits as required by law would be acquired prior to new construction activities.

With the exception of the consistency evaluation for the Lower Klickitat River Wild and Scenic River Management Plan, entities other than the Forest Service are responsible for issuing approvals or permits for the above-mentioned land use regulations. This EA provides an evaluation of the proposed trail's consistency with these land use regulations, understanding that a subsequent permitting phase is necessary before the project can be implemented.

Responsibilities for decisions/permits for the following regulations are as follows:

Table 1: Responsibilities for Decisions/Permits

Regulation	Responsible Entity
CRGNSA Management Plan	Columbia River Gorge Commission
Lower Klickitat River Wild and Scenic River Management Plan	U.S. Forest Service, CRGNSA
Washington State Environmental Policy Act	Washington State Parks
Klickitat County's Shorelines Master Plan	Klickitat County
Klickitat County's Flood Plains Management Ordinance	Klickitat County
Klickitat County's Critical Areas Ordinance	Klickitat County
Klickitat County Land Use Ordinances	Klickitat County

1.8 OTHER APPLICABLE REGULATORY REQUIREMENTS/REQUIRED COORDINATION

Federal Laws

This proposal is subject to the following federal laws:

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 Warm 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 Chapter 4 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. More information may be found in Section 3.7, and Appendix D, Biological Evaluation.

Federal Clean Water Act

Implementation of the Federal Clean Water Act has been delegated to Washington State's Department 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. Portions of Swale Creek are listed as 303(d) water quality impaired for water temperature and in-stream flow. More information may be found in Section 3.7 of this EA

Americans with Disabilities Act

The 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 accommodation to persons with disabilities in all government facilities and developments.

National Recreation Trail

Although no federal permits or licenses are required for implementation of an action alternative, the portion of the trail corridor outside of the Wild and Scenic Rivers segment must be designated a “National Recreation Trail” (NRT) pursuant to the National Trails Systems Act section 4 (16 U.S.C. 1243) before the Forest Service is authorized to expend federal funds in the operation and management of the trail.

Regional Foresters have authority to designate National Recreation Trails (F.S.M. 2353.04f(2)(a) (1994)). In order for a trail to be designated as an NRT, it must meet certain requirements. The regulations define four specific criteria: 1) Readiness; 2) Use and Availability; 3) Length; and 4) Location. (F.S.M. 2353.33b (1994)). The Klickitat Rails-to-Trails corridor meets these four requirements since the right-of-way is in place and available for public use; provides a variety of trail-related recreation opportunities within two hours of population centers; is continuous; and incorporates the significant natural and cultural features of the area through which it passes.

Permits

A number of other permits may be required prior to project implementation, including

- Road access permits from Washington State Departments of Transportation (SR142) and Klickitat County Road Department (several county roads).
- Permits to hook up to county water and sewer lines in Lyle.

CHAPTER 2: ALTERNATIVES

Chapter 2 presents two Action alternatives, each with a sub-option, for development and management of the Klickitat Rails-to-Trails, in addition to a No-Action alternative. Each trail management 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, numerous management actions are presented, and are incorporated into the Action alternatives, as applicable.

2.0 Process Used to Formulate Alternatives

The Forest Service’s Klickitat Rails-to-Trails Interdisciplinary Team developed a preliminary range of two Action alternatives (Alternative 2 and Alternative 3), in addition to a No Action alternative (Alternative 1). (The No-Action alternative is a requirement of NEPA as per 40 CFR 1501.14(d).) 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 for public comment in early April 2003. The preliminary alternatives were then revised in response to public comment, subsequent meetings with public entities, and subsequent field inventories.

An “option” was developed for each of the two Action alternatives (Alternative 2a and Alternative 3a). Each option represents a single, but important, variation on the alternative. The resulting four Action alternatives meet or exceed the purpose and need for action identified in Chapter 1.

2.1 Alternatives Eliminated from Detailed Study

This section presents trail options or trail facilities proposed, but eliminated from detailed study. The options or facilities were eliminated if they were considered infeasible, did not meet the purpose and need for action, were outside the authority of the Forest Service, or were a slight variation of a proposed alternative.

A. Trailheads at Fisher Hill, and at SR142 Mile 14 near Klickitat. The Forest Service considered developing a trailhead at Fisher Hill, but found no suitable location. Space within the right-of-way is very limited, and sight distance is very poor due to the trestle. One landowner proposed his property at SR142 Mile 14 for a trailhead. The Forest Service considered a trailhead in central Klickitat to better meet the need for economic development in that community.

B. “Haul Road” between Klickitat and Wahkiacus. The Forest Service considered requesting landowners’ permission to utilize the “Haul Road” as the trail route between Klickitat and Wahkiacus. This option would have also required construction of a short

amount of new trail between the “Haul Road” and SR142, crossing SR 142, then utilizing the county’s Horseshoe Bend Road and Schilling Road to reach the railbed at Wahkiacus. This alternative would have avoided the necessity to build a new trail bridge at Suburbia, and would have avoided the flood-damaged right-of-way between Suburbia and Wahkiacus. The Forest Service did not develop this alternative in detail because a number of property owners would have to agree to designation of the utilized portions of Haul Road, connecting trail, and Horseshoe Bend Road and Schilling Road as a National Recreation Trail. In addition, cultural resources were avoided by eliminating this option.

C. Horse Trailer Parking at Klickitat and Harms Road: The Forest Service considered horse trailer parking at Klickitat and Harms Road. Horse trail parking was not provided at Klickitat due to the desires expressed by the Klickitat Community Council. It was not provided at Harms Road due to space limitations.

2.2 Alternatives

This narrative describes the No Action alternative, and two possible trail development alternatives, each with a sub-option. If an Action alternative is ultimately chosen, it could be a combination of alternatives, not just alternative two or alternative three. For example, the development levels in alternative two could be chosen, but only for the first 13 ½ miles of trail. Another example could be choosing alternative three for the first 13 ½ miles and then using alternative two for the remainder of the trail.

Alternative 1 – No Action

Alternative 1 is the No Action alternative. It reflects the current condition of the railbed. While the right-of-way has not been developed for recreation use, it is open to public use. Recreationists currently use the railbed in its existing condition. There are no designated trailheads, no support facilities, a rough trail surface in many areas, and trestles with no railings or decking. There are no management strategies in place other than response to incidents by Washington State Parks and the Klickitat County Sheriff.

In the No Action alternative, the Forest Service would not be involved in trail development or management. The Forest Service would not build trailheads, improve the surface of the railbed, make safety improvements to trestles, or provide any support facilities such as toilets, drinking water,

However, even with the No Action alternative, the railroad remains railbanked and remains in public (State of Washington) ownership. If the Forest Service chooses not to participate in trail development and management, future trail management decisions would remain with the Washington State Parks and Recreation Commission and/or the Rails-to-Trails Conservancy. The Rails-to-Trails Conservancy retains a right of re-entry should Washington State Parks decide it no longer wished to serve as title holder and manager of the railbanked corridor for recreation purposes.

The No Action Alternative would have one of three possible outcomes:

1. Washington State Parks would continue ownership and management of the railbed as public property,
2. The Rails-to-Trails Conservancy would resume ownership and manage the railbed as a trail directly or through a second not-for-profit party, or
3. The railbed would revert to private ownership.

Alternative 2 – 31 Mile, Low Development Trail

Alternative 2 would develop all 31 miles (Lyle to Warwick) of the trail for a relatively “primitive” recreation experience.

The trail would generally be four feet wide for its entire length and would be constructed of compacted existing surface. In Swale Canyon, it would be located on the side of the railbed away from the creek, to accommodate some level of potential future restoration of Swale Creek. The Suburbia trestle (now removed) would be replaced with a 6 ft wide trail bridge.

The trail would be re-routed within the right of way in three flood-damaged locations: at about trail mile 8, mile 11 (adjacent to SR142) and several spots between trail miles 15 and 16 (Suburbia and Wahkiacus). The Washington Department of Fish and Wildlife agreed to Forest Service analyzing an approximately $\frac{3}{4}$ mile reroute of the trail onto their land between Suburbia and Wahkiacus, in order to move the trail out of the floodplain.

The existing surface would be compacted creating a level, semi-hard surface, with finer material added where needed to achieve the desired level of compaction. This type of surface would create a moderate to difficult level of accessibility for wheelchairs, strollers, and street bikes. The railbed adjacent to the compacted surface would be graded to provide a level surface for administrative and emergency vehicles. Between Fisher Hill and Pitt, four six-foot wide boardwalks, ranging from 50 ft to 100 ft long would be constructed over four wet areas. At the Logging Camp Creek bridge, ramps would be added ramps to the abutments to achieve a 10% grade. A six-foot wide boardwalk, 200 ft long would be constructed over a wet area between Pitt and Skookum Flat, and another of 20-30 ft length would be constructed over a wet area between Klickitat and Suburbia.

A toilet would be located along the trail at about trail mile 3 $\frac{1}{2}$ between Fisher Hill and Pitt, and at about trail mile 22 $\frac{1}{2}$ between Wahkiacus and Harms Road. Initially, portable toilets would be installed. After monitoring the amount and season of use, the Forest Service could consider converting the portable toilets to permanent vault or composting toilets.

Alternative 2 provides for six trailheads located at Lyle, Pitt, Klickitat, Wahkiacus, Harms Road, and Warwick. The size and facilities at each trailhead vary, and are summarized in Table 3 (see trailheads discussion following the alternative maps).

Alternative 2a: An option to alternative 2 would close Swale Canyon from June 15 until September 30 in order to address the Federal Endangered Species Act, and prevent harassment of Steelhead in the few summer pools in Swale Creek.

Alternative 3 – 13 ½ Mile, Hard Surface Trail

Alternative 3 would develop about 13 ½ miles of the trail, from Lyle to Klickitat, for a semi-primitive/rural experience.

All 13 ½ miles of trail would have a hardened surface such as asphalt or bituminous surface treatment. The railbed adjacent to the hardened surface would be graded to provide a level surface for horses, administrative and emergency vehicles. The width of the hardened surface varies in this alternative. The first 1.6 miles, from Lyle to the Fisher Hill trestle would have a 12 foot wide hardened surface. The next approximately 11 miles, from the Fisher Hill trestle to the start of the town of Klickitat, would have a six-foot wide hard surface. Finally, the portion of the trail within the town of Klickitat would have a 12 foot wide hardened surface. The hardened surface would create an easier accessibility level for wheelchairs, strollers, and street bikes.

The trail would be re-routed within the right of way in two flood-damaged locations, at approximately trail mile 8 and trail mile 11 (adjacent to SR142).

In areas where the railbed has eroded, but still has some usable area, a minimum four-foot width would be hardened. Because the width of the railbed varies in eroded places, the hardened width could be between four and six feet, with remaining railbed wider than eight feet being graded. Between Fisher Hill and Pitt, four six-foot wide boardwalks, ranging from 50 ft to 100 ft long would be constructed over four wet areas. At the Logging Camp Creek bridge, a long (approximately 300 ft) boardwalk-type ramp would be added to extend over the entire alluvial area. This ramp would accommodate future changes in the creek course. A six-foot wide boardwalk, 200 ft long would be constructed over a wet area between Pitt and Skookum Flat.

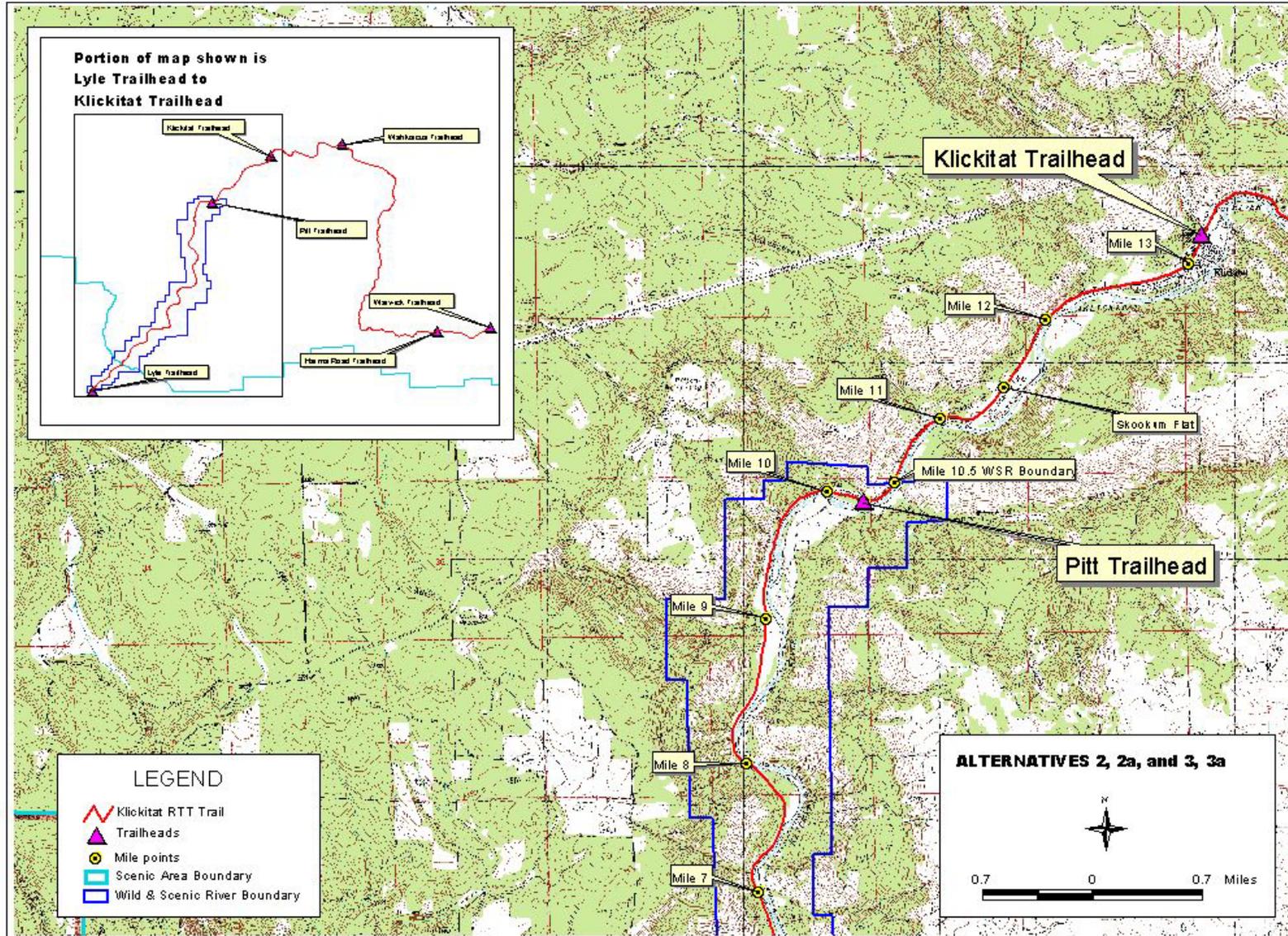
A toilet would be located along the trail at about trail mile 3 ½ between Fisher Hill and Pitt. Initially, a portable toilet would be installed. After monitoring the amount and season of use, the Forest Service could consider converting the portable toilet to a permanent vault or composting toilet.

Alternative 3 would provide three trailheads; at Lyle, Pitt, and Klickitat. The size and facilities at each trailhead vary, and are summarized in Table 3 (see discussion on trailheads following the alternative maps).

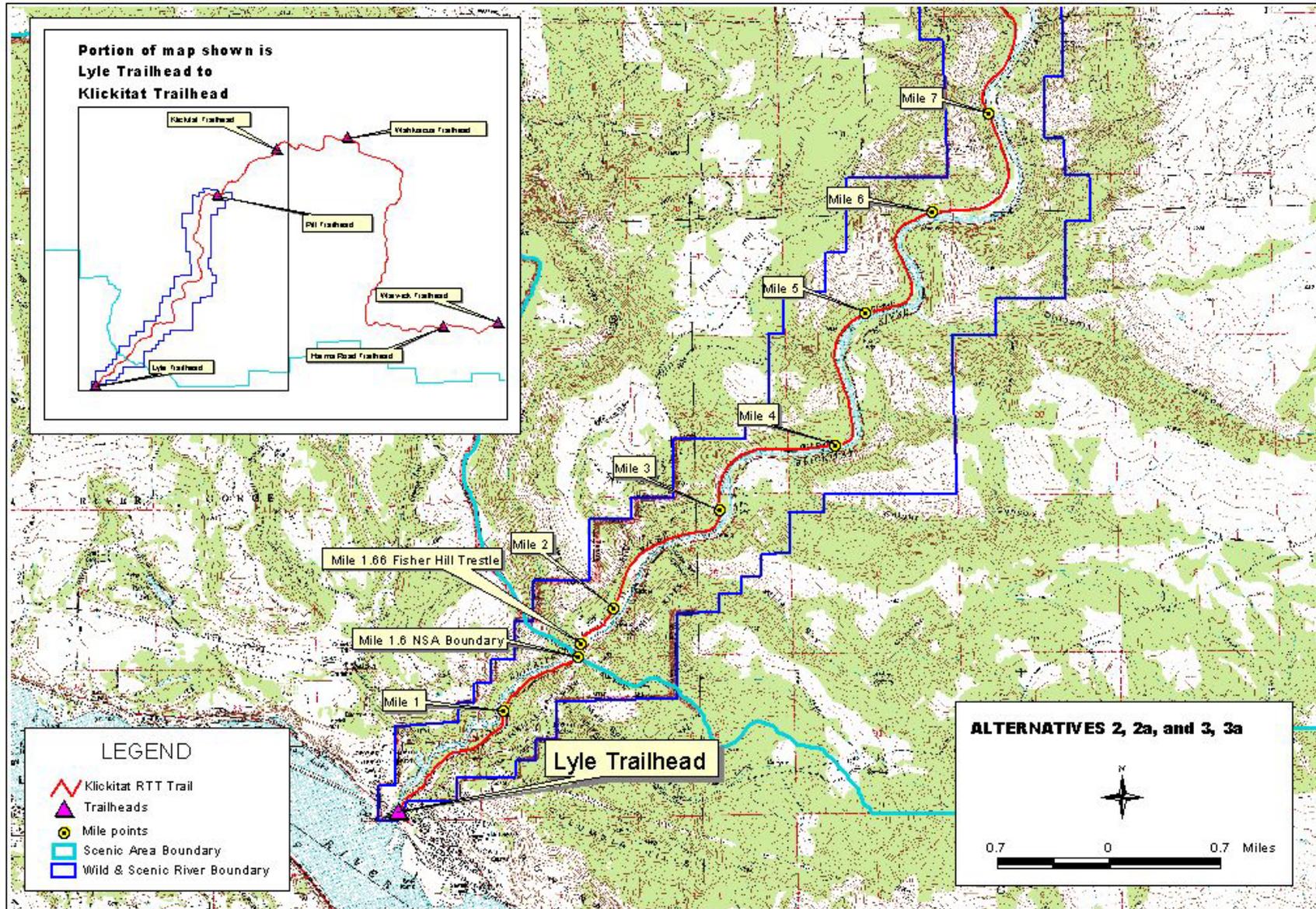
Alternative 3a: An option to alternative 3 would alter the surface trail material between Fisher Hill and Pitt. For these approximately 8 ½ miles, soil hardeners or compacted fine graded aggregate would be used instead of asphalt or bituminous surface treatment.

The following four pages display maps of the Action alternatives.

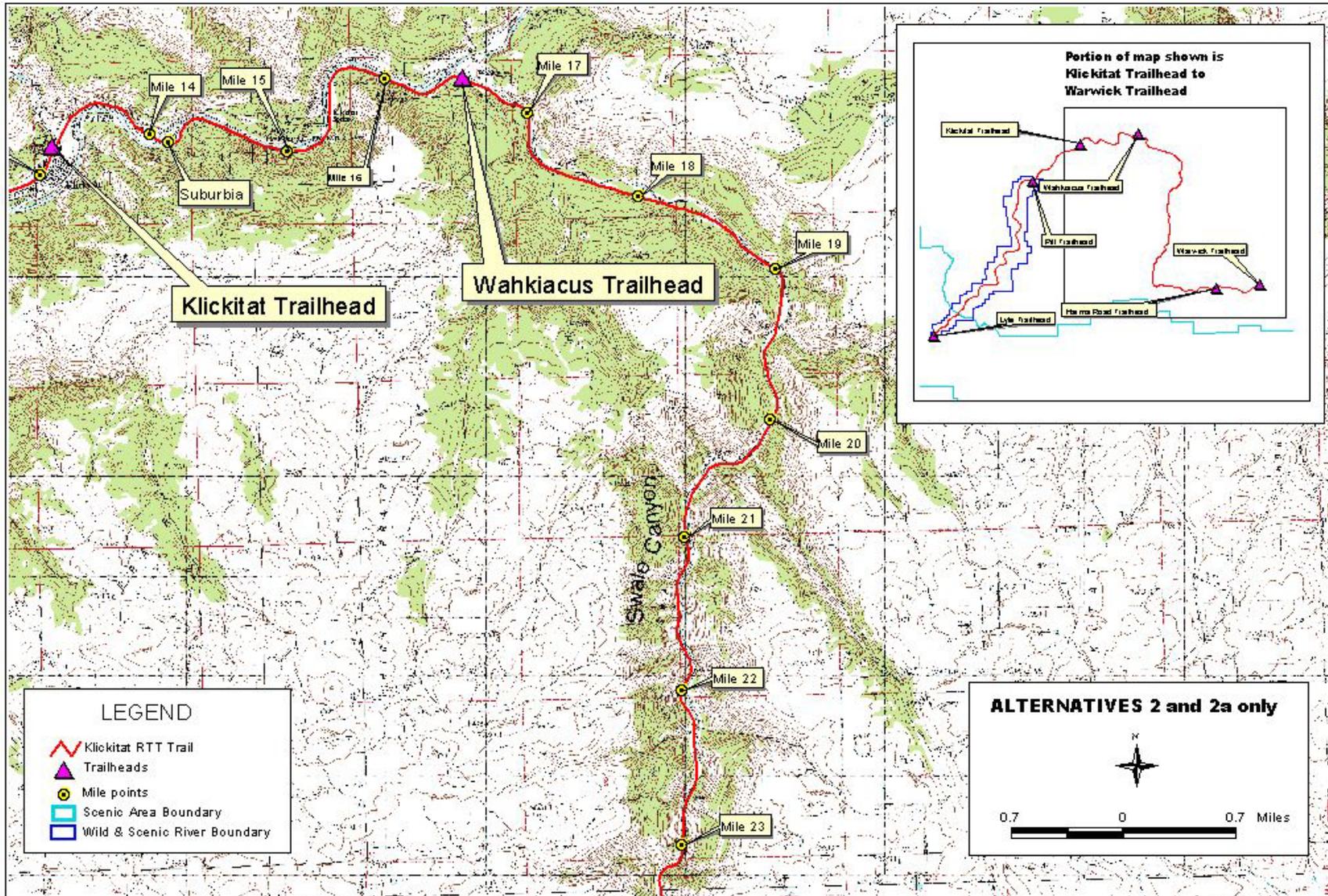
Klickitat Rails-to-Trails

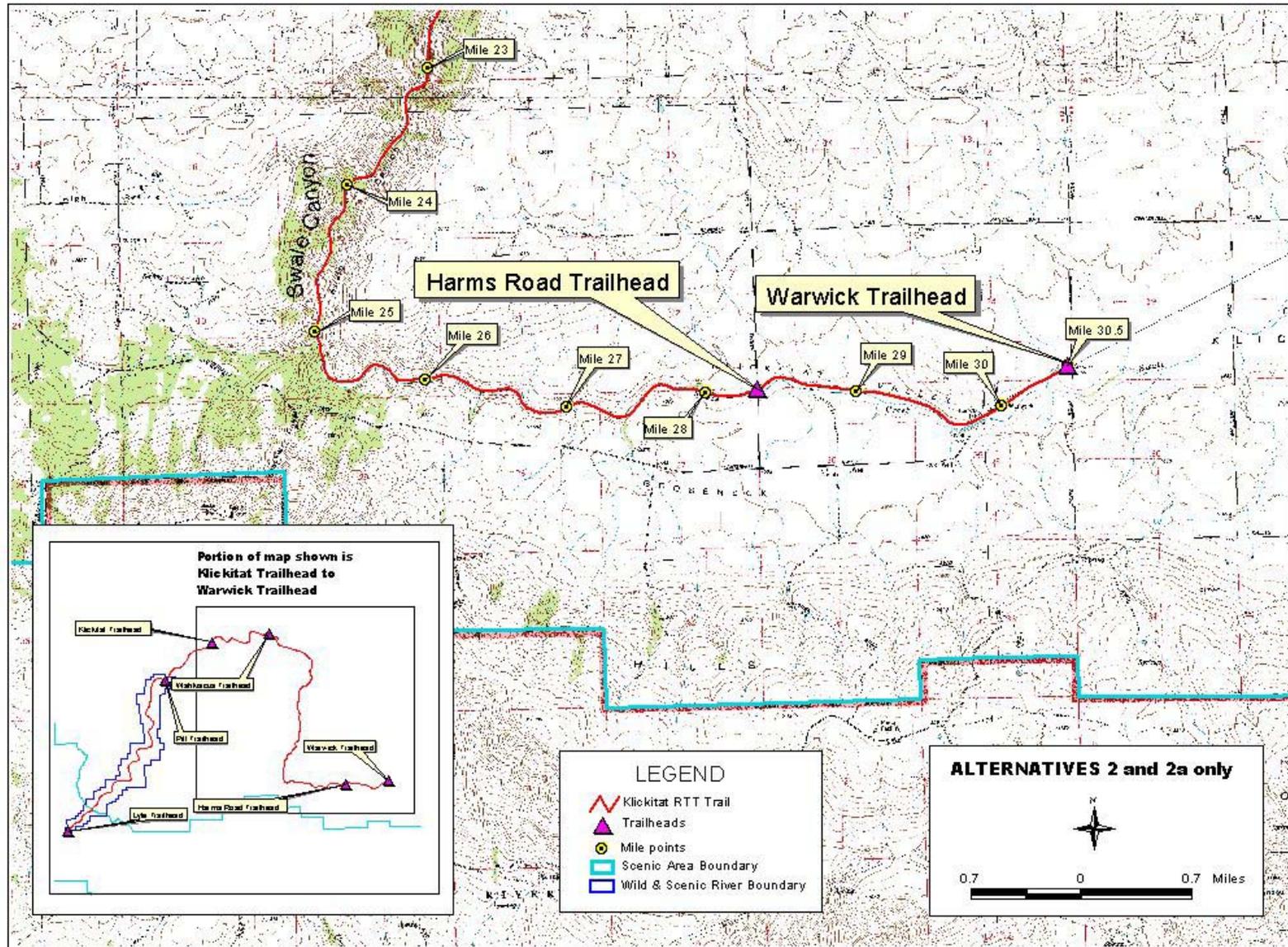


Klickitat Rails-to-Trails



Klickitat Rails-to-Trails





Trailheads for Alternatives 2 and 3

Alternative 2 proposes six trailheads, at Lyle, Pitt, Klickitat, Wahkiacus, Harms Road, and Warwick. Alternative 3 proposes three trailheads at Lyle, Pitt, and Klickitat. Trailhead locations and facilities are the same for the three trailheads common to both alternatives (Lyle, Pitt, and Klickitat).

Trailheads were located in the towns of Lyle and Klickitat to facilitate economic benefits to these communities. The Pitt, Wahkiacus, Harms Road and Warwick trailheads were considered as end points of trail segments recreationists would likely use. Trailhead capacities at Lyle, Pitt and Klickitat were established to control use in the Wild and Scenic River corridor and along the Klickitat River to a level more compatible with needs of riparian-dependent wildlife. Space is very limited at the Wahkiacus, Harms Road and Warwick trailheads, and trailhead capacities were limited by the width of the right-of-way (Harms Road and Warwick) and proximity to water resources (Wahkiacus). The trailhead locations are as follows:

Table 2: Trailhead Locations

Trailhead	Location
Lyle	Junction of SR14 and SR142, access from SR142
Pitt	East of SR142 Bridge, between SR142 and River
Klickitat	In Town; adjacent to Fire Hall (shared parking with Fire Dept & School District)
Wahkiacus	West of where Schilling Road crosses the R-O-W
Harms Road	East side of Harms Road
Warwick	Junction of Uecker Road and Lyle/Centerville Highway

Parking capacities and facilities for each trailhead are as follows:

Table 3: Trailhead Parking Capacities and Facilities

Trailhead	Alt	Total Parking Spaces	Car Spaces	Large Vehicle Spaces	Horse Trailers; Hitching Racks	Toilet (Initially portable toilets would be used)	Drinking Water
Lyle	2,3	26	20	6	Yes	Flush	Yes
Pitt	2,3	21	15	6	Yes	Vault	No
Klickitat (shared)	2,3	26	20	6	No	Flush (shared)	Yes
Wahkiacus	2	13	10	3	Yes	Vault	No
Harms Road	2	10	10	0	No	Vault	No
Warwick	2	21	15	6	Yes	Vault	No

All trailheads utilize the right-of-way. In four locations (Lyle, Klickitat, Wahkiacus and Warwick), additional space outside of the right-of-way is also considered, with permission from the landowners. Areas of proposed trailhead development would be surveyed to determine property boundaries. Signs would be placed to discourage parking outside of designated areas.

Conceptual site plans for each proposed trailhead are found on the following four pages.



LYLE TRAILHEAD

1"=150' NORTH →

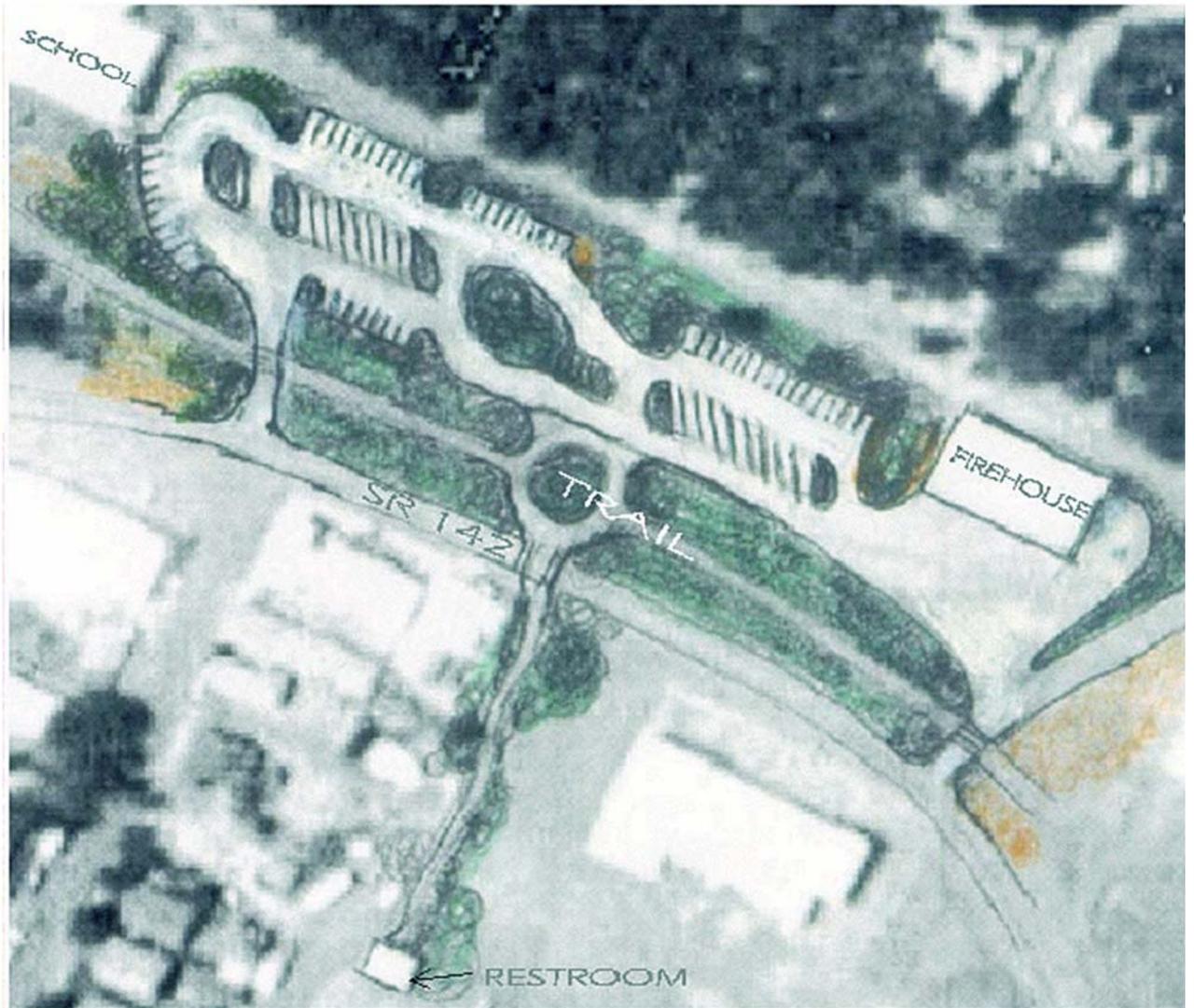
20 CARS 6 PULL-THROUGH



PITT TRAILHEAD

1"=150' NORTH ↓

15 CARS 6 PULL-THROUGH

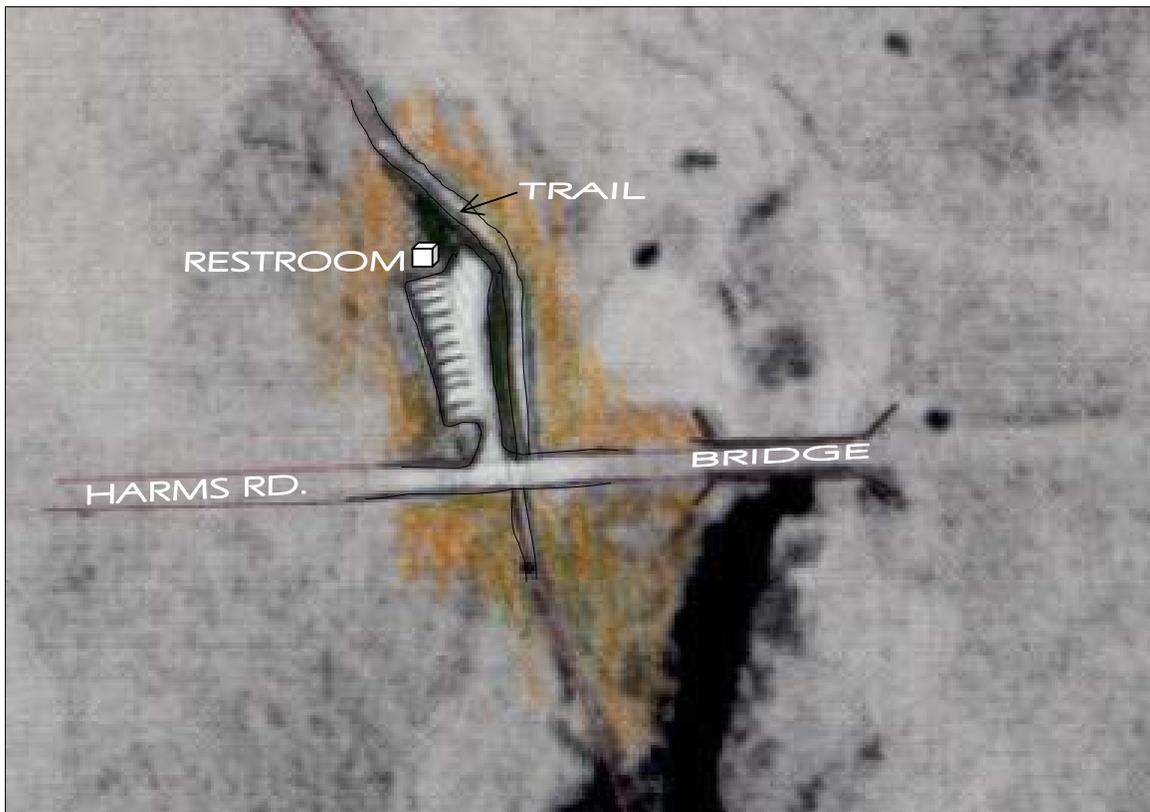


KLICKITAT TRAILHEAD **20 FS CARS 6 FS PULL-THROUGH**

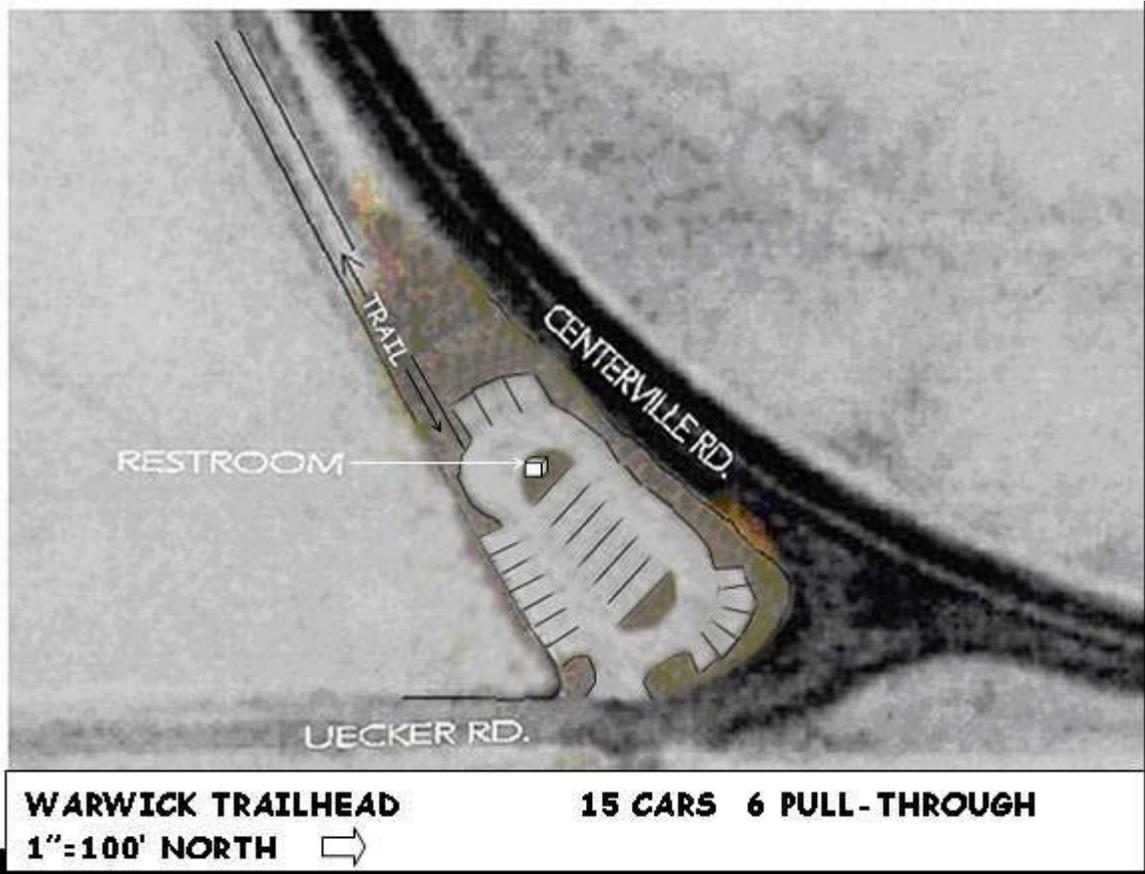
1"=150' NORTH ↑



WAHKIACUS TRAILHEAD **10 CARS 3 BACK-IN**
1"=150' NORTH ⇨



HARMS ROAD TRAILHEAD **10 CARS**
1"=150' ⇨ NORTH



Features Common to Alternatives 2 and 3

The Action alternatives contain numerous development, management and resource protection measures. Rather than repeat them in each alternative, they are presented here. Most of the measures apply to Alternatives 2/2a, and 3/3a. Some measures apply only to Alternatives 2 and 2a because they apply to the trail segment beyond Klickitat. These measures are noted as applying only to Alternatives 2 and 2a.

Recreation Use

Users

- Allow any type of non-motorized recreation use, including hikers, bikers, horseback riders, skiers, etc. Allow motorized wheelchairs as the only motorized recreation use. Allow administrative and emergency vehicles.
- Work with Washington State Parks to develop a permitting system for large groups and events (e.g. a race). Determine upper limit for group size, considering parking lot capacities.

Trail Support Facilities:

- Include trail etiquette information for all users, respect for private property, “Stay on Trail” except at designated areas and leave-no-trace concepts at trailhead information signs and brochures.
- Do not provide garbage cans, either at trailheads or along the trail. Inform users to “Pack-it-in and pack-it-out”.
- Discourage parking outside of designated areas, including Fisher Hill and Suburbia, if monitoring indicates there is a safety problem or impact to neighbors.
- Place signs at the Pitt Trailhead informing the public that no boat launching is allowed. Direct boaters to the boat launch shortly downstream.
- Incorporate turnouts in board walk design to reduce conflicts where sight distance is limited.
- Designate one site for horse drinking water between Fisher Hill and Pitt. In Swale Canyon, no water would be available for horses.
- Provide horse hitching racks at river access sites and portable toilet locations.
- Provide trail patrol to the extent possible along the most popular sections of the trail.

Cost of Trail Development and Long Term Management

Maintenance Costs

- Maintain trail with volunteers and other partners, including litter patrol.
- Explore a parking fee with Washington State Parks.

Effects to Nearby Residents and Landowners

Quality of Life/Resident Privacy:

- Provide adequate services (e.g. toilet), to minimize users bothering residents.
- Request payphones from the telephone company at all trailheads except Harms Road (note: placement of pay phones is a telephone company decision).

- Locate toilets at all trailheads. In addition, locate one portable toilet along the trail in Swale Canyon, and another along the trail between Pitt and Fisher Hill.
- Locate portable toilets at all trailhead locations until permanent toilets can be constructed.
- Post signs near residential areas asking trail users to respect the privacy of nearby residents (e.g. control dogs, keep noise down).
- Post information at trailheads to educate public to respect private property.
- Designate and sign safe and resource appropriate Klickitat River and Swale Creek access points on public land to reduce temptation to use private land. Post signs in advance of public river access points, informing trail users of upcoming public river access. Use Carsonite-type signs to mark the boundaries of public and private land at the public river access sites.
- Inform trail users to stay on the trail, except at designated river access points.
- Place Carsonite-type signs informing users to stay on the trail; respect private property in areas people might be tempted to stray from the trail (attractive river front, attractive flats, etc).
- Place Carsonite-type signs indicating the boundary of public and private land where requested by adjacent residents.
 - Note: any Carsonite-type signs would be located well within the easement width, as measured from the approximate center of the railbed. Carsonite-type sign locations would not be the result of a survey, and such should not be interpreted as the definition of the right-of-way limits.
- Relocate trail between Pitt trailhead and SR142 into existing trees to provide screening for nearby residents.
- Add vegetation along trail near the house at Warwick to provide screening for nearby residents.
- Allow dogs on leash only. If this measure is not effective, consider prohibiting dogs in certain areas.

Vehicle Access

- Prohibit motorized recreation vehicles, except for motorized wheelchairs.
- Allow administrative and emergency vehicles.
- Allow private vehicles to cross the railbed, with prior written approval of Washington State Parks, per State Parks policies (see Appendix C- Washington State Parks Policy 55-01-1: Policy Governing Leases, Permits and Easements for Non-Recreational Uses of State Park Lands)
- Allow short-term private vehicle access within the right-of-way (eg tractor in season) with prior written approval of Washington State Parks. (Washington State Parks policy would allow temporary agricultural, forest management or other uses, parallel to, but not on the recreational trail with the right-of-way corridor; see Appendix C)
- Washington State Parks policy (see Appendix C) does not typically allow the railbed or right-of-way to be used as the private vehicle access route to private property. A property owner would have to seek an easement from Washington State Parks.

Cattle and Sheep/Recreationist Conflicts

- When a cattle owner requests a permit for cattle on the State Parks right-of-way, Washington State Parks would work with the cattle owner and the Forest Service to develop appropriate measures.

Safety, Emergency Response, Fire Management, Law Enforcement

Safety

- Deck all trestles for user safety, and add safety rails to all trestles. Deck the entire trestle width to allow passage of administrative and emergency vehicles.
- Prohibit carrying a loaded weapon or discharge of firearms.

Highway and Road Safety:

- Lyle Trailhead: No access from SR-14; access trailhead from SR-142 a minimum of 300' from the junction of SR-14.
- Trail Crossing SR142 at Mile 10.1 (Pitt): Westbound: minor brushing on inside of curve. Eastbound: construct trail on low fill on inside of curve so approaching vehicle drivers can see trail users over bridge rail.
- MP 12 and MP 13.5 Vicinity Clear Zones: Locate trail beyond clear zone or mitigate with an approved barrier along SR-142, such as weathering steel guardrail.
- Trail Crossing SR142 at Mile 12.6: Painted crosswalk south side of 7th. Street.
- Klickitat Trailhead and Trail Crossing SR-142: Paint crosswalk to access shared restroom at ball fields north side of Ball Field Road.
- Klickitat Trailhead and Trail Crossing Durkee Road: Define intersection adjacent to fire station. Designate (paint) crosswalk for trail crossing at Durkee Road near (stop sign) intersection with SR-142.
- Trail Crossing SR142 at Mile 14: Limb-up existing trees to increase sight distance on inside of curve.
- Wahkiacus Trailhead and Trail Crossing: Minor limb-up of trees on the inside of curve for northbound vehicles on Schilling Road. Minor brushing within the intersection radii of Schilling Road at Horseshoe Bend Road. Provide advance warning signs for trail crossing.
- Horseshoe Bend and Schilling Roads, One Lane Sections: Recommend 22' maximum vehicle length for recreation traffic in these sections.
- Harms Road Trailhead and Trail Crossing: Provide advance warning signs for trail crossing.
- Warwick Trail Crossing/Centerville Road: Paint crosswalk, provide advance warning signs.
- Warwick/Uecker Road Trailhead: Substitute "stop" sign for current "yield" sign on Uecker as stopping sight distance will be reduced by trailhead development.

Emergency Response

- Clear and maintain railbed to a width that allows emergency and administrative vehicles, to the extent practicable.
- Inspect trestles to ensure they meet weight specifications to allow emergency response vehicle use. Deck trestles to a width that allows emergency and administrative vehicles.

- Map areas the trail is constricted to a width that would not allow vehicle access. Sign areas with no vehicle access; and locate a vehicle turn-around on each side of the constricted area.
- Map vehicle turn-around areas at least every two miles (these areas have been identified). Distribute map to emergency responders.
- Add mile markers along the corridor.
- Use gates/removable bollards to control access to the trail, rather than permanent barricades.
- Give gate/bollard keys to fire departments, DNR, ambulance departments, search and rescue, sheriff, State Patrol, etc.
- Identify heli-spots for helicopter access.
- Develop emergency response plans with State, County, adjacent land owners and USFS.
- Use a human repeater in an emergency, until such time as a radio repeater is placed on the Columbia Hills. (A human repeater is a person placed on a high point so that a radio can hit an existing repeater and contact the folks on the ground via a line of site or direct radio frequency).

Fire Prevention

- Prohibit overnight use (camping), campfires, and fireworks.
- Prohibit smoking when Klickitat County enacts a ban on open fires.
- In extreme fire conditions, close portions of the trail as needed.
- Require trail maintenance vehicles and administrative vehicles to have spark arresters, fire extinguisher, etc.
- Develop fire prevention plans with State, County, adjacent land owners and USFS.

Law Enforcement

- Develop cooperative trail regulations with Washington State Parks.
- Identify a primary river ranger and work with volunteers to provide necessary patrols/prevention.

Cultural Resources and Traditional American Indian Uses

- Add vegetative screening along railbed near Fisher Hill to reduce visibility of cemetery and fishery if requested.
- Close trail seasonally during First Food Ceremony if requested.

Natural and Water Resources

Alternatives 2, 2a and 3, 3a

Water Resources

- Develop a storm water management plan for all trailheads, to minimize runoff effects.
- Prepare an erosion control plan prior to any ground disturbing activities. This plan would utilize measures, such as operating in the dry period of the year, utilization of erosion barriers, revegetation and mulching of exposed soil on reroutes, to ensure erosion and sedimentation from ground disturbing activities will be minimized.

- Limit ground disturbing activity within the shoreline area to between May 1 and September 30 to minimize the chance of erosion and sedimentation. This work window may be extended in dry years after consultation with the Scenic Area Hydrologist or Fish Biologist.
- Minimize impacts to small seeps and springs along the right-of-way. Ditch many of the smaller wet areas to keep the water off the trail bed, while maintaining the functionality of the wet areas. Carefully remove plants associated with wet areas for replanting after the ditching work. Construct board walks over larger wet areas.
- Construct dips in the trail at smaller intermittent streams to channel water across the trail. Construct bridges over intermittent streams with more capacity.
- Place “Grade sags” (to an accessible grade) where infrequent big flood events can be expected. Surface “grade sags” consistent with the alternative.
- Bridge a 20 ft channel where an infrequent big flood event can be expected.
- For trail maintenance (such as to repair washouts and flood damage) consider trail bridges, boardwalks and re-reroutes rather than replacing any railbed fill. Significant damage to the railbed from natural events would prompt additional analysis and consultation with affected agencies.
- Plant several thousand feet of existing rail bed fill with riparian plants to stabilize the bank and protect the trail.

Fish and Wildlife

- Limit construction, involving heavy machinery to the Bald Eagle work window of April 1 to October 30. Implement no construction work outside of this work window unless the construction noise can be kept at or below ambient noise levels, such as may be the case within or adjacent to urban areas or residential sites.
- In areas of western gray squirrel habitat (mixed pine/oak woodland outside of urban and residential areas), consult with the WA Department of Fish and Wildlife (WDFW) to identify if any active nests occur within 200’ of the trail. If nests exist within this buffer, then plan appropriate mitigation with WDFW before heavy machinery construction takes place.
- In severe winters, cooperate with WDFW areas closures for deer and elk winter range, by closing the trail to help provide low elevation refugia.
- Minimize clearing brush at edge of trail during trail maintenance.
- Accommodate fish passage around trail development. At Logging Creek, accommodate the dynamic creek when making the grade accessible.
- Post interpretive signs urging the conservation of Bald Eagles, western gray squirrels, and Steelhead that share the riparian habitat with the trail users.
- Retain naturally recruiting pine (many hundreds of trees are at the 1-6’ height size) and other potential bald eagle perching and screening trees adjacent to, and on the outer edges, of the railbed
- Plant at least 800’ feet of bank area with pine and other tree species where natural recruitment has been slow, as well as thinning of a dense 400’ length stand of 1-3” dbh pines to accelerate remaining tree growth and cover /canopy closure.
- Add bird boxes to mitigate for loss of undisturbed riparian habitat.
- Plant several thousand feet of riparian habitat to mitigate for loss of undisturbed riparian habitat.

- In the long term, as the area becomes increasingly developed, identify and protect refugia and wildlife corridors need to be identified and protected to ensure the viability of the flora and fauna.

Plants

- Protect all sensitive flora sites during trail work. Monitor trail work to ensure no negative impacts occur. Keep trail reconstruction to the rail bed unless it is ascertained that no sensitive flora is present.
- During construction or maintenance, protect all basalt cliffs adjacent to the trail unless specifically surveyed for sensitive flora, fauna, and special habitats.

Noxious Weeds

- Appropriately treat new infestations which threaten to impact the trail and/or the natural resources. Possible treatments range from manual removal to herbicide application depending on the weed types and the size of the infestation. All herbicide applications shall follow EPA requirements. The Environmental Protection Agency (EPA) has approved triclopyr (Garlon 3A) for use in and around seasonally dry wetlands and floodplains, and glyphosate (Round-up, Rodeo) for wetland use. Only glyphosate would be applied near (within 0 to 10 feet) surface waters. The use of herbicides will be strictly applied as spot sprays targeting only those weedy species of concern. Use of herbicides near water or wet areas will be applied diligently to only contact specific weedy species to be controlled (largely blackberries). There will be no broadcast sprays along right-of-way.

Alternatives 2 and 2a only (Swale Canyon)

- Require trail users to stay on the railbed except designated water access points. Designate two creek access points in Swale Canyon where they would not be near one of the isolated pools.
- Post signs in areas adjacent to perennial pools in Swale Creek, closing them to disturbance (eg. Swimming, pet use).
- Ask WDFW to close Swale Creek to fishing, to reduce direct and cumulative impacts to Steelhead.
- Create physical barriers/add vegetation to pools in Swale Creek to reduce harassment of fish, and signs.
- Provide extra patrols in Swale Canyon in the summer to monitor/prevent fish harassment.

Air Quality

- In dusty conditions, apply water to surfaces during construction.

Design Guidelines for Alternatives 2 and 3

This section addresses recreation facilities and design guidelines common to the Action alternatives. It presents:

1. Design guidelines for all facilities.
2. A list of trail support facilities, and applicable design guidelines.

3. Trailhead locations, facilities, design guidelines and conceptual drawings.

Design Guidelines for all Facilities

- Important influences are ranching and rugged natural environment
- Locate structures at the edges of clearings
- Use simple, compact forms
- Repeat simple forms
- Use large scale building materials
- Avoid complex multiple roof forms
- Expose structural elements
- Use local and indigenous materials when available. Use stone, wood, heavy timbers and other natural materials (synthetics if they can achieve the appearance of natural materials).
- Use color schemes that are inspired by rock outcrops, leaves, needles, tree trunks, bark or colors found on the ground. Accent colors from accents in the natural setting.
- Minimize site disturbance and size of new roads and parking.
- Restroom characteristics: strong roof with protected entry, strong base

Design Criteria for Trail and Trail Support Facilities

The trail and trail support facilities are proposed to be designed according to the applicable guidelines from the *Built Environment Image Guide* and the project visual quality objective.

- Trail surface-boardwalks, trestle decks, and the new trail bridge over the Klickitat River at Suburbia: use decking that reflects and repeats elements from the historic railroad trestles. Utilize large dimensional lumber. Utilize either natural woods that will weather to a natural color (e.g. cedar) or utilize a natural dark stain such as linseed oil.
- Proposed bridge over the Klickitat River at Suburbia should have the same design feel and borrow visual elements from the historic trestles. (Alternative 2 only)
- Repair trail wash-out repair to naturally appearing slopes and plant with native riparian vegetation.
- Port-a-potties are not in accordance with any ROS class. Ensure they are a dark earth-tone color found in the shadows of the landscape, have no advertising on their sides, and screen with wood panels from at least three sides.
- Ensure signing visible from Highway 142 has a color scheme that will blend with the existing environment. Paint or stain the supporting elements and backs of signs a dark earth-tone color taken from the surrounding natural landscape shadows.
- Replace approaches to the bridge at Logging Camp Creek with a boardwalk/trestle bridge that borrows design elements from the historic railroad trestles, while allowing the natural function of the stream (alternative 3 only).

Design Criteria for Trailheads

In order to meet scenic quality objectives within foregrounds of recreation developments, the Forest Service uses handbooks to facilitate meeting required standards. The applicable handbook for this discussion is *The Built Environment Image Guide* (FS-710, 2001).

The trailheads would be designed according to the applicable guidelines from the *Built Environment Image Guide* and the project visual quality objective.

- All Trailheads: Locate toilet buildings to minimize dominance at the site. Use vegetative screening and island planting. Route trail around the trailheads with vegetative islands between the trail and the trailhead. Plant area around toilet buildings with native vegetation except at Klickitat and Lyle (appropriate non-native plantings may be considered in town).
- Lyle Trailhead - Retain most on-site trees, plant the right-of-way setbacks from SR 14 and SR 142 with deciduous trees and shrubs and occasional pine trees.
- Pitt Trailhead – Blend any fill with the natural grade. Maintain all existing vegetation between the River and the new trail. Route the trail between the trailhead and SR142 into the existing trees, and plant the right-of-way between the trailhead and SR 142 where feasible. Maintain existing pine trees in proposed parking area.
- Klickitat Trailhead-Plant the right-of-way setback and the areas between the trail and the parking lot. Plant trees in parking lot islands.

2.3 Monitoring

- Monitor parking outside of designated trailheads, particularly Fisher Hill and Suburbia. Identify and implement appropriate actions if parking outside of designated trailheads creates traffic safety problems, or impacts nearby residents.
- Monitor noxious weed infestations and appropriately treat new infestations that threaten to impact the trail and/or the natural resources.
- Monitor eagle reaction to users for several winters once the trail is open, to see if they are habituating to the use, as well as noting flushing distance and total eagle numbers. This study would be actively coordinated with USFWS and WDFW biologists as well as other mid-winter bald eagle counts,
- Monitor archaeological sites for signs of natural and man-caused disturbance as negotiated with the State Historic Preservation Officer and the Tribal governments.
- Monitor human activity in Swale Canyon or selected pools (e.g. by camera or extra patrols).

2.4 Phasing Plan

Implementation of the Klickitat Rails-to-Trails project is expected to take many years. A preliminary phasing plan has been developed, in which some management actions would be implemented to address existing recreation use, and then trail and trailhead improvements would be phased in over time for different trail sections, as funding is available. The cost of each phase is identified in Section 3.2

Initial Management Actions (Phase 1)

Even before trail improvements are implemented, some management actions are needed to address existing recreation use.

Public Safety Improvements

- Deck the Fisher Hill trestle and add safety railings.
- Designate cross walk and add highway warning signs where the trail crosses SR142 in accordance with WSDOT standards, and where the trail crosses county roads to Klickitat County standards.

Sanitation Improvements

- Place portable toilets at all trailheads (depending on alternative selected).

Develop Cooperative Trail Regulations with Forest Service and State Parks

- Prohibit motorized recreation vehicles, except motorized wheelchairs.
- Prohibit overnight use (camping), campfires, and fireworks.
- Prohibit smoking when Klickitat County enacts a ban on open fires.
- In extreme fire conditions, close portions of the trail as needed.
- Prohibit carrying a loaded weapon or discharge of firearms.
- Require trail maintenance vehicles and administrative vehicles to have spark arresters, fire extinguisher, etc.
- Allow dogs on leash only.
- Add signing at portable toilets explaining, “Stay on Trail”, “Respect Private Property” and other rules of the trail.

Patrol and Maintenance

- Identify a primary river ranger and work with volunteers to provide necessary patrols.
- Give gate/bollard keys to fire departments, DNR, ambulance departments, search and rescue, sheriff, State Patrol, etc.
- Develop volunteer trail patrol agreements with partners.
- Develop trail maintenance agreements with partners.
- Pursue trail development grants.

Cultural Resources and Traditional American Indian Uses

- Add vegetative screening along railbed near Fisher Hill to reduce visibility of cemetery and fishery, if requested.
- Close trail seasonally during First Food Ceremony if requested.

Natural and Water Resources

- Add 100 ft boardwalk over one wet area at about trail mile 4.

Trail Improvement Phases: Timing as funding is available

Phase 2: Improve Trail and Trailheads from Lyle to Pitt

Phase 3: Improve Trail and Trailheads from Pitt to Klickitat

Phase 4: Improve Trail and Trailheads from Wahkiacus to Warwick (Swale Canyon),
(Alternatives 2 and 2a only)

Phase 5: Improve Trail and Trailheads from Klickitat to Wahkiacus, (Alternatives 2 and 2a only)

TABLE 4: KLICKITAT RAILS TO TRAILS – SUMMARY OF ALTERNATIVES

Trail Features	Alternative 1 (No Action) *	Alternatives 2 and 2a 31 Mile Trail	Alternatives 3 and 3a 13 ½ Mile Trail
Length of Trail	Lyle to Warwick	Lyle to Warwick	Lyle to Klickitat
Development Level Segment 1: Mile 0-Lyle to Mile 1.6-Fisher Hill Trestle Mile 2-Fisher Hill Trestle to Mile 14-Klickitat Mile 14-Klickitat to Mile 15-Klickitat Mile 15-Klickitat to Mile 31-Warwick	None None None None	Low: Unpaved, 4 foot trail Low: Unpaved, 4 foot trail Low: Unpaved, 4 foot trail Low: Unpaved, 4 foot trail	High: Hard Surface, 12 foot trail Moderate: Hard surface 6 foot trail High: Hard Surface, 12 foot trail n/a
Accessibility (e.g. wheelchair access)	No	Yes	Yes
Width of Improved Trail Surface Segment 1: Mile 0-Lyle to Mile 1.6-Fisher Hill Trestle Segment 2: Mile 1.6-Fisher Hill Trestle to Mile 10-Pitt Segment 3a: Mile 10-Pitt to Mile 12.6-Klickitat Mile 12.6-Klickitat to Mile 13.6-Klickitat Segment 3b: Mile 13.6-Klickitat to Mile 16.5-Wahkaikus Segment 4: Mile 16.5-Wahkaikus to Mile 31-Warwick	Existing Railbed Existing Railbed Existing Railbed Existing Railbed Existing Railbed Existing Railbed	4 ft compacted, adjacent level cleared surface 4 ft compacted, cleared. New 6ft bridge at Suburbia 4 ft compacted on side away from Swale Creek, cleared	12 ft hard, adjacent level cleared surface 6 ft hard, adjacent clear (4ft hard at constrictions) 6 ft hard, adjacent clear (4ft hard at constrictions) 12 ft hard, adjacent level cleared surface n/a n/a
Surface Type Segment 1: Mile 0-Lyle to Mile 1.6-Fisher Hill Trestle Segment 2: Mile 1.6-Fisher Hill Trestle to Mile 10-Pitt Segment 3a: Mile 10-Pitt to Mile 13.6-Klickitat Segment 3b: Mile 13.6-Klickitat to Mile 16.5-Wahkiacus Segment 4: Mile 16.5 -Wahkiacus to Mile 31-Warwick	As is: Rough As is: Rough As is: Rough As-is: Rough As-is: Rough	Compacted Native Surface Compacted Native Surface Compacted Native Surface Compacted Native Surface Compacted Native Surface	Hard Surface Hard Surface Hard Surface n/a Option 3a: soil hardeners Fisher Hill to Pitt
Trailheads Lyle - Junction of SR14 and SR142 Pitt - East of SR142 Bridge, between SR142 & River Klickitat - In Town Wahkiacus – West side of Schilling Road Harms Road - East side of Harms Road Warwick - Junction of Uecker Road & Centerville Hwy	NO NO NO NO NO NO	20 Vehicles, with 6 large vehicle pull-throughs 15 Vehicles, with 6 large vehicle pull-throughs 20 Vehicles, 6 large spaces; no horse trailers 10 Vehicles, with 3 large vehicle pull-throughs 10 Vehicles, no horse trailers 15 Vehicles, with 6 large vehicle pull-throughs	20 Vehicles, with 6 large vehicle pull-throughs 15 Vehicles, with 6 large vehicle pull-throughs 20 Vehicles, 6 large spaces; no horse trailers n/a n/a n/a
Users Hikers, Bikers, Horses, Wheelchairs, Leashed Dogs	Yes	Yes	Yes
Use Level Segment 1: Mile 0-Lyle to Mile 1.6-Fisher Hill Trestle Segment 2: Mile 1.6-Fisher Hill Trestle to Mile 10-Pitt Segment 3a: Mile 10-Pitt to Mile 13.6-Klickitat Segment 3b and 4: Mile 13.6-Klickitat to Mile 31-Warwick	Low Low Low Low	Moderate: 16,000 per year Moderate: 15,500 per year Moderate: 19,000 per year Moderate: 14,700 per year	Moderate: 16,000 per year Moderate: 18,800 per year Moderate: 22,400 per year n/a
Support Facilities Toilet at Trailheads Toilet along trail: Pitt -Fisher Hill; Wahkiacus-Harms Road Request Pay Phone from Phone Company Interpretive/Educational Materials Horse Trailer Parking Designated Horse Drinking Water Sites Designated Klickitat River, Swale Creek Access Sites	NO NO NO NO NO NO NO	All Trailheads (initially portable toilets) YES Pursue at all trailheads, except Harms Rd YES 4 Trailheads (all except Harms Rd, Klickitat) Between Pitt and Fisher Hill; none in Swale YES	All Trailheads (initially portable toilets) YES (Pitt to Fisher Hill section) Pursue at all trailheads, except Harms Rd YES 2 Trailheads (Lyle, Pitt) Between Pitt and Fisher Hill YES

* *Alternative 1 reflects the current condition of the trail. If the Forest Service chooses not to manage the trail, future trail management decisions would be made by Washington State Parks or the Rails-to-Trails Conservancy.*

TABLE 5: KCLICKITAT RAILS-TO-TRAILS SUMMARY OF EFFECTS

Issue	Alternative 1	Alternatives 2 and 2a		Alternatives 3 and 3a	
Potential Annual Visitors Local Lyle, Klickitat Residents Mid Columbia Residents Out-of-Region Residents	Unknown	<u>Alt 2</u> 49,500 Local - 19,500 Mid Columbia - 3,000 Out Of Region - 27,000	<u>Alt 2a</u> 44,900 Local - 19,500 Mid Columbia - 2,600 Out Of Region - 22,800	<u>Alternatives 3 and 3a</u> 38,500 Local - 19,500 Mid Columbia - 2,000 Out Of Region - 17,000	
Cost: Full Trail Development One Time Costs (Development) Operations/Maintenance	0	<u>Alt 2</u> \$5,619,000 \$ 102,000	<u>Alt 2a</u> \$5,619,000 \$ 94,000	<u>Alt 3</u> \$5,046,000 \$ 66,000	<u>Alt 3a</u> \$3,983,000 \$56,000
Economic Benefit (Klickitat Co.) Annual Direct Expenditures Annual Income Employment (# of Jobs)	Unknown	<u>Alt 2</u> \$458,300 167,800 11	<u>Alt 2a</u> \$385,500 141,100 9	<u>Alt 3</u> \$287,000 105,100 7	<u>Alt 3a</u> \$287,000 105,100 7
Benefit to Cost Ratio Annual Direct Expenditures Annual Income	Unknown	<u>Alt 2</u> \$1.09 0.60	<u>Alt 2a</u> \$1.01 \$0.54	<u>Alt 3</u> \$0.84 0.42	<u>Alt 3a</u> \$1.03 0.53
Cost: Phase 1 Trail Development Trail Patrol, Management	0	<u>Alternatives 2 and 2a</u> \$150,000 \$20,000		<u>Alternatives 3 and 3a</u> \$148,000 \$15,000	
Landowners and Residents	Low Quantity Sight and Sound of Users	Increased Sight and Sound of Users		Increased Sight and Sound of Users	
Cattle and Sheep Grazing	Some Current Interaction with Recreationists	Increased Interaction with Recreationists		Increased Interaction with Recreationists	
Safety	No Safety Measures	Safety Measures		Safety Measures	
Emergency Access	No Access on Railbed	One Mile Better Access between Fisher Hill and Pitt, Access through Swale Canyon		One Mile Better Access between Fisher Hill and Pitt	
Fire Prevention	Few Prevention Measures	Prevention Measures		Prevention Measures	
Law Enforcement	No Patrol	Prevention Patrol		Prevention Patrol	

Klickitat Rails-to-Trails

Issue	Alternative 1	Alternatives 2 and 2a	Alternatives 3 and 3a
Cultural Resources	Potentially Less Protection without Federal Management	One Archaeological Site may be Adversely Affected	No Adverse Effects
Water Resources Wetlands Floodplains Shorelines	Current Use Current Use Current Use	Protected Protected Protected	Protected Protected Protected
Botany – TES	No Effect	No Effect	No Effect
Wildlife and Fish – TES Columbia River Bull Trout Lower Columbia River Steelhead Western Gray Squirrel Bald Eagle	NE NLAA MIIH LAA	NE LAA (Alt 2), NLAA (Alt 2a) MIIH LAA	NE NLAA MIIH LAA
Wildlife – State Priority Species Mule/Blacktail Deer Wild Turkey	Some Displacement NE	Some Displacement NE	Some Displacement NE
State Priority Habitats Oak Woodlands Riparian Zones Disturbance	NE 24 miles low could move toward Alt 2/2a	NE 2 miles low (plus 15 miles low seasonal in Alt 2a)	NE 16 miles low could move toward Alt 2/2a though non-federal actions
Scenic Resources	Unknown	Protects Scenic Resources if Design Guidelines Implemented	Protects Scenic Resources if Design Guidelines Implemented
Transportation	Unknown	No Change to LOS	No Change to LOS
Air Quality	Unknown	Minimal Impacts	Minimal Impacts

Notes:

LOS: Level of Service

NE = No Effect

MIIH = May Impact Individuals or Habitat, but will not likely contribute toward Federal Listing or loss of viability to the population or species.

NLAA = May Affect, but Not Likely to adversely affect habitat or individuals.

LAA = May Affect, Likely to Adversely Affect

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. The “Affected Environment” is discussed as “Existing Condition” in this chapter. Probable consequences of implementing the proposed action are disclosed for the resources affected. Consequences are described for each alternative in the context of direct, indirect, short and long-term effects. Each section concludes with a discussion of cumulative effects.

The trail is discussed in segments in many sections of this chapter. Trail segments are as follows:

Table 6: Trail Segments

Segment	From	Trail Mile	To	Trail Mile
1	Lyle	0	Fisher Hill Trestle	1.6
2	Fisher Hill Trestle	1.6	Pitt	10
3	Pitt	10	Wahkiacus	16.5
3a	Pitt	10	Klickitat	13.6
3b	Klickitat	13.6	Wahkiacus	16.5
4	Wahkiacus	16.5	Warwick	31

3.1 RECREATION USE (KEY ISSUE)

Existing Condition

The recreational use potential of the Klickitat Rails-to-Trails corridor can best be described by evaluating the four segments delineated in Chapter 2 in terms of the “Recreation Opportunity Spectrum” (ROS). ROS is a Forest Service recreation management system that classifies recreation activities, settings and experience opportunities provided. “Urban”, “Rural”, and “Roaded Natural” are ROS classifications that apply to the Klickitat Rails-to-Trails project area.

Segments 1 and 2: Lyle-Fisher Hill and Fisher Hill-Pitt

The very scenic Lyle-Pitt segments are directly adjacent to the Klickitat River. The most dominant human visual modification is State Road 142 (SR142), which is visible from most locations on the trail. The natural river noise, vegetative buffers and distance minimize evidence of human noise. Little data exists on current recreation use; however, use is low relative to other recreation areas in the Columbia River Gorge area. Recreation use is expected to increase, following trends on similar rivers in the region. Recreation currently consists mainly of bank fishing, drift boat fishing and sight-seeing.

The Klickitat Wild and Scenic River Management Plan classifies these segments as ROS classification “Roaded Natural”. The first mile near Lyle would approach a more Rural ROS class, because the railbed is adjacent to a residential area and SR142.

Segment 3: Pitt-Wahkiacus

This segment is characterized by Rural (Pitt to Klickitat), Urban (Klickitat to Suburbia), and Roaded Natural (Suburbia to the mouth of Swale Canyon) ROS settings. The landscape adjacent to this segment has been modified by past and current evidence of farming, housing development and a small rural town. In many places the trail is adjacent to private residences and businesses. Existing use in this area is high compared to other segments of the trail. This segment is already being used as a trail, particularly through the town of Klickitat. Use consists mostly of walking/hiking.

Segment 4: Wahkiacus-Warwick

Wahkiacus-Warwick is the most primitive and remote segment of the entire trail. Swale Canyon (from the mouth of Swale Creek to Harms Road) is characterized Roaded Natural. Human activity, such as houses, roads, natural gas pipeline right-of-way, power lines and fences, can be observed along a number of trail locations in Swale Canyon. There are also large areas where the surrounding landscape is predominantly natural or natural appearing. Although signs of human activity are evident in many places, there is a general feeling of isolation in the majority of the canyon. The Harms Road to Warwick section of this segment is Rural as described in ROS. Signs of human activity, such as roads, agricultural activities, fences and houses, are more evident. Existing use is probably lowest in this section and consists of mountain biking and hiking.

Applicable Standards and Guidelines

A. Columbia River Gorge National Scenic Area (CRGNSA) Management Plan

Applies from the Lyle Urban Area boundary to the CRGNSA boundary near the Fisher Hill trestle.

General Management Area Guidelines

Recreation Intensity Class (RIC) 1 will be used as the guideline, since it is most restrictive. The majority of the trail within the CRGNSA is in RIC 1.

- Recreation Intensity Class 1 (Allowable Uses):
 - Trails for hiking, equestrian, and mountain biking use.
 - Pathways for pedestrian and bicycling use.
 - River access areas.
 - Simple interpretive signs and/or displays, not to exceed a total of 50 square feet.
- Signage shall be limited to that necessary to provide relevant recreation or facility information, interpretive information, vehicular and pedestrian direction, and for safety purposes.

B. Klickitat Wild and Scenic River Plan

Applies from the trail’s beginning in Lyle to the Wild and Scenic River boundary above Pitt.

- Recreation Setting: Provide a variety of Roded Natural opportunities. A generally natural environment characterizes the setting with moderate evidence of sights and sounds of people. Resource modification and utilization practices are evident, but harmonize with the natural environment.
- Use Level: Concentration of users is low to moderate with equal opportunities for affiliation with others and isolation.
- Native American Fisheries: Recreation use in lower gorge area does not conflict with Native American dip-net fishing. If conflicts occur, the higher priority will be given to maintaining dip-net fishing and the use of the lower gorge area by Native Americans, rather than to recreational use by the public. There are opportunities to view and learn more about Native American dip-net fishing activities, carefully designed to avoid any conflicts with these activities.
- Support facilities: Rustic facilities primarily provided for user safety and resource protection and secondarily for user convenience and comfort. The number of recreational access sites will not change from 1990 levels.
- Onsite Controls: Onsite controls and restrictions are limited to those necessary for health, safety and maintenance of Roded Natural opportunities.
- Marketing: None to limited publicity to minimize increases in uses. Plan relies on indirect measures to limit use.
- Applicable ROS Guidance

Social Setting	Roded Natural	Rural	Urban
Reflects contacts between groups. It indicates opportunities for solitude and interaction with others.	Frequency of contact is low to moderate on trails and away from roads.	Frequency of contact is moderate to high on trails.	Large numbers of users onsite and in nearby areas.

C. Klickitat County Shorelines Ordinance

General Use Policies and Regulations for Use Activities:

- Public access shall be required for all shoreline development and uses.
- Developments, uses and activities shall be designed and operated to avoid blocking, reducing or adversely interfering with the public’s visual or physical access to the water and shorelines.
- Public access sites shall be connected directly to the nearest public street and shall include provisions for handicapped and physically impaired persons, where feasible.
- The design and development of recreational areas shall protect natural features of the land, its vegetation, wildlife, water quality, aquatic life and habitat, and take into account the biophysical capabilities of a site.
- The removal of on-site vegetation shall be limited to the minimum necessary for the development of campsites; selected views or other permitted structures or facilities.
- No recreational building or structure shall be built over the water.

- Valuable shoreline resources and fragile or unique areas such as marshes, estuaries and accretion beaches, shall be used for non-intensive and non-structural recreation activities.
- In proposing shoreline recreational developments, the applicant shall ensure that the development will maintain, enhance or restore desirable shoreline features including unique and fragile areas, scenic views, and aesthetic values.
- Recreational developments shall provide facilities for non-motorized access to a shoreline such as pedestrian, bicycle and/or equestrian paths.
- Proposal for recreational development shall include plans for sewage disposal. Where treatment facilities are not available, the appropriate reviewing authority shall limit the intensity of development to meet city, county and state on-site sewage disposal requirements.
- Recreational use limitation in shoreline environments:
 - Natural – Conditional Use (limited to such facilities as access trails or other passive activities)
 - Conservancy – Conditional Use
 - Rural – Conditional Use
 - Community – Permitted
 - Urban/Industrial – Permitted
- Signs in the Natural Buffer Zone and Natural Environment shall be for the purpose of safety information and direction only.

Environmental Consequences

The alternatives are evaluated in terms of impacts on recreation use and Recreation Opportunity Spectrum (ROS) compatibility for social encounters, the pattern and type of use, user conflicts, parking, and accessibility.

Recreation Use and ROS Compatibility for Social Encounters: Recreation Use is discussed as number of recreation users per segment, per season. Social encounters in ROS are described as the frequency of contact between groups and individuals. Frequency of encounters is described as low to moderate on trails and away from roads in Roded Natural settings, as moderate to high on trails in Rural settings, and as large numbers of users onsite and in nearby areas in Urban settings.

No specific number of group encounters is specified in Roded Natural, Rural or Urban Settings. However, a starting point can be provided by examining a more primitive ROS setting. Up to 16 encounters per day is a normal condition found in Semi-Primitive Nonmotorized, which is characterized by having a high probability to experience solitude. In contrast the Eagle Creek trail in the western end of the Columbia River Gorge would be characterized as having a high frequency of contacts at approximately 40 groups encountered per day. Further guidance is provided by the Forest Service Region 6 ROS for River Management, which states that 6-15 encounters per day is a normal condition found in Semi-Primitive Nonmotorized and that moderate to low encounters on a trail are normal for Roded Natural settings along Wild and Scenic Rivers.

Pattern and Type of Use: The expected types of users (e.g., hiker, mountain biker or equestrian) and relative amount of each type of user is discussed.

User Conflicts: Recreation user conflict occurs when the behavior of one individual, group or sub-population of users interferes with the goals and/or violates the norms of another individual, group or sub-population of users. Conflicts can be related to:

- Degrees of Specialization – User groups tend to attach personal meaning to their activity. For example experts and novices may not mix well.
- Place Attachment – Some groups or individuals tend to attach special meaning to the setting.
- Expectations or Focus of Trip – To what extent does the experience require an individual to focus on certain attributes of the setting rather than on the requirements of their activity. For example, bird watchers who are focused on the natural environment may not mix well with ATV riders seeking speed and thrill.
- Lifestyle Tolerance – Does one group tend to have a lower tolerance for lifestyles different from their own?

Notice that the factors above are not necessarily related to a particular trail activity a user might be engaged in at the time and that no actual contact need occur for conflict to be felt.

“Past research has consistently found that recreationist are well satisfied with their recreational experiences. Still conflicts are a serious threat to satisfaction, but serious conflicts may not be the norm” (Moore, 1994, Conflicts on Multiple-Use Trail).

“Several studies of multiple-use rail-trails have included questions related to user conflicts. In a survey of rail-trail managers conducted by the Rails-To-Trails Conservancy in 1991, over half of the 83 managers responding reported no conflicts or "few if any" conflicts on their trails. The most common type of conflicts reported was between hikers and bikers, followed by conflicts between equestrians and bikers. Conflicts involving in-line skaters, cross-country skiers, and dogs were also reported. A study of three rail-trails in Iowa, Florida, and California found that users reported little problem with conflict on average. More than 2,000 users were asked to rate "conflicts with other activities" and "reckless behavior of trail users" on a 7-point scale where "1" represented "not a problem" and "7" represented "a major problem." The mean response was less than 2 on each trail for "conflicts with other activities" and ranged from 1.5 to 2.8 for "reckless behavior of trail users" (Moore, Graefe, Gitelson and Porter 1992, III-26).

The same study included an open-ended question that asked "What things did you like least about the trail?" The top three responses were recorded for each user. Of a total of 2,128 comments, 316 (14.8 percent) related to the behavior of other users. The most common of these (239) were about bicyclists being inconsiderate, riding two-abreast, passing with no warning, going too fast, and other unspecified concerns about bikers. An additional 72 (3.4 percent) identified crowding, as the thing liked least. Similar results were found in a study of trail users on 19 multi-purpose pedestrian and bike trails in Illinois (Gobster 1990, 32). "Use problems" (crowding, conflict, and reckless users) received mean ratings of less than 2 on a 5-point scale where "1" represented "not a problem" and "5" represented a "major problem." (Moore, 1994, Conflicts on Multiple-Use Trail)

Conflict is expected to occur on the Klickitat Rails to Trail. Each contact has the potential to result in conflict and in general trail users enjoy meeting their own kind, but dislike uses that are faster and more mechanized than their own (Moore, 1994, Conflicts on Multiple-Use Trail). Based on past studies, however, it is not expected that conflicts will have a serious threat to overall recreation satisfaction. Mitigation measures will also reduce the potential for user conflicts. Posting the trail as a multiple use trail will reduce the potential for unmet expectation and conflicts. Promoting trail etiquette through signing and personal contacts by trail patrols will also minimize conflicts.

For the purpose of this analysis the degree of potential conflict is relative to each alternative.

Parking: Parking is discussed in terms of potential illegal and unwanted parking.

Accessibility: Accessibility is discussed in terms of compatibility with the universal access standard in terms of firmness, grade, cross slope and tread obstacles.

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

Recreation Use and ROS Compatibility: Long-term recreation use is difficult to determine in this alternative, since no facilities are planned to accommodate potential use, and it is unknown whether another entity would manage the railbed as a trail. In the short term, use should increase at a relatively slow rate, but would be limited by the lack of support facilities and access. Word of mouth would be the most significant form of marketing in this case. Use levels would probably be highest in Segments 1, 2 and 3 due to the ease of access and proximity to population centers. Social encounters would be low. Existing ROS classifications for all segments would not be altered under this alternative.

Pattern and Types of Use: In the short-term, hikers and mountain bike riders would be the most dominant form of use in Segment 2. Most recreationists would most likely start from either Fisher Hill or Pitt (the county park) where some parking does exist. Use in Segments 1 and 3 would predominantly be hikers and bicyclists from Lyle and Klickitat area. Use in Segment 4 would be relatively low compared to the other segments and should consist mostly of mountain bikes. Equestrian use would be low in all sections, because of the lack of support facilities. What equestrian use does occur would most likely be from the local communities (Lyle/Klickitat) and private landowners adjacent to the trail.

User Conflict: In the short-term, conflict between users would be relatively low as a result of overall low use levels. Conflict between bikes, hikers and horses may occur, but should not be significant given that bike speeds would be low on the unimproved trail surfaces.

Parking: In the short-term, Alternative 1 would probably have the greatest potential for parking conflicts and illegal parking of any alternative. Without trailhead facilities, parking would occur on side streets and along the shoulder of SR 142. Existing parking areas at Fisher Hill and the County park areas at approximately river mile 1, Pitt and Suburbia would continue and probably increase. Conflicts with nearby and adjacent private property owners would occur and increase over time. Illegal and unsafe parking situations could occur along SR 142.

Accessibility: Barrier free access would be limited under this alternative in the short term and would not meet current standards. The existing ballast surface is characterized by tread obstacles that exceed the maximum of 3” and tread surfaces in many places are not firm or stable enough to support a wheelchair (Draft USDA Trail Accessibility Guidelines, 3/31/03). A rule of thumb to determine surface firmness is if a person riding a narrow-tired bike or a heavy child in a folding umbrella style stroller were easily pushed across without sinking into or distorting the surface.

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

The discussion of effects includes both Alternatives 2 and 2a, except where specifically noted.

Recreation Use and ROS Compatibility: The highest recreation use is projected under Alternative 2 at about 49,600 visitors annually. Local use is estimated to comprise about 39% of the total use. See Appendix A for a description of assumptions and methodology used to generate recreation use numbers.

Recreation use in Alternative 2a, which would close Swale Canyon from June 15 to September 30 of each year, is projected to be 45,000 visitors annually. Local use is estimated to comprise about 44% of the total use.

In both Alternatives 2 and 2a, segment 2 would receive the highest amount of use, followed by Segments 1, 3, and 4. Overall it is anticipated that there would be a moderate degree of social interaction with other groups and individuals in Segments 1 and 2. Segment 3 would have a more moderate degree of social encounters through out most of the year. Local residents make up the bulk of the use in this segment so use is less likely to be seasonal in nature. Segment 4 would probably offer the best chance for solitude during busy periods. While encounters in Segments 1, 2 and 4 would be moderate to high on weekends during the summer months, weekday encounters, however, are expected to be moderate to low. Weekdays during the spring and fall and weekends and weekdays during the winter months should offer more than an equal chance to experience solitude in Segments 1, 3 and 4.

During peak uses, standards for encounters in Segments 1 and 2 could exceed the social ROS standards for roaded natural; however, it should be relatively short in duration. It is anticipated that standards would only be exceeded on some high use weekends during the summer months. ROS standards for social encounters would be within normal limits for the other sections.

Pattern and Types of Use: In Segment 1, hiking and walking are expected to be the dominant recreation uses, followed by mountain bikes and equestrian use. Equestrian use is expected to be relatively low, and come mainly from outside users accessing Segment 2. Local users would share this segment with outside users, because this segment is a portal to Segment 2. Local use is projected to be 13% of all users. Use is expected to be heaviest during the spring, summer and fall months. Local use would occur year round.

Segment 2 is expected to be very popular due to the very dramatic scenery of the Klickitat River and surrounding landscape. Hiking should be the most popular recreation use, with mountain biking close behind. The trail does provide mountain bike opportunities for novice to beginner riders and should be popular during the winter and spring when mountain snow closes most mountain bike trails in the area. Fishing would also be very popular due to easy access to bank fishing along the river. Equestrian use should be relatively low compared to hiking and biking, with most of the users coming in from outside the local area. Recreation use should be highest during the spring, summer and fall months; however, there would be almost year-round opportunities for trail-related recreation.

In Segment 3, characterized by its residential character, hiking/walking would be the most dominant recreation use. Mountain biking would come mostly from local users or “through riders”. Equestrian use in this segment would be the lowest of all segments. The rural/urban setting of this segment would not draw a significant amount of use from non-local hikers, horse enthusiasts and bikers, since most trail related recreationists prefer a natural setting (Oregon/Washington SCORP). This segment would be dominated by local users (74%) and remain popular year-round.

Mountain biking and hiking should be the most dominant uses in Segment 4. However, there should be a smaller difference between the proportion of hikers versus bikers due to the length of this segment and the scarcity of water in this segment. Hiking is expected to remain the dominant form of use in this segment, since overall participation by hikers in the Gorge is significantly higher than bike riding. Approximately 63% of all visitors in the Gorge participate in hiking or walking while only 5% participate in biking (National Visitor Use Monitoring Report, 2001). Again, equestrian use is expected to be relatively low compared to bikers and hikers. The majority of users would come from outside the local area. In Alternative 2, use would be highest during the spring, early summer and fall months when Swale Canyon weather moderates. Use would be highest in the same periods in Alternative 2a, and the trail would be closed in Swale Canyon from June 15 to September 30 of each year.

User Conflict: Potential conflicts between users would be lowest among the action alternatives. Conflicts are predicted to be relatively low, since an 8-foot wide corridor would be maintained. The cleared corridor should provide adequate room to separate uses. For example, horseback riders would most likely ride the unimproved surface leaving the adjacent improved 4-foot surface for hiking and biking. Good sight distances would also help to reduce conflicts since it would provide enough warning for users to make way for other uses. Segment 2 would have the greatest potential for conflicts, based virtually on the number of users. The highest potential for conflict would be between bikes and other uses, since bikes would tend to stay on improved trail surfaces, rather than spread out on unimproved surfaces adjacent to the trail. Bike speeds would also be higher on these improved surfaces, thus increasing the potential for conflicts.

Parking: This alternative provides the most trailhead facilities and parking spaces. Illegal and unwanted parking should not be a significant problem in the near future. However, as the trail gains popularity, illegal and unwanted parking may become a problem. Parking at many popular trailheads in the NSA exceeds capacity during busy weekend days. The same potential exists for trailheads on the proposed trail. Illegal and unwanted parking could occur in Lyle, Pitt and

possibly the Wahkiacus areas on the shoulder of SR-142 or on side streets. Existing parking problems at Fisher Hill and Suburbia could also be exacerbated if mitigation measures are not implemented when recreationists discover this site would provide quicker access to the more scenic Segment 2.

Accessibility: Both Alternatives 2 and 2a would meet standards for universal access for firmness, grade, cross slope, and tread obstacles. However maintaining the tread surface to the level of compaction required for wheelchair access may be difficult in the long run.

Table 7: Visitor Use and Average Visitor/Day by Trail Segment, Alternatives 2 and 2a;

Use Season	Segment 1		Segment 2		Segment 3		Segment 4 Alt 2 only		Segment 4 Alt 2a only	
	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day
High	8,503	92	9,610	104	5,151	56	9,129	99	5,754	63
Shoulder	5,311	35	4,710	31	8,225	54	4,475	29	3,300	22
Low	2,189	18	1,112	9	5,618	47	1,053	9	1,0530	9
Total	16,008	44	15,432	42	18,994	52	14,657	40	10,107	28

Note: The sum of use by segment would exceed total use, because of overlapping use from other segments.

Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects

The discussion of effects includes both Alternatives 3 and 3a, except where specifically noted.

Recreation Use and ROS Compatibility: In both Alternatives 3 and 3a, total use is projected to be approximately 38,412 visitors annually. Local use is estimated to comprise about 51% of the total use. Although the percentage of local use has increased from Alternatives 2 and 2a, total local use remained constant. See Appendix A for a description of assumptions and methodology used to generate recreation use numbers.

The overall experience would be similar to Alternatives 2 and 2a in Segments 1, 2, and 3. (There is no Segment 4 in these alternatives.) Segment 2 would receive the highest amount of use, followed by Segment 1 and 3. Overall it is anticipated that there would be a moderate to high degree of social interaction with other groups and individuals in Segments 1 and 2. Segment 3 would have a more moderate degree of social encounters through out most of the year. Local residents make up the bulk of the use in this segment so use is less likely to be seasonal in nature. While encounters in Segments 1 and 2 would be high on weekends during the summer months, weekday encounters, however, are expected to moderate. Weekdays during the spring and fall and weekends and weekdays during the winter months should offer more than an equal chance to experience solitude in Segments 1 and 3.

During peak uses, standards for encounters in the Segments 1 and 2 could exceed the social ROS standards for Roaded Natural; however, it should be relatively short in duration. It is anticipated that standards would only be exceeded on some high use weekends during the summer months.

Segment 3 would be within ROS social encounter thresholds.

Pattern and Types of Use: In Segment 1 hiking and walking are the expected dominant recreation uses, with mountain and road bikes a close second. Equestrian use is expected to be relatively low, and come mainly from outside users accessing segment 2. Other uses such as jogging, in-line skating and skateboarding would be apparent in this segment. Local users would share this segment with outside users, because this segment is a portal to Segment 2. Local use would occur year round.

Segment 2 pattern and types of use are expected to be similar to Alternatives 2 and 2a with the expectation of road bikes. The hard surface, either asphalt or soil hardeners, would be conducive to road bikes.

In Segment 3, characterized by its residential character, hiking/walking would be the most dominant recreation use closely followed by mountain and road biking. Equestrian use in this segment would be the lowest of all segments. Horse enthusiasts would most likely avoid this segment, due to the high degree of interaction with conflicting uses and other distractions. Local horse use should be relatively low in this segment. Other uses such as jogging, in-line skating and skateboarding would be apparent especially through the town of Klickitat. This segment would be dominated by local users and remain popular year-round.

User Conflict: Conflicts between recreationists should be highest in this alternative. The 6 foot paved trail in Segment 1 and 3 would accommodate more user groups, which would increase the potential for conflict. The maintained 8 foot wide corridor would provide opportunities to separate uses such as horse back riding. Equestrian use would most likely occur on the unimproved surface leaving the adjacent improved 6-foot surface for other uses. The hard surface trail width should provide enough space to mitigate most conflicts; however, when they do occur they would likely be between hikers/equestrian use and bikers (both mountain and road bikes). The hardened surface would provide the opportunity for increased bike speeds. Other users perceive high bike speeds as a conflict. Good sight distances, however, would mitigate conflict by allowing bikers to slow down prior to an encounter.

Potential for conflicts in Segment 2 would be slightly higher than those with Alternatives 2 and 2a. Conflicts would most likely involve bikes and other users. The improved surface would provide the opportunity for increased bike speeds. Again, good sight distances would help reduce the frequency of surprise encounters.

Parking: Illegal and unwanted parking should not be a significant problem in the near future in this alternative. However, as in Alternatives 2 and 2a, as the trail increases in popularity, illegal and unwanted parking could become a problem. Existing parking problems at Fisher Hill would continue if mitigation measures were not implemented. While segment 4 would not be adopted in this alternative, illegal or unwanted parking could become an issue at Wahkiacus, or Harms Road. Recreationists are bound to discover this section of trail in the near future.

Accessibility: Both Alternatives 3 and 3a would meet standards for universal access, for firmness, grade, cross slope, and tread obstacles.

Table 8: Visitor Use and Average Visitor/Day by Trail Segment, Alternatives 3 and 3a.

Use Season	Segment 1		Segment 2		Segment 3	
	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day	Annual Visitors	Visitors Per Day
High	8,503	92	11,692	127	7,233	79
Shoulder	5,311	35	5,731	37	9,245	60
Low	2,189	18	1,424	12	5,930	49
Total	16,003	44	18,847	52	22,409	61

Note: The sum of use by segment would exceed total use, because of overlapping use from other segments.

Cumulative Effects

Participation rates reflect a high demand for trail opportunities in the Columbia River Gorge. For example the recent National Visitor Use Monitoring Survey (September 2001) showed that 60% of all visitors to the CRGNSA participated in hiking or walking. Both the Washington (October 2002) and Oregon (January 2003) Statewide Comprehensive Outdoor Recreation Plans (SCORP) also support this high level of demand for walking and hiking opportunities. Nearly 74% of the Washington State population participated in walking or hiking opportunities while in Oregon 53.9% of the state’s population participated.

Table 9: Participation by Activity as a Percent of State Population

State	Walking for Pleasure	Hiking	Biking on Local Community and Backcountry Trails	Horseback Riding on Local Community and Backcountry Trails
Washington	56.6 %	17.1 %	5.2 %	1.9 %
Oregon	33.3 %	20.6 %	6.1 %	2.7 %

Both Oregon and Washington SCORPs conclude there is a relative large inventory of recreational trails. However, the Washington SCORP concludes: “...most trails are not located where they are needed the most (in or near town). The majority of trails are located on remote lands above 3000 feet.” This explains why trail use is so high in the Columbia River Gorge. The majority of trails in the Gorge are close to urban populations (within 30 minutes to 1 hour’s drive from the Portland/Vancouver Metro Area) and tend to be accessible year round. Recent studies also support the Washington SCORP, in that time and distance are now the main barriers to participating in outdoor recreation activities.

In Oregon nearly 76% of recreationists who participated in trail, road and beach activities preferred the Primitive, Semi-primitive and Roded Natural settings while only 53.6% actually used them. This is probably related to the lack of supply of the more primitive settings close to population centers rather than the opportunities that actually exist.

Trails and trail use are disproportionately distributed in the Columbia River Gorge area. Over 60% of the recreational facilities and trails are concentrated west of Cascade Locks, particularly

on the Oregon side. Dramatic scenery and waterfalls are the main attractions. Trail use in this area is very heavy and can exceed capacity on many summer weekends.

Opportunities are very limited in the Gorge area for mountain bikes, the physically challenged and equestrians. The Forest Service currently manages 180 miles of trail in the Gorge. Fifteen percent are mountain bike trails, 16% provide equestrian opportunities and less than 1% meet barrier free standards. Other agencies offer limited equestrian and mountain bike trails, most notably Oregon State Parks (Deschutes River Trail), Washington State Parks (Beacon Rock State Park equestrian trails) and Washington Department of Natural Resources (Buck Creek Trail System). Mountain biking has increased in the area; the most noteworthy example is Coyote Wall (near Burdoin Mountain). The area provides good, early season opportunities when mountain snows close most trails open to mountain bikes.

Cumulative Effects of Alternative 1, the No Action Alternative

While use is likely to continue to occur in an unmanaged situation, an unmanaged trail would not become a destination for recreationists. This alternative would not meet the growing demand for trail opportunities close to the Portland/Vancouver Metro area and local Gorge Communities. Nor would it provide opportunities for under-served trail users.

Cumulative Effects of Alternatives 2 and 2a and Alternatives 3 and 3a

Gorge-wide, the cumulative effects to recreation resources from the proposed Klickitat Rails-to-Trails should be positive, because it would increase both trail miles and opportunities. While there is a relatively large inventory of trails on the neighboring Gifford Pinchot and Mt. Hood National Forests, many of these trails are only accessible during the summer months. Hiking closer to home in a natural setting also seems to be preferred by busy recreationists of today. The Klickitat Rails-to-Trails could provide a unique year-round trail opportunity for multiple user groups to experience their activities in a natural setting, close to the Portland/Vancouver Metro area and local Gorge communities (within a 1 hour drive). It could also provide additional opportunities for the underserved mountain biking, physically challenged and equestrians user groups. It is difficult to project recreation growth, however it is reasonable to expect recreation/trail use to grow with an expected increase in overall population. The Klickitat Rails to Trails would provide an opportunity to meet future supply needs. At first glance, the project could be seen as a way to draw recreationists from the crowded west end of the Gorge; however, it is more likely to provide an opportunity for a less crowded experience. Significant distribution of use from the west to the east would probably not occur, since the dramatic scenery, amenities, and proximity to the Metro area of the west end would always continue to attract high visitor use.

Findings of Consistency for Land Use Regulations, Alternatives 2 and 2a, Alternatives 3 and 3a

A. Columbia River Gorge National Scenic Area Management Plan

Both action alternatives meet applicable Recreation Intensity Class (RIC) 1 guidelines. The proposed recreation trail/pathway use (pedestrian, bicycling, hiking, equestrian and mountain

bikes) is considered allowable uses in RIC 1. Proposed signs would be designed not to exceed the 50 square feet guideline. Signs would be limited to those that provide general trail information, to protect private property rights, to protect sensitive natural and cultural resources and to provide for visitor safety.

B. Klickitat Wild and Scenic River Plan

Recreation Setting – The trail and use would meet Roded Natural setting as described in the Klickitat Wild and Scenic River Plan. Roded Natural opportunities such as hiking, horse back riding and biking would be provided. The trail and associated facilities would harmonize with nature and generally there would be a moderate evidence of sights and sounds of people from the trail and river. The trail would not change the existing setting, since it is an existing feature in the landscape.

Recreation Use - Overall it is anticipated that there would be a moderate degree of social interaction with other groups and individuals in the Klickitat Wild and Scenic River segment. While encounters in this section would be moderate to high on weekends during the summer months, weekday encounters, however, are expected to be moderate to low. Weekdays during the spring and fall and weekends and weekdays during the winter months should offer more than an equal chance to experience solitude.

Roded Natural, as described in the River Management Plan, provides for settings where frequency of encounters are low to moderate with an equal opportunities for affiliation with others and isolation. The draft ROS for River Management provides additional guidance in that it states that 6-15 parties met per day is a normal condition found in Semi-primitive nonmotorized and that moderate to low encounters on trail are normal for Roded Natural settings along Wild and Scenic Rivers. Although there is no specific number of group encounters specified in Roded Natural, it appears that the number of encounters during peak use in Segments 1 (25 contacts) and 2 (29 contacts) falls within the range of moderate use levels albeit on the high end. For example, up to 16 encounters per day is a normal condition found in Semi-primitive Nonmotorized, which is characterized by having a high probability to experience solitude. In contrast, the Eagle Creek trail in the western end of the Columbia River Gorge would be characterized as having a high frequency of contacts at approximately 40 groups encountered per day.

Native American Fisheries –Mitigation measures could be implemented at the request of the Tribal government and are described in Chapter 2. Opportunities for viewing and interpretation of dip-net fishing activities would be provided from the Fisher Hill trestle.

Support Facilities – Support facilities would be designed to meet Roded Natural ROS guidelines and the Built Environment Image Guide (see Chapter 2 – Mitigation Measures). The trailheads provide for both visitor safety and resource protection. Toilet facilities should mitigate potential sanitation issues and protect water resources. Providing safe parking off of SR-142 would enhance visitor safety. No additional river access (for boaters) would be provided.

Onsite Controls – All onsite controls (see Chapter 2 – Mitigation Measures) are all designed to protect natural resources, reduce conflicts between user groups and private property. The onsite controls would not restrict Roaded Natural opportunities such as hiking, bicycling and horseback riding.

Marketing – Marketing by the Forest Service would be limited to identifying the trail on the CRGNSA maps, trail information handouts and the NSA web site. Marketing by local communities and potential outfitters and guides could occur. It is expected these groups would implement some marketing. Trailhead parking capacity and unwanted parking mitigation measures should limit use to acceptable levels.

C. Klickitat County Shoreline Management Ordinance

Access and Use – The Klickitat Rails-to-Trails would be open to the public. All trailheads/facilities would be directly accessible from SR-142 or the Centerville Highway and meet current ADA accessibility requirements. The trail would enhance visitor access to the Klickitat River and its shoreline. Access on the west shore of the Klickitat River currently is limited. Trail use would be low to moderate. Encounters on weekends during the summer months are estimated to between 12 to 30 groups per day. However, weekdays during the spring and fall and weekends and weekdays during the winter months should offer more than an equal chance to experience solitude. Use would consist mainly of pedestrian, hiking, biking and horseback riding. Motorized use would be prohibited, except for emergencies or administrative purposes.

Protect Natural Resources and Aesthetics – The trail and trailhead would be designed to protect and/or to enhance natural resources. For example, boardwalks would be used to protect fragile wet areas, riparian vegetation would be planted to stabilize the river bank, trail and trailhead construction season would be limited to protect Bald Eagles, buffer zones would be established around active western gray squirrel, and fish passage would be accommodated (see Chapter 2 – Mitigation Measures). Removal of onsite vegetation would be limited to accommodate trailhead facilities and 8 feet trail width. No recreational structures would be constructed over the Klickitat River, other than the Suburbia trestle, which is a replacement structure. The trail and associated facilities would harmonize with nature along the Klickitat River and Swale Creek. Trailhead facilities would be designed to meet the appropriate ROS setting (see Chapter 2 – Mitigation Measures).

Sewage Disposal – The proposed trailhead toilet facilities are planned to be a vault system at Pitt, Wahkiacus, Harms Road and Warwick. Installation would meet current City, County and State Codes. A new flush toilet is proposed at Lyle and would connect to the city sewer system. Initially, all of these trailheads would be supplied with a portable toilet. At Klickitat, an existing flush toilet would serve trail users.

Signs – Signs would be limited to those that would provide general trail information, to protect private property rights, to protect sensitive natural and cultural resources and provide for visitor safety.

3.2 COST FOR TRAIL DEVELOPMENT AND LONG-TERM MANAGEMENT (KEY ISSUE)

For all alternatives, construction costs were estimated for developing facilities to Forest Service standard specifications. Maintenance and operation costs were estimated to maintain facilities to the design standard and assumed any damage would be immediately repaired. However, in actuality, maintenance costs for action alternatives would be much lower than indicated for the first several years because the facilities would be new. In addition, minor damage would likely be deferred for several years until it became more cost-effective to implement many repairs with one maintenance contract.

The Forest Service would pursue grants, partnerships, volunteers and federal appropriations to fund development and operation of this trail. A phasing plan has been developed to ensure available funding goes to high priority items. (See Chapter 2 for phasing plan.)

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

No Forest Service development and maintenance costs would be associated with Alternative 1.

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

Alternatives 2 and 2a would cost the most to develop (about \$5.6 million) and maintain (\$102,000 annually for Alternative 2; \$94,000 annually for Alternative 2a) of any alternative. \$435,000 of the development cost is to replace the Suburbia trestle with a six-foot wide trail bridge. This alternative proposes 31 miles of unpaved trail and six trailheads.

Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects

Development (about \$5.0 million) costs for Alternative 3 would be slightly lower than Alternative 2. Annual maintenance of about \$66,000 is about one third lower than Alternative 2. This alternative is less than half the length of Alternative 2, but is developed to a higher standard with trail paving. Three, rather than six trailheads are proposed. Cost to maintain pavement would be very low for many years, but costs of periodic repaving would be quite high.

Alternative 3a is the lowest cost Action alternative at about \$4.0 million to develop and about \$56,000 a year to maintain. Costs are lower because soil hardeners are substituted for pavement in the nine miles between Fisher Hill and Pitt.

Cumulative Effects

Since federal recreation funding is not unlimited, and has been declining in recent years, Forest Service capital expenditures on the proposed trail could result in foregoing other recreation development opportunities in the Pacific Northwest Region. Maintenance and operation expenditures by the Forest Service's National Scenic Area office on the proposed trail could

result in less maintenance on other Gorge trails. The addition of the proposed trail to the National Scenic Area’s trail system would likely increase reliance on volunteer development and maintenance efforts for all Gorge trails.

Table 10: Summary of Costs of Trail Development and Maintenance

One Time Costs	Alt 1	Alt 2 & 2a	Alt 3	Alt 3a
Development ¹				
- Trail	0	\$ 786,000	\$1,992,000	\$1,283,000
- Trailheads	0	1,822,000	1,144,000	1,144,000
- Bridge Deck/Rails	0	683,000	218,000	218,000
- <u>Suburbia Trail Bridge ²</u>	<u>0</u>	<u>435,000</u>	<u>0</u>	<u>0</u>
Subtotal	0	3,726,000	3,354,000	2,645,000
Engineering (25%) + Contingencies (25%)	0	1,863,000	1,677,000	1,323,000
Resource Mitigation ³		30,000	15,000	15,000
Total	0	\$5,619,000	\$5,046,000	\$3,983,000

Annual Costs	Alt 1	Alt 2 & 2a	Alt 3	Alt 3a
Trail/Trailhead O & M	0	\$85,000 (2a = \$77,000)	\$50,000	\$40,000
Mitigation				
- Trail Patrol	0	12,000	12,000	12,000
- Noxious Weed Control	0	3,000	2,000	2,000
- Resource Monitoring	<u>0</u>	<u>2,000</u>	<u>2,000</u>	<u>2,000</u>
Subtotal	0	17,000	16,000	16,000
Total	0	2 = \$102,000 2a = \$ 94,000	\$66,000	\$56,000

- 1: “Development” includes costs for signs, boardwalks, road safety measures, mile markers, etc.
- 2: Cost indicated is for construction utilizing the existing abutments. The cost to construct a bridge to improve flood flow conditions (per Sargent Engineers, Inc. report of 1996) is \$1,255,000.
- 3: “Resource Mitigation” includes costs for vegetative screening at Fisher Hill, revegetation, planting, bird boxes, etc.

Table 11 below, displays the costs of the phases identified in Section 2.4.

Table 11: Phasing Costs

Phase	Alts 2 and 2a	Alt 3	Alt 3a
Phase 1: Initial Management Actions	\$150,000	\$148,000	\$148,000
Phases 2 – 5: Trail Improvement			
Phase 2: Lyle to Pitt	\$1,960,000	\$3,838,000	\$2,998,000
Phase 3: Pitt to Klickitat	646,000	1,208,000	985,000
Phase 4: Wahkiacus to Warwick	1,668,000	n/a	n/a
Phase 5: Wahkiacus to Warwick	1,25,000	n/a	n/a

3.3 EFFECTS ON LOCAL COMMUNITIES (KEY ISSUE)

Existing Conditions

Klickitat County is largely a rural county. About two-thirds of its 19,161 residents (2000 Census) live in unincorporated areas and one-third live in the three incorporated areas of Goldendale (population 3,760), White Salmon (population 2,193), and Bingen (population 672). Characteristics that contribute to the county's rural atmosphere include low-density housing, natural resource-based livelihoods, low traffic and little congestion, as well as fewer services such as fire, police and health care. Recreational opportunities span all seasons. The rail corridor passes through several small communities, the largest being Lyle and Klickitat.

The Klickitat County Planning Department conducted a community development and housing needs survey in 1995 entitled "Community Development in the Unincorporated Areas of Klickitat County". A majority of survey respondents in Klickitat, Lyle and Wahkiacus rated job creation in the local area and county as a medium or high priority and unemployment as a moderate or serious problem. When asked the three top problems the county faces, unemployment and low income were consistently among the top choices for respondents from this area. A majority also rated development of recreation facilities to attract tourists a medium or high priority.

The County Planning Department survey's written responses revealed a certain "tension" between keeping the county as it is, and the changes brought by newcomers. This was evident in public survey statements such as "too many people moving in" vs. "close-mindedness and a minority who feel they have special rights because they were born here." Recurrent concerns were focused on the rise of drug use in the area and the perception that, "too many 'welfare' families were moving in." Four respondents specifically mentioned the Klickitat Rails-to-Trails as a potential benefit to the community.

The existing conditions section reports several demographic and economic characteristics, including population, race, employment, income and poverty. Most of the data is from the 1990 and 2000 U.S. Censuses (<http://factfinder.census.gov>).

This report provides comparisons of the Rails-to-Trails project area to Klickitat County, and to Washington State as a whole. The "project area" for this analysis is defined as a compilation of four U.S. Census "Zip Code Tabulation Areas"; for Centerville (98613), Klickitat (9828), Lyle (98635), and Wahkiacus (98670). A Zip Code Tabulation Area (ZCTA) is defined as "a geographic area that approximates the delivery area for a five-digit or a three-digit ZIP Code. ZCTAs do not precisely depict the area within which mail deliveries associated with that ZIP Code occur." (These four ZCTAs more closely approximate the project area than Census Tract 9502.) Only the 2000 web-based census provides a map of these four ZCTAs; it is not known if the boundaries of the 1990 and 2000 ZCTAs are precisely the same.

The 2000 Census provides population data for the communities of Lyle and Klickitat; this information is not available from the 1990 Census. The 2000 Census data for Lyle and Klickitat are included where available.

Population

Klickitat County has experienced periods of both population decline and growth in the past four decades. The county population dropped by 10% in the 1960's, but grew by 30% in the 1970's. Growth slowed to 5% in the 1980's, then increased to 15% in the 1990's. Both incorporated and unincorporated areas grew in population by about the same amount between 1990 and 2000, at 14% and 16% respectively.

Population for the Rails-to-Trails project area (defined for this report as the U.S. Census Zip Code Tabulation Areas for Klickitat, Lyle, Wahkiacus and Centerville) grew a little slower in the 1990's (about 13%) than the rest of the county (about 15%). Both the Rails-to-Trails project area and the county grew at a slower rate than the rest of Washington State (about 21%). The 2000 Census provided population data for Lyle (530 people) and Klickitat (417 people).

Race

Over 85 % of Klickitat County's population is white, compared to 79 % for Washington State. The project area, Lyle and Klickitat all are between 85 % and 90 % white.

Employment

Klickitat County has traditionally relied on resource-based industries such as agricultural crops, lumber and wood products as the main economic drivers, and more recently, aluminum production. County agricultural production includes wheat, orchard crops, some row crops, vineyards, cattle and dairy operations. The role of lumber and wood products is diminishing, while government employment continues to play a significant role in the county. The Columbia River Gorge's strong winds have led to an international destination point for windsurfers. There are other opportunities for economic growth in recreation and tourism in addition to windsurfing.

The 2000 Census reports that people living in the Klickitat River region are commuting to work about 23 minutes (at Lyle) to almost 50 minutes (at Klickitat), presumably to jobs in The Dalles, Hood River or other cities.

The 2002 Klickitat County Profile prepared by the Washington State Employment Security Department, Labor Market and Economic Analysis Branch, highlighted the following unique aspects about Klickitat County employment when compared to Washington State and the Nation (acknowledging "the gross differences in size"):

- "Klickitat (County) has far more of its employment in agriculture—17 percent compared to 3 percent for the state and 1.5 percent for the nation.
- Klickitat (County) has substantially more of its employment base in manufacturing. The higher concentration is due to the aluminum smelter and lumber and wood products.
- Klickitat (County) has about the same percentage of jobs in construction, transportation and utilities, and wholesale trade.

- Klickitat (County) has significantly fewer retail jobs, reflected in the leakage of retail spending to Oregon (where there’s no sales tax). The leakage has ramifications for the county’s tax base due to lost sales tax revenue.
- Klickitat (County) has only half the proportion of jobs in finance, insurance, and real estate. The corporate side of these industries is concentrated in large metro areas.
- Klickitat (County) has far fewer jobs in services—about a third of the state and national average. In part this is due to the public ownership of hospitals in the county, but also is due to the lack of corporate-oriented services such as legal, engineering, software, advertising, and so on. Also, the county is not a tourist mecca, so there are relatively few jobs in lodging and recreation.
- Finally, Klickitat (County) has a higher percentage of its employment in government, due to public ownership of the hospitals and the Public Utility District, and the captive audience for K-12 education.”

The following table depicts a breakdown of employment, by sector.

Table 12: Employment by Sector in Klickitat County, 2000

Employment Sector	<u>Percent Employed</u>
Manufacturing	
Lumber and Wood Products	7.6 %
Other Manufacturing	12.5 %
Construction and Mining	4.4 %
Transportation, Communications, and Utilities	5.9 %
Wholesale Trade	5.0 %
Retail Trade	10.4 %
Finance, Insurance, and Real Estate	2.1 %
Services	9.8 %
Government	
Federal	1.9 %
State	3.1 %
K-12	9.4 %
Other Local Government	10.6 %
Agriculture	17.4 %

Source: 2002 Klickitat County Profile, Washington State Employment Security Department, Labor Market and Economic Analysis Branch

Unemployment

Klickitat County suffers from high unemployment and relatively low income. Unemployment figures for Klickitat County are consistently about twice the statewide average.

In 2000, Klickitat County was considered a distressed county; that is, its unemployment rate was 20 % higher than the state average for three consecutive years (1998, 1999 and 2000). Overall, unemployment in the project area is similar to the entire county. However, the unemployment rate in Lyle is about half the County’ rate, while the unemployment rate in Klickitat is more than twice the County’s rate, and over four times the State rate.

Income

The Washington State average per capita income for 1999 was \$22,973. The Klickitat County average per capita income for 1999 was \$16,502, almost 30 % lower than for the State. The per capita income averages slightly higher in the Klickitat Rails-to-Trails project area than the rest of the county. However, per capita income in the community of Klickitat is almost 30 % lower than the county as a whole and about half that of Washington State.

Poverty

The 2000 Census reports the community of Klickitat as the highest-ranking Klickitat County community in percent of families with 1999 income below the poverty level (27.8%). Klickitat is one of 26 communities statewide with more than 25% of families with 1999 income below the poverty level. In contrast, Lyle is the second lowest-ranking (after Centerville) Klickitat County community in percent of families with 1999 income below the poverty level 8.2%. Klickitat County and Washington State were reported with 12.6% and 7.3% of families with 1999 income below the poverty level, respectively.

Environmental Consequences

Background Assumptions

The economic effects of the Klickitat Rails-to-Trails alternatives are assessed using the following indicators: the number of trail users, construction, operation and maintenance costs, recreation user expenditures, and the resulting effects on employment and income. The employment and income effects of user expenditures are estimated for the greater Columbia Gorge area. As service industries such as lodging and eating places and retail stores expand in the project area, more of the increases in employment and income can be captured locally.

The estimates for expected trail use and expenditures are based on previous recreation use studies for the Gorge, other Rails-to-Trails studies, and the professional expertise of Gorge recreation planners. See Appendix B for further elaboration.

Expected Trail Use

The Klickitat Rails-to-Trails complements the recreation gamut in the Gorge. High numbers of windsurfers participate in hiking and biking when they are not sailing. The Klickitat Rails-to-Trails offers this recreation market an alternative on windless days. People from Portland and other areas outside the Gorge would also likely use the trail and thus impact the economy. Many users, ranging from in-line skaters to horseback riders to the physically challenged, would perceive this trail as an excellent recreation opportunity.

Estimates of the expected number of users are based on recreation use figures for similar trail-based sites in the Gorge, and on trailhead capacity of each alternative, incorporating differences for seasons and weekdays/weekend use. A complete list of assumptions used to generate use figures for local, Mid-Columbia and out-of-region users may be found in Appendix B.

Economic Impacts

In addition to the short-term and direct economic activity associated with the development, operation and maintenance of the project, indirect and long-term economic effects can be measured in terms of direct expenditures on such things as food, lodging, equipment, and other services, and the resulting changes in employment and income.

The spending by recreationists directly supports jobs and wages in eating, lodging places, retail stores and automobile service stations. These direct jobs and the associated income include both owners and employees of these businesses. The purchases of equipment and supplies by these businesses from other businesses, such as restaurant purchases from a food wholesaler, generates additional business activity and indirect jobs and income. The personal purchases of the owners and employees also generate induced jobs and income. The additional business activity along with the indirect and induced jobs and income are only realized if the purchases by businesses or employees are made within the area being considered.

The spending profiles were applied to two regions developed using the Implan input-output modeling system and 2000 data. The first region is represented by Klickitat County, the site of the proposed trail. The second region adds Hood River County for a more comprehensive view of the central Columbia River Gorge economy. The impacts associated with this two county region are larger due to less leakages (purchases) from businesses outside the impact area. The expenditures of the trail users are considered to be captured in the modeled area as long as the businesses supplying the goods or services exist. Whether or not the expenditures would actually be captured by local businesses is not known.

Two types of trail users are identified – local and non-local. The local users are residents considered to be within 50 miles of the site. For this project, local users would include both “Mid-Columbia” visitors, and local residents of Lyle and Klickitat. The jobs and income generated by their expenditures portrays the amount of existing local economic activity that could be attributed to trail use. The economic activity generated by local users is not usually considered economic growth since local residents would spend money in other local recreational activities if the trail is not constructed. If it can be shown that local residents would substitute their recreation pursuits out of the area with the new trail, local use could be classified as new economic activity. Non-local trail users are from further than 50 miles away and their expenditures represent new money to the local economies and is considered economic growth. This analysis only considers non-local use. Local and Mid-Columbia trail users are not included when calculating economic benefits from visitors.

The job and income response coefficients in the following tables are based on 10,000 parties. In order to use these response coefficients, visits need to be converted into parties by dividing by 2.6. In other words, the 10,000 parties is equivalent to about 26,000 visitors.

Total expenditures per party for each type of use are about \$30 for resident day trip, \$44 for non-local day trip, and \$85 for non-local overnight trip. The non-local overnight expenditure is reduced from the standard expenditure profile amount of \$205 to convert the average trip length from 4.8 days to 2 days.

Due to economic linkages in the economy, income is distributed among different sectors. The service sector is the most highly stimulated by tourism in the Gorge. It includes lodging, eating and drinking, and auto repair and service. Retail trade is the second most highly impacted sector (Morse & Anderson 1988). The Klickitat Rails-to-Trails project area does not have the capacity to fully capitalize in all of these areas. For instance, there is only one overnight accommodation in Lyle, and none in Klickitat. However, the opportunity exists for the local communities to expand into these niches.

The response coefficients are summarized in the following table, for both the Klickitat County Model, and the Klickitat and Hood River Counties Model.

Table 13: Recreation Related Economic Impacts

10,000 Parties	Income		Employment		Multiplier	
	Direct	Total	Direct	Total	Income	Employment
Klickitat County						
Day Trip	\$113,462	\$141,447	8.3	9.5	1.25	1.14
Overnight	\$256,116	\$319,995	17.7	20.4	1.25	1.16
Klickitat / Hood River Counties						
Day Trip	\$120,470	\$164,916	8.6	10.6	1.37	1.23
Overnight	\$271,591	\$372,468	17.8	22.2	1.37	1.23

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

No development or maintenance costs are associated with Alternative 1. Very minor economic benefits would be expected from use of the trail.

Alternatives 2 and 2a, 31 Mile Trail, and Alternatives 3 and 3, 13 ½ Mile Trail – Direct, Indirect, Short and Long-Term Effects

The following tables summarize the projected economic impacts of the Klickitat Rails-to-Trails. Table 14 displays the cost per user to develop the trail, taken over a 20-year trail life span. Table 15 expresses the cost per user of annual operation costs.

Table 14: Development Cost per user (over 20 years)

Alt	Users per year	Users in 20 yrs	Construction Cost	Cost/User over 20 years
Alt 1	unknown	unknown	0	0
Alt 2	49,654	993,080	\$ 5,619,000	\$5.66
Alt 2a	44,876	897,520	\$ 5,619,000	\$6.26
Alt 3	38,412	768,240	\$ 5,019,000	\$6.57
Alt 3a	38,412	768,240	\$ 3,983,000	\$5.18

Table 15: Annual O&M Cost per user

Alt	Annual Cost	Annual Users	Annual Cost/User
Alt 1	0	unknown	0
Alt 2	\$102,000	49,654	\$2.05
Alt 2a	\$ 94,000	44,876	\$2.09
Alt 3	\$ 66,000	38,412	\$1.72
Alt 3a	\$ 56,000	38,412	\$1.46

Table 16 displays the recreation expenditures, income and employment that could be realized from the proposed trail, for both the Klickitat County Model, and the Klickitat and Hood River Counties Model.

Table 16: Recreation Expenditures, Income and Employment

Alternative	Direct Expenditures	Income Klickitat County Model	Income Klickitat and Hood River Counties Model	Employment (# of Jobs) Klickitat County Model	Employment (# of Jobs) Klickitat and Hood River Counties Model
Alt 1	unknown	unknown	unknown	unknown	unknown
Alt 2	\$458,300	\$167,800	\$195,500	11	12
Alt 2a	\$385,500	\$141,100	\$164,500	9	10
Alt 3 and 3a	\$287,000	\$105,100	\$122,500	7	8

Figures are rounded to the nearest \$100

Table 17 relates the benefits expressed in Table 16 to the costs of development and operations. For instance, Alternative 2 would realize the highest economic benefits, but is also the most expensive to develop and maintain. In Table 17, the dollar of direct expenditure and income realized is displayed for every dollar spent on trail development and operation. This table also displays results for both the Klickitat County Model, and the Klickitat and Hood River Counties Model.

Table 17: Benefit / Cost per year (Development & O&M Costs)

Alternative	Direct Expenditures Klickitat County Model	Direct Expenditures Klickitat and Hood River Counties Model	Income Klickitat County Model	Income Klickitat and Hood River Counties Model
Alt 1	unknown	unknown	unknown	unknown
Alt 2	1.09	1.09	0.60	0.70
Alt 2a	1.01	1.08	0.54	0.63
Alt 3	0.84	0.84	0.42	0.49
Alt 3a	1.03	1.03	0.53	0.62

Summary

The Klickitat Rails-to-trails project could bring anywhere from about \$287,000 to about \$458,000 in direct expenditures to the local economy, depending on the development alternative. Expenditures by recreationists could translate from about \$105,000 to about \$195,000 dollars in income, and between 7 and 12 jobs. This economic activity could help the local area recover from the loss of other employment, such as the closure of Klickitat’s lumber mill.

According to the 1998 *Klickitat County Profile* prepared by the Washington State Employment Security Department, Labor Market and Economic Analysis Branch, tourism is a relatively undeveloped area of enterprise in Klickitat County. The statewide tourism industry accounted for 3.9 percent of all statewide employment while in Klickitat it accounted for 2.4 percent.

Klickitat County has many attractions to draw tourists, particularly the Columbia River Gorge. Employment in the travel-related, or tourism, industry is increasing in the county. For example, from 1993 to 1996, employment in this industry grew 14 percent, while total covered employment throughout the county grew by only 9 percent. The total payroll for the travel (or tourism) industry was estimated at \$1.75 million in 1996. Given the attractions of Klickitat County and the Columbia River, the relatively sparse population of the county compared to the state, and the lesser share of tourism-related employment, the Employment Security Department concluded that tourism-related enterprise remains relatively undeveloped.

Tourist-related industries include restaurants, food stores, gas stations, travel agents, etc. Jobs related to recreation and tourism tend to be lower paying and more seasonal than the lost timber industry jobs. However, the travel-tourism industry provides broad-based employment.

Cumulative Effects

Many parts of the American West are becoming more urbanized, and open spaces are changing to rural residential. City people are moving to rural areas for a quieter pace, open spaces, natural surroundings and recreational opportunities. Klickitat County is part of this regional trend. Many new residents are moving to the county’s west end. The Klickitat Rails-to-Trails project

may act as an additional factor in this trend. Some recreationists drawn by the trail may decide to move to, or buy a second home in, the area.

If the proposed trail contributes to recreation and second home purchases in the county, housing prices and property taxes could increase. The combination of lower wages and higher housing prices could contribute to loss of affordable housing in the Lyle-Klickitat area.

Where these migrations patterns have occurred elsewhere, newcomers have sometimes brought values and demands different than the local culture. Some aspects of the rural way of life have changed in response.

By attracting out-of-area recreationists, the Rails-to-Trails could influence these migration trends. The changes brought by these newcomers, however, are likely to continue with or without the Rails-to-Trails, since these migration patterns are part of a much bigger trend.

3.4 EFFECTS ON NEARBY RESIDENTS AND LANDOWNERS

Existing Conditions

Some 125 different property owners have land adjacent to the right-of-way, most of it privately held. Adjacent lands are tribal, federal (Bureau of Land Management), state (Washington Department of Fish and Wildlife) Klickitat County, Klickitat School District, Klickitat County Special Districts (e.g., PUD and Fire Department), and private. All land adjacent to the corridor in Swale Canyon is privately held.

Concerns have been voiced by the Yakama Nation and private property holders, particularly nearby residents, and landowners who graze cattle and sheep. Concerns of the Yakama Nation are addressed in Section 3.6.

Concerns have been expressed regarding the impact the trail could have on the quality of life and privacy for nearby residents, access over or along the right-of-way, and potential conflicts between recreationists and cattle or sheep. Numerous residences are adjacent to the rail corridor. Cattle and sheep are grazed in two segments of the corridor. Specific information is provided below for each of the four potential trail segments concerning number of residences, proximity of residences to the proposed trail and trailheads, existing access to residences, and cattle and sheep grazing.

Segment 1: Lyle to Fisher Hill

Residences

Homes near the railbed are clustered in the Lyle area, and are found only in the first half-mile of the proposed trail. The right-of way is immediately west of SR 142, and three homes are located to the west of the right-of-way. Private access roads to these residences cross the railbed. Numerous homes are located east of SR142 in Lyle. A business is located across SR 14 from the proposed Lyle trailhead.

Segment 2: Fisher Hill to Pitt

This discussion focuses on the west side of the Klickitat River, since the trail is buffered to the east by the Klickitat River and SR142.

Residences

One home is located within 100 ft of the railbed at almost trail mile 7. This home does not have road access; the residents use a cable over the river from SR142. About a half dozen homes are located west of the railbed from approximately trail mile 9 to trail mile 9 1/2. There are also several structures such as tepees and campers. One of these houses is well screened by vegetation from the trail, the other homes are within sight and sound of the railbed. These residents have a private road for vehicle access.

A cluster of eight homes is located at Pitt. The railbed passes in front of one home, and then crosses SR142. This group of homes is located across SR142, and between 200 ft and 1,000 ft west of the proposed Pitt trailhead.

Cattle Grazing

One landowner grazes cattle in this segment in the spring and early summer. The area is within Klickitat County designated Open Range. This means that it is lawful to allow livestock to run at large and it is incumbent upon landowners to fence off their lands if they do not wish livestock to enter it (RCW 16.24.010). However, state and federal lands are exempted from Open Range designation and livestock may run at large on such lands only when the owner of the livestock has been granted grazing privileges in writing (RCW 16.24.065). State Parks currently has not received any request to permit grazing on this right-of-way.

The number of cattle and the timing of their use of the area varies from year to year. Very little of the land along the rail corridor is fenced, typically only the areas around existing houses. The rail corridor bisects grazing land and the Klickitat River, and cattle now move freely across the rail corridor. In at least one place of several thousand feet in length, cliffs limit any cattle from moving off the railbed.

Segment 3a: Pitt to Klickitat

Residences

Houses are located on both sides of the railbed in the Skookum Flat area. One house is relatively close to the railbed, the other houses are several hundred feet from the railbed, but within sight and sound of it. Numerous houses are near the railbed in Klickitat. Several residences are adjacent to the railbed on the southern end of Klickitat, then the railbed crosses SR142 and all residences are across the highway from the railbed until it enters the denser business/school area. In the core area of Klickitat the railbed is adjacent to the Klickitat School, businesses, and a few residences. The proposed Klickitat trailhead is not proposed near any residences; it would be located near the current school and businesses.

Segment 3b and Segment 4: Klickitat to Warwick

Residences

The railbed is across SR142 from about a half dozen residences at Suburbia. The railbed crosses SR142 at Suburbia, and is then adjacent to the sixth house. The railbed is across Horseshoe Bend Road from one house at the proposed Wahkiacus trailhead. About two miles up Swale Canyon from Wahkiacus, the railbed is within sight and sound of several houses. These residents have a private road for vehicle access; a road crosses the railbed to access some of the houses. About three miles up Swale Canyon from Wahkiacus, the railbed is adjacent to one residence. This resident appears to use the railbed for vehicle access; it is not known if alternative vehicle access currently exists.

Swale Canyon is not further populated until beyond Harms Road. One house is directly across the Lyle-Centerville Highway from the railbed at Warwick. The Warwick trailhead is proposed about a half mile east of the residence.

Cattle and Sheep Grazing

Several landowners graze cattle, and one landowner grazes sheep, adjacent to the rail corridor. Much, but not all, of the grazed land adjacent to the right-of-way is fenced. The sheep operation is located adjacent to the proposed Warwick trailhead. The land is well fenced between the sheep operation and the railbed.

Applicable Standards and Guidelines

No Land Use Regulations apply standards or guidelines relevant to this issue. SEPA requires an analysis of noise impacts, which is incorporated into the discussion of Environmental Consequences.

Environmental Consequences

Impacts to nearby residents and landowners are evaluated in terms of concerns regarding the impact the trail could have on the quality of life and privacy for nearby residents, adjacent landowner use of the right-of-way, and potential conflicts between recreationists and cattle or sheep. Quality of life and privacy are evaluated in terms of number of recreation users expected along the trail and at trailheads, and potential increased access for unlawful activity, such as trespass, crime, and vandalism.

For Action Alternatives, the discussion begins with effects common to all action alternatives, then evaluates effects specific to certain segments.

1) Recreation Users: The first category involves potential impacts to adjacent residents and landowners from recreation users lawfully on the trail. Potential impacts include noisy recreationists, more people in view from homes along the trail, users requesting services (such as telephone or water) from nearby residents, noisy dogs, dogs off leash entering private property (causing problems such as harassing landowners' dogs or children), litter blowing onto private property, human sanitation, and potential for people to inadvertently wander off the trail onto private land. Impacts are evaluated both for the trail itself, and for the trailheads, where use would be concentrated. The potential for increased fire risk from recreationists is addressed in Section 3.5.

2) Increased Access for Unlawful Activity: The second category involves increased access to private property for deliberate illegal activities, such as deliberate trespass, crime and vandalism.

3) Adjacent Landowner Use of the Right-of-Way: A third category involves use of the right-of-way for private property access, either across the railbed, parallel to it within the right-of-way, or along the railbed itself. Landowners may be interested in access for vehicles, boats, utilities, or other activities.

4) Cattle and Sheep Grazing: A fourth category involves cattle and sheep grazing in Swale Canyon and along the Klickitat River between Fisher Hill and Pitt.

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

The trail bed is in place and is public property. The right-of-way is technically open for public use (even though use is not encouraged). People are recreating on the railbed. There are no sanitation facilities either at trailheads or along the railbed. Public river access points are not designated, so users cannot tell if an access point is on public or private land. No measures to reduce trespass are incorporated into the “No Action” alternative. Low use is expected in this alternative, but there is no public information to differentiate public and private land. As a result, recreationists may inadvertently wander onto private land. There are no regulations to prohibit overnight use, use of fires, or smoking. The corridor is not patrolled by either the Forest Service or Washington State Parks.

Dogs are not currently allowed without any required restraints, as per the conventional State Parks policy for its lands. Enforcement is presently sporadic, however. Recreationists’ dogs may bother cattle, or nearby residents. Recreationists and cattle both used the railbed in Spring 2003, although recreation use was believed to be quite low.

No designated trailheads exist to provide parking, toilet, phone, or other services. People currently park at the SR14/SR142 junction in Lyle, Fisher Hill, Pitt, Wahkiacus (off Schilling Road) and Harms Road to use the trail.

Washington State Parks would continue to permit use of the Right-of-Way per its policies (see Appendix C).

If the Forest Service does not undertake trail management, it is not known if another entity (Washington State Parks, the Rails-to-Trails Conservancy, or a partner of these entities) would manage the trail, and under what type of management strategy.

Alternatives 2 and 2a, 31 Mile Trail, and Alternatives 3 and 3, 13 ½ Mile Trail – Direct, Indirect, Short and Long-Term Effects

The discussion begins with effects common to all action alternatives, then evaluates effects specific to certain segments.

Effects Common to All Action Alternatives

1) Recreation Users

A number of measures are proposed to help lessen impacts of trail users on nearby residents’ privacy. Adequate services (such as toilets) at trailheads would minimize recreationists asking residents for these services. Portable toilets on longer trail segments would reduce sanitation problems. Dogs would be leashed.

Measures are incorporated into all “Action” alternatives to reduce trespass problems. The railbed would be posted “Stay on Trail”. Signing could be added where inadvertent trespass is found to be a problem. Klickitat River and Swale Canyon access points would be designated on

public lands to reduce river access temptation on private lands. Signs would be placed at river access point intersections with the main trail, as well as at some distance before the access point. Other measures include trailhead information regarding corridor width and private lands adjacent to the corridor, and trail patrols. Finally, public information would inform recreationists to respect private land and residents' privacy.

Short-term noise impacts would be generated from trail construction activities, which may include heavy machinery, blasting or crews or workers. Long-term noise impacts would be associated with noisy recreationists and increased traffic at trailheads.

2) Increased Access for Unlawful Activity

Trespass, Crime, Vandalism: The railbed allows public access to properties on a route that was previously accessible by the railroad tracks. Relatively more trespass problems may be expected in the Action alternatives than in No Action simply from more people on the right-of-way. However, an alternate perspective maintains that increased use by law-abiding recreationists would deter people intent on illegal activity. The Action alternatives would provide more agency patrol of the railbed. The railbed surface would be improved to allow vehicular access on the railbed by law enforcement, thereby reducing response times to some remote locations.

In other areas of the Columbia River Gorge where trail and recreation facilities are adjacent to residential areas, impacts to local residences are not considerable. For example, Park Rangers report that for sites such as the Beacon Rock State Park (WA) moorage facilities and Latourell State Park (OR), vandalism to nearby residences is virtually nonexistent (pers. comm.1992). In most cases, litter is confined to the recreation facility.

Liability for Trespassers: Some landowners along the rail corridor are concerned they would be liable for injuries sustained by trail users who wander off the trail bed, out of the right-of-way, and on to private land. Since these individuals would be trespassing, a landowner owes no duty except to refrain from causing willful or wanton injury. In any event, the location of the trail is apparent and trail user would be asked to stay on the trail except at designated points on public land. It should be noted that Washington's Recreation Use Statute, RCW 4.24.210, generally protects both public and private landowners from tort liability if they allow recreational use of their lands without charging a fee.

Regardless of this protection against liability for injuries sustained by trespassers, landowners may have concerns with trespassing due to its possible interference with their use and enjoyment of their land.

3) Adjacent Landowner Use of the Right-of-Way

Washington State Park regulations allow some use of the right-of-way, by permit or easement. Permitted uses include vehicular access across the right-of-way, utility access across the right-of-way, and temporary use of the right-of-way adjacent to the trail.

4) Cattle and Sheep Grazing

Many other trails in the Pacific Northwest region have similar issues with recreationist/cattle interactions. On the Wenatchee National Forest, many trails run through cattle and sheep grazing allotments. Trail users can expect to see cows and cow pies. According to the Recreation Forester for the Wenatchee N.F., from 1986-1991, there were no reports of injuries to either livestock due to harassment by recreationist, or to trail users caused by livestock. All user complaints revolved around grazing in designated Wilderness areas. Similar complaints may arise along the Klickitat Rails-to-Trails corridor due to the Wild & Scenic River designation of the lower Klickitat River. However, grazing along this part of the river is not prohibited by this federal designation nor by the County's Shorelines Management Plan.

The Milwaukee Road, a Rails-to-Trails corridor from the Columbia River to the Idaho border in eastern Washington, permits grazing within the trail corridor itself by adjacent landowners. According to the managing agency, Washington Department of Natural Resources, Southeast Office in Ellensburg, there have been no injuries to recreational users of the Milwaukee Road caused by livestock since the trail opened over a decade ago.

This issue is addressed more specifically in the discussions of Segments 2 and 4.

Segment 1: Lyle to Fisher Hill

Trail Use: Estimates of trail use for this segment range from about 18 users per day on winter weekdays (10 local Lyle residents and 8 visitors) up to 92 users per day at peak use on summer weekends (10 local Lyle residents and 82 visitors). Peak use is expected to occur 25 days per year. Lyle residents are expected to use the trail for fitness and recreation, but not for transportation within the community, since the railbed is located on the edge of town. Ten or eleven Lyle residents a day are assumed to use the trail, which would translate into about 3,900 uses per year by Lyle residents (10.6 users for 365 days). In all, about 16,000 users per year would use Segment 1 (again, of which about 3,800 uses are by Lyle residents during the year.)

For the homes east of SR142, the sights and sounds of trail users would be similar to current traffic and pedestrian use, and would not be expected to be greater than existing noise generated by vehicles on the State highway. For the three homes west of SR142, human activity from the proposed trail would be higher than current low levels of use in Alternative 1. Dogs would be required to be leashed. Signs and user information asking users to respect residents' privacy may help reduce these impacts.

Lyle Trailhead: Traffic and human activity would increase near the Lyle trailhead over that of the current situation. Twenty-six parking spaces are proposed. At peak use (about 25 days per year, typically during summer weekends), 29 vehicles would enter and leave the trailhead. (It is expected that 90% of spaces (23) would get used once a day, the other 10% (3) would get used twice a day.) The number of vehicles is expected to be lower during other seasons and on weekdays.

WSDOT reports an average daily traffic count (in year 2002) of 3000 on SR14 at the SR142 junction, and 860 at the Junction of SR142 and Tacoma Avenue. Trailhead use would, at peak

use, add about an additional 0.1 % of vehicles to existing SR 14 traffic and about an additional 3.3 % of vehicles to existing SR 142 traffic at this location.

No homes are located within about 500 feet of the trailhead on the west side of SR142. Several homes are located within about 100 feet of the trailhead across SR142. The trailhead is proposed in an urban setting at the junction of two State highways. Other permitted uses at this location range from single-family dwellings to (conditionally) multi-family units, mobile home parks, school, or church. The proposed trailhead would generate traffic and activity similar to other possible uses.

Segment 2: Fisher Hill to Pitt

Trail Use. For Alternatives 2 and 2a, estimates of use for this segment range from about 9 users per day on winter weekdays up to 104 per day at peak use on summer weekends. About 15,400 users per year are estimated to use Segment 2.

For Alternatives 3 and 3a, estimates of use for this segment range from about 12 users per day on winter weekdays up to 127 per day at peak use on summer weekends. About 18,800 users per year are estimated to use Segment 2. Peak use is expected to occur 25 days per year.

The sight and sound of trail users would be evident to the residents between trail mile 7 and trail mile 9 ½. Dogs would be leashed in this segment, which would reduce potential problems from dogs entering private property. A portable toilet would be located at about trail mile 3 ½ cutting the distance between restrooms to about 6 ½ miles (toilet at Pitt at trail mile 10, and at Lyle at trail mile 0). Signs and user information asking users to respect residents' privacy may further help reduce these impacts.

The trail would be located directly across SR142 from the Pitt residents. The trail west of SR142 would pass in front of one the houses. East of SR 142, the trail would be relocated a short distance from the railbed, into the existing trees to provide screening for residents. Sounds and sights of trail users would be evident to Pitt residents, with most of the trail related activity across the highway from the residents. Signs and user information asking users to respect residents' privacy may help reduce these impacts.

Pitt Trailhead: The Pitt trailhead was intentionally proposed as far east of the houses as topography and public ownership would allow to minimize impacts to residents. Residences at Pitt would range from about 200 ft to 1000 ft from the trailhead, although across SR142.

Traffic and human activity would increase near the Pitt trailhead. Twenty-one parking spaces are proposed. At peak use (about 25 days per year, typically during summer weekends), 23 vehicles would enter and leave the trailhead. (It is expected that 90% of spaces (19) would get used once a day, the other 10% (2) would get used twice a day.) The number of vehicles is expected to be lower during other seasons and on weekdays.

WSDOT reports an average daily traffic count (in year 2002) of 690 at Pitt (the Klickitat River Bridge). Trailhead use would at, at peak use, add about an additional 3.3 % of vehicles to existing SR 142 traffic at the Pitt Trailhead.

Cattle Grazing

Cattle are typically grazed in this segment between March and July. March, April and May are considered “shoulder season” for recreation use for this segment, and an average of about 31 users per day (alternatives 2 and 2a) or 37 users per day (alternatives 3 and 3a) are expected to use the trail in the spring season. Use would be higher on weekends, and lower on weekdays. June and July are considered part of the “high season” for recreation use, with projections of 104 people per day (alternatives 2 and 2a) or 127 users per day (alternatives 3 and 3a) on the trail; again, higher on weekends, and lower on weekdays.

Dogs would be leashed. The public would be notified that the trail passes through private land, and that cattle are on the trail in certain seasons. The public would be asked to allow cattle time to move off the trail when they meet cattle. Over time, the cattle may learn to move across and along the trail when fewer people are using the trail, for instance early morning and evening.

Segment 3a: Pitt to Klickitat

Trail Use. For Alternatives 2 and 2a, estimates of use for this segment range from about 47 users per day on winter weekdays up to 56 per day at peak use on summer weekends. About 19,000 users per year are estimated to use Segment 2. For Alternatives 3 and 3a, estimates of use for this segment range from about 49 users per day on winter weekdays up to 79 per day at peak use on summer weekends. In Alternatives 2 and 2a, about 19,000 users per year are estimated to use Segment 2. Yearly estimates for Alternatives 3 and 3a are 22,400 users. Peak use is expected to occur 25 days per year. Dogs would be leashed in this segment.

Segment 3 estimates a higher level of local use than any other segment. The railbed is located in the heart of Klickitat, and the trail would serve as a community pedestrian route. About 33 or 34 Klickitat residents a day are assumed to use the trail, which would translate into about 12,200 uses per year by Klickitat residents (33.36 users for 365 days). In addition, Klickitat school officials assumed about 20 school children use the railbed to get to school. Using a 176-day school year, school children would use the trail about 3,500 times per year. In all, about 19,000 users per year would use segment 3, of which about 15,700 are by Klickitat residents during the year.

In Klickitat, sights and sounds of trail users would be similar to current traffic and pedestrian use. At Skookum Flat, the sight and sound of trail users would be evident to residents. Signs and user information asking users to respect residents’ privacy may help reduce these impacts.

Klickitat Trailhead: The trailhead would be located near the current school and businesses where traffic and human activity are expected.

Segment 3a and Segment 4: Klickitat to Warwick: (Alternatives 2 and 2a only)

Trail Use. Estimates of use for this segment range from about 9 users per day on winter weekdays up to 99 per day at peak use on spring weekends. In Alternative 2a, the trail would be closed from June 15 to September 30 of each year. Peak use is expected to occur 25 days per year.

The sights and sounds of trail users would be evident to the Suburbia residences, with most of the trail related activity across the highway from the residents. People currently park near the trestle location at Suburbia to use the river. If Alternatives 2 or 2a were implemented, potential parking at the Suburbia trestle could be blocked to prevent an undesignated trailhead without user facilities, if monitoring indicated a safety problem or impact to neighbors. This action could improve resident privacy at Suburbia compared to Alternative 1.

The sights and sounds of trail users would be evident to the one residence near the Wahkiacus trailhead, the residences in lower Swale Canyon, and the residence near the Warwick trailhead. Dogs would be leashed in this segment, which would reduce potential problems from dogs entering private property. Signs and user information asking users to respect residents' privacy may help reduce these impacts.

A portable toilet would be located at about trail mile 22 ½, cutting the distance between restrooms to 6 miles (a toilet would be placed at Wahkiacus at about trail mile 16.5, and at Harms Road at about trail mile 28).

Wahkiacus Trailhead: Traffic would increase on Horseshoe Bend Road and Schilling Road. Thirteen parking spaces are proposed. At peak use during spring weekends, 14 vehicles would enter and leave the trailhead. (It is expected that 90% of spaces (12) would get used once a day, the other 10% (1) would get used twice a day.) The number of vehicles is expected to be lower during other seasons and on weekdays. In Alternative 2a, the trail would be closed between June 15 and September 30 of each year. People would still likely use the Wahkiacus trailhead to hike from Wahkiacus to near Suburbia. The house at Wahkiacus is vegetatively screened from the proposed trailhead, but sights and sounds of trail users would be evident to people in the house. Currently, an average of 46 vehicles a day use Horseshoe Bend Road and 22 vehicles a day use Schilling Road at Wahkiacus.

Harms Road Trailhead: No residences are in the immediate vicinity of the Harms Road trailhead.

Warwick Trailhead: Twenty-one parking spaces are proposed. At peak use during spring weekends, 23 vehicles would enter and leave the trailhead. (It is expected that 90% of spaces (19) would get used once a day, the other 10% (2) would get used twice a day). The number of vehicles is expected to be lower during other seasons and on weekdays. Currently, an average of 140 vehicles a day use the Lyle-Centerville Highway at Warwick.

The Warwick trailhead was intentionally located as far east of the Warwick house as possible, to the very end of the railbanked railbed to minimize impacts to residents. Traffic and activity

associated with the trailhead would be located about a half mile from the residence. While the trailhead would be located a half-mile east of the house, the trail would be located directly across the Lyle-Centerville Highway from the Warwick residents. Sights and sounds of trail users would be evident to these residents, with most of the trail related activity across the highway from the residents. Vegetative screening would be added adjacent to the trail across from the structures to help visually screen trail users. Signs and user information asking users to respect residents' privacy may also help reduce these impacts.

Cattle and Sheep Grazing

Cattle are typically grazed in this segment between March and July. March is part of the "shoulder season" for recreation use in this segment, and an average of about 29 users per day are expected to use the trail in March. Use would be higher on weekends, and lower on weekdays. April, May and June are considered the "high season" for recreation use, with projections of 99 people per day on the trail, again, higher on weekends, and lower on weekdays. In Alternative 2, July is considered part of the "low season" for recreation use, with about an average of 9 people per day expected to use the trail. In Alternative 2a, the trail would be closed in July.

Dogs would be leashed. The public would be notified that the trail passes through private land, and that cattle are near the trail in certain seasons.

Sheep are grazed adjacent to proposed Warwick trailhead and adjacent to the right-of-way between Uecker Road and the Lyle-Centerville Highway (about six-tenths of a mile). As discussed above, at peak use during spring weekends, about 23 vehicles would enter and leave the trailhead. Activity would be lower at other seasons and on weekdays. The right-of-way is currently well fenced adjacent to the sheep pasture. The property owner uses dogs in his operation. Recreationists' dogs would be leashed at the Warwick trailhead and along the trail. Recreationists would be informed to "Stay on Trail" and respect adjacent private property.

Table 18 below summarizes expected levels of recreation use by season for the four trail segments.

Table 18: Recreation Users Per Day by Segment

Segment	High Season 25 days			Shoulder Season 153 days			Low Season 120 days			Average Daily Use over the Year		
	2	2a	3,3a	2	2a	3,3a	2	2a	3,3a	2	2a	3,3a
Alternative	2	2a	3,3a	2	2a	3,3a	2	2a	3,3a	2	2a	3,3a
1 - Lyle to Fisher Hill ¹	92	92	92	35	35	35	18	18	18	44	44	44
2 - Fisher Hill to Pitt	104	104	127	31	31	37	9	9	12	42	42	52
3 - Pitt to Klickitat ²	56	56	79	54	54	60	47	47	49	52	52	62
3a and 4 - Klickitat to Warwick	99	63	n/a	29	22	n/a	9	9	n/a	40	27	n/a

Notes: ¹: Includes 10 Local Lyle residents per day

²: Includes 34 Local Klickitat residents per day, and 20 school children per day during the school year

3.5 SAFETY, EMERGENCY RESPONSE, FIRE MANAGEMENT, LAW ENFORCEMENT

Existing Conditions

Safety

Numerous safety hazards have been identified. The trestles have broken ties, and lack safety railings. The trail crosses State Route 142 three times, and it borders the highway in places without guardrails or fences. The trail crosses four county roads. Rocks and debris slide or fall onto the trail. Rattlesnakes inhabit Swale Canyon. There are no designated parking areas. Parking in some user-defined parking areas (such as Fisher Hill) is creating safety hazards where cars partially park within the travel lanes.

Vehicle Access for Emergency Response

While much of the rail bed is at least 10-12 feet wide and while this allows emergency response access, there are no existing turnouts (where emergency vehicles can meet and pass one another) and no existing areas where vehicles can turn around. Emergency responders have one way in (access) and one way out (egress). This translates to either a reluctance to commit critical resources in the amount required for aggressive initial attack or knowingly placing firefighters in harm's way (if egress is blocked they would be trapped). Existing trestles along the railbed lack guardrails and decking, and some of the timbers show evidence of both external and internal rot. In their current condition the trestles would not support emergency response vehicles.

Vehicle access is described for the trail segments.

Segment 1: Lyle to Fisher Hill

The rail corridor is adjacent to SR142.

Segment 2: Fisher Hill to Pitt

Along the west side of the lower Klickitat River, the only current vehicle access is the existing rail-bed. Rocky and wet surface conditions, washouts and slumps block vehicle access for about 4 ½ miles between trail miles 3 ½ and 8. Past flooding has reduced some areas to less than vehicle width.

Segment 3: Pitt to Wahkiacus

From Pitt to Suburbia, the rail corridor is adjacent to or quite close to SR142.

From Suburbia to Wahkiacus, the corridor can only be reached from Wahkiacus, since the trestle has been removed at Suburbia. In this stretch, the condition of the railbed is too poor to allow vehicle access.

Segment 4: Wahkiacus to Warwick

The existing railbed is the only access for much of Swale Canyon. A private road reaches the railbed about two miles up from Wahkiacus (about trail mile 18 ½), and Harms Road crosses the

corridor at about trail mile 28.3. The railbed is drivable to up to about trail mile 21. While much of the railbed above mile 21 is drivable, access is blocked at the upper end near Harms Road by a damaged trestle. A side road leads into the canyon at about trail mile 27.

Emergency Response Times

Emergency notification times within the proposed project area would vary based on type of emergency, time of day, and location of incident. Swale Canyon poses the greatest challenge with little cellular telephone and radio communications coverage. As a result, the recreating public would be required to hike, bike, or ride to the nearest telephone to report an emergency. This could take as long as two hours in some locations.

Emergency Response times would vary with the season, time of day, location and type of incident. Local volunteer fire departments would be among the first to respond and would typically be the closest resources for emergency medical and fire incidents. Response times may be as short as 15 minutes near the communities of Lyle and Klickitat and may exceed 90 minutes in the heart of Swale Canyon.

Patient transportation time would likewise vary with location. Estimated transport times to Skyline Hospital (White Salmon, Washington), Klickitat Valley (Goldendale, Washington), or Mid-Columbia Medical Center (The Dalles, Oregon) would range from 30-90 minutes once a patient has been stabilized.

Elapsed time from the point of injury through notification, response, patient stabilization, and transportation would range between 1 and 5 hours.

Communications

Neither the Columbia River Gorge National Scenic Area nor the local volunteer fire departments have a radio repeater that provides coverage for much of the lower Klickitat River or Swale Canyon. As a result, radio communications are spotty to nonexistent in large portions of those drainages. Cellular telephone coverage is likewise poor in both areas.

The Forest Service is considering (as an action separate from this proposal) placing a shared radio repeater on the summit of the Columbia Hills north of Dallesport, Washington.

Fire Condition

Both the Klickitat River and Swale Creek are in steep canyons (slope has the second greatest influence over a fire's rate and direction of spread; absent wind, slope is the primary factor) with frequent basalt cliffs that support a variety of fuels ranging from Douglas-fir in the lower portions of the drainages to rolling grasslands on the Goldendale Plateau. By mid-June the primary fire carriers: cheatgrass and the majority of the native grasses have cured and are available to burn. Winds are the single largest factor dictating rate and direction of fire spread and both drainages are heavily influenced by Columbia Gorge winds. These winds are characterized by strong westerlies from May through September and east wind episodes, which begin in the fall and last throughout the winter. In short, the Affected Environment is extremely "fire friendly."

Fire History

During the period analyzed (1982-1991) there were twenty-one recorded fires within the Rails-to-Trails corridor all of which were human-caused. Fire frequency in the wildland environment depends upon an area's vegetation, topography, climate, and the coincidence of ignitions with weather and fuel moisture conditions that allow a fire to burn. Historically, lightning has been a significant source of wildfire ignition in the area; yet the highest risk of, and most damaging, wildfires have been associated with human activity. None of these fires were attributed to the railroad.

Responsible Agencies for Fire Suppression and Emergency Medical Response

Fire suppression and emergency medical response in the Rails-to-Trails corridor is location-specific and falls to the Washington State Department of Natural Resources (DNR), the Forest Service at the Columbia River Gorge National Scenic Area, Lyle Volunteer Fire Department (VFD), High Prairie VFD, Klickitat VFD, and Centerville VFD. All of these departments would respond to wildfires as well as to Emergency Medical Service calls. In addition, the ambulances from White Salmon and Goldendale respond from the hospitals, and potentially The Dalles if there were multiple injuries.

Law Enforcement

The Forest Service currently has no law enforcement jurisdiction on the right-of-way and provides no trail patrols. Law enforcement is under the jurisdiction of Washington State Parks, Washington State Patrol and Klickitat County.

Search and Rescue and Technical Rescue

Search and Rescue responsibilities within Klickitat County rest with the county sheriff's department. The Klickitat County Sheriff's Department maintains a search and rescue program that responds from Goldendale, Washington. Response times for search and rescue teams can be significantly longer than those listed above.

Local volunteer fire departments are not trained in, and lack the equipment for, technical search and rescue missions. This includes high angle and water rescues.

Environmental Consequences

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

Safety

No safety measures, such as bridge decking, safety rails or designated highway crossings would be implemented by the Forest Service in the "No Action" alternative. No trailheads would be developed, so trail users would continue to park in undesignated areas.

Vehicle Access for Emergency Response

Emergency responders can reach the trail from SR142 in the sections between Lyle and Fisher Hill and between Pitt and Suburbia. No improvements would be made to the railbed or trestles. In their current condition the trestles would not support emergency response vehicles. The

railbed is not currently drivable for the whole length between Fisher Hill and Pitt, or the whole length of Swale Canyon.

Fire Prevention and Suppression

The trail is currently open to public use, but few fire prevention measures are in place. Recorded fires in this area (1982-1991) were demonstrated to be human caused. Therefore, with increased trail access to the canyon since removal of the railroad tracks, there is a potential for an increased number of fire starts. Washington State Parks closed Swale Canyon in July 2003 to reduce fire risk.

The current state of the railbed prevents driving on it for about 4 ½ miles between Fisher Hill and Pitt, and for about 7 miles between Wahkiacus and Harms Road. As a result, response times would be slower than in Alternatives 2 and 2a, and 3 and 3a, particularly in Swale Canyon, which would be improved to allow emergency access for its entire length. The combination of potential increased number of fire starts described above, and continued slow response time could translate to larger and more destructive fires than alternatives 2 and 2a, and 3 and 3a.

In the short-term, no public evacuation plan would be developed. No helicopter-landing zones would be identified.

Communications

In the No-Action alternative, there is a much lower chance of a shared repeater being placed on the Columbia Hills than with Alternatives 2 and 2a, and 3 and 3a. As a result the initial attack fire and medical first responders would be placed at higher risk than with the Action alternatives.

Law Enforcement

The current low level of use may correspond to a low number of law enforcement incidents. From some perspectives, however, a higher number of people on the trail could deter illegal activity. Law enforcement would occur only in response to incidents. No trail patrol would be provided to deter illegal activity in this alternative.

Search and Rescue and Technical Rescue

The current low level of use may correspond to a lower number of search and rescue incidents than the Action alternatives.

Alternatives 2 and 2a, 31 Mile Trail, and Alternatives 3 and 3a, 13 ½ Mile Trail – Direct, Indirect, Short and Long-Term Effects

Safety

In all “Action” alternatives, safety would be enhanced by re-decking the entire width of the trestles and adding safety railings.

Where the trail crosses or is adjacent to Highway 142, designated crossings and safety barriers would meet all applicable WSDOT safety standards. Access roads from SR 142 for the Lyle, Pitt and Klickitat trailheads would meet all applicable WSDOT safety standards. Similarly,

where the trail crosses county roads, designated crossings would meet all applicable Klickitat County safety standards. Access roads from county roads to the Klickitat, and to the Wahkiacus, Harms Road and Warwick trailheads (Alternatives 2 and 2a only) would meet all applicable Klickitat County safety standards.

The trail could provide a safe place for community members, including school children walking to school. The trail would be safer for bicyclists than the narrow, winding SR142. Road bikes are more likely to use the trail in Alternatives 3 and 3a than in Alternatives 2 and 2a, due to the harder surface. Bicycles may use county roads connecting to the proposed trail as loop opportunities. Bicycle use may grow on these roads, increasing bicycle/vehicular conflicts.

Alternatives 2 and 2a only: Swale Canyon is rather remote and has hazards such as rattlesnakes. However, the trail itself can be used as an emergency vehicle access route in the canyon. Vehicle access makes this remote trail segment safer than for many National Forest trails. Trail users are generally aware that hiking in remote locations poses some risk, and many are prepared for the risk.

Vehicle Access for Emergency Response

Emergency responders can reach the trail from SR142 in the sections between Lyle and Fisher Hill and between Pitt and Suburbia.

Improvements between Fisher Hill and Pitt would make the railbed drivable for all but a 3 ½ mile stretch between approximately trail mile 4 ½ and trail mile 8. In the current condition, the rail bed is not drivable for about 4 ½ miles. Turnarounds would be located on either end of this constricted area. One-way traffic would not be possible in this section. Smaller vehicles such as ORVs may provide some limited vehicular response in this section.

Bollards or gates rather than permanent barriers would prevent unauthorized vehicular access through the proposed trail corridor, while allowing access for cooperating fire and emergency medical responders.

Alternatives 2 and 2a only: The railbed would not be drivable between Suburbia to Wahkiacus. However, adding a trail bridge at Suburbia would speed access to this section of trail. In addition, smaller vehicles such as ORVs may provide some limited vehicular response in this section.

Improvements in Swale Canyon would make the trestles and railbed drivable for the entire section between Warwick and Wahkiacus. The proposed 12-foot wide trail surface and 32-foot wide turnouts a minimum of every two miles would mitigate many of the access and egress concerns. The 12-foot width would allow a one-way traffic pattern to be established in the event of an emergency incident. One-way traffic patterns facilitate significant improvements in safety and increased efficiency.

Fire Prevention and Suppression

Both alternatives would generate an increased amount of public use and, over time, an increased chance of number of fire starts and emergency medical responses. However, many fire

prevention measures would be implemented to reduce fire risk. Many safety improvements would be implemented to reduce risk to users.

Improvement of the trestles and railbed would speed response considerably compared to the No Action alternative. The rail bed would be drivable for all but 3 ½ miles between Fisher Hill and Pitt (compared to 4 ½ miles in Alternative 1).

Alternatives 2 and 2a only: The railbed would be drivable for the entire length between Wahkiacus and Warwick. A public evacuation plan would be developed with the jurisdictional fire agencies in order to clear Swale Canyon in the event of a running wildfire. Two potential helicopter-landing zones for such emergency evacuation have been identified in Swale Canyon. In the event of a fire between Fisher Hill and Pitt, recreation users would have access to the Klickitat River.

Alternative 2a only: The trail would be closed between July 15 and September 30 of each year. This time period corresponds to the season of highest fire risk. This alternative would have a lower fire risk than Alternative 2.

Communications

The Forest Service is considering (as an action separate from this proposal) placing a shared radio repeater on the summit of the Columbia Hills north of Dallesport, Washington. If the proposed repeater is put in place, it would provide full coverage for the proposed trail area.

The USDA Forest Service requires that all field-going personnel be able to maintain radio contact with their home unit or a dispatch organization at all times while in the field. This applies to administrative personnel, fire crews, and trail crews. If the Forest Service begins trail management before the repeater is in place, a human repeater would be used in an emergency. A human repeater is a person placed on a high point so that a radio can hit an existing repeater and contact the folks on the ground via a line-of-site or direct radio frequency).

Law Enforcement

Higher levels of public use could correspond to a higher number of law enforcement incidents. Because Alternatives 2 and 2a would generate more use than Alternatives 3 and 3a, they could have more impact on law enforcement agencies. From some perspectives, however, a higher number of people on the trail could deter illegal activity. Trail patrol would be provided to deter illegal activity in the Action alternatives.

Search and Rescue and Technical Rescue

Higher levels of public use could correspond to a higher number of search and rescue incidents. Because Alternatives 2 and 2a would generate more use than Alternatives 3 and 3a, they could have more impact on search and rescue agencies.

3.6 CULTURAL/HISTORICAL RESOURCES AND TRADITIONAL NATIVE AMERICAN USES

Introduction

The sensitive nature of archaeological resources will limit the discussion of the specific sites and locations of such sites within the project area. A cultural resource inventory (“Rails to Trails - Klickitat River EA”) was conducted in 1995 by Michael Boynton. The report is on file at the National Scenic Area Office in Hood River, Oregon. Based on the results of Mr. Boynton’s inventory, a second inventory was initiated in 2003. The 2003 report, “A Cultural Resource Inventory of the Klickitat Railroad Trail” will disclose specific site descriptions, locations and potential effects. This document will be part of the Section 106 Process under the National Historic Preservation Act.

Additionally, a Programmatic Agreement was developed between the Advisory Council for Historic Preservation, USDA, Forest Service – Columbia River Gorge National Scenic Area, Washington State Parks and Recreation Commission, and the Washington State Historic Preservation Officer. The agreement was signed in 1996 and addresses implementation of the Klickitat Rails-to-Trails Project. This agreement states that “upon adoption as a National Recreation Trail, the Forest Service will ensure that the following measures are carried out: ...conduct an archaeological survey, ...evaluate properties, ...develop a Heritage Plan, andsubmit an annual report.”

Existing Condition

Two cultural resource types will be addressed within the context of this analysis, archaeological sites (historic and prehistoric sites) and traditional use areas of the Yakama Nation.

Archaeological sites include a number of prehistoric and historic-era Indian encampment sites, a reported petroglyph and isolated finds. Historic-era archeological sites include the Klickitat Railroad and associated railroad sites, Pitt Mill, and various historic occupation sites. At least a dozen historic and prehistoric sites have been identified within the railroad right-of-way or adjacent to the right-of-way.

Most of the sites have been impacted by historic uses going back over 100 years. Impacts have included events such as: railroad construction, road construction, road and railroad maintenance, road use, trampling from people and animals, mixing and compaction, erosion and deposition from flood events, and looting.

Archaeological site 45KL218 has been determined eligible for inclusion on the National Register of Historic Places in 1988.

A Yakama Nation traditional fishing site is located at the area known as the hatchery at Fisher

Hill. The fishing site is outside the National Scenic Area boundary, but within the Klickitat Wild and Scenic River boundary. This has long been a traditional fishing site for members of the Yakama Nation. It is the site of the First Foods Ceremony in May. The people of the Yakama Nation place great importance on this area. There is also a modern Yakama cemetery outside, but near, the railroad corridor.

It is likely that this fishing site will be determined to meet the criteria of eligibility as a Traditional Cultural Property. The National Register Bulletin “Guidelines for Evaluating and Documenting Traditional Cultural Properties” states:

“A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Various kinds of traditional cultural properties will be discussed, illustrated, and related specifically to the National Register Criteria.”

The traditional fishing site is well known in the surrounding communities. The Yakama Nation erects an Indian long house each year and invites visitors to the First Foods Feast. The First Foods ceremonies, however, are more private and the public is not invited. The fishing activities can be viewed from Highway 142, to the east. There is also an open public road within a few feet of the site of the ceremonies. Yakama people have experienced vandalism of their fishing equipment by unknown persons. There have been no reports of vandalism or intrusions into the fishing area or First Foods Ceremonies from individuals clearly associated with the railroad trail.

The Yakama Indian people use the cemetery. Given the location and setting of the cemetery, it remains a private site with few intrusions. The cemetery is accessible from an open county road. When people are gathered in the cemetery, they may be visible from the road. The cemetery is approximately 100 feet from the edge of the railroad right-of-way. It is likely that few visitors have noticed its presence. There have been no reports of vandalism or public intrusions into the cemetery.

The railroad right-of-way was railbanked by the Rails-to-Trails Conservancy (RTC). In 1994, The RTC donated the corridor to Washington State Parks and Recreation (retaining a right of entry and recovery if State Parks opts out). While the trail is not being advertised or promoted by Washington State Parks, it is considered public land and is open public right-of-way. An unknown number of hikers and bicycle riders have used the trail since it has been “banked”.

Applicable Standards and Guidelines

A. The Columbia River Gorge National Scenic Area Management Plan

Applies between the Lyle Urban Area Boundary and the National Scenic Area boundary (approximately the Fisher Hill trestle). The applicable standards are quoted below from Chapter 2 - Cultural Resources. for the General Management Area.

The GMA goals are two fold: 1. Protect and enhance cultural resource and 2. Ensure that proposed uses do not have an adverse effect on significant cultural resources. The following

National Scenic Area Guidelines apply to the first 1.6 miles of the railbed:

GMA Guidelines:

- Tribal Governments shall be notified that cultural resources exist in the project area and shall be granted time to comment.
- Ethnographic research shall be required if requested in writing by interested persons.
- Small-scale uses shall generally require a surface survey and subsurface testing if the surface survey reveals that cultural resources may be present.
- Large-scale uses shall require a reconnaissance survey conducted by a qualified professional.
- Survey reports shall be sent to SHPO and Indian tribal governments (30 day comment period).
- Local government shall make a final decision on whether the proposed use would be consistent with the cultural resource goals, policies, and guidelines.
- The cultural resource protection process may conclude when one of the following conditions exists:
 - The proposed use does not require a reconnaissance or historic survey.
 - A survey demonstrates that cultural resources do not exist.
 - The use would avoid archaeological resources and traditional cultural properties in the project area.
 - A reasonable buffer zone must be established around the affected resources or properties and all ground-disturbing activities shall be prohibited within the buffer zone.
 - An evaluation of significance shall be conducted if the affected cultural resource is not avoided.

B. The Klickitat River Wild and Scenic River Management Plan

Applies from the trail beginning in Lyle to river mile 11.

There are four broad goals specific to the lower Klickitat River. Most applicable to the cultural resources is Goal 1 which states: “To protect and seek opportunities to enhance outstandingly remarkable resources in the river corridor: the river’s free-flowing character; resident and anadromous fish and their habitat; Native American dip-net fishing; and the geology of the lower gorge. (Appendix B-3).

More specific goals were also presented and include:

Goal 9: “...dip-net fishing as an outstandingly remarkable value. Any actions taken will help protect the physical and biological components of this use—the gorge, the fish, and the dip-net platforms”. The Goal also suggests that a more-detailed inventory is needed to identify and evaluate additional sites. Further, the Yakima Treaty of 1855 states:

“The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.”



Figure 4: Native American dipnet fishing on the Klickitat River

Image ID: fish0763, Fisheries Collection

Location: Columbia River, Washington

Photo Date: 1968 October

Photographer: Bob Williams



Figure 5: Native American dipnet fishing on the Klickitat River

Image ID: fish0764, Fisheries Collection

Location: Columbia River, Washington

Photo Date: 1968 October

Photographer: Bob Williams

Environmental Consequences

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

Under this alternative, the trail would not be adopted as a National Recreation Trail by the Forest Service. The Forest Service would not manage the railbed as a trail. Consequently it is not a federal undertaking and there would be no effect to cultural resources under the Section 106 process.

Sect. 800.1 Purposes.

(a) *Purposes of the section 106 process.* Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Council a reasonable opportunity to comment on such undertakings. The procedures in this part define how Federal agencies meet these statutory responsibilities. The section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency officials and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

Federal protections would continue within the National Scenic Area (2 miles), and within the Klickitat Wild and Scenic Corridor (10.5 miles). State of Washington cultural resource protections would apply to all 31 miles as long as the railbed is owned by Washington State Parks. Should the Rails-to-Trails Conservancy resume administration of the railbed or should the railbed revert to private ownership. Washington State Statute RCW 27.53 would apply. The statute reads:

RCW 27.53.060 (1) "On the private and public lands of this state it shall be unlawful for any person, firm, corporation, or any agency or institution of the state or a political subdivision thereof to knowingly remove, alter, dig into, or excavate by use of any mechanical, hydraulic, or other means, or to damage, deface, or destroy any historic or prehistoric archeological resource or site, or remove any archeological object from such site, . . . without having obtained a written permit from the director for such activities." It is also a class C felony to violate this statute.

This statute does not require the same inventory process required during Federal actions.

The effects of this alternative are most easily compared to the other action alternatives. Federal regulations would only apply within the first 10.5 miles of the trail (under the NSA act and the WSR Act.) The No Action Alternative would have one of three possible outcomes: 1) WSP would continue ownership and management of the railbed as public property, 2) Rails-to-Trails Conservancy would resume ownership and manage the railbed as a trail directly or through a second not-for-profit party, or 3) the railbed would revert to private ownership.

If Washington State Parks maintains ownership and management of the railbed, protections to cultural resource sites would likely continue at a high level of attention. Ground-disturbing actions would be reviewed for the potential to affect cultural resource sites. Monitoring and site protection would occur. Traditional Use areas would be protected by the WSP as part of its overall mission as well as having some protections through the Wild and Scenic Rivers Act.

If Rails-to-Trails Conservancy manages the trail, directly or through a second party, less attention would likely be given to potential effects to cultural resource sites. Two of the 31 miles of trail would fall under Forest Service review that would offer some protection from adverse effects. Traditional Use areas would have some protections through the Wild and Scenic Rivers Act, but would be more vulnerable to all types of effects.

If the railbed becomes private land, only those actions requiring County planning approval would be reviewed. Only the first approximately 1.6 miles of the railbed, within the National Scenic Area, would require federal review and compliance. Traditional Use areas would have some protections through the Wild and Scenic Rivers Act, but would be more vulnerable to all types of effects.

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

Under these alternative, the trail would a more primitive trail. It would be four feet wide for its entire length and there would be six trailheads constructed. The low speed of transport by increasing the level of difficulty would have the tendency to slow passage through the area, and increase the opportunity for people to take notice of off-trail features. Use level is anticipated to be moderate, however. Cultural resource sites occur with the railroad right-of-way as well as occur adjacent to it.

Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects

Alternatives 3 and 3a would only develop the first 13-½ miles (Lyle to Klickitat) of the trail and there would be only three trailheads developed. Much of the trail would either be paved or would have a hardened surface suitable for wheelchairs, strollers, and street bikes. Visitor use would be moderate and the hard surface would tend to encourage higher speed pedestrian and bicycle use. Cultural resource sites occur within the railroad right-of-way as well as adjacent to it. With such use, there is much less likelihood of people wandering off the trail and stumbling upon cultural resources.

The type of effects to individual cultural resource sites is the same under each alternative. Differences between the alternatives occur in the number of miles of trail exposed to the public and the amount of construction for trailheads.

The following assessment of effects applies to Alternatives 2 and 2a, and 3 and 3a.

Federal involvement in management of the railroad trail would require compliance with the National Historic Preservation Act. Any and all actions that could cause effects to cultural resource sites and Traditional Cultural Properties would be reviewed under the 106 Process. The

greatest attention to archaeological, historical and traditional resources would occur with Federal management of this railbed as a trail. Alternatives 2 and 2a, being longer, would encompass more sites than Alternatives 3 and 3a. Federal administration could offer more techniques to mitigate adverse effects. It is likely that more monitoring would occur of archaeological and historical sites under the Action alternatives by the presence of a “Trail Ranger”.

Use of the railbed, with surfacing described in the alternatives, would have no direct effect to significant historical or archaeological sites. Of the 25 historic and archaeological sites found within the area of potential effect, two occur within the railbed. The railroad bed is an element of the historic railroad itself. The eligibility evaluation proposes that the railbed lacks physical integrity and use of the railbed as a trail would have no effect or no adverse effect on the site. There is also a small flake scatter within the railroad bed. This site is not considered eligible for inclusion on the National Register of Historic Places.

Construction of access points (trailheads and bridges) has the potential to directly affect historical and or archaeological sites. Impacts could include excavation, compaction, or displacement of artifacts or features. Alternatives 2 and 2a would have an adverse effect on one archaeological site. Mitigation: data recovery is proposed to collect data that would be lost with implementation of either of these two alternatives. The Forest Service would consult with interested Tribes and with the State Historic Preservation Officer, following the Section 106 process, to mitigate any adverse effects to this archaeological site. Alternatives 3 and 3a would have no adverse effects to cultural resource sites.

Use of the railbed would have some short-term effects to historical or archaeological sites. Phased construction of the trail and trailhead facilities would allow for use of the trail and parking at trailheads before construction is complete. It is possible that some trail users might recognize archaeological material that is on the surface. Vehicles would also be allowed to park at designated access points. There should be some additional trampling of the sites or compaction of the sediments from this use. These effects would be lessened when the trail surfacing is completed and the trail heads have been constructed. Most archaeological resources would become less noticeable with improved surfacing.

The short-term effect on the Traditional use area at Fisher Hill would be the increase number of people passing by during fishing season and during ceremonies.

Use of the railbed could have indirect effects to historical or archaeological sites that are adjacent to the trail. Trail users who wander off the trail could knowingly or unknowingly have an effect on the archaeological and historical sites through ground-disturbing activities, most likely digging. Day-use only restrictions would eliminate most reasons for trail users to use a shovel or to do any digging.

The indirect effect on the Traditional use area at Fisher Hill would be the increased number of people who pass by during fishing season and during ceremonies who become aware of the Indian fishing area and of their ceremonies. Some fishermen could perceive people using the trail as gawking or harassing. The fishing area is not visible from the trail route, but is visible from SR 142. Passing through on the right-of-way does not constitute an infringement upon

treaty uses of the site. Any trespass onto the Washington Department of Fish and Wildlife land would have to be addressed by the Department. However, currently, the lands are not posted or under any type of administrative closure.

Issues raised concerning trail use adjacent to the Traditional fishing area include: potential of vandalism of fishing equipment, intrusion on private ceremonies and harassment of the fishermen by the trail users who go off the trail. Several mitigation measures are possible and could be implemented at the request of the Tribal government:

- Visibility of the fishing area could be screened by adding vegetation along the edges of the railbed.
- Use of this segment during the annual First Foods Ceremony could be controlled by trail closure by the Forest Service if it becomes a problem. The First Foods Feast is traditionally open to all comers as a celebration of the return of life, although this could change if the Native American community feels harassed.

Use of the railbed by trail users could also have an indirect effect on the adjacent Indian cemetery. The cemetery is approximately 100 feet outside the railroad right-of-way. During winter leaf-off, the cemetery is partially visible from the railbed. An issue has been raised that trail users might interrupt non-public ceremonies. Should disruptions occur:

- Vegetative screening could be used to block visibility of the cemetery from the trail.

An issue was raised that a cultural resource inventory had not been completed for this project and that there were archaeological sites that have not been identified by the Forest Service, which therefore might be adversely affected by the implementation of this proposal. This issue applies equally to Alternative 2 and 2a, and 3 and 3a.

- A more complete cultural resource inventory was implemented in 2003 when the environmental assessment process was reinitiated after a 5-year hiatus.
- A professional archaeologist has conducted additional research in the areas identified as having undocumented cultural resource sites.

The 106 Process, of the National Historic Preservation Act, will guide the process to record, evaluate and assess effects to significant cultural resource sites.

Cumulative Effects

Implementation of either alternative 2 or 2a would result in the adverse effect to one archaeological site. Data recovery would be implemented to mitigate for the adverse effect, however, part of this archaeological site would be obliterated by either of these alternatives.

Use of the railbed could have long-term and cumulative effects to historical or archaeological sites that are adjacent to the trail. Continued trail use and use of trailheads could create an impact zone outside of the initially created trail or trailhead. Likely long-term effects would include trampling and perhaps some mixing of sediments if muddy conditions are present. Foot traffic, wheeled vehicles or horses could cause such impacts.

The long-term and cumulative effects on the Traditional use area at Fisher Hill would be the increase number of people who become aware of the Indian fishing area and of their ceremonies.

3.7 NATURAL AND WATER RESOURCES

Existing Conditions

Klickitat River

Water and Soil Resources

The Klickitat River is the second longest free-flowing river in the State of Washington. The mainstem is nearly 96 miles long, from the Goat Rocks Wilderness Area to the Columbia River. The river has a drainage area of over 13,000 square miles. Most rivers of this size in the northwest have at least one dam along their course. The Klickitat's free-flowing character provides cultural, scientific, educational, recreational, and fish and wildlife benefits. Rivers whose flow is not impounded provide opportunities to observe the natural cycle of flood and scouring along with relatively unaltered streamside vegetation.

Approximately 90 percent of the lower Klickitat River yearly flows come from its upper watershed in western Yakima County, including the eastern slopes of Mount Adams, where annual precipitation exceeds 100 inches. The remaining 10 percent of the lower river flows come from the Little Klickitat and other smaller tributaries draining lower elevations in Klickitat County. The annual hydrograph of the Klickitat River is characterized by a steady increase in flows during the wet winter season, rising to maximum average monthly flows during spring snowmelt. However, rain-on-snow events during the winter months are the major cause of peak, instantaneous, flows. The most recent major floods occurred in December 1964, January 1974, and February 1996.

A Log Pearson III analysis of 75 years of flow records (through water year 1999) indicates a 100-yr event at the lower Klickitat River near Pitt gauge to be about 47,000 cubic feet per second (cfs) and a 50-yr event at 37,000 cfs. The February 8, 1996 peak was 51,000 cfs and equivalent to a 125-yr event. The January 15, 1974 peak was about seven tenths of a foot lower at the gauge site, having a discharge of 47,400 cfs.

Mean annual flow, as measured near Pitt, is about 1,600 cfs. Summer flows normally exceed 750 cfs, due largely from sustained input from melting snow and ice on the slopes of Mount Adams. Flows are extremely low in tributaries, including Swale Creek, due to a variety of factors, including water withdrawals, during the drier summer months.

The lower Klickitat River, from the mouth upstream to the Little Klickitat, generally contains excellent water quality (Class A). Although not listed as a 303(d) water quality impaired segment, the State of Washington considers this rating to be threatened due to marginal temperature conditions and the quantity of suspended solids. Water temperatures during the summer months have been recorded as high as 65 degrees F. These temperatures are not warm enough to have detrimental effects on cold-water fisheries, but are high enough to warrant caution in planning any future developments that may affect river temperatures. The warm temperatures in the river are primarily due to low flows, warm air temperatures, and high solar

radiation during the summer. Streamside shading is not a major influence on water temperatures in the Klickitat River due to the large stream width. Turbidity in the Klickitat River is often high, particularly during periods of high runoff. The major sources of sediment appear to be natural glacial melt as well as discharge from upstream tributaries.

The river gradient of the lower Klickitat River averages about 26 feet of drop per mile, flowing through a canyon incised into basalt flows that are 2,000 feet thick in areas. The lower Klickitat River gorge is only a mile long, but narrows to less than eight feet at one location. No other river in the region discharges such an amount of water through such a narrow gorge, making it a very unique resource. The lower Klickitat River gorge is easily viewed from many locations, including the railroad right-of-way, and has been utilized extensively as a native subsistence fishing site for many generations.

The project area is dominated by steep canyons that have frequent vertical basalt cliffs, seeps and springs, and diverse soil/moisture conditions. These conditions lead to a great habitat diversity dispersed over the area. Soils in the lower Klickitat River corridor vary with local topography and characteristics of the substrate. The corridor is dominated by fluvial deposits adjacent to the river and steep bedrock and talus slopes leading up to the higher plateau areas. Most of the developed soils along the river and within the corridor are derived from deposits of mixed river sediments, ranging from silt to extremely cobbly sand, with soil typically 60 inches or more thick.

Approximately 48% of the railbed is located within the 100-yr floodplain with potential for erosion and deposition as a result of flooding. Flood damage to the railroad corridor, State Highway 142, and numerous residences along the lower river has been severe in the recent past during the floods of 1964, 1974, and 1996. Damage was from direct floodwater run-off as well as damage due to "mass wasting" failures from saturated soils upslope and associated debris avalanches. Numerous sections of the railbed along the lower Klickitat River sustained severe flood damage during the flood of 1996. Concentrated damage occurred between Wahkiacus and the Town of Klickitat, with the approach to the rail bridge at Suburbia being washed out. A section of railbed just above Wheeler Canyon was completely eroded, and numerous washouts occurred below Pitt. The Swale Canyon section incurred some damage at most of the bridge crossings mainly associated with woody debris accumulation.



Figure 6: Erosion of the rail bed by the 1996 flood downstream of Pitt.

In addition to flood damage, the railbed and associated infrastructure has influenced natural channel processes in both the Klickitat River and Swale Creek. Constriction of the Klickitat River at Suburbia Bridge has caused upstream deposition of sediment and the formation of a mid-channel island. This situation has encouraged floodwaters to overtop State Highway 142 and the bridge abutments due to creation of a large backwater area above the crossing (Northwest Hydraulic Consultants Report, 1996). The referenced report quotes an assessment of damage during the 1974 flood: “During the 1974 flood, the river rose to such a level against the trestle that a substantial diversion was created across the highway, and eight residences were surrounded. The resulting damage and property loss was substantial. Fortunately, there was no loss of life, although five people were trapped for some 40 hours.”



Figure 7: Air photograph showing constriction of the Klickitat River at Suburbia Bridge. This constriction has slowed water velocity and caused an island to form upstream of the bridge site.

The railroad bed has modified natural stream channel processes at the Logging Camp Creek alluvial fan, located approximately 1 mile downstream of Pitt. The rail bed cuts across the fan and is the site of a recent enhancement project to replace a railroad trestle that was causing channel aggradation and impeding migration of anadromous fish. The trestle was replaced in 2002 with a bottomless concrete box culvert that has restored passage. As is the case with most alluvial fans, the channel is naturally prone to shifting locations due to frequent deposition of bedload material.

Vegetation

The general vegetation in the Klickitat River Basin is a mixture of pine (*Pinus ponderosa*)/oak (*Quercus garryana*) woodlands and grasslands. Grasslands dominate drier slopes with scattered pines and/or oaks. Pine and oak density increases with increased moisture. Douglas firs become more common on cooler and wetter north facing slopes. Grasslands are primarily annual exotics, such as cheat grass, although some more inaccessible areas have good populations of native bunch grasses (bluebunch wheatgrass, Idaho fescue, and pine grass) and desert parselys (e.g., *Lomatium grayii*, *L. columbianum*, *L. suksdorfii*). The woodlands understory is largely poison oak, snowberry, ocean spray, Oregon grape, and a variety of herbaceous and grass species. Species such as big leaf maples, mock orange, rushes and sedges are found in small side draws, seeps, springs, and riverbanks.

The Klickitat River has carved a riparian area with diverse flora and fauna. The flora includes willows, black cottonwoods and alders immediately adjacent to the river's edge, intermingled with pines and oaks in slightly drier riparian areas. Larger areas of riparian vegetation have become established on islands and on gravel bars that occur in broad river bends. The river's active floodplain is largely cobbles and sand with little vegetation except for some grasses and herbaceous species. During the floods of 1996, the flood plains were again denuded and will be re-colonized by opportunistic flora.

Infestations of noxious weeds were observed along the trail. The more troublesome infestations included Dalmatian toadflax about 1 mile south of Wahkiacus, longspine sandbur grass about 5 miles north of Fischer Hill bridge, and hounds tongue at the Northwest Natural gas line crossing. Numerous smaller and scattered infestations were noted elsewhere along the trail.

Fish and Wildlife

Fish and wildlife species that are on state or federal TES (threatened, endangered or sensitive) lists documented within the project area include the bald eagle, Western gray squirrel, steelhead, and bull trout. The Washington Department of Fish and Wildlife's priority habitat and species (PHS) list is a catalog of habitat and species considered to be priorities for conservation and management. The 2002 PHS database maps 6 zones adjacent to, or overlapping, the Klickitat River and Swale creek. These six areas are riparian zones, bald eagle, mule and blacktail deer, oak woodland, western gray squirrel, and wild turkey. TES species and potential occurrence in the project area are summarized in the Biological Evaluation, located in Appendix D.

The 31-mile railbed closely follows the Klickitat River or Swale Creek for all of its length. The distance from trail to water's edge varies from around 10 feet to over several hundred feet, but is generally in the riparian habitat ecotone. This zone is defined as the interface between aquatic (stream/river) and terrestrial (upland) environments. The riparian habitat in this watershed tends to be narrowly constrained along the margins of the river, with oak and pine creeping down quite low into the river valley. The existing habitat adjacent to the rail bed is roughly summarized in the table below. Information pertinent to Swale creek is marked in italics, while the Klickitat River is left in regular font.

Table 19: Existing Habitat Adjacent to the Rail Bed

	Miles	Approximate Location (trail mile)
Upland Edge of Riparian (Pine, Oak)	10	6-6.5, 7.5-8, 8.5-9, <i>17.5-26</i>
Riparian (Maple, Alder, Willow, Pines, Cottonwoods)	9	2-6, 6.5-7.5, 8-8.5, 9-10 (several homes interspersed), 14-16.5 (Suburbia Bridge to near Wahkiacus)
Upland Edge of Riparian (grass/shrub steppe of Swale Canyon)	5	<i>26-31</i>
Residential/High Use (adjacent to homes, highways/roaded, formal fishing site, towns)	7	0-2 (community of Lyle to Fisher Hill bridge, trail alongside highway), 10-14 (Communities Pitt to Klickitat, trail along highway), <i>16.5-17.5</i> (Wahkiacus area)

Within the Pacific Northwest, the riparian area generally occupies only 0.5 to 2.0% of the landscape, but harbors substantially more plant and animal species and biomass than the surrounding uplands (Kauffman et. al., 2001). Washington Department of Fish and Wildlife's 1997 riparian management plan reports that approximately 85% of the Washington's terrestrial vertebrate species use riparian habitat for essential life activities (Knutson and Naef, 1997). The river's riparian corridor serves as important foraging, nesting/breeding, cover, and migration route for wildlife species, as well as provides access to critical water resources within a low-rainfall watershed. The riparian area adjacent to the railbed currently provides low-elevation refuge for wildlife during moderate to severe winters due to the lack of roads, building developments, and other human disturbances. This habitat is limited within the Columbia Gorge and surrounding areas due to commercial and residential growth, as well as existing roads and highway infrastructure. During 7 field visits in February, May, June, and July of 2003 these species were noted from the trail: Northern river otter (scat and trails), osprey, bald eagle, Great blue heron, beaver (sign), blacktail deer, golden eagle, merlin, Vaux' swift, California ground squirrel, Western rattlesnake, gopher snake, Pacific tree frog, alligator lizard, common merganser, spotted sandpiper, (cliff, violet-green, rough-winged) swallows, turkey vulture, kingfisher, mourning cloak caterpillars, velvet ant, several species of butterflies, Lewis' and hairy woodpecker, and a western gray squirrel platform nest were noted. A listing of wildlife species that may be present in the project area within the lower 15 miles of the Klickitat river was also listed in Chapter 3 of the 1991 Klickitat Wild and Scenic River Management Plan.

Approximately 20 springs or stream crossings occur adjacent to or through the current railbed, with almost all having fairly low flows with the exception of Logging Camp creek. Out of the 20, nine had amphibian tadpoles (Pacific tree frog), aquatic snails, or aquatic insect residents. Eleven were still perennial in June. No TES wildlife species were noted in these wet areas. Highway 142 travels adjacent to the Klickitat River for the lower 16.5 miles, crossing the river once at the community of Pitt. Within this project area, there are 10.5 miles of the lower Klickitat River where the railbed is on the opposite shore to this highway.

Bald eagles are known to use the lower 42 miles (up to Klickitat fish hatchery) of the Klickitat River and (to a much lesser extent) at least the lower 4 miles of Swale Creek for wintering (personal communication with David Anderson of WDFW, July 2003). The existing eagle density and distribution is likely related to areas of least disturbance and highest forage biomass. Seven bald eagles were counted during a field review of the railbed in February of 2003. These raptors are also commonly seen at the mouth of the Klickitat (delta) throughout the year. No nests or roost sites are known to occur within a half mile of the railbed, nor are they visible from the railbed. Typical winter use is from October 31 to March 31, with a peak from mid-November to February. Bald eagles wintering in the Klickitat have been radio-tracked to many other river systems such as the Skagit, Nooksack, Chelan, Yakima, Sauk, and Columbia River over the winter months (Watson and Pierce, 1998). Eagles that winter in Washington state breed far northward into British Columbia, Northwest Territories, Yukon and Alaska. The Pacific Bald Eagle Recovery Plan documented that the Washington state midwinter counts of bald eagles from 1979 to 1984 varied from a low of 1126 eagles in 1979 to a high of 1542 in 1984 (USFWS, 1986). The W.A. State Status Report for Bald Eagle, written by WDFW in 2001, reported that annual midwinter counts in Washington rose fairly steadily from 1984 (1542 eagles) to 1989 (2870 eagles), and was discontinued in 1989 when it "was apparent that the bald eagle was

recovering and that much of the year-to-year variation in the number of wintering eagles was at least in part produced by conditions outside of Washington, such as prey abundance in British Columbia” (Stinson, et. al, 2001). The mid-winter counts in the Klickitat River, as well as the other winter population in Washington, are graphed below. The Klickitat River wintering eagle subgroup is a relatively small percentage (0.25 to 0.84 %) as compared to the total numbers within Washington State.

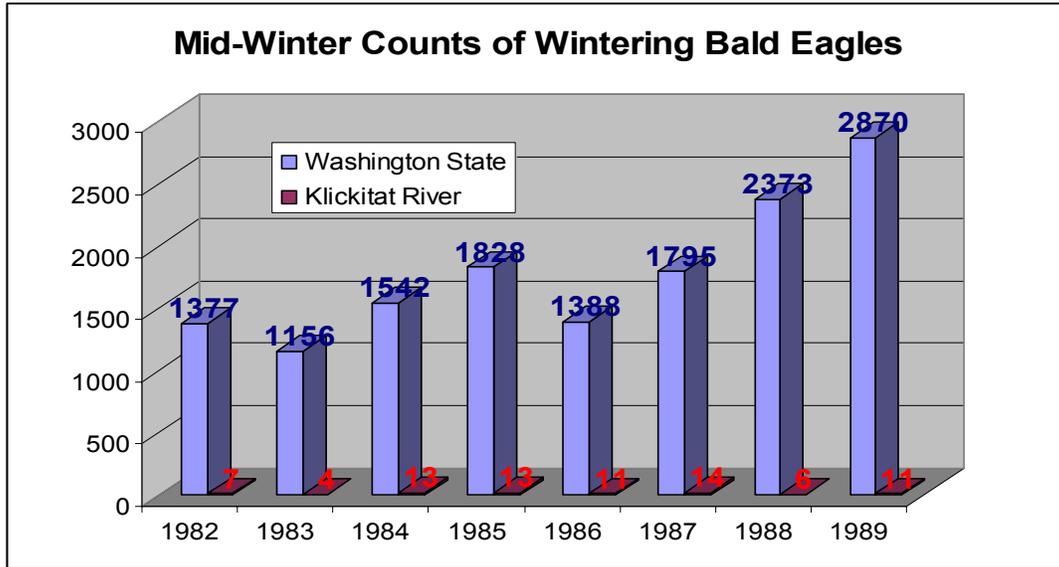


Figure 8: Mid-Winter Counts of Wintering Bald Eagles

Bald eagle numbers have been in a steady upward trend as reflected by the last 30 years of nest monitoring in Oregon and Washington (Stinson et. al, 2001, Issacs, 2002). This trend is reflected nationwide, as depicted by the graph below (courtesy of the USFWS website). This steady and increasing trend has prompted the U.S. Fish and Wildlife Service (USFWS) to propose delisting the bald eagle from the Endangered Species list starting on July 6 of 1999. This delisting process has not been finalized.

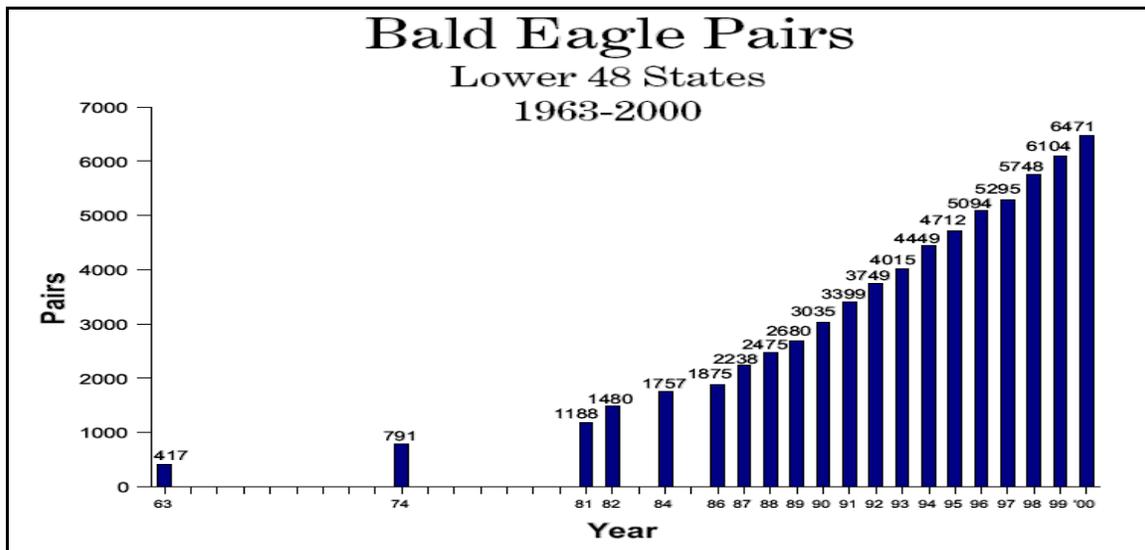


Figure 9: Bald Eagle Pairs

Klickitat County is considered a pivotal Western gray squirrel core area for the state of Washington and nesting squirrels have been documented within the Klickitat River and Swale Creek canyons. Good potential nesting habitat for this squirrel is considered to be around one-quarter (up to ½) mile from a water source in pine/oak or mixed conifer/hardwood habitats with a contiguous tree canopy. Western gray squirrels will avoid crossing open spaces of over 40 feet (USFWS, 2003). Mixed pine and oak woodland intersects around 10 out of the 31 miles of proposed trail. An additional 9 or so mile of trail borders a mixed forest of hardwoods (maple, alder, willow) and ponderosa pines. From the state PHS (Priority Habitats and Species) database, there are almost 300 nests recorded within a few miles of the project area corridor in the last decade. Of those 300, four nests are within 150' of the trail; two were in lower Swale Creek, with the other 2 on the Klickitat River. Hikes along the rail bed in February, May and July of 2003 noted 3-4 potential nests, but none were likely recent as they lacked new (green) material incorporated into the nest. These nests were near Logging Camp Creek and Klickitat Springs. Nests typically remain intact for 3-5 years.

In addition to terrestrial wildlife species, the Klickitat River currently supports important anadromous fish resources and fisheries, including summer and winter steelhead, spring and fall Chinook, and coho (Klickitat Subbasin Summary, 2000). Fall Chinook and coho are not native to the basin, while the other three runs in the Klickitat drainage are native, but considered at depressed levels. Other species include resident rainbow trout, bull trout, brook trout, Pacific lamprey, as well as whitefish and cutthroat trout. Species that are known to spawn and rear in the lower 17 miles of the Klickitat River include steelhead, coho, chinook, rainbow trout, and dace. Other fish species may migrate through this section but further surveys need to be completed to document the extent of their use of this reach. The 2000 Klickitat Sub-basin Summary determined that the limiting factor to salmonids in the Klickitat river was largely from habitat degradation from a variety of factors including intensive forest harvest, poorly located and maintained roads and crossings (including railbed), conversion of wetland and meadow habitat, altered riparian habitat (less large wood to incite stream complexity, reduced stream shading), increased nutrient input from farming and sewage treatment outfall, and reduced base flows from irrigation withdrawals (especially in the lower tributaries such as the Little Klickitat, Swale, Wheeler and Dillacort Creeks).

Bull trout are documented at the mouth of the Klickitat River, as well as above river mile 60 on the Klickitat. Due to warmer temperatures, of which bull trout are intolerant, it is unlikely that the lower and mid portions of the Klickitat river, nor Swale Creek would be used by bull trout for more than short periods of time for migration or foraging. The river and creek adjacent to the trail is highly unlikely to provide spawning or rearing habitat for bull trout.

Habitats of Interest

The rail bed follows the river very closely, with approximately half of the right-of-way being within the river's 100 year flood plain. At frequent intervals the railroad was cut into the basalt creating cliff habitats or intercepting seeps and springs to create small wetlands. Habitats of interest include basalt cliffs, seeps, springs, wetlands, and native bunch grass communities. Scattered populations of *Heuchera grossularifolia* var. *tenuifolia* (State sensitive species) and *Lomatium suksdorfii* (State threatened species) are documented along this segment of the right-of-way.

Swale Creek (lower 14 miles)

Water and Soil Resources

Swale Creek is a major tributary to the Klickitat River, flowing in just below Wahkiacus at river mile 17.2. The following discharges were calculated in the “Swale Creek Channel Assessment Project” report using the Region 6 State of Washington Regression Equations:

Recurrence Interval	2-yr	10-yr	50-yr	100-yr
	954 cfs	2524 cfs	4582 cfs	5685 cfs

Swale Creek flow is intermittent in nature. Around 3-4 discrete pools remain during the summer within the project area. This intermittent condition remains until the fall rains begin.

In Swale Canyon, the railroad bed has modified natural stream channel processes mainly by channel constriction and subsequent maintenance activities. The railbed is either occupying floodplain areas adjacent to the creek or has severed the streams access to these floodplains. The photo below shows an area in upper Swale Creek that has been disassociated from the mainstem stream.

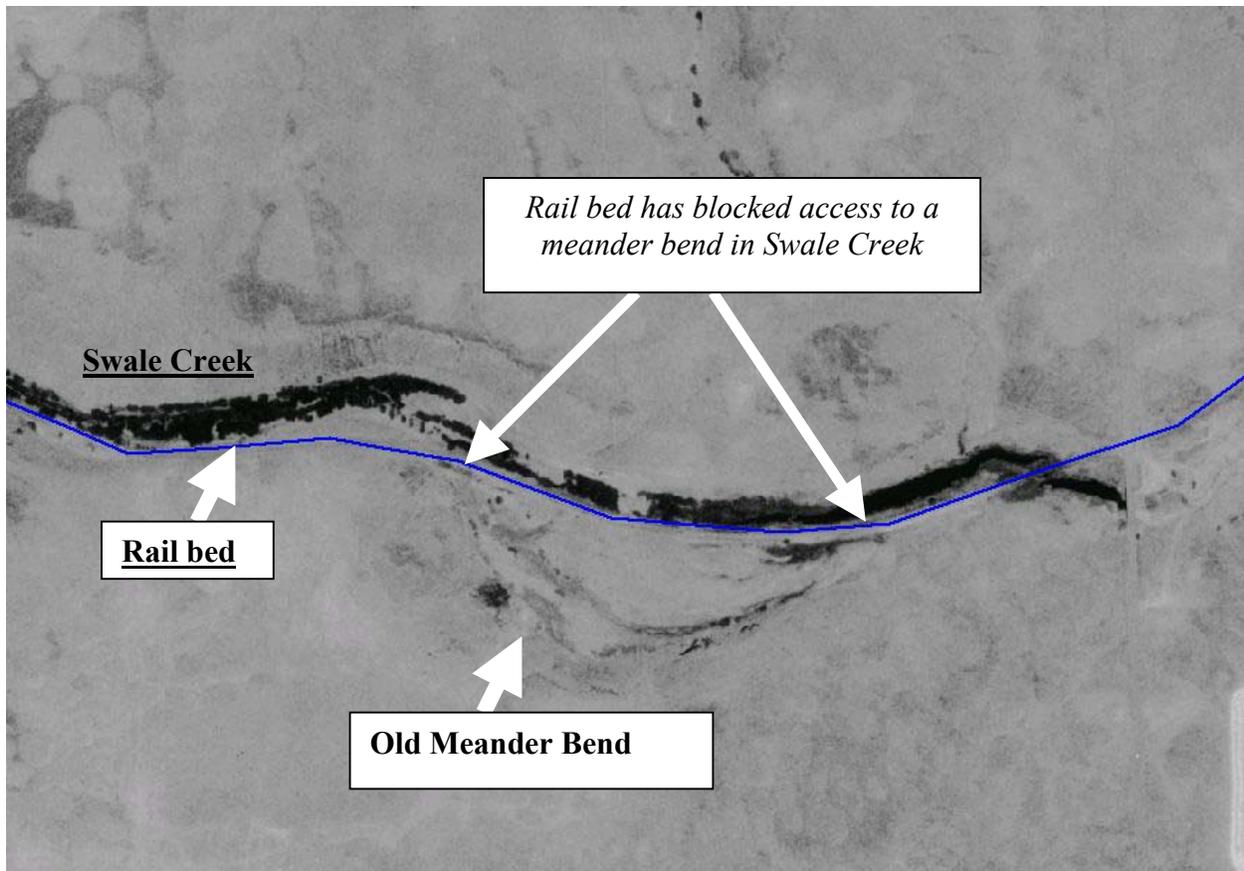


Figure 10: Air photo showing the rail bed blocking access to a meander bend and straightening the stream channel in upper Swale Canyon just below Harms Road.

Confinement and maintenance excavation of the Swale Creek channel has led to channel degradation and loss of in-channel sediment deposits due to increased water velocities. This situation is well documented in the report “Swale Creek Channel Assessment Project” authored by Inter-Fluve, Inc. in June 2002. The report not only describes current channel conditions, it proposes a suite of enhancement opportunities with associated priority and cost.

Swale Creek is listed as a 303(d) water quality impaired stream for both in-stream flow and elevated water temperatures near the mouth. Elevated water temperatures in Swale Creek are likely the result of a combination of factors including: 1) Riprap and other development along streambanks displacing normal riparian vegetation thus increasing solar radiation to the stream; 2) Very low summer flows that warm up quickly.

Vegetation

The creek’s lower portion runs in a west-east direction with a north facing slope on the south side. A fairly healthy stand of Douglas fir mixed with oak and pine is found on the north facing slope. Only a small portion of this important vegetation community lies within the right-of-way, but it is used by a diverse flora and fauna. In this lower section the riparian vegetation corridor is large and well forested with alders, cottonwoods and willows. Between 2 and 3 miles up from Wahkiacus, the canyon turns to the south and the general vegetation transitions into more xeric (dry) conditions with steep open grasslands mixed with oak and pine woodlands. The riparian strip narrows considerably to only a scattering of willows in some places.



Figure 11: The transition between grassland plateau in pper Swale and the mixed forest on north-facing slope in lower Swale Canon (top of photo)

As Swale Creek climbs, the canyon slowly becomes less incised and transitions into the rolling hills of the Goldendale plateau. As this transition occurs, the tree cover diminishes until only willows, hawthorns and other shrubs are found along the stream and the landscape becomes a grassland steppe. As the creek loses its steep gradient, the wet riparian area enlarges with more diversity in rushes and sedges.



Figure 12:
Swale Canyon,
middle and
upper sections,
where habitat
adjacent to
railbed
transitions to
grassland steppe.

Good populations of native bunch grasses and associated flora remain in upland areas throughout the lower and mid-sections of Swale canyon where access by cattle is limited due to the steep slopes. Impacts from grazing are clearly evident, especially within the riparian areas, in the more rolling topography of the upper reaches of the canyon.

As the vegetation changes, so does the habitat for flora and fauna. A State of Washington threatened flora species, *Ranunculus recoditus*, normally found in higher elevations, was observed within the right-of-way in this upper segment. Several small populations of a State of Washington sensitive flora, *Heuchera grossularifolia* var. *tenifolia*, were also observed. .

For most of its length, the right-of-way closely follows the creek. Although the right-of-way is usually not a wide area, it does transect the important corridor linking the uplands to the riparian area. Past activities have disturbed the riparian corridor, in some places quite extensively. The riparian vegetation appears to have been removed in some places, although this may be a result of the episodic floods since 1964. There appears to be a lack of larger pines throughout this Swale section and these may have been removed by the railroad over the years. Although weed infestations were not extensive, Knapweeds and other weedy species are evident in the more disturbed areas.

Fish and Wildlife

As the vegetation changes, so does the habitat for flora and fauna. Several species of birds, for example the magpie and horned lark, are only observed in the upper reaches of this right-of-way. Blacktail deer, western gray squirrel, Merriam's turkey and wintering bald eagles are documented in this subwatershed.

Swale Creek is intermittent in nature and dries up into discrete pools from early summer to fall within the proposed trail project area (Swale Creek Channel Assessment Project, 2002). Many juvenile steelhead/ rainbow trout likely move downstream into the Klickitat River to escape the

dwindling flows. Yakama Nation biologists report steelhead spawning in small numbers in Swale creek in recent years, but rearing habitat is extremely precarious due to creek habitat dwindling creek into only 3-4 discrete perennial pools. The entrapment in these pools limits survival of juvenile and resident salmonids due to warm temperatures, and corresponding decrease in dissolved oxygen, during the summer and early fall months. The Yakama Nation biologists report that temperatures in these pools reach around 24° Celcius. Normal behavior and growth of salmonids typical begin to be adversely affected at around 19° Celcius. Even with acclimation, upper lethal limits are generally reached for salmonids at around 24-29° Celcius. In addition to physical and physiological impacts, entrapment in pools also increases susceptibility to predators (such as from herons, mink, osprey, otter), and removes flight up and downstream as survival options.

In addition to steelhead juveniles (and thus its resident life form, rainbow trout), dace also reside year round in Swale Creek. No falls or other barriers preclude Chinook and coho from opportunistically using the lower few miles for spawning as well as early juvenile rearing. Since the late 1990's the Yakama Nation have leveraged funds from the Bonneville Power Administration to rehabilitate Swale Creek, in addition to nearby lower Klickitat tributaries, due to "extensive livestock grazing, agricultural impacts, timber harvest, and channel constriction from railroad embankments". Projects have included riparian fencing, sediment retention ponds, off-channel livestock watering systems, and riparian re-vegetation. Under state regulations, Swale Creek is currently open to angling for rainbow trout from June 1 to October 31, and the railbed provides easy access for this activity. Rainbow trout and juvenile steelhead are very difficult to differentiate, as they are the same species, thus accidental as well as deliberate take (poaching) of juvenile steelhead is likely occurring. There have been some planning efforts to close the creek to fishing due to these concerns.

Applicable Standards and Guidelines

A. The Columbia River Gorge National Scenic Area (CRGNSA) Management Plan

The CRGNSA Plan applies between the Lyle Urban Area Boundary and the National Scenic Area boundary (approximately the Fisher Hill trestle). The applicable standards are quoted below from Chapter 3, Natural Resources, for the General Management Area.

- Wetlands: There are no wetlands along or adjacent to the trail within the NSA.
- Rivers and streams: The trail is not within the buffer zone of any stream or river.
- Wildlife Habitat (pp. I-105) and Sensitive Plant sites: The following guideline applies:
 - "Except uses allowed outright, proposed uses may be allowed within 1,000 feet of a sensitive plant, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and 'Approval Criteria for Review Uses Near Sensitive Wildlife Areas and Sites [and Flora]' in this section".
 - Subsequent guidelines refer to site plans: "Site Plan and Field Surveys..." (see pp. I-106 and pp.113) and "Approval Criteria for Review Uses Near Sensitive Wildlife Areas and Sites" (pp.I-106 and pp. 113).

B. The Klickitat River Wild and Scenic River Management Plan

The "outstandingly remarkable" natural resource values are its free-flowing nature, anadromous and resident fish; hydrology and geology.

There are few specific guidelines related to these "outstandingly remarkable" resources that directly affect this project proposal. The County shoreline ordinance, water quality, and critical Area ordinances are the most important as related to protection of these resources. All of the ordinances shall be followed in implementing this project. These will be discussed in more detail below.

C. Klickitat County Shorelines Plan

Most of the lower Klickitat River and all of Swale Creek (from its confluence with the Klickitat River upstream to Warwick) shoreline falls into the Conservancy Environment zone, which is characterized by very low intensity land uses primarily related to natural resource use, minor capital investment, and relatively major biophysical limitations. The overall objective of the Conservancy Environment designation is to balance sustained yield natural resource utilization with low intensity recreational uses.

The east bank of the lower 1/2 mile of the river, at the town of Lyle, and about a mile of the north bank through the town of Klickitat, are designated as a Community Environment. The Community Environment category is characterized by moderate to high intensity land use, including residential, commercial, and industrial development. Most land uses are allowed, with restrictions.

In addition, a natural buffer zone is superimposed on all Shoreline Environments. It consists of a 50-foot strip (measured horizontally) from the ordinary high water mark of each riverbank. Its purpose is to preserve the structure, function, and aesthetic qualities of the natural riparian ecosystem. Most land uses are prohibited in this buffer zone. Non-intensive grazing, some signs, and recreational trails are allowed. The Lower Klickitat Wild and Scenic River Management Plan stated that a shoreline enhancement program should be implemented. This program may include planting appropriate riparian vegetation and identifying riprap that could be removed.

D. Klickitat County Floodplain Ordinance

The provision of importance is Section 5.3 (1) "Prohibit encroachments, including fill, new construction, substantial improvements, and other developments unless certification by a registered professional engineer or architect is provided demonstrating that encroachment shall not result in an increase in flood levels during the occurrence of the base flood discharge."

E. Klickitat County Critical Areas Ordinance

Performance Standards:

- Wetlands: 'If a wetland is found within the project area it shall not be disturbed....'
- Critical Fish/Wildlife Habitat Conservation Areas: 'Proposed development and uses within 1000 ft of a critical wildlife habitat conservation area or within 200 ft of a critical

fish habitat conservation area shall be submitted for review by the WDFW. If the WDFW determines that a proposed use is likely to adversely affect a critical fish/wildlife habitat conservation area, then a wildlife management plan shall be required.’

- Geologically Hazardous Areas: ‘If the proposed site is in a geologically hazardous area, the applicant shall be responsible for securing the services of a professional engineer/geologist who shall provide information...’
- Frequently Flooded Areas: ‘If the proposed project is in a frequently flooded area, the applicant shall ..Identify the 100 year floodplain... conform with County provisions ..and maintain pre-development movement of surface waters...’

Environmental Consequences

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

In the short-term, this alternative would maintain the current management conditions with the existing railbed. Current conditions include low recreational use of corridor, with minimal impact to soil and water resources except during major storm events. Natural revegetation of riparian shorelines and floodplain area would continue resulting in slow improvement to water quality through increases in streamside shading and stabilization of eroded streambanks over time. Natural erosion and deposition processes would dominate the entire west side of the lower Klickitat River and improve the free-flowing conditions. Lack of additional river channel intrusion and the occurrence of floodplain revegetation along the railroad bed, may slightly decrease flood damage to adjacent and downstream streamside property, from past levels. However, retaining the existing water crossings without maintenance of structures would increase erosion during storm events until natural drainage is re-established.

Washington State Parks and the Klickitat Trail Conservancy currently co-manage this trail and have it open to recreationists in its 31-mile entirety, although seasonal summer closure of Swale Canyon has been enacted to reduce fire danger. As noted in the recreation analysis of this EA, trail use is expected to continue and is predicted to increase moderately, but it is currently restricted by the lack of developed parking facilities and the rough existing tread surface. At this time, fish and wildlife species receive relatively low disturbance within the existing unroaded (but trailed) riparian habitat (about 24 miles). This largely undisturbed habitat is from Fisher Hill to Pitt, Suburbia to Wahciacus and Swale Canyon (reference table in Natural Resources Existing Conditions section). The lack of constant human presence within the riparian habitat allows for unrestricted nesting, foraging, migration and wintering habitat for wildlife, as previously described in the existing condition subsection. Natural seeding and sprouting of Ponderosa pine within the rail bed would continue and eventually (50-80 years) would provide for increased cover components for both terrestrial and aquatic habitat. In all probabilities, this trail will remain in low to moderate use by recreationists with this alternative, even without immediate trail surface and facilities improvements. Some reasons for this hypothesis is:

- the predominantly sunny weather of the Klickitat area (this will be a unique feature as compared to other Gorge area trails in winter),

- the beautiful views of the river and the surrounding hills, including good opportunities for wildlife viewing,
- the easy access from major highways,
- the availability of trail information as already posted on the Klickitat Trail Conservancy website.

The anticipated increase in use over the 31-mile trail is expected to incur some impacts to fish and wildlife depending on the intensity of use and conservation measures incorporated. Some wildlife species will likely move away from, or avoid, the riparian area during periods of trail use (Joslin and Youmans, 1999).

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

Environmental Consequences of Trail Options

Water and Soil Resources

This alternative proposes to construct a 4 ft. wide trail utilizing compacted existing surface on the rail bed for 31 miles from Lyle to Warwick. Runoff volume from this surface is not expected to change noticeably from Alternative 1, as the current surface is already compacted from decades of use as both a rail bed and trail. Any runoff is expected to infiltrate through the existing ballast in areas of low compaction. Some short-term erosion may occur in areas where the rail bed needs to be disturbed to achieve a compacted surface or drainage structure cleaning, but erosion control measures such as operating in the dry period of the year and utilization of erosion barriers would minimize detrimental effects. A majority of this work is expected to occur between Fisher Hill Bridge and Wahkiacus. Some short-term erosion may also occur in two areas where about 700 ft of rail bed fill would be pulled back to stabilize it. These sites are located two and three miles downstream of Pitt and are expected to have minimal detrimental effects to the Klickitat River due to the employment of the measures described above. Long-term benefits in the form of reduced sediment introduction and development of riparian vegetation are expected in these areas. No additional filling and riprap within the Klickitat River channel area would occur along sections of trail with Alternative 2. Several thousand feet of existing rail bed fill between Pitt and Fisher Hill Bridge would be planted with native trees and shrubs to protect these features from additional erosion and loss of trail width. As a result of this planting and minimal trail surface development, the riparian area would recover more quickly than Alternative 1.



Figure 13: Actively eroding site about 3 miles downstream from Pitt. The upper 3 feet of existing railbed fill (as outlined in photo) would be laid back to a stable angle and revegetated to stabilize.

The existing box culvert at Logging Camp Creek would be maintained and “porous” approaches would be constructed to allow wheel chair access across the site. These approaches would be designed to allow natural channel processes to occur along the alluvial fan. The approaches would only be long enough to meet a 10% grade, so the trail surface would cut across the outer edges of the fan. The trail would conform to existing topography through this feature and would not introduce additional fill, so existing bedload transport conditions would be maintained. This configuration would result in additional trail maintenance after high runoff events to clear bedload and other channel material from the trail surface adjacent to the elevated approaches.

A six-foot wide trail bridge would be constructed at the Suburbia bridge site to allow access over the Klickitat River. The replacement bridge would be at a minimum, long enough to maintain the current flow configuration, but opportunities to lengthen the bridge and remove some of the approach fill on the Wahkiacus side should be examined. Fill removal would provide a more natural flow regime in the river and reduce formation of backwater conditions and flooding of the highway (Northwest Hydraulic Consultants Report, 1996). If the decision is made to lengthen the bridge and remove some of the approach material, a detailed hydraulic study is recommended to ensure that resulting water levels wouldn’t detrimentally affect structures directly downstream of the site. An erosion control plan would be developed as part of the detailed design package to ensure that sedimentation resulting from any project activity including fill removal, would be minimized.

The trail section from Suburbia to Wahkiacus would be narrow (4 ft) and located on the current rail bed surface. No fill would be added to raise up the bed elevation, which would allow a more natural stream function in this area. Four trail reroutes were identified to move the trail onto a more stable bench away from the floodplain. Erosion control measures such as revegetation and mulching of exposed soil would be employed on the reroutes to minimize erosion and resulting sedimentation.

Designated river access points are chosen to minimize erosion by focusing traffic on more resilient landscapes. Even so, these areas may still create bare soils along streambanks, increased nutrient and sediment loads, as well as minor decreases in stream shading. The extent of these impacts varies with the use levels of each alternative, but is expected to be minor.

The trail tread would be located on the inside portion of the rail bed in the Swale Canyon section, to be more compatible with any channel enhancement projects that may occur in the future. This trail location would allow partial rail fill removal to enhance a more natural channel function, if other parties propose to pursue such restoration.

Two springs that are currently ponding up on the rail bed, would be reconnected with Swale Creek by using french drains or other similar techniques. This would provide more cool water to the creek, which may help reduce water temperatures.

This alternative would result in a slight enhancement of free-flowing conditions in the Wild and Scenic River portion of the Klickitat River and water quality as compared to Alternative 1. The enhancement of free-flowing conditions would result from the railbed fill removal along sections between Pitt and Fisher Hill and streambank revegetation. Water temperature and in-stream flow would be maintained in the 303(d) section of Swale Creek due to the following: 1) No riparian vegetation that is currently providing stream shading in Swale Creek would be removed; 2) None of the existing streamflow in Swale Creek would be diverted or removed. It is anticipated that a very small benefit to both summer stream temperature and in-stream flow would result from reconnection of two springs with the stream channel.

While there are many (~20) wet areas along the trail, there are no Category I or II wetlands and no wetlands meeting the size requirements (10,000 sq. ft) for category III and IV wetlands as defined in the Klickitat Critical Area Ordinance within the project areas. There are no wetlands on the proposed trail within the CRGNSA. Many of the smaller wet areas would be ditched to keep the water off the trail bed, while maintaining the functionality of the wet areas. Plants associated with wetland habitats would be carefully removed for replanting after the ditching work. Other larger wet areas would have boardwalks constructed for protection.

Vegetation

Sensitive Plants

Although several sensitive flora were found and noted within the trail right-of-way, no effects upon these plants are expected in any alternative. This is due to the location of these sensitive flora in relation to the trail and to topography. Most of the *Heuchera grossularifolia* var. *tenuifolia* populations are found on basalt rock cliffs where they are unlikely to be disturbed.

Along the Klickitat River, these populations are protected by steep inaccessible cliffs along the river or by other cliffs above the trail. A few populations in Swale Canyon are readily accessible, but these are several miles from any trailhead and unlikely to be disturbed. Populations of *Ranunculus reconditus* were located near the trail but over rough, rocky terrain where it was unlikely that people would venture.

This no-effect determination is based on projected use figures as designed into these alternatives. If trailhead capacity, and therefore use, increases above the level planned, effects to plant resources would need to be re-evaluated.

Noxious Weeds

Trail use by recreationists is not anticipated to further aggravate the noxious weed situation with the exception of longspur sandbur and hound's tongue. Both weeds' seeds readily attach to clothing and to domestic animals and can then be vectored to other locations. However, infestations of these weeds are at present rather small (estimated total acreage of weed infestations on the trail is 1-2 acres) and should be eradicated and/or controlled before the trail becomes heavily used. The presence of domestic animals, such as horses, on the trail would further necessitate the need for yearly monitoring to identify new infestations that may occur from contaminated feed and/or droppings.

No significant adverse effects are expected on either water quality or the riparian vegetation as a result of the proposed noxious weed treatments in Chapter 2.

Fish and Wildlife

Trail improvements, and subsequent use, have potential to adversely affect fish and wildlife species through short-term construction activities and long-term trail use. The trail was deliberately planned to minimize these impacts as much as possible, such as keeping the trail narrow through floodprone areas, pulling back fill material in some locations, adding no new fill material to the river's floodplain, retaining all naturally recruiting tree species, reconnecting small springs/seeps to the main channel with french drains, placing board walk over all larger wet areas with wetland-associated vegetation that overtopped the trail surface, planting conifer/shrub species adjacent to the trailbed to stabilize the bank (which would improve riparian functions), elongating ramps to Logging Camp Creek crossing to allow water and fish passage across the wide alluvial fan, and moderating parking capacity.

Federal and state protected species or priority habitat (WDFW Priority Habitat and Species) that have potential to be impacted by this project include the Northern bald eagle (federal Threatened, state Threatened), Western gray squirrel (state Threatened), Mid-Columbia steelhead (federal Threatened), Columbia River bull trout (federal threatened), wild turkey (state Priority Species), Mule and blacktail deer (state Priority Species), riparian zones (state Priority Habitat), and oak woodlands (state Priority Habitat). A summary table of conclusion of effects for these and botanic species is summarized at the end of this section.

For a summary list of fish, wildlife and botanic evaluation of these and other TES species in or near the project area, refer to the Biological Evaluation report in Appendix D.

TES Wildlife

Bald Eagles

Bald eagles are a federal and W.A. state listed threatened species. Within the Klickitat river corridor, eagles are known to winter in the lower 42 miles of this river. Ten and a half miles of this winter use area is located adjacent to the proposed trail. Another 3-4 miles of habitat is available within Swale Canyon.



Figure 14: The photos above depict the typical layout of eagle wintering habitat in the 10 ½ miles of railbed on the Klickitat River in relation to Highway 142, on it opposite bank. In the 4-5 miles of forested habitat in Swale Creek, there are few existing roads, and the eagles are relatively undisturbed overall. Most of the food resources (anadromous fish, road-kill carrion), though, are available within the Klickitat river corridor, rather than Swale Creek.

No nests or roost trees are known to be within ½ mile of the trail and none are visible from the existing railbed. Many papers have been published that report effects of interactions between people and eagles, especially within nesting, roosting and winter habitat. A 2002 report by WDFW as well as the Pacific Bald Eagle Recovery Plan by the USFWS summarizes many of these reports and makes recommendations for management actions (Watson and Rodrick, 2002), (USFWS, 1986). Management guidelines from these 2 documents pertinent to this trail includes:

- Maintain high tree density and moderate canopy closure to visually buffer bald eagle nests from human activities. (WDFW)
- Leave 250 foot wide strips of perch trees and protective buffers along shorelines within eagle nesting territories and winter feeding areas. (WDFW)
- In foraging areas with little or no screening, bald eagles that are feeding should be allowed at least 450 m (1500') from human activity and permanent structures. (WDFW)
- Perch trees and potential foraging perches >51 cm (20 in) dbh and <75 m (246 ft) from the top of a bank or shore should be protected. (WDFW)
- Maintain and improve forested habitat in both the breeding and wintering range. (USFWS)
- Restrict human disturbance at eagle use areas. ("Picnicking, camping, blasting, firearm use, timber harvest, and low level aircraft operations should not be allowed within 400 m (1312 ft) of nests and roosts during periods of eagle use. Key wintering areas need protection from disturbance from approximately 15 November to 15 March.") (USFWS)

- Provide seasonal surveillance at selected habitats where eagles are vulnerable to human disturbance or harassment. (USFWS)

All recommendations but the third and sixth bullets were able to be followed outright. Since the railbed is already in place, it was not possible to move the trail from 200-400 m. from winter use areas (river bank) as suggested by several publications and recommendation #3. Restriction of human use at eagle use areas (Recommendation #6) was partially followed by limiting trail use to non-motorized users only (hiker, bike, horses). No overnight use is allowed, thus the period from near dusk to early morning would still be left relatively undisturbed. Complete avoidance of disturbance would not be possible, as hikers and other users would be visibly walking in and out of the vegetation along the river's bank during the daytime.

Research literature generally agree that increase in human recreational activity reduced bald eagles numbers in available habitat, but also note that eagle response to disturbance was very site-specific and vary greatly depending on other factors such as food availability, predictability, sight distance and vegetative screening, proximity, cumulative number of disturbances, type and duration of human activity, and habituation (conditioning) period (Hamann et al., 1999, Stalmaster and Kaiser, 1998; Spahr, 1990). Although not specific to the Klickitat River, reports also generally agree that wintering and foraging eagles are least tolerant of foot traffic (hikers, fishermen), and slightly more tolerant of bicyclists and vehicles, as they approached, and passed by quickly, at a constant speed. Seven bald eagles were noted when the entire 31 miles of trail was biked by a group of 12 bicyclists during February 13 and 14 of 2003. None of the bald eagles noted on those 2 days flushed (took wing) at the group's approach and visually seemed undisturbed with the group's appearance and disappearance from their portion of the river. Two of the eagles were actively squabbling over an unknown source and had locked talons while still flying over the bicyclists. It is estimated that the winter season would receive low to moderate daily use of the trail, varying widely as per weather conditions. From the recreation report projections, around 0.8 to 2.8 people per mile would be using the trail within the 14 miles of wintering eagle habitat on the Klickitat River and Swale Creek. This increase in use over existing conditions has potential to displace wintering bald eagles along approximately 14 of its proposed 31 miles of trail length, as there is currently low vegetation screening and users would be in very close proximity to the river where eagles are foraging. There is potential that eagles may incur added stress avoiding or flying away from recurrent groups of people, which may lead to susceptibility to disease and poor health during winter. Further winter energy reserves may be drawn down as feeding or gathering of food is disrupted, such as avoidance of dead and dying salmon, or other carrion, along the river's edge.

Although low and sporadic, trail use from November to March may displace individual eagles from 14 miles of currently used habitat. It is likely that temporarily disturbed eagles would disperse upstream or downstream to other existing winter habitat (the other 30 miles of existing habitat within the Klickitat river, including its mouth and the Columbia River). Recreationists may also displace eagles further back from the river and up the canyon walls, or into side tributaries such as Silvas creek. The duration of this displacement depends greatly on individual eagles temperament (level of habituation and tolerance), as well as other factors such as frequency and duration of encounters. Recreation use of the trail has potential to degrade winter foraging habitat, thus the trail use would likely adversely impact bald eagles. In the long term, it

is expected that trail use would have decreasing impacts to wintering bald eagles due in part to their habituation of the trail use, as well as existing conifer trees growing to a height where users would be screened from adjacent areas. Projecting tree height growth of 6-8 inches per year (as estimated from present leader growth), it would take around 4-7 years for the majority of the existing trees to reach 6-9 feet in height adjacent to the trail. Some eagles may return to again use this area once trees partially screen the trail users. Eagle reaction to users would be monitored for several winters once the trail is open, to see if they are habituating to the use, as well as noting flushing distance and total eagle numbers. This study would be actively coordinated with USFWS and WDFW biologists as well as other mid-winter bald eagle counts, such as the current one on the Cowlitz River.

Construction activities would be limited from April 1 to October 30 and are not expected to adversely affect local bald eagles. No construction, involving heavy machinery, would occur outside of this work window unless the construction noise can be kept at or below ambient noise levels, such as may be the case within or adjacent to urban areas or residential sites. Other mitigation for eagle disturbance includes the following:

- Retention of naturally recruiting pine (many hundreds are at the 1-6' height size) and other potential perching and screening trees adjacent to, and on the outer edges, of the railbed. ([see photos below](#) - typical natural ponderosa pine recruitment within railbed)
- Planting of at least 800' feet of bank area with pine and other tree species where natural recruitment has been slow, as well as thinning of a dense 400' length stand of 1-3" dbh pines to accelerate remaining tree growth and cover /canopy closure.
- Interpretive signs at all trailheads (except Warwick) that explain the sensitive nature of winter bald eagle use and encourage behavior to reduce eagle disturbance such as trail use to be delayed until late morning to allow for uninterrupted morning foraging, maintenance of low visibility to eagles, and complete avoidance of trail use during severe winters (which would likely be self-regulating), etc.





Figure 15: Photos depicting the natural Ponderosa Pine recruitment within the edges of the railbed that may help visually screen trail users from wintering eagles in the near future of 4-7 years.

Western Gray Squirrel

Klickitat County is considered a pivotal Western gray squirrel core area for the state of Washington. Trail users are not expected to disrupt squirrel nest activities, as the vast majority of the past documented nests are not adjacent to the trail. Construction activities occurring during summer (dry period) has potential to disrupt nesting activities. Areas of habitat (mixed pine/oak woodland outside of urban and residential areas) would be consulted with the Washington Department of Fish and Wildlife (WDFW) to identify if any active nests occur within 200' of the trail. If active nests exist within this buffer, then appropriate conservation or mitigation measures would be planned before heavy machinery construction would take place. With this measure, it is expected that disturbance to the Western Gray Squirrel May Impact Individuals or Habitat, but would Not Likely Contribute to a Trend Towards Federal Listing (MIIH). In the long-term, the foraging and arboreal travel habits for this species may improve as pine trees are planted (as part of the railbed stabilization), as well as retained, within the riparian area on both sides of the trail. Cover components (i.e. trees and shrubs) would also be improved for this shy species.

Mid-Columbia Steelhead

Mid-Columbia steelhead are listed as a federal Threatened species and are an active fisheries managed by the WDFW and Yakama Nation. Within the Klickitat River Corridor, trail reconstruction, and later use, within the Klickitat River corridor is not expected to negatively impact steelhead. As compared to past and current conditions, the riparian area would be maintained in the short-term, and improved over the long term in that trees, and other vegetation would be allowed to grow in and overtop the railbed. Everywhere possible, the fill would be pulled back and/or the trail would be relocated away from the water edge and placed far as

possible against the toe of the hill slope. Fill would not be added to the any aquatic system or floodplain. Connections between springs and tributaries crossing though the railbed would be maintained or improved over the 31 miles, including 6 boardwalks (50-200' long, each), 9 drain dips or french drains, and several culverts would be repositioned. In the very small areas that are not naturally revegetating back in pine and oak (and maple, willow, and cottonwood), the Forest Service would replant tree and shrub species to assist in bank stabilization (~800-2000').



Figure 16: Upper Reaches of Swale Creek

Fishing is currently allowed seasonally in Klickitat and Swale creek and the railbed allows easy access for this activity. Yakama Nation biologists have brought up concerns with illegal fishing activities and its impacts on steelhead. Increased users may deter illegal fishing activities. On the other hand, illegal activities may also increase due to increased people and improved access. In this alternative, the trail is planned to be closed to off-trail traffic except at two creek access points. These access points would be located where it would not be near one of the isolated pools. Dogs are required to be leashed, which may reduce harassment to fish as well as other wildlife, dependent on the level of compliance. If users respect posted rules to remain on the trail, or do so due to visible enforcement patrols, then negative effects to fish and associated riparian vegetation are expected to be minor. In reality, warning signs urging users to stay on trails invariably experience some non-compliance. The extremely hot summer weather within Swale Canyon, as well as the long length of trail, would likely tempt at least some of the trail users to stop and soak or waterplay in the remaining warm perennial pools of Swale Creek. This is especially true where pools are near stream crossings or otherwise within easy sight of the trail. This would have high potential to increase harassment of juvenile steelhead and resident rainbow trout trapped and concentrated in these discrete pools. Repeated visits to these pools during the summer months would increase stress cumulatively to salmonids that are already stressed by the warm water and the entrapped situation. Indirect mortality may occur through cumulative stress leading to increased disease outbreaks or energy expenditures. This would result in an adverse impact to steelhead and other fish.

Planning for trail placement on the outer rim of the railbed, as far as possible from the creek edge, would allow for maximum flexibility if potential restoration activities are planned and implemented in the future. These restoration activities by other entities may include riparian planting, removal of portions of railbed prism to allow widening of the stream floodplain, or connection of creek meanders to the main channel. Trail reconstruction and use is not expected to preclude these restoration actions, although actual work would have to be coordinated with trail use. Any trail maintenance needs (such as to repair washouts and flood damage) would be considered an opportunity for restoration actions by not returning the railroad grade to previous conditions. Methods such as bridges or boardwalks can be used rather than replacing any railroad fill. Significant damage to the railbed from natural events would prompt serious considerations of trail closure rather than emergency repairs if fish species or natural resources may be impacted. Chapter 2 mitigation measures references this further under the water resources section. Putting the railroad grade back after natural damage would adversely impact steelhead populations in the creek and would be an indirect effect of retaining trail use.

Bull Trout

Bull trout are listed as a federal Threatened species. This project is not expected to degrade river habitat, and thus would not affect migration or foraging by bull trout in the Klickitat River. Riparian plantings and connection of springs to the main river/creek would slightly improve conditions for this species, as well as other riparian/stream dependent species, in the long term.

Wild Turkey and Deer

Wild turkey and deer are priority species for the state of Washington as game species. This alternative would clearly increase human traffic into their range and would likely cause these species to avoid the trail and adjacent riparian area during periods of use. It is expected that deer and turkey would move into upland areas during the mid-morning to late afternoon when trail users are present, and adjust their use of the lower Klickitat River and Swale Creek to early morning and evening. As this is their naturally most active periods, impacts to the species may be moderated. Critical winter periods would have much fewer human users, and this should allow for some use as winter refuge for these species. In severe winters, the Forest Service would cooperate with WDFW in closing critical low-elevation winter range from human disturbance to reduce winter big game mortality. The areas and seasons of closure would be planned as needed with WDFW.

Oak Woodland and Riparian Zones

Oak woodland and riparian zones are priority habitats for the state of Washington. Oak woodland habitat would not be directly impacted by this alternative as no oak or pine would be removed with this alternative. Riparian zone habitat would not directly be impacted (from existing conditions) by this alternative as no functional vegetation nor trees would be removed as part of the project. Both habitats would improve in all alternatives, as the railbed is no longer maintained with a wide “brushing” limit, but alternatives 2-3 would actively plant trees and shrubs to reduce erosion, screen users, and increase vegetated habitat (where lacking).

Trail use, and associated human disturbance, would reduce the refuge that the riparian area currently provides to many wildlife species. The diversity of species may be reduced with increases in use. Some species that feed and nest in the canopy (Lewis’ woodpecker, nuthatch,

creepers) or are tolerant of human presence (jays, swallows, ground squirrels) may be less affected by trail use. The value of riparian habitat is detailed in a 181 page report by WDFW called “Management Recommendations for Washington’s Priority Habitats: Riparian”, dated December of 1997. In this report, the recommendations for recreation management include:

- Limit high impact recreation facilities in the riparian area. (Limit camp and picnic grounds, road access points, boat ramps/marinas, motorized vehicle trails, high densities of people)
- Carefully site new facilities. (Sites with stable soils, currently degraded or developed sites, lands, which if not used for recreation, would be vulnerable to intensive development)
- Retain riparian habitat features at recreation sites. (Retain native vegetation, down logs, snags, and other natural features)
- Limit trails in riparian habitat. (Due to erosion potential and wildlife disturbance)
- Public education. (Reduce unintentional and unknowing damage)

With the exception of trail location (existing) in the riparian area, all the recommendations have been followed. Erodable areas on the edges of the railbed were avoided with trail plans, including re-routes in washed-out areas, and no new fill would be used.

Although efforts would be made to increase cover and structure through plantings, retaining the railbed and allowing recreation use of it would not allow the riparian area to fully function at a level that is equivalent to an undisturbed watershed. The trail would act like a narrow but permanent access within the riparian corridor. Trail use, though, is one of the least intrusive human uses of the riparian area as compared to common practices in riparian areas, such as logging, residential development, road construction and maintenance, conversion to agriculture and damming. Nonetheless, it is recommended that restoration projects such as plantings and bird boxes be used to mitigate for loss of undisturbed habitat, and trail maintenance in the form of trail edge brushing be kept to a minimum.

Alternative 2a – Direct, Indirect, Short Term and Long Term Effects

In this alternative, the trail within Swale Canyon would be seasonally closed from June 15 to September 30. The closure would be fairly easy to impose as there would be very limited access to the trail other than from the planned trailheads. This alternative would have similar natural resource effects to alternative 2 except:

- potential risk of effects to steelhead would decrease due to much less likelihood of user enticement into stream pools with entrapped fish.
- potential risk of effects to the western gray squirrel would be reduced in likelihood as their nesting period would be largely be uninterrupted by trail users.
- riparian dependent wildlife would not be displaced from the riparian corridor by trail users during this period. The tributary would act as a sort of summer “refuge” area that is relatively free of roads and other human disturbance.

*Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects*Water and Soil Resources

This alternative proposes a “hardened” variable trail width, ranging from 12 ft near urban areas to 4 ft through sites that were damaged by the 1996 flood. In addition, this alternative only includes the section of trail from Lyle to Klickitat. A hard surface such as asphalt or bituminous aggregate surface would be used from Lyle to Klickitat in Alternative 3. In alternative 3a, a similar hard surface would be used from Lyle to Fisher Hill and Pitt to Klickitat, but soil hardeners or compacted aggregate would be substituted between Fisher Hill and Pitt. Since both treatments would create impervious surfaces, their effects are considered similar. Approximately 550,000 ft² of impervious surface would be spread out through the 13 ½ -mile trail corridor. This impervious surface would increase runoff from the trail. Given the dry climate (mean annual precipitation of 20 to 22 inches) and the trail being outsloped, this extra runoff would be dispersed through the rail bed column and is not expected to change flow characteristics in the Klickitat River. Some water would be stored inside the column and any excess water would be metered out into the river over time.

Effects pertaining to erosion and sedimentation are similar to those described in Alternative 2. The Logging Camp Creek crossing would differ slightly in this alternative. The existing box culvert at Logging Camp Creek would be maintained and “porous” approaches would be constructed to allow wheel chair access across the site. These approaches would be designed similar to Alternative 2, but would span the entire 300 ft active alluvial fan. This would allow natural channel processes and fish passage to occur along the alluvial fan while reducing the need for trail maintenance.

This alternative would result in a slight enhancement of free-flowing conditions in the Wild and Scenic River portion of the Klickitat River and water quality as compared to Alternative 1. The enhancement of free-flowing conditions would result from the railbed fill removal along sections between Pitt and Fisher Hill and streambank revegetation. Since this alternative does not include the Swale Creek section of trail, effects to the 303(d) section of Swale Creek would be the same as Alternative 1.

Fish, Wildlife and Botany

The Forest Service would develop the trail from Lyle to Klickitat. With this alternative, species and riparian habitat from the community of Klickitat and upward through Swale Canyon (including the area from Suburbia to Wahkiacus) would remain as already described under existing conditions, as well as the related effects from Alternative 1. In this upper section, the Forest Service would not improve the trail surface, relocate it to toe slopes, correct any potential erosion problems, or construct the Harms Road and Warwick trailheads. The current parking area at Wahkiacus would not be enlarged or changed from existing conditions. The railbed would still exist and this section of trail will still be open for public recreation, but management would be from a non-federal nexus.

Between Lyle to Klickitat, the trail width in Alternative 3 is slightly wider than proposed in Alternative 2. Other than the section between Fisher Hill and Pitt, this is of minor consequence to wildlife species due to the trail location already immediately adjacent to the highway, and/or

in residential area. Between Fisher Hill and Pitt, projected use numbers increase slightly (reference recreation report in this EA) in this segment. A slightly smaller width of railbed may be available for riparian planting and habitat overall in this alternative, as the hardened trail is proposed to be 2' wider. There would be slightly less total vegetative recovery of the riparian area due to maintenance of this larger path width. The slightly wider trail width and increase in use may result in slightly less wildlife use in this alternative than with Alternative 2, in the section between Fisher Hill and Pitt.

In this alternative, recreationists would negatively impact the bald eagle similarly as to what was described in Alternative 2. Under federal management, the area of impact is decreased from 14 miles to 8 miles within the approximately 42 miles of total existing winter habitat within the Klickitat corridor. This translates to considerably less potential for impacts to the bald eagle from Alternative 3 than Alternative 2 under federal management. Overall though, the portion from Klickitat to Swale Canyon may still be managed by non-federal entities, thus the cumulative disturbance to wildlife is somewhat similar between Alternatives 2 and 3.

Under Alternative 3, impacts to flora and noxious weeds will be similar to Alternative 2.

Environmental Consequences of Trailheads

This section evaluates the effects of the proposed trailhead options. Trailhead options are evaluated for consistency with the Wild and Scenic River Plan, the County Shorelines Plan and the Floodplains Management Ordinance. The Floodplains Management Ordinance regulates new structures; and is relevant to proposed restrooms. The location of the trailheads adjacent to or in previously disturbed areas (houses, roads) precludes major effects to fish and wildlife species. No habitat would be removed by trailheads, including any wet areas or trees.

Lyle Right-of-Way and Adjacent Private Parcel: This site is within the Lyle town limits and outside the floodplain, shorelines buffer area, and riparian area. This site would create approximately 36,000 ft² of impervious surface and is located on a high basalt cliff above the river so it would be consistent with the purposes of the Community Shoreline Environment zone.

Right-of-Way at Pitt: This site would add 54,000 ft² of impervious surface and is located on an upper terrace within the 100-yr floodplain of the Klickitat River. The section of river from the Pitt Bridge to the Suburbia Bridge has been mapped in detail and 100-yr flood elevations have been identified in the Flood Insurance Rate Maps (FIRM) of 1981. A stormwater management plan would be developed for this site so runoff effects would be minimized. Involvement with the county health department would be needed before locating a toilet.

Klickitat Parcel: Since the Klickitat Trailhead site is already paved, no additional impervious surface would be introduced. This site is in town, so additional effects from trailhead construction are expected to be minimal.

Wahkiacus Trailhead Sites: These sites would add between 6,500 and 15,000 ft² of impervious surface and appear to be out of the 100-yr floodplain of either the Klickitat River or Swale Creek according to the 1981 FIRM maps. Areas of erosion from Swale Creek runoff were noted at the site resulting from the 1996 flood. A small wet area is located between the proposed trailhead

and Horseshoe Bend Road. A stormwater management plan would be developed for this site so runoff effects would be minimized. Involvement with the county health department would be needed before locating a toilet.

Harms Road: This site would add approximately 2,000 ft² of impervious surface. Harms Road trailhead is located outside of the 100-yr flood boundary for Swale Creek according to the 1981 FIRM map. A stormwater management plan would be developed for this site so runoff effects would be minimized.

Warwick: Swale Creek is in a conservancy environment at this location. This site would add approximately 23,700 ft² of impervious surface. The Warwick trailhead is located outside of the 100-yr flood boundary for Swale Creek according to the 1981 FIRM map. A stormwater management plan would be developed for this site so runoff effects would be minimized.

Stormwater Management Plans for Trailheads

Stormwater runoff is planned for detention at each of the proposed trailhead sites. In general, planned landscape areas, adjacent swale areas natural or constructed and the parking areas themselves would be utilized as particular site conditions allow. Stormwater outfalls would be designed to minimize impacts to downstream facilities. Prior to construction, a site-specific design would be completed and approved for each trailhead.

In the absence of a particular standard from WSDOT or Klickitat County, the following overall standard is proposed for completing the drainage design at each trailhead:

- The quantity of stormwater runoff designed for detention will be the difference between 10-year mean recurrence interval (MRI) pre-development natural conditions runoff and 100-year MRI developed site runoff.

Compliance with Applicable Standards and Guidelines, Alternatives 2 and 2a, 3 and 3a

A. The Columbia River Gorge National Scenic Area Management Plan: Lyle Urban Area Boundary to the National Scenic Area boundary (approximately the Fisher Hill trestle).

Finding: The trail lies outside all buffer zones for wetlands, streams, and sensitive wildlife and plant sites within the NSA. The project area within the NSA has been surveyed for both sensitive flora and fauna. No sensitive flora or fauna sites were discovered. The site plans shall be reviewed by the appropriate agencies and all project developments would be completed in a manner as not to compromise the integrity of any sensitive wildlife site or within any sensitive plant buffer zone.

B. The Klickitat River Wild and Scenic River Management Plan (Lyle to approximately Pitt)

Finding: Findings for the County shoreline ordinance, water quality, and critical Area ordinances are the most important as related to protection of these resources. All of the alternatives are consistent with this ordinance. These will be discussed in more detail below.

C. Klickitat County Shorelines Plan

Finding: All alternatives proposed in this document meet the intent of this ordinance. In many instances the existing trail does fall within the 50 ft zone of the Shoreline but, being a trail, it is an appropriate use. In addition, all wet areas shall be protected to ensure continued function and viability. Specific design guidelines in this document reflect this intent.

D. Klickitat County Floodplain Ordinance

Finding: There is only one location where fill is anticipated (trail head at Pitt) and appropriate compliance shall be met.

E. Klickitat County Critical Areas Ordinance

Finding: Critical fish and wildlife habitat conservation areas as defined in the Klickitat County Critical Ordinances (PHS data base managed by the Department of Fish and Wildlife) have been identified and these have met the performance standards included in the critical area ordinances. All sites have been discussed with the WDFW and it has been determined that the project would not compromise the integrity of the sites or priority habitat or occur during a time of year when the subject species are sensitive to disturbance.

Cumulative Effects

Alternative 1, No Action

Under the No Action alternative, it is possible the railroad corridor could cease to be railbanked and could fall into private ownership without restrictions imposed by railbanking. With this scenario, it is possible that this right-of-way could be converted into an access road that would facilitate residential development along the entire west side of the Klickitat River within the Wild and Scenic River boundaries. Turning the rail bed into a road leaves the potential for significant impacts to natural resource values.

Other possibilities under Alternative 1 include right-of-way management by Washington State, the Rails-to-Trails Conservancy, or other trail proponents. Under these scenarios, the right-of-way could be developed into a trail without Forest Service involvement.

Trail Development Alternatives 2 and 2a-3 and 3a

Risk of cumulative effects from the actual trail construction would be low. Approximately 622,740 ft² and 581,040 ft² of additional impervious surface would be added to the Klickitat River basin by Alternatives 2 and 3 respectively. This is equivalent to adding another 6-mile segment of paved road for Alternative 2 or an additional 5.5-mile segment for Alternative 3 in the 800,000 acre basin. Additionally, runoff from these surfaces would be mitigated through stormwater plans and the detention provided as the water flows through the railbed fill. Additional benefits would be realized by revegetation of existing railbed fill when compared to Alternative 1.

Establishing a cooperative agreement with Klickitat County Weed Board to initiate a yearly monitoring and control program would mitigate impacts from weed infestations that may result from trail use.

Using the railbed as a trail, rather than a road, is compatible with the Wild and Scenic Rivers Plan, and helps mitigate cumulative effects to the riparian corridors of the Klickitat River and Swale Canyon. Cumulative effects could be mitigated by limiting development within the Klickitat and Swale canyons.

Fish and Wildlife

Cumulative effects of this project is a collective loss of riparian area wildlife diversity and refugia within the Klickitat watershed as a result of increased human use. This trend is reflected throughout Washington, Oregon as well as the entire nation, due to people's desires to recreate, and live, near rivers, lakes, and streams. WDFW's riparian habitat management report from 1997 summarized that "In the productive lowlands, about 70% of wetlands and riparian areas have been converted to other uses". Along the Columbia River, 90% of the original riparian habitat has been lost to inundation by dams, conversion to agriculture or urbanization/residential conversion. The vast majority of federal, state, county and private parks, campgrounds, and recreation areas are near water and/or riparian areas.

Along the lower 16.5 miles of the Klickitat River, this project would introduce human access to almost the entire river's riparian corridor (rivermile 2-16.5), since Highway 142 is already on the other bank in its entirety. The lower 2 miles that would have little riparian trail access already has existing riparian or river access in terms of the county park on the eastern bank at rivermile 1.1 and the Forest Service Lyle-Klickitat day Park on the west bank at its mouth. Restoration or preservation of functioning (native plants, reduction of non-native weeds) and intact (contiguous) riparian habitat, as included in this proposal, would forestall this net loss of habitat in the local area as well as nationwide.

To mitigate for increased development in the area, per the Wild and Scenic Rivers Plan, the Forest Service can continue to identify and protect refugia and wildlife corridors (for example through land acquisition) to ensure the viability of the flora and fauna. Other entities have purchased land and should be encouraged to continue to do so.

**TABLE 20: SUMMARY TABLE OF CONCLUSION OF EFFECTS
for Federal and State Threatened, Sensitive and Priority Species**

Project Name: KLICKITAT RAILS-TO-TRAILS

SPECIES NAME	Alt 1	Alt 2	Alt 2a	Alt 3, 3a
Columbia River Bull trout <i>Salvelinus confluentus</i>	NE	NE	NE	NE
Lower Columbia River steelhead <i>Oncorhynchus mykiss</i>	NLAA	LAA	NLAA	NLAA
Western Gray Squirrel <i>Sciurus griseus</i>	MIIH	MIIH	MIIH	MIIH
Bald Eagle <i>Haliaeetus leucocephalus</i>	LAA	LAA	LAA	LAA
Currant-leaf Alumroot <i>Heuchera grossularifolia</i> var. <i>tenuifolia</i>	NE	NE	NE	NE
The Dalles Mountain buttercup <i>Ranunculus reconditus</i>	NE	NE	NE	NE
Mule/ blacktail deer (<i>State Priority species</i>)	some displacement	some displacement	some displacement	some displacement
Wild turkey (<i>State Priority Species</i>)	NE	NE	NE	NE
Oak woodlands (<i>State Priority Habitat</i>)	NE	NE	NE	NE
Riparian zones (<i>State Priority Habitat</i>)	24 miles of 31 mile corridor in low disturbance, but could move toward Alt 2 or 2a in future through non-federal actions	2 miles of 31 mile corridor in low disturbance	2 miles low (+ 15 miles low seasonal) disturbance	16 miles of 31 mile corridor in low disturbance, but could move toward Alt 2 or 2a in future through non-federal actions

NI/NE = No Impact/No Effect

MIIH = May Impact Individuals or Habitat, but will not likely contribute toward Federal Listing or loss of viability to the population or species.

WIFV = Will Impact individuals or habitat, with the consequence that the action may contribute to a trend toward Federal Listing or cause a loss of Viability to the population or species.

BI = Beneficial Impact

NLAA = May Affect, but Not Likely to adversely affect habitat or individuals.

LAA = May Affect, Likely to Adversely Affect

3.8 SCENIC RESOURCES

Existing Conditions

Introduction

The existing 31-mile rail banked trail system provides a relatively unique scenic experience for visitors to the Columbia River Gorge. The trail is located within the drier portion of the transition zone between westside and eastside ecosystems. This landscape of pine-oak woodlands and grasslands is viewed from steep canyons with basalt cliffs in the foreground (less than ¼ mile away) and rolling upland grassy hills with pine-oak woodlands located in draws and on north slopes. The first 1½ miles are within the CRGNSA and the first approximately 10.5 trail miles are within the Klickitat National Wild and Scenic River corridor.

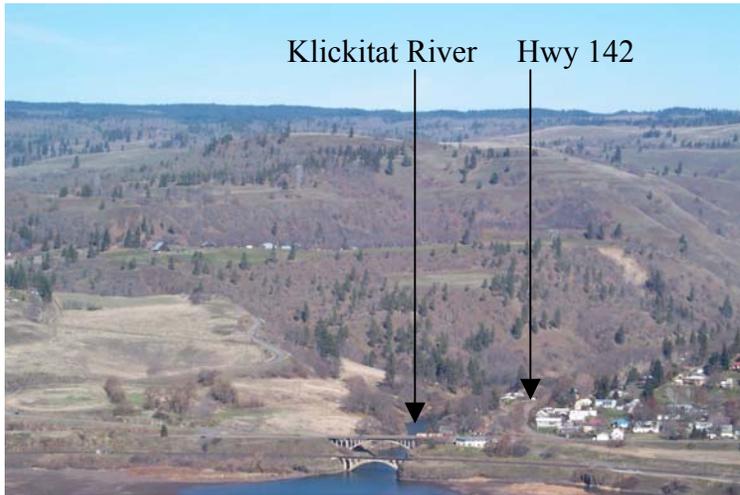


Figure 17:
**Lyle-Fisher Trail Segment within CRGNSA and
Wild and Scenic River Boundary
From Rowena Plateau
(Trail is located between Highway 142 and Klickitat River)**

Figure 18:
**Wahkiacus-Warwick Trail Segment
From Trail**

The Trail Segments

Segment 1: Lyle to Fisher Hill

Views: Beginning from the trail terminus in Lyle and continuing for 2 miles, the exceptionally scenic views are of the mouth of the Klickitat River as it flows into the Columbia, accented by the historic bridges at Lyle. These views are seen from the Columbia River, Interstate 84, the proposed trail, the Klickitat River, and Highway 142 in the foreground. These views can also be seen from Rowena Plateau and the Historic Columbia River Highway in the middle-ground (less

than 3 miles away). Highway 142 and the community of Lyle are very visible from the trail for most of this segment. The experience of the trail is a mixture of rural sights and sounds and natural beauty.

Scenic Quality Objective: “Visual Subordinance”, a visual quality objective that provides for management activities that may be evident but must remain visually subordinate to the characteristic landscape, as seen from the Columbia River, State Roads 142 and 14 (SR 142, SR 14), Interstate 84 (I-84), Historic Columbia River Highway (HCRH), and Rowena Plateau.

Existing Trail Development: No developed access, trailheads, toilet facilities or signing currently exist. The existing trail surface is the existing rail-bed with the tracks removed. The trail is at an even grade and the surface varies from extremely rough to reasonably smooth. Rough surfaces currently preclude most road bike use. There are washed-out portions and areas of trail surface water in this segment.

Recreation Opportunity Spectrum (ROS) Class: “Roaded Natural” with a “Rural” node for the first 1.6 miles near Lyle.

Segment 2: Fisher Hill-Pitt

Views: The nine-mile segment from Fisher Hill to Pitt provides intimate views of the bedrock gorge of the deep lower canyon of the Klickitat River. Viewpoints from rock outcrops looking down into white water rapids and fishing access are available just off the trail. The Fisher Hill Trestle is an interesting historic structure providing views from above the Klickitat River.

Scenic Quality Objective: “Visual Subordinance”, a visual quality objective that provides for management activities that may be evident but must remain visually subordinate to the characteristic landscape, as seen from the Klickitat River, recreation sites within the Wild and Scenic River corridor, and Highways 14 and 142.

Existing Trail Development: Fisher Hill Trestle and the rail-bed itself are the major existing trail developments. The trestle deck is currently dangerous for public use. No developed public access, trailheads, toilet facilities currently exist. The only signing tells the public that the trail is not ready for public use. There is currently a user-defined parking area under the Fisher Hill Trestle. A Native American fishery complex is adjacent to the trail near Fisher Hill. The existing trail surface is similar to the Lyle segment. A culvert at Logging Camp Creek raises the trail grade abruptly and is a dominant visual feature. There are washed-out portions and areas of trail surface water in this segment.

ROS Class: “Roaded Natural”

Segment 3: Pitt-Wahkiacus

Views: Besides views into and from the river drainage, the landscape seen from the trail in this seven-mile segment is characterized by farming, housing development, and a small rural town. In many places the trail is adjacent to private residences, businesses and SR 142. The trail goes through the center of the town of Klickitat.

Scenic Quality Objective: “Visual Subordinance” as seen from the Klickitat River, the proposed trail and trailheads, and Highway 142. (This scenic quality objective is a project objective that applies only to state lands within the trail corridor. It is based on ROS objectives, providing a consistent scenic quality objective for the entire trail, being respectful of the adjacent landowners, and being responsive to the SEPA question of “how to control aesthetics”.)

Existing Trail Development: No developed amenities directly associated with the trail currently exist. The public is able to access the river from an existing county park and there is restroom access in the community of Klickitat. This segment contains flood-damaged portions including a washed-out bridge over the Klickitat River at Suburbia.

ROS Class: “Roaded Natural”, except “Rural” Pitt-Klickitat and “Urban” Klickitat-Suburbia.

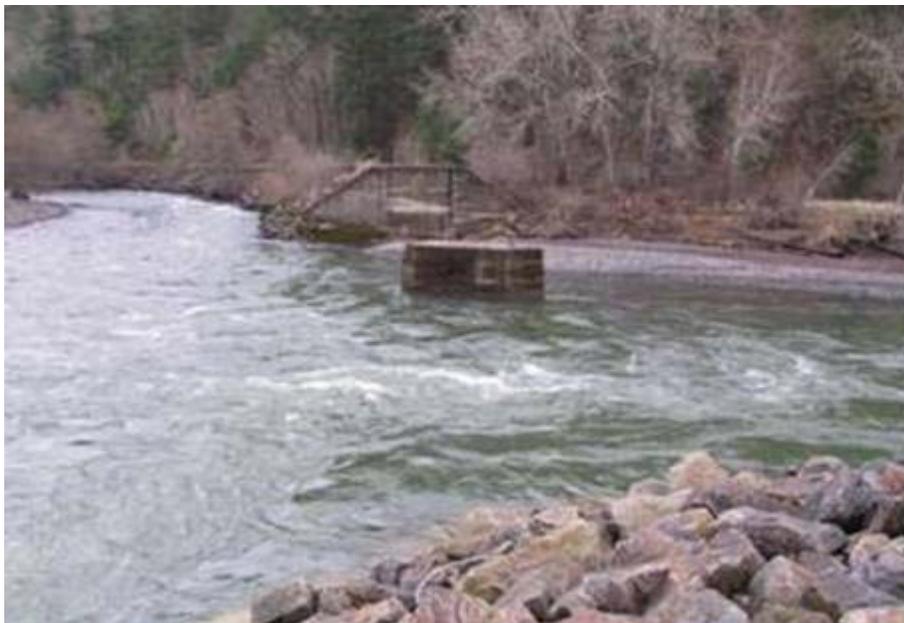


Figure 19: Remaining Structure from the Bridge over the Klickitat River at Suburbia.

Segment 4: Wahkiacus-Warwick

Views: The majority of views in this segment are from within the canyon along this thirteen-mile segment. The landscape in Swale Canyon is the most natural appearing and remote of the four stretches. The trail enters a narrow steep canyon with a seasonal creek. There are few houses, adjacent roads or road crossings.

Scenic Quality Objective: “Visual Subordinance”, as seen from the proposed trail and trailheads, and Lyle-Centerville Road. (This scenic quality objective is a project objective that applies only to state lands within the trail corridor. It is based on ROS objectives, providing a consistent scenic quality objective for the entire trail, being respectful of the adjacent landowners, and being responsive to the SEPA question of “how to control aesthetics”.)

Existing Trail Development: There is no current development except for the existing rail-bed, which is very coarse in many places where talus has fallen on the trail. There are several trestles along the trail in this segment. Users now park at Wahkiacus, Harms Road or the Lyle-Centerville Highway.

ROS Class: “Roaded Natural”.



Figure 20: Typical Trestle in this Segment



Figure 21: Trail Surface is Rough, Rockfall is Common

Applicable Standards and Guidelines

A. The Columbia River Gorge National Scenic Area Management Plan

Applies between the Lyle Urban Area Boundary and the National Scenic Area boundary (approximately the Fisher Hill trestle). The applicable standards are quoted below from Chapter 2, Scenic Resources for the General Management Area:

- 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.
- 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.
- 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.
- Key Viewing Areas: The Columbia River, State Roads 142 and 14 (SR 142, SR 14), Interstate 84 (I-84), Historic Columbia River Highway (HCRH), and Rowena Plateau

B. The Klickitat River Wild and Scenic River Management Plan

Applies from the trail beginning in Lyle to river mile 11. The following management direction is applicable to Scenic Resources:

- New development is visually subordinate to the characteristic landscape.
- Maintain the character of canyon hillsides.
- Maintain the existing character of the Shorelines Management Area.
- Visual Quality Objective is “Partial Retention” (Also called “visual subordination”-A visual quality objective that provides for management activities that may be evident but must remain visually subordinate to the characteristic landscape...).
- Recreation Opportunity Spectrum (ROS) Class is “Roaded Natural”
- Key viewpoints: Klickitat River, Recreation sites (including the proposed trail and trailheads) and Highways 14 and 142.
- In order to meet scenic quality objectives within foregrounds of recreation developments, the Forest Service uses handbooks to facilitate meeting required standards. The applicable handbook for this discussion is The Built Environment Image Guide (FS-710, 2001). The following guidance is taken from this guide:

Applicable Design Guidelines:

- Important influences are ranching and rugged natural environment
- Locate structures at the edges of clearings
- Use simple, compact forms
- Repeat simple forms
- Use large scale building materials
- Avoid complex multiple roof forms
- Expose structural elements
- Use local and indigenous materials when available. Use stone, wood, heavy timbers and other natural materials (synthetics if they can achieve the appearance of natural materials).
- Use color schemes that are inspired by rock outcrops, leaves, needles, tree trunks, bark or colors found on the ground. Accent colors from accents in the natural setting.
- Minimize site disturbance and size of new roads and parking.
- Restroom characteristics: Strong roof with protected entry, strong base.

Table 21: Applicable ROS Guidance:

DEVELOPMENT xxxxxxx = compatible w/ROS Class	ROS CLASS		
	ROADED NATURAL	RURAL	URBAN
SITE SETTING			
Natural surroundings dominate	xxxxxxx		
Natural and built co-dominate		xxxxxxx	
Built environment dominates			xxxxxxx
Heavy site modifications for facilities			xxxxxxx
Moderate site modifications for facilities	xxxxxxx	xxxxxxx	xxxxxxx
NON-VEHICULAR BRIDGES			
Logs or Dimensional wood	xxxxxxx	xxxxxxx	xxxxxxx
Concrete, Steel or other synthetic		xxxxxxx	xxxxxxx
INTERPRETIVE/SITE FACILITIES			
Simple signs of native or natural appearing materials	xxxxxxx		
Complex wayside exhibits		xxxxxxx	
Major interpretive sites			xxxxxxx
ROADS (INCLUDES PARKING)			
Passenger car (vs. high clearance) mostly double-laned with paved surface	xxxxxxx	xxxxxxx	xxxxxxx
TRAIL SURFACING			
Native material or gravel	xxxxxxx		
Asphalt/Concrete		xxxxxxx	xxxxxxx
TOILETS			
SST Vault	xxxxxxx	xxxxxxx	
Precast Concrete SST		xxxxxxx	
Flush toilet any compatible design		xxxxxxx	xxxxxxx
BARRIERS/WALLS			
Logs, plants, or boulders	xxxxxxx	xxxxxxx	
Dry walls	xxxxxxx	xxxxxxx	
Mortared Rock walls or concrete walls		xxxxxxx	xxxxxxx

Environmental Consequences

Introduction

This section is broken into two categories: the environmental consequences of the conceptual trailhead options, and trail support facilities/resource mitigations/likely conflict resolution structures.

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

The Forest Service would not build trailheads, improve the surface of the rail-bed, or provide any support facilities such as toilets, drinking water.

Direct, short term and indirect effects

In the short term, if the Forest Service decides not to manage the trail, development and management of the trail may be delayed. If so, continued use of the trail may cause unsightly resource damage, litter problems, fire risk to the landscape, and ad-hoc developments. However, this may not occur since future management and trail use is an unknown at this time.

Long-Term and Cumulative Effects

The long-term scenic risk to the no-action alternative is not known. These effects would depend on whether the trail is unmanaged or managed by other entities to an unknown scenic standard. The biggest risks to scenery would be unmanaged use that created resource damage and unsightly ad-hoc development or managed use to a lesser scenic standard than that proposed by the Forest Service.

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

The Forest Service proposes to include the following development with potential to impact scenic resources:

- 6 Trailheads
 - Trailhead parking lots (including grading and planting)
 - 6 Trailhead toilets
 - Trailhead signing, pay phones, other amenities
- Barriers

The only development that would be visible from CRGNSA key viewing areas is the trailhead parking at Lyle. The scenic guidelines do not apply to the Lyle trailhead because it is located within the Urban Area.

The Klickitat Wild and Scenic River guidelines apply from viewpoints along the trail itself, the Klickitat River, and Highways 14 and 142 for the first approximately 10.5 trail miles. The trailheads for which these guidelines apply are at Lyle and Pitt. The rest of the trailheads are proposed to be designed according to the applicable guidelines from the Built Environment Image Guide, discussed above, and the project visual quality objective (a visual quality objective is a set of visual management goals established by the Forest Service to achieve a desired visual objective. Each objective describes a different degree of acceptable alteration of the natural

landscape based on the importance of aesthetics. (National Forest Landscape Management Volume 2, USDA Handbook 462).

Direct, short-term and indirect effects

Trailheads present the biggest risk to scenic resources because of their size and extent of hard surfaces. The Lyle, Pitt, and Wahkiacus Trailheads would meet visual subordination from the Klickitat River because of vegetative screening. The Klickitat, Harms Road and Warwick trailheads would not be visible from the Klickitat River because of topographic screening and distance. The Lyle trailhead would be visible from both SR 14 and SR 142. All trailheads would be visible from the portions of the trail for which they provide access.

All of the trailheads rely on vegetative screening and island planting to be visually subordinate from the trail and Highways 14 and 142. Also, the trail is routed around the trailheads with vegetative islands between the trail and the trailhead. Toilet buildings are located to minimize dominance at the site. To ensure that these facilities are in harmony with each other and the trail landscapes, the scenic resource design standards of Chapter 2 should be applied.

Trail

- Trail surfaces (compacted surface, boardwalks, trestles or bridges)
- River access sites
- 2 portable toilets
- Natural resource mitigation structures and plantings
- Barriers
- Signs

Most of this development would not be visible from CRGNSA key viewing areas due to location of the development outside of the CRGNSA boundary or to size of the development. The trail would be located on an existing rail-bed; its surfaces may be visible from Highway 142 at points along the trail. Signs may also be visible from the highway.

The Klickitat Wild and Scenic River guidelines apply from viewpoints along the trail itself, the Klickitat River, and Highway 142 for the first approximately 10.5 trail miles. These trail improvements are required to be designed according to the applicable guidelines from the Built Environment Image Guide, discussed above.

Direct, short-term and indirect effects

Assuming that these trail support facilities are built in accordance with requirements in the Built Environment Image Guide, most would not have any negative scenic impacts from key viewpoints. The greatest risks to scenic resources are the barriers, bridges, boardwalks, and portable toilets. To ensure that these facilities are in harmony with each other and the trail landscapes, the scenic resource design standards of Chapter 2 should be applied.

Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects

The Forest Service proposes to include the following development with potential to impact scenic resources:

3 Trailheads

- Trailhead parking lots (including grading and planting)
- 3 Trailhead toilets
- Trailhead signing, pay phones, other amenities

Barriers

The trailheads proposed for Alternative 3 would have the same effect as those for Alternative 2 except that only 3 of them would be built in Alternative 3. The ones that are proposed to be built (Lyle, Pitt, and Klickitat) would require the same mitigations as in Alternative 2.

Trail

- Trail surfaces (compacted surface, asphalt, boardwalks, trestles or bridges)
- River access sites
- 1 Portable toilet
- Natural Resource mitigation structures and plantings
- Barriers
- Signs

Most of this development would not be visible from CRGNSA key viewing areas due to location of the development outside of the CRGNSA boundary or size of the development. The trail would be located on an existing rail-bed; its surfaces may be visible from Highway 142 at points along the trail. Signs may also be visible from the highway.

Direct, short-term and indirect effects

Assuming that these trail support facilities are built in accordance with requirements in the Built Environment Image Guide, most would not have any negative scenic impacts from key viewpoints. The greatest risk to scenic resources are the barriers, bridges, boardwalks, and port-a-potties. To ensure that these facilities are in harmony with each other and the trail landscapes, the scenic resource design standards of Chapter 2 should be applied.

Long-Term and Cumulative Effects of Alternatives 2 and 2a and Alternatives 3 and 3a

The risk to scenery of Alternative 2, the 31-mile alternative is that the building of 6 trailheads plus support facilities and the effects of building the Lyle-Klickitat Day Use Area may degrade the overall scenic experience of the river, the trail itself, or of Highway 142. Assuming each portion of development meets the requirement of visual subordination through design and the direction given in the Built Environment Image Guide, the scenic resources should not be impacted beyond that expected by the various regulations. Therefore, it is important individually and cumulatively that the designs meet the required direction. Alternative 2 places a greater risk to scenic cumulative effects than Alternative 3 because it requires building 3 more trailheads. Trailheads are the biggest risk to scenic resources of the developments proposed due to size and extent of hard surfaces. Fencing is the second biggest risk to scenic resources of the developments proposed. Alternative 2 contains more miles of possible fencing than Alternative 3.

3.9 TRANSPORTATION

This assessment focuses on impacts to adjacent road systems for trailheads and trail/road crossings.

Existing Conditions

To assess the impacts of the trailheads upon the adjacent road systems, existing traffic data was compiled and then a growth projection was made to estimate the traffic data for the design year, assumed to be 20 years out. For this assessment it has been assumed that trailhead generated traffic is in addition to the traffic growth projections described below.

“Level of Service” (LOS), ranging from ‘A’-- free flowing traffic to ‘F’-- jam density, is estimated from the average daily traffic volume (ADT) for the design year and forms a basis for determining the consequences and effects of the trailheads. LOS ‘C’ is a volume/capacity ratio of approximately 50% and is generally defined as the point beyond which driver comfort and convenience decline and accident rates begin to increase. Design hour volume (DHV) on a two-lane rural road is typically about 15 % of ADT and would be used where applicable to check the capacity of intersections. On very low volume local roads, defined as having an ADT of 400 or less, a risk assessment approach alone can be used comparing site-specific issues to accepted design guidelines for the given ADT, rather than calculating LOS or applying DHV.

For further discussion and definition of these topics, refer to the Washington State Department of Transportation “Design Manual” (WSDOT-DM), The AASHTO “Guidelines for Geometric Design of Very Low Volume Local Roads, ADT \leq 400 (AASHTO Guidelines) and the Klickitat County Regional Transportation Plan (RTP).

Table 22 below displays the 2002 ADT for roads affected by the proposed trail. It also provides estimates for 2022 ADT and for 2022 DHV where applicable, **without** any projected trail use.

Table 22. ADT and DHV for the State and County Road System without Trailheads.

Road No./Name	Location	Lanes	Surface	2002 ADT	2022 ADT	2022 DHV
SR-14	SR-142 junction	2	Asphalt	3,000	4,500	680
SR-142	Lyle	2	Asphalt	860	1,200	180
SR-142	MP 10, Klickitat R. Bridge	2	Asphalt	690	970	145
SR-142	MP 13.26, Durkee Rd.	2	Asphalt	580	810	120
Centerville Road	Warwick	2	Asphalt	140	175	n/a
Schilling Road	Wahkiacus	1	Gravel	22	28	n/a
Schilling Road	Centerville Road	2	Asphalt	55	69	n/a
Horseshoe Bend Rd.	Wahkiacus	2	Asphalt	46	58	n/a
Horseshoe Bend Rd.*	Wahkiacus-End of Pavement	1	Gravel	7	9	n/a
Horseshoe Bend Rd.	Harms Road	2	Gravel	17	21	n/a
Harms Road	Centerville Road	2	Gravel	31	39	n/a

* Estimated, no previous data from Klickitat County.

For the State road system, existing (2002) ADT was obtained from the WSDOT ‘Trips System’. For the County road system, existing (2002) ADT was prorated from 1996 data obtained from Klickitat County. Design year (2022) ADT without trailhead development was estimated using growth data from the RTP applied as follows:

- SR-14, traffic growth rate to the design year is approximately 50%.
- SR-142, traffic growth rate to the design year is approximately 40%.
- County roads, traffic growth rate to the design year is approximately 25%.

Applicable Standards and Guidelines

No Land Use Regulations set standards or guidelines for transportation. WSDOT and Klickitat County transportation standards are applied.

Environmental Consequences

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

In Alternative 1, no trailheads would be developed. People currently park at the SR14/SR142 junction in Lyle, Fisher Hill, Pitt, Wahkiacus (off Schilling Road) and Harms Road to use the trail, but the volume of this use is unknown.

Alternatives 2 and 2a, 31 Mile Trail, and Alternatives, 3 and 3a, 13 ½ Mile Trail - Direct/Indirect, Short and Long-Term Effects

ADT for the trailhead road approaches is indicated in Table 23, including anticipated shuttle trips between trailheads. DHV as a percentage of ADT for the trailheads is quite high because ADT for peak weekends is about three times the average for the year. Assumptions used for analyses were as follows:

- ADT and DHV for the newly constructed trailheads are the same in the design year and are controlled by the physical capacities of the trailhead parking areas.
- Alternative 2 traffic volumes were used as ‘controlling’ or ‘worst case scenario’.
- The design hour for the trailheads coincides with the design hour on the adjacent road.

Table 23: ADT and DHV for the Trailheads by Alternative.

Trailhead	Alt. 1 ADT	Alt. 2 ADT	Alt. 2a ADT	Alt. 3 ADT	2022 DHV**
Lyle	Unknown	20	20	20	10
Pitt	Unknown	15	15	15	8
Klickitat	Unknown	20	20	20	10
Wahkiacus	Unknown	10	8	n/a	5
Harms Road	Unknown	10	7	n/a	n/a
Warwick/Uecker Rd.	Unknown	15	11	n/a	n/a
Total	Unknown	90	81	55	33

**Based upon Alternative 2 as ‘controlling’ or ‘worst case scenario’.

State Roads Analysis

Utilizing WSDOT-DM, Figure 610-3, results of ADT and consequent LOS determinations for the state roads with and without trailhead development are contained in Table 24. Overall, LOS for the state roads in the design year with or without trailhead development shows no change.

Table 24: LOS (Level of Service) for State Roads with and without Trailheads

Road No.	Location	Terrain	2022 ADT State Road	2022 LOS Without Trailheads	2022 ADT Trailhead Tributary	2022 ADT With Trailheads Added	2022 LOS With Trailheads
SR-14	SR-142 junction	Level	4,500	C	65	4,565	C
SR-142	Lyle	Rolling	1,200	B	65	1,265	B
SR-142	MP 10, Klickitat R. Bridge	Rolling	970	B	45	1,015	B
SR-142	MP 13.26, Durkee Rd.	Rolling	810	B	30	840	B

The intersections with SR-142 at the Lyle, Pitt and Klickitat Trailheads all have weekday ADT less than 100 qualifying them as Category I road approaches. The design template should be ‘D’ for the approaches at Lyle and Pitt because of horse trailer traffic, and it should be ‘C’ at Klickitat to accommodate busses and RV’s (WSDOT-DM, Chapter 920). Checking DHV for SR-142 and the trailhead approaches at the Lyle, Pitt and Klickitat Trailheads against WSDOT-DM Figures 910-9a and 910-12, no left-turn storage lanes or separate right-turn lanes are warranted on SR-142 for these approaches.

The intersection of SR-14 with SR-142 may warrant a left-turn storage lane and an added right-turn lane on SR-14 by the design year. Trailhead ADT represents a little over 1% of the total ADT using the intersection in the design year so it would have minimal impact. The complete study of the intersection is beyond the scope of this assessment.

Using WSDOT-DM Chapter 650 (Suppl. October 9, 2002), Chapter 700 (Suppl. November 1, 2002) and Chapter 920, CRGNSA personnel completed a risk assessment for trailhead road approaches and trail/road crossings and propose the measures listed in Table 25 below (also found in Chapter 2). With the safety measures proposed, the state road locations should meet WSDOT standards.

Klickitat Rails-to-Trails

Table 25: State Roads Risk Assessment for Trailhead Road Approaches and for Trail Crossings

Location	Speed Limit, mph	Intersection Sight Distance Available, feet	Decision Sight Distance Available, feet	Notes
Lyle Trailhead	40	350-400	n/a	No access from SR-14; intersection planned on SR-142 opposite Spokane Ave., approximately 420' from SR-14.
Trail Crossing MP 10.1	45	n/a	400	Westbound: minor brushing on inside of curve. Eastbound: construct trail on low fill on inside of curve so approaching vehicle drivers can see trail users over bridge rail.
Pitt Trailhead	45	450 westbound; 650 eastbound.	n/a	Approximate 6% downgrade westbound on approach to trailhead access road.
MP 12 and MP 13.5 Vicinity Clear Zones	45 40	n/a	n/a	Locate trail beyond clear zone or mitigate with an approved barrier along SR-142.
Trail Crossing MP 12.6	25	n/a	350	Painted crosswalk south side of 7 th . Street.
Klickitat Trailhead and Trail Crossing	25	150	220	Painted crosswalk to access shared restroom at ball fields north side of Ball Field Road.
Trail Crossing MP 14	40	n/a	330 +	Limb-up existing trees to increase sight distance on inside of curve.

County Roads Analysis: Alternative 2 only

The 2022 ADT with and without trailheads is shown in Table 26 for the County roads affected by Alternative 2. For these roads, ‘with trailheads’ includes trailhead traffic directly tributary rounded upward to account for anticipated shuttle trips between trailheads. Where trailhead traffic is not directly tributary, ‘with trailheads’ is simply ‘without trailheads’ rounded upward to account for anticipated shuttle trips between trailheads.

Table 26: ADT for County Roads with and without Trailheads

Road No./Name	Location	2002 ADT	2022 ADT Without Trailheads	2022 ADT With Trailheads ***
Centerville Road	Warwick	140	175	195
Schilling Road	Wahkiacus	22	28	30
Schilling Road	Centerville Road	55	69	70
Horseshoe Bend Rd.	Wahkiacus	46	58	70
Horseshoe Bend Rd.#	Wahkiacus-End of Pavement	7	9	10
Horseshoe Bend Rd.	Harms Road	17	21	25
Harms Road	Centerville Road	31	39	50

Estimated, no previous data from Klickitat County.

***Rounded upward to include anticipated shuttle trips between trailheads.

Klickitat Rails-to-Trails

For the county roads, a risk assessment was completed using AASHTO-Guidelines, WSDOT-DM and input received on the ground in May 2003 from Klickitat County personnel. Klickitat County personnel indicated that crosswalks be painted at paved County road/trail crossings and that advance-warning signs be placed by the construction contractor for the project. With the mitigation measures proposed, the Klickitat County road locations should meet county standards.

For the one lane sections of Horseshoe Bend and Schilling Roads, it is recommended to restrict recreation vehicles over 22 feet in length. It has yet to be determined how to implement this recommendation. Some combination of advance signing and appropriate notation on maps could be used.

Table 27: County Roads Risk Assessment for Trailhead Road Approaches and for Trail Crossings

Location	Speed Limit, mph	Intersection Sight Distance, Available, feet	Decision Sight Distance Available, feet	Notes
Klickitat Trailhead and Trail Crossing (Durkee Road)	25	> 150	> 150	Define intersection adjacent to fire station. Paint crosswalk for trail crossing at Durkee Road near (stop sign) intersection with SR-142.
Wahkiacus Trailhead and Trail Crossing	25	> 220	> 220	Sight distances are for traffic approaching northerly on Schilling Road after minor limb-up of trees on the inside of the curve. Sight distances for traffic approaching from the intersection with Horseshoe Bend Rd enhanced by minor brushing within the intersection radii. Provide advance warning signs for trail crossing.
Horseshoe Bend Road at Schilling Road School Bus Stop	25	n/a	> 150	Advance warning signs in place on all approaches. Schedule is approximately 7:20 am and 3:05 pm school days. Bus stops just south of Schilling Rd. Stop lasts less than 5 minutes and would have minimal impact on nearby trailhead. The trailhead would have no impact on bus stop.
Horseshoe Bend and Schilling Roads, One Lane Sections	25 [^]	n/a	n/a	ADT ≤ 30 for design year ^{^^} . Potential for agricultural related traffic but type/amount unknown. Road alignment, grades, lack of turnouts are potential hazards, especially for horse trailers and RV's. Recommend 22' maximum vehicle length for recreation traffic in these sections.
Harms Road Trailhead and Trail Crossing	50 ^{^^^}	> 350	> 350	Nearby one lane road bridge under load limits scheduled for replacement in 2007 (advance load limit and warning signs exist). Current load limits do not preclude horse trailers or RV's. Provide advance warning signs for trail crossing.
Warwick Trail Crossing	50	n/a	> 600	Meets County requirement for 7 seconds "clear time" to cross road. Paint crosswalk, provide

Klickitat Rails-to-Trails

Centerville Rd.				advance warning signs.
Warwick/ Uecker Rd. Trailhead	50	> 380	n/a	County requirements: one entrance only off of Uecker Road; permits required for Uecker Road approach and construction within Centerville Road right-of-way. Trailhead development within physically constrained site would require substitution of “stop” sign for existing “yield” sign on Uecker Road.

^ 25 mph on north end of Horseshoe Bend Road prior to Schilling; not posted on south ends of either road (statutory 50 mph).

^^Theoretical maximum ADT for one lane road is 100 (Forest Service “Preconstruction Handbook”).

^^^Statutory limit (not posted); maximum safe operating speed estimated to be 35-40 mph.

Cumulative Effects

State Roads

Overall, LOS for the state roads in the design year 2022 with or without trailhead development shows no change. Only minor reconstruction work would be required on SR-142 to accommodate the trail. The work involves widening the shoulder adjacent to the trail vicinity SR-142 mileposts 12 and 13.5 to place an approved barrier, such as weathering steel guardrail, for trail and road user protection through the road clear zones. Other mitigation measures proposed as a result of the risk assessment, such as minor brushing or limbing-up of trees, would be performed to meet WSDOT standards.

County Roads

For county roads in the design year 2022 with trailhead development, the added traffic does not appear to require raising any current road standards. Road management would be needed, however, through the one lane sections of Horseshoe Bend and Schilling Roads to restrict recreational vehicles over 22 feet in length as these sections are unsafe for vehicles with trailers. The physical constraints of the trailhead site where Uecker Road intersects Centerville Road would necessitate substituting a “stop” sign for the existing “yield” sign on Uecker Road as stopping sight distance would be reduced by the development. Other mitigation measures proposed as a result of risk assessment, such as painted crosswalks, advance warning signs, and minor brushing or limbing-up of trees, would be performed to meet county standards.

3.10 AIR QUALITY

Existing Conditions

Air is an integral part of the human and natural environment. Its character directly affects plant, animal and human habitat, and affects the many scenic and recreational opportunities available in the Columbia River Gorge area.

The Columbia River Gorge is characterized by strong seasonal winds. In the summer, strong winds come predominantly from the west, bringing air from the Portland/ Vancouver metropolitan area, the Willamette Valley, and even the Puget Sound area through the Gorge toward the east. In the winter, strong winds come predominantly from the east, bringing Columbia Basin air through the Gorge toward the west.

The types of sources on a regional basis that emit pollutants with the potential to impair visibility include:

- sulfate – from combustion of fuels containing sulfur, such as coal-fired power plants, and any form of diesel fuel and oil-fired combustion.
- nitrate – from any high temperature fuel combustion, mostly motor vehicles, also industrial boilers.
- organic carbon – from wood burning, motor vehicles, industrial processes, restaurants, and natural sources.
- elemental carbon – soot from wood burning and diesel engines.
- soil – windblown dust, road dust, agricultural and construction activities.

Major emission sources in the region include the Centralia power plant (So₂) to the west and the Boardman powerplant (So₂ and No_x) to the east. In addition, the Portland/Vancouver metropolitan area with a population of about 1.8 million is located on the western end of the CRGNSA. Summer winds can carry air from the Willamette Valley, Longview, the Seattle metropolitan area, and possibly Vancouver, British Columbia to the Gorge. Winter winds can carry air from the Columbia Basin cities of the Tri-cities (Richland-Pasco-Kennewick), Yakima, and Spokane to the Gorge.

Locally, the Columbia River Gorge is a major Northwest transportation route, with an interstate freeway, Washington state highways, two railroads and barge traffic. Emissions are also generated in the local small towns, such as Goldendale, The Dalles, Hood River, and White Salmon/Bingen.

Scenic vistas in the Columbia Gorge area are limited both by weather and natural processes such as pollen, wildfire smoke, and normal light scattering, as well as by human-caused air pollution. Degraded visibility reduces the scenic beauty of the Gorge, and the recreational appeal on which much of the local tourism economy depends.

Very small sulfate particles, organic carbon and nitrates impair visibility in the Columbia River Gorge. Visibility is poorest on the west end in summer and early fall, and on the east end in late fall and winter. Visibility on average is worse on the west end than the east end. Sulfate particulates are more present on the west end, which impair visibility due to higher relative humidity found there. Visibility on average is better in the eastern Gorge largely because of lower relative humidity, and sulfate particulates are not as large a contributor to impairment on the east end. Poor winter visibility levels on the east end are due to a relative increase in nitrates.

Air pollution may also detrimentally affect plants, including traditional American Indian plants and local agricultural commodities, and on cultural resources such as ancient Native American rock art. Ozone (smog) in the eastern portion of the CRGNSA has been measured at levels that are known to harm vegetation. Lichen species sensitive to sulfur pollution are largely absent in the CRGNSA while those that thrive in high nitrogen-polluted conditions are abundant. This is an indicator of unnatural environmental conditions.

Applicable Standards and Guidelines:

The CRGNSA Management Plan, as amended in 2000, states that:

"Air quality shall be protected and enhanced, consistent with the purposes of the Scenic Area Act. The States of Oregon and Washington and the U.S. Forest Service shall: (1) continue to monitor air pollution and visibility levels in the Gorge; (2) conduct an analysis of monitoring and emissions data to identify all sources, both inside and outside the Scenic Area, that significantly contribute to air pollution. Based on this analysis, the States shall develop and implement a regional air quality strategy to carry out the purposes of the Scenic Area Act, with the U.S. Forest Service, the Southwest Air Pollution Control Authority and in consultation with affected stakeholders.

The States and the Forest Service shall together provide annual reports to the Commission on progress made regarding implementation of this policy. The first report shall include a workplan and timeline for gathering/analyzing data and developing and implementing the strategy. The workplan and strategy shall be submitted to the Commission for approval."

The process envisioned in the CRGNSA Plan amendment is underway and will be continuing through the next several years.

Sources for this discussion are Green, 2001, and Oregon Department of Environmental Quality et al, 2001.

Environmental Consequences

Four activities related to this project could impact air quality in the project area and in the Columbia River Gorge.

- 1) Construction activities may create dust.
- 2) Asphalt paving would create fumes.
- 3) Increased use of unpaved county roads by trail users could increase dust in dry periods.

- 4) Visitors would reach the trail by automobile and would therefore create automobile emissions.

Alternative 1, No Action – Direct, Indirect, Short and Long-Term Effects

In this alternative, the Forest Service would not undertake any construction activities, so no construction related dust or asphalt paving would take place. It is unknown if another entity would undertake these activities in the future. Low levels of use would likely continue, with concurrent automobile emissions from visitors. The number of vehicles and distance traveled are unknown in this alternative.

Alternatives 2 and 2a, 31 Mile Trail – Direct, Indirect, Short and Long-Term Effects

Short-Term and Direct Effects

Short-term construction dust would be generated for a 31-mile trail. A four-foot wide surface would be compacted, which amounts to about 15 acres of disturbance. The remainder of the railbed (up to an additional twelve feet or as much as 45 additional acres) would be cleared to allow emergency vehicles. The majority of the railbed surface has a very low percentage of fine materials. Therefore, disturbing the railbed surface during surface compaction would generate a low amount of dust emissions on the majority of the trail. In dusty conditions, water would be applied during construction.

In the short-term, fumes from asphalt paving would occur at five trailheads (the proposed Klickitat trailhead is already paved), over a total surface area of about 130,700 sf (about 3 acres). These effects are of short duration and limited to the immediate work area. Therefore, no mitigation is proposed.

Long-Term and Indirect Effects

In the long-term, trail use would not likely create a considerable amount of dust, since the surface would be compacted. In the long term, paved trailheads would eliminate dust at these sites.

Over the long-term, additional road dust could be expected between the Lyle-Centerville Highway and the Harms Road trailhead, particularly during dry weather. Harms Road is unpaved for about one-half mile from the paved Lyle-Centerville Highway. Ten parking spaces would be provided at Harms Road, and use estimates assume 9 of these parking spaces would be used once a day, and the other one twice a day, for a maximum of 11 rounds trips into the Harms Road trailhead.

In Alternative 2, July and August (the driest months when dust would be greatest), are predicted to be low use months for Swale Canyon, with about 2 round trips a day predicted to the Harms Road trailhead. Since only a few vehicles are expected to travel to this trailhead in the driest months, no mitigation is proposed.

A very short distance of Schilling Road is unpaved before it reaches the proposed Wahkiacus trailhead. Very minor amounts of dust would be generated here.

Users may shuttle vehicles between the Wahkiacus and Harms Road or Warwick trailheads. The shortest distance is on two unpaved county roads, Harms/Horseshoe Bend Roads on the north side of Swale Canyon, and Schilling Road on the south side of Swale Canyon. More dust would be raised in drier summer months than in wetter and cooler months. The dry months of July and August are predicted to be low use months for Swale Canyon, and assume about 2 vehicles a day using each trailhead. Consequently, only a few vehicles would be shuttling on the unpaved roads in the driest months. Since only a few trail user vehicles are expected to travel these roads in the dry months, no mitigation is proposed.

In Alternative 2a, Swale Canyon would be closed from June 15 to September 30, and therefore the trail would not generate dust on county roads in the driest time of year.

About 12,710 annual vehicle round-trips are estimated for trail users. About 90% of this use is estimated to be from outside of the local region, in particular the Portland/Vancouver metropolitan area or beyond. About 10 % of the use would be from the Mid-Columbia Region. Therefore, some 11,440 trips of 150 miles or more, and some 1,300 trips of 20 to 50 miles, would be generated annually by this alternative. To compare these annual trip numbers with existing average daily traffic volumes on SR14 and I84 (the access routes of most visitors), a simple average was taken over 365 days and translates into an average of 35 round trips per day, with 31 trips coming from out of the region, and 4 trips coming from the Mid-Columbia.

WSDOT reports SR142 average daily traffic volumes of 3,000 at the SR 142 junction (2002). ODOT reports an average daily traffic volume of 26,300 at Exit 64, the Hood River/White Salmon bridge (2001). Therefore, two of the major highways in the immediate region carry over 29,000 vehicles a day. This project may generate another 35 round trips per day (on average throughout the year), or about an additional 0.24 % (70 one-way trips divided into 29,300 vehicles per day). This represents a minimal increase over current use.

Alternatives 3 and 3a, 13 ½ Mile Trail- Direct, Indirect, Short and Long-Term Effects

Short-Term and Direct Effects

Short-term construction dust would be generated for a 13-½ mile trail. As discussed below, about 15 acres would be affected. As discussed above for Alternative 2, the majority of the railbed surface has a very low percentage of fine materials, which would result in a low amount of dust emissions during construction. In dusty conditions, water would be applied during construction.

The trail would be paved in this alternative, for a surface area of about 550,000 sf (about 12 ½ acres). In Alternative 3a, soil hardeners would be substituted for asphalt on nine miles of trail. In addition, two trailheads would be paved (the proposed Klickitat trailhead is already paved) for a surface area of about 90,000 sf (about 2 acres). Therefore, in the short-term, fumes from asphalt paving would occur over about 14 ½ acres in Alternative 3. In Alternative 3a, soil hardeners would be substituted for asphalt on nine miles of trail. These effects are of short duration and limited to the immediate work area. Therefore, no mitigation is proposed.

Long-Term and Indirect Effects

In the long-term, a hardened trail surface would minimize potential dust from trail use, and paved trailheads would eliminate dust at these sites.

Access roads to all trailheads proposed in this alternative are currently paved. Vehicle shuttles would take place on paved roads. Therefore, no dust would be associated with vehicle travel in this alternative.

Over the long-term, about 7,800 annual vehicle round-trips are estimated for trail users. About 7,000 trips of 150 miles or more (about 90% of the use coming from outside of the local region), and some 800 trips of 20 to 50 miles (about 10 % of the use coming from the Mid-Columbia Region), would be generated annually by this alternative. The annual trip figures translate into an average of 21 round trips per day, with 19 trips coming from out of the region, and 2 trips coming from the Mid-Columbia.

As discussed above for Alternative 2, two of the major highways in the immediate region carry over 29,000 vehicles a day. This project may generate another 21 round trips per day (on average throughout the year), or about an additional 0.14 % (42 one-way trips divided into 29,300 vehicles per day). This represents a minimal increase over current use.

Cumulative Effects

Cumulative effects of Alternatives 2 and 2a, Alternatives 3 and 3a to air quality would stem from increased vehicle use to reach this site, in combination with existing and future impacts from all vehicle emissions and other emissions affecting the Columbia River Gorge. The Klickitat Rails-to-Trails project area is very near the proposed Lyle-Klickitat day use site. However, use at the proposed Lyle-Klickitat day use site was anticipated to attract more local use and existing SR14 traffic, than to generate a great deal of new vehicle trips from outside the region.

A process is currently underway to address cumulative impacts to air quality in the Columbia River Gorge National Scenic Area. A regional air quality strategy is being developed to protect and enhance air quality in the Columbia River Gorge National Scenic Area (see discussion in the Existing Conditions discussion of this section). The Forest Service will participate in development of this regional air quality strategy.

3.11 CONSISTENCY WITH LAND USE REGULATIONS

The Klickitat Rails-to-Trails corridor is affected by a number of land use controls and regulations. This section discusses consistency with the Land Use Designation provisions of the CRGNSA Plan, and the Klickitat County Land Use Ordinances. Consistency with the resource protection guidelines of the CRGNSA Plan, Lower Klickitat Wild and Scenic River Plan, Klickitat County Shorelines Master Plan, Floodplains Management Ordinance and Critical Areas Ordinance was incorporated into the relevant sections of Chapter 3.

Washington State Parks environmental staff have agreed to review and can adopt this Environmental Assessment under the State Environmental Policy Act (SEPA). A SEPA checklist is attached as Appendix A. The checklist provides an analysis of consistency with SEPA. It is **not** an application for determination of significance under SEPA.

If the Forest Service chooses to manage the Klickitat Rails-to-Trails, then applications would be made for necessary approvals and permits.

Table 29, summarizing consistency with the following provisions, is at the end of this section.

- Columbia River Gorge NSA Management Plan
- Lower Klickitat River Wild and Scenic River Management Plan
- Klickitat County Shorelines Ordinance
- Klickitat County Floodplains Ordinance
- Klickitat County Critical Areas Ordinance
- Klickitat County Land Use Ordinances
- Washington State Environmental Policy Act

Consistency with the Land Use Designation provisions of the CRGNSA Plan

Applies from the Lyle Urban Area boundary to the CRGNSA boundary near the Fisher Hill trestle.

The right-of-way passes through three General Management Area (GMA) Land Use Designations. The only proposed action within the GMA is trail management. No trailheads are proposed in the GMA. Trails are an allowed use in each Land Use Designation (LUD), per the following conditions:

Residential LUD: Recreation development, subject to the guidelines established for recreation intensity classes (Part I, Chapter 4: Recreation Resources).

Finding: Trails are an allowed use in all Recreation Intensity Classes described in Part I, Chapter 4: Recreation Resources.

Open Space LUD: (Klickitat River Wildlife and Natural Area) Low-intensity recreation, subject to the guidelines for recreation intensity classes (Part I, Chapter 4: Recreation Resources), after

consultation with the Washington Natural Heritage Program and Washington Department of Wildlife (sic). Trails are allowed in every Recreation Intensity Class.

Finding: Trails are an allowed use in all Recreation Intensity Classes described in Part I, Chapter 4: Recreation Resources. The Washington Department of Fish and Wildlife has been consulted about this project, and raised no issues regarding the proposed trail in the GMA.

Public Recreation LUD: Publicly-owned, resource-based recreation uses, consistent with recreation intensity class policies and guidelines (Part I, Chapter 4: Recreation Resources), and subject to compliance with... numbers 1A, 1C, 1D, 1E, 1F, and 1G (where applicable) of the "Approval Criteria for Recreation Uses" contained in the recreation intensity class guidelines (Part I, Chapter 4: Recreation Resources):

All recreation projects in the GMA are subject to the "Approval Criteria for Recreation Uses".

Approval Criteria for Recreation Uses

For all proposed recreation projects... project applicants shall demonstrate compliance with the following criteria (if applicable) as a condition of project approval:

- A. Compliance with all applicable guidelines in this 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).

Finding: The project is compatible with all applicable Management Plan guidelines for the protection of scenic, cultural, recreation, and natural resources. Detailed information may be found in the applicable analysis sections of this document.

"Compatible Recreation Use Guideline for GMA Oak Woodlands Landscape Setting":

"Resource-based recreation uses of varying intensities may be compatible with this setting, although most are of a low-intensity nature (such as trails or small scenic outlooks). More intensive recreation uses may be compatible where allowed under the "Recreation Intensity Classes" in Part I, Chapter 4, although they are generally rare in this setting. As with Woodland settings, intensive recreation uses in Oak-Pine Woodlands may be compatible if widely scattered and not in large concentrations."

Finding: The proposed trail project is compatible with this guideline

- B. **Not applicable.** The project is not adjacent to GMA Forest or Agriculture lands.
- C. **Not applicable.** No facilities for outdoor fires for cooking or other purposes, or campgrounds are proposed.
- D. **Applicable:** For proposed trail or trailhead projects, compliance with applicable trails policies in the Management Plan.

GMA Trails and Pathways Policies

1. Trail planning and management efforts shall include affected landowners, relevant agencies, Indian tribal governments, and trail organizations from the beginning of such efforts.
Finding: Affected landowners, relevant agencies, Indian tribal governments, and trail organizations have been notified of the proposed trail, and provided opportunity to be involved since project inception. See Chapter 1 for a public involvement summary, and Chapter 4 consultation for more information.
2. The Gorge Commission shall not acquire property or easements for trails without property owner consent. The Gorge Commission shall encourage other public bodies to acquire property or easements for trails through purchase or donation. **Not Applicable.**
3. As an integral component of trail planning, development, and management efforts, strategies shall be developed to address trespass, noxious weeds, and public safety issues (such as fire hazard, emergency rescue, and classification systems for degree of trail difficulty). Such efforts shall include consultation with fire, law enforcement, and emergency service providers.
Finding: Trespass, noxious weeds, and public safety issues (such as fire hazard, emergency rescue, and classification systems for degree of trail difficulty) are addressed. See Chapter 2 for a complete list of trail development and management measures addressing these topics. Fire and emergency services providers were consulted at a March 2003 interagency meeting. The Klickitat County Sheriff was consulted in July 2003.
4. Temporary trail closures during critical fire hazard periods should be considered.
Finding: Temporary trail closures during critical fire hazard periods are considered (see Chapter 2.)
5. Shared use of trails by compatible multiple-user groups should be encouraged as much as possible where appropriate conditions exist, to maximize efficient use of trails and reduce needs for new trail construction.
Finding: The trail proposes to accommodate hikers, bikers, horseback riders, wheelchairs and other non-motorized recreation users (see Chapter 2.)
6. User conflicts on trails shall be minimized through proper siting, design, and maintenance and an aggressive user education program. Multiple-use trails shall be built to standards sufficient to accommodate such different groups. Standards shall address safety concerns and considerations such as signage, trail width, visibility, and percent grade.
Finding: The trail width (up to 16 ft), flat grade, and good visibility accommodate multiple users at one time. Education and signing are critical components to reduce user conflicts. (see Chapter 2 for measures and Chapter 3, Section 3.1 for analysis of user conflicts.)

7. Use of motorized vehicles on designated public use trails shall be prohibited, except for use by response agencies and their agents in an emergency.
Finding: Motorized recreation vehicles would not be allowed, except motorized wheelchairs. Emergency and administrative vehicles would be allowed (see Chapter 2.)
8. Priority shall be given to the completion and improvement of existing trails, incomplete trail loops, and trail segments, considering relationships with trails in Urban Areas, the SMA, and outside the Scenic Area.
Finding: The railbed is in place, is railbanked, and is currently used as a trail, although use is not encouraged. The trail extends into the Lyle Urban Area.
9. Use levels on existing trails and projected demand for different trail uses shall be considered when planning additional trails.
Finding: There is a relative scarcity of trail for horses, bikers and wheelchairs in the CRGNSA. This trail would accommodate these users.
10. Trail systems and new trails shall, where feasible, incorporate existing segments of older/historic trails and abandoned road and railroad rights-of-way.
Finding: The trail is proposed on a railbanked railroad right-of-way.
11. The use of utility corridor rights-of-way for trail use shall be explored where such use would not interfere with the corridors' primary functions.
Finding: Not applicable.
12. Barrier-free access shall be provided for new trails and improvements to existing trails to the maximum extent practicable.
Finding: The proposed trail would meet accessibility standards for firmness, grade, cross slope and tread obstacles.
13. Public needs for convenience, access, and security shall be considered when designing and siting trailheads.
Finding: No trailheads are proposed in the GMA.
14. Where appropriate and practicable, facilities shall be provided at trailheads to promote alternatives to the private automobile for accessing trail opportunities.
Finding: No trailheads are proposed in the GMA.
15. Potential funding sources shall be evaluated as an integral component of all trail planning efforts. Fiscal impacts to local public service providers shall be considered as part of this process, including adequacy of funding to provide for proper maintenance, emergency response, and law enforcement functions.
Finding: Potential funding sources include federal funds appropriated to the U.S. Forest Service; grants from the Federal Highway Administration (TEA-21), other potential grants, and volunteers.

16. Trails proposed along the Columbia River and its tributaries shall be designed in a manner that minimizes effects to the shoreline and associated habitat values. Seasonal closures during critical wildlife periods shall be considered, as well as other appropriate mitigative measures.

Finding: In the GMA, the proposed trail is located out of the Klickitat River 100 ft stream buffer. See Section 3.7 for more discussion on riparian habitats.

- E. **Not Applicable.** No boating or windsurfing access is proposed.
- F. **Not Applicable.** In the GMA, the project does not provide access to the Columbia River or its tributaries.
- G. **Not Applicable.** Interpretation of natural or cultural resources is not proposed in the GMA.
- H. **Not Applicable.** The project passes through a small area of RIC 4, but is not designed to RIC 4 capacity.

Consistency with Klickitat County Zoning Ordinance

This section discusses consistency of the proposed project with Klickitat County Zoning Ordinance No. 62678, as amended through November 20, 2000.

The proposed trail falls into several county land use zones. Allowed uses in each zone which could be relevant to the proposed trail are noted. In addition to the specific uses mentioned below, every Klickitat County zone listed below includes as a Conditional Use:

“Any other uses judged by the Board of Adjustment to be consistent with the purposes and intent of this chapter and to be no more detrimental to the adjacent properties than, and of the same type and character as, the above listed uses.”

Open Space (OS): Most of the proposed trail lies within the Open Space Zone. This zone applies from the northern end of Lyle to about a mile south of Pitt, along the right-of-way on the west end of Klickitat, and again from the Suburbia area to just west of Harms Road.

- Recreation is a Principal Use Permitted Outright (Section 2.5:2(3)). The ordinance defines recreation as “parks, playgrounds, fishing lakes and fish rearing ponds, hunting preserves, golf courses, country clubs, riding academies and stables, camping clubs, recreation and conservation clubs, ski resorts and similar recreation uses permitted by the Board.”

Extensive Agriculture (EA): This zone applies from just west of Harms Road to Uecker Road.

- A park, playground, or community center owned and operated by a government agency or a non-profit is a Conditional Use (Section 2.6:3(4)).

General Rural (GR): A small amount of GR-5 is designated just north of Lyle. “Buildings and uses of a public works, public service or public utility nature” is a Conditional Use (Section 2.7:3(8)).

- “Golf course and other open land recreational use but excluding intensive commercial amusement such as an amusement park or automobile race track” is a Conditional Use (Section 2.7:3(16)).

Rural Residential (RR): The Rural Residential RR-2 zone applies from about a mile south of Pitt to about 7th Street in Klickitat, and again from the north edge of town through Suburbia.

- “Buildings and uses of a public works, public service or public utility nature” is a Conditional Use (Section 2.8:3(8)).
- “Golf course and other open land recreational use but excluding intensive commercial amusement such as an amusement park or automobile race track” is a Conditional Use (Section 2.8:3(16)).

Rural Center (RC): Most of Klickitat is designated a Rural Center.

- “Buildings and uses of a public works, public service or public utility nature, but not including equipment storage or repair yards, warehouses or related activities” is a Principal Use Permitted Outright (Section 2.9:2(14)).
- “Other public use or building” is a Principal Use Permitted Outright (Section 2.9:2(20)).

Residential (R): The Residential zone applies in Lyle.

“Buildings and uses of a public works, public service or public utility nature, but not including equipment storage or repair yards, warehouses or related activities” is a Conditional Use (Section 2.10:3(5)).

General Industrial (GI): General Industrial applies in the former mill site in Klickitat.

- Recreation uses such as parks and trails are not specifically mentioned as allowed uses in a general industrial zone. However, “any other use determined by the Planning Commission or Board of Adjustment” may be permitted as a Conditional Use (Section 2.14:3(23)).

Gorge Urban Area (GUA): This designation applies to the Lyle Urban Area. It allows:

- “Any use permitted outright by the underlying zoning district, provided the use is consistent with other applicable land use requirements” (Section 2.31:1 Principal Uses Permitted Outright).
- “The uses allowed conditionally shall be per the uses listed in the underlying zone designation” (Section 2.31:3 Conditional Uses).

Finding: In the Lyle Urban Area, the proposed trail lies within the Residential zone, where “Buildings and uses of a public works, public service or public utility nature” are Conditional Uses.

- In addition to the review/approval criteria for each respective zone, approval of proposed conditional uses in the GUA shall be subject to affirmative findings for all of the following if the proposed use is primarily intended to protect/enhance scenic, cultural, recreational, and/or natural resources (Section 2.31:3 Conditional Uses).

Finding: The proposed use is primarily intended to protect/enhance recreational resources.

1. If the proposed location is a tract or combination of tracts of land larger than the minimum lot size of the underlying zoning district, the applicant must demonstrate that the proposed use cannot be located within the Special or General Management Areas within the Columbia Gorge National Scenic Area boundary. Availability of a tract in the GUA or other economics shall not be considered as legitimate reasons for demonstrating inability to locate the proposed use outside the GUA.

Finding: The minimum lot size in the underlying Residential zone is 6,000 sf. The trail is proposed on a State right-of way for which acreage within the Urban Area is not shown on the tax assessor database, but is over 6,000 sf in the Urban Area. A private parcel (T3N,R12E,Section 34/34, Taxlot 0001-00) is also under consideration for a trailhead. This parcel is 1.34 acres, over 6,000 sf.

The trail is proposed for a railbanked right-of-way. It can only occur on this right-of-way, which is partially located in the Lyle Urban Area.

A private parcel adjacent to the right-of way is under consideration for a trailhead. The closest location to Lyle within the National Scenic Area to locate the proposed trailhead would be west of the Klickitat River. The trailhead cannot occur in this location because trail users would have to cross a narrow walkway on the SR14 bridge, and WSDOT opposes increased use of this substandard walkway. A new trail bridge cannot be built over the Klickitat Wild and Scenic River.

2. The proposed use must be shown to be consistent with the Columbia Gorge National Scenic Area Management Plan, Klickitat County Comprehensive Plan, and all other applicable regulations.

Finding: CRGNSA guidelines do not apply to the Urban Areas. There are no mapped Land Use Designations, Landscape Settings, or Recreation Intensity Classes to apply. There is no direction to apply scenic, cultural, recreational, and/or natural resources protection guidelines.

The Klickitat County Comprehensive Plan (as amended 1988) Community Master Plan for Lyle designates the proposed trail area as “High Density Residential”. One of four objectives for the Residential Land Use element is: “Development of school, park and other necessary facilities well related to residential areas”. The proposed trail would serve local residents, and would be “well related” to residential areas.

The Community Master Plan for Lyle states two objectives for Parks and Recreation:

1. To coordinate and combine the development of parks and recreation with the other elements in the community to ensure their logical location.
2. To encourage the development and use of mutually beneficial recreation facilities of the school-community park cooperative concept.

The proposed trail is logically located on an existing railbanked right-of-way. The second objective is not applicable to the proposed trail.

Other applicable regulations are analyzed as part of the relevant sections of Chapter 3.

3. The proposed use must be shown to relate in a beneficial manner to the community of the respective GUA.

Finding: The trail would provide a recreation amenity to local residents. There are few sidewalks in Lyle; the trail would provide a safer place for exercise than local streets, SR142 or SR14. The proposed trail and trailhead in Lyle would draw visitors

who would likely provide an economic boost to the community (see Section 3.3 Effects to Local Communities).

4. The applicant must demonstrate that the proposed use is designed to primarily serve the residents in and surrounding the respective GUA in which it is proposed.
Finding: The proposed trail would serve both residents and visitors. Alternative 3 proposes a twelve-foot wide paved trail for the first 1.6 trail miles (Lyle to Fisher Hill trestle) specifically to accommodate local use.

5. The proposed use must be shown to not be detrimental to the public interest e.g. the use will not require police protection, fire protection, water/sewer demand and demand for other public services in excess of the demand of other uses permitted outright or conditionally in the underlying zone description.
Finding: This project proposes a trail and a trailhead with 326 spaces, and a two room flush restroom with drinking water. Uses allowed outright in this zone include single-family dwellings, duplexes, mobile homes, and mobile home parks. Conditional uses include a school, church, hospital, rest home/nursing home, country club and multi-family units among others.

Many of the conditional uses allowed in this zone are more intensive than the proposed use; therefore, the demand for public services would not be in excess of other uses permitted in this zone.

6. The proposed use must be shown to be no more detrimental, environmentally or otherwise, to adjacent properties than, and of the same type and character as uses permitted outright or conditionally in the underlying zone.
Finding: A trail and a trailhead with 26 spaces, and a two room flush restroom are less intensive than a school, church, hospital, mobile home parks and other conditionally permitted uses.

While this discussion is not intended to presume what the County Planning Director, Planning Commission or Board of Adjustment might approve, it does appear that the proposed Rails-to-Trails project could be found to be a consistent use in all Klickitat County land use zones.

Table 28: Applicable County Land Use Permits

Klickitat County Zone	Type of Use Permit
Open Space (OS)	Principal Use Permitted Outright
Extensive Agriculture (EA)	Conditional Use
General Rural (GR)	Conditional Use
Rural Residential (RR)	Conditional Use
Rural Center (RC)	Principal Use Permitted Outright
Residential (R)	Conditional Use
General Industrial (GI)	Conditional Use
Gorge Urban Area (GUA)	Conditional Use

Table 29: Consistency with Land Use Regulations

Land Use Regulation	Alternative 1	Alternatives 2 and 2a	Alternatives 3 and 3a
Columbia River Gorge NSA Plan	n/a	Consistent	Consistent
Lower Klickitat Wild and Scenic River Plan	n/a	Consistent	Consistent
Klickitat County Shorelines Ordinance	n/a	Requires Conditional Use Permit	Requires Conditional Use Permit
Klickitat County Floodplains Ordinance	n/a	Consistent	Consistent
Klickitat County Critical Areas Ordinance	n/a	Consistent	Consistent
Klickitat County Land Use Ordinances	n/a	Requires Conditional Use Permit	Requires Conditional Use Permit
Washington State Environmental Policy Act	n/a	Meets Determination for Non-Significance	Meets Determination for Non-Significance

3.12 CONSISTENCY WITH NATIONAL RECREATION TRAIL CRITERIA

A National Recreation Trail must meet four criteria, as outlined in Forest Service Manual (FSM) 2353.33(b):

5. Readiness. Designate a trail only if it is in place and available for public use.
6. Use and Availability. The trail must provide a variety of trail-related recreation opportunities within approximately 2 hours of automobile travel time from the population centers of the Region under consideration.
7. Length. The length of a proposed National Recreation Trail or Trail System may vary, depending upon its use and purpose, but it must be continuous.
8. Location. The trail incorporates the significant natural and cultural features of the area through which it passes. The trail may utilize a variety of locations if the location is in accordance with planned trail use and reasonably provides for public safety.

Criterion 1: Readiness. Designate a trail only if it is in place and available for public use.

A unique circumstance related to “rails to trails” conversions, is that once the rails are removed, a ready-made trail remains. The trail is in place and ready to use. Washington State Parks considers the trail to be an open State Park facility. While flood-damaged in places, the trail is passable. A trestle over the Klickitat River was removed due to flood damage, but the right-of-way remains in place, and the bridge may be replaced.

Criterion 2: Use and Availability. The trail must provide a variety of trail-related recreation opportunities within approximately 2 hours of automobile travel time from the population centers of the Region under consideration.

The trail would be managed to provide a variety of recreation experiences, for many non-motorized recreation uses. Walking, hiking, mountain biking, ten-speed biking, horse back riding, wheelchairs, in-line skating, skiing, wagon rides and leashed dogs would be generally allowed.

The trail is located approximately 75 miles east of the Portland/Vancouver metropolitan area, and can be reached within 1 to 1 ½ hours on major highways from the urban area. The trail is readily accessible from the Mid-Columbia region and the communities of Stevenson, Carson, White Salmon, Bingen, Goldendale, Cascade Locks, Hood River, and The Dalles. The trail is about 90 miles (about 1 ½ to 2 hours) southwest of the Yakima/Toppenish/Sunnyside area. The trail is about 130 miles (about 2 hours) west of the Tri-Cities of Richland, Kennewick and Pasco.

Criterion 3: Length. The length of a proposed National Recreation Trail or trail system may vary depending upon its use and purpose, but it must be continuous.

The length of the trail is up to 31 miles. These 31 miles are continuous right-of-way owned by Washington State Parks.

Criterion 4: Location. The trail incorporates the significant natural and cultural features of the area through which it passes. The trail may utilize a variety of locations if the location is in accordance with planned trail use and reasonably provides for public safety.

The trail incorporates the Klickitat Wild and Scenic River and Swale Canyon and the unique and significant natural and cultural features associated with these canyons as described in this report. The trail also passes through two towns, Lyle and Klickitat, providing a community recreation facility and an economic boost to these communities. The trail utilizes the railbanked right-of-way, which creates a stable, safe, wide, flat travel way.

3.13 Other Disclosures

Wetlands and Flood Plains

With implementation of proposed mitigation measures, the proposed action is not expected to impact floodplains or wetlands.

Prime Farmland, Rangeland, and Forestland

The proposed action is in keeping with the intent of the Secretary of Agriculture Memorandum 1827 for prime land. Adverse effects on prime farmland and rangeland are not expected from implementing the proposed action. The project area is not prime farmland, rangeland or forestland. Soils in most of the project area are not considered suitable for agriculture or timber production, but are considered suitable for woodland grazing- rangeland, open space and recreation. Soils in almost the entire project are classified as land capability class VII, which have severe limitations or hazards that make them generally unsuited to cultivation. Soils near Warwick are classified as land capability class III, suited to cultivation. (Klickitat County Master Plan, 1988)

Adjacent cattle and sheep ranchers are concerned about potential trail impacts on livestock operations. However, with implementation of proposed mitigation measures, no significant adverse effects on prime farmland, rangeland or forestland would be expected from any alternative.

Energy Requirements

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

Irreversible and Irrecoverable 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. Irrecoverable commitment applies to losses of production, harvest or use of renewable natural resources. No significant irreversible or irrecoverable 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.

The Klickitat Rails-to-Trails project takes place within the communities of Lyle and Klickitat, as well as less populated areas. Lyle has unemployment, per capital income and poverty levels consistent with Klickitat County as a whole. There are low-income people in this community. The Klickitat unemployment level is twice the county average and four times the state average. Klickitat has a higher percent of people with 1999 incomes below the poverty level than any other community in Klickitat County. Per capita income is 30% lower than the county average, and 50% lower than the state average.

The majority of residents in both towns and in the project area as a whole are white. About 12% of the population is other races. Implementation of Alternatives 2, 2a, 3 or 3a indirectly creates job opportunities or money spent in these communities; Alternatives 2 and 2a do so to a greater degree than Alternatives 3 or 3a. Alternative 1, the No-Action alternative does not improve the local economies, nor does it adversely impact it. All alternatives fall within compliance with Executive Order 12989.

CHAPTER 4: CONSULTATION AND LIST OF PREPARERS

4.1 Results of Consultation

Washington State Historic Preservation Office (SHPO)

Consultation with the Washington State Historic Preservation has occurred at the project initiation stage. Site-specific consultation is occurring concurrently with the public review of the environmental analysis. Based on results of the inventory and shovel probe testing a determination of effect will be completed (per Section 800.5(b) of 36 CFR 800, as amended). The Scenic Area Manager will consider the responses from the SHPO as well as the Tribal governments prior to signing the final decision.

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 Nation were consulted at the project initiation stage per 36CFR800 and National Scenic Area Management Plan requirements. All four tribes received all project mailings.

Written comments were received from the Yakama Nation, Department of Natural Resources. Scenic Area staff met with Yakama Nation representatives from the Cultural Resources staff, and met on the ground with Yakama Indian representatives from the Fisheries staff.

Scenic Area Manager Dan Harkenrider met with the Yakama Tribal Council on May 7, 2003.

Site-specific consultation is occurring concurrently with the public review of the environmental analysis. Based on results of the inventory and shovel probe testing a determination of effect will be completed (per Section 800.5(b) of 36 CFR 800, as amended). The Scenic Area Manager will consider the responses from the SHPO as well as the Tribal governments prior to signing the final decision.

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 alternatives 2, 2a, 3 and 3a “**May Affect, and is Likely to Adversely Affect**” (LAA) the bald eagle (*Haliaeetus leucocephalus*). The scenic area biologist also determined that alternative 2 “**May Affect, and is Likely to Adversely Affect**” Mid-Columbia steelhead (*Oncorhynchus mykiss*). 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 formal consultation. The informal consultation on this BA is currently on-going with both the USFWS and NMFS. For a summary of effects to all TE&S fish and wildlife species, please refer to Table 20, Section 3.7.

4.2 List of Agencies and Persons Consulted

Adjacent Land Owners	Federal Highways Administration
Interested Parties	National Marine Fisheries Service
Yakama Indian Nation	National Parks Service
Confederated Tribes of the Umatilla Reservation	U.S. Environmental Protection Agency
Confederated Tribes of the Warm Springs	U.S. Fish and Wildlife Service
Nez Perce Tribe	U.S. Senator Maria Cantwell
Bureau of Indian Affairs	U.S. Senator Patty Murray
Klickitat County Commissioners	U.S. Senator Ron Wyden
Klickitat County Administrator	U.S. Senator Gordon Smith
Klickitat County Noxious Weed Control	U.S. Congressman Doc Hastings
Klickitat County Planning Department	U.S. Congressman Brian Baird
Klickitat County Prosecuting Attorney's Office	U.S. Congressman Greg Walden
Klickitat County PUD District 1	U.S. Congressman Earl Blumenauer
Klickitat County Road Department	Governor Garry Locke's Office
Klickitat County Sheriff	The Honorable Bruce Chandler
Klickitat Rural Fire Department 7	The Honorable Jim Honeyford
Washington State Dept of Community Development	The Honorable Dan Newhouse
Washington State Department of Natural Resources	State Representative Marc Boldt
Washington State Department of Transportation	Klickitat Town Council
Washington State Department of Fish and Wildlife	Lyle Community Action Council
Washington State Parks and Recreation Commission	City of White Salmon
Washington State Patrol	City of Bingen
Interagency Commission for Outdoor Recreation	Soil Conservation Service
Columbia River Inter-Tribal Fish Commission	Underwood Conservation District
Association of NW Steelheaders	National Parks Conservation Association
Backcountry Horsemen, Mt. Adams	NCAP
Bicycle Transportation Alliance	Northwestern Environmental Defense Center
Burlington Northern Railroad	NW Pipeline Corporation
Columbia Gorge Audubon Society	Portland United Mountain Pedalers
Columbia Gorge Coalition	Portland Wheelmen Touring Club
Friends of Klickitat Watershed	Rails to Trails Conservancy
Friends of the White Salmon	Skamania County Saddle Club
Goldendale Chamber of Commerce	Nature Conservancy
Gorge Velo Mountain Bike Club	Trails Club of Oregon
Idaho Outfitters and Guides Association	Trust for Public Lands
Klickitat County Livestock Growers	Washington Trails Association
Klickitat Posse Club	Wilderness Watch
Lewis and Clark College Outdoor Program	Willamette Canoe and Kayak Club
Mazamas	Yakima Valley Sunstriders Wolksmarch
Mt. Adams Riders	

4.3 List of Preparers

Klickitat Rails-to-Trails Interdisciplinary Team, U. S. Forest Service

Kim Titus	- Line Officer Representative
Robin Dobson	- Botany, Noxious Weeds, Wetlands
Marge Dryden	- Cultural Resources
Mike Ferris	- Public Affairs
Chuti Fiedler	- Fish and Wildlife Biology
Dan Frissell	- Range
Steve Grichel	- Public Involvement, Noise, Light, Utilities
Stan Hinatsu	- Recreation
Virginia Kelly	- Writer/Editor, Social, Economics, Land Use, Air Quality
Darren Kennedy	- Fire Prevention, Emergency Response
Mark Kreiter	- Hydrology, Shorelines
Edan Lira	- Trails
Allen Morrisette	- Engineering, Traffic Analysis, Costs Estimates
Richard Phillips	- Economic Coefficients
Diana Ross	- Scenic Resources, Facility Design

4.4 Appendices

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

Appendix A SEPA Checklist

Appendix B Assumptions for Use Figures and Assumptions for Economic Benefits

Appendix C Washington State Parks Policy Governing Leases, Permits and Easements for
Uses of Washington State Parks Systems Rails-Trails

Appendix D Biological Evaluation

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APPENDIX A

SEPA Checklist

A SEPA Checklist is included to document how the analysis responds to the SEPA requirements for the convenience of readers who are accustomed to the SEPA checklist format. It is not a SEPA application.

A. Background

1. **Name of proposed project, if applicable:**

Project: Klickitat Rails-to-Trails

2. **Name of applicant:**

3. **Address and phone number of applicant and contact person:**

Name:

Address:

Phone: () - FAX: () -

4. **Date checklist prepared:**

5. **Agency requesting checklist:**

6. **Proposed timing or schedule (including phasing, if applicable):**

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

None Identified.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:**

2003 NEPA Environmental Assessment by U.S. Forest Service. This document is extensively referenced in this checklist as "FS EA 2003". 1997 NEPA Environmental Assessment superceded by 2003 NEPA Environmental Assessment.

2003 NEPA

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

No.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

See Section 1.7

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

The Forest Service proposes to develop and manage all or part of the 31-mile rail corridor, from Lyle to Uecker Road, as a public use trail. Included in the proposal are up to six trailheads with

parking, restrooms, signing and landscaping, surfacing of the railbed, signing, trail bridge over the Klickitat River at Suburbia.

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The project area is the 31-mile Klickitat Rails-to-Trails right-of-way corridor, from Lyle to Uecker Road near Warwick, Washington. The right-of-way varies from 60 to 200 feet wide. Legal description: Washington State, Klickitat County, T3N, R12E, sections 24, 25, 26 and Sections 5, 6, 7, 8, 17, 18, 19; T4N, R13E, Sections 13, 14, 22, 23, 24, 27, 28, 32; T4N, R14E, Sections 19, 20, 21, 28, 33; T3N, R14E, Sections 4, 5, 8, 9, 17, 20, 21, 22, 23, 25 W.M. (see Figure 1).

B. Environmental Elements

1. Earth

- a. General description of the site: Flat, rolling, hilly, steep slopes, mountainous, other:**

For more information, see Section 3.7 of the "FS EA 2003". The railbed lies on relatively flat slopes adjacent to the Klickitat River and Swale Creek. These slopes increase very quickly moving away from the railbed. All trailheads are on flat slopes.

- b. What is the steepest slope in the site (approximate percent slope)?**

Some side slopes of 60 to 70% are located adjacent to the railbed.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farm land.**

Soils in the lower Klickitat River corridor vary with local topography and characteristics of the substrate. The corridor is dominated by fluvial deposits adjacent to the river and steep bedrock and talus slopes leading up to the higher plateau areas. Most of the developed soils along the river and within the corridor are derived from deposits of mixed river sediments, ranging from silt to extremely cobbly sand, with soil typically 60 inches, or more, thick.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

Several small deposits of material derived from upslope failures are located on the railbed primarily between the Fisher Hill Bridge and Pitt. It is not anticipated that this project will increase the likelihood of slope failure.

e. Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.

Depending on alternative, grading will be required for the construction of up to six trailheads with parking areas and for completing construction of up to 31 miles of trail, including approximately one mile total of various trail re-routes away from severely flood damaged railbed. Grading for the trailheads will generally involve balancing cut and fill at each site, except for the trailhead at Pitt which will involve placing fill of approximately 1,500 cubic yards.

Excavation under the alternatives proposed varies from less than 1,000 cubic yards to approximately 15,000 cubic yards. The fill at Pitt would come from this material, with borrow material from an off-site commercial source added in the case of the lesser excavation alternative. Excess material from excavation for the greater excavation alternative would be placed on-site for repair and filling of various flood damaged locations and re-contouring of some areas away from water, leaving a balance of approximately 12,000 cubic yards to be hauled off-site.

Grading in addition to the above described work is possible for construction of the six-foot-wide trail bridge over the Klickitat River at Suburbia. For discussion of this work, see Section 3.7 of the "FS EA 2003".

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion could occur during construction of the trail and trailheads. Future maintenance of the trail could result in erosion, for example when cleaning culverts. Erosion control measures would be used to minimize erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 680,000 Square Feet

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Erosion control measures such as operating in the dry period of the year, utilization of erosion barriers, revegetation and mulching of exposed soil.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Short-term construction related dust, short term fumes from asphalt paving (alternative 3). Indirectly, dust on unpaved county roads from vehicles accessing trailheads. Indirectly, additional 7,800 to 12,700 (depending on alternative) vehicle round trips of 150 miles or

more per year from vehicles accessing trailheads. For more information, see Section 3.10 of the "FS EA 2003".

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

No.

- c. Proposed measures to reduce or control emission or other impacts to air, if any:**

In dry weather, add water to surfaces to during construction.

3. Water

a. Surface

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

The project is adjacent to the Klickitat River and Swale Creek. The project crosses numerous small perennial and intermittent streams. There are a number of wet areas either adjacent to or on the railbed, but none are large enough to be classified as wetlands.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Yes. Compacting or surfacing the existing railbed (depending on alternative), adding signs, designating vehicle turn-around areas (very little ground disturbance), trail bridge over Klickitat River at Suburbia, trailheads with parking, restrooms, signing and landscaping. See maps in Chapter 2 of the "FS EA 2003".

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

No fill or dredge material would be placed in or removed from surface water or wetlands. For more information, see Section 3.7 of the "FS EA 2003".

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose and approximate quantities if know.**

No.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Yes, as described in Chapter 3 of the EA, approximately 50% of the project is located within the 100-year floodplain. A map of the approximate location of the project in relationship to the 100-year floodplain will be on file in the FS National Scenic Area office in Hood River.

- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No.

b. Ground

- 1) **Will groundwater be withdrawn, or will water be discharged to groundwater? Give general description, purpose and approximate quantities if know.**

No.

- 2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage, industrial, containing the following chemicals . . .; agricultural, etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable) or the number of animals or humans the system(s) are expected to serve.**

None.

c. Water Runoff (including storm water)

- 1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Stormwater runoff is planned for detention at each of the proposed trailhead sites. In general, planned landscape areas, adjacent swale areas natural or constricted and the parking areas themselves would be utilized as particular site conditions allow.

Stormwater outfalls would be designed to minimize impacts to downstream facilities.

Prior to construction, a site-specific design would be completed and approved for each trailhead.

In the absence of a particular standard from WSDOT or Klickitat County, the following overall standard is proposed for completing the drainage design at each trailhead: "The quantity of stormwater runoff designated for detention will be the difference between 10-year mean recurrence interval (MRI) pre-development natural conditions runoff and 100-year MRI developed site runoff."

See Section 3.7 of the "FS EA 2003" for more information.

- 2) **Could waste materials enter ground or surface waters? If so, generally describe.**

No.

d. Proposed measures to reduce or control surface, ground and runoff water impacts, if any:

Trailheads: Planned landscape areas, adjacent swale areas natural or constructed and the parking areas themselves. Operating in the dry period of the year, utilization of erosion barriers, revegetation and mulching of exposed soil on reroutes. See Section 3.7 of the "FS EA 2003" for more information.

4. Plants

a. Check types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs:
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Very little vegetation will be removed except in two locations where the trail will be directed off the existing rail bed to an adjacent location within the right-of-way. These sections are approximately 300 ft long. In many other locations, native plantings of shrubs, deciduous trees and pines will occur to help stabilize the rail bed.

c. List threatened or endangered species know to be on or near the site.

For more information, see Section 3.7 of the "FS EA 2003". *Ranunculus reconditus* (obscure buttercup) and *Lomatium suksdorfii* (Suksdorf's desert parsley).

d. Proposed landscaping, use of native plants or other measures to preserve or enhance vegetation on the site, if any:

Planting of native shrubs and trees will occur along the rail bed to protect its integrity and to enhance habitat along the Klickitat River and along Swale Creek. For more information, see Section 3.7 of the "FS EA 2003".

5. Animals

a. Check any birds and animals which have been observed on or near the site or are known to be on or near the site: (For entire park property):

BIRDS:

- songbirds
- other raptors, corvids, kingfishers, and other water related birds.

MAMMALS:

- deer
- bear
- elk
- beaver
- other

FISH:

- Bass
- Salmon
- Trout
- Herring
- Shellfish
- other

b. List any threatened or endangered species known to be on or near the site.

Northern bald eagle (federal Threatened, state Threatened), Western gray squirrel (state Threatened), Mid-Columbia steelhead (federal Threatened), Columbia River bull trout (federal Threatened), wild turkey (state Priority Species), Mule and blacktail deer (state Priority Species). For more information, see Section 3.7 of the "FS EA 2003".

c. Is the site part of a migration route? If so, explain.

The Klickitat River and Swale Canyon function as migratory routes for deer and song birds. The project area is a wintering bald eagle area. Bull trout and steelhead migrate through this river system. For more information, see Section 3.7 of the "FS EA 2003".

d. Proposed measures to preserve or enhance wildlife, if any:

Parking would be limited to keep the numbers of visitors compatible with the wildlife needs. Some plantings to protect the trail would enhance wildlife and fish habitats. River access would be limited to specific sites to protect fish and wildlife habitats. For more information, see Section 3.7 of the "FS EA 2003".

6. Energy and Natural Resources

a. What kinds of energy (electric natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity would be needed at the restrooms in Lyle and Klickitat for light and heat to keep pipes from freezing during the winter.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

Very little energy would be required for this proposal, therefore no energy conservation features will be included.

7. Environmental Health

- a. ***Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste, that could occur as a result of this proposal? If so, describe.***

The proposed trail could increase the number of people visiting the area. This may increase the potential for fire as well as the amount of litter in the area.

- 1) ***Describe special emergency service that might be required.***

Emergency service that may be required along the trail would most likely be either fire or medical services.

- 2) ***Proposed measures to reduce or control environmental hazards, if any:***

Prohibit overnight use (camping), campfires, and fireworks. Prohibit smoking when Klickitat County enacts a ban on open fires. In extreme fire conditions, close portions of the trail as needed. Require trail maintenance vehicles and administrative vehicles to have spark arresters, fire extinguishers, etc. Develop fire prevention plans with State, County, adjacent land owners and USFS. For more information, see Chapter 2 and Section 305 of the "FS EA 2003".

- b. ***Noise***

- 1) ***What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?***

Existing traffic noise could have an affect on the proposed trail.

- 2) ***What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, cons operation, other)? Indicate what hours noise would come from the site.***

During construction there will be the noise from the machinery. On a more permanent basis there will be noise from hikers talking while on the trail and possibly dogs barking on the trail or at people on the trail. Near trailheads there could be increased traffic and human noise. For more information, see Chapter 2 and Section 3.4 of the "FS EA 2003".

- 3) ***Proposed measures to reduce or control noise impacts, if any:***

Screening at trailheads, signing to ask trail users to respect resident privacy. For more information, see Chapter 2 and Section 3.4 of the "FS EA 2003".

8. Land and Shoreline Use

- a. ***What is the current use of the site and adjacent properties?***

The State-owned right-of-way is used by recreationists for hiking biking and fishing access (although recreation use is not encouraged by the State, it is not officially closed to public use). Adjacent lands are used for grazing and a number are residential. The proposed trail passes through two towns, Lyle and Klickitat. Public land, especially Washington Department

of Fish and Wildlife, is used for public access. A Native American dip-net fishing site, and cemetery are located adjacent to the proposed trail.

b. Has the site been used for agriculture? If so, describe:

Cattle graze over and on the right-of-way.

c. Describe any structures on the site.

None.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

Numerous. See Section 3.11 of the "FS EA 2003".

f. What is the current comprehensive plan designation of the site?

Open Space, Agriculture/Forest, High Density Residential (Lyle), and Rural Center, Industrial (Klickitat)

g. If applicable, what is the current shoreline master program designation of the site?

Conservancy Environment, Community Environment. For more information, see Section 3.7 of the "FS EA 2003".

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Yes. See Section 3.7 of the "FS EA 2003".

i. Approximately how many people would reside or work in the completed project?

None would reside on the trail. Forest Service and Washington State Parks personnel, their contractors and volunteers would work on the trail at different times.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed use could be found consistent with existing land use plans. For more information, see Section 3.11 of the "FS EA 2003".

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle or low income housing.

No housing would be provided.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle or low income housing.

No housing would be eliminated.

c. Proposed measures to reduce or control housing impacts, if any:

The proposed development would have no housing impacts.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The majority of development proposed would occur at ground level on the top of the existing rail bed. The tallest proposed structure (Alternative 2 only) would be the bridge at Suburbia linking the trail where the previous bridge washed out. The next tallest proposed structures are one-story toilet buildings proposed at each trailhead and portable toilets located along the trail. The principal exterior building materials would be wood dimensional lumber, wood siding, asphalt (or soil cement depending on option chosen), exposed aggregate concrete, and metal railings. The portable toilets would be plastic with partial wooden screen enclosures. For more information, see Section 3.8 of the "FS EA 2003".

b. What views in the immediate vicinity would be altered or obstructed?

The only views that may be altered are from the Klickitat River, Highway 142, and the trail itself. Existing views from the proposed trailhead sites to the river may be somewhat obstructed when the parking lots are full. The proposed bridge over the Klickitat River at Suburbia may obstruct some views that were opened when the bridge washed out. For more information, see Section 3.8 or the "FS EA 2003".

c. Proposed measures to reduce or control aesthetic impacts, if any:

The Forest Service proposed to follow the Built Environment Image Guide and the Recreation Opportunity Spectrum handbooks prepared by the Forest Service to reduce and control aesthetic impacts and to provide an aesthetic environment compatible and consistent with the proposed recreation experience. For more information, see Section 3.8 of the "FS EA 2003".

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The only lights that might be associated with the proposed development would be the lights installed on the Lyle and Klickitat restrooms. These lights would be visible at night.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

- a. What designated and informal recreation opportunities are in the immediate vicinity?**
Segments 1 and 2: Lyle-Fisher Hill and Fisher Hill-Pitt: Little data exists on current recreation use, however use is low relative to other recreation areas in the Columbia River Gorge area. Recreation use is expected to increase, following trends on similar rivers in the region. Recreation currently consists mainly of bank fishing, drift boat fishing and sight seeing.
Segment 3: Pitt-Wahkiacus: The landscape adjacent to this segment has been modified by past and current evidence of farming, housing development and a small rural town. In many places the trail is adjacent to private residences and businesses. Existing use in this area is high compared to other segments of the trail. This segment is already being used as a trail, particularly through the town of Klickitat. Use consists mostly of walking/hiking.
Segment 4: Wahkiacus-Warwick: Wahkiacus-Warwick is the most primitive segment of the entire trail. Existing use is probably lowest in this section and consists of hiking and mountain biking. Other recreation opportunities in the immediate vicinity include two county parks with Klickitat River access at approximately SR142 Mile 1 and SR142 Mile 10, a small park with playground in the town of Klickitat, and a play ground in the town of Lyle. Forest Service land west of the mouth of the Klickitat River is proposed for a small day-use site. Washington Department Fish and Wildlife (WDFW) provides and river access at approximately SR142 Mile 3 and camping and river access at approximately SR142 Mile 16, WDFW land in the vicinity provides informal Klickitat River access. Other than the proposed trail, there are no public recreation opportunities in Swale Canyon.
- b. Would the proposed project displace any existing recreational uses? If so, describe.**
Existing uses would not be displaced. The project provides additional recreation opportunities.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**
The project enhances trail opportunities in the area. The project would provide easy to moderate trail opportunities for wheelchair users, hikers, walkers, mountain bikers and horse back riders.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state or local preservation registers known to be on or next to the site? If so, generally describe.**
Several archaeological sites exist within or adjacent to the railbed. Only one site has been evaluated against the criteria of eligibility for inclusion on the National Register of Historic Places. It is likely that other sites will also be determined eligible. The railbed transects a potentially eligible Traditional Cultural Property.
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific or cultural importance known to be on or next to the site.**

There are several prehistoric and historic-era American Indian encampment sites adjacent to the railroad bed. Complete disclosure of the sites will occur in the “Cultural Resource Inventory Report for the Klickitat Railroad Trail Project”. Any or all information in that document may be exempt from the Freedom of Information Act.

c. *Proposed measures to reduce or control impacts, if any:*

All areas of potential impact, outside the actual railroad bed have been inventoried for the presence of cultural resources. Where cultural resources are located within the areas of ground disturbance, an assessment of effect will be conducted following the Section 106 process. Depending on the selected alternative, up to one archaeological site may be adversely affected by the proposed action. Mitigation would entail data recovery from the affected site and would comply with the archaeological consultation process.

14. Transportation

a. *Identify public streets and highways serving the site and describe proposed access to the existing street system. Show on site plans, if any:*

SR 142 is the access road between Lyle and Wahkiacus. Durkee Road (county road) provides access to the Klickitat trailhead. Between Wahkiacus and Warwick, several county roads provide access, including Horeshoe Bend Road and Schilling Road (Wahkiacus), Harms Road, the Lyle-Centerville Highway, and Uecker Road. Short access roads from these roads would be required from SR 142 for the Lyle, Pitt and Klickitat trailheads. A short access road would be required from Durkee Road (county road) to the Klickitat trailhead. (The Klickitat trailhead has two access points, one from SR 142, and the other from Durkee Road). Short access roads would be required from Schilling Road at the Wahkiacus trailhead, Harms Road at the Harms Road trailhead, and Uecker Road at the Warwick trailhead.

c. *Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?*

The site is not currently served by public transit. For a discussion of public transportation available in Klickitat County, refer to Chapter 3, “DRAFT Klickitat County Regional Transportation Plan” (March, 2003).

d. *How many parking spaces would the completed project have? How many would the project eliminate?*

Trailhead would provide up to 117 parking places in six distinct locations (depending on alternative). No designated parking places would be eliminated.

d. *Will the proposal require any new roads or streets or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).*

No new roads or streets would be needed. In addition to the short access roads described above in section 14(a), three pedestrian crossings would be added to SR 142, at Pitt,

Klickitat and Suburbia. Pedestrian crossings would be added to Schilling Road, Harms Road and the Lyle-Centerville Highway. Signing would be added to these roads near trailheads and pedestrian crossings.

- e. Will the project use (or occur in the immediate vicinity of) water, rail or air transportation? If so, generally describe.**

The project is not in the immediate vicinity of water, rail or air transportation. For a discussion of the availability of these transportation modes in Klickitat County, refer to Chapter 3, "DRAFT Klickitat County Regional Transportation Plan" (March, 2003).

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**

See Section 3.9 of the "FS EA 2003" for a complete discussion by affected road.

- g. Proposed measure to reduce or control transportation impacts, if any:**

See Section 3.9 of the "FS EA 2003" for a complete discussion by affected road.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? if so, generally describe.**

The proposed trail could result in an increased need for fire, police and medical services due to the increased number of people using the area.

- b. Proposed measures to reduce or control direct impacts on public services, if any.**

In an attempt to limit the need for additional fire service, campfires and fireworks would be banned along the trail. Smoking would be banned when Klickitat County institutes a burn ban. Trespassing would be prevented through the use of signs reminding trail users to stay on the trail right of way. To lower the need for medical services the trail would be designed in a manner to allow for safe use by multiple types of users. In case there ever is an emergency, the most of the trail would be constructed to allow access by emergency vehicles.

16. Utilities

- a. Utilities currently available at the site:**

In the towns of Lyle and Klickitat, water, sewer and electricity are available.

- b. Describe the utilities that are proposed for the project, the utility providing the service and the general construction activities on the site or in the immediate vicinity which might be needed.**

The restrooms at the Lyle and Klickitat trailheads would require water, sewer and electricity. The restroom at the Klickitat trailhead already exists, so no new construction activities will be required. The utilities already exist at the Lyle site, so they would simply need to be tied into when the restroom is constructed. Water, sewer and electricity to these sites will be supplied by the Klickitat County PUD.

APPENDIX B

Assumptions

for

Recreation Use

Use Figures Assumptions

Assumptions:

- 2.6 people per vehicle based on the National Visitor Use Monitoring for the Columbia River Gorge National Scenic Area 2001.
- Local Use: Lyle = 2% of population of 530 per day; Klickitat = 8% of population of 417 per day (From 2002 Census).

These assumptions are based on Washington State rates of participation in walking (56.62% of State population) in parks/trails (15% of walkers) and/or hiking (17.11% of State Population) on “urban” trails (14% of hikers) as described in Washington SCORP 2002.

It is assumed the characteristics of the Lyle segment (first 2 miles) is similar to the urban trail used by hikers and the Klickitat segment is similar to the parks/trails used by walkers. (Lyle: 17.11% hikers x 14% urban trail hikers = 2%; Klickitat: 56.62% walking x 15% parks/trail walkers = 8%).

- Nonlocal Use Trailhead Capacity by Season:

SEGMENTS 1-3:

High Use Season (June-August; 92 days):

Weekends = 90% capacity (25 days)

Weekdays = 50% capacity (67 days)

Shoulder Use Season (March-May; September-October; 153 days):

Weekends = 50% capacity (44 days)

Weekdays = 5% capacity (109 days)

Low Use Season (November-February; 120 days):

Weekends = 15% capacity (34 days)

Weekdays = 2% capacity (86 days)

Segment 4:

High Use Season (May-June; September; 91 days):

Weekends = 90% capacity (26 days)

Weekdays = 50% capacity (65 days)

Shoulder Use Season (March-April; July-August; October; 154 days):

Weekends = 50% capacity (44 days)

Weekdays = 5% capacity (110 days)

Low Use Season (November-February; 120 days):

Weekends = 15% capacity (34 days)

Weekdays = 2% capacity (86 days)

Klickitat Rails-to-Trails

2002 HCRH average daily traffic reflects a shoulder season that is 60% of high use season and low use season is 35% of high use season. Use is generally predicted to be similar overall to the HCRH for high use season where on average sites capacity reach near 100% on the weekends and 50% on the weekdays. Shoulder season and low season uses, however, were adjusted to account for the distance from Portland and experience with other facilities in the Gorge. It is expected that this trail will provide year round opportunities.

- Trailheads

Lyle:	26 spaces (20 cars + 6 pull through)
Pitt:	21 spaces (15 cars + 6 pull through)
Klickitat	67 spaces (50 cars + 17 pull through) ?
Wahkiacus	13 spaces (10 cars + 3 back-up trailer)
Harms Road	10 spaces (10 cars)
Warwick	21 spaces (15 cars + 6 pull through)

Klickitat Trailhead/Parking will be reduced by 50% to calculate use on the trail (20 cars and 6 pull through for a total of 26 spaces). It is assumed 50% will be used for other community purposes.

For purpose of use projections total spaces @ 2.6 people per car will be used regardless of user types.

- Length of Stay for the majority of nonlocal users is a full day. Nonlocal users from the Hood River, White Salmon/Bingen, The Dalles, Goldendale, Carson, Cascade Locks and Stevenson account for approximately 10% of the total National Forest visits in the Columbia Gorge (NVUM Study). Thus average turn over rate is $1 \times 1.10 (10\%) = 1.1$.

Community	percent of visitors
Hood River	4.3%
White Salmon	1.6%
Cascade Locks	1.2%
Goldendale	0.9%
Carson	0.8%
Stevenson	0.8%
Total	9.6%

- Total school enrollment at the Klickitat School is 169 students in school year 2002-03. It was assumed there are 176 school days. Local school officials believe approximately 20 students use the trail to walk to school.

- Use by Segment

Segment 1 (Lyle to Fisher Hill)= Local Lyle Use, Lyle TH & Pitt TH, (2 miles)
 Segment 2 (Fisher Hill to Pitt) = Lyle TH, Pitt, & ½ Klickitat, (9 miles)

Segment 3(Pitt to Klickitat) = ½ Klickitat, Local Klickitat Use, (7 miles)

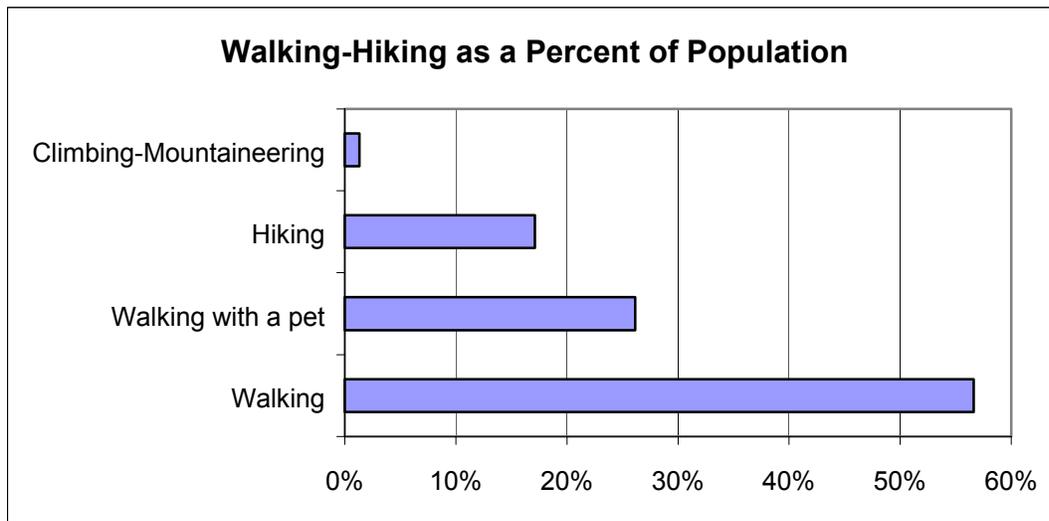
Segment 4 (Klickitat toWarwick) = ½ Klickitat, Wahkiakus, Harms, Warwick, (13 miles)

Alternative 3 would reflect the loss of segment 4, but include all of the Klickitat spaces used for recreation. The sum of use by segment will exceed total use, because of overlapping use from trailheads.

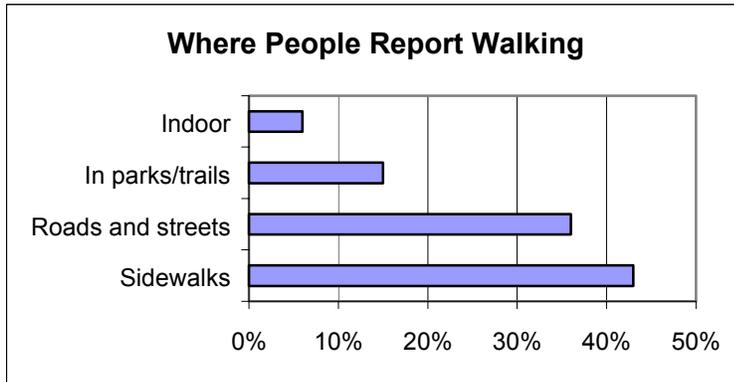
- Social encounters will be based on an average group size of 2.6 people per groups, groups will be evenly spaced and half are traveling in opposite direction.

**Excerpts from
Washington State SCORP Report
2002**

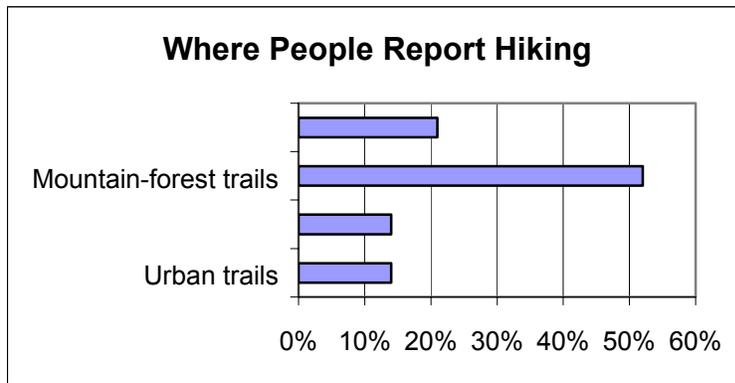
Walking is the single largest category by total participation. This may be due to its simplicity: walking requires little or no special equipment; there are suitable (if not always desirable) sites immediately available to homes and worksites; it has low physical impact and effort, and demands little more than a “natural” skill set.



That walking does not necessarily require recreation-specific facilities is reflected in the fact that the public has adapted a variety of settings for walking, most notably the transportation system. This is not to imply that the public is satisfied with sidewalks, streets, and roads. IAC believes that more data is needed concerning *preferred* facilities and settings for all activities, including walking.



Hiking seems to be defined by participants by a combination of facility and setting. In other words, hiking appears to be a form of walking that takes place on native surfaces (soil, sand, rock) in settings out of the human-built environment. This assumption, if accurate, would explain why some survey participants report hiking on “urban trails.”



APPENDIX C

Washington State Parks Policy 55-01-1

Policy Governing Leases, Permits and Easements

for

Non-Recreational Uses of State Park Lands

55-01-1 POLICY GOVERNING LEASES, PERMITS AND EASEMENTS FOR
NON-RECREATIONAL USES OF STATE PARK LANDS

- I. The following General Policy Principles shall apply for all non-recreational uses of state park lands:
- A. As used in this policy, “non-traditional” park lands are any state park property that is:
- 1) In whole or substantial part, a former railroad right of way corridor (commonly referred to as a rail-trail); or
 - 2) Shows evidence of previous or current industrial or commercial use AND has been designated as “non-traditional” park land by the Commission..

All other properties of the state park system are termed “traditional” park lands.

- B. As used in this policy, “surplus” park lands are those lands that the Commission has formally designated as lands under its control that cannot advantageously be used for park purposes.
- C. The Commission may, at its discretion, refuse to approve any proposed use solely on the basis that the facility detracts from the natural, cultural or recreational values of the park, -or causes adverse impacts which cannot be sufficiently mitigated.
- D. The proponent shall be required to prove in advance to staff satisfaction that the proposed site within the park is both feasible and preferred to siting the facility on non-park managed lands. The proponent may be required to pay in advance the cost for staff to study and/or determine the feasibility, impacts and appropriate mitigation elements of the proposal, and/or the cost to contract for such work in accordance with the currently adopted fee schedule.

Any review of proponents requested facility will follow the general review criteria as detailed¹:

1. Impact - First to be considered is the impact of the request for the life of the agreement. Impacts include physical, economic and recreational impacts. Consideration of impacts will be consistent with agency statutes, Commission policy, strategic plan(s) and staff analysis of data from all available sources.
2. Mitigation - Identified impacts will be reviewed in light of their need and ability to be mitigated to the satisfaction of the Commission. Proposals with impacts that cannot be mitigated to an acceptable level will be denied.

Pursuant to March 19, 1999 Commission Agenda Item.

3. Compensation - On properties for which all impacts can be shown to be mitigated to the Commission's satisfaction, staff will proceed with consideration and negotiation on compensation.
- E. The rights and terms granted for non-recreational uses of park lands should be the minimum necessary to accomplish the objectives of any particular use.
- F. Non-monetary compensation or benefits to the Commission, may be considered in lieu of use fees when such benefits can be specifically related to the needs and desires of the Commission and are not normally provided free to the Commission as a usual function of the facility, Provided; the action is consistent with Federal and State law.

The following are not to be considered as benefits in lieu of use fees:

1. Costs of application and staff/professional review for the Commission, including but not limited to, all studies, surveys and environmental assessments.
 2. All additional costs including planning, designing, environmental review, installation, construction, maintenance and operation required to protect Commission-owned structures, facilities or values impacted by the proponent's activities.
1. Removal of existing improvements and restoration of the remaining park facilities and landscapes to as good or better condition than prior to proponents work or as approved by State's authorized representative.
- G. Commission approved agreements for non-recreational uses of park lands will include language and/or contract conditions as required for the protection of the park's natural, cultural, historic or recreational values including:
1. All facilities permitted in traditional parks shall be designed, built and maintained with the least possible impact to or intrusion on park values.
 2. All utility lines, cables, pipelines and other appurtenances shall be placed underground except where it is economically unfeasible or physically impractical that they be below ground, or where it is in the Commission's interest to authorize overhead facilities.
 3. The control of park gates, roads and lands will be retained by the Commission.
 4. Any material change to an agreement will be executed through formal amendment and/or assignment.
 5. The proponent will be required to perform all environmental analyses and

obtain all necessary permits as required by law prior to construction. The Commission retains the right to review and condition any and all such documentation upon request.

6. Proponents may be required to provide an archaeological survey of the project area to be conducted by a professional archaeologist as part of the application review materials.
 7. The proponent may be required to provide reports and record searches relating to threatened or endangered species (T&E) or other priority habitat considerations within the project area. Based on the findings of any reports, the proponent may be required to perform additional mitigation and/or may have their application denied due to adverse impacts which cannot be satisfactorily mitigated. The proponent will comply with all applicable laws relating to threatened or endangered species and priority habitats.
 8. The proponent may be required to provide professional wetland studies. Proponent's activities shall cause no net loss of wetlands and shall comply with all applicable laws and regulations.
 9. Other regulations - The proponent will comply with all other applicable codes, laws and regulations as required by law.
 10. The proposed facility will be constructed and maintained at no cost to the Commission. Any damage caused to Commission property as a result of the proponent's activities on the site, will be repaired to as good or better condition by the proponent at its sole expense. Any such damages not repaired within a reasonable time period following notice from Commission staff may be repaired by Commission staff and the actual cost to repair will be paid by the proponent.
 11. No trees are to be cut without prior written consent of the Director or designee.
 12. Any agreement authorizing the placement of facilities (lease, easement, etc.) with a term of ten (10) years or more may only be issued after the proponent supplies and
 - a. records a legal survey of the use area, stamped by a licensed surveyor and approved by staff, unless the grant is for the primary benefit of the state, or the use request does not involve permanent improvements.
- H. Each application for use of park land for non-recreational uses will present different circumstances. Staff may request the Commission to waive specific requirements, require additional materials or to deviate from generally accepted criteria on a case by case basis.
- II. The Washington State Parks and Recreation Commission is firmly opposed to the

placement on park lands of any facility, utility line, improvement or commercial facility that will have a significant adverse effect on public recreation or the natural environment. Protection of park values and the provision of public recreational needs are paramount to any other use. When major facilities are proposed, the following policy principles shall apply in addition to the General Policy Principles:

- A. As used in this policy-major facilities are defined to include but are not limited to sewage treatment facilities, central plants, major structures, transmission lines, new transmission towers, commercial cables or conduits, commercial buildings and pipelines not used primarily for park purposes.
 - B. Use of park land for major facilities shall be considered only under the following conditions:
 - 1. The proposed facility has little or no significant adverse effect upon public recreation, the natural environment, and/or cultural, historic resources of the park; and
 - 2. Significant benefits are provided to State Parks.
 - C. The use of park land for the installation and maintenance of major facilities to serve non-park facilities outside the park boundaries shall be authorized by agreement only. Agreements shall be limited to the minimum term necessary to the proposed operation, allowing reasonable time for the proponent to amortize its investment provided use agreements terms do not exceed those required by law.
- III. For use requests involving “surplus” lands, the following principles are considered superior to those additional principles described in Sections I and II.
- A. Surplus Park Lands
Whenever the Commission finds that any land under its control cannot advantageously be used for park purposes, it is authorized to dispose of such land by the methods provided for in RCW 79A.05.175.
 - 1. The Commission will continuously review state parks land assets and seek out opportunities for improving the parks system.
 - 2. The sale of park property will be initiated only after a complete staff review and appropriate process leading to staff recommendation and unanimous Commission declaration in open session of a regularly scheduled meeting that the property to be sold is surplus to the needs of the state park system.
 - 3. The Commission will seek to maximize the return to the state park system from the sale of any property declared surplus by the Commission.
- IV. For use requests involving lands managed as “non-traditional” lands or “Rail-

Trails", the following principles are considered superior to those additional principles described in Section I and II.

Rail-trail properties, together with other non-traditional lands typically exhibit a higher degree of commercial activity and existing encumbrances due to their previous use as commercial lands. Therefore, it is the policy of the Commission to recognize the significantly different attributes and management conditions of rail-trails and other non-traditional lands, and to be more flexible in permitting non-parks uses.

Specifically:

1. The Commission recognizes that established crossings of former railroad rights-of-way exist on which many adjoining land owners depend for utility service and access to their lands. Existing or "grandfathered" crossings will continue to be recognized and not be revoked except by Commission action. Neither application fees nor use fees shall be assessed against holders or requestors of "grandfathered" permits.
2. It is recognized that owners of adjacent lands may desire additional crossings of these rights-of-way corridors. Permits or easements for such additional utility uses or access crossings will be granted subject to the general conditions described in the LANDS Manual.
3. The Commission recognizes and confirms the rights of adjoining landowners' pre-existing agricultural and forestry operations on lands adjacent to the rail-trails.
4. Access or other use parallel to, but not on, the recreation trail within the right-of-way corridor of a rail-trail may be permitted by the Director or designee for temporary agricultural, forest management or other uses under such terms and conditions as deemed necessary to protect the public interests
5. Existing leases of rail-trail lands will be honored for the duration of their terms. Renewals or new leases will be considered as provided by RCW 79A.05.030.

Exhibit B

Delegation of Authority Relating to Non-Recreational Uses of State Park Lands

Provided that all actions serve the public good by enhancing the State's natural, cultural or recreational resources, the Commission grants a consolidated Authority that allows the Director or designee to:

- A. Grant leases, easements and permits for the installation, operation and maintenance of utilities, facilities, the use of park roads by second parties, and other uses of park lands and facilities, subject to the following conditions and limitations:
 1. That no permanent use is conveyed unless the conveyance is reciprocal or for the primary/sole benefit of the Commission.
 2. That permits will:
 - a. Be granted for terms not to exceed five years or 60 total months.
 - b. Meet the general criteria for a use permit as detailed in the LANDS manual.
 - c. Only authorize improvements or facilities that are movable and temporary in nature.
 3. That leases for periods not to exceed ten (10) years will be granted only when at least two of the following conditions exist,² and the lessee's permitted use will not adversely affect natural, cultural or historic park resources:
 - a. Lessee's permitted use will provide for increased recreational opportunity or for improved habitat/natural conditions.
 - b. Lessee's permitted use does not require new construction, is located on or adjoins existing facilities, and the lease area is less than one acre.
 - c. Lessee is another government agency or sub-division thereof.
 - d. Lessee's permitted use is non-profit and not considered a commercial venture.

Temporary impacts due to construction are acceptable if mitigated and if the property is returned to a condition as good or better than before the activity.
 4. That easements for periods not to exceed thirty (30) years will be granted only when at least two of the following conditions exist,³ and the permitted use will not adversely affect natural, cultural or historic park resources:
 - a. The easement is underground or provides access to a single family residential use.

² Pursuant to those authorities granted in RCW 79A.05.030(5) & 79A.05.070(7)

³ Pursuant to those authorities granted in RCW 79A.05.030(5) & 79A.05.070(7)

- b. The easement area is less than 1,000 linear feet OR less than one acre in total area.
- c. Lessee is another government agency or sub-division thereof.

Temporary impacts due to construction are acceptable if mitigated and if the property is returned to a condition as good or better than before the activity.

- 5. That the applicable environmental declaration indicates that the action is minor and that the adverse effects are not significant, can be readily mitigated, or are categorically exempt from SEPA.
 - 6. That the lease, permit or easement is revocable for cause or breach.
 - 7. That the lease, permit or easement will automatically expire if not used for a period of two years.
 - 8. That they may be renewed only upon mutual written consent.
 - 9. That they comply with all applicable codes, laws and regulations.
 - 10. That they include appropriate indemnification clauses protecting the Commission and staff.
 - 11. That an appropriate consideration be paid to the state in cash or in the form of offsetting benefits/in-kind services to be determined by staff or independent appraisal as appropriate.
 - 12. That applicants shall be assessed an application and processing fees according to a Commission-approved fee schedule.
 - 13. That the Director or designee may also include any other terms and conditions in the use agreement deemed necessary for the protection of the park and park visitors.
- B. Accept leases, easements, permits and other non-fee simple agreements, permanent or temporary, necessary for the implementation of State Parks projects and programs approved by the Commission.
- C. Renew, replace, assign or amend existing lease or easement agreements with current State Parks documents provided:
- 1. The new agreement is identical to or more restrictive than the previous agreement, for example, reduced lease term, additional language to protect Commission interests or higher levels of bonding and insurance;
 - 2. All costs associated with the renewal, replacement, assignment, or amendment

- are borne by the proponent;
3. The new agreement will not materially change the original permitted use; and
 4. The new agreement meets the general conditions described in Section A (3) and (4) of this delegation.
- D. Accept services in lieu of or in addition to cash or monetary considerations for grants involving leases, permits or easements provided:
1. Total value is less than \$20,000 annually (2001 dollars adjusted for inflation); and
 2. The in kind services are documented and accepted in writing as being of equal or higher value than the negotiated monetary value for the use.
 3. Acceptance is consistent with State law, specifically public works and prevailing wage statutes.
- E. Sign Restrictive Covenants and Declaration of Covenants on State Park property for the purpose of protecting or improving natural resources or public health, safety and welfare and consistent with health requirements of authorities with jurisdiction, subject to the following conditions and limitations:⁴
- 1) That the applicable environmental declaration indicate that the action is minor and that adverse effects are not significant or that the proposal is categorically exempt from SEPA.
 - 2) That no alteration occur to the park property, including the placement of facilities or the removal of park features or vegetation.
 - 3) That park operations are not adversely affected.
 - 4) That the value of park property subject to such a covenant be less than \$25,000.
 - 5) That appropriate consideration be paid to the Commission in cash or in the form of in-kind benefits.
- F. Biennially provide the Commission a listing of leases, easements, permits and covenants granted and accepted under this authority.
- G. Accept donations of real property or partial interests in real property, Provided; the donation parcel is adjacent existing park property. Acceptance may only be completed after a formal acceptance letter is offered to the donor by the Director, that the lands or partial interest of the lands involved is beneficial to the State Park system.

⁴ Pursuant to Nov. 06, 1998 Commission Adopted Item

H. Act on any Commission decision relating to real property and adopted in open session, for a period of ten (10) years from the date of the adopted item in accordance with the action and in an effort to complete the property transaction provided, the action is essentially the same and materially consistent with the original Commission decision. For transactions completed beyond 24 months from the date of the original decision, staff will provide a written report to the Commission on the property transaction.

Exhibit C

Fee Schedule for Application, Processing and Use Fees for Real Property Agreements

RAIL-TRAIL EXCEPTIONS

RPA Category	Application Fee¹	Processing Fee	Use Fee
“Grandfathered” Crossing Permits	None	None	None
Conversion of “Grandfathered” Permit to Easement	\$25	\$300	Only if and as needed to meet IAC requirements
New Crossing or Utility Permits or Easements: Single Household, Family Farm, Non-Industrial Forests	\$25	Class 1: \$50 Class 2: \$300	Only if and as needed to meet IAC requirements
All others	\$25	Per Class 1, 2, 3 below	Fair Market Value Just Compensation

ALL OTHER APPLICATIONS:

RPA Category	Application Fee¹	Processing Fee	Use Fee
Lease, Permit or Easement	\$25	Class 1: \$50	Fair Market Value Just Compensation
Lease, Permit or Easement	\$25	Class 2: No Commission Action: \$600 Commission Action: \$1,500	Fair Market Value Just Compensation
Lease, Permit or Easement	\$25	Class 3: No less than \$2,000 but as negotiated to cover all staff costs	Fair Market Value Just Compensation

Klickitat Rails-to-Trails

Research Permit	\$25	Per Class 1, 2, or 3	None
Document Assignment and Amendment	None	No less than \$500 but as negotiated to cover all staff costs	Fair Market Value Just Compensation
Land Transfer and Exchange ²	\$100	No less than \$500 but as negotiated to cover all staff costs	Fair Market Value Just Compensation
Direct Sale/Sale at Public Auction ²	\$100	No less than \$500 but as negotiated to cover all staff costs	Fair Market Value Just Compensation
Document Renewal (RPAs)	None	Per Class 1, 2 or 3	Fair Market Value Just Compensation

² Commission reserves right to waive Processing and Use charges when the property transfer is in the best interest of the Commission.

EXHIBIT D

The following “real life” examples are offered to show how the delegations detailed in this agenda item (Exhibit B) will be implemented at the staff level.

Leases

The Director will be authorized to grant leases for up to ten years for activities that typically add recreational value to the park and do not require new construction. Concession leases for boat rentals, guide services and food services are all good examples. Additionally, the Director will be authorized to grant leases that improve natural conditions such as grazing leases and community improvement projects (wetland improvements, trail maintenance groups, etc.).

The Commission reserves the authority to grant leases for any use over ten years and to approve any lease that requires stand alone building construction and is for private profit.

Easements

This delegation allows the Director to grant easements (primarily road use and utilities), to single family residences and to authorize utility service over small park parcels. The delegation does not allow the Director to issue easements to commercial companies for large projects (fiber optics, etc.) requiring the use of large park parcels or trail corridors.

Agreement Renewals, Amendments

This delegation authorizes the Director or designee to renew existing agreements with State Park documents that are modern and generally more restrictive than the original grant. For example; we currently have dozens of agreements where State Parks is the successor in lessor interest to the railroad. Most of these agreements have permitted uses that are perpetual. The delegation will allow staff to negotiate new agreements that replace the old railroad lease or easement with a State document that provides a higher level of liability protection and places a term on the permitted use.

Accepting Services In Lieu Of Cash

Often, staff have the opportunity to provide direct benefits to the park involved in a private use request. Some of these applicants can provide materials or services at a much lower cost than what the park can purchase the service for in the open market. For example; we have a lessee on the Willapa Hills Trail that specializes in manufacturing road jersey barriers (ecology blocks). The lessee would like to provide 50 ecology blocks to the State in lieu of half their annual rent of (\$1,000). Value to the State is \$750 in blocks vs. receiving \$500 in additional rent.

Donations

Typically, this delegation will involve small parcels of land (less than 20 acres) provided the donation parcel is connected to or adjacent to an existing State Park. The Commission retains the authority to accept stand alone parcels into the park system.

APPENDIX D

Biological Evaluation

Biological Evaluation of the Potential Impacts to the Flora and Fauna from the Klickitat Rails-to-Trails Project.

U.S. Forest Service
Columbia River Gorge National Scenic Area

Date: May 16, 2003

Pre-field data:

Previous surveys were examined to determine the presence of any listed species. The most recent survey was completed for the Wild and Scenic Designation process in 1989 by Land and Water Associates for the U.S. Forest Service. A previous study was completed by Bakke et al. in 1988. Both surveys identified five state listed flora within the Klickitat river Canyon: Astragalus hoodianus, Githopsis specularioides, Heuchera grossularifolia var. tenuifolia, Lomatium suksdorfii, and Meconella oregana. There are another 15 flora that are suspected to be located within this area. Fauna species noted included the bald eagle, western gray squirrel, steelhead, bull trout. The Washington State fauna data base, both site data and priority habitats, was referenced to note all known sites of sensitive fauna. Documented sites for bald eagle, peregrine, wetern gray squirrel were among the sites listed.

Field Surveys:

Several field surveys have occurred over the last ten years; more recently on February 13, 14, and May 8 of 2003. The only new sighting of a listed flora, Ranunculus recognitus, was in Swale Creek. This was first observed in 1995 and has been verified in 2003 by Barbara Robinson, a local botanist. Species documented in the project area include: bald eagle, wild (Merriam's) turkey (introduced), golden eagle, mountain quail, lesser steelhead, bull trout, coho (introduced), chinook, Pacific lamprey, rainbow trout, speckled dace, goldfish, ash throated flycatcher, Western gray squirrel, Southern alligator lizard, ringneck snake, sharptail snake, and California mountain king snake.

Priority Habitat that are adjacent to, or overlay, the project area include:

Bald Eagle, mule and blacktail deer (winter range), oak woodland, riaprian zones, Western gray Squirrel, wild turkey and cliff/bluff.

Findings:

The rail bed itself, which would be the most impacted aspect of this project, was not suitable habitat for most sensitive species and no species of concern were observed. This was true for both flora and fauna. The most important habitats along the trail that would potentially be disturbed by the proposed action were the wet areas and seeps. Being potential habitat for sensitive flora and fauna, these would require specific protection measures, such as board walks, as are designed into the proposed actions in this document. Some wet areas would be impacted in the short term, but enhanced in the long term.

Klickitat Rails-to-Trails

Other important habitats, such as basalt cliffs, dry talus slopes, large snags, and wet seeps, were observed adjacent to the trail and these are not to be disturbed, except in rare circumstances. A few populations of listed flora and suitable habitats for fauna, such as the bald eagle and western gray squirrel occur close to the rail bed and protection measures are important to ensure that the impacts are not significant. There are two locations where the trail must be re-routed outside the existing rail bed and these re-routes have been examined. There were no note worthy concerns and no listed flora or significant habitats in these re-routes.

Weeds were common along the trail and appropriate measures must be taken to ensure that these infestations do not become more damaging to native flora, including the listed species. Therefore, all soil disturbances should, at minimum, be planted with native grass species to reduce the risk of weed infestations.

Specific design elements in the proposed project, such as board walks over wetlands, retaining old snags, encouraging new pines along the corridor, and limiting river access will all be important factors in making the determination of no significant impact.

Prepared by:

Robin Dobson, Botanist/Ecologist, and Chuti Fiedler, Wildlife/Fisheries Biologist, CRGNSA

/s/ Robin Dobson

Robin Dobson
Botanist/Ecologist

/s/ Chuti Fiedler

Chuti Fiedler
Wildlife/Fisheries Biologist

Klickitat Rails-to-Trails

**FISH AND WILDLIFE BIOLOGICAL EVALUATION – Summary Table Of Effects
for
Threatened, Endangered, Proposed and Candidate species found in WA
as listed by the Federal Endangered Species Act,
and
U.S. Forest Service Regional Forester’s Sensitive Species list
for the Columbia River Gorge National Scenic Area
and
other “sensitive wildlife areas and sites” as defined by the
1992 Management Plan for the Columbia River Gorge National Scenic Area
(including all non-marine Washington state Endangered, Threatened, Sensitive and
Candidate Species)**

Project Name: Klickitat Rail-to-Trails Project			County/State: Klickitat, WA				
SPECIES (population segment)	STATUS *	PREFIELD REVIEW Usual Habitat in OR/WA	FIELD RECON.		EFFECTS DETERMINATION		
			Habitat Present?	Species Present?	Alt1	Alt2 2a	Alt3 3a
Bull trout (Columbia R.) <i>(Salvelinus confluentus)</i>	T	Cold streams/lakes	Yes	Yes	NE	NE	NE
Steelhead trout (Snake R.) <i>(Oncorhynchus mykiss)</i>	T	Streams/rivers	no				
Steelhead trout (Mid-Col. R.) <i>(Oncorhynchus mykiss)</i>	T	Col. streams/rivers (Mosier to Yakima)	Yes	Yes			
Steelhead trout (Lower Col.a R.) <i>(Oncorhynchus mykiss)</i>	T	Col. streams/rivers (mouth east to Hood R.)	no		NLAA	LAA Alt 2 NLAA	NLAA
Sockeye salmon (Snake R.) <i>(Oncorhynchus nerka)</i>	E	Streams/rivers/lakes	no				
Chinook salmon (Snake R. spring/ summer/fall runs) <i>(O. tshawytscha)</i>	T	Streams/rivers	no				
Chinook salmon (Lower Col. R.) <i>(Oncorhynchus tshawytscha)</i>	T	Col. streams/rivers (mouth east to Hood R.)	no				
Chum salmon (Columbia R.) <i>(Oncorhynchus keta)</i>	T	Col. R and lower tribs from mouth E. to Bonneville dam)	no				
Bald eagle <i>(Haliaeetus leucocephalus)</i>	T, WA-T	Shoreline (generally within 1 mile of large water bodies) with large trees and prey base of primarily fish, also waterfowl, turtles, carrion	Yes PHS	Yes, winter habitat	LAA	LAA	LAA
Northern spotted owl <i>(Strix occidentalis caurina)</i>	T, WA-E	Mature coniferous forest	no				

Klickitat Rails-to-Trails

Grizzly bear <i>(Ursus arctos)</i>	T, WA-E	North Cascades Range	no				
Woodland caribou <i>(Rangifer tarandus)</i>	E, WA-E	Boreal forests/foothills	no				
Columbian white-tailed deer <i>(Odocoileus virginianus leucurus)</i>	E, WA-E	Coastal/foothills floodplains	no				
Oregon silverspot butterfly <i>(Speyeria zerene hippolyta)</i>	T, WA-E	Coastal salt-spray meadows	no				
Canada Lynx <i>(Lynx canadensis)</i>	T, WA-T	Subalpine/boreal forests	no				
Marbled Murrelet <i>(Brachyramphus marmoratus)</i>	T, WA-T	Coastal mature forests	no				
Gray wolf <i>(Canis lupus)</i>	E, WA-E	steppe, woodland, forest	no				
Pygmy rabbit <i>(Brachylagus idahoensis)</i>	PE, WA-E	Dense stands of big sagebrush with loose soils for burrows	no				
Coastal cutthroat trout <i>(Oncorhynchus clarki clarki)</i>	P	Col. river/tribs; mouth east to Klickitat R	no				
Chinook (mid-Col. spring run) <i>(Oncorhynchus tshawytscha)</i>	FS	Col. river/tribs (Mosier to Yakima)	no				
Coho (lower Columbia R.) <i>(Oncorhynchus kisutch)</i>	C, FS	Col. river/lower tribs (mouth east to Hood R.)	no				
California Mtn king snake <i>(Lampropeltis zonata)</i>	FS, WA-C	Disjunct pop. in Col. R. Gorge (Klickitat, Skamania county area): oak/pine woodland, rocky riparian within logs/rocky cover	Yes	potential	NI	MIIH	MIIH
Cope's giant salamander <i>(Dicamptodon copei)</i>	FS	W. WA, NW OR: Clear, cold mountain streams w/rocky substrate	no				
Cascade torrent salamander <i>(Rhyacotriton cascadae)</i>	FS, WA-C	Cascade Mtns of southern WA and northern OR: in and adjacent to cold, fast, mountain streams w/rocky substrate	no				
Townsend's Big-Eared bat <i>(Corynorhinus townsendii)</i>	FS, WA-C	desert scrub/coniferous forests w/caves or mines	no				
California Wolverine <i>(Gulo gulo)</i>	FS, WA-C	Forests/open plains	no				
Oregon Spotted Frog <i>(Rana pretiosa)</i>	C, FS, WA-E	9 acre+ perennial lakes/marshes (Conboy)	no				
Mardon skipper <i>(Polites mardon)</i>	C, WA-E	Puget sound and south Cascades of WA: Open fescue grasslands with nectar plant source	marginal edge of range, few fescues	potential	NI	NI/ long-term BE	NI/ long-term BE

Klickitat Rails-to-Trails

Washington ground squirrel <i>(Spermophilus washingtoni)</i>	C, WA-C	East of Columbia River from center of WA state & southward: Sagebrush/ grassland w/ sandy soils, also Giliam, Morrow and Umatilla counties, OR	no				
Streaked horned lark <i>(Eremophila alpestris strigata)</i>	C, WA-C	W. WA/OR: native prairies /sparsely veg short grass areas. Ground nester.	no				
Pacific Fisher <i>(Martes pennanti)</i>	FS, WA-E	Optimum habitat is dense mature conifer forest	no				
Peregrine falcon <i>(Falco peregrinus)</i>	FS, WA-S	cliff (nest) sites with sm. bird prey base	yes	Not seen	NI	NI	NI
Northwestern pond turtle <i>(Clemmys marmorata)</i>	FS, WA-E	streams, lg rivers, slow sloughs, and quiet waters	no				
Western gray squirrel <i>(Sciurus griseus)</i>	FS, WA-T	Oak & mixed oak woodland, core range Klickitat county	yes	yes	MIIH	MIIH/ long-term BE	MIIH/ long-term BE
Common loon <i>(Gavia immer)</i>	FS, WA-S	Undisturbed forest lakes	no				
Sandhill crane <i>(Grus canadensis)</i>	WA-E	Riverine wetland, isolated mtn meadows/basins	no				
Upland sandpiper <i>(Bartramia longicauda)</i>	WA-E	Grasslands/migratory	no				
Northern leopard frog <i>(Rana pipiens)</i>	WA-E	Marsh/ponds, presently in Grant county only	no				
Aleutian Canada goose <i>(Branta canadensis leucopareia)</i>	WA-T	Migrate thru coastal areas	no				
Ferruginous hawk <i>(Buteo regalis)</i>	WA-T	open prairie/shrub steppe	no				
Sage grouse <i>(Centrocercus urophasianus)</i>	WA-T	Sagebrush grasslands	no				
Sharp-tailed grouse <i>(Tympanuchus phasianellus)</i>	WA-T	Grasslands/sagebrush	no				
Larch mountain salamander <i>(Plethodon larselli)</i>	WA-S FS S&M	Cascades mountains of S. WA/N. OR: Largely in moss-covered shady Talus slopes, low-mid elev.	yes	no	NI	NI	NI
Olympic mudminnow <i>(Novumbra hubbsi)</i>	WA-S	Quiet waters/mud substrates Olympic penins	no				
Margined Sculpin <i>(Cottus marginatus)</i>	WA-S	Blue Mountains of OR and WA. In WA only in stream pools of Tucannon, Walla Walla	no				
Pygmy Whitefish <i>(Prosopium coulteri)</i>	WA-S	Cold lakes/streams, of Northern WA	no				

Klickitat Rails-to-Trails

Merriam's shrew (<i>Sorex merriami</i>)	WA-C	East of Cascades: Sagebrush scrub, woodlands, grasslands	yes	potential	NI	NI	NI
Keen's myotis bat (<i>Myotis keenii</i>)	WA-C	Olympic Peninsula: Densely forested areas	no				
Brush prairie pocket gopher (<i>Thomomys talpoides douglasi</i>)	WA-C	Western WA Cascades open habitats	no				
Mazama (western) pocket gopher (<i>Thomomys mazama</i>)	WA-C	West of Cascades OR/WA: prairies and meadows	no				
Gray-tailed vole (<i>Microtus canicaudus</i>)	WA-C	Clark County, WA and OR Willamette Valley: Grassy and agricultural lands	no				
Black-tailed jackrabbit (<i>Lepus californicus</i>)	WA-C	E OR, SE WA: Prairies, dense mixed sagebrush communities, cultivated fields	no				
White-tailed jackrabbit (<i>Lepus townsendii</i>)	WA-C	East of Cascades: open areas with native grass, some sagebrush habitat	no				
Western Grebe (<i>Aechmophorus occidentalis</i>)	WA-C	open lakes and marshes w/rushes and tules, winters in coastal estuaries/bays	no				
Northern goshawk (<i>Accipiter gentilis</i>)	WA-C	Mature forest with large nest trees	yes	no	NI	MIIH	MIIH
Golden eagle (<i>Aquila chrysaetos</i>)	WA-C	Various habitats, open country/forests, often nests on steep cliffs or large trees	Yes	yes	NI	MIIH	MIIH
Merlin (<i>Falco columbarius</i>)	WA-C	Forests, grasslands, marshes. Nests in WA Cascades, NE WA. Winters in all NW U.S.	yes	potential	NI	NI	NI
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	WA-C	riparian forests, with cottonwood/thick willow; Neotropical migrant	no				
Flammulated owl (<i>Otus flammeolus</i>)	WA-C	E. Cascades: cavity nester in mature pine in mixed woodland Winters S. of US border	yes	potential	NI	NI	NI
Burrowing owl (<i>Athene cunicularia</i>)	WA-C	E. WA/OR: Open sagebrush country/ some in grass fields; winters SW US	no				
Vaux's swift (<i>Chaetura vauxi</i>)	WA-C	Woodlands near water, nests in hollow trees or chimneys; neotropical migrant	no				
Lewis' woodpecker (<i>Melanerpes lewis</i>)	WA-C	open pine/oak woodland, conifer forests, and riparian woodland; neotropical migrant.	yes	Yes	NI	NI/ long-term BE	NI/ long-term BE
White-headed woodpecker (<i>Picoides albolarvatus</i>)	WA-C	central/E. WA/OR: Mature coniferous forests, esp. ponderosa pines, cavity nester	yes, portions	potential	NI	MIIH/ ong-term BE	MIIH/ long-term BE

Klickitat Rails-to-Trails

Black-backed woodpecker <i>(Picoides arcticus)</i>	WA-C	Highly associated with post-fire habitats in mature forests (stand-replacement fires with snags), dependent on insect-ridden trees	yes, portions	potential	NI	MIIH/ long-term BE	MIIH/ long-term BE
Pileated woodpecker <i>(Dryocopus pileatus)</i>	WA-C	Mature conifer, mixed conifer forests.	yes, portions	potential	NI	MIIH	MIIH
Slender-billed white-breasted nuthatch <i>(Sitta carolinensis aculeata)</i>	WA-C	West Cascades/Coast range lowlands: Highly associated with open, mature oak woodlands	yes, edge of range	potential	NI	MIIH/ long-term BE	MIIH/ long-term BE
Sage thrasher <i>(Oreoscoptes montanus)</i>	WA-C	Eastern WA/OR semi-arid sagebrush plains and bottomlands	no				
Loggerhead shrike <i>(Lanius ludovicianus)</i>	WA-C	East of Cascades: dry grassland and sagebrush desert habitats, Neotropical migrant	yes	potential	NI	NI	NI
Oregon vesper sparrow <i>(Pooecetes gramineus affinis)</i>	WA-C	relatively dry and sparsely vegetated areas with scattered tall structures used for song perches	yes	potential	NI	NI	NI
Sage sparrow <i>(Amphispiza belli)</i>	WA-C	Flat terrain in sagebrush, chaparral, dry foothills	no				
Sharptail Snake <i>(Contia tenuis)</i>	WA-C	East slope of WA Cascades, Columbia R. Gorge, W OR: rocky slopes and open pine and oak woodland w/prey species of small slugs	yes	likely present	NI	MIIH/ long-term BE	MIIH/ long-term BE
Striped whipsnake <i>(Masticophis taeniatus)</i>	WA-C	South/central WA, E. OR: dry rocky sites, oak woodland, pine forests	yes	likely present	NI	MIIH/ long-term BE	MIIH/ long-term BE
Columbia torrent salamander <i>(Rhyacotriton kezeri)</i>	WA-C	Coast Range of sWA, nOR: cold, fast, mountain streams w/rocky substrate	no				
Dunn's salamander <i>(Plethodon dunni)</i>	WA-C	W. WA/OR: moss-covered rock rubble, shady stream banks	no				
Van dyke's salamander <i>(Plethodon vandykei)</i>	WA-C	Olympic Mountains, Willapa Hills, and Cascade Mountains of southern Washington: need large logs in riparian areas	no				
Columbia spotted frog <i>(Rana luteiventris)</i>	C, WA-C	In or near permanent bodies of water, (lakes, ponds, slow streams, marshes) with thick sedges, rushes and grasses	no				
Western Toad <i>(Bufo boreas)</i>	WA-C	Most common near marshes and small lakes (breeding sites), can travel overland	no				

Klickitat Rails-to-Trails

River lamprey <i>(Lampetra ayresi)</i>	WA-C	Anadromous, coastal rivers	no				
Eulachon <i>(Thaleichthys pacificus)</i>	WA-C	Marine, with spawning in lower reaches of rivers, often within tidal influence	no				
Lake chub <i>(Couesius plumbeus)</i>	WA-C	Upper Columbia R. drainage of WA: general water body	no				
Leopard dace <i>(Rhinichthys falcatus)</i>	WA-C	Columbia River drainages of both WA and OR: slow streams, rivers	no				
Umatilla dace <i>(Rhinichthys falcatus)</i>	WA-C	Columbia R. drainage both WA and OR: large rivers	no				
Mountain sucker <i>(Catostomus platyrhynchus)</i>	WA-C	Columbia R. drainage both WA and OR: creeks, rivers	no				
California floater mussel <i>(Anodonta californiensis)</i>	WA-C	Shallow, low-elevation areas of clean lakes, ponds and large rivers with soft, silty substrate. Limited to a few sites in Curlew Lake (Ferry County) in WA. In OR, can still be found in lower Willamette and lower Columbia R.	no				
Giant Columbia River limpet <i>(Fisherola nuttalli)</i>	WA-C	Historically in almost the entire Columbia R. basin, now restricted to a few remaining sites. In WA, confirmed in Hanford Reach of the Columbia R., as well as the Okanogan, Wenatchee and Methow rivers. In OR, only found in the Deschutes R.	no				
Great Columbia River spire snail <i>(Fluminicola columbiana)</i>	WA-C	Historically, widespread throughout the Lower Snake and Columbia Rivers, and their larger tribs. Now limited to a few reaches of the Columbia R. system that remain free-flowing and colder. Confirmed in a few sites along the Columbia, Okanogan, Wenatchee and Methow Rivers in WA, and the Deschutes River in OR.	no				
Beller's ground beetle <i>(Agonum belleri)</i>	WA-C	Sphagnum bogs adjacent to lower elevation (below 1000m) lakes. The only known population located at King's Lake Bog in King County WA.	no				

Klickitat Rails-to-Trails

Mann's Mollusk-eating Ground Beetle <i>(Scaphinotus manni)</i>	WA-C	Confined to riparian strips in canyons of lowland tribs of the Snake R.	no					
Long-horned leaf beetle <i>(Donacia idola)</i>	WA-C	North Puget Sound	no					
Columbia River tiger beetle <i>(Cicindela columbica)</i>	WA-C	Restricted to sandbars and dunes in riparian zones of large lowland rivers.	no					
Hatch's click beetle <i>(Eanus hatchii)</i>	WA-C	North Puget Sound	no					
Yuma skipper butterfly <i>(Ochlodes yuma)</i>	WA-C	Northcentral WA, Sherman County OR: near freshwater marshes, streams, seeps	no					
Shepard's parnassian butterfly <i>(Parnassius clodius shepardii)</i>	WA-C	Eastern 1/3 of Washington state	no					
Makah (Queen Charlotte) Copper butterfly <i>(Lycaena mariposa charlottensis)</i>	WA-C	Coastal WA state	no					
Chinquapin hairstreak butterfly <i>(Habrodais grunus herri)</i>	WA-C	Oak woodland, canyons, mountain ridges of SW and central WA	yes, on edge of known range	possible	NI	MIIH/long-term BE	MIIH/long-term BE	
Johnson's hairstreak butterfly <i>(Callophry[Mitoura] johnsoni)</i>	WA-C	Western WA/OR: coniferous forests, esp. old-growth	no					
Juniper hairstreak butterfly <i>(Callophyr [Mitoura] grynea barryi)</i>	WA-C	Central and E. WA/OR: old fields, bluffs, juniper/ pinyon-juniper woodlands, and cedar breaks	yes	possible	NI	NI	NI	
Puget blue butterfly <i>(Plebejus icarioides blackmorei)</i>	WA-C	Puget Sound/Coastal WA	no					
Valley silverspot butterfly <i>(Speyeria zerene bremnerii)</i>	WA-C	West WA/OR: Conifer forests, sagebrush, coastal meadows and dunes	no					
Silver-bordered fritillary butterfly <i>(Boloria selene atrocotalis)</i>	WA-C	North central and Eastern WA	no					
Taylor's (Whulge) checkerspot butterfly <i>(Euphydryas editha taylori)</i>	WA-C	West WA/OR: diverse habitats inc. coastal chaparral, meadows, foothills, open woods	no					
Great arctic butterfly <i>(Oeneis nevadensis gigas)</i>	WA-C	North Puget Sound	no					
Sensitive Flora								
Agroseris elata	S	Meadows, open woods low-mid elevations	Yes	No	MIIH	MIIH	MIIH	
Astragalus hoodianus	Endemic	Dry, open grass or oak woodlands,E. Gorge	Yes	No	NI	MIIH	MIIH	

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<i>Artemesia campestris</i> spp <i>borealis</i>	E	Rocky, gravelly areas along Col River	No				
<i>Bolandra oregana</i>	S	Waterfalls and moist cliffs	Yes	No	NI	MIIH	MIIH
<i>Botrichium</i> spp.	S	Moist, wet areas in forest	No				
<i>Calachortus longeberbe</i> var. <i>longeberbe</i>	Th	Open or lightly wooded areas	Yes	No	MIIH	MIIH	MIIH
<i>Carex interrupta</i>	S	Rocky banks and beds of streams	Yes	No	MIIH	MIIH	MIIH
<i>Carex macrochaeta</i>	S	Moist open places near coast or along Col. River	Yes	No	MIIH	MIIH	MIIH
<i>Chrysolepis chrysophylla</i>	S	Open areas within forest	No				
<i>Cimicifuga elata</i>	Th	Moist to dry wooded areas	No				
<i>Collinsia sparaiflora</i> var. <i>bruciae</i>	S	Moist open slopes	Yes	No	MIIH	MIIH	MIIH
<i>Corydalis aqua-gelidae</i>	Th	In and besides small perennial streams in woods	No				
<i>Cryptantha rostellata</i>	Th	Barren south facing slopes. E Gorge	Yes	No	MIIH	MIIH	MIIH
<i>Cryptantha interrupta</i>	S	Open, dry slopes in E Gorge	Yes	No	MIIH	MIIH	MIIH
<i>Cyperus rivularis</i>	S	Wet places in lowlands	Yes	No	MIIH	MIIH	MIIH
<i>Cypripedium fasciculatum</i>	Th	Open conifer forest	No				
<i>Douglasia laevigata</i> var. <i>laevigata</i>		Basalt cliffs and rock outcrops	No				
<i>Epipactis gigantea</i>		Low elevation stream banks or wet areas	Yes	Yes	MIIH	MIIH	MIIH
<i>Erigeron howellii</i>	Th	Rocky slopes	No				
<i>Erigeron oreganus</i>	Th	Moist, overhanging basalt cliffs	No				
<i>Eryngium petiolatum</i>	Th	Low ground, areas submerged in spring	No				
<i>Githopsis specularioides</i>	S	Dry, open or lightly wooded slopes	Yes	No	NI	MIIH	MIIH
<i>Hackelia diffusa</i> var. <i>diffusa</i>	Th	Shaded cliffs and talus slopes	No				
<i>Heuchera grossularifolia</i> var. <i>tenuifolia</i>	S	Shady cliffs and talus slopes	Yes	Yes	NI	NI	NI
+ <i>Hieracium longiberbe</i>	Endemic	Open meadows or rocky areas	No				
<i>Howellia aquatilis</i>	Th	Pond and lakes	No				

Klickitat Rails-to-Trails

Linanthus bakeri	S	Barren, generally south facing slopes	No				
Liparis loeselii	E	Springs and bogs	Yes	No	MIIH	MIIH	MIIH
Lomatium laevigatum	Th	Basalt cliffs and open rocky areas	No				
+ Lomatium suksdorfii	S	Grass lands and open woods	Yes	No, adjacent to trail	NI	MIIH	MIIH
+ Lupinus latifolius var. thompsonianus	Endemic	Open or wooded area in E Gorge	Yes	Yes	NI	MIIH	MIIH
Lycopodiella inundata		Wet places, esp. sphagnum bogs	No				
Machaerocarpus californicus		Vernal ponds near The Dalles	No				
Meconella oregana	Th	Open or lightly wooded areas.	Yes	Yes, Adjacent to trail	NI	NI	NI
Montia diffusa		Disturbed areas in Forest	No				
Navaretia tagetina	Th	Open, rocky areas	Yes	No	NI	MIIH	MIIH
Ophioglossum pusillum	Th	Meadows and woods	Yes	No	MIIH	MIIH	MIIH
Orobanche pinorum		Woods and brushy areas	Yes	No	MIIH	MIIH	MIIH
Orthocarpus bracteosus	E		No				
Parnassia frimbriata var. hoodiana	Th	Bogs, streams, and wet meadows	No				
Penstemon barrettiae	Th	Rocky cliffs, talus	No				
Penstemon deustus var. variabilis	Th	Open rides of Columbia Hills	No				
Plantanthera sparsiflora	Th	Wet to boggy areas	No				
Pleurocospora frimbriolata		Deep forest	No				
+ Ranunculus reconditus	E	Open grasslands	Yes	Yes, adjacent to trail	NI	NI	NI
Rorippa columbiae	E	Muddy, cobble shores of the Col. River	No				
Sisyrinchium sarmentosum	Th	Moist meadows	No				
Spiranthes porrifolia		Meadows, riverbanks of intermittent streams	No				

Klickitat Rails-to-Trails

Sullivantia oregana	E	Wet cliffs at low elevations	No				
Synthyris stellata		Forested areas and edges	No				
Utricularia intermedia	S	Slow moving water	Yes	No	MIIH	MIIH	MIIH
Sensitive Areas and Sites within Col. R. Gorge Nat. Scenic Area as mapped by Oregon and Washington Natural Heritage Program and OR/WA Department of Fish and Wildlife Priority Habitat Databases, updated 6/93							
Bald Eagle Habitat (<i>Haliaeetus leucocephalus</i>)	Sensitive Areas		Habitat Mapped in Project area?				
Deer and Elk Winter Range (<i>Odocoileus and Cervus sp.</i>)	Sensitive Areas		No	NI	NI/ Some displacement	NI/ some displacement	
Elk Habitat (<i>Cervus elaphus</i>)	Sensitive Areas		Yes			NI/ long-term BE	
Mountain Goat and Habitat (<i>Oreamnos americanus</i>)	Sensitive Areas/ sites		No				
Peregrine Falcon and Habitat (<i>Falco peregrinus</i>)	Sensitive Areas		No				
Pika Colony Area (<i>Ochotona princeps</i>)	Sensitive Areas		No				
Pileated Woodpecker Habitat (<i>Dryocopus pileatus</i>)	Sensitive Areas		No				
Pine Marten Habitat (<i>Martes martes</i>)	Sensitive Areas		No				
Shallow water fish habitat (Columbia River)	Sensitive Areas		No				
Special Streams	Sensitive Areas		No				
Special Habitat Area	Sensitive Areas		No				
Spotted Owl and Habitat (<i>Strix occidentalis caurina</i>)	Sensitive Areas/ sites		No				
Sturgeon Spawning Area (<i>Acipenser transmontanus</i>)	Sensitive Areas		No				
Tributary Fish Habitat	Sensitive Areas		No				
Turkey Habitat (<i>Meleagris gallopavo</i>)	Sensitive Areas		No	NI	NI	NI	
Waterfowl Area	Sensitive Areas		No				
Western Pond Turtle and Habitat (<i>Clemmys marmorata</i>)	Sensitive Areas		No				

Klickitat Rails-to-Trails

golden eagle <i>(Aquila chrysaetos)</i>	Sensitive sites/ special public interest		No			
great blue heron <i>(Ardea herodias)</i>	Sensitive sites/ special public interest		No			
Larch mountain salamander <i>(Plethodon larselli)</i>	Sensitive sites		No	NI	NI	
osprey <i>(Pandion haliaetus)</i>	Sensitive sites/ special public interest		No, yes adjacent			NI
purple martin <i>(Progne subis)</i>	Sensitive Sites/ WA-C		No			
prairie falcon <i>(Falco mexicanus)</i>	special public interest		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

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

NLAA = May Effect, but Not Likely to Adversely Affect