

## CHAPTER 2: ALTERNATIVES, INCLUDING THE PROPOSED ACTION

This section describes and compares the alternatives considered for the Olympic Discovery Trail project. Alternatives to the proposed action were developed and refined after reviews of the project area by resource specialists, discussions with the project team and the Responsible Official's representative, Pacific District Ranger Eduardo Olmedo, and consideration of comments received during the May 2006 EA 30-day notice and comment period. The alternatives were formulated to address the significant issues and comments, given the Purpose and Need for the project and the feasibility of implementing the alternatives in the project area. Each alternative considered includes a description and map (Appendix 1, Map 2). This section also presents the alternatives in comparative form to define the differences between each alternative and provide a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social and economic effects of implementing each alternative.

### Alternatives not considered in detail

The Forest Service considered two potentially feasible alternatives and the No Action alternative in order to assess the reasonableness of the alternatives considered in detail. Only the No Action alternative was carried forward for detailed review. The alternatives eliminated from detailed consideration, along with rationale for their dismissal, are as follows:

- Divert bicyclists from some trail segments

The total area of paved trail meeting County standards could be reduced if bicyclists were diverted at the most eastern point of segment 10; and directed to continue on the Spruce Railroad Grade through private property to State Route 101. Hikers and equestrians could then utilize trail segments 8-10 (which would be unpaved) and the full multi-use trail could begin again within trail segment 7. This alternative was dismissed because (a) a crossing for SR 101 could not be identified that provided adequate sight distance for users to cross SR 101, (b) the grade of existing roads that would bring bicyclist back to the trail exceeded the grade acceptable within AASHTO standards, (c) private property owners would not grant easements, and (d) it would fragment the trail segments that are accessible to persons with disabilities.

- Reduce paved width and thickness

The total construction activity, area of paving, and width of the trail could be reduced if the section of trail related to the County's grant did not have to comply with the AASHTO standards. This would somewhat reduce the total area of disturbance and would limit the volume of asphalt used. This alternative was rejected because (a) the narrower road would result in more user conflicts and

potential accidents and (b) the less robust trail construction standard would mean more frequent repair after heavy equipment use. Greater maintenance and repair would result in more frequent construction-level impacts and periodic increases in the potential for hydrocarbon discharges to the streams.

## Alternatives

### Alternative A (No Action)

Under the No Action alternative, no trail construction would be implemented to meet the project's purpose and need. The Olympic Discovery Trail would not be constructed on National Forest System lands. The Spruce Railroad grade would remain undeveloped. No new trail construction would occur in the currently unmanaged, intact forest stand within segment 10. No new stream crossing structures would be constructed and forested wet areas would remain as is within Segment 10 at the west point where it's proposed to connect to the Mt. Muller Trail.

### Alternative B (Proposed Action)

Issue an easement to authorize Clallam County to construct and maintain trail segments, as described in Chapter 1, across National Forest System lands that contribute to the long term goal of establishing the Olympic Discovery Trail, a continuous non-motorized trail from Port Townsend to LaPush.

### Mitigation Measures for the Proposed Action

In response to public comments on the proposal, mitigation measures were developed to minimize some of the potential negative impacts the proposed action may cause.

**Table 2 Mitigation Measures for the Proposed Action**

#	Mitigation Measure	Reference	Category
1	Authorization will incorporate language that trail establishment will not limit current or future management prescriptions or activities, with no visual buffers established.	Scoping Issue #15 - 19	authorization
2	Clallam County will secure a Determination of Eligibility (DOE) for the trail, and enter into a MOA or Programmatic Agreement (PA) with SHPO, which includes a treatment plan that will cover design, construction, and maintenance, prior to trail construction.	Scoping Issue #63	authorization
3	Trail design will incorporate removable barriers so vehicles can access the trail for emergency purposes.	Scoping Issue #1	design
4	Trail curve apertures will be navigable by fire apparatus.	Scoping Issue #1	design

5	Trail Design, construction, maintenance will protect existing authorized uses.	Scoping Issue #6, 56-60	design
6	Clallam County will pursue alternate funding sources to replace the Camp Creek Bridge. In the interim the County will replace the bridge decking and install an approved handrail system to meet AASHTO standards.	Scoping Issue #13	design
7	Based on the culvert inventory, stream pipes/culverts at milepost 1.00, 1.15, 1.30, 1.36, and 1.45 will be replaced prior to surfacing FS road 2929-070.	Scoping Issue #14, Fisheries	design
8	Natural and/or artificial barriers will be incorporated into the trail design to restrict unauthorized motorized vehicles.	Scoping Issue #25	design
9	AASHTO standards in their “Guide for the Development of Bicycle Facilities” will be utilized for shared routes.	Scoping Issue #42-49	design
10	Trail design will maximize the width available at through cuts on 2929-070, but it will not increase the width of the through cuts.	Scoping Issue #62	design
11	The trail design will conform to ADA (Americans with Disability Act) requirements to allow for turnouts for wheel chairs on steeper, extended grades.	Scoping Issue #64	design
12	Trail design will allow for continued, natural hillslope hydrology, hydrologic function of the forested wet area and stream flow. Disruption of natural hydrologic flow paths will be minimized (RF-2, e)	Scoping Issue #67 & 71 Fisheries NWFP-ROD Page C-32	design
13	Trail design will avoid armoring and/or artificial constraint of stream crossings.	Scoping Issue #68	design
14	Trail design will ensure drainage systems will not compromise water quality.	Scoping Issue #69	design
15	Trail location will be designed to minimize the cutting of larger diameter trees.	Scoping Issue #72	design
16	Culverts and bridges will meet NWFP standards for discharge and debris transport. At all road crossings of existing and potential fish-bearing streams, fish passage will be provided and maintained. (RF-7)	Fisheries NWFP-ROD pg C-33	design
17	Trail location in Riparian Reserves will be minimized. (RF-2, a)	Fisheries NWFP-ROD pg C-32	design

18	Sidecasting will be restricted. (RF-2, f)	Fisheries NWFP-ROD pg C-32	design
19	Trail tread will be outloped to minimize sediment delivery to streams. (RF-5)	Fisheries NWFP-ROD pg C-33	design
20	Material sources will be inspected to ensure they are free of invasive plant seeds before use and transport.	Scoping Issue #77	construction
21	Equipment cleaning areas will be designated outside of the National Forest and equipment will be washed before it enters National Forest. Seeds and plant parts from staging and cleaning areas will be collected and incinerated.	Scoping Issue #77	construction
22	Large Coarse Woody Debris that is disturbed as a result of trail construction will be retained, kept intact, and relocated outside the trail prism.	Scoping Issue #78	construction
23	Complete disposal of all construction debris will be required.	Scoping Issue # 79	construction
24	Trail construction of segment 3 adjacent Camp Creek and west of the berm 100' will be limited to August 6-February 28.	Wildlife	construction
25	Trail construction of segment 3 east of the berm and segment 4 will be limited to August 16-December 31.	Wildlife	construction
26	Trail construction of the west 1/10 of segment 7 will be limited to August 16-December 31.	Wildlife	construction
27	All in-stream work will be limited to July 1 - September 30th under the conditions set forth in the MOU with the Washington State Department of Fish and Wildlife regarding Hydraulic Projects.	Fisheries	construction
28	Hazardous spill clean-up materials will be on site whenever heavy equipment is operating in or near stream channels.	Fisheries	construction
29	Any machinery fueling and maintenance involving potential contaminants (fuel, oil, hydraulic fluid, etc) will occur at an approved site, or greater than 100 feet from wet areas, water bodies or stream channels.	Fisheries	construction

30	Prior to starting work each day, check all machinery for leaks (fuel, oil, hydraulic fluid, etc) and make all necessary repairs.	Fisheries	construction
31	Vine maple trunks/limbs removed for trail construction with the lichen, <i>Nephroma bellum</i> , growing on them will be relocated, outside of trail corridor.	Botany	construction
32	Existing invasive plant infestations will be treated along the proposed route prior to construction activities.	Botany	construction
33	Site restoration planning shall include an evaluation of the need to seed a site or use other erosion control measures. When needed, weed free straw and seed mixes/plantings with local native species will be used.	Botany	construction
34	Monitor use and address adverse impacts on culturally important natural resources in the O&M Plan.	Scoping Issue #73-76	monitor
35	An Operation and Maintenance (O&M) Plan will be prepared by the County and approved by the Forest Service before authorization for the trail will be made.	Scoping Issue #26,28,29,	O&M
36	Use only palletized or certified weed free feed on all National Forest System lands. Feed should be certified to be weed free using North American Weed Free Forage Program standards or a similar certification process. Along the trail, signs will be installed to encourage pack and saddle stock users to feed stock only weed-free feed for several days before travel on National Forest lands.	Botany Pg 13	O&M
37	Survey for presence/spread of invasive plants biennially following completion of the project, if funding allows.	Botany Pg 13	O&M
38	Install signs notifying users the road is a shared route. Establish a 25 mph speed limit on shared route that are Forest System roads.	Scoping Issue #42-49	O&M
39	Place a temporary fence around the Crescent Mine during construction to protect the site from disturbance.	Heritage	construction
40	Archaeological surveys will be conducted on previously disturbed areas following initial ground clearing and prior to laying down trail surfacing.	Heritage	construction

In addition, the County will implement standard best management practices (BMP's) for the minimization of erosion and the control of runoff from the construction area.

## Alternative B (Modified)

Alternative B (modified) will authorize granting an easement to Clallam County to build and maintain approximately 12.1 miles of recreation trail (which will become part of the larger Olympic Discovery Trail) across National Forest System Land as previously described in this EA. Approximately 3.74 miles will consist of new trail construction, reconstruction of railroad grade to trail, and improvement of existing trail and non-system road to trail. These segments will prohibit motorized traffic except for administrative purposes. The remaining approximately 8.32 miles will consist of existing Forest Service roads that will allow shared use with motorized traffic (some of which will be improved by paving with asphalt).

Alternative B (modified) is similar to Alternative B (Proposed Action) with the following changes.

- The trail design standard for all shared routes (trail segments where trail use is on existing Forest roads) would be 12 foot vehicle width with 4 foot shoulder on either side (total 20 foot width). This standard is for FSR 2902-300 (segment 0-A), FSR 2902 (segment 0-B), FSR 2929-070 (segment 3), and FSR 3079-011 (segment 0-C). FSRs 2929-070 and 3079-011 would be paved as proposed (FSR 2929-070 was already at 12 foot pavement width, this change would increase the paving width on FSR 3079-011 from 10 feet to 12 feet). FSRs 2902 and 2902-300 would remain surfaced with rock, but to the 20 foot width. This change will require the following mitigations:
  - Activities along the FSR 2902 and FSR 2902-300 will not include any ground disturbing actions, such as culvert replacements or excavation of cut slopes, that may affect water quality.
  - Heavy equipment work along FSR 2902 and FSR 2902-300 that is adjacent (within 35 yards) to northern spotted owl and marbled murrelet suitable habitat is subject to the seasonal restriction of work being done after August 5.
- Railings on the Camp Creek Bridge (road 2929-070) are already proposed, see mitigation number 6. A change would require similar railings on the two bridges on FSRs 2902/2902-300. The requirements for bridge railings for vehicles and log trucks would follow Forest Service R-6 supplement 2309.18.2.
- Narrow sections of the shared routes (bridges or roadways) would be signed.
- In order to accommodate the increased trail width described above, vegetative clearing along the shared routes (existing roads described above) would be increased from 20 feet to 22 feet. This change will require the following mitigation:

- No conifers greater than 11 inches dbh will be removed. If there is a need to remove trees of this size, a Forest Service wildlife biologist will first be consulted to determine if reconsultation with US Fish and Wildlife Service would be warranted.
- As part of the easement, the County would be required to meet log haul standards when paving FSRs 2929-070 and 3079-011. This includes the Camp Creek Bridge. Any future replacement of the Camp Creek Bridge would require the replacement to meet standards for log haul. As per mitigation #6, the County would replace the bridge decking to AASHTO standards.
- The trail stream crossings (segment 10) above the forested wet area would require a modified culvert and bridge, and/or modified location for these structures to further minimize the impacts to the stream bank and channel.
- Issuance of an easement to Clallam County would not be contingent upon the County securing easements across all other ownerships.
- A locked gate at the junction of FSR 2929 and FSR 2929-070 would be installed. Access for vehicle traffic would be retained for administrative, research, land management, and tribal purposes. Access needed by private and state landowners located beyond the new gate would also be retained. This would change the road's existing operational maintenance level from II to I, which is a change from the existing condition described in the Forest's Access and Travel Management (ATM) Plan. It would however achieve the ATM Plan's future maintenance level, Level I, for the portion of FSR 2929-070 past Mile Post 1.7.
- All activity slash resulting from trail construction, reconstruction, or improvement work would be disposed of by the County; either by chipping, end hauling, or piling and burning. Any burning of slash would meet all Federal and State laws pertaining to the Clean Air Act, and follow Forest Service manual direction.
- Mitigation measure #7 would be changed to state that the replacement of the five culverts would preferably occur prior to the paving of this segment of trail. Recommendations to Clallam County to secure additional funding to replace these culverts prior to paving would be made. Damages to existing culverts as a result of this project would be replaced or repaired as determined by the Forest Service. Under the Operation and Maintenance Plan, the County would be responsible for addressing the need to replace culverts in the future.
- Mitigation measure #24 would be changed to include the following "Activities in these two sections from August 6 through September 15 that involve the use of

heavy equipment and chainsaws would begin two hours after sunrise and may continue until two hours before sunset”.

- Mitigation measure #37 would be changed to read “Survey for presence/spread of invasive plants biennially the first year following completion of the project, with annual monitoring and treatment of invasive plants for at least three years after project completion”. To provide for consistency, the monitoring section of the EA would be changed to indicate monitoring for invasive plants for three years after project completion.
  
- The County would provide an indemnification clause to become part of the easement.

Construction and maintenance of the trail would be governed by an Operating and Maintenance (O&M) Plan which would be prepared by the County. The O&M Plan would include trail design standards, mitigation measures, and monitoring requirements as described in the EA.

The following table describes the trail segments as they would be established on National Forest System Land.

<b>Segment</b>	<b>Length (miles)</b>	<b>Description</b>	<b>Activity</b>	<b>Paved</b>
0-A/B	4.75	FSR 2902, 2902-300	Surfacing within existing road prism	No
1	0.75	Railroad grade	Reconstruct	Yes
2	0.77	Railroad grade	Reconstruct	Yes
3	3.02	FSR 2929-070	Improve	Yes
4	0.23	NFS land	New construction	Yes
5	0.27	FS non-system road	Improve	Yes
6	--	Private		Yes
7	0.45	Railroad grade	Reconstruct	Yes
8	0.23	NFS land	New construction	Yes
9	0.30	Mt. Muller Trail	Widen/Improve	Yes
10	0.74	NFS land only	New construction	Yes
11	--	Olympic National Park		Yes
0-C	0.55	FSR 3079-011	Improve	Yes



## Monitoring

The following monitoring is recommended.

- Implement a monitoring plan to determine bald eagle nesting success before, during, and after project implementation to document future pairs' response at the existing nest site.
- Monitor the use and potential adverse impacts on culturally important natural resources.
- Inspect for invasion of invasive plants, especially along construction areas for at least two years after project completion.
- Monitor conditions and user interactions on shared routes to determine if mitigation measures are effective in providing for user safety.

## Comparison of Alternatives

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This section provides a summary of the effects of the No Action, Proposed Action, and Alternative B (modified). An interdisciplinary team review of Alternative B (modified) found that its effects are not beyond those disclosed for the Proposed Action; consequently the effects of the Proposed Action and Alternative B (modified) are displayed together in Table 3. Information in the table is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 3 Comparison of Alternatives

ISSUE	NO ACTION	PROPOSED ACTION/ ALTERNATIVE B (MODIFIED)
<b>Invasive Plants</b>		
Acres disturbed soil	0	17.8
Unpaved trail/RR grade area	3.9	8.9
<b>Wildland Fire Risk</b>		
Change from existing	None	Increase
<b>Aquatic Habitat</b>		
Acres of impermeable surface	0	8.9
Miles of new trail	0	1.5
Sediment/Substrate embeddedness	M	D
Channel width/Maximum depth	M	M
Stream bank condition	M	D
Drainage network increase	M	D
Road density and location	M	D
Function of riparian reserve	M	D
<b>Terrestrial Species</b>		
Amount of new edge (miles)	0	1.5
Acres of habitat removed	0	3.71
Miles of new trail	0	1.5
Northern Spotted Owl	No Effect	NLAA
Marbled murrelet	No Effect	NLAA
Critical habitat (NSO & MM)	No Effect	No Effect
Bald Eagle	No Effect	NLAA

M = maintain

D = degrade

NLAA = Not Likely to Adversely Affect