Jefferson County, WA

OLYMPIC DISCOVERY TRAIL - EAGLE MOUNT

ROUTES RECOMMENDATION
APRIL 26, 2019
ACKNOWLEDGMENTS

Thanks to all the state and local agencies who have contributed to this project, including Jefferson County, City of Port Townsend, Jefferson County Public Utility District #1, Jefferson Transit Authority, Washington State Parks, Washington State Department of Transportation, Washington State Department of Natural Resources, Olympic National Park, the United States Forest Service, and the Recreation and Conservation Office. We also thank private landowners, in particular Pope Resources, who support a multi-use trail which would safely bypass SR 20. Lastly, we would like to thank the Peninsula Trails Coalition and Eaglemount Trails Association for their continuing commitment to this project. Thank you all for your insight, comments and enthusiasm for this exciting project.

CONSULTANT TEAM

Alta Planning + Design
Steve Durrant, FASLA
Katie O’Lone, AICP, Senior Designer
Erin David, AICP, GIS Analyst
Raylee McKinley, Designer

Loving Engineering
Ahmis Loving, P.E.

Northwest Environmental Consulting, LLC
Brad Theile
Emily Drew
# TABLE OF CONTENTS

Acknowledgments............................................................................................................................................ 2

Table of Contents........................................................................................................................................ 3

List of Figures............................................................................................................................................. 4

List of Tables............................................................................................................................................. 4

Executive Summary................................................................................................................................... 5

Ch 1 Project Overview.............................................................................................................................. 11
  1.1 Context.................................................................................................................................................. 12
  1.2 Vision Statement ............................................................................................................................... 12
  1.3 Goals & Objectives............................................................................................................................ 13
  1.4 Benefits of Developing the Connection............................................................................................ 14
  1.5 Public Outreach................................................................................................................................ 19

Ch 2 Existing Conditions .......................................................................................................................... 25
  2.1 Review of Background Documents.................................................................................................. 26
  2.2 Site Character.................................................................................................................................... 30
  2.3 Opportunities and Constraints ......................................................................................................... 33

Ch 3 Alignment Alternatives.................................................................................................................... 35
  3.1 Alignment Options............................................................................................................................. 37
  3.2 Alignment Evaluation......................................................................................................................... 37

Ch 4 Recommended Alignments................................................................................................................ 45
  4.1 Recommended Trail Alignments ...................................................................................................... 47
  4.2 Conceptual Design ............................................................................................................................ 54
  4.3 Right-Of-Way Summary................................................................................................................... 59

Ch 5 Permitting Overview.......................................................................................................................... 63
  5.1 Regulatory Requirements.................................................................................................................... 64
  5.2 Recommended Alignment Permitting Strategy ................................................................................ 70

Ch 6 Implementation..................................................................................................................................... 81
  6.1 Cost and Ease of Implementation ........................................................................................................ 82
  6.2 Phasing Plan...................................................................................................................................... 83
  6.3 Financial Strategy............................................................................................................................... 84

Appendix A – Design Guidelines
LIST OF FIGURES

Figure I Study Area ........................................................................................................................................ 6
Figure II Recommended Alignments ........................................................................................................... 9
Figure 2.1.1 Proposed Trails and Trail Connections ................................................................................ 27
Figure 2.1.2 Zoning ....................................................................................................................................... 28
Figure 2.3.1 Opportunities and Constraints ............................................................................................... 32
Figure 3.1.1 Alignment Options .................................................................................................................. 36
Figure 4.1.1 Recommended Trail Alignments ............................................................................................. 46
Figure 4.1.2 Recommended Trail Alignments – North Segment ................................................................. 48
Figure 4.1.3 Recommended Trail Alignments – Central Segment .............................................................. 50
Figure 4.1.4 Recommended Trail Alignments – South Segment ................................................................. 52
Figure 4.2.1 Typical Trail Section ................................................................................................................ 55
Figure 4.2.2 Typical Trail Section – Constrained Conditions ................................................................. 55
Figure 4.2.3 Typical Trail Section - Sidepath ............................................................................................. 56
Figure 4.2.4 Typical Trail Section – Shared Lane ........................................................................................ 57
Figure 4.2.5 Typical Trail Section - Shared Lane ........................................................................................ 57

LIST OF TABLES

Table 3.2.1 Alignment Options Evaluation Criteria .................................................................................... 40
Table 3.2.2 Alignment Options Evaluation ................................................................................................. 42
Table 4.3.1 Right-Of-Way Summary .......................................................................................................... 60
Table 5.1.1 Permits Potentially Required .................................................................................................. 64
Table 5.2.1 Mitigation Ratio Requirements ............................................................................................... 78
Table 5.2.2 Permit Timeline ...................................................................................................................... 79
EXECUTIVE SUMMARY
To Port Angeles Ferry: 30 mi
To Port Townsend Ferry: 6.5 mi
To Kingston Ferry: 25 mi
To Kingston Ferry: 20 mi

7.5 miles
19 miles

Legend
Natural Features
Water Bodies
Parks and Preserves
Roads and Trails
Existing Olympic Discovery Trail
Existing ODT Alternatives
Major Roads
Minor Roads
Existing Trailhead
On-Road ODT Alternatives
Parks and Preserves
 foul

FIGURE I STUDY AREA
SUMMARY

Location & History

In concept, the Olympic Discovery Trail (ODT) runs for 130 miles across the northern end of the Olympic Peninsula in far northwest Washington. Advocacy for the ODT began more than 30 years ago with the goal of connecting Port Townsend to Forks, and eventually LaPush on the Pacific Ocean with an off-road multi-use trail. By 2018 the ODT consisted of approximately 70 miles of paved and unpaved trail, and 60 miles of on-road connections.

In 2016 the Peninsula Trails Coalition and a collection of advocates and stakeholders sought funding for the subject of this report - the Eaglemount segment of the ODT. In 2016 the state legislature passed an Engrossed Substitute House Bill 2380 which authorized the use of funds to be managed by the Washington State Recreation and Conservation Office (RCO) to provide for trail planning, acquisition, and development.

Purpose

The purpose of the Olympic Discovery Trail - Eaglemount Route Recommendation Study is two-fold:

• To find potential off-road multi-use trail alignments connecting the Larry Scott Trail at the Milo Curry Road trailhead to the recently completed ODT segment at the southern tip of Discovery Bay (Figure I).
• To recommend design guidelines and priorities for implementation.

This report includes a description of the recommended alignments and the rationale for selecting them. References are made to a companion document that details design guidance found in Appendix A. The report is a snapshot in time of a dynamic situation. As more information is gathered, route alternatives other than those recommended in this report may be pursued.

This report outlines the design and planning process used to select the recommended routes for the Olympic Discovery Trail - Eaglemount between the end of the Larry Scott Trail and Discovery Bay. Background research, field work and a site analysis were completed to help develop alignment options. Each option was evaluated leading to the selection of the recommended routes.

Sweeping views of Discovery Bay from the study area.
Background

Jefferson County developed the 7.3 mile long Larry Scott Trail from Port Townsend to the Milo Curry Road Trailhead over 24 years from 1989 to 2012. The Larry Scott Trail is largely within an abandoned rail corridor, has a gravel surface and is intended for use by people walking, riding bicycles and riding horses. More recently, Jefferson County completed a 3,800-foot paved segment of the ODT on the west shore of Discovery Bay. The county’s 1998 Comprehensive Plan and other long-range plans have called for completion of the ODT, including references to closing the gap addressed in this study.

The current route of the Olympic Discovery Trail and the Pacific Northwest National Scenic Trail for this segment takes users on State Route 20 for more than 6 miles from Four Corners Road to Highway 101 at Discovery Bay. The road is characterized as a narrow, curving, two-lane highway, with guardrails, stretches with little to no shoulders, abrupt drops from the edge of pavement into steep drainage ditches, and grades up to 6%. Traffic volumes are between 5,000 and 6,000 annual average daily trips (AADT), increasing at more than 5% per year, including a large proportion (more than 8%) of commercial trucks. The posted speed limit is 50 miles per hour.

Cross-country cyclists, some of whom have ridden thousands of miles on highways across the US, have characterized this segment of their long-distance journey as the most terrifying.

Approach

This study defines the overall goals, design guidelines and approach to developing a premiere regional multi-use trail.

The study assessed existing conditions, including identification of existing trails that could connect or link the corridor, land uses and ownership patterns in the study area, existing rights-of-way, environmentally sensitive areas, steep and unstable slopes, and safety hazards.

Larger regional connections and potential destinations were identified. Community input was gathered on existing conditions in an open house.

Alignment options were evaluated based on criteria such as length of segment, aesthetic appeal, proximity to desirable destinations, physical constraints of the terrain, natural and cultural resource values, development cost, available right-of-way, land use and property ownership.
Recommendation

As a result of this study the ODT-E was divided into three segments (North, Central, and South) with three feasible alternative alignments identified within each segment. With further study and negotiation with property owners, it is anticipated that a final alignment will link the most appropriate alternative from each segment to complete an approximately 10-12 mile long trail connection.

Several dramatic challenges are met with the alternative alignments, including steep slopes, streams and wetlands, crossing the highway and accommodating commercial forest uses. The benefits that will be realized include a safe passage through the region’s premier landscape with panoramic views over icons of the Pacific Northwest, providing a transportation and recreation resource for locals and visitors, health and economic benefits for the community and the nation.

At this early planning stage, with the exact locations of the trail yet to be determined, the costs of construction are very difficult to estimate.

Further study can help refine the alignment to reduce acquisition and development costs.
Exploring the study area near Anderson Lake State Park
PROJECT OVERVIEW
1.1 CONTEXT

Setting

The northern Olympic Peninsula is an iconic landscape bounded by the Strait of Juan de Fuca at the foot of the Olympic Mountain Range. Port Townsend at the northeast corner of the peninsula is the seat of Jefferson County, and for many visitors the beginning of their adventure, whether arriving by ferry, bicycle or by private vehicle. To the west in neighboring Clallam County, the cities of Sequim, Port Angeles and Forks, and nearby small towns provide waypoints and important destinations including Olympic National Park, the ferry to Victoria, BC, Lake Crescent and LaPush at the Pacific Ocean. The Olympic Discovery Trail, envisioned decades ago, will eventually make the 130-mile connection from Port Townsend to LaPush. The Eaglemount section of the trail will also be part of the Pacific Northwest National Scenic Trail, connecting Olympic National Park to Glacier National Park.

Population Growth and Development

The 2017 population of Jefferson County was 31,200, growing modestly since the 2010 census. Port Townsend accounts for approximately one third of the county’s population.

Demographics

In addition to the economic, transportation and recreation benefits of the proposed Olympic Discovery Trail - Eaglemount (ODT-E), groups without access to a vehicle will benefit from nearby access to a new recreation and transportation resource that does not require driving to enjoy. Children, the elderly and those without vehicles account for a significant proportion of the county’s population: 34% are over age 65 and more than 11% of the households in the county include an individual over the age of 65, living alone. Over 40% of people aged 65-74 have obesity. 23% of the population are children under 18 years of age, and 80% have health risk behaviors related to insufficient physical activity. 10% of youth have obesity.

ENDNOTES


1.2 VISION STATEMENT

The vision of this study is to determine, in coordination with the community and trail advocates, the most advantageous routes to provide an off-highway multi-modal trail connection between the Larry Scott trailhead at Milo Curry Road and the Olympic Discovery Trail at Discovery Bay.

1.3 GOALS & OBJECTIVES

Goal: Safety - Provide an alternative to state and local highways for active transportation

- Move recreational users off Highway 20, making the highway safer for motorists and providing a safe route for trail users between Four Corners Road and the head of Discovery Bay.
- Develop a continuous multi-use trail, meeting best-practice design guidelines, including roadway crossings.
- Accommodate maintenance, security and emergency vehicle access.

Goal: Mobility - Provide active transportation options

- Improve multi-modal access for people of all ages and abilities to the Olympic Discovery Trail.
- Promote physical activity and environmentally sustainable transportation networks.
- Connect the ODT to local recreational opportunities.

Goal: Accessibility - Provide opportunities to experience the trail for many user groups

- Develop a continuous multi-use trail accessible to people walking, hiking, riding bicycles, equestrians, and wheelchair users.

Goal: Provide an exceptional user experience

- Improve the transportation and recreation trips on the Olympic Discovery Trail by providing new opportunities and direct access to the possibilities offered by the Olympic Peninsula, Port Townsend, and Discovery Bay areas.
- Incorporate natural and cultural resource stories of the area in the design of the trail (scenic views, interpret natural and cultural assets) to provide an enjoyable and enriching experience.

Goal: Economic - Provide opportunities for economic benefits

- Contribute to the development of a regional amenity that will attract people to the Olympic Peninsula.
- Use the trail to promote local activities, events, and businesses in Port Townsend and Jefferson County.
- Identify cost-saving design options and construction strategies.
- Provide opportunities for residents to increase their personal active lifestyles and decrease vehicle trips.

Goal: Land Use - Develop a public amenity that is compatible with adjacent land uses

- Work with local partners and the community to identify an accessible alignment for the trail.
- Accommodate the needs of the property owners adjacent to the trail.

Goal: Public Support - Respond to the general local, regional and statewide call for a continuous ODT

- Develop a recommended alignment that is supported by the community as well as state and local agencies.
1.4 BENEFITS OF DEVELOPING THE CONNECTION

More residents using trails and pathways results in fewer crashes between pedestrians/bicyclists and motor vehicles, improving safety for trail users and decreasing costs to local governments.\(^1\)

Introduction
Will the Olympic Discovery Trail - Eaglemount (ODT-E) connection provide safety for both motorists and non-motorists, new and enhanced access to outdoor recreation opportunities, offer more opportunities for physical activity and associated community health benefits, support local economies through tourism spending, provide low-stress utilitarian/transportation mobility, and reduce impacts on the natural environment? Trails can improve the quality of life for the communities they connect, and foster a sense of appreciation and stewardship for the natural environment, and for the history and cultures they are tied to. More residents using trails and pathways results in fewer crashes between pedestrians/bicyclists and motor vehicles, improving safety for trail users and decreasing costs to local governments.\(^1\)

The following section provides an overview of how trails can provide these benefits.

Economic Benefits
Trails provide a host of outdoor recreational opportunities for exercise and enjoyment including casual strolls, hiking, biking, skating, fishing, bird-watching, horseback-riding, and sightseeing. These recreational benefits translate into real dollars in terms of tourism/visitor spending and job creation.

Outdoor recreation contributes more than $26.2 billion in consumer spending to Washington’s economy every year. Across Washington, outdoor recreation supports 201,000 jobs, generates $2.3 billion annually in state and local tax revenue, and produces $7.6 billion in wages and salaries. 72% of Washington residents participate in outdoor recreation each year.\(^2\) On the Olympic Peninsula, outdoor recreation contributes $1.6 billion in annual expenditures and growing, accounting for more than 12% of all employment.\(^3\)

Bicycling generates approximately $133 billion per year nationwide. In the Pacific Region (WA, OR, HI, AK, CA) recreational bicycling contributes $15 billion to the regional economy, supports 135,000 jobs, generates $1.9 billion annually in state and federal tax revenues, produces $10.4 billion in retail sales and services, $1.4 billion in bicycling gear sales and services, and $9.0 billion in bicycling trip-related expenditures.
every year. Nearly 30% of the adult population in the Pacific Region participates in the bicycling economy. Trails create 23% more jobs than road construction-only projects per $1 million spent.

Creating complete, connected trail systems is key to unlocking these benefits in local communities. A study conducted in Atlanta found that filling 72 miles of priority gaps in the regional trail network would generate up to $135,000 in benefits annually, for every mile of trail constructed. The ODT-E will close a key gap in the overall trail system, attracting a wider array of users who will spend more time and make greater expenditures in the region.

Tourism benefits for small local businesses

Studies of key regional trails in rural areas around the country have consistently found strong positive economic impacts for small towns along trails. In Oregon, a statewide study concluded that bicycle tourism has a particularly large effect in small towns, especially when associated with major events. A study of a 31-mile trail running through small towns in rural Louisiana found estimated annual economic benefits of $3.4 million for direct spending and $3.9 million for indirect spending related to the trail. The 60-mile Schuylkill River Trail in Pennsylvania, part of the Circuit Trails system, has a direct economic impact of $7.3 million.

A study of the Virginia Creeper Trail, a 34-mile rail-trail in rural southwest Virginia found that the promotion of trail-related recreation and tourism is a viable strategy for local economic growth. Connecting to an extensive, destination trail system can be especially beneficial for small towns, as the study found that tourists who visit for the primary purpose of using the trail and stay overnight account for almost five times as much stimulated economic output as those who do not stay overnight. Bicycle tourists may stay longer than the average tourist; a Montana study found that cyclists spend $76 per day and stay an average of eight nights in the state. The study noted that building facilities separated from vehicle traffic helps to attract bicycle tourists, as safety was the top priority of this type of tourist.

Businesses consistently attribute part of their economic success to the presence of trails. The Great Allegheny Passage trail runs 150 miles from Pittsburgh, PA to Cumberland MD. 45 businesses in the small towns along the trail were surveyed. Of the 18 businesses planning to expand, 67% cited the trail as a factor in their decision-making. On average, businesses attributed 41% of their business to the trail. In Clallam County, the North Olympic Discovery Marathon alone brings between $500,000 and $1 million each year.

Benefits to local residents

Trails provide a financial benefit to local trail users. The Virginia Creeper Trail study found that user net economic value for recreation access to the trail was approximately $24-38 per person per trip.

In many small towns, trailheads served as community focal points and gathering places in each city, further benefiting local residents.

Property values

Trails typically have a positive impact on local property values. Homes located near trails often have 5%-10% higher values. Houses in higher walkable areas are worth up to $34,000 more than similar houses in areas with moderate walkability/bikeability. In rural Methow Valley, Washington, homes within one-quarter mile of trails experienced a 10 percent price bump. ...
When residents have access to safe places to walk within 10 minutes of home, they are one and a half times more likely to meet recommended activity levels than those who don’t have access to safe places to walk.21

Physical Activity and Community Health Benefits

19% of adults in Washington are physically inactive, and 26.4% of adults are obese.18 Trails provide excellent opportunities to increase physical activity and improve community health decreasing the risk of cardiovascular disease, obesity, diabetes, hypertension, depression, and other illnesses. This results in a significant reduction in direct healthcare costs, and bears increased significance for aging communities. In fact, every $1 spent on bike trails and walking paths saves an estimated $3 in health costs.19

Enhancing access (for example, by building a bike path to encourage physical activity), is correlated with some of the highest life expectancy gains, and demonstrates high cost-effectiveness when compared to infrastructure costs and other community-based physical activity interventions.20

Creating accessible opportunities for people to exercise is essential for improving health. When residents have access to safe places to walk within 10 minutes of home, they are one and a half times more likely to meet recommended activity levels than those who don’t have access to safe places to walk.21 In rural, southeastern Missouri, trails increased exercise particularly among people most at risk of inactivity, those who are not regular walkers, have a high school education or less, or who earn under $15,000 per year. Trails that are at least a half mile long, paved, or located in the smallest towns were associated with the largest increases in exercise.22

Comprehensive trail systems can give people new access to outdoor recreation opportunities in ways that improve health and reduce the costs and burdens of health care. For example, in Southeast Wisconsin, the Route of the Backer offers new access to outdoor recreation, with the potential for improved physical activity and a savings in direct health-care costs of over $22.4 million.23

Transportation Benefits and Opportunities

When trails connect local and regional destinations, they can provide incredible transportation utility for everyday trips taken by foot or bike. If more trails were available for everyday transportation this would result in reduced congestion, fuel consumption, vehicle emissions, and household expenditures for vehicle ownership and
operation and maintenance.

Many everyday travel needs could be met by biking and walking, if safe facilities were available:

- 11.9% percent of all trips taken in the U.S. are made by walking and biking (6.9 percent to 9.6 percent in rural communities)
- 50% of all trips in the U.S. are under 20 minutes by biking (3 miles)
- 28% of all trips in the U.S. are under 20 minutes by walking (1 mile)
- In urban areas, 53% of trips are under 3 miles or less (20% of trips are 1 mile or less)
- In non-urban areas, roughly 37% of all trips are 3 miles or less (20% of trips are under one mile)

**Environmental Goals and Benefits**

Trails are tied to a host of environmental benefits, including reduced emissions and improved air quality, enhanced water quality, energy independence, preservation of ecologically-sensitive areas, flood mitigation, wildlife habitat preservation, and environmental stewardship.

The Rails-to-Trails Conservancy estimates that by 2030, short trips by walking or biking could amount to $7.3-$14.8 billion in fuel savings, and $126-$218 million in CO2 emissions reductions nationally.26

A local equestrian group estimates most horse traffic use on the ODT-E would be in winter when mountain trails are covered in snow, and roads are inaccessible to trailers. Up to 50 group members may make horse trips per winter month, in addition to non-member equestrian use.
ENDNOTES
3 ECONorthwest. Peninsula RTPO Economic Impacts of Regional Trails (2018).
7 ECONorthwest. Peninsula RTPO Economic Impacts of Regional Trails (2018).
1.5 PUBLIC OUTREACH

Open House #1

An open house was held on April 12th, 2018 to discuss the development of an off-road bypass of State Route 20 for the Olympic Discovery Trail from Discovery Bay to the Larry Scott Trail in Port Townsend. An overflow crowd of more than 120 people attended the meeting held at the Jefferson County Transit building. Attendees were able to provide feedback through comment cards, leaving notes on the maps and conversations with staff. 66 comment cards were completed by participants. In addition, for those that could not attend, comments were collected via email throughout the month. Below is a summary of the survey responses and comments received via email and in person at the open house.
Are there places you visit or bring friends and family?

The most popular destinations among survey respondents include Anderson Lake State Park and nearby trails, Discovery Bay and Gibbs Lake, with more than 25 responses noting at least one of these locations. Other locations mentioned include Tamanowas Rock Sanctuary, Chimacum, the DNR trails south of Anderson Lake State Park and at least one response mentioned that they prefer any corridor off of Highway 20.

Are there stories, historic sites or significant features to explore?

Several responses noted Tamanowas Rock Sanctuary and Anderson Lake State Park as being significant to the area. Most responses to this question listed more than one location or feature, including those listed below.

- Tamanowas Rock
- Anderson Lake State Park
- Discovery Bay
- Wildlife viewing (eagle and osprey nests, elk) and fishing
- Sites of geologic interest
- Gibbs Lake
- Eaglemount
- Jamestown Cliff sites
- Wooded trails

How do you use Larry Scott Trail now?

Walking, biking, horseback riding and other were all marked as current uses for the Larry Scott Trail, with walking and biking making up the majority of responses. Horseback riding is a popular activity in the area and riders expressed concern about the inclusion of this use in survey responses. Responses for “other” primarily noted running as another use of the trail.

Do you have guests visit the trail?

More than half of those who completed the open house survey noted that they bring guests to the trail or direct them to the trail when visiting.
Other locations mentioned include Tamanowas Rock, Chimacum, the DNR trails south of Anderson Lake State Park and at least one response mentioned that they prefer any corridor off of Highway 20.

Have you ridden or walked on Highway 20 between Discovery Bay and Four Corners?

The overwhelming majority do not ride or walk on Highway 20 citing it as a dangerous, narrow and heavily trafficked road with no shoulder or way for vehicles to safely pass bicycles or pedestrians. The majority of respondents expressed fear of the highway whether from experience bicycling or walking along it or based on driving the highway.

What would make this journey fun and convenient for you?

Several people listed additional amenities as something that would make their journey more fun, while others listed safety and access to the trail as important. Below is a list of all responses:

- Picnic tables, benches, and hitch rails for equestrians
- Well maintained trails to draw local and out of town users
- Safety
- Changing scenic views, open spaces and forests
- Combination of valley scenery and bay scenery
- A separate trail, not sharing the road with vehicles
- A gentle grade
- The majority of respondents prefer an unpaved trail, suitable for horseback riding, although a few responses suggested a paved trail
- Complete connection between Discovery Bay and Larry Scott Trail
- Bathrooms
- Wide trail
- Concessions available at Anderson Lake State Park
- Use transmission line right of way
- One respondent wanted to ‘keep people away from my property’
- Supporting independent businesses
- A path that follows the ridge through Anderson Lake and DNR logging land
- Access for surrounding communities
- Opportunities to exercise

Steve Durrant, ODT-E project director at Alta Planning + Design, discusses trail alignment with the overflow open house crowd.
Additional comments?

• “Moved to be near the trail!”
• Concerns about future meeting [room] capacity and [meeting] direction
• Concern about trail being too close to private property
• How can the community get involved/help?
• “What about access from Cape George to Larry Scott?”
• “Let’s make it happen!”
• Use power line access, Pope properties to connect Anderson Lake and Gibbs Lake
• Concern about the trail grade being too steep
• Vital to local economy!
• Consider Center Road
• Trails at Anderson Lake don’t cover enough distance for most riders (horseback)
• A safer way to get around
• Potential concerns about hunting season and proximity to the trail
• “Please don’t spend money on over-planning when we need to acquire property for the trail”
General Comments (Email Responses):

Overall, email responses were in support of the trail and expressed concerns about the safety of Highway 20. Below are key themes from email responses.

• Unleashed dogs on the current trail are a problem for some users

• Many private landowners are concerned about the trail potentially crossing their property and suggest that the land should stay on government owned land.

• Suggestion made that the trail should utilize the City Lake Reservoir area.

• One response requested special consideration for motorcycle riders and suggest that they utilized some existing trails.

• An email response noted that they often travel out of the area to find safer places to ride their bikes and expressed a general frustration with the area's trail options.

• Concern about paving the Larry Scott Trail

• Interest in making trail safe for families

• Steep hills may be challenging for some

• Consider how nearby home-owners might access the trail without having to travel on the highway

• Shuttle service suggested to create a temporary connection for users.

Additional Meetings

As of the publication of this report, no additional public meetings had been scheduled.

Open house, where many expressed excitement about the future trail. One attendee said they even “moved to be near the trail!”
Extensive field evaluation was made by the team and trail advocates.
EXISTING CONDITIONS
2.1 REVIEW OF BACKGROUND DOCUMENTS

Jefferson County Comprehensive Plan

Consistent with the requirements of the Growth Management Act, Jefferson County’s former 2004 Comprehensive Plan included the following language:

The vision for the Larry Scott Memorial Trail is to provide future generations with a safe, non-motorized recreation and transportation corridor connecting Port Townsend with rural Jefferson County. As proposed, the route extends approximately seven miles from the Port of Port Townsend Boat Haven to Four Corners Road. The long-term vision is to extend the trail to Discovery Bay and eventually to points further west.1

In accordance with this stated vision, the Jefferson County Comprehensive Plan formerly included specific trail plans that bypassed SR 20. The current 2018 Comprehensive Plan, consistent with the Growth Management Act, refers to Goals and Policies for trails and refers to the Parks & Recreation Open Space Plan, updates adopted in 2015.

Jefferson County Non-Motorized Transportation & Recreational Trails Plan

In 2010, the County Non-Motorized Transportation & Recreational Plan was updated, and included the following language under the heading 8.1 Multipurpose trails:

c. Develop multipurpose trail systems that connect to major destinations across county and state jurisdictional lines, such as the Olympic Discovery Trail and the Pacific Northwest Trail.

h. Develop multipurpose trails as separate improvements within a shared road or former railroad right-of-way alignment, such as the Olympic Discovery Trail (ODT) within the former right-of-way of the Seattle & North Coast Railroad (S&NCRR), to the extent amenable to adjoining property owners and as necessary to complete access.

i. Locate multipurpose trails as separate improvements within easements across public and private lands, such as extending the Olympic Discovery Trail across Department of Natural Resources and Pope Resources timberlands and Department of Fish and Wildlife shoreline properties, where private property owners are in agreement and environmental affects are addressed.2

The County Non-Motorized Transportation & Recreational Plan, also included the following description of multipurpose trails:

Multipurpose trails may be developed to link major environmental assets, park and recreational facilities, community centers, and historical features throughout Jefferson County and with adjacent jurisdictions. Generally, multipurpose trails may be developed to provide for one or more modes of recreational and commuter travel including hiking, biking, equestrian, and other non-motorized trail uses where appropriate.

To the extent possible, multipurpose trails may be developed within corridors separate from vehicular or other motorized forms of transportation. For example, multipurpose trails may be located on former railroad alignments, utility easements or in separate property alignments. In some instances, the trail may be developed as an improvement within the right-of-way of established vehicular or other transportation corridors.
Typically, multipurpose trails may be developed in accordance with Washington State Department of Transportation (WSDOT) and American Association of State Highway & Transportation Officials (AASHTO) guidelines. Multipurpose trails may provide 2-way travel on asphalt, very fine crushed rock, compact dirt, or other base of varying widths. The trails may be usable by all age and skill groups, and handicap accessible.

The County Non-Motorized Transportation & Recreational Plan specifically described four route alternatives for a multipurpose trail from Four Corners Road to Discovery Bay (Figure 2.1.1):

- **1c ODT – Utility Route**: Four Corners to Anderson Lake Road – Multipurpose trail from Four Corners south on utility easements parallel to SR-20 to Anderson Lake Road.

- **1d ODT – Utility Route**: Anderson Lake Road to Discovery Bay – Multipurpose trail from Anderson Lake Road on optional routes to Fairmount Road, the south end of Discovery Bay, and US-101. Optional routes include utility easements and old railroad grade.

- **1e ODT – Forest and Lakes Route**: Four Corners - Anderson Lake State Park – Multipurpose trail from Four Corners south on utility easements and across forestland to Anderson Lake State Park.

- **1f ODT – Forest and Lakes Route**: Anderson Lake – Discovery Bay – Multipurpose trail from Anderson Lake State Park south on utility easements, forestlands, and county roads to US-101 at the south end of Discovery Bay.

**FIGURE 2.1.1 PROPOSED TRAILS AND TRAIL CONNECTIONS**

*Jefferson County Comprehensive Plan.*

**LEGEND**

**Existing**
1a ODT - Larry Scott Memorial Trail

**Proposed**
1b ODT - Larry Scott Memorial Trail - Extension
1c ODT - Utility Route to Anderson Lake Road
1d ODT - Utility Route to Discovery Bay
1e Forest and Lakes Route to Anderson Lake State Park
1f ODT - Forest and Lakes Route to Discovery Bay
1g ODT - Discovery Bay to Clallam County.
Jefferson County Zoning

Zoning in the ODT-E study (Figure 2.1.2) area includes Neighborhood Commercial, Rural Residential, Parks/Preserves/Recreation, Rural and Industrial Forest, and Airport classifications. Multi-use trails are a permitted use in all of these classifications.

Jefferson County 2019-2024 Transportation Improvement Plan

Jefferson County’s 2019-2024 Transportation Improvement Plan (TIP), adopted on November 5, 2018 includes the South Discovery Bay to Larry Scott Trail Olympic Discovery Trail (ODT) - Connection, described as:

“Complete a preferred route report, begin PS&E development, SEPA, and right-of-way appraisal and acquisition.”

Parks, Recreation & Open Space Plan

In 2002, the Jefferson County Commissioners adopted the Parks, Recreation & Open Space Plan. The plan included the following provisions in regards to trail systems:

- a: Create a comprehensive system of multipurpose off-road trails using alignments through former MSP&P Railroad, Pope Resources, WSDOT, DNR, and USFS landholdings as well as cooperating private properties where appropriate.

- b: Create a comprehensive system of on-road bicycle routes for commuter, recreational, and touring enthusiasts using scenic, collector, and local road rights-of-way and alignments throughout Port Townsend and Jefferson County, and between Jefferson, Clallam, and Kitsap Counties.

The 2015 Update of the Parks, Recreation & Open Space Plan states:

The Olympic Discovery Trail will extend from the end of the Larry Scott Trail at Four Corners on SR 20 around the southern end of Discovery Bay to Clallam County.
Other City, County, State and Federal Trails

Jefferson County’s Parks, Recreation & Open Space Plan Update 2015 describes its plans for the Rick Tollefsen Trail between Hadlock and H.J. Carroll Park. The Rick Tollefsen Trail is now complete and once the ODT-E is completed, the Rick Tollefsen Trail could link to the Olympic Discovery Trail at Anderson Lake State Park.

The ODT-Eaglemount connection could also connect to trails, now in the conceptual stage, from the Hood Canal Bridge which in turn could connect to Kitsap County’s “String of Pearls” trail system and on to other state trails to the east and south.

This section of SR 20 has been designated as link in the Pacific Northwest National Scenic Trail (PNNST) which connects east to Whidbey Island via the Port Townsend ferry and south to the Olympic National Park. The same section has been identified as the Olympic Discovery Trail’s (ODT) connection from the head of Discovery Bay to the Larry Scott Memorial Trail from Port Townsend.

ENDNOTES


9 Bozeman, Cary and Springate, Lee. Port Gamble’s Kitsap Forest and Bay Project. 2015. wshg.net/featured/2015-05-14/port-gambles-kitsap-forest-and-bay-project/


2.2 SITE CHARACTER

Quimper Peninsula

The Quimper Peninsula is a narrow peninsula forming the most northeastern extent of the Olympic Peninsula of Washington state. The peninsula is named after the Spanish explorer Manuel Quimper. The Quimper Peninsula is the most economically developed and densely populated part of Jefferson county with Port Townsend as the only incorporated city. The communities of Cape George, Port Hadlock, Irondale, and Chimacum are on the peninsula south of Port Townsend.1

Chimacum, just south of Port Hadlock and three miles east of Discovery Bay, was the location of the Chem-a-kum tribe.2 The S’Klallam people living in the Discovery Bay area are represented by the Jamestown S’Klallam Tribe.3

Glaciation

Within the ODT-E study area, evidence of glaciation can be found in large glacial erratics (granite boulders), scoured bedrock outcrops, glacial outwash soils, and the long north/south ridges so visible in the LiDAR landform mapping used as a base for many maps in this report. The resulting landforms are long steep ridges reaching over 900 feet in elevation at Eaglemount summit overlooking City Lake (elev. ~610ft) and often varies by hundreds of feet vertically within very short distances. In fact, the topography of the region has defined travel patterns throughout human habitation and recorded history.

From clearings on the ridges and highpoints dramatic panoramic views can be found of the Straits of Juan de Fuca, the Olympic Mountains, the Cascade Range and the surrounding landscape.

Geology

The Olympic Peninsula is a relatively newer piece of the west cost with the oldest rocks approximately 50 million years ago. The intersection of piece’s of the earth’s crust, erosion of water, and advancing and retreating of ice sheets formed the peninsula.4

The vegetation of the region includes commercially valuable second and third growth coniferous and deciduous forests, occasional old growth trees, modest meadows and prairies, and wetlands typical of the northeastern edge of the Olympic Peninsula. In some places, thick underbrush and dense commercial tree plantations can result in entirely enclosed forests with no views.
As a factor in multi-use trail planning, the terrain, geology, soils and vegetation of the study area provide great opportunities for scenic enjoyment, interpretation, and resource enhancement. The existing conditions also present challenges in steep slopes, slope stability, and blocked views.

State Route 20

Washington State Route 20 is a two-lane highway with approximately 6,000 average annual daily traffic and a posted speed limit of 50 miles per hour. The curving roadway has minimal to no shoulders, guardrails and advisory speeds in some sections of 35 miles per hour. SR20 is centered in a right-of-way that varies from 60’ to 100’ wide. Much of the road right-of-way in the study area includes very steep side hills with cliffs or extreme slopes adjacent above and/or below the roadway. The right-of-way for SR 20 is too narrow to allow for a sufficiently separated path or trail facility. Even if a trail could in some way be constructed next to the highway with a series of very-expensive walls and bridges, it would not provide an experience comparable to that provided throughout the rest of the Olympic Discovery Trail in terms of user experience, safety and immersion in the natural environment. On-road designation is not a suitable alternative in the SR 20 right-of-way. In addition, feedback received from the public indicated a general negative desire for the Olympic Discovery Trail - Eaglemount (ODT-E) to be included within the SR 20 right-of-way due to safety and overall user experience.

“That was the most terrifying piece of highway I can honestly say I’ve ever ridden, and I’ve ridden in New Zealand, Mexico, U.S., Europe … You’ve got a bad ditch and you’ve got the road … I’m surprised there aren’t more accidents and fatalities on this road …. I thought I was going to die. I’m not over-exaggerating, I thought this is, this is, my moment.”

Two Port Townsend residents

ENDNOTES


State Route 20 has a posted speed limit of 50 mph but many vehicles may travel faster.
STATE Route 20 is a curving, high-speed roadway without adequate accommodations for trail users.

Old RR alignment has passed out of public ownership and is prone to landslides and erosion.

Wetland buffering and mitigation required.

Forest management areas.

Steep slopes.

High points provide sweeping views.

Municipal drinking water protection concerns.

Existing utilities may require structural and security improvements.

Steep slopes (and cliffs), unstable soils, erosion hazards and landslide hazards are typical.

County owned park.

New Jefferson County Transit Regional Facility w/ park-and-ride and bike barn.

Steep slopes.

Anderson Lake is a destination.

Steep slopes.

Homes and shellfish farm on old RR grade along shore.

Curving & steep highway.

Wetland buffering and mitigation required.

State Route 20 is a curving, high-speed roadway without adequate accommodations for trail users.

Old RR alignment has passed out of public ownership and is prone to landslides and erosion.

Wetland buffering and mitigation required.

Forest management areas.

Steep slopes.

High points provide sweeping views.

Municipal drinking water protection concerns.

Existing utilities may require structural and security improvements.

Steep slopes (and cliffs), unstable soils, erosion hazards and landslide hazards are typical.

County owned park.
2.3 OPPORTUNITIES AND CONSTRAINTS

The team used Jefferson County Geospatial Information Systems (GIS) data for land use, ownership, natural and cultural resources and hazards to map opportunities and constraints to trail construction in the study area (Figure 2.3.1). Opportunities to link the trail to other natural resources such as parks were indicated on this mapping as well. Roadways are included to show possible connections. Wetland areas are included for consideration of both the opportunities for views and other recreational opportunities as well as the possible limitations they may require to trail development. Additional field work was conducted to provide more fine-grained evaluation in limited areas.

The current link in the Olympic Discovery Trail across the study area follows over 7 miles of State Route 20.

State Route 20 has very narrow shoulders not suitable for equestrian and pedestrian use, and unsafe for people riding bicycles.

The study area includes large tracts of private and public commercial forest. Coordinating trail alignment with forest management practices is a key consideration in selecting a recommended alignment.
opposite: Fairmount Road, at the southwestern end of the study area is a low-volume local road.
ALIGNMENT ALTERNATIVES
FIGURE 3.1.1 ALIGNMENT OPTIONS
3.1 ALIGNMENT OPTIONS

More than 100 miles of potential alignments were explored by the project team, client, or advocates, in search of the optimum connections.

The alternatives mapped and evaluated in this study represent a shortlist of contiguous segments that connect the main destinations, providing a way to compare and ultimately select a recommended alignment for further study, acquisition and design.

The potential alignments were divided into segments, which traverse between four destinations: The Larry Scott Trail, Anderson Lake State Park, Eaglemount Road and the ODT at Salmon Creek. These alignment options are illustrated in Figure 3.1.1.

North Segment: Options A through C

This group of alignments are alternatives that provide access between the Larry Scott Trail at its terminus at Milo Curry Road Trailhead through Anderson Lake State Park to Anderson Lake Road. Trails would be improved within Anderson Lake State Park in a separate design exercise conforming to Washington State Parks practices. The options use state and county road ROW, Jefferson Transit Authority and Jefferson County Public Utility District properties, Washington State Parks, and residential and commercial forest parcels.

Central Segment: Options A through C

This group of alternatives provide access between Anderson Lake State Park and Eaglemount Road traversing commercial and private forest land, City of Port Townsend property, county road ROW, Washington State Parks, WA State Department of Natural Resources parcels, and rural residential parcels.

South Segment: Options A through C

This group of alternatives provide access between Eaglemount Road and the end of the previously designed extension of the Olympic Discovery Trail on the southwest side of Discovery Bay. The options use county and state road ROW, commercial forest, and rural residential parcels.

3.2 ALIGNMENT EVALUATION

Alignment selection criteria were developed in response to the grant funding requirements, county policies, and trail design guidelines. The selection criteria were based on the following considerations:

- Space to build a multi-use trail, generally separated from traffic, suitable for people riding bicycles, equestrians and people walking.
- Favor public agency lands, and roadway and utility rights-of-way
- To minimize impacts and the need for mitigation for impacts to protected resources
- Observe wetland and stream permitting, and mitigation policies
- Minimize construction on unstable slopes and soils
- Avoid shoreline and in-water impacts
- Avoid the need for the county to exercise the right of eminent domain for right-of-way acquisition
- Work closely with commercial forest operators to identify alignments with the least impact on forest operations
- Minimize potential for visual intrusion or access inconvenience to neighboring land uses
Areas Eliminated from Consideration

Areas eliminated from consideration exhibit some level of encroachment on these criteria that the project team does not believe can be effectively mitigated, or a resulting alignment alternative would be clearly inferior in one or more ways to other alternatives under consideration.

As described in section 2.1, State Route 20 and its shoulders are not suitable for the trail. The curving, narrow, uphill stretch of SR 20 at Eaglemount is not possible for horsemen, strollers, mobility impaired persons using walkers or wheelchairs, rollerbladers, etc.
Old railbed alignment along Discovery Bay water’s edge: This area was eliminated for multiple reasons. Much of the old rail bed between Anderson Lake Road and Fairmount Road has been degraded and eroded and is prone to further erosion and other hazards, including flooding. Tidal scouring affects this shoreline, requiring significant fill and armoring to restore and reinforce the grade. Work and fill would be required in Discovery Bay necessitating complex permitting and mitigation. Following abandonment of the railroad in the 1980’s the entire right-of-way reverted to abutting land owners or other right-of-way title holders who have incorporated the property into residential development. Several of the parcels have residences or other structures constructed on them. Acquisition, permitting, construction and maintenance complications are prohibitive.

The “long way around” (via Four Corners/Rhody/West Valley/Center Roads and Routes 104/101): This alignment has been eliminated from further consideration for two primary reasons: the overall route distance is excessively long (19 miles) without significant interim destinations to justify the length of the route. It would increase the time commitment by trail users without a significant increase of experiential opportunities. Secondly, trail in this alignment would be placed on or adjacent to high-speed, high-volume roadways and shoulders. This alignment would significantly increase safety risk, including more than 120 driveways and road crossings, and diminish user experience throughout the journey.

“As a Washington State Patrol sergeant that supervises troopers in Jefferson County, I wholeheartedly support the study and development of such a recreational trail. My troopers regularly patrol SR 20 often observing cars, logging trucks, loaded chip trucks, motorhomes, trucks with trailers, etc, trying to navigate SR20 over Eaglemount while dealing with bicyclers, hikers, and oncoming traffic. I myself was assigned to patrol SR 20 often so I know firsthand how dangerous it is...”

Sergeant John Ryan, Washington State Patrol, Port Angeles Detachment
# TABLE 3.2.1 ALIGNMENT OPTIONS EVALUATION CRITERIA

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Less suitable</th>
<th>Suitable</th>
<th>Desirable</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>Roadway crossings, length of exposure to driveways &amp; roadways</td>
<td>Most crossings &amp;/or roadway sections</td>
<td>Many crossings &amp;/or roadway sections</td>
<td>Some crossings &amp;/or roadway sections</td>
<td>Least crossings &amp;/or roadway sections</td>
</tr>
<tr>
<td>ROW &amp; Acquisition</td>
<td>Existing public land or private land (Length through private ownership)</td>
<td>Most private, unknown or uninterested</td>
<td>Private, interested</td>
<td>Public &amp; private, interested</td>
<td>Most public land / ROW, fewest private</td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>Conflict with noted environmental constraints (landslide hazard, steep slope, wetlands, etc.)</td>
<td>Many constraints requiring mitigation</td>
<td>Some constraints that can be mitigation</td>
<td>Limited constraints</td>
<td>Fewest constraints</td>
</tr>
<tr>
<td>Accessibility for People with Mobility Challenges</td>
<td>Access &amp; suitability for people using mobility devices</td>
<td>Extreme measures to achieve ADA (rock cutting)</td>
<td>Moderate measures required (switchbacks)</td>
<td>Long climbs</td>
<td>Flat or short climbs</td>
</tr>
<tr>
<td>Cost</td>
<td>Need for bridges, tunnels, retaining walls - constructibility</td>
<td>Very difficult conditions</td>
<td>More than one difficult situation</td>
<td>Some additional construction required</td>
<td>Clear sailing</td>
</tr>
<tr>
<td>Length</td>
<td>Relative length of segment</td>
<td>Longest segment</td>
<td>Moderately long segment</td>
<td>Moderately short segment</td>
<td>Shortest segment</td>
</tr>
<tr>
<td>Land Use</td>
<td>Conflict with existing uses (residential, commercial, utilities, forest management, hunting, ORV, etc.)</td>
<td>Conflicts with land use that can’t be mitigated</td>
<td>Conflicts with many land uses that can be mitigated</td>
<td>Conflicts with some land uses that can be mitigated</td>
<td>Fewest conflicts with other uses</td>
</tr>
<tr>
<td>User Experience</td>
<td>Scenic Views, Access/connections to destinations, environmental conditions of trail (shade, sun, wind direction, noise)</td>
<td>Least pleasant</td>
<td>No drama</td>
<td>Handsome passage</td>
<td>Great route &amp; destinations</td>
</tr>
<tr>
<td>Vertical Change</td>
<td>Relative elevation change. Feet of climbing</td>
<td>Most elevation change</td>
<td>Moderate elevation change</td>
<td>Some elevation change</td>
<td>Least elevation change</td>
</tr>
</tbody>
</table>
### TABLE 3.2.2 ALIGNMENTS EVALUATION

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway crossings, length of exposure to driveways &amp; roadways</td>
<td>2 crossings (SR-20 &amp; 4 Corners Rd), 0.5 miles along Discovery &amp; 4 Corners RdW</td>
<td>2 crossings (Discovery Rd &amp; SR-20), 0.6 miles on Adelma Bch Rd &amp; along SR-20</td>
<td>2 crossings (SR-20 &amp; 4 Corners Rd), 1.3 miles along Discovery &amp; 4 Corners Rd</td>
<td></td>
</tr>
<tr>
<td>Existing public land or private land (Length through private ownership)</td>
<td>County, WSDOT, JTA, JPUD, State Park, 2.45 miles within 2 private owners</td>
<td>County, WSDOT, State Park, 1.85 miles within 2 private owners</td>
<td>County, WSDOT, JTA, State Park, 1.55 miles within 3 private owners</td>
<td></td>
</tr>
<tr>
<td>Conflict with noted environmental constraints (landslide hazard, steep slope, wetlands, etc.)</td>
<td>Some: steep slope, wetland, stream</td>
<td>Fewest constraints</td>
<td>Some: steep slope, wetland, stream</td>
<td></td>
</tr>
<tr>
<td>Access &amp; suitability for people using mobility devices</td>
<td>Moderate measures required (switchback)</td>
<td>Fewest constraints</td>
<td>Moderate measures required (switchback)</td>
<td></td>
</tr>
<tr>
<td>Need for bridges, tunnels, retaining walls - constructibility</td>
<td>More difficult: cross highway &amp; road, retaining wall, cross stream, cross wetland</td>
<td>Very difficult: cross road, retaining wall, tunnel under highway</td>
<td>More difficult: cross highway &amp; road, retaining wall, cross stream, cross wetland</td>
<td></td>
</tr>
<tr>
<td>Relative length of segment</td>
<td>Moderately short, 3.9 miles</td>
<td>Moderately short, 3.7 miles</td>
<td>Moderately short, 4.0 miles</td>
<td></td>
</tr>
<tr>
<td>Conflict with existing uses (residential, commercial, utilities, forest management, hunting, ORV, etc.)</td>
<td>residential, commercial, forest, utilities, hunting, ORV</td>
<td>residential, forest, utilities, hunting, ORV</td>
<td>residential, commercial, forest, hunting, ORV</td>
<td></td>
</tr>
<tr>
<td>Scenic Views, Access/connections to destinations, environmental conditions of trail (shade, sun, wind direction, noise)</td>
<td>Handsome route &amp; great destination: Anderson Lake State Park, Discovery &amp; 4 Corners Rd, 1.1 miles view preserved under powerline, woodland</td>
<td>Handsome route &amp; great destination: Anderson Lake State Park, Adelma Beach Rd, SR-20, 0.4 miles view preserved under powerline, woodland</td>
<td>No drama &amp; great destination: Anderson Lake State Park, Discovery &amp; 4 Corners Rd, woodland</td>
<td></td>
</tr>
<tr>
<td>Relative elevation change. Feet of climbing</td>
<td>Some elevation change (280 feet)</td>
<td>Some elevation change (300 feet)</td>
<td>Least elevation change (210 feet)</td>
<td></td>
</tr>
</tbody>
</table>

**Key**
- Less suitable
- Suitable
- Desirable
- Excellent
### Central Segment

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 crossing (Anderson Lake Rd), 0.5 miles along Grouse Ln</td>
<td>1 crossing (Anderson Lake Rd), 0.2 miles along Eaglemount Rd</td>
<td>2 crossings (Anderson Lake &amp; Eaglemount Rd), 6.6 miles along Gibbs Lake, W. Valley, W. Egg &amp; I, Eaglemount, Old Eaglemount Rd</td>
</tr>
<tr>
<td>County, City of Port Townsend, State Park, DNR, 1.2 miles within 1 private owner</td>
<td>County, City of Port Townsend, State Park, DNR, 2.6 miles within 2 private owners</td>
<td>County, State Park, DNR, 2.9 miles within 1 to 7 private owners of unknown interest</td>
</tr>
<tr>
<td>Many; landslide hazard, steep slope, wetland, stream</td>
<td>Many; steep slope, wetland, stream</td>
<td>Many; steep slope, wetland, stream</td>
</tr>
<tr>
<td>Long Climbs</td>
<td>Extreme measures to achieve ADA (cut rock)</td>
<td>Does not achieve ADA (follows existing roads)</td>
</tr>
<tr>
<td>Very difficult: cross road, bridge, retaining wall, security fence, cross fish bearing stream, wetland cross</td>
<td>Very difficult: cross road, retaining wall, cut cliff, cross fish bearing stream, wetland cross</td>
<td>Very difficult: cross road, retaining wall, cross fish bearing stream, wetland cross</td>
</tr>
<tr>
<td>Shortest 3.4 miles</td>
<td>Longest, 11.1 miles</td>
<td>Longest, 11.1 miles</td>
</tr>
<tr>
<td>residential, forest, greater # of utilities</td>
<td>residential, forest, fewer # of utilities hunting</td>
<td>residential, forest, hunting</td>
</tr>
<tr>
<td>Great: Discovery Bay &amp; Olympic Mountain views, Grouse Ln, woodland</td>
<td>Great: Eaglemount summit, Discovery Bay &amp; Olympic Mountain views, Eaglemount Rd, 0.9 miles view preserved under powerline, woodland</td>
<td>Least pleasant but great destination: Gibbs Lake Park, Roads: Gibbs Lake, W. Valley, W. Egg &amp; I, Eaglemount, Old Eaglemount, woodland</td>
</tr>
<tr>
<td>Least elevation change (400 feet)</td>
<td>Most elevation change (570 feet)</td>
<td>Moderate elevation change (520 feet)</td>
</tr>
</tbody>
</table>

### South Segment

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>County, WSDOT, WDFW, 1.65 miles within 2 private owners, 1 of unknown interest</td>
<td>County, WSDOT, WDFW, 2.1 miles within 6 private owners, 5 of unknown interest</td>
<td>County, WSDOT, WDFW, 2.1 miles within 6 private owners, 5 of unknown interest</td>
</tr>
<tr>
<td>Many; landslide hazard, steep slope, wetland, fish bearing stream</td>
<td>Many; landslide hazard, steep slope, wetland, stream</td>
<td>Many; steep slope, wetland, stream</td>
</tr>
<tr>
<td>Does not achieve ADA (follows existing roads)</td>
<td>Does not achieve ADA (follows existing roads)</td>
<td>Does not achieve ADA (follows existing roads)</td>
</tr>
<tr>
<td>Very difficult: cross highway &amp; road, bridge, retaining wall, cross fish bearing stream, wetland wetland</td>
<td>Very difficult: cross highway &amp; road, bridge, retaining wall, cross fish bearing stream, wetland wetland</td>
<td>Very difficult: cross highway &amp; road, bridge, retaining wall, cross fish bearing stream, wetland wetland</td>
</tr>
<tr>
<td>Very difficult: cross road, bridge, retaining wall, security fence, cross fish bearing stream, wetland cross</td>
<td>Very difficult: cross road, retaining wall, cross fish bearing stream, wetland cross</td>
<td>Very difficult: cross road, retaining wall, cross fish bearing stream, wetland cross</td>
</tr>
<tr>
<td>Shortest, 2.7 miles</td>
<td>Moderately short, 3.3 miles</td>
<td>Moderately short, 3.4 miles</td>
</tr>
<tr>
<td>residential, forest, utilities, hunting</td>
<td>residential, forest, utilities, hunting</td>
<td>residential, forest, utilities, hunting</td>
</tr>
<tr>
<td>Least elevation change (490 feet)</td>
<td>Some elevation change (590 feet)</td>
<td>Most elevation change (740 feet)</td>
</tr>
</tbody>
</table>

---

43
opposite: Commercial forest in the heart of the study area.
RECOMMENDED ALIGNMENTS
FIGURE 4.1.1 RECOMMENDED TRAIL ALIGNMENTS

Key:
- Existing Trail
- Alignment A
- Alignment B
- Alignment C
4.1 RECOMMENDED TRAIL ALIGNMENTS

The recommended alignments for the Olympic Discovery Trail - Eaglemount (ODT-E) will carry visitors between 10 and 18 miles from the end of the Larry Scott Trail at Milo Curry Road to the existing ODT at Discovery Bay. These routes avoid most of the winding high-speed State Route 20, carrying people walking, riding bicycles, and riding horses through wooded areas, to stunning scenic vistas, through a quiet state park, and along some of the region’s iconic waterfront resources.

This study identifies three routes that demonstrate the feasibility of the ODT-E connection, pending right-of-way acquisition. The Washington State Recreation and Conservation Office (RCO) provided funding for this study and acquisition. Acquiring trail right-of-way will conform to RCO guidelines, including acquisition from willing sellers only.1 Location of available right-of-way may be the primary determination of the final trail alignment.

Challenges along this alignment include deep ravines and fish bearing streams requiring bridges, boardwalks and mitigation at wetlands, and retaining walls and switchbacks on steep hills. Utility improvements may be necessary that are not currently in agency work plans, and coordination and acquisition will be necessary to harmonize with public and private forest management practices. The route will not be flat, but it could be accessible to people using wheelchairs and other mobility assistance. It will be a pleasant passage for all including people walking the Pacific Northwest National Scenic Trail to Olympic National Park, or bicyclists traversing cross county and equestrians patching together a route across the region.

The experiences, panoramic views, beautiful woodlands, and a safe and pleasant passage make the challenges worth facing. The solutions are not common nor without significant cost. This section summarizes the recommended alignments and presents a realistic and comprehensive opinion of the range of property acquisition.
FIGURE 4.1.2 RECOMMENDED TRAIL ALIGNMENTS: NORTH SEGMENT

Key
- Existing Trail
- Alignment A
- Alignment B
- Alignment C

Legend:
- 40ac
- 1000’
- 1/2mi
- 1mi

Map showing recommended trail alignments in the North Segment, including existing trails and three proposed alignments marked as A, B, and C.
North Segment

In partnership with WA State Parks, this segment will be built first as a natural extension of the Larry Scott Trail.

Options A & C for the northern segment of the ODT-E begin at the Milo Curry Road trailhead for the Larry Scott Trail. A sidepath on the north side of Discovery Road in county road right-of-way connects to State Route 20 at Four Corners. A pedestrian improvement should be built to cross SR 20. After crossing SR 20, Options A & C connects a trail to the existing Jefferson Transit regional facility with a bike barn and park & ride, then onto a side path running east on the north side of 4 Corners Road.

Option A turns south across 4 Corners Road at a pedestrian improvement, then continues onto Jefferson PUD parcels and generally follows the powerlines south, turns east at the Quarter Section line across commercial forest land to Anderson Lake State Park.

Continuing east on a side path on the north side of 4 Corners Road, Option C turns south at a pedestrian improvement to cross 4 Corners Road roughly at the Section line, and continues south reaching commercial forest land, with switchbacks for slope, and diversions to avoid wetlands, and onto Anderson Lake State Park.

Option B leaves Milo Curry Trailhead, crossing South Discovery Road with a pedestrian improvement, proceeds south on Adelma Beach Road, traverses east over private parcels, crosses SR20 with a pedestrian improvement, follows SR20 south to commercial forest land and powerlines, continuing east across commercial forest land to Anderson Lake State Park.

Trails within Anderson Lake State Park should be improved to meet ODT multi-use trail guidelines. A trailhead would be located within Anderson Lake State Park, with a crossing improvement at Anderson Lake Road.

A short sidepath adjacent to Four Corners Road could make a connection between multi-use trails.

Forest management access roads could be used in some areas to reduce new construction costs and impacts.

Existing trails in Anderson Lake State Park can be improved to multi-use trail standards.
FIGURE 4.1.3 RECOMMENDED TRAIL ALIGNMENTS: CENTRAL SEGMENT

Key
- Existing Trail
- Alignment A
- Alignment B
- Alignment C

Diagram showing recommended trail alignments in the central segment of Olympic Discovery Trail with labels for existing trails and alignments A, B, and C.
Central Segment

From the trailhead at Anderson Lake State Park, the multi-use trail options proceed south and west across Washington Department of Natural Resources forest land to commercial forest parcels. Option A follows the edge of the DNR parcel, climbs across commercial forest land and parallels an underground utility to a City of Port Townsend property accessed by Grouse Lane. Grouse Lane can be improved as a shared roadway or advisory shoulders.

Option B follows a route through the heart of the DNR parcel, crosses commercial forest land then makes a steep climb to the summit of Eaglemount before making a steep decent back to Eaglemount Road.

Option C crosses the heart of the DNR parcel before entering commercial forest land and heading south and east to Gibbs Lake County Park and Gibbs Lake Road. Option C follows a series of county roads west and north to Grouse Lane. This option adds access to Gibbs Lake County Park and significant on-road mileage.

Challenges on the Central Segment include wetlands, steep slopes, a deep ravine requiring a bridge, fish bearing streams to be crossed, switchbacks and retaining walls and coordination with forest management practices.

Perhaps most challenging are the aging underground utility and providing security for the municipal water system in Option A that cuts a convenient path across the face of Eaglemount Hill. Structural and security improvements are necessary to accommodate the construction of a multi-use trail and the introduction of additional users in this corridor. There is a possibility of mutual benefits to the Water System and Trail relating to the possible future replacement of the old steel waterline. A bench for a new trail adjacent to the old waterline might allow a new waterline to be installed at less cost. The trail might then run along the old pipeline maintenance road where width and grade allow. Cost sharing alternatives should be explored with the Water System. Close coordination with the City of Port Townsend is required throughout the further planning, design, funding, implementation and operation of a multi-use trail in this vicinity.
FIGURE 4.1.4 RECOMMENDED TRAIL ALIGNMENTS: SOUTH SEGMENT

Key
- Existing Trail
- Alignment A
- Alignment B
- Alignment C

Legend
- 5000’
- 1/2mi
- 1mi

Diagram shows recommended trail alignments for the South Segment of the Olympic Discovery Trail in Eaglemount, with existing trail alignment and three proposed alignments labeled A, B, and C.
South Segment

From Grouse Lane at Eaglemount Road South Segment Option A runs north as a sidepath on the west side of Eaglemount Road to a crossing of State Route 20.

Option A follows a sidepath on the northside of SR 20 requiring a deep fill and/or retaining walls to widen the highway fill. A bridge at Mine Creek may be required.

The sidepath continues to a short segment of unvacated county road connecting to Woodman-Fairmount County Road and Fairmount Hill Road.

Shared Lane Markings on Fairmount Hill Road and advisory shoulders on Fairmount Road, make the connection to the previously designed ODT on the west and south shores of Discovery Bay.

The Washington State Department of Transportation is the key partner in Option A. Facilitation of the sidepath improvement, Mine Gulch crossing and SR 20 improvements are keys to the success, and the safety, of the whole ODT-E.

Options B and C cross Eaglemount Road and proceed west across commercial forest land. Option B Crosses SR 20 at Fairmount Hill Road and joins Option A.

Option C crosses commercial forest land to a powerline, descends to segments of Uncas Road and crosses SR20 near its junction with US 101 at Uncas.

ENDNOTES

4.2 CONCEPTUAL DESIGN

Multi-Use Trail Sections

The Olympic Discovery Trail - Eaglemount Design Guidelines (see Appendix A) describe the typical trail design recommendations. These guidelines were developed in compliance with the Peninsula Trails Coalition’s trail design guidelines as well as other applicable federal, state and local trail guidelines. The recommended typical trail section (figure 4.2.1) includes a paved surface multi-use trail 12’ wide (10’ minimum in constrained locations). Where space permits 2’ gravel shoulders are shown on both sides and a separate but parallel natural surface equestrian trail with a width between 4’ and 6’, depending on site conditions.

Where site constraints prevent a separate equestrian trail, 4’-wide natural surface equestrian shoulder will be provided on one side of the trail. The opposite shoulder will be 1’ wide (figure 4.2.2).
FIGURE 4.2.1 TYPICAL TRAIL SECTION

FIGURE 4.2.2 TYPICAL TRAIL SECTION - CONSTRAINED CONDITIONS
Side Path

A side path is a paved separate multi-use trail that is provided alongside a roadway (figure 4.2.3). The path should be located a preferred minimum of 6.5’ and an absolute minimum of 5’ from the edge of the travel lane, with distances varying based on available right-of-way.

Where offsets less than 5’ are provided between the sidepath and the road, crashworthy barriers may be required.

Landscaping in the median between path and road is encouraged to provide a buffer.

Shared Lanes and Advisory Shoulders

In a few cases, segments of separated multi-use trail will be connected by on-road segments. These segments will be located on very low volume backroads and will be improved as shared lanes or advisory shoulders.

Shared lanes are regular roadways marked with the shared lane symbol (Figure 4.2.4) indicating people on bicycles may occupy a whole vehicular lane. Pedestrians and equestrians are expected to use the shoulder or edge of the travel lane. This treatment is appropriate when motor vehicle speeds are below 25 mph and volume below 3,000 AADT (FHWA Small Town and Rural Multimodal Networks Guide).

Advisory shoulders are marked shoulders on a narrow road (Figure 4.2.5), where people on bicycles, pedestrians, and equestrians can occupy a section of the road and people in cars are able to pass them in a single vehicular lane. Where two vehicles must pass each other, they are allowed to cross into the advisory shoulder temporarily to do so. This treatment is appropriate when motor vehicle speeds are below 35 mph and volume below 6,000 AADT (STAR Guide).
FIGURE 4.2.4 TYPICAL TRAIL SECTION - SHARED LANE

FIGURE 4.2.5 TYPICAL TRAIL SECTION - ADVISORY SHOULDER
Road Crossings

Multi-use trail design should minimize new at-grade crossings wherever possible. In most cases, at-grade trail crossings can be designed to provide a reasonable degree of safety and can meet existing traffic and safety standards.

Consideration must be given to adequate warning distance based on vehicle speeds and line of sight, with the visibility of signs absolutely critical. Directing the attention of motorists to roadway signs may require additional alerting devices such as a flashing beacon, rectangular rapid flashing beacons, pedestrian refuge islands, roadway striping or changes in pavement texture. Signing for trail users may include a standard “STOP” or “YIELD” sign, and pavement markings, combined with other features such as a bend in the trail to slow bicyclists.

Care must be taken not to place too many signs at crossings lest they begin to lose their visual impact.

Refer to Appendix A: Design Guidelines for additional detail and guidance for typical road crossings.
4.3 RIGHT-OF-WAY SUMMARY

Typical of many rural areas, the study area is composed of many large parcels, natural resources, (largely forest management), large public lands and residential land uses, connected by public road and utility ROW. The Alignment Options Evaluation (Table 3.2.2) summarizes the miles of trail in private ownership for each alternative.

At more than 10 miles in length, the recommended alignments touch remarkably few parcels and even fewer land owners. The evaluation process favored parcels in public ownership, but was neutral toward state highway right-of-way. Table 4.3.1 summarizes the parcels, zoning, ownership and trail type for the recommended alignments.

A range of specific square feet of right-of-way necessary can be estimated subject to more detailed design of the alignment, further site analysis and coordination with the various owners (see Implementation).
### TABLE 4.3.1 RIGHT OF WAY SUMMARY

#### Key

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Zoning</th>
<th>Trail Cross Section</th>
<th>MUT</th>
<th>Multi-Use Trail</th>
</tr>
</thead>
<tbody>
<tr>
<td>public</td>
<td>ROW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>Park</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>residential</td>
<td>State Park</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>AL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>forest</td>
<td>CF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>RR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Forest</td>
<td>CF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest</td>
<td>RF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>RR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Table

<table>
<thead>
<tr>
<th>Segment</th>
<th>Option</th>
<th>Zoning</th>
<th>Parcel #</th>
<th>Parcel Owner</th>
<th>Trail Cross Section</th>
<th>Average Daily Traffic</th>
<th>Posted MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ROW</td>
<td>(S. Discovery Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>2,973</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>Crossing</td>
<td>5,800</td>
<td>50 (35 advisory)</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>001332009</td>
<td>Jefferson Transit Authority</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>ROW</td>
<td>(4 Corners Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>2,869</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>001333014</td>
<td>JPUD</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>001333037</td>
<td>JPUD</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>001333038</td>
<td>JPUD</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901043001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901044001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>996200004</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>ROW</td>
<td>(Adelma Beach Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>350</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>Crossing</td>
<td>5,800</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>SP</td>
<td>5,800</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>CF</td>
<td>901042001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>CF</td>
<td>901042001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>ROW</td>
<td>(S. Discovery Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>2,973</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>Crossing</td>
<td>5,800</td>
<td>50 (35 advisory)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>RR</td>
<td>001332009</td>
<td>Jefferson Transit Authority</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>ROW</td>
<td>(4 Corners Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>2,869</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>CF</td>
<td>901041001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>CF</td>
<td>901041004</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>RR</td>
<td>996200004</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>ROW</td>
<td>(Anderson Lk Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901161005</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901162001</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>undefined</td>
<td>private</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901181002</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>CF</td>
<td>901201001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>901091006</td>
<td>City of Port Townsend</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RR</td>
<td>901091006</td>
<td>City of Port Townsend</td>
<td>MUT</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>ROW</td>
<td>(Grouse Ln)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 4.3.1 RIGHT OF WAY SUMMARY (CON’T)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Option</th>
<th>Zoning</th>
<th>Parcel #</th>
<th>Parcel Owner</th>
<th>Trail Cross Section</th>
<th>Average Daily Traffic</th>
<th>Posted MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>ROW</td>
<td>(Anderson Lk Rd)</td>
<td>Jefferson County</td>
<td>Crossing</td>
<td>1,845</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901161005</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901162001</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901163001</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901173002</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RR</td>
<td>901194001</td>
<td>City of Port Townsend</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RR</td>
<td>901194005</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RR</td>
<td>901201001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RR</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901302001</td>
<td>Pope Resources</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>606</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>ROW</td>
<td>(Anderson Lk Rd)</td>
<td>Jefferson County</td>
<td>Crossing</td>
<td>1,845</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parks</td>
<td>901094001</td>
<td>WA State Parks</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901161005</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901162001</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>901163001</td>
<td>WA State DNR</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Gibbs Lake Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>195</td>
<td>25 / 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(W. Valley Rd)</td>
<td>Jefferson County</td>
<td>AS</td>
<td>272</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(W. Egg &amp; I Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>220</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Old Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>170</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>606</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>ROW</td>
<td>(Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>606</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>Crossing</td>
<td>5,800</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>SP</td>
<td>5,800</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Woodman-Fairmount Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>&lt;90</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Fairmount Hill Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>90</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Fairmount Rd)</td>
<td>Jefferson County</td>
<td>AS</td>
<td>140</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>ROW</td>
<td>(Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>606</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rowe</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>SR-20</td>
<td>WSDOT</td>
<td>Crossing</td>
<td>5,800</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Fairmount Hill Rd)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>90</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Fairmount Rd)</td>
<td>Jefferson County</td>
<td>AS</td>
<td>140</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(Eaglemount Rd)</td>
<td>Jefferson County</td>
<td>SP</td>
<td>606</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CF</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rowe</td>
<td>undetermined private</td>
<td></td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(E. Uncas Rd S)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RR</td>
<td>902245020</td>
<td>WSDOT</td>
<td>MUT</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(US-101)</td>
<td>WSDOT</td>
<td>MUT</td>
<td>13,000</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROW</td>
<td>(E. Uncas Rd N)</td>
<td>Jefferson County</td>
<td>SL</td>
<td>90</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Previous
- RR 902243020 Jefferson Land Trust MUT - -
Previous
- RR 902243033 Jefferson Land Trust MUT - -
Previous
- RR 902243044 Jefferson Land Trust MUT - -
Previous
- ROW SR-20 WSDOT SP 5,800 50
Previous
- ROW (US-101) WSDOT SP 13,000 45
Previous
- RR 902231004 WDFW MUT - -
Previous
- undetermined private MUT - -
Previous
- RR 902231018 WDFW MUT - -
PERMITTING OVERVIEW
5.1 REGULATORY REQUIREMENTS

Activities that may occur for the Olympic Discovery Trail - Eaglemount (ODT-E) connection include paved trail construction and other associated amenities along the trail. The alignments have a high probability of work within critical areas and shorelines.

Table 5.1.1 provides a list of permits that may be required as a planning tool to help with identifying the permit process once an alignment has been selected to move forward.

Permit summaries are taken from the Department of Ecology Regulatory Handbook found at [http://www.ecy.wa.gov/permit.htm](http://www.ecy.wa.gov/permit.htm).

<table>
<thead>
<tr>
<th>TABLE 5.1.1 PERMITS POTENTIALLY REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Approvals</strong></td>
</tr>
<tr>
<td>NEPA</td>
</tr>
<tr>
<td>Bridge Permit</td>
</tr>
<tr>
<td>Section 10 Rivers and Harbors</td>
</tr>
<tr>
<td>Section 106 - Historic Preservation</td>
</tr>
<tr>
<td>Section 401 - Water Quality Cert.</td>
</tr>
<tr>
<td>Section 404 - Discharge of Fill</td>
</tr>
<tr>
<td>Nationwide Permit</td>
</tr>
<tr>
<td>Coastal Zone Management Approval</td>
</tr>
<tr>
<td>State Approvals</td>
</tr>
<tr>
<td>Hydraulic Project Approval</td>
</tr>
<tr>
<td>State Historical Preservation Office</td>
</tr>
<tr>
<td>Construction Stormwater General Permit - NPDES</td>
</tr>
<tr>
<td>Local Approvals</td>
</tr>
<tr>
<td>State Environmental Policy Act</td>
</tr>
<tr>
<td>Clearing, Grading, and Building Permits</td>
</tr>
<tr>
<td>Critical Areas</td>
</tr>
<tr>
<td>Shoreline Permits</td>
</tr>
</tbody>
</table>

X=Probably Required
P=Possibly Required
--=Not Likely Required

FEDERAL APPROVALS

National Environmental Policy Act (NEPA)

Issuing Agency: Lead Federal Agency (varies)

Activities Requiring this Permit: NEPA applies to all major federal actions: federal projects or any project requiring a federal permit, receiving federal funding, or located on federal land. The list of NEPA categorical exclusions is determined in rules specific to each federal agency.

Review Purpose: The National Environmental Policy Act (NEPA) was adopted by Congress in 1969 to ensure evaluation of the probable environmental consequences of a proposal before decisions are made by federal agencies.

NEPA requires federal agencies to consider a broad range of environmental consequences and available mitigation options prior to making a decision on a project, plan or program.

Bridge Permit

Issuing Agency: United States Coast Guard

Activities Requiring this Permit: Construction or modification of bridges over navigable waters. "Navigable" waters is a legal determination that is not contingent on the waterway such as Snow Creek or Salmon Creek actually being navigated. Contact the Coast Guard Bridge Program to determine if a waterway is "navigable" and if the project will require a bridge permit. No other agency has the authority or expertise to make this determination.

Permit Purpose: Federal law prohibits the construction of any bridge across navigable waters of the United States unless first authorized by the Coast Guard. The Coast
Guard approves the location and clearances of bridges through the issuance of bridge permits or permit amendments, under the authority of the General Bridge Act of 1946, Section 9 of the Rivers and Harbors Act of 1899, and other statutes. This permit is required for new construction, reconstruction or modification of a bridge or causeway over waters of the United States.

**Section 10 Rivers and Harbors Approval**

**Issuing Agency:** US Army Corps of Engineers

**Activities Requiring this Permit:** Work in, over, or under navigable waters of the United States you must apply for authorization from the US Army Corps of Engineers (Corps).

The Corps authorizes activities by issuing individual and general permits. Individual permits include Standard Individual Permits and Letters of Permission, and general permits include Nationwide Permits and Regional General Permits. The Corps determines which type of permit is needed. A Department of the Army permit can include authorization under Section 10 and/or Section 404.

**Permit Purpose:** The U.S. Army Corps of Engineers regulates activities that could obstruct or alter navigable waters of the United States under Section 10 of the Rivers and Harbors Act of 1899.

**Section 106 of the National Historic Preservation Act of 1966**

**Issuing Agency:** Washington State Department of Archaeology & Historic Preservation

**Activities Requiring this Permit:** The application for federal funding, including funding passed through a state or local agency, a federal permit, license of use of federal lands.

**Permit Purpose:** The Department of Archaeology and Historic Preservation (DAHP) and affected tribes must be consulted when projects are subject to review under Section 106 of the National Historic Preservation Act of 1966 (NHPA). This act requires that all federal agencies take into account the effect of its actions on historic properties. Requirements of Section 106 review apply to any federal undertaking, funding, license, or permit.

DAHP and affected tribes are consulted to help determine if the site has been surveyed, if there are identified historical resources on-site, and if the property is listed or eligible for listing on the National Register of Historic Places.

If projects will adversely affect property that meets National Register criteria, DAHP will participate in finding acceptable ways to avoid or mitigate that adverse effect. The federal agency involved is responsible for initiating and completing Section 106 review.

**Section 401 - Water Quality Certification**

**Issuing Agency:** Washington State Department of Ecology

**Activities Requiring this Permit:** Applying for a federal permit or license to conduct any activity that might result in a discharge of dredge or fill material into water or non-isolated wetlands or excavation in water or non-isolated wetlands.

**Permit Purpose:** Issuance of a Section 401 Certification means that Ecology has reasonable assurance that the applicant’s project will comply with state water quality standards and other aquatic resources.
protection requirements under Ecology’s authority. The Section 401 Certification can cover both the construction and operation of a proposed project. Conditions of the Section 401 Certification become conditions of the federal permit or license. For 404 permits the Corps has developed Nationwide Permits to streamline the process for specific activities. The Corps reviews a proposed project to determine if an individual 404 permit is required, or if the project can be authorized under a Nationwide Permit. The Nationwide Permits also need Section 401 Certification from Ecology. Ecology has already certified subject to conditions, or denied specific Nationwide Permits. If certified, no further Section 401 Certification review by Ecology is required. If certified subject to conditions, an individual certification or Letter of Verification from Ecology is required. If denied, an individual certification is required for all activities under that Nationwide Permit.

Section 404 – Discharge of Fill

Issuing Agency: US Army Corps of Engineers

Activities Requiring this Permit:
Conducting ground-disturbing activities in waters of the United States, including wetlands, may require authorization from the U.S. Army Corps of Engineers (Corps). A variety of activities typically require Department of the Army authorization when they occur in waters of the United States. They include, but are not limited to, placement of fill material, grading, mechanized land clearing, and redeposit of excavated/dredged material.

The Corps authorizes activities by issuing individual and general permits. Under Section 404, individual permits include Standard Individual Permits, and general permits include Nationwide Permits and Regional General Permits. The Corps determines which type of permit is needed. A Department of the Army permit can include authorization under Section 10 and/or Section 404.

The Corps strongly recommends a pre-application meeting for major projects.

Permit Purpose: The U.S. Army Corps of Engineers helps protect the nation’s waters by regulating the discharge of dredged or fill material into waters of the United States, including wetlands and other special aquatic sites, under Section 404 of the Clean Water Act.
Coastal Zone Management Approval

**Issuing Agency:** Washington State Department of Ecology

**Activities Requiring this Permit:** Federal activity, projects requiring a federal license or permit and Federal Assistance Programs proposed within any of Washington's 15 coastal counties.

- National Environmental Protection Agency (Conducted by federal agencies as part of the 404 process)
- Biological Assessment
- Section 106 Archaeological and Historic Preservation Review

**Permit Purpose:** Activities and development affecting coastal resources which involve federal activities, federal licenses or permits, and federal assistance programs (funding) require written Coastal Zone Management (CZM) federal consistency determinations by the Department of Ecology (Ecology). Activities and developments performed by or for federal agencies require a CZM determination be submitted stating that the project is consistent with Washington's Coastal Zone Management Program (WCZMP) to the “maximum extent practicable.” Projects obtaining federal permitted/licensed or federal funded projects require a certification that they are consistent with WCZMP. CZM Determinations/Certifications are submitted to Ecology for concurrence with conditions, or objection.

STATE APPROVALS

**Hydraulic Project Approval (HPA)**

**Issuing Agency:** Washington Department of Fish and Wildlife

**Activities Requiring this Permit:** Work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh waters of state. This includes bed reconfiguration, all construction or other work waterward, under and over the ordinary high water line, including dry channels, and may include projects landward of the ordinary high water line (e.g., activities outside the ordinary high water line that will directly impact fish life and habitat, falling trees into streams or lakes, bridge maintenance, dike construction, etc.)

**Permit Purpose:** Any form of work that uses, diverts, obstructs, or changes the natural flow or bed of any fresh water or saltwater of the state, requires a Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife (WDFW). Permit processing can take up to 45 days following receipt of a complete application package. WDFW offers an efficient online permit application system, called the Aquatic Protection Permitting System (APPS). A complete application package for an HPA must include a completed application, general plans for the overall project, complete plans and specifications of the proposed work within the mean higher high water line in salt waters or within the ordinary high water line in fresh waters of the state, complete plans and specifications for the proper protection of fish life, and the $150 application fee or proof of a qualifying fee exemption. You must also provide notice of compliance with any applicable requirements of the State Environmental Policy Act (SEPA).
Construction Stormwater General Permit - NPDES

Issuing Agency: Washington State Department of Ecology

Activities Requiring this Permit:
Construction site operators are required to be covered by a Construction Stormwater General Permit if they are engaged in clearing, grading, and excavating activities that disturb one or more acres and discharge stormwater to surface waters of the state.

The permit is also required if clearing, grading or excavating activities disturb an area smaller than 1 acre if it is part of a “larger common plan of development or sale” that will disturb 1 acre or more and discharge stormwater to surface waters of the state or a conveyance system that drains to surface waters of the state.

“Surface waters of the state” are broadly defined by state law and includes storm drains, ditches, wetlands, creeks, rivers, ponds, lakes and marine waters to obtain permit coverage.

In addition to these permit triggers, Ecology reserves the right to require permit coverage at a construction site of any size, if Ecology believes that the site may be a significant contributor of pollutants to waters of the State of Washington or reasonably expects the site to cause a violation of water quality standards.

Permit Purpose: This permit ensures that construction site operators follow measures as to prevent stormwater from washing soil, nutrients, chemicals and other harmful pollutants into local water bodies and degrading water quality.

LOCAL APPROVALS

State Environmental Policy Act (SEPA)

Issuing Agency: State or local agency

Activities Requiring this Process: Any proposal that requires a public agency action (decision) to license, fund, or undertake a project, or the proposed adoption of a policy, plan, or program can trigger environmental review under SEPA. However, there are numerous categories of projects that are exempt from SEPA. The lead agency determines if an exemption applies.

Purpose: The Washington State Environmental Policy Act (SEPA) is a process (not a permit decision) 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. Information provided by project applicants during the SEPA review process helps agency decision-makers, applicants, and the public understand how a proposal will affect the environment. This information can be used to change a proposal to reduce likely impacts, or to condition or deny a proposal when adverse environmental impacts are identified.

In most cases, one state or local agency will be designated as the “SEPA lead agency.” The lead agency is responsible for evaluating the proposal and determining if the proposal is likely to impact the environment. For most private projects, the SEPA lead agency will be the city or county responsible for permitting the project. For most public projects, the proponent agency is the lead agency.
Clearing, Grading, and Building Permit

Issuing Agency: Local Government - City or County

Activities Requiring this Permit:
Construction of permanent buildings or additions to existing facilities. Clearing and grading of land and other earth disturbing activities.

Permit Purpose: Permits to construct permanent buildings or additions to existing facilities are required by counties and cities, except under certain circumstances. The application requires detailed final plans for structures including electrical plan, plumbing plan, floor layout, sewage facilities, location of wells (if applicable), drainage plan, size and shape of lot and buildings, setback of buildings from property lines and drainfield (if applicable), access, size and shape of foundation walls, beams, air vents, window accesses, and heating or cooling plants, if included in the design. Permits are issued upon approval of the plans. Permit processing time varies depending on the project, but averages from six to eight weeks. Public hearings requirements also vary depending on activity proposed.

The Growth Management Act, which became law in 1990, amended the State Building Code to require that building permit applicants provide proof of an adequate supply of potable water for the purposes of the building. The three means of proof specified in the law are: 1) a permit from the Department of Ecology, 2) a letter from an approved surveyor stating the ability and willingness to provide water, and 3) another form (consult with the appropriate local government) sufficient to verify the existence of an adequate water supply. The departments of Ecology and Health developed guidelines to help local governments verify the adequacy of water supplies for individual buildings.

Clearing, grading and other land disturbing activities requires approval from local jurisdictions. Plan sets must be submitted that show BMPs, stormwater controls, and grade changes applicable to land disturbing activities.

Critical Areas Approval

Issuing Agency: Local Jurisdiction

Activities Requiring this Permit: Work within or adjacent to Environmentally Critical Areas

Permit Purpose: Critical Areas Ordinances (CAO) provide regulation of activities within critical areas which may include flood prone areas, wetlands, streams, geologic hazard areas, and fish and wildlife habitat conservation areas. The goal of CAO regulations is to effectively protect these areas and to protect public safety, while allowing reasonable development.

Shoreline Development Permit

Issuing Agency: Local Jurisdiction

Activities Requiring this Permit: These are determined by local government and specified in their Shoreline Master Program. Generally, any project involving in-water work or work within 200 feet of the shoreline requires either a Shoreline Substantial Development Permit or a Shoreline Exemption. If the project involves a change in function from the existing permitted use, a Conditional Use Permit or Variance may be needed.

Permit Purpose: To regulate developments and uses of water bodies and associated upland areas to protect human health and the natural environment.
5.2 RECOMMENDED ALIGNMENT PERMITTING STRATEGY

Development of the trail corridor has the potential to impact a variety of environmentally sensitive areas present along the alignment, including wetlands, priority habitats and species, floodplain, streams, geologic hazard areas, and rare plants. In addition, future project actions have the potential to involve several local, state, and federal regulatory agencies. The permitting process may take several paths depending on funding sources. A summary of permitting requirements is discussed in the Permitting section following the Natural Resources section.

Permitting and Regulatory Authorities

Trail construction will require various state permits, and may require some local and federal permits (Table 5.2.2). The entire alignments takes place within Jefferson County. Agencies that could have permitting authority depending on the type and location of the action include: Washington Department of Natural Resources; Washington State Parks; Washington State Department of Fish and Wildlife; Washington State Department of Ecology; U.S. Army Corps of Engineers; National Marine Fisheries Service; and the U.S. Fish and Wildlife Service. In addition, the Jamestown S’Klallam Tribe has interests in the area.

Activities associated with development of the trail corridor that may trigger a permit include, but are not limited to, filling, grading, construction of retaining walls, work below the ordinary high water mark of any waterbody, work within wetlands/streams or their buffers, installation of septic systems, or utility construction.

Environmental permits will be required if project actions impact any Critical Areas discussed in following sections.

NATURAL RESOURCES

This sections provides an overview of the resources found along the alignment and summarizes the permits that are likely to be required to implement the proposed Olympic Discovery Trail - Eaglemount connection.

Wetlands

The National Wetland Inventory (NWI), the Jefferson County Wetland Inventory, and the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species databases all identify several wetlands near the alignments. These wetlands range in quality from small roadside wetlands to large, high quality wetlands, all of which are regulated. Many of the wetlands are clustered around Anderson Lake and forestlands between the lake and Moon Creek’s tributaries. During field reconnaissance, biologists noted additional potential wetland areas not shown on the NWI or Jefferson County maps, as well as areas where the known wetland boundaries may extend farther than shown on NWI or County maps. More precise wetland boundary delineations will be required during the permitting process.

Streams

The alignments cross or are within the immediate vicinity of a number of streams and their tributaries, including Snow Creek, Mine Gulch, Sunset Creek, Moon Creek, and many unnamed streams and draws with intermittent flow. It also crosses the Port Townsend water line connected to City Lake.

According to the Jefferson County Shoreline Master Plan (SMP; 2013), the alignments run near three shorelines of the state: Snow Creek, Discovery Bay, and Anderson Lake. Shorelines of the State have a minimum buffer of 100 feet for lakes, and 150 feet for...
marine shorelines or streams/rivers. The alignments cross at Snow Creek would be within this buffer. The unnamed creek at Fairmont Road is crossed close to the shoreline, and may be within the 150 foot buffer of Discovery Bay. The crossing at Anderson Lake would be farther than 150 feet from the lake, but may fall within the natural shoreline area indicated by the Jefferson County SMP.

PHS Habitats and Species

The Washington State Department of Fish & Wildlife (WDFW) provides information on important fish, wildlife and habitat resources. WDFW publishes a list of priority habitats and species considered to be priorities for conservation and management. WDFW also maintains databases that contain identified fish, wildlife, and habitat areas. The priority habitats and species (PHS) identified by the WDFW GIS data along the proposed alignment are discussed below.

Riparian Zones and Instream Habitat

Riparian habitat conservation areas are those areas adjacent to aquatic systems with flowing water containing elements of both aquatic and terrestrial ecosystems that mutually influence each other. Riparian habitat begins at the ordinary high water mark and extends to that portion of the terrestrial landscape influenced by, or directly influences, the aquatic ecosystem. Instream habitat refers to the aquatic habitat below the ordinary high water mark.

Riparian habitat includes the entire extent of the floodplain and riparian areas of wetlands directly connected to stream courses. The alignment passes through a number of riparian habitats (with instream portions) associated with the following water bodies: Snow Creek, Mine Gulch, Sunset Creek, Moon Creek, and several unnamed streams, as well as the stream connection between Anderson Lake and wetlands to the west. When possible the project will use previously constructed road crossings with existing culverts when crossing these areas.

Puget Sound Nearshore

Portions of the South Segment pass alongside Discovery Bay, a relatively undisturbed nearshore marine habitat connected to the Strait of Juan de Fuca and Puget Sound. WDFW divides this habitat into three zones: shore, intertidal, and marine tidal. Segment S follows Fairmont Road, which runs along Discovery Bay within 200 feet of the bay’s shore. This shoreline contains native vegetation and beaches influenced by the aquatic ecosystem.

Freshwater and Estuarine Marine Wetlands

WDFW lists freshwater wetlands and estuarine wetlands among the priority aquatic habitats. Wetlands are discussed further under the “wetlands” section of this document. The PHS database lists both forested/shrub and freshwater emergent wetlands along or near the alignment, and estuarine/marine wetland in Discovery Bay where the South Segment will run near the shoreline.

Waterfowl and Seabird Concentrations

WDFW lists waterfowl and their habitat among priority species and habitats. Waterfowl habitat is primarily associated with wetlands and wetland fringe areas. Areas commonly or traditionally used on a seasonal or year-round basis are defined as Regular Concentrations. The only waterfowl concentration habitat area along the alignment is associated with Anderson Lake.
The PHS database also lists cavity-nesting ducks (such as wood duck, common goldeneye, and hooded merganser), and concentrations of trumpeter swan along the alignment. The PHS database that the wetland connected to the lake’s southwest side provides winter forage for adult and juvenile trumpeter swans. Cavity-nesting ducks are listed as using the forested wetland directly west of the lake. The proposed alignment does not intersect the waterfowl or swan areas, but may cross along the southern border of the wetlands with cavity-nesting ducks.

Finally, the PHS database lists seabird concentrations on Anderson Lake. This could include seabirds that regularly breed on or forage on freshwater habitats, including Western grebe or cormorants. Seabird concentrations also occur in Discovery Bay.

**Western Toad**

WDFW lists breeding areas for the western toad along the western shoreline of Anderson Lake.

**Spotted Owl**

WDFW lists breeding records for Spotted Owl in the township near the southern terminus of the South Segment of the alignment. These mappings are not specific to the area directly adjacent to the alignment.

**Rare Plants**

The Washington Natural Heritage Program (WNHP) maintains a database of historical and current occurrences of rare plant species in the state. WNHP lists 28 species known or suspected to occur within Jefferson County, four of which have state and/or federal listing as threatened or endangered.

The WNHP’s database does not list any occurrences of these 28 species within several miles of the proposed trail route. Two species on the list (both state Sensitive) have the potential to occur in the Discovery Bay region, as they have occurred in the eastern third of the County and are associated with riparian, wetland, or forested habitats. Bristly sedge (Carex comosa) has been found alongside streams, lakes or marshes at disjunct locations throughout the Puget Sound basin. The giant chain fern (Woodwardia fimbriata) has occurred along the edges of streams, bogs, or wet roadbanks near saltwater in the Hood Canal area. Four additional species on the list are known to occur in moist, lowland forest or riparian areas, but have not been recorded in eastern Jefferson County. None of these species or their habitats are likely to occur in the logged areas, secondary forest, or existing routes of travel along the proposed route.

The other 24 species WNHP lists in Jefferson County are restricted to alpine habitats, outer-coast rainforests, bogs, native prairie, rocky outcrops, sandy habitats, or open waters within lakes. These habitats do not occur along the proposed route, with the exception of Anderson Lake’s waters (which will not be directly affected by the route).

**Flood Hazards**

Areas of special flood hazards are those areas identified by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Rate Maps for Jefferson County. These areas include the floodway, floodplain, and flood fringe. The majority of the proposed alignment would not impact any special flood hazard areas, with the exception of the Snow Creek crossing area.

**Geohazards**

Geologic hazards include areas with steep slopes, historic or active landslides, areas of potential instability, and areas with a severe
erosion potential. In addition, geologic hazards can also include seismic and volcanic hazards.

Jefferson County GIS data identifies geologic hazard areas at multiple areas along the alignment.

**Critical Aquifer Recharge Areas**

Portions of the proposed alignment are located within Critical Aquifer Recharge Areas (CARA). This includes most of the South portion of the alignment (in an area listed as Susceptible based on geology), and all of the North portion (which passes through Special Aquifer Recharge Protection Areas).

**Cultural Resources**

Archaeological resources include physical evidence and/or material remains of human life or activities capable of providing scientific or humanistic understandings of past human behavior, cultural adaptation, and related topics. Examples of archaeological resources include the remains of houses, villages, camp and fishing sites; cave shelters; artifacts such as arrowheads, utensils, tools; and graves or human remains. Cultural resources include historic, prehistoric, or archaeological sites and standing structures, cemeteries, burial grounds and other distributions of cultural remains and artifacts.

The Washington Information System for Architectural and Archaeological Records (WISAARD database) lists identified historic sites and the Predictive Model Probability Levels for the presence of archaeological resources throughout the county. The alignment passes through areas with no historic sites identified within ¼ mile. Some buildings or sites with no determinations are clustered in the Fairmount area near the intersection between Hwy 101 and Hwy 20 and on Moa Hill Road. Although the WISAARD database does not list any historic sites identified within 1/4 mile, a Cultural Resources Survey will likely be required for the project. The National Register of Historic Places does not list any historic locations within ¼ mile of the recommended alignment.

The Jamestown S’Klallam Tribe has not indicated the presence of sites of concern in the study area. However, there are a large number of “culturally modified trees” south of Anderson Lake (these are also listed in the WISAARD database). These trees include western red cedars with bark-stripping scars and notches, and “spiral trees” which have been twisted around each other. These modified trees appear to be oriented along an old trail system crossing the Quimper Peninsula from east to west. Most of the planned route for the Olympic Discovery Trail - Eaglemount would use already-cleared recreation trails or logged areas. Where the route would cross Moon Creek and other timbered areas, the Tribes request surveying for modified trees prior to any tree removal. Other tribes that may be interested in sites within the study area and should be contacted are the Lower Elwha Klallam Tribe and Port Gamble S’Klallam Tribe.

**LOCAL PERMITTING**

**Site Plan Review**

Construction of trail segments and support facilities will require development permits from Jefferson County. Jefferson County will require supporting documentation and additional permits dependent on the type and location of the proposed activity, including, but not limited to, environmental, land use, transportation, water, and sewer review.
Jefferson County will require a Site Plan Review process for each new segment of trail or new support facilities within the county. The specific requirements will be obtained through the Pre-application process. The proposed improvement plans necessary for application may include environmental, land use and transportation, landscaping, sign and outdoor lighting plan. In addition to the required plans, supporting documents will be necessary for the Jefferson County submittal and may include the following: soil analysis and geotechnical report, preliminary stormwater design report, proposed storm plan, traffic study, SEPA, sewer district utility review letter, water utility review letter, health department project evaluation letter, covenants or restrictions, and other associated environmental applications.

The proposed trail alignment passes through a number of Land Use designations within Jefferson County. The proposed trail is an allowed use in all Land Use designations.

Critical Areas

The Washington State Growth Management Act (GMA) identifies the protection of five critical areas as necessary for protection of the natural environment and the public’s health and safety. Each city and county in Washington State has the responsibility to identify, designate, and protect those critical areas found in their local environment. The trail alignment passes through Jefferson County. The identified critical areas include fish and wildlife habitat conservation areas (FWHCA), wetlands, frequently flooded areas (FFA), critical aquifer recharge areas (CARA), and geologic hazard areas (Geohazards). Jefferson County has local ordinances protecting these resources.

Construction of the trail may require all or a combination of the local environmental permits depending on the location and type of the action.

Jefferson County requires supporting documentation for many of the permits. Necessary information could include any of the following: no rise certification; wetland delineation; habitat impact assessment and mitigation; wetland mitigation plan (see discussion below); rare plant survey; geologic hazard area study; buffer impact mitigation; historical and cultural resources survey; and/or a biological assessment.

Jefferson County specifically requires a Critical Areas Report for any required critical area permits. At a minimum the report requires the identification and scientific characterization of all critical areas and buffers and an assessment of impacts to those areas. Additional report requirements specific to the area of impact are also required.

Archaeological and Cultural Resources Review

Jefferson County does not codify archaeological and cultural resources review but addresses this issue through the SEPA process. Federal permits required by the project will not be issued until Section 106 – Historical Preservation requirements are satisfied. The Jamestown S’Klallam Tribe will be provided the opportunity to review and provide input on the project so that potential adverse impacts to cultural resources are avoided.

STATE REGULATORY AUTHORITIES

Washington State Department of Fish & Wildlife

Any activity that will use, divert, obstruct, or change the bed or flow of state waters requires a Hydraulic Project Approval (HPA) from the Washington State Department of Fish and Wildlife (WDFW). Essentially,
this covers any work near or over streams, or below the ordinary high water mark. For instance, a bridge spanning a stream would require an HPA even if the abutments for the bridge are above the ordinary high water mark or outside of the 100-year floodplain.

In addition, WDFW provides management recommendations, which are guidelines not regulations, for identified priority species and habitats. Typically, local jurisdictions implement these guidelines through a habitat conservation plan.

**Washington State Department of Ecology**

Shorelines: Under the Washington State Shoreline Management Act (SMA), cities and counties with “shorelines of the state” administer a Shoreline Master Program (SMP). A shoreline of the state is defined as all of the water areas of the state and their associated shorelands, together with the lands underlying them, not including lakes less than 20 acres in size and wetlands associated with those small lakes or stream segments where the mean annual flow is 20 cubic feet per second or less and their associated wetlands. The SMP is essentially a shoreline comprehensive plan and zoning ordinance specific to shoreline areas and customized to local circumstances. Activities within shoreline areas must comply with the applicable SMP.

This state regulation is delegated to Jefferson County to administer through site plan review.

State Environmental Policy Act

Environmental Checklist: The Washington State Environmental Policy Act (SEPA) requires the submittal of an environmental checklist, which provides agencies with a framework to consider the environmental consequences to the natural and built environment of a proposal.

The SEPA checklist evaluates the environmental consequences of a proposal and determines if it will have any “significant adverse environmental impact.” The agency reviewing the checklist (lead agency) will issue a determination of nonsignificance (DNS), a mitigated DNS, or a determination of significance (DS). A mitigated DNS will include measures to mitigate all significant impacts to a nonsignificant level through the requirements of local, state, or federal regulations. If the lead agency issues a DS, an Environmental Impact Statement (EIS) will be required. The National Environmental Policy Act (NEPA) also provides an environmental review process for project proposals with a federal nexus (e.g. permit, funding). If federal funding is secured, the funding source will be the lead entity for NEPA. Compliance with NEPA may require that an Environmental Assessment or EIS be completed for the project.

SEPA is delegated to Jefferson County to administer through site plan review. An alignment passing through Washington State Parks or Washington Department of Natural Resources will require SEPA compliance by each state agency and land use consistency determinations and use approvals by each of these agencies consistent with their policies and procedures.

Section 401 Water Quality Certification:

The federal Clean Water Act (CWA) allows states to approve, condition, or deny projects proposed to be built in wetlands or other waters of the U.S. Projects requiring a Section 404 permit from the U.S. Army Corps of Engineers (Corps) also require a Section 401 water quality certification from the Washington Department of Ecology (Ecology). Section 401 of the CWA requires applicants to receive a certification from the
state that the proposed project will meet state water quality standards and other aquatic protection regulations. The conditions of the state certification will become conditions of the federal permit.

This federal regulation is administered by the Washington State Department of Ecology.

NPDES Construction Stormwater General Permit: The CWA identifies the discharge of stormwater as a point source of pollution. As such, certain stormwater discharges require a National Pollution Discharge Elimination System (NPDES) permit. The goal of the construction general stormwater permit is to reduce or eliminate stormwater pollution and other impacts to surface waters from construction sites.

An applicant is required to apply for coverage under the state’s construction stormwater general permit if the proposed project involves soil disturbing activities where one or more acres will be disturbed, and if stormwater will be discharged to receiving water directly or to storm drains that discharge to a receiving water.

This federal regulation is administered by the Washington State Department of Ecology.

Department of Archeology and Historic Preservation

The Department of Archaeology and Historic Preservation (DAHP) and affected tribes must be consulted when projects are subject to review under Section 106 of the National Historic Preservation Act of 1966 (NHPA). This act requires that all federal agencies take into account the affect of its actions on historic properties. Requirements of Section 106 review apply to any federal undertaking, funding, license, or permit.

DAHP and affected tribes are consulted to help determine if the site has been surveyed, if there are identified historical resources on-site, and if the property is listed or eligible for listing on the National Register of Historic Places.

If projects will adversely affect property that meets National Register criteria, DAHP will participate in finding acceptable ways to avoid or mitigate that adverse effect. The federal agency involved is responsible for initiating and completing Section 106 review.

FEDERAL REGULATORY AUTHORITIES

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) issues permits for certain activities in, over, under or near waters of the U.S. or special aquatic sites, including wetlands. A Section 10 permit is required for any work in, over, or under navigable waters. A Clean Water Act Section 404 permit is required for the discharge of dredged or fill material into waters of the U.S., including special aquatic sites such as wetlands.
The Section 404/10 permit application, Joint Aquatic Resources Permit Application (JARPA), also requires the applicant provide an alternatives analysis discussing how alternative sites and designs were evaluated in an effort to avoid or minimize anticipated project impacts. Any impacts to wetlands will require the submittal of a wetland delineation report and a compensatory mitigation plan for any unavoidable impacts to wetlands or waterways.

The Corps issues different types of permits under Section 404/10. Nationwide permits (NWP) are general permits authorizing a category of activities throughout the nation. These permits have specific conditions that must be met for the permit to be valid and are issued for projects with small impacts. Regional permits are issued if the proposed activity falls within a general category of activities that are similar in nature and cause minimal environmental impact (individually and cumulatively). Individual permits are for projects with larger impacts or that cannot meet the specific conditions required of a NWP. Individual permits go through a full public interest review.

**National Marine Fisheries Service & U.S. Fish and Wildlife Service**

Section 7 of the federal Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service (USFWS) on any activities that may affect a listed species. The consultation requirement assists federal agencies in fulfilling their duty to ensure their actions do not jeopardize the continued existence of a species or destroy or adversely modify critical habitat. A Biological Opinion documents NMFS/USFWS opinion and recommends reasonable and prudent measures that will minimize any impacts from the federal action (e.g., typically issuance of a Section 404 permit) and the terms and conditions that apply to the proposed project.

The applicant is often requested to submit a Biological Assessment (BA) with their permit application. The BA documents the proposed action, existing environmental conditions at the project site, any listed species and critical habitat present, potential impacts to the species and critical habitat, and an effects determination.

**MITIGATION**

The Corps and local jurisdictions both regulate impacts to wetlands; whereas, only the local jurisdiction regulates impacts to wetland buffers. Both the Corps and local jurisdictions require mitigation to compensate for impacts to the functions and values of the impacted wetland(s) and buffer(s) so that no overall net loss in wetland acreage and functions occur. Jefferson County prefers mitigation to occur on-site or within the same local watershed as the impacted wetland when possible. Buffer averaging and reduction is permitted and may be used when complete avoidance of the resource buffer is not possible.

Impacts to riparian areas, fish and wildlife habitat areas, and all associated buffers also require mitigation.
**TABLE 5.2.1 MITIGATION RATIO REQUIREMENTS**

<table>
<thead>
<tr>
<th>Category and Type of Wetland Impacts</th>
<th>Re-establishment or Creation</th>
<th>Rehabilitation Only&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Re-establishment or Creation (R/C) and Rehabilitation (RH)&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Re-establishment or Creation (R/C) and Enhancement (E)&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Enhancement Only&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Category IV</td>
<td>1:5:1</td>
<td>3:1</td>
<td>1:1 R/C and 1:1 RH</td>
<td>1:1 R/C and 2:1 E</td>
<td>6:1</td>
</tr>
<tr>
<td>All Category III</td>
<td>2:1</td>
<td>4:1</td>
<td>1:1 R/C and 2:1 RH</td>
<td>1:1 R/C and 4:1 E</td>
<td>8:1</td>
</tr>
<tr>
<td>Category II Estuarine</td>
<td>Case-by-case</td>
<td>4:1 Rehabilitation of an estuarine wetland</td>
<td>Case-by-case</td>
<td>Case-by-case</td>
<td>Case-by-case</td>
</tr>
<tr>
<td>Category II Interdunal</td>
<td>2:1 Compensation has to be interdunal wetland</td>
<td>4:1 Compensation has to be interdunal wetland</td>
<td>1:1 R/C and 2:1 RH Compensation has to be interdunal wetland</td>
<td>Not considered an option&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Not considered an option&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>All Other Category II</td>
<td>3:1</td>
<td>6:1</td>
<td>1:1 R/C and 4:1 RH</td>
<td>1:1 R/C and 8:1 E</td>
<td>12:1</td>
</tr>
<tr>
<td>Category I Forested</td>
<td>6:1</td>
<td>12:1</td>
<td>1:1 R/C and 10:1 RH</td>
<td>1:1 R/C and 20:1 E</td>
<td>24:1</td>
</tr>
<tr>
<td>Category I Based on Score for Functions</td>
<td>4:1</td>
<td>8:1</td>
<td>1:1 R/C and 6:1 RH</td>
<td>1:1 R/C and 12:1 E</td>
<td>16:1</td>
</tr>
<tr>
<td>Category I Natural Heritage Site</td>
<td>Not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>6:1 Rehabilitation of a Natural Heritage site</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Case-by-case</td>
</tr>
<tr>
<td>Category I Coastal Lagoon</td>
<td>Not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>6:1 Rehabilitation of a coastal lagoon</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Case-by-case</td>
</tr>
<tr>
<td>Category I Bog</td>
<td>Not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>6:1 Rehabilitation of a bog</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>R/C not considered possible&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Case-by-case</td>
</tr>
<tr>
<td>Category I Estuarine</td>
<td>Case-by-case</td>
<td>6:1 Rehabilitation of an estuarine wetland</td>
<td>Case-by-case</td>
<td>Case-by-case</td>
<td>Case-by-case</td>
</tr>
</tbody>
</table>

1. These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

2. Due to the dynamic nature of interdunal systems, enhancement is not considered an ecologically appropriate action.

3. Natural heritage sites, coastal lagoons, and bogs are considered irreplaceable wetlands because they perform some functions that cannot be replaced through compensatory mitigation. Impacts to such wetlands would therefore result in a net loss of some functions no matter what kind of compensation is proposed.
PERMITTING TIMELINES

The proposed project requires public and agency review which takes prescriptive time to complete. Table 5.2.2 below shows potential permits and approvals that may be required for this project and possible timelines to complete.

### TABLE 5.2.2 PERMIT TIMELINE

<table>
<thead>
<tr>
<th>Federal Approvals</th>
<th>Required</th>
<th>Review Time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEPA</td>
<td>Possible</td>
<td>up to 1.5 years</td>
<td>Requires Federal Action to trigger</td>
</tr>
<tr>
<td>Bridge Permit</td>
<td>No</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Section 10 Rivers and Harbors</td>
<td>No</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Section 106 - Historic Preservation</td>
<td>Possible</td>
<td>6 months</td>
<td></td>
</tr>
<tr>
<td>Section 401 - Water Quality Certification</td>
<td>Possible</td>
<td>6 months</td>
<td>Starts after Section 404 permit issuance</td>
</tr>
<tr>
<td>Section 404 - Discharge of Fill Nationwide Permit</td>
<td>Possible</td>
<td>6 months</td>
<td></td>
</tr>
<tr>
<td>Coastal Zone Management Approval</td>
<td>Possible</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>State Approvals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydraulic Project Approval</td>
<td>Yes</td>
<td>1.5 months</td>
<td></td>
</tr>
<tr>
<td>Washington State Department of Archeology and Historic Preservation (DAHP)</td>
<td>Yes</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Construction Stormwater General Permit - NPDES</td>
<td>Yes</td>
<td>1.5 months</td>
<td></td>
</tr>
<tr>
<td>Local Approvals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Environmental Policy Act</td>
<td>Yes</td>
<td>3 to 6 months</td>
<td></td>
</tr>
<tr>
<td>Clearing, Grading, and Building Permits</td>
<td>Possible</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>Critical Areas</td>
<td>Yes</td>
<td>3 to 6 months</td>
<td></td>
</tr>
<tr>
<td>Shoreline Permits</td>
<td>Possible</td>
<td>6 months</td>
<td>May be required for work along Discovery Bay</td>
</tr>
</tbody>
</table>
IMPLEMENTATION
6.1 COST AND EASE OF IMPLEMENTATION

At this early, route-planning stage, without a precise trail alignment -- let alone landowner commitments regarding exact trail locations, wetlands delineations, right-of-way surveys, soils and geologic studies, grade and slope analysis, and so on -- it is only possible to give preliminary estimates of construction costs. We have considered the latest available unit costs experienced by City, County, and State agencies. We have looked at the range of construction costs of other rural trails in Western Washington, including rural trails and roads constructed by Jefferson and Clallam counties. We have considered published information about trail construction costs. Rural multi-use trail construction costs on the Olympic Peninsula range from a low (in 2018 dollars) of about $900,000 a mile to a high of about $3,000,000 a mile – depending on project complexities, land acquisition costs, difficulties of construction, and many other variables. Published information shows similar cost ranges. Contingency multipliers can substantially increase those ranges. Exactly where within those ranges a detailed cost estimate will fall depends on much more information regarding the exact trail alignment, and conditions on that alignment, than we have identified at this preliminary stage.

We can be more confident at this point regarding trail maintenance costs. Based on Jefferson County’s experience with the Larry Scott Trail, we estimate the annual maintenance cost of the trail at $4,500 per mile per year. These costs do not include future heavy maintenance costs such as full asphalt overlay. These costs include mowing, brush cutting, sign maintenance, pothole patching, tree trimming and removal, fence repair, litter cleanup, storm cleanup, culvert cleaning, landscaping, and restroom cleaning and rental. Maintenance costs will vary depending on the location and nature of the trail. Maintenance costs may be shared by the agencies that control the particular segments of the trail, so that State Parks might manage maintenance on the Anderson Lake State Park parcel, the City might manage maintenance on the City Lake parcel, and the WA State Department of Transportation might manage maintenance on the WSDOT rights-of-way. In addition, volunteer organizations – the Peninsula Trails Coalition, the Back Country Horsemen of Washington, Buckhorn Range Chapter, and the Pacific Northwest Trail Association, have already made maintenance commitments to Washington State Parks for maintenance in Anderson Lake State Park, and we anticipate that they may make similar commitments to the County.

Regarding ease of implementation, the ODT-E project is very challenging. It involves 10 miles of trail over some difficult terrain, requiring cooperation and coordination between multiple municipal, state and federal agencies including Jefferson County, the City of Port Townsend, Washington State Parks, the Department of Natural Resources, Washington State Department of Transportation, the US Forest Service, and the Recreation and Conservation Office. It will require potentially-difficult land exchange transactions with Pope Resources, plus easement acquisitions with a number of other private landowners. It will require multiple grant applications, supported by matching contributions so that the cost burdens are not entirely borne by the County. It will require project management over a several years as the trail is designed and built, segment by segment. And it will require the ongoing active support, with time and money, of many community volunteers including the Peninsula Trails Coalition, the Eaglemount Trail Association, the Back Country Horsemen of Washington, Buckhorn Range Chapter, the Pacific Northwest Trail Association.
Association, and many individual volunteers.

Balanced against these costs and implementation challenges are the potential benefits that the County’s citizens may receive from the trail. We have already discussed the potential economic benefits that such trails provide. The benefits are more than economic. Trails make citizens healthier. Trails make the environment greener. This trail may save lives. In Alta’s opinion, the need for the trail, the probable use, and the benefits of the trail outweigh its costs, whether they are on the high or low end of the scale.

6.2 PHASING PLAN

A safe, pleasant, complete and connected Olympic Discovery Trail is the goal of this effort. Ideally the ODT-E would be funded and built in one phase, perhaps divided into discrete construction packages reflecting the geography, construction methods required and ownership patterns.

There are logical interim endpoints that create the three segments outlined in the study, and each could stand on its own as an improvement over the current status, but would not serve to connect the Olympic Discovery Trail as a continuous off-road experience. As noted in this report the logical segments are:

- North - from the Milo Curry trailhead to Anderson Lake Road at Anderson Lake State Park
- Central - from Anderson Lake Road to Grouse Lane and Eaglemount Road.
- South - from Eaglemount Road to the end of the ODT at Discovery Bay.

The order of phasing will be influenced by many factors including right-of-way acquisition, coordination with utility funding and improvement, and capital improvement budgeting.

The South Segment addresses the most urgent safety and experience needs and is entirely within public right-of-way.

In the North Segment North A, North B, and North C may be easier to implement with the cooperation between Jefferson County and WA State Parks.

The North Segment is a logical place to start since it would continue the Larry Scott Trail and connect to Anderson Lake State Park.
6.3 FINANCIAL STRATEGY

Many potential sources of funding for the ODT-Eaglemount exist under both state and federal programs.

Local

Jefferson County stated in its 2010 Update to the transportation element of its Comprehensive Plan that it “will consider a partnership with the Forest Service and trail advocate[s] to develop this route.” The Forest Service has expressed, in its October 30, 2015 memorandum to the Jefferson County Commissioners, that it encourages a study and potential development of a non-motorized trail from the Larry Scott Memorial Trail, and that it will seek the “advice and assistance of states, local governments, private organizations, landowners and land users,” in connection with the development and possible relocation of the Pacific Northwest National Scenic Trail off SR 20.

The City of Port Townsend’s plans include connectivity among the city and county trail systems.

State

Washington’s Recreation and Conservation Office (RCO)

- Nonhighway and Off-Road Vehicle Activities Program (NOVA)
- Washington Wildlife and Recreation Program, Trails Category (WWRP)
- Recreational Trails Program (RTP) provides for trail-related facilities for both non-motorized and motorized trail uses, including new “linking” trail development projects for recreational trails.

Washington State Parks has expressed its support for the concept of routing part of the trail through Anderson Lakes State Park.

WSDOT’s Pedestrian and Bicycle Safety Program (PBSP) provided funded more than $10 million in projects in the 2015-2017 biennium.

Federal

- Surface Transportation Program (STP), provides financial support to local agencies developing bicycle, pedestrian, and recreational trails.
- Transportation Alternatives Program (TAP) is a potential source of funds for planning and development.
- The Federal Lands Access Program (FLAP) provides funds for access to federal lands and may be available to support the ODT connection to Olympic National Forest, Olympic National Park and the Pacific Northwest National Scenic Trail.
- BUILD (formerly TIGER) discretionary grants program, provided nearly $500 million for 39 projects in 34 states in 2015.
- Additional federal infrastructure funding may become available late in this decade.

Private and Philanthropic

Individual donors, companies and philanthropic organizations across the country recognize the many civic, social, employment, health, environmental, and economic benefits of multi-use trails and often step forward with funds to match or challenge other sources. Advocates for the ODT-E may look to local, regional and special interest foundations for funding, in addition to local economic interests.

Examples can be found in Northwest Arkansas where the Walmart Family Foundation provided a $15 million match for a $15 million TIGER grant for the 36-mile Razorback Greenway.