



SALMONBERRY TRAIL CONCEPT PLAN

Spring 2015
WALKER | MACY

Acknowledgments

Salmonberry Coalition

The Salmonberry Coalition represents a broad range of interested parties and stakeholders who have given their time and support to this visionary project, including 4 work sessions to review work in progress and guide the Concept Plan. Participants in the Coalition include:

- Betsy Johnson, Oregon State Senator (D-Scappoose)
- Governor's Office - Transportation and Intergovernmental/Regional Solutions
- Cycle Oregon
- Port of Tillamook Bay Corporation
- Tillamook County
- Washington County
- City of Garibaldi
- City of Nehalem
- City of Manzanita
- City of Rockaway Beach
- City of Tillamook
- City of Wheeler
- Oregon Coast Scenic Railroad
- Oregon Coast Visitor Association
- Washington County Visitor Association
- Economic Development Council of Tillamook
- Oregon Equestrian Trails
- Oregon Recreation Trails Advisory Council
- Oregon Dept. of Fish and Wildlife
- Oregon Dept. of Environmental Quality
- Oregon Dept. of Transportation
- Oregon Dept. of Energy
- Northwest Steelheaders
- Western Rivers Conservancy
- MODA Health Services
- Bike Gallery
- Columbia Pacific Economic Development District

Many other citizens and representatives of local communities surrounding the Salmonberry Trail have provided input and guidance in a variety of ways. All Coalition meetings have been open to the public, including public testimony.

Tillamook Forest Heritage Trust

The TFHT, led by Executive Director Ross Holloway, has been tasked with serving as a non-profit advocate and fund-raiser for the Salmonberry Trail project, building on its fundamental mission of supporting the Tillamook Forest Forest Center. This group, which will include guiding committees with representatives of the Coalition and other interested parties, will also refine initial proposals for project governance.

State of Oregon Project Staff

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- Mike Cafferata, Oregon Department of Forestry (ODF)

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ALTA Planning

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PBS Engineering

- Tom Archer, Principal

KPFF Engineers

- Craig Totten, Principal



Consultant team and OPRD staff on corridor site visit



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The vision for a connected recreational trail across the Coast Range

People on the Trail, 2035



Rex is an avid hiker and member of the Mazamas. He leads trips down to the Salmonberry every summer, arranging car shuttles so that they can hike a good chunk of the Canyon and see some of the remote scenery.



Beth and Andrea are training for a triathlon in 2036, so they love to take MAX out to Hillsboro then ride the Council Creek Trail to the Banks-Vernonia, then jump on the Trail, riding as far as the Walcott Tunnel before looping back on remote roads to Stub Stewart State Park to complete the workout.



Jeff and his son Tyler have come to love the Trail as it provides quick access on foot to a network of trails in the Tillamook State Forest where they can hunt for one elusive elk in October each year. They also hike in next to the rail line from the Confluence to fish for steelies in February.



Jack and Betty have loved riding the Oregon Coast Scenic Railroad for years. They enjoy taking an autumn trip to see the leaves turning in the Canyon and along the Nehalem River.



Suzanne and her horse, Diamond, love to drive to Timber, then ride the Trail west into the Salmonberry Canyon, stopping for lunch at the Reliance Trestle. Some day she'd like to ride with her daughter all the way through to the Coast.

The Port of Tillamook Bay (POTB) railroad once connected the Willamette Valley to the Oregon Coast on an 86-mile rail corridor formerly owned by Southern Pacific, running from Banks to the Tillamook Airport through the canyon of the Salmonberry River and the Tillamook State Forest. Following a catastrophic storm with over 20 inches of rain falling over 2 days in December 2007, this rail connection was cut off due to major damage, particularly in a 16-mile stretch of tunnels and trestles deep within the Coast Range. After detailed engineering assessments, the POTB decided not to re-establish the rail connection due to the costs involved and a changing market for rail service. An undamaged portion of the line is currently being used by the Oregon Coast Scenic Railway to conduct tours between Garibaldi and Milepost 816 at the confluence of the Nehalem and Salmonberry Rivers, but the remainder of the trail corridor lies unused except by a few hikers, hunters and fishermen.

This unique passage, which is referred to as the Salmonberry Trail in this report, has a rich history, an outstanding scenic context and has the potential to connect urban and rural Oregon while tapping into a wide network of existing recreation trails and parks, educational opportunities and heritage sites. This will create strong economic opportunities for Northwest Oregon and help revitalize communities along the rail corridor, including Banks, Timber and the small towns along the coast from Wheeler to Tillamook. It will also define a new trail for active, human-powered transportation, from the urban population of the Willamette Valley through the wild wooded Coast Range to the beaches and farms of Tillamook County.

There is increasing demand for this sort of trail. The Statewide Comprehensive Outdoor Recreation Plan (SCORP) includes survey data for recreational activities in Region 1 (NW Coast) and Region 2 (Portland Metro), which brackets the length of the Trail. Recent survey results (November 2012) note that the top two activities in both regions include "walking on local sidewalks" (61.6% of population participating in Region 1 and 68.9% in Region 2) and "walking on local trails/paths" (59.9% and 62.1% respectively). The population is aging rapidly, so low impact activity such as walking is increasing dramatically in popularity, with biking and day hiking also gaining. Accordingly, the highest priority needs noted by the SCORP surveys are walking paths, public access to waterways, nature viewing, off street bicycle trails and paved paths. In fact, 7 of the top 10 needs identified are trail-related.

In recognition of the demand for such recreational amenities, there is also significant political support for this project. The North Coast Regional Solutions Team, which includes the Department of Transportation (ODOT), Department of Land Conservation and Development (DLCD), Department of Environmental Quality (DEQ) and other state agencies, has identified the Salmonberry Trail project as a regionally-significant project. In March 2014, the Oregon Legislature passed Senate Bill 1516 that directs OPRD and ODF to work with the Salmonberry Coalition to identify potential sources of funding and management options by October 1, 2015. The Coalition has a visible and vocal supporter in State Senator Betsy Johnson (D-Scappoose).

Funded through a generous grant from the non-profit Cycle Oregon, this Concept Plan was commissioned to build on the Preliminary Feasibility Study (Walker Macy, March 2013) and establish feasible trail types and alignments, explore possible trailheads and trail-related facilities and present options for a variety of trail surfacing options. **Given the complexity of the Trail, no single solution has been proposed. Rather, advocates and agencies can use this document as a guide for developing more specific plans and designs for individual segments of the Trail.**

This concept plan draws on the character of the landscape, the conditions of the Trail and the diverse visions of stakeholders, and is intended to be the foundation for future development of this important landmark. The Salmonberry Trail will likely take many years of development until it can be considered as a complete recreational resource and a full, unprecedented passage through Oregon's Coast Range. For reference, the Banks-Vernonia State Trail took over 30 years of planning and construction before it became the complete multi-use corridor that it is today. **Patience will be required to fulfill this unique and dramatic vision.**

Goals

The following broad goals have been established for the Salmonberry Trail Concept Plan:

Support Local Economies

Encourage new economic opportunities for Trail communities

Preserve the Investment

*Stabilize existing right of way and limit future damage
Ensure a financially-viable and sustainable future for the project*

Provide Access for Multiple Users

Improve and increase access to public lands for a wide range of uses (and ages) including walking, biking, hunting, fishing and equestrian

Maintain and Improve the Environment

Maintain and improve sensitive river and coastal environments

Project Parameters

Throughout the planning process, public comments shaped the basic parameters that define the Salmonberry Trail:

The Salmonberry Trail project **IS**

- **A historic transportation corridor**
- **An important natural resource**
- **Complementary of existing recreational uses**
- **A multi-use, non-motorized trail**
- **Intended for multiple users across diverse terrain, with multiple trail standards**
- **A rail with trail as well as a rail to trail**
- **Located within the POTB rail ROW where possible. If not, it will bypass the ROW within public roadways or public forestland. No private property will be acquired, unless by willing seller, for this project.**
- **A good neighbor to many adjacent public and private landowners**

The Salmonberry Trail **IS NOT**:

- **A restriction on adjacent land uses**
- **A single trail design or standard**
- **A change to existing hunting access**
- **A motorized trail**

Concept Plan Stakeholder Meetings

Date	Location	Meeting Type
9/11/13	Tillamook	Public Meeting
9/12/13	Banks	Public Meeting
10/1/13	Hillsboro	Stakeholder Meeting (WA County)
10/11/13	Banks	Coalition Meeting
11/4/14	Hillsboro	Stakeholder Meeting
11/25/13	Forest Grove	Stakeholder Meeting (ODF)
12/3/13	Tillamook	Public Meeting
12/3/14	Tillamook	Stakeholder Meeting
12/4/13	Banks	Public Meeting
12/12/13	Banks	Stakeholder Meeting
1/8/14	Tillamook	Stakeholder Meeting
1/15/14	Tillamook	Stakeholder Meeting
1/17/14	Wheeler	Coalition Meeting
1/31/14	Salem	Stakeholder Meeting
2/18/14	Tillamook	Public Meeting
2/19/14	Banks	Public Meeting
3/12/14	Portland	Stakeholder Meeting
4/11/14	Forest Grove	Stakeholder Meeting
4/29/14	Banks	Stakeholder Meeting (landowner visit)
4/30/14	Tillamook	Stakeholder Meeting
5/6/14	Tillamook	Stakeholder Meeting
5/14/14	Tillamook	Stakeholder Meeting
6/13/14	Tillamook Forest Center	Coalition Meeting
6/24/14	Tillamook	Public Meeting
6/25/14	Banks	Public Meeting
7/2/14	Portland	Stakeholder Meeting
7/10/14	Forest Grove	Stakeholder Meeting
7/29/14	Tillamook	Stakeholder Meeting
9/8/14	Forest Grove	Stakeholder Meeting
9/12/14	Tillamook	Stakeholder Meeting
9/12/14	Tillamook	Coalition Meeting
9/23/14	Tillamook	Public Meeting
9/24/14	Banks	Public Meeting
9/25/14	Portland	Public Meeting
11/14/14	Banks	Coalition Meeting

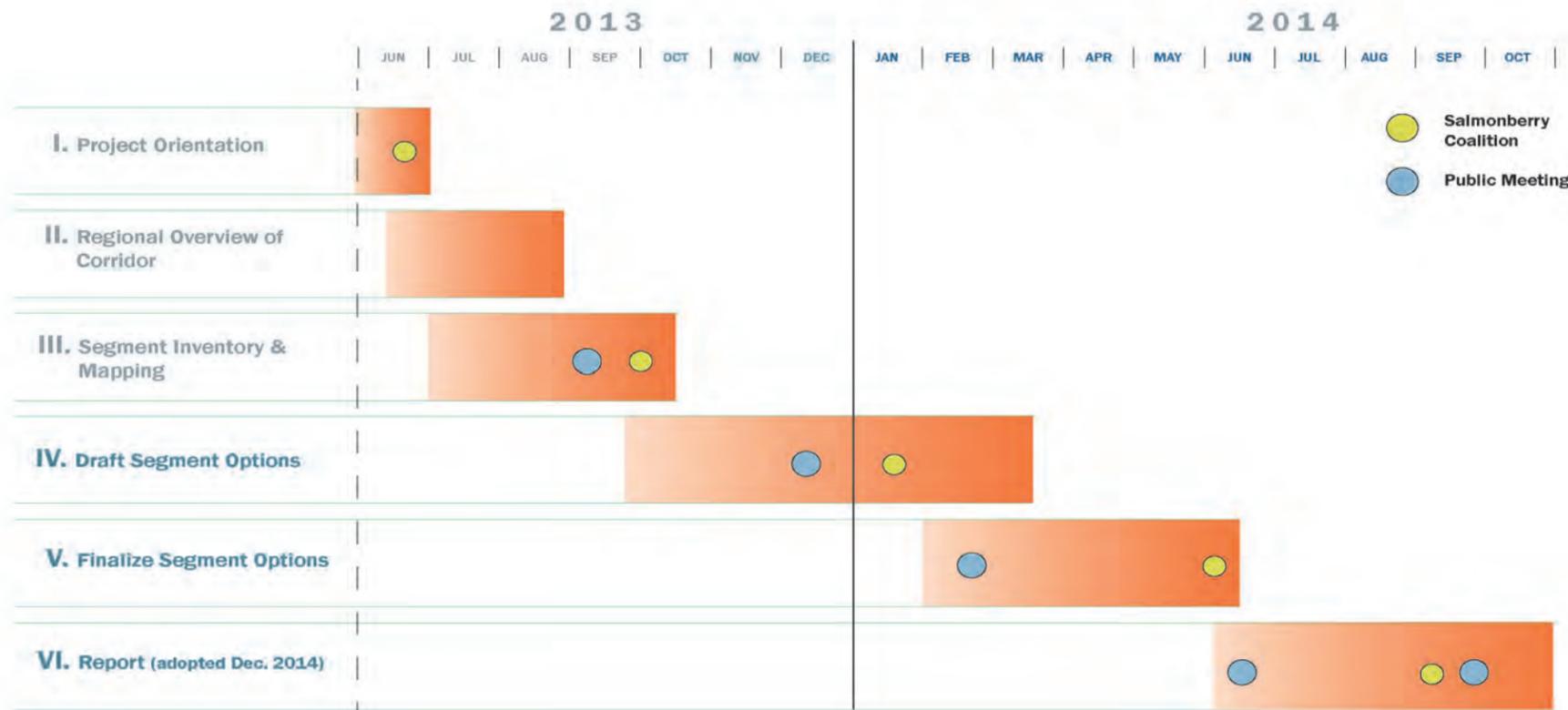


Figure 1: Concept Plan Project Schedule

Planning Process

The 14-month planning process for this trail (see schedule on facing page) has included a range of opportunities for stakeholder and public review and discussion. OPRD and ODF are the lead stage agency partners in managing this concept plan, with OPRD serving as direct project managers and facilitators of public meetings, as well as the recipient of public input through a variety of sources, including a regularly updated blog (salmonberrycorridor.wordpress.com). This blog has been viewed over 28,000 times by visitors from over 32 countries.

The Tillamook Forest Heritage Trust has been tasked with serving as a non-profit advocate and fund-raiser for the Salmonberry Trail project and has begun work in earnest. This group will also refine initial proposals for project governance.

The Salmonberry Trail Coalition is a group of interested stakeholders whose primary focus is to determine what needs and opportunities need to be identified and overcome for this trail project to be successful over the next decades. Members are listed in Acknowledgements (page 2). Additional informational meetings and listening sessions were conducted from among these stakeholders, including local jurisdictions, recreational groups, adjacent landowners (ODF and commercial foresters as well as farm interests), natural resource groups (watershed advocates, ODFW, the Native Fish Society and others.)

Coalition Meetings

June 21, 2013 (aboard Oregon Coast Scenic RR excursion train)

Concept Plan Kickoff Meeting, presenting scope of project

October 10, 2013 (Banks Fire Hall)

Concept Plan Existing Conditions Analysis presentation

January 17, 2014 (Wheeler City Hall)

Concept Plan Draft Concept Alternatives Presentation

June 13, 2014 (Tillamook Forest Center)

Concept Plan Refined Alternatives Presentation

September 12, 2014 (Port of Tillamook Building, Tillamook)

Concept Plan Draft Report Presentation

November 14, 2014 (Banks Fire Hall)

Concept Plan Final Draft Report Presentation

Public Open Houses

Four sets of Public Open Houses, on either end of the Trail, were convened to review project progress:

September 11, 2013 (ODF Office Tillamook)

September 12, 2013 (Banks Fire Hall)

Concept Plan Kickoff Meeting, presenting scope of project

December 3, 2013 (ODF Office Tillamook)

December 4, 2013 (Banks Fire Hall)

Concept Plan Kickoff Meeting, presenting scope of project directed to adjacent landowners after direct mailer to roughly 4,000 people.

February 18, 2014 (ODF Office, Tillamook)

February 19, 2014 (Banks, OR Fire Hall)

Concept Plan Existing Conditions Analysis

June 24, 2014 (Port of Tillamook Bay Officer's Mess Hall, Tillamook)

June 25, 2014 (Banks Fire Hall)

Concept Plan Concept Alternatives Presentation

September 23, 2014 (Tillamook)

September 24, 2014 (Banks Fire Hall)

September 25, 2014 (Metro HQ, Portland) Concept Plan Draft Report Presentation

Public Comment Summary

The plan is a genesis of the public outreach, comments received and stakeholder input. Through the planning process, there have been over 29,000 reviews of the planning website and thousands of comments collected and reviewed by the planning team. The majority of comments have been supportive of a rail-trail concept. A minority of comments have raised questions about the trail's feasibility, impacts and need. To assist with placing context on this feedback, the comments will be summarized in the following categories.

Economic Impacts

There were several comments supporting the development of the trail to assist with tourism and local economic activities. A few comments asked how the trail may increase new business opportunities for the community. Several comments referenced other locations in the US that had similar trails and the impact it had on the local economy and the way these regional trails can draw new tourists to the area.

Natural Resources

There were comments identifying the importance and significance of the Salmonberry River. The damage done to the river from the storm damage and adjacent land activities were identified and a request to minimize future impacts was made. A desire for a primitive experience was communicated. In addition, it was recommended that populated areas should have a trail developed first.

Management

Comments in this area were primarily questions. People wanted to know who was going to own the trail, who was going to develop the trail and who was going to manage the trail.

Costs

Comments in this area were also primarily questions. People wanted to know how much the trail was going to cost, how that cost compared to rebuilding the rail, where the funding was going to come from and who was going to have to pay for the development.

Need

There were several comments early on in the planning process about the need for this trail. The comments were diverse. The spectrum of comments began with how this trail could assist in meeting local recreation and transportation needs among the communities on the coast. They ended on the other side of the spectrum with questioning if the trail was needed at all, given other community needs.

Impacts to neighbors

A majority of these comments were concerned with negative impacts on neighbors. Concerns were raised on trespassing, privacy, crime, littering and general impacts to why people chose to live in rural Washington and Tillamook Counties. Additional comments included support for access to the trail.

Impacts to existing use

There were several questions and concerns raised on potential impacts to hunting and fishing and to commercial activities along the trail. The concerns were focused on potential limits or reductions to existing activities or cost increases.



Mike Cafferata, ODF, describing the project at a Public Meeting in Banks.

I would definitely support and utilize a multi-use trail that is in harmony with local land owners and respects the native environment it travels through.

Linda M.

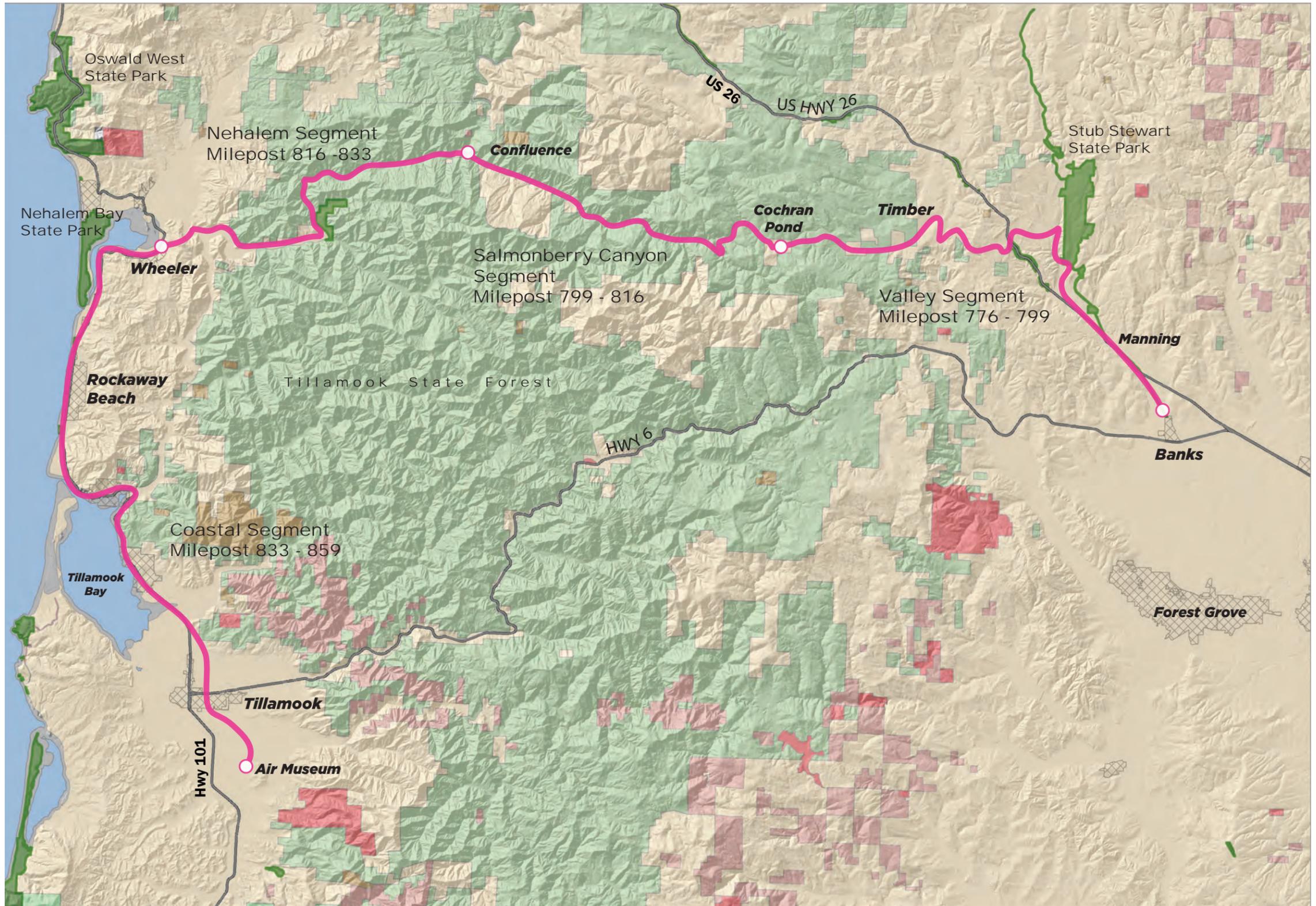
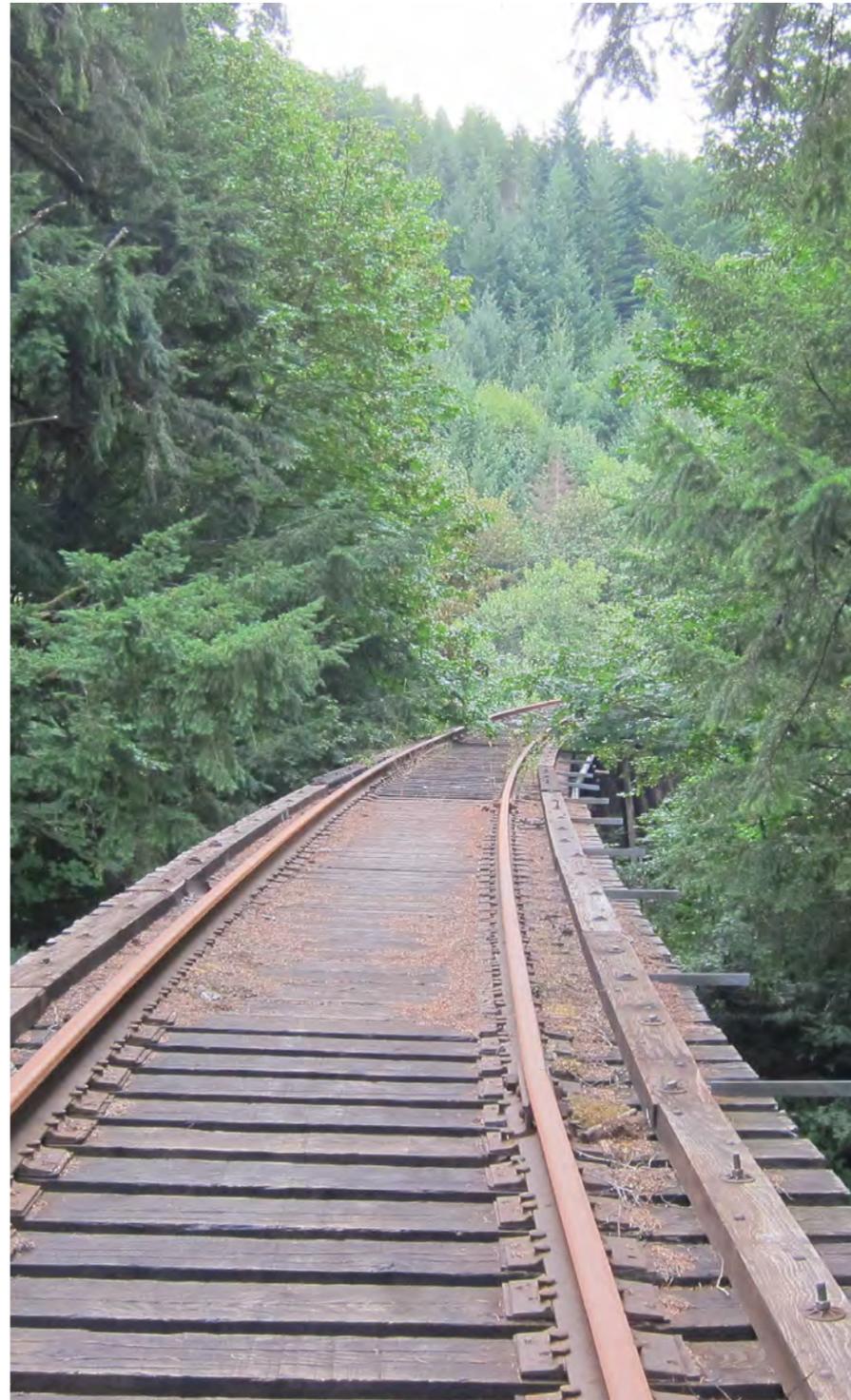


Figure 2: Salmonberry Trail Overview Map

Corridor Ownership & Management



General Overview

The Right Of Way (ROW) is currently owned fee simple by the Port of Tillamook Bay, who purchased the ROW in 1990 from Southern Pacific Railroad (SPRR) with assistance from the State of Oregon. The ROW varies in width, from 80'-120', with most of the corridor 100' in width. The 2008 FEMA Environmental Assessment (p 3-4) identifies 37 existing or pending ROW lease agreements, which include road crossings, utility easements and seven private property encroachments. POTB and the Oregon Department of Justice are currently clarifying and updating ROW documentation and easements as part of a Chain of Title report. From an initial assessment of legal documents describing the transfer from SPRR to POTB, it is probable that SPRR has retained the right to subsurface mineral rights.

There is a fiber optic cable easement along the length of the POTB corridor, from Banks to Nedonna Beach. The current fiber cable lease with WCI Cable ends in 2018 and WCI has the option to extend for another 20 years. Within this easement, a duct bank was installed by WCI in 1999, containing three individual cables, each supporting high-capacity international undersea systems, under a \$4 million agreement. The cables include the Southern Cross Cable to Oahu and Australia, the Tata TGN cables to Japan and NorthStar Cable to Alaska. The fiber optic cables within the ROW were damaged at several points by the 2007 storm and are currently inoperable. WCI performed a damage study and found that 9 total miles were completely washed away, presumably now sitting under debris or in the Salmonberry River itself. The cables were installed 4' deep, typically at a 9' setback from the rails, never under rails.

Given the importance of this cable connection, WCI may be interested in contributing money to trail construction. Assuring maintenance access to their cables, probably by a 'Gator'-type vehicle, will probably be a condition of this assistance, which may shape future detailed design of the Trail. Where the trail is moved off the railbed and onto a bypass/adventure trail, it may not be of use as a fiber easement as the cost for installation would be high and the adventure trail may restrict maintenance access. Even a short bypass trail might render an entire segment useless to the cable companies, which would affect their desire to extend the fiber lease along various segments. Finally, there may be additional ocean cables landing in the future on the Northern Oregon Coast and their operators may be interested in using easements for the cables along the Trail.

Abandonment and Railbanking

A rail corridor operates under the supervision and rights of the US Surface Transportation Board. Their goal is to provide a system of freight trains that will meet the economic needs of America's economy. How the railroad came into existence is the result of a complex system of laws. In short, a railroad either buys the land or receives an easement from a landowner and then operates the rail in what is often called a rail right-of-way. The US Surface Transportation Board then outlines operating parameters for the rail operator.

If a railway ceases operation of freight, either due to natural disasters or economic constraints, they enter into a process that is commonly referred to as abandonment. The process can be as simple as a release of the maintenance requirements or be an application to stop operating a rail service completely. What are 'abandoned' are the rights and privileges provided by the US Surface Transportation Board to the rail operator to operate a railway. The land and rights to it remain with the railroad, unless a specific rail reversionary clause was drafted on an easement only.

After abandonment is granted by the US Surface Transportation Board, then the rail can begin disposing of the assets, including the property. During the 1970s, many trail advocates around the nation began to see a vision to re-use these rail ROWs as another type of transportation corridor. To preserve the prior investment that the US Government had made in these ROWs and provide an opportunity to reestablish the rail ROWs in the future, a process called Railbanking was established in the early 1980s.

The US Surface Transportation Board developed this process, whereby a railroad may donate, sell or lease the ROW of an unprofitable rail line to a public or private entity for interim use as a trail, as long as the rail ROW remains connected to other active rail lines and can be theoretically re-activated. The trail operating entity then assumes the responsibility for the management of the ROW. Fewer than 20% of the country's rails-trails have been railbanked.

When a trail is railbanked the land remains under federal jurisdiction. Once the management is transferred, the trail manager can remove tracks and ties, but cannot build any permanent structures on the ROW. Railbanked lines are subject to possible future rail service. If a railroad decides to resume service on a railbanked line the trail manager would be entitled to compensation. (Only one such railbanked corridor has reverted to rail use, in Wallacetown, Pennsylvania, but it never had a trail built.) If the railbanked corridor ever loses its connection to active rail, it can also lose its status and revert to adjacent landowners (if the ROW is an easement and not a fee simple ownership). Given the extent of corridor damage and the POTB's lack of interest in re-connecting the line to Banks, the overall level of connectivity to active rail networks is probably in question.

On March 10, 2014, the U.S. Supreme Court ruled in a case involving a rail corridor formerly on federal land that is now privately owned (Marvin B. Brandt Revocable Trust et al. v United States). After an OPRD review of the case, it appears that this ruling will not have an impact on the Salmonberry concept planning process. This is due to the fact that the Salmonberry Trail is intended to be part of an active or rail banked rail right-of-way, it was acquired from private property owners (not the federal government), and, most importantly, it is owned fee simple by the POTB.

Oregon Coast Scenic Railroad

The Oregon Coast Scenic Railroad (OCSR) is currently a popular tourist attraction in Tillamook County, providing an activity for families staying at the beach and for tourists passing up and down the Oregon Coast. Ridership has increased by over 16,000 annually since 2003 (there were over 18,000 riders in 2012) and continues to grow. There is a committed group of supportive volunteers maintaining the line and promoting the service. Operations in the winter are curtailed due to lower demand but they run special seasonal trains.

The OCSR operates under a lease Agreement with the POTB, effective until 2016 with potential for renewal for two subsequent 5-year periods. This Agreement is limited to tourist operations and allows use of the POTB ROW in exchange for OCSR's ongoing rehabilitation and maintenance of the ROW between Enright (MP 810.5) and the Tillamook Industrial Park (MP 859.13). This work includes rail, ballast and tie replacement, vegetation management and land slide repair. The Agreement states that trails can be built within the ROW, if it allows for continued use of the OCSR. The Agreement also allows OCSR to recover 18 log cars that are currently stranded on a siding at Enright. Volunteers have also moved an old depot from 3rd Avenue in Tillamook and are raising funds to rebuild the depot at the Blue Heron Cheese & Wine Company in north Tillamook. Honoring this legal agreement, this concept plan shows options for a Rail With Trail alongside the active rail line between Enright and the Blue Heron Company.

In order to expand the railroad's operations into the heart of the Salmonberry River canyon, the OCSR have dedicated a significant amount of money and volunteer labor and materials for ROW repairs, which will be needed particularly for washouts between the Nehalem Confluence and Enright. Before significant work begins on these repairs, a full environmental review will be required, to ensure that sensitive fish populations are protected from construction. Since a Rail with Trail option is detailed in this document, this repair work could offer a good opportunity to coordinate trail construction at the same time as the rail reconstruction.



OCSR steam locomotive at Wheeler Depot.



Excursion train in Rockaway Beach



Tracks at Barview Jetty



OCSR steam locomotive switching on Batterson siding



OCSR steam locomotive in Nehalem segment

Liability

There are two basic potential scenarios for the development of the Salmonberry Trail and they will each result in different liability issues.

Rails With Trails (RWT)

If there is to be a trail alongside the OCSR-leased railroad, the primary liability concerns will relate to safety. RWT projects will increase numbers of people adjacent to the tracks and increase incidents of trespassing and inevitably increase the number of people exposed to injury from railroad operations. Most states, including Oregon (ORS 105.682 and 105.688), have recreational use statutes that limit or eliminate the liability to the property owner when they allow their property to be used for recreational purposes, such as a trail. In addition, the trail owner may purchase insurance specifically for the trail. Typically, a written agreement is reached between an agency and rail operator that includes limitations of liability, and trail operations and maintenance policies. These agreements establish clear responsibilities and expectations of each party involved.

There have been few instances to test the liability of rail lines with regards to RWT. Many cases are settled out of court. Trespassing and injuries to trespassers could occur more frequently as a result of the trail and injured trail users could seek to sue. In OCSR's current lease with POTB, they agree to hold POTB harmless for anything related to OCSR operations and OCSR does currently hold liability insurance as part of their lease. Trail users would likely not be considered trespassers if the POTB permits a trail within their ROW. They would be considered 'licensees' or 'invitees' and as such, the POTB or OCSR would have a duty to "exercise reasonable care" in protecting them. The POTB currently tolerates public access on their ROW and did so even when freight trains were running. To protect RWT users completely would require fencing, which would be cost-prohibitive on a corridor of this length.

Permits (crossing Orders) from ODOT will be required at all locations where the trail will cross the rail line. This includes the OCSR-leased segment of the ROW, as well as any other segment of the corridor where the rights to operate a railway have not been formally abandoned. Inspections are performed by the rail operator and the owner of the trail. ODOT only monitors that inspections have been performed.

In terms of damage or vandalism to rail facilities, most rail corridors are already used by the public. Creating a trail will provide a specific location for people to be, away from the tracks and out of danger. More users also mean more eyes on the trail which has been shown to reduce incidents of vandalism and increase personal safety.

For more details on these issues, see the 2013 report [*America's Rails-with-Trails: A Resource for Planners, Agencies and Advocates on Trails Along Active Railroad Corridors*](#).

Trail Only

If a new entity (private, non-profit or government) were to operate a rail TO trail along this corridor, meaning, the rails are removed and replaced with a trail, they would likely be shielded from liability for any injuries suffered on the ROW through Oregon's Recreational Use Statute (ORS 105.682), which holds a landowner harmless as long as a fee is not collected for trail use and as long as they recognize potential dangers and warn users about these "attractive nuisances". Liability and maintenance responsibilities should be determined prior to opening the Trail to use. The damaged bridges and tunnels would be an example of an 'attractive nuisance' that would likely require some stabilization to reduce State liability. Along any abandoned sections of rail, Crossing Orders would not be required.



Allegheny Passage Rail With Trail



Rail With Trail using compacted aggregate for accessibility



Springwater Corridor Rail With Trail, with safety fencing



Rail relics litter the river, compromising habitat integrity



Oiler boxes next to RR tracks contain a petrochemical lubrication that must be secured to prevent leaks into the Salmonberry and Nehalem Rivers.



Salmonberry River bank erosion, Milepost 807

Natural Resource Assessment

Study Area

The study area encompasses the Salmonberry Trail, which is approximately 100 feet wide and consists of forested areas, emergent wetlands, scrub-shrub wetlands, shrublands and submerged and aquatic plant communities. The study area is located in the Nehalem Basin watershed along the Nehalem and Salmonberry Rivers in Tillamook and Washington County, Oregon. The study area is centered on a low and relatively flat estuary and floodplain bottomlands flanked by hilly/low-mountainous uplands of ridge and canyon systems. Elevation within the study area ranges from sea level to 3,200 feet above sea level.

Current Vegetation

Vegetation patterns within the vicinity of the trail alignment fall into two groups: 1) those occurring on the railway grade and cut/fill material within 30 feet of the track centerline; and 2) those occurring within a buffer of 1,000 feet of the center line. Separate description of both zones allows both for understanding the area to be directly impacted by any proposed use or modification, as well as understanding the landscape context, the area of cumulative and indirect effects, and visitor experience.

The immediate vicinity of the railroad has been developed and managed for the railroad. This zone has generally been shaped and graded to allow for efficient railroad management. Remaining vegetation is a mixture of shrubs low growing vegetation. There is a relatively high abundance of invasive species and generally few forest tree species. The larger vicinity is a mixture that reflects the surrounding Oregon land uses: forests, agricultural lands, rural residential areas, coastal areas, rivers, and wetlands. Users will experience the full range of Oregon's land uses including, forests, timber harvests, streamside areas, agricultural lands, and rural residential landscapes.

Forest Age and Successional Status

IMAP and ODF inventory data was used to map the age class across the trail's alignment. Much of the forested landscape has a dramatic fire and harvest history going back to the early 1900s. Today, the forest reflects that history. Inventory shows that 67% is between 40 and 100 years old, 6% of the forest area is between 20 and 40 years old, and 14% of the forested lands within 1,000 feet of the trail alignment are very young forests or freshly harvested areas. Inventory suggests 3% of the forest is mature to late-successional, 100-180 years old, forests and 0.1% of the forest cover in the trail alignment is over 180 years old and can be classified as late successional.

Fire History

Much of the region the railroad passes through was harvested originally during the railroad logging era in the 1920s, 1930s, and 1940s. Subsequent to these timber harvests, several large fires burned portions of the trail alignment, further altering the forest environment and shaping today's forests. Today's forests remain prone to wildfire, especially during August and September when dry windy conditions can fan extreme fire growth.

Rare Plant Species

Four rare plant species have been previously reported along the Salmonberry Trail: *Sidalcea hirtipes*, *Myriophyllum sibiricum*, *Filipendula occidentalis* and *Eleocharis parvula*. All of these species are associated with wetland or riparian habitat. There could potentially be habitat along the alignment for several species listed as threatened or endangered under Oregon's Endangered Species. The habitat could potentially support *Erythronium elegans*, *Sidalcea nelsoniana*, *Aster vialis* and *Cordylanthus martimus ssp. palustris*.

Nehalem River Hydrology

The Nehalem River watershed lies completely within the temperate coniferous rainforest belt. Land uses, wildfire, and stream channel alterations for railroad construction, combined with strong flood events along the rivers have increased landslides and erosion, to the detriment of water quality and wildlife habitat. Water input into the system is derived from rainfall, and the watershed receives between 100-200 inches of rainfall per year.

Wetlands

Wetlands are common along the Trail alignment. Most are associated with low ground, swales and flats, but wetlands can occasionally occur in seepy sloping areas where underlying soils don't drain. They will mostly occur outside of the immediate vicinity of the railroad tracks as a result of past hydrologic alterations. No systematic survey of wetlands or modeling was done in the course of this review.

Rivers and Tributaries

The Salmonberry Trail follows the Lower Nehalem for approximately 22 miles to the confluence with the Salmonberry River. It is predominately a low gradient river along this portion and the railroad runs along the north bank. The Salmonberry River mainstem is approximately 17 miles in length. It is important habitat for salmon and steelhead. The river has a long history of disturbance dating back to the construction of the railroad, first timber harvest activities, large wildfires, and storm events. Today large storm events continue to be a formative factor for the river and continue to impact the railroad infrastructure.

Major tributaries of the Salmonberry include the South Fork Salmonberry, North Fork Salmonberry and Wolf Creek. Most of the smaller tributaries are too steep to allow migrating fish, and all but 0.5 miles of the North Fork are blocked by natural barriers. Some migrating fish species are likely to occur in Bathtub, Belding and Kinney Creeks. At the eastern edge of the Trail, the railroad grade rejoins the Nehalem River at its headwaters, where it too is a higher gradient stream important for salmon and steelhead.

Fisheries

The Salmonberry and Nehalem Rivers and their tributaries host a wide array of native fishes. Although it is best known for the winter steelhead run, there are four other salmonids (chinook, coho, cutthroat trout and rainbow trout) as well as pacific lamprey that migrate through the watershed. Native fish species such as sculpins, suckers and western brook lamprey also likely occupy the watershed. The Salmonberry is not stocked with hatchery fish, which may make the watershed a genetic reserve, since there are no known interactions between wild and hatchery fish. There is fishing access on both the Nehalem and Salmonberry Rivers, especially popular for winter steelhead

Wildlife

Potential for wildlife species presence were determined using vegetation communities for habitat assessments in conjunction with searching existing occurrences in state, federal and public databases. At-risk wildlife species are those experiencing population declines or are otherwise at risk. They include federal endangered, threatened, candidate species and species of concern; state endangered, threatened, candidate species and state critical and vulnerable species. Currently, 6 species listed under the Federal and/or state Endangered Species Acts, and 65 federal and/or state sensitive species have the potential to occur in the study area. Today wildlife is valued by many in the study area, which includes hunting for deer and elk.

Potential Management Issues

There are distinct opportunities to preserve the investment in the existing corridor and to improve the environment. Railroad infrastructure has not been maintained and the rail line has eroded into the stream system at many locations. Efforts to stabilize railroad fill material would be beneficial for stream quality and preserve the track area for future use. Vegetation management could limit the spread of invasive species and control future infestations.

Development as a recreational trail can also pose threats to fish, wildlife and plant species through direct mortality, disturbance effects, habitat loss and degradation and human waste and litter issues.

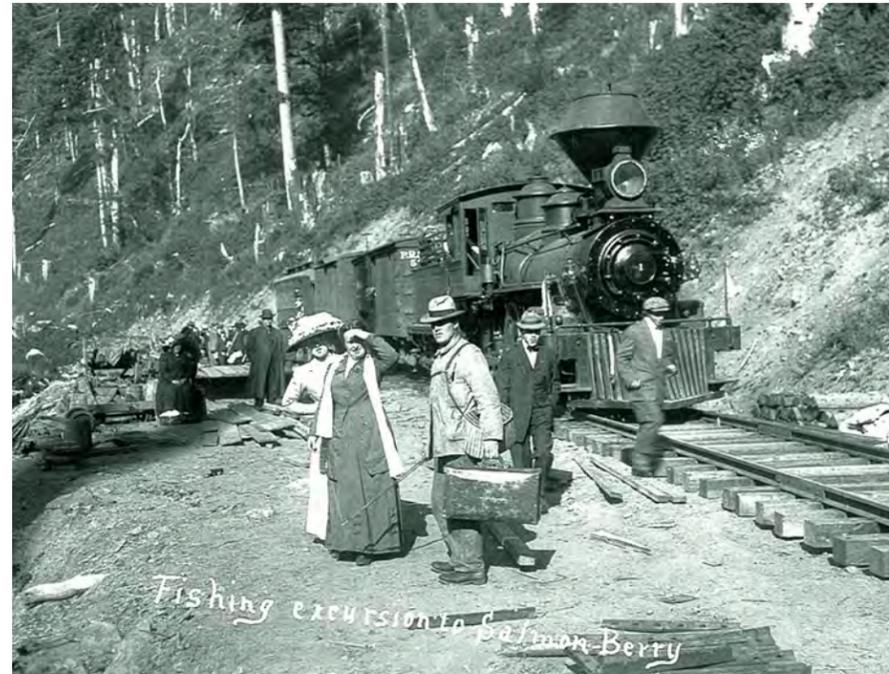
This would be a fantastic use of our natural resources, and a great boost to the economy in Tillamook County.

Kathy

When Captain Robert Gray discovered Tillamook Bay in 1788, the Tillamook nation numbered roughly 2,200 natives. These people lived in nine different villages, from the Nestucca River in the south to the Nehalem Bay in the north. The largest Tillamook village was Kilharhurst, which occupied the land that is the present-day site of Garibaldi, Oregon. The river next to this village was called Kilharnar, known today as the Miami River. This village had about fifty lodges and five hundred inhabitants.

The Tillamooks had no calendar, only a notion of the passing seasons. Indeed, they had only vague concepts of yesterday and tomorrow, and yet they understood the tides almost to the hour. As a people, they were peaceful and seldom went to war. The last full-blooded Tillamook Indian, Ellen Center, died in 1959, at the age of ninety-seven. She had been born in 1862, when the Indians still had one active village on the bay.

from Tillamook Passage, by Brian D. Ratty



Excursion Train, Wheeler 1911 (Punk Rotten & Nasty, 2001)



Railroad Logging Crew, Cochran, 1910 (Punk Rotten & Nasty, 2001)



Base of the West Oregon Lumber Company incline near Belding following the October 1932 Cochran Fire. Trestle crossed N. Fork Salmonberry River at its confluence with the Main Fork.

Photo from the Fred and Robert Wenzel Collection



PRN timetable (Tillamook Forest Center)



Rail Construction, Nehalem/Salmonberry Confluence, 1911 (Punk Rotten & Nasty, 2001)



Stac Pac relic (MP 804.5)

Cultural and Historical Assessment

The following section describes cultural and historical resources present in the vicinity of the project. Information presented in this analysis is summarized from the National Register of Historic Places Evaluation Report, the records maintained by the Oregon State Historical Preservation Officer (SHPO), ODF, the Tillamook County Pioneer Museum and various anthropological and archaeological tests, journal articles and relevant web-based resources.

Human occupation in northwestern Oregon dates to at least 6,000 years before the present day, and important habitation and activity sites exist in many areas where landforms and resources important to early Native American populations could be found. Although traces of prehistoric and ethnographic-period activities can be found throughout the region, it was the historic-era activities of logging and transportation in particular that left the most enduring mark on the landscape. In general, topography within the project corridor is extremely steep and rugged. While native peoples no doubt consistently used the natural resources of the area long before EuroAmerican populations came to dominate the cultural setting, large-scale settlements were not established within or in the immediate vicinity of the trail.

By the mid-19th century, farmers began to settle in what is now Tillamook County, drawn by the rich soils and pastures of the coastal prairies bordering Tillamook and Nehalem bays. However, even the earliest years of EuroAmerican settlement, it was recognized that the real wealth of the region lay in the thousands of acres of old-growth forest. While logging technology had long been available for the felling and milling of such timber, transporting it from the regional mills to viable markets elsewhere in Oregon and through the western United States was simply not possible without a rail link from Tillamook to Portland and beyond. By the time this link was completed by the Pacific Railway and Navigation Company (PR&N) in 1911, the EuroAmerican population had boomed in Tillamook County, while native peoples were socially and economically marginalized.

Ethnographic Setting

Ethnographically, native peoples referred to as the Tillamook inhabited the lands within and in the region of the trail and spoke the southern-most dialect of the Salishan language family (a group of 23 native languages found along the northwest coast of the United States and Canada). The Tillamook traditionally inhabited a coastal strip extending from about Tillamook Head in Clatsop County to the Siletz River in Lincoln County. Although historic-era accounts are incomplete, oral tradition places the eastern-most boundary of traditional Tillamook lands approximately 30 to 40 miles inland along the Wilson and Nehalem rivers. In the Valley Segment of the trail, the Atfalati people likely hunted and gathered in the Dairy Creek and Gales Creek drainages in the Banks to Manning vicinity and in the coast range forests to the west.

Historic-era Setting

The history of the Tillamook region can be examined according to several development themes including exploration, agriculture, marine shipping and transport, and the rise of the seaside tourism industry. However, logging and rail transportation had the most significant effect on the economy and the landscape of the past century and are most central to the project.

Logging Technology

Logging enterprises employed a variety of timber cutting and transportation technologies in northwestern Oregon during the latter half of the 19th century. However, by the time the PR&N railroad was built and the logging industry in the Tillamook region boomed, steam power and rail transport were already in use by the timber industry. Regardless of the location or the era, once trees are felled, they must be transformed from un-milled logs into marketable product. Consequently, the logging industry required infrastructure to get logs out of the forest and then transported to mills and markets. But the early 20th century, narrow-gauge and standard-gauge railways accomplished the vital tasks of extraction and transportation.

Railroad Transport and the PR&N

Work on what would become the PR&N essentially began in 1905 when a group of Portland entrepreneurs led by railroad promoter William Reid, started work on a line from Portland to Tillamook. This operation quickly ran into financial difficulties but was soon taken over by Elmer Lytle, another rail promoter and investor in Portland. Lytle incorporated the PR&N on October 13, 1905. Although much of the initial start-up money came from Elmer's and his brother Charles' personal fortunes, the PR&N raised an additional \$2 million dollars in capital through the sale of bonds to the Union Trust Company of San Francisco, a financial connection that eventually ceded a controlling interest in the PR&N to Edward Harriman, president of the Southern Pacific (SP) Company.

Only when the company was firmly established and financing secured did the actual surveying and construction of the line begin. Elmer and Charles Lytle planned construction starting from both ends of the planned railroad; one starting in Tillamook and the other in Hillsboro to the east. The work on the Hillsboro Division started quickly and proceeded rapidly since the right-of-way had already been obtained, surveyed and partially built by William Reid early in 1905. By the spring of 1906 the PR&N tracks had already reached the town of Buxton. To ensure that the construction continued at a rapid pace, the PR&N awarded contracts to the railroad construction firm of McCabe Brothers out of Portland and Robert Wakefield of the Portland Bridge company in 1907, for a 20-mile stretch of grade, track, tunnels, bridges, culverts, trestles, and access roads to a point east of Tillamook.

The railway earned the nickname "Punk Rotten and Nasty" due to the challenges of building and maintaining a railroad in some of the most rugged and geologically dynamic terrain anywhere in the western United States. The PR&N was officially completed on October 12, 1911, when the first passenger train pulled into Tillamook. Regular daily passenger service soon commenced between Hillsboro and Tillamook, with numerous stops along newly established logging towns such as Timber and Cochran.

From the inception, the PR&N advertised itself as a tourist railroad and boasted that it could bring passengers to within one block of the ocean for convenient day trips or longer overnight weekend stays. Ocean-side resorts and tourist attractions developed along the PR&N in towns such as Rockaway, Garibaldi and Bay City. Although it would not affect the day-to-day passenger and tourist service, by 1915 the PR&N ceased to exist as a corporate entity when SP took complete control of the system. By 1927, as highway transportation became a norm for passengers, the SP began to cut passenger service, offering only one round-trip per day from Union Station in Portland to Tillamook.

The SP continued to operate the former PR&N tracks throughout much of the 20th century, providing a convenient and economical means by which to transport timber products from mills in Garibaldi, Tillamook and elsewhere in the region to markets in Portland and throughout the western United States. In Tillamook, the U.S. Navy established an airship base in 1942 and constructed a spur line from the base to the existing SP system. This base, however, was short-lived and was decommissioned in 1948. By 1953, the Port of Tillamook Bay was established at the site of the former air station and utilized the spur and the existing SP line to facilitate the transportation of lumber, agricultural products and other goods to external markets.

However, the old Punk Rotten and Nasty line continued to live up to its name throughout the 20th century as the line continued with its plague of landslides, grade collapses, wash-outs and similar maintenance challenges. The SP applied to abandon the line in 1989, but with assistance from the State of Oregon, the POTB purchased the system in 1990 and continued to operate it as an important regional rail link until the storm damage in 2007.

Cultural Resources Documented with the Project Trail

In general, with the exception of the POTB railway and associated tunnels, bridges and trestles, few historic-era cultural resources have been documented within or immediately adjacent to the 100-foot trail ROW. Other historic-era resources within the immediate vicinity of the trail consist of the locations of logging camps, a lumber mill, associated town sites and Civilian Conservation Corps sites.

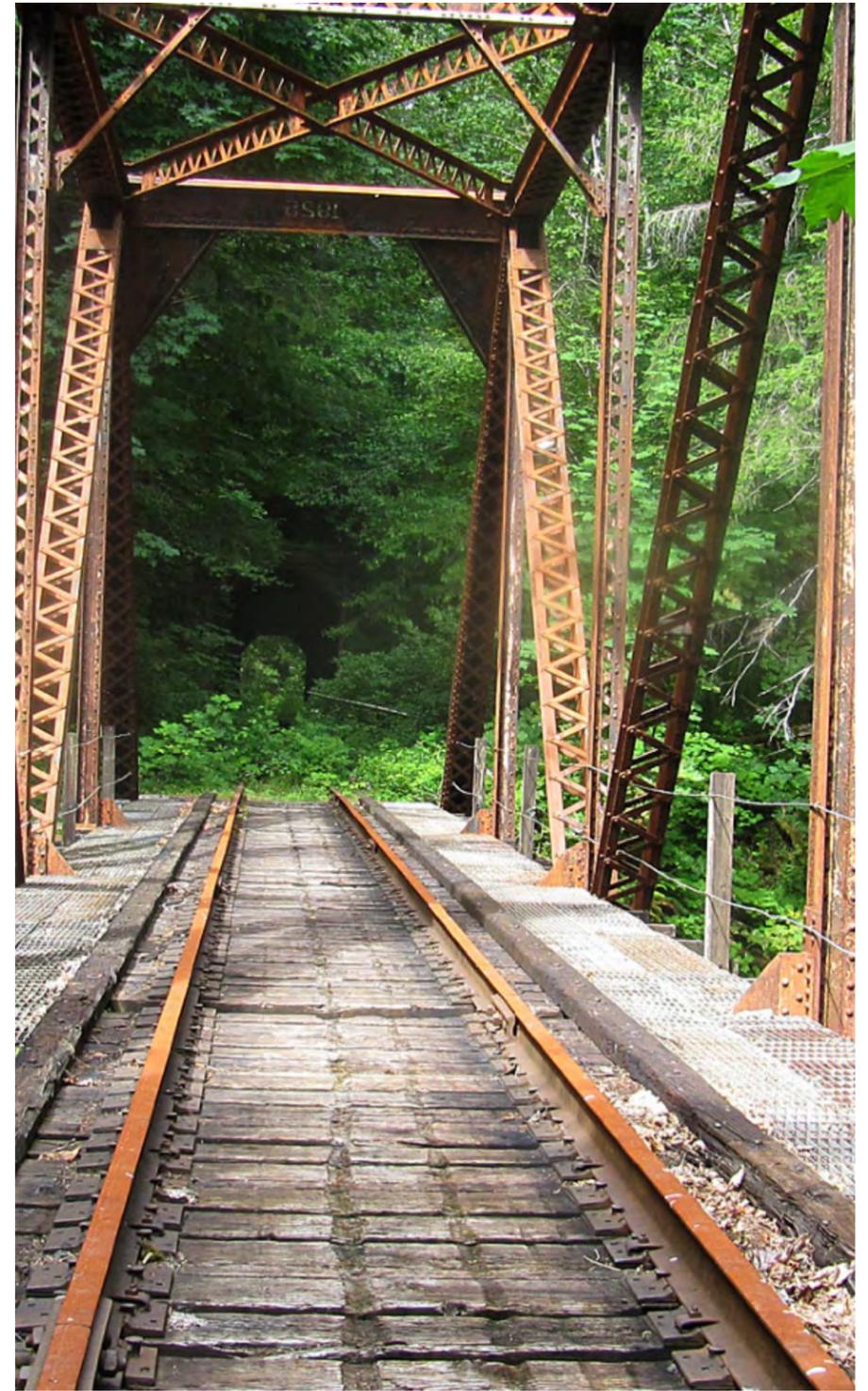
No prehistoric or ethnographic sites, features, artifacts or traditional cultural properties have been identified within the POTB rail corridor by SHPO or ODF. This may be in part due to the rugged nature of the terrain, which was not favored by the Tillamook or other native peoples for larger settlements or extensive activities that would have left physical traces on the present-day landscape. In addition, river and creek-side sites may have existed, but the POTB railroad ROW would have been at least partially destroyed or covered by grade construction.

Regulatory Considerations

To determine whether development could affect historic properties, cultural resources must be considered during the planning and design phase. SHPO should be consulted prior to any planned development to determine any potential known sites and seek recommendations on pedestrian survey or archaeological testing.



Disused railroad water tank, Milepost 811.25



One of many bridges along the Trail

This is a really promising concept that would provide economic benefits for adjacent communities from regular use by tourists from near and far. And it would be an incredible recreational draw for cyclists, hikers, fishing enthusiasts and other users, adding to the Banks-Vernonia trail already in place. Two thumbs up!

Kim I



Railway passing through downtown Rockaway Beach

There are a number of plans and policies that have informed this Concept Plan. Many of these will require updating to reflect the Salmonberry Trail vision. Key plans that impact the Trail include:

Statewide Trails Plan (2005): This document is being updated currently, since it has reached the end of its planning horizon. It identified three key needs for the Northwest Trails Planning Region (which covers the entire length of this trail), all of which support this Concept Plan:

- A. Need for trail connectivity within the region providing access from urban to rural trails...and connections from state and regional trails to community trails
- B. Need for additional non-motorized trails.
- C. Need for additional funding for non-motorized trail acquisition and development.

Other policy-level state plans that could affect future trail planning include:

- Oregon Bicycle-Pedestrian Plan**
- Oregon Transportation Plan**
- Oregon Transportation Options Plan (to be completed in 2015)**

Oregon Coast Trail Connection Strategy (2011): This plan updates the 1972 comprehensive plan for the trail and focuses on strategies to close 31 gaps in the Oregon Coast Trail. The only gap within the Trail planning area is Gap 2-2. The plan discusses the potential for a Rail-Trail and proposes a ferry crossing from Garibaldi to Crab Harbor across Tillamook Bay.

Tillamook County Transportation System Plan (2004): This plan, which governs all transportation in the county, does not explicitly mention the Salmonberry Trail, simply because it was then still an active railroad. The plan (p.17) describes a range of safety and infrastructure upgrades to improve the rail corridor, some of which may still be valid in terms of OCSRR operations. The bicycle and pedestrian elements of the TSP call for improved on and off-street bike routes and safety upgrades, including wider shoulders on Hwy 101 and enhanced access within communities and to natural and recreational features in the county. The City of Garibaldi TSP was completed prior to the closure of the POTB freight rail line, so does not describe the potential for a trail. The City of Rockaway Beach TSP describes a vision for Miller Street, along the West edge of the POTB ROW, which aligns with one alternative for the Trail, where the street becomes a slow shared street (or woonerf), with narrow vehicle lanes and a new bicycle lane while the rail line remains.

City of Wheeler Vision Plan (2011): This document refers to a community desire to revitalize the small downtown and create trail system in Wheeler, both of which are supported by this Concept Plan. The Wheeler TSP also describes railroad safety improvements needed in downtown, more of which will be possible if a new trail is built through downtown adjacent to, or replacing the rail line.

The Port of Tillamook Bay has been awarded a 2014 Transportation and Growth Management (TGM) Grant from ODOT for the purposes of updating all of the TSPs and Comprehensive Plans within the Tillamook County portion of the Trail to reflect the concept. Participating jurisdictions will benefit from plan amendments centered on appropriately sited and designed multi-modal transportation improvements within cities and along US Hwy 101 and the Salmonberry Trail.

City of Rockaway Beach Downtown Transportation Plan (2003): This plan focuses on the 6 blocks of US 101 as it passes through downtown Rockaway Beach. The plan addresses the west side of US 101 and proposes replacing the existing diagonal parking with parallel parking and a sidewalk. The plan proposed that the sidewalk be located on the east side of the railroad's "ample" ROW, since the ODOT ROW cannot accommodate it. The plan also proposes a 2' wall to discourage trespassing across the RR tracks and direct them to official crossings. This plan served in lieu of a full TSP for the city.

Washington County 2035 Transportation System Plan (2014): This plan for Washington County envisions a future trail connection between the Banks-Vernonia (B-V) Trail and downtown Hillsboro along the proposed Council Creek Regional Trail, or as a Rail-with-Trail next to the Portland & Western rail line, which is essentially the extension of the Salmonberry Trail south of Schefflin. The 2010 Banks TSP barely mentions the B-V Trail other than to note that an extension into Banks was under construction.

City of Tillamook Parks & Recreation Master Plan (2013)

A key goal of this plan is to:

Create a strong pedestrian connection of trail segments linking park and recreation areas together throughout the City; and develop and maintain a core and an interconnected system of these trails, to provide a variety of recreational opportunities, such as walking, bicycling and jogging."

The Salmonberry Trail concept helps the city build an important component of a network of trails, linking Goodspeed Park and Hoquarton Park. The concept also will help the local School District meet goals for providing Safe Routes to School by providing an off road route on part of the way from downtown to Tillamook HS.

Scenic Resource Plans: The Oregon Coast's scenic values are an important part of the Coastal experience. US 101, which parallels portions of the Trail, is an All-American Road as well as a federal and state designated scenic highway, with an associated scenic management plan. There are existing protection measures, such as special sign regulations that apply along scenic highways. Some local land use regulations protect the scenic qualities along the highway. As part of the forthcoming TGM project, it is recommended that local governments examine and potentially refine their scenic regulations to specifically protect the scenic qualities along the Trail.

Finally, the following two overarching forest policy plans will guide corridor-related activities and improvements within the Tillamook State Forest. The first will guide corridor planning in terms of ongoing forest management and restoration work, while the second provides a framework within which the Salmonberry Trail can be considered as a future component of the Tillamook State Forest trail system. ODF trail planners have been actively involved in the preparation of this document.

NW Oregon State Forest Management Plan 2010 (currently undergoing revision for a new plan in 2015.)

Tillamook State Forest Recreation Action Plan (2000)

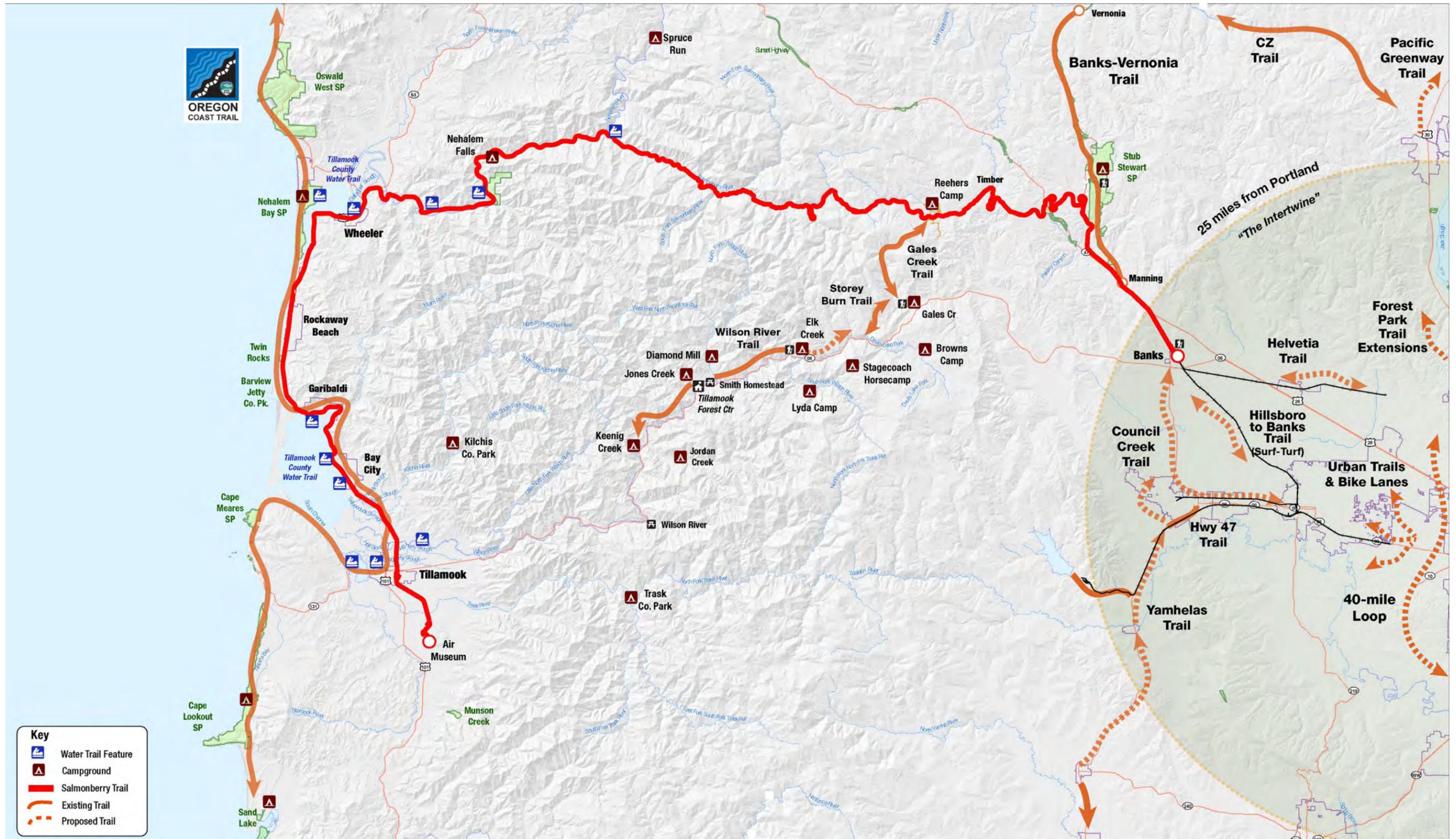


Figure 3: Regional Recreational Resources



Regional Trail Connections

The Salmonberry Trail offers a potential connective trail link between the Willamette Valley and the Oregon Coast—realizing a long-term vision of many hikers, cyclists and equestrians. It can become part of a grand “Infinity Loop” that conceptually connects to the Cascade Range and Columbia Gorge. This trail is identified as one of the top 24 regional trails in the region by Metro’s Blue Ribbon Committee. In the short term, it can also connect to a number of existing and proposed trails at several points, which will provide a source of users as well as potential loop options.

There are a few gateways to the Salmonberry Trail, as well as communities that can be considered as likely to benefit from recreational improvements. In studies of precedent corridors across North America, such communities are often referred to as “trail towns.” These are communities where there are typically existing commercial uses. Most tourist revenue from a full or partial trail on the Trail would likely be derived in trail towns on the Oregon Coast, specifically Tillamook, Bay City, Garibaldi, Rockaway Beach and Wheeler. There may be some benefit for Banks, as a small bike rental and repair shop has recently opened near the trailhead to the Banks-Vernonia Trail. Oregon State University researchers found clear economic benefits to coastal communities from state parks on the coast (*White, Goodding, and Rosenberger, 2012*). A significant amount of research on the economic benefits of trails is collected in the Portland State University student-led report entitled “[The Long Trails Project](#)” as well as in numerous publications coordinated by the national Rails to Trails Conservancy.

The fact that this Trail traverses a relatively wild section of the Coast Range, with few roads, could make it popular with hikers, campers, kayakers and anglers. It is currently highlighted in some blogs as a hiking destination and was featured in a now out-of-print Sierra Club hiking guide to the Tillamook State Forest. Anglers are walking along the rail line and driving down the Beaverslide Road to access the river. There is a state Water Trail from the Nehalem Confluence west and some kayakers have ventured east towards Enright to paddle the rapids within the Salmonberry Canyon Segment (some even travel cross-country to access the North Fork of the Salmonberry.)

Figure 3 (*facing page*) describes the following related regional recreation connections:

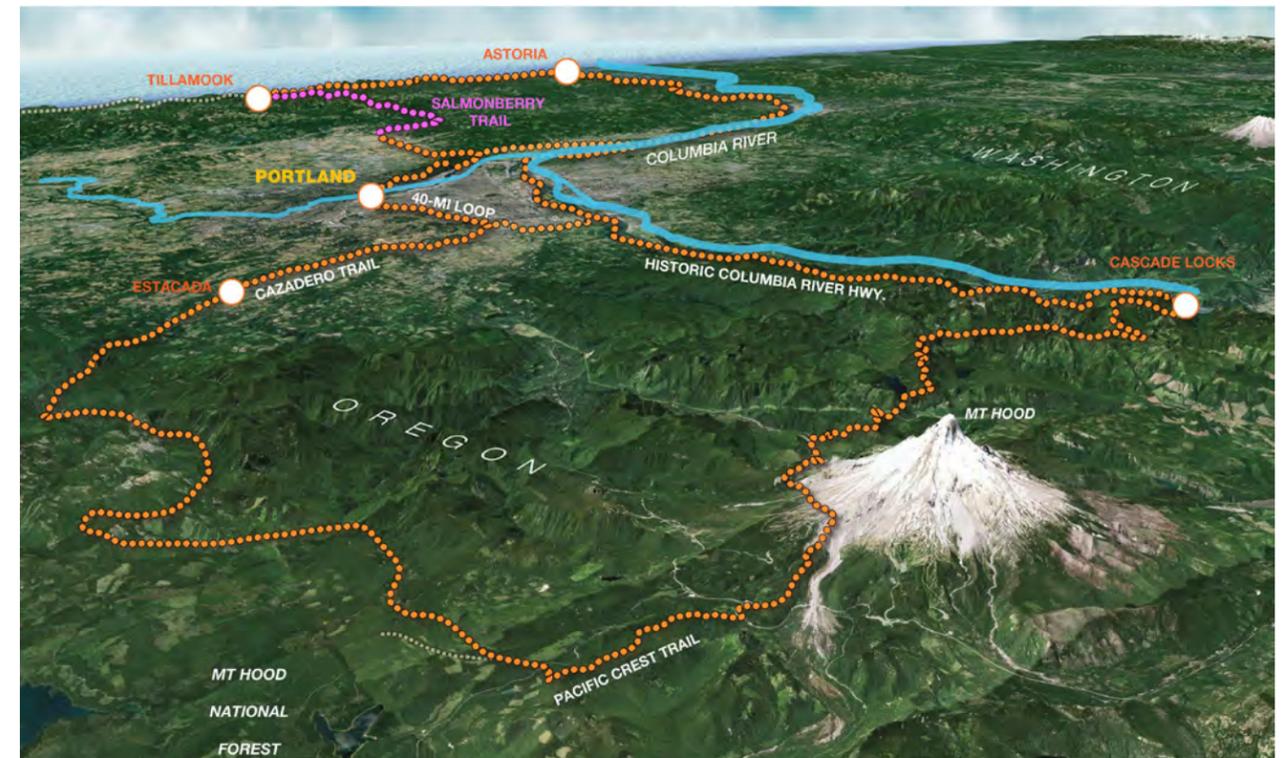
Trails

Council Creek Trail (proposed): This multi-use trail corridor is currently under study by ODOT and Washington County. It is envisioned as a connection between Banks, Forest Grove and downtown Hillsboro (and other urban trails linking to downtown Portland through “The Intertwine”.) An earlier concept for this connection suggested that the Portland & Western rail line could support a trail directly to Banks from Hillsboro diagonally across farmland, but the current study is focusing on an option that follows a disused rail ROW west from Hillsboro to Forest Grove, then north to Banks via rural roads or easements west of Highway 47.

Yamhelas Westsider Trail (proposed): This is a grassroots-supported rail-to-trail concept that advocates for a trail on the historic Southern Pacific ‘Westsider’ rail line into a 17-mile multi-use recreational trail running from just north of Highway 99W at Gun Club Road near Lafayette, to just north of Gaston. It will link up with the State Highway Bicycle Trail to Forest Grove and Hagg Lake. The railway grade is gradual and will provide recreational opportunities for walkers, hikers, runners, bicyclist, and horseback riders. Access is readily available from the county roads it crosses and nearby Highway 47. This future trail would connect to the Council Creek Trail and then the BV Trail and the Salmonberry Trail. In the spring of 2013, Yamhill County received \$1.4 million in federal highway money to purchase railroad right of way from Union Pacific. With a new grant application, they are seeking money to purchase the remaining eight miles of the 17-mile route.

Banks-Vernonia Trail: This is a highly successful state recreational resource, with over 250,000 annual visits by cyclists, walkers and equestrian users. The 21-mile BV Trail was the first rail-trail in Oregon and is very popular with cyclists, equestrians and hikers. In the 1920s, the railroad was used to haul lumber from the Oregon-American Mill in Vernonia to Portland. The Mill closed in 1957 and the railroad closed with it. The Vernonia South Park and Sunset Railroad leased the railbed in 1960 and operated a steam excursion train for five years. Oregon Parks and Recreation acquired the ROW in 1974 and began building the trail in 1990s. The asphalt trail is accessible from several trailheads between Banks and Vernonia, including two, Manning and Buxton, that could also be used as trailheads for the Salmonberry Trail.

CZ (Crown Zellerbach) Trail: This 23-mile trail, officially opened in 2013, follows abandoned logging road corridors from the Columbia River west across NW Oregon to Vernonia. In 2004, Columbia County purchased the road, which was originally built on an old rail grade, from the Hancock Timber Company with grants from the Oregon Department of Transportation and OPRD. It is more of an adventure trail than the BV but offers potential connections to the Salmonberry via the BV Trail and Stub Stewart State Park. Trail surfaces vary, from short stretches of single-track to paved asphalt to gravel roads. The CZ Trail officially ends at Highway 47 in Pittsburg, but connects via Hwy 47 3 miles south to the Banks-Vernonia Trail.



An illustration of the proposed “Infinity Loop” concept (Draft concept proposed by Metro)

Tillamook State Forest Trail System: The Gales Creek Trail intersects the rail corridor at MP 796. This is a 12.6-mile long natural surface mountain bike, horse and hiking trail that accesses Reehers Camp Campground 2.5 miles west of Timber and continues to the Gales Creek Campground and Trailhead off Highway 6. From there, recreationists can access trails to the Coast Range Summit and beyond. From the Gales Creek TH, another loop is also possible to the Storey Burn trail and trailhead. The network of forest access roads also provides opportunities for loops and connections, but few of these access the Salmonberry Trail directly.

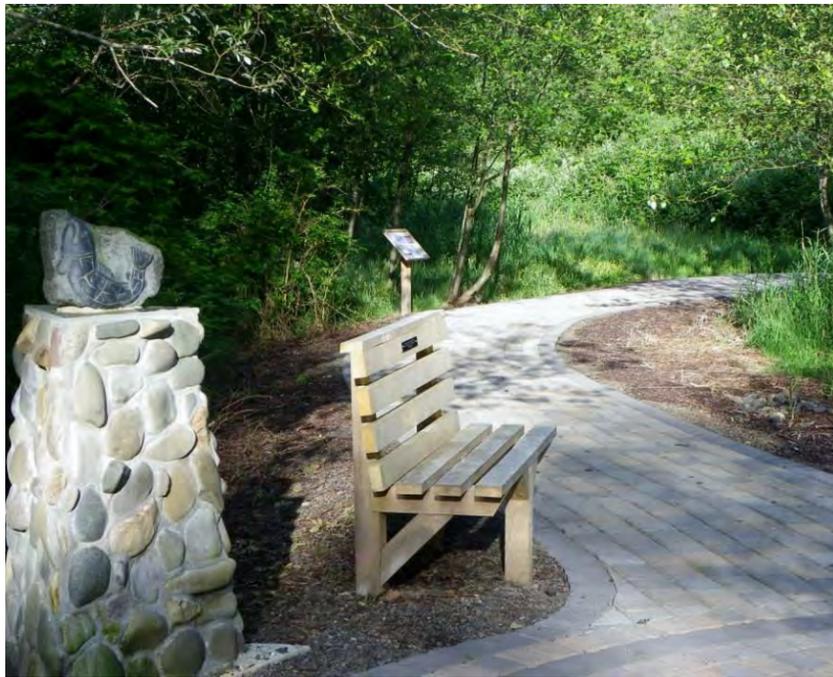
The Oregon Coast Trail: This is not a single specific trail, but a connected corridor along the entire length of the Oregon Coast, which includes stretches of beach, segments on established trails within State Parks, as well as portions along the shoulder of US Highway 101. The trail is primarily for hiking and is managed by OPRD. The Salmonberry Trail would logically connect to the Oregon Coast Trail (OCT) at Wheeler and in effect, would become the OCT until Tillamook. It could also connect to the OCT via ferry across Nehalem Bay. South of Tillamook the trail veers West onto the Three Capes Scenic Route to Cape Meares State Park. There is a shuttle bus between Tillamook and Manzanita (The Wave), which serves as a circulator to allow one-way loop travel on the Salmonberry Trail. The Oregon Coast Scenic RR could also serve this function if a Rail With Trail was built.



Barview Jetty County Park, near Garibaldi



Project team meeting at Reehers Camp



Kilchis Point Reserve



Nehalem Falls



Cabins at Stub Stewart SP

Recreational Activities



Banks Vernonia Trail

Developed Recreation Sites

Stub Stewart SP

- More than 88 full-hookup sites, including 15 horse sites
- 35 walk-in tent sites, with vault toilets and water nearby
- 15 cabins

Reehers Camp

This campground is located 2 miles west of Timber on the Cochran Road.

- 10 Horse Campsites with Corrals
- 7 Traditional Campsites

Nehalem Falls Campground

This ODF campground is located at MP 7 on the Foss Road between Wheeler and Highway 26.

- 14 Vehicle Campsites
- 6 Walk-In Tent Sites
- 1 Group Campsite

Cougar Valley (OPRD)

This is an undeveloped OPRD property, intended as a future campground to help relieve demand pressure on coastal state park campgrounds. It is unclear if or when this will be developed as a full state park.

Roy Creek Park

This is a small Tillamook County Boat Launch on the Nehalem River, with access off Foss Road across the Trail at MP 829.5 (Tile 31).

Nehalem Bay State Park

This is a large state park and day-use facility south of Manzanita.

- Approximately 265 electrical sites with water
- 18 yurts
- Horse camp with 17 primitive sites

Twin Rocks State Park

Manhattan Beach State Recreation Site

These are day-use facilities with beach access in Rockaway Beach.

Barview Jetty County Park

This campground, the second-largest in Oregon with 315 sites, is located just off Highway 101 west of Garibaldi at the north shore of the mouth of Tillamook Bay. (Tile 39)

Kilchis Point Reserve

Walking trails wind through this ecologically-sensitive and culturally-significant preserve south of Bay City (Tile 44).

The Concept Plan proposes two new locations for camping along the Trail, at the bottom of the Beaverslide and at the Nehalem/Salmonberry Confluence, to complement the facilities noted above. The Concept Plan also proposes **four new trailheads**, at Manning, Timber, Cochran, and the Confluence.

There are aspects of this trail that differentiate it from other long trails in the US, including other rails-to-trails. If the entire trail is eventually built, it is unlikely that many cyclists or hikers would attempt to ride to the Coast and back in a single trip, simply because of the physical difficulty in doing so. A one-way trip could be more feasible, but it would still be a long ride or hike. Through-cyclists and hikers and equestrians would need to plan for an overnight stay at a campsite along the route, currently either Reehers Camp and Nehalem Falls Campground or coastal state parks. Dispersed camping along the Trail will need to be carefully controlled. Cyclists would need to carry their gear, which requires a touring bicycle with a strong enough frame to carry pannier bags.

Given the international popularity of the Oregon Coast Bike Route stretching along 370 miles of Oregon coastline, it can be anticipated that completed lengths of trail in the Coastal as well as Nehalem segments will introduce increased pressure on existing facilities accessible from the Salmonberry Trail. Facility managers should plan anticipate increased hiker/biker use and seasonal influxes during the popular cycling months of May - October.

It is unlikely that any other type of commercial accommodation would be built in the Valley, Salmonberry or Nehalem Segments of the Trail, simply because of the difficulty of access, the lack of private land, and the seasonal basis for recreation. A non-profit cabin or lodge, maintained by a club or organization, could be an option and could simply close in the off-season. Overnight hotel or motel accommodation in Banks and cabins in Stub Stewart SP can serve users of the eastern end of the Trail, while there are ample lodging possibilities in the Coastal Segment.

Recreational Uses

Outdoor recreation activities are often categorized as “appreciative”, “risk” or “consumptive” recreation. These three terms (appreciative, risk and consumptive) are often used by academics and recreation resource managers in their decision making.

Appreciative Recreation

Appreciative recreation activities include birding, wildflower hikes, astronomy, butterfly watching, etc. Nothing is taken from nature, and these activities generally require knowledge of nature to participate. The corridor is popular currently with a wide variety of activities. This plan will assist developing access to enhance the enjoyment of public lands for these purposes.

Risk Recreation

Risk recreation includes activities perceived by society as being potentially life threatening. Perceptual distortion (slowing down of the passage of time) and adrenaline are part of the risk recreation experience, along with extreme focus. Developing physical prowess is usually necessary while knowledge of nature is less important. The Salmonberry River is a popular whitewater paddle route. This concept plan does not represent any limitations on the continued use of public lands for this purpose. The Beaverslide Rd access has been identified as a put-in and ODF will work on a plan to manage the recreational need and the stewardship needs.

Consumptive Recreation

Consumptive activities are similar to appreciative recreation, but include removing something from nature. Hunting, fishing, mushroom collecting, insect collecting, wild edible foods, fossil hunting, and gem and mineral hunting are all examples of consumptive activities. Again, knowledge of nature to participate in the activity is part of being a competent participant. The Corridor is popular with a wide variety of consumptive recreationalists who have accessed the adjacent forests and rivers for many years. This concept plan does not represent any limitations on the continued enjoyment of public lands for these purposes and may enhance access and safety for users.



Figure 4: Emergency Access Map

Overall Trail Design

With a range of contexts and geographies, as well as a long-term implementation time frame, it will be challenging to ensure a consistent appearance throughout the development of this Trail. Continuity can be achieved through the establishment of design standards in a future planning process. Once a set alignment and project budget has been established for the earliest portions of the Trail to be built, these earliest projects may set a high bar for expectations of design quality. Standards can address the details of trail design, including trail surfacing, signage, furnishings, bridge design and retaining wall construction. The standards should strive for continuity, so that the end product feels like an integrated corridor, but should also strive to develop ways to differentiate the standards within segments to address specific, intrinsic elements that can allow trail development to be sensitive to its context.

Ecological Sensitivity

As described in following summaries for each major segment, this trail traverses a wide range of sensitive natural settings. Trail design should consider potential impacts to these settings very carefully, as it is access to these natural areas that define the essence of this trail's appeal. Whether the trail navigates dense forests, wetlands, wild rivers teeming with steelhead or seaside estuaries, one of the overarching goals of the project is to **"Maintain and Improve the Environment"** and this concept plan's recommendations reflect the importance of this goal to the people of Northwest Oregon.

Neighbors

The Trail is a narrow land ownership, bounded on each side by landowners with many different objectives reflecting Oregon's diverse culture. Bringing more visitors to the Salmonberry Trail will change the experiences of adjacent property owners and have the potential to affect adjacent property. Project design and implementation will mitigate and minimize these impacts while meeting the other project goals.

Trail Safety

Corridor safety concerns, emergency access, and mitigation strategies are an important part of developing trail plans and management strategies, in alignment with other goals and constraints. The remote nature of much of the trail, and especially in the Salmonberry River Canyon, makes this work essential for trail design and management. Communications and trail standards form a basis for corridor safety and emergency access. If possible there should be a minimum 4 foot-wide trail surface to accommodate ATV emergency access. An emergency plan will be developed at a later phase for the Trail.

Emergency Access: This project bridges the "front country" with the "back country." A "front country" user may confront different risks and access to emergency services than they are accustomed to (due to remoteness and no cell coverage.) Users embarking on trips along the trail should be well-advised about the remoteness and difficulty of emergency response. Emergency access plans can identify access points, identifying markers, and education needs.

Law Enforcement: Coordination with law enforcement for new recreational facilities is needed to understand existing issues in the area and ways to develop the site and activities to reduce law enforcement patrol needs. Having a presence by law enforcement is a great deterrent for certain behaviors. Additional trail patrols by staff and volunteers can augment law enforcement and add additional measures of safety for the public and adjacent land owners.

Wildfire: The area's long history with wildfire needs to be considered in trail design, site plans, and recreation management. Fire prevention and suppression plans can address prevention, education, detection, suppression, and management opportunities and needs to best mitigate fire risks to adjacent landowners and trail users.

Rail Safety: Oregon Coast Scenic Railroad safety is an additional element that needs to be considered beyond elements in many other rail to trail projects. As the typical cross-section for a Rail With Trail demonstrates (**figure 5**), fencing is

required between a trail and the rail line as well as adequate separation, which may range anywhere from 7-100 feet, with a surveyed average of about 33' based on all RWT lines in the US and a recommended minimum of 25' (*America's Rails With Trails, Rails to Trails Conservancy, 2013, page 25*). Each situation is unique and so the actual separation will need to be determined in future design phases and will be based primarily on the type and speed of trains, the topography and sight distances.

Road Crossings: Except for the Salmonberry Canyon Segment, the proposed trail navigates many road crossings. The Nehalem and Coastal segments of the corridor have the added complexity of incorporating the active scenic railway at each crossing. Traffic studies will be required for each portion of the trail as they approach implementation.

Given the remoteness of much of the trail, especially the Salmonberry Canyon Segment, there are many concerns about safety and emergency access. These concerns were raised by recreational users, emergency responders and land managers. They are valid concerns, given the rugged terrain and potential for injury in adventure sports like mountain biking and kayaking as well as potential for future forest fires along the corridor. It is worth considering the Salmonberry Canyon Segment as an "adventure trail" corridor that is similar to the Pacific Crest Trail, with limited access points and a general public acceptance of risk and of necessarily longer response times. Users embarking on a trip into the canyon will be well-advised about the remoteness and will accept this risk.

However, certain measures that will ensure good basic emergency access should be implemented. Even as a bypass adventure trail, the trail will never be narrower than 3', which will allow for emergency ATV access, carrying rescue litters from both ends (Cochran Pond and Nehalem Confluence). It is also possible that relay communication stations can be established at several points within the canyon to ensure that there is constant cellphone coverage for emergency calls. There may also be flat, open places within the canyon that allow for helicopters to land, but this will need to be determined at a later date.

Trail emergency access points are shown on the map on the facing page (**figure 4**).

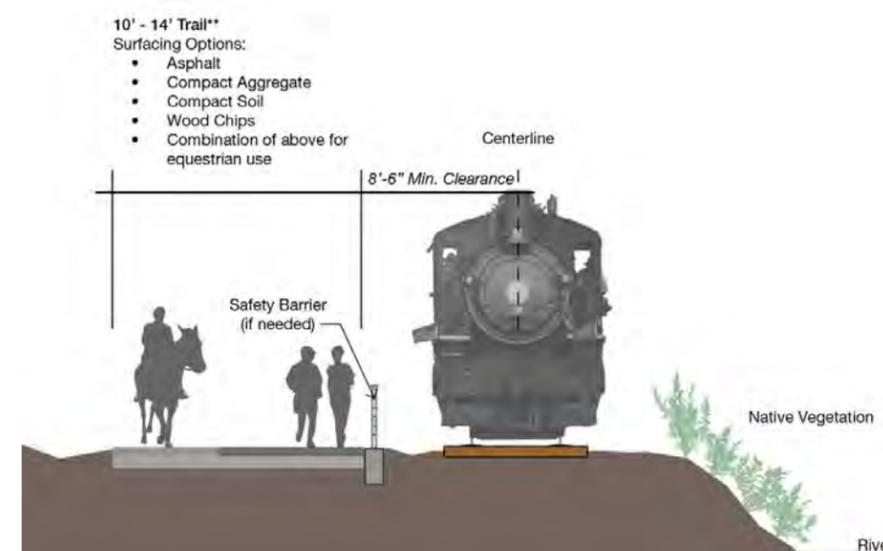


Figure 5: Typical rail with trail condition

Conceptual Costs

Assumptions

The following are estimated costs for the construction of a trail, based on the concepts proposed in this document and based on current, planning-level knowledge of physical conditions. Each segment has very different physical conditions and potential trail configurations, so a high and a low estimate have been provided for each. Generally, the high number represents a fully-developed multi-use trail, while the low number represents the minimum investment necessary to achieve a connected trail, which may include narrower, 'adventure trail' segments in places and detours of bridges and trestles that require major repairs. Major detours off the rail ROW are not considered in these cost estimates.

Bridge and tunnel upgrades are not included.

By far the greatest expense in implementing the Salmonberry Trail vision will be for repairs to the damage caused by the 2007 storm. These repairs were estimated at over \$80 million (2008) but they assumed the full restoration of rail service and included deferred maintenance to bridges and trestles that were otherwise functional. Rail construction requires much more extensive subsurface improvements and bridge or trestle structure than trails. Trail construction on the ROW can be expected to cost significantly less, but there will still be major baseline costs for repairs and permitting. Additionally some damage appears to have worsened in the 7 years since the storm. The Oregon Coast Scenic RR may be able to assist with trail construction by transporting materials and equipment to the end of their active line. Repairs to the line and associated bridges and trestles, from the Tillamook Air Museum to Enright are considered to be the responsibility of the OCSRR according to their lease with the Port of Tillamook Bay.

This is a very conceptual, best judgment estimate for the cost of building the trail only, using prototypical unit costs. Due to the scale of this trail corridor and remoteness it is difficult to provide a precise estimate. The costs below should be seen as very preliminary guides for a future detailed cost estimate. The estimates are for direct construction costs only. Beyond 2014 the estimates must also index a rate of 4% per year. The estimates below do not include soft costs (primarily design and engineering fees and permitting).

Typical Costs

We can consider a range of order of magnitude costs for constructing different trail types. The cost of surfacing a trail with asphalt may be prohibitive in the beginning stages of trail building. Trail operators can always upgrade from a "soft surface" like soil or crushed stone to a hard surface like asphalt once more funding is secured. As a comparable effort, the Banks-Vernonia Trail began as a gravel

Item	Unit	Cost	Notes
10' Paved Trail	LF	\$60	
12' Aggregate Trail	LF	\$40	
4' Adventure Trail	LF	\$20	
Shared Roadway	LF	\$2	
Cutslope	LF	\$20	
Fill Slope	LF	\$20	
Restoration	LF	\$15	Assumes there will be restoration anywhere cut or fill is needed.
Retaining Walls	SF	\$60 - \$120	Assumes range of wall types

trail and was slowly upgraded incrementally, eventually costing \$20/lineal foot. It required federal funding, triggering federal code and permit requirements, which raised the cost significantly.

The unit costs above have informed the segment estimates and can be used as a broad guide to future trail planning, in order to estimate funding that will be requested from grants or agency budgets.

In addition to the unit costs above, OPRD's experience on other significant trails can be applied to bridges. A range of \$150-\$250 per square foot can be assumed for cantilevering new portions of bridges next to existing functional road or rail bridges. For new bridges, a prefabricated structure costs between \$1000 and \$2000 per lineal foot. These numbers depend greatly on the specific context and type of bridge proposed. For example, the cantilevered bridge type would only be required in portions of the Trail where a Rail With Trail is proposed, to preserve the existing bridge for continued rail use. New bridges would be required where cantilevering is not possible due to site constraints, or where the damage to existing structures is so great that a new bridge in a different location is a better solution for a trail.

Overview

The Salmonberry Trail could take decades to complete. The current range of costs for the entire trail to be developed ranges from \$19 million to \$54 million. Until projects are identified and scoped, this is the best estimate we have to work with. Each segment is discussed in more detail following the overview.

Segment	Low Range Cost	High Range Cost
Valley Segment	\$7,125,000	\$9,500,000
Canyon Segment	\$1,927,000	\$12,527,000
Nehalem Segment	\$5,050,000	\$14,766,000
Coastal Segment	\$5,882,000	\$17,312,000
Total	\$19,984,000	\$54,006,000

Valley Segment

The Valley Segment proposals are a relatively straightforward concept, with a 20-mile rail to trail replacing the current unused tracks. The estimate below proposes a tighter range of costs, as there are few bypasses or major structure upgrades to the 11 bridges in the segment. The Walcott Tunnel will by far be the biggest repair required. In 2008, repairs were estimated at \$5.6 million. (This figure is not included in the estimate below.)

High Range for Segment Costs:	\$7,306,800
Contingency (30%)	\$2,192,040
High Total	\$9,498,840
Low Range for Segment Costs:	\$5,480,800
Contingency (30%)	\$1,644,240
Low Total	\$7,125,040

Salmonberry Canyon Segment

This segment includes most of the major damage points from the 2007 storm and is the most difficult segment to estimate accurately. This 16-mile segment is also volatile, with geotechnical instability and vegetation growth reclaiming parts of the rail corridor. Construction access to this segment will be extremely challenging; the FEMA rail restoration project assumed a working train supporting the rebuilding effort progressively from either end; this won't be possible for trail construction on the eastern part of the segment (but the OCSRR have indicated a willingness to assist with construction from the western end moving east.) Consequently, the figures below have a 50% Contingency added, reflecting the uncertainty to trail construction, (which can be reduced through future more detailed study.) The figures below do not include major repairs as outlined in the FEMA study. There are 3 tunnels and 16 bridges in this segment. Finally, the high figures below assume a Rail With Trail for the west end of the segment, while the low range assumes a basic adventure trail replacing the rails through the entire segment.

High Range for Segment Costs:	\$8,351,000
Contingency (50%)	\$4,175,500
Total	\$12,526,500
Low Range for Segment Costs:	\$1,376,520
Contingency (40%)	\$550,608
Total	\$1,927,128

Nehalem Segment

The Nehalem Segment proposes two alternative concepts over 13 miles, with either a rail to trail on the current ROW or a rail with trail adjacent to the rails with a continuing OCSRR function. A higher contingency of 40% is added to the high range to reflect the uncertainty over costs required to build a trail in constrained, steep areas next to the rail line. There are only 3 bridges in this segment.

High Range for Segment Costs:	\$10,547,200
Contingency (40%)	\$4,218,880
Total	\$14,766,080
Low Range for Segment Costs:	\$3,883,000
Contingency (30%)	\$1,164,900
Total	\$5,047,900

Coastal Segment

The Coastal Segment proposes two alternative concepts over 21 miles, with either a rail to trail on the current ROW or a rail with trail adjacent to the rails with a continuing OCSRR function, but ending at the Tillamook Creamery, (MP 854) with a bypass to extend a trail to Tillamook not included in costs below. A higher contingency of 40% is added to the high range to reflect the uncertainty over costs required to build a rail with trail in constrained coastal areas next to the rail line.

High Range for Segment Costs:	\$12,365,600
Contingency (40%)	\$4,946,240
Total	\$17,311,840
Low Range for Segment Costs:	\$4,524,200
Contingency (30%)	\$1,357,260
Total	\$5,881,460

Construction phasing and implementation will require significant planning and likely take on a variety of approaches across the length of the trail. Operations will have to respond to the diversity of the terrain as well as the constrained right of way. As has been described, the utmost sensitivity will need to be required in construction practices in order to protect trail-side fragile ecosystems and habitat. The following are points that will require further study and strategization as lengths of trail approach implementation:

- Construction in the Valley Segment benefits from available and intact railroad passage from Banks to the Wolcott Tunnel. The integrity of the track provides a potential opportunity for trail construction that may borrow from the operable line.
- The OCSR has offered assistance moving materials and machinery along their operable line as trail construction becomes feasible in the Coastal and Nehalem Segments. This will assist staging and construction in the Nehalem segment where the adjacent Foss Road travels along the opposite side of the Nehalem River and there are very few points of access to the rail alignment.
- The ROW varies in width along the length of the trail in response to historical operations as well as physical constraints. Due to damage in the Salmonberry Canyon Segment, however, trail widths may be constrained within the ROW. Construction practices and access may be subsequently constrained, necessitating temporary easements with adjacent property owners to provide access.
- Due to limited points of access within the Salmonberry Canyon Segment, paired with numerous washouts that don't allow for vehicular passage along the benched hillside, temporary access points and corresponding easements will likely be required in order to provide construction access. Access points should be carefully positioned to take advantage of locations where existing benches in the hillside present the opportunity for construction staging.
- Due to the fragile and exceedingly steep condition of adjacent hillsides, geotechnical studies should inform the strategy for gaining access as well as construction practice along the majority of the trail.
- In locations where a natural surface is deemed appropriate, trail construction may borrow from invested community and recreation organizations willing to contribute labor in order to achieve desired trail conditions without the need for heavy machinery or significant environmental disturbance.

For the variety of construction work activities anticipated, there are a number of permits and other regulatory approvals that may be required. *(Much of the following text has been excerpted from existing State of Oregon permit-guidance documents, available at www.oregon.gov.)*

Rivers and Streams

- Work on a navigable waterway requires a Removal-Fill Permit or General Authorization from the Department of State Lands (DSL) and/or a 404 Permit or General Permit from the US Army Corps of Engineers (ACOE). The federal 404 Permit from ACOE is required only if material is filled back into the stream.
- In-water construction work should be planned to occur during the established inwater work period to protect salmon and steelhead species in rivers and streams adjacent to the trail, especially the Salmonberry River.
- All bank alteration, backfill and fill/removal activities should be conducted to prevent or minimize introduction of sediment into streams.
- Removed material should be placed in a stable upland location.
- Disturbed banks should be reseeded or revegetated to prevent sediment movement.
- Any new culverts or other stream crossing device must meet ODFW fish passage criteria.
- The Salmonberry River is not designated as a "Scenic Waterway", so will not require authorization by OPRD for activities within ¼ mile of its banks.

Wetlands

- Many construction activities in wetlands require a Removal-Fill Permit or General Authorization from DSL.
- A federal 404 Permit from the ACOE is required for any fill placed in wetlands or waters.
- Rock placement may require a Removal-Fill Permit or General Authorization from DSL if more than 50 cubic yards of material is used, and/or a 404 Permit or General Permit from ACOE.

Stormwater

With the addition of a long, new, relatively impervious surface alongside the Salmonberry River, there will be concerns for stormwater runoff into the river, which may require an NPDES #1200-C construction permit. Once issued, NPDES storm water general permits typically require a Storm Water Pollution Control Plan for industries or an Erosion and Sediment Control Plan for construction activities.

Endangered Species

It is possible that endangered salmon and other threatened species within the Nehalem and Salmonberry Rivers could be affected by trail construction, which may require Incidental Take Permits and a conservation plan, often called a Habitat Conservation Plan (HCP), that specifies how impacts to a listed species and its habitat will be minimized. Together, a permit and HCP allow a landowner to legally proceed with an activity that would otherwise violate the ESA. In addition, the permit and HCP provide a landowner with certainty about the kinds of activities that can be legally conducted on his or her land now and in the future. USFWS and NMFS can provide application materials and information to help landowners design projects to minimize or avoid take.

To issue an Incidental Take Permit, USFWS or NMFS must find that:

- the taking is incidental to an otherwise lawful activity,
- the impacts will be minimized and mitigated to the maximum extent practicable, adequate funding will be provided,
- the taking will not jeopardize the likelihood of the species' survival and recovery, and
- any other necessary measures are met.

Land Use Permits

Trail construction activity will require land use permits from the two counties that are traversed by the Salmonberry Trail, Washington and Tillamook.

Washington County

Much of the trail in Washington County is within Exclusive Forest and Conservation District zoning (EFC), which is intended to provide for forest uses and to provide for the continued use of lands for renewable forest resource production, retention of water resources, recreation, agriculture and other related or compatible uses. Trail construction is permitted as a Type II procedure, under the definition of parks within State of Oregon statutes:

(c) Recreational trails: walking, hiking, biking, horse, or motorized off-road vehicle trails; trail staging areas;

Type II land use actions are presumed to be appropriate in EFC zones. They generally involve uses or development for which review criteria are reasonably objective, requiring only limited discretion. The process is as follows:

- Pre-application conference with staff (unless waived by the applicant)
- Neighborhood Meeting (if applicable)
- Application submitted
- Staff reviews application for acceptance
- Notice to applicant of acceptance of application
- Applicant posts property (Rural applicants only)
- Public Notice to surrounding property owners (500 ft. urban, 1000 ft. rural) and Citizen Participation Organization 14 day comment period
- Staff review comments and prepares report
- Decision by Director
- Notice of Decision mailed to applicant, persons within the notification area, the CPO, and those persons who submit comments 12 day appeal period

Tillamook County

The Salmonberry Trail traverses several different zones in Tillamook County and the cities of Tillamook, Garibaldi, Rockaway and Wheeler. A TGM grant has been awarded to the Port of Tillamook Bay to coordinate land use and planning for the Trail within Tillamook County and the four jurisdictions. This future document will provide greater detail on required regulatory approvals. Given that the trail alignment is undetermined at this stage, this detail is not provided in this Concept Plan.

ODOT Permits

An access permit from ODOT will be required if a proposed trail crosses a State highway. This will include an engineering review to ensure the crossing is properly located and designed. A "Crossing Order" from ODOT will be required at all locations where the trail will cross the rail line.

Funding

The scale of this proposed corridor and the extent and expense of work required can be daunting but the vision can be achieved through a patient, opportunistic and incremental approach to implementation. Respective communities will prioritize different projects from this concept plan and should be encouraged to pursue development of the projects within the general framework of this plan's goals and intents. Funds may become available in unforeseen ways, due to strong support from the public and elected officials, grassroots fund raising, non-profit advocacy or private donors. It is expected that individual projects can be selected at will from this concept plan, receive further detailed planning and then engineering-level design and permitting. The more detailed planning will have to ensure, with TFHT and Coalition guidance, that subsequent projects adjacent to stretches of the Trail are not precluded or hindered.

Funding Strategies Summary

The TFHT is heading up a funding strategy planning effort. The planning effort will retain a fundraising consultant or team who will conduct a campaign readiness assessment, a feasibility study, develop a campaign plan and then execute or manage the campaign. A typical capital campaign of this size lasts five to seven years.

The capital campaign will focus on looking at funding sources, potential jurisdictional support and the base of volunteerism sources to facilitate the development of the Salmonberry Trail. The table below provides a summary of the potential sources to assist in the capital campaign.

Funding Sources	Jurisdictional Support	Volunteerism
Grants	Staff	Materials Donations
Corporate Donors	Local Funding Initiatives	Labor Donations
Private/Public Partnerships	Regional Funding Initiatives	Expertise Donations
Private/Citizen Donors	Statewide Funding Initiatives	
Foundation Support	Fees	

Salvage

There is significant potential for gaining revenue from salvaging railroad infrastructure. This revenue could be dedicated to fund trail construction or maintenance, or could be directed to the Port of Tillamook Bay's general operating fund. The primary challenge to salvaging materials will be the cost of retrieving it from deep within the POTB corridor and the costs of disposing of creosote-treated ties. (Much of the track in the Valley Segment can easily be salvaged once it has been conclusively determined that rail service will not ever resume.) A critical consideration is that over time, rails get wet and corrode, especially sitting on gravel ballast. If the rails aren't used, they get pitted and cannot be reused, but could still be reclaimed as scrap. However, if too much time elapses, the rails could become too corroded even for scrap.

Some of the rail on this corridor, particularly on the Coast, is 90lbs/yard (steel rails are measured in weight per yard). Such track is probably old and not meant for heavy mainline use and preferred for trackage in switching yards. This is one reason why the OCSR trains offer a swaying, bumpy ride along the Coast and OCSR representatives expressed a desire to upgrade to heavier rail, potentially using track salvaged from the Salmonberry Canyon Segment. Within this segment, heavier rail (up to 136lb/yd) was installed, because this was a mainline and perhaps as recognition that this needed to be a more durable line given the topography.

The salvage value of this heavier, newer mainline track is approximately \$1200-\$1300/ton which equates to roughly \$150,000 per mile. Its value also depends on past use and how many million gross tons have rolled over it. But this still represents significant value if the rail can be accessed. Some areas won't ever be salvageable because damage has cut them off from access with trackage machines which can remove and stack rail automatically, but potentially this rail could be removed and slid to one side of the Trail for future salvage if that ever becomes easier. Removing rails with a helicopter is an expensive alternative. Some stretches of rail are buried under landslides and it may be more ecologically harmful to remove these than to simply leave them buried.

Other potential salvage comes from rail spikes and from steel in damaged bridges and tunnels which need replacement. Railroad ties are considered toxic due to creosote treatment, but older ties may have already leached much of their creosote—which would solve the toxicity issue, but would likely mean the ties would disintegrate upon removal. It may be more of a hazard to remove such infrastructure, than simply to leave it. The EPA Brownfield Study of the POTB corridor within Tillamook County will further identify railroad relics and address some of these salvage issues.



Rails and ties left hanging over damage point near Wolf Creek (Dan Kaufman)

Right now I can't ride my bike safely from Portland to the lovely Oregon Coast. I can't breathe the fresh mountain air or see the wonderful sights of the Coast Range, unless I get in my car. How much is providing a healthful, safe alternative worth? I'd say it's "priceless."

Peter S.

Management

There are several alternatives available for management of the Salmonberry Trail in the future. For the foreseeable future, the Port of Tillamook Bay is the manager of the property as they currently claim ownership of the full rail ROW. Within the Coastal segment under the purview of the OCSRR lease, they are responsible for maintaining rail tracks and infrastructure, as part of their lease agreement. Whereas the governance section will get into more of these issues, the management needs will be reviewed in this segment.

Maintenance Management Planning

Understanding the potential maintenance associated with the Salmonberry Trail is a necessary and prudent step in the planning process. This information will inform and influence the future development of the trail. The planning team used Oregon Parks and Recreation Department's (OPRD) Maintenance Management Planning (MMP) methodology to estimate the maintenance level and costs. There are three types of maintenance activity groupings: Annual Maintenance, Preventive Maintenance and Heavy Maintenance.

Annual maintenance is the day to day work that is needed to keep the trail operational, clean and open for public use. As a comparison, it is analogous to getting your oil changed on your car. Preventive maintenance are the tasks that are designed primarily to maintain structures and infrastructure or resolve smaller issues so they don't become a larger issue. Keeping with the car analogy, these tasks are similar to changing your tires or having a tune up complete. Heavy maintenance are tasks that require the complete replacement of structures or infrastructure do to items reaching their useful life or are damaged in a storm or other natural occurrence. This would be similar to replacing your water pump or the entire engine in your car.

The MMP methodology used to create the estimate for the Salmonberry Trail is focused on the annual maintenance tasks and most of the preventative maintenance tasks. It does not consider heavy maintenance tasks. In addition, the hours and staffing levels associated with operating the facility take into account normal customer service engagement activities. It does not take into consideration any law enforcement or emergency services activities.

The (4) rail trails and regional trails managed by OPRD were used as MMP comparisons. The Banks Vernonia State Trail was the primary comparison used for MMP estimates due to its proximity to the Salmonberry Trail. This section projects MMP estimates. The final MMP level will be influenced by the level of development, use of volunteers, crew "set-up" costs (equipment, tools, etc.) and local jurisdictional differences in costs associated with staff.

Maintenance Staff

The MMP covers all of the key tasks associated with maintaining trailheads, trails and associated facilities. A summary of the tasks reviewed can be found in the table below. The MMP identified that the Salmonberry Trail, at full development, would need 49,000 hours (24 full-time equivalents (FTE)) of tasks to operate and maintain the trail. As a comparison, OPRD operates the Banks Vernonia State Trail with 26% of the identified MMP hours needed being completed by full-time and seasonal staff. The remainders of the maintenance hours are completed through volunteer labor, inmate labor, youth crews and contracted labor. If the staffing was operated at the same level for the Salmonberry Trail, then it would need 6.24 FTE.

Facility Maintenance
Signs
Grounds
Restrooms
Public Buildings
Non-Public Buildings (shop)
Water Systems
Sewage Systems
Painting
Landscape Maintenance
Mowing
Trimming
Planting Grass
Irrigation
Misc. Turf Care
Tree Maintenance
Shrub Maintenance
Hard Surface Maintenance
Trail Maintenance
Marine Facilities Maintenance
Operation
Day Use Area
Field Administration
Volunteers
Interpretation

Maintenance Costs

Deriving a cost estimate for the maintenance is rather difficult. Trail maintenance costs vary greatly by trail development standards, use levels and the experience. The Banks Vernonia State Trail has an annual maintenance cost of \$5,250 per mile. Trails within LL Stub Stewart State Park that are developed at a lower level have an annual maintenance cost of around \$500 per mile. A majority of the costs (77%) are attributed to staff costs. If these cost ranges were ascribed to the Salmonberry Trail, it would need roughly \$350,000 to \$840,000 to maintain the corridor at full build out. The variance in price range is attributed to the varied trail standards and unknown level of staffing versus other maintenance resources.

Governance

Governance

The Salmonberry Coalition has been a group of supporters of the concept of a rail trail. This ad-hoc coalition has been sufficient in force and governance to move forward with the feasibility and concept planning. However, as the Salmonberry Trail moves from a concept into a developed asset for the enjoyment and use of the public, a more formal and structured group will be needed to meet these challenges.

Key Salmonberry Coalition Principals and Oregon Solutions convened for a series of meetings and reviewed governance models to address the unique governance needs of the Salmonberry Trail. They identified that no single entity could manage the Salmonberry Trail. They decided that establishing a new collaborative, multi-jurisdictional agency was needed and that the new agency would be called the Salmonberry Trail Intergovernmental Agency. The Board of Directors will have two classes of members – Voting Members and Ex-Officio Members. The Board of Directors will be made up of the following:

Voting Members:

- Port of Tillamook Bay
- Tillamook County
- Oregon Department of Forestry
- Oregon Parks and Recreation Department

Ex-Officio Members:

- Washington County
- Washington County Visitors Association
- Tillamook Forest Heritage Trust
- Cycle Oregon
- State Senator - District 16
- State Representative - District 32
- North Coast Regional Solutions Director

The Salmonberry Trail Intergovernmental Agency's purpose will be to plan the development and maintenance of the Salmonberry Trail. As we look forward to the work to be accomplished, the governance will fit into three distinct phases:

Planning, Development and Operation. A brief overview of the governance phases and the issues that will need to be managed in each phase will follow.



Planning Phase

The planning phase will be focused on the initial formation and decision-making elements for the corridor. The Salmonberry Coalition will need to develop plans that will prioritize development along the entire corridor; prioritize funding opportunities; develop signage, branding and programming directions for the corridor and; serve as the conduit for communication with the Tillamook Forest Historic Trust or other funding partners. Keys to this phase will be:

- Development project prioritization
- Future heavy maintenance prioritization
- Signage, branding and programming directions for the corridor
- Communication conduit for the TFH Trust and other funders



Development Phase

The development phase will be focused on project work being completed. The Salmonberry Coalition will need to work with members to track development projects, phasing of projects and strategic development to ensure additive value of all projects and reduce redundancy or conflicting development initiatives. Additionally, the coalition will need to be looking forward to potential funding sources and ensuring a strategic alignment between resources and projects. Keys to this phase will be:

- Tracking development projects
- Phasing projects
- Matching funding with projects



Operation Phase

As the trail is developed, operations will become a larger focus. Prior to development, the coalition will need to identify what the operation and maintenance needs will be, who will be maintaining and operating the trail or segments, how to prioritize annual maintenance and future heavy maintenance needs and what funding responsibilities or options are needed to operate the trail. Keys to this phase will be:

- Developing maintenance standards
- Identifying who will be operator(s)
- Prioritization of maintenance
- Identifying funding sources for operation and maintenance

It is likely that the governance model will change as the project moves through the three phases described above.



SALMONBERRY TRAIL SEGMENT CONCEPTS

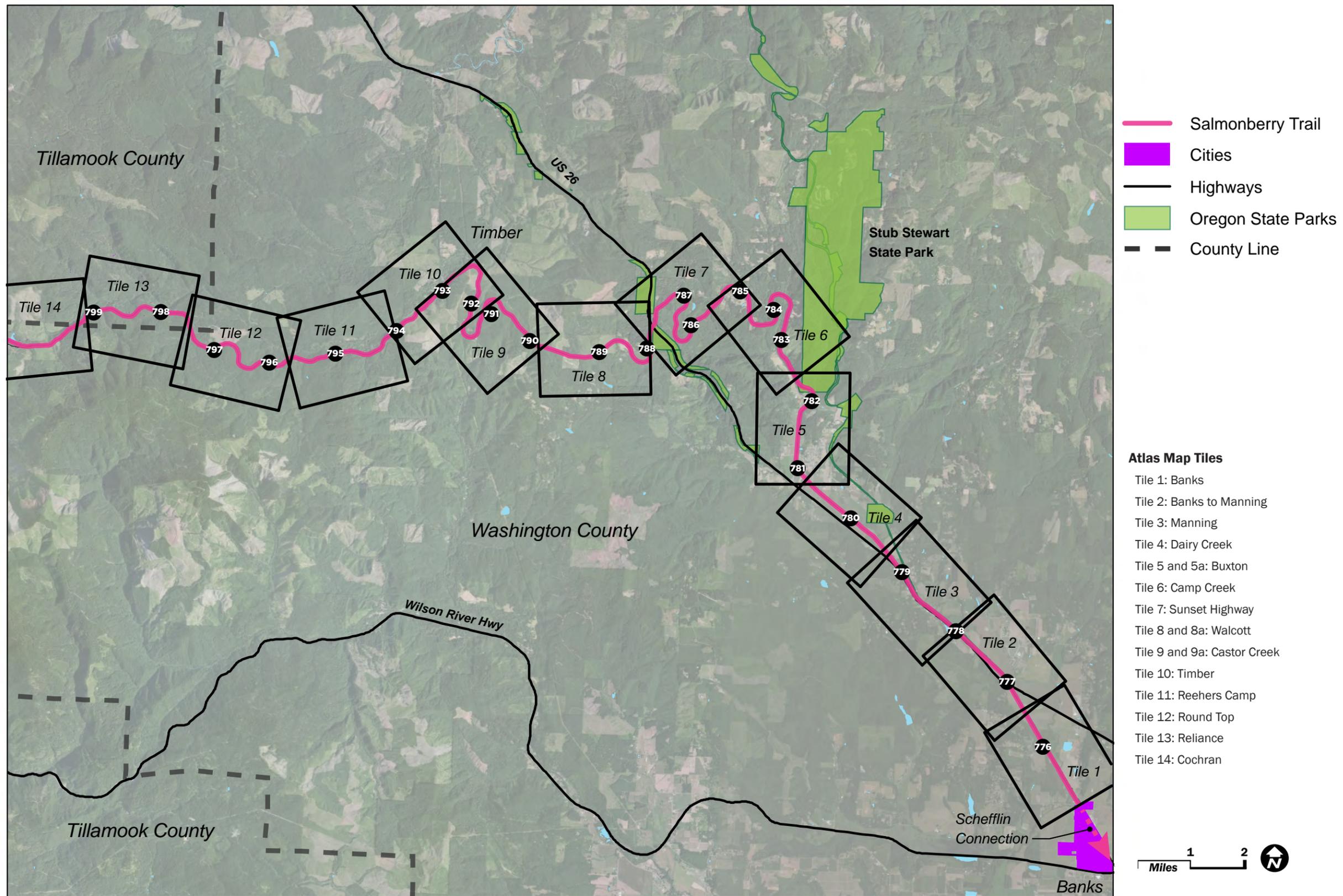


Figure 6: Valley Segment Overview Map

Valley Segment

Banks (MP 774.7) to Cochran (MP 800)

Introduction

This 25-mile easternmost segment runs from the fertile farmlands of western Washington County into the Coast Range foothills. This segment may be the most likely to see trail development soon, thanks to the proximity of this segment to the Metro Portland population base, it's relatively undamaged condition and potential linkages to existing trails including the Banks-Vernonia Trail and a potential interim trailhead at LL Stub Stewart State Park.

Physical Structure

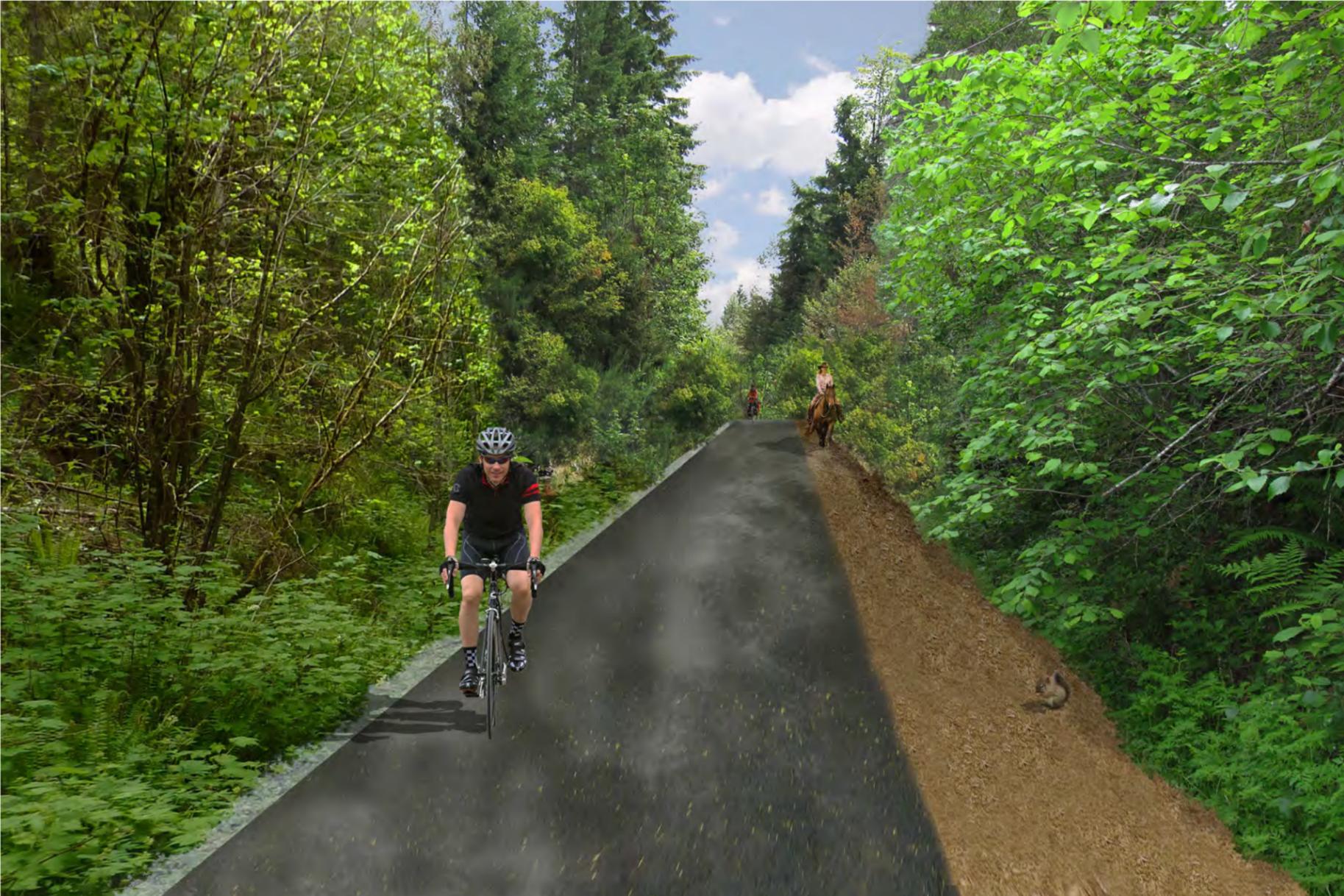
This segment begins in the town of Banks, at the siding owned by POTB along NE Commerce Street, adjacent to the Banks Lumber Company Mill and the former Banks Depot which still stands. The Right of Way (ROW) varies, beginning at 60' in width between Banks and MP 777, at which point it widens to 80' until just before MP 782, where it becomes a standard 100' ROW all the way to Cochran. The POTB owns additional ROW in the town of Buxton, where a former Y spur accessed a lumber mill, now demolished. There are additional wider sections of ROW in certain locations such as Scofield (MP 785) and the siding in the town of Timber (MP 793) as well as the siding in Cochran (MP 800).

This segment begins in the flat farmland around Banks and does not appreciably increase in gradient until it runs alongside Highway 47 north of Buxton and begins a gentle climb to cross the highway at MP 782.5. As such, this first 7 miles of corridor is very direct. As it climbs gently into the Coast Range, the ROW begins to weave around hillsides to minimize gradient (freight trains rarely operate at a higher than 1% gradient but some sections of this corridor approach 3%), resulting in a 12-mile route between Buxton (EI 325') and Timber (EI 975'), which are only 5 miles apart "as the crow flies." The corridor continues climbing to its highest point, at Cochran (EI 1800'). The total elevation gain between Banks and Cochran is approximately 1600'.

There are several bridges and trestles in this segment, 11 of which require minor ballast repairs, repairs to small culverts, and repair of minor scour of bridge and trestle abutments. The most significant bridges are the two trestles, one at MP 782, crossing Highway 47 and the other crossing Reliance Creek, at MP 798.79. These trestles have the potential to become visitor attractions due to their height, views and unique structure. The Buxton Trestle on the Banks-Vernonia State Trail offers a precedent for future restoration of a similar structure. An additional significant bridge crosses US 26 at MP 787.7 and is distinctive for its painted slogan inviting motorists to "Ride The Tillamook Railroad." There is one tunnel in this segment, the Walcott Tunnel (or Tunnel 25) at MP 789.48.



Before and After illustration of a typical rail-to-trail portion of the corridor



Natural Setting

This segment begins in the flat farmland around Banks with minimal natural features other than remnant woodland between farm fields and along the segment itself. At several points the trail will cross the West Fork of Dairy Creek, a tributary of the Tualatin River. Dairy Creek and its tributaries provide habitat for several salmonid species, including steelhead trout, which are listed as threatened under the Endangered Species Act. Other salmonid species include cutthroat trout and the (non-native) coho salmon. The East and West forks of Dairy Creek are the main cutthroat trout spawning and rearing areas within the Tualatin sub-basin. Between Timber and Cochran, this segment enters the Upper Nehalem River watershed, which drains northward before turning west and eventually meeting the rail corridor again at the Salmonberry River confluence.

North of Buxton, the trail passes through the SW corner of Stub Stewart State Park and between Highway 47 and Cochran, crosses predominantly private timberland and rural residential areas. Subsequent planning for the Salmonberry Trail will require more extensive study of natural features in this segment, since it was not assessed in 2008.

Potential for Restoring Rail Use

The Port of Tillamook Railroad operated as an essentially one-way freight operation, hauling timber from mills in Tillamook and Garibaldi to the Banks Lumber Company and returning empty to the coast. At one point, there would have also been grain shipments to dairy farmers in Tillamook County. These shipments are now being made by truck since 2007 and without the coastal sources of materials, there is little demand for a rail line between Cochran and Banks. No excursion tourist trains have been proposed either. The Portland and Western RR (PNWR) currently leases 3.5 miles of POTB track from Schefflin, between Hillsboro and Banks, to a point just south of Banks, underneath the Highway 6 road bridge over the tracks. They are actively negotiating to purchase this leased portion outright from the POTB. PNWR is also interested in acquiring an additional 1 to 2 miles north of this point for switching purposes.

There is a basalt rock quarry at Cochran, south of the rail ROW, with a dedicated rail siding and there have been numerous attempts to begin active quarrying operations here and ship the rock material on the rail line east to connect with PNWR. Currently, this quarry is owned by the Joint Regional Operations Center for Law Enforcement and Public Safety Training (JROC) and they have expressed interest in re-establishing movement of materials from the quarry into the Portland area. The current quarry permit does not allow for removal of materials by truck. The main impediments to rail service on this segment are the needed repairs to the Walcott Tunnel and the limited potential use of the line for tourist or freight traffic.

Adjacent Land Uses



Timber harvesting on adjacent land

Beginning in the town of Banks, the trail runs adjacent to US 47, then US 26 and the Banks-Vernonia State Trail for the first 4 miles, until it splits right before MP 779. There is a mixture of active farmland and large lot rural residential uses, with several driveway crossings, but this land use transitions to predominantly family forest lands after MP 782. At MP 793, the corridor passes through the small town of Timber, where smaller residential lots abut the line and may be encroaching on the ROW. At MP 794, the corridor enters the Tillamook State Forest, weaving between the TSF and large parcels of commercial forest land before entering the State Forest again at MP 800.5.

In terms of compatibility with these land uses, if there is a trail developed, there will be a need to define the ROW with new fencing. Residential lots may be treating the tracks themselves as the edge of their properties, instead of the ROW edge. At road crossings, new safety striping and signage will be needed, both for trail users and motorists. The most significant road crossings are at Manning (MP 779—NW Pihl Road), Buxton (MP 780.5 and 781—NW Fisher Road), and Timber (MP 793—NW Timber Road). There are existing crossing solutions on the Banks Vernonia Trail which may be instructive, including for farm vehicles where the ROW crosses active fields that are managed by the same farmer.

There are additional compatibility issues with adjacent forest land and especially harvesting activities. In addition, there will also be a need to prevent Off-Highway Vehicle use of the trail.

At Cochran, the JROC has been proposed on the privately owned quarry south of the rail corridor. There are potential safety and noise conflicts between trail users and the Operations Center that will need to be worked out.

Existing Segment Recreation

The segment has a wide variety of existing recreational users.



- Hiking and camping use is focused on Stub Stewart State Park and Reehers Camp, which also include equestrian trails and opportunities for nature-based tourism.
- Cycling is also popular on the Banks-Vernonia State Trail and mountain bikers enjoy the Gales Creek Trail.
- Hunting is more popular in the western portion of the segment, on ODF forest lands, with some hunting on private timber land.

2007 Damage

This segment was not extensively damaged in the storm of December 2007. The most expensive damage point occurred at Tunnel 25, the Walcott Tunnel, with a major landslide covering the western portal of the tunnel. The FEMA damage assessment estimated that repairs would cost \$5.6 million. Since then, significant debris has been cleared and the tunnel has been re-opened but not repaired and on a site visit, the concept plan team saw clear evidence of structural failure in the tunnel's beams and columns, with many large pieces of gunite concrete falling from the ceiling. The structural assessment for FEMA noted small scale repairs needed on 11 bridges in this segment, none of which were estimated to cost over \$25,000 (in 2008 dollars.)

Since the storm, there may have been additional damage to the corridor, which should be verified before detailed design begins on trail projects. Erosion, vegetation growth and downed trees along the tracks are likely to be the biggest challenges since then.



Gunite concrete fallen from ceiling of Walcott Tunnel



Damage to Walcott Tunnel structure

Valley Segment Concept

Segment Concept Plan

Considering the physical context of this segment, this plan assumes that rails will be removed in the entirety of this segment and that a multi-use trail will be constructed. This segment offers a promising potential new trail route for the Portland metro region, which could connect with other trails such as the Banks-Vernonia Trail and Stub Stewart State Park, as well as the proposed Council Creek connection to Forest Grove and Hillsboro (and other urban trails linking to downtown Portland). The rural farm roads in Washington County are popular with cyclists and could also offer route options to access the trail from urban areas.

The POTB rail ROW is sufficiently wide to support a 10' wide asphalt multi use trail, laid atop the existing ballast, with additional ballast structure added if necessary once the rails and ties are removed. Bridge crossings will likely need additional decking to allow bikes to safely cross, as well as safety railings on either side of most bridges including the open trestle across Hwy 47. An asphalt surface is not as compatible with equestrian use, but an adjacent 2' soft surface shoulder is proposed, which can accommodate horses.

Given that the Banks Vernonia Trail is directly adjacent to approximately 4.5 miles of the Salmonberry Trail between Manning and Banks, a separate new trail is not proposed and rails could remain for use by PNWR to the extent desired. At MP 779, where NW Pihl Road crosses the corridor, the beginning of the new multi-use trail is proposed, taking advantage of the existing Manning Trailhead on the Banks Vernonia Trail. This trailhead has limited parking, so a new parking lot is proposed along Highway 26 (see Atlas, Tile 3A). This trailhead, which should include a restroom, will have capacity for approximately 30 cars and will be located on POTB ROW to not require additional land purchase. Access off US 26 will require consultation with ODOT to ensure traffic safety.

There is likely to be a strong demand for recreational use from Manning to Timber, building on the existing demand for the Banks-Vernonia (B-V) Trail and taking advantage of the Portland metro-area population base. OPRD is currently studying the number of trail users on the Banks Vernonia and that data will be useful in gauging potential users of this Segment. Another potential trailhead is at LL Stub Stewart State Park, which has the advantage of existing parking and lodging facilities. A connection to the Trail, potentially at Williams Creek trestle, would need to be built. A small campground at Cochran Pond could take advantage of that natural amenity and provide a well-situated camping facility between the heart of the Salmonberry Canyon and Stub Stewart State Park.

The numerous bridges in this Segment will need to be evaluated and repaired as needed as part of the overall design for the trail segment. The topography surrounding the Walcott Tunnel is steep, so a detour is not feasible. The major repairs to this tunnel will need to be completed for this to be a safe option for trail users.

The town of Timber is an unincorporated community in Washington County. The wide ROW that once supported rail switches, spur lines and logging infrastructure now presents the potential to support multiple unique point of access to the Salmonberry Trail in one of the more remote stretches of rail. Due to its location and ease of vehicular access, this access point has the potential to serve a variety of users and has received particular attention from equestrians who see Timber as a unique staging point for access into some of the deeper recesses of the Tillamook Forest. Please refer to the Atlas for concept sketches of this potential trailhead, which will require careful consultation with the local community.

Bypass Alternatives

There are certain places in this segment where the full proposed multi-use trail will be difficult to achieve or may require a temporary bypass until major bridge and tunnel upgrades are completed. In this segment, there are 2 bypasses:

1. Until the Williams Creek Trestle can be restored and re-surfaced with trail decking, a temporary bypass is proposed along a widened shoulder of Highway 47, from MP 781.5 to MP 782.5. The feasibility and design details of this concept would need to be reviewed and approved by ODOT.
2. The Walcott Tunnel (Tile 8, MP 789.5) requires repairs to its ceiling, to prevent shotcrete from spalling onto the trail and to repair structural damage to the tunnel foundation (see Section F in Atlas). The Tunnel can be bypassed with a route along NW Strassel Road, which runs adjacent to the corridor at MP 788.3. This bypass would run 3.75 miles to Timber Road then another 3.25 miles to rejoin the trail at MP 791.5. (Atlas Tile 9)

Catalyst Projects

The following projects are achievable, key improvements that will provide clear evidence of progress, helping to ensure continued momentum:

1. Develop a new trailhead for additional vehicles, restrooms to serve both B-V Trail and Salmonberry Trail
2. Enhance existing trails to provide access from Williams Creek trestle into Stub Stewart SP and create a loop on the B-V Trail
3. Add trail access to existing bridge over Hwy 47 and Dairy Creek as well as the Camp Creek Trestle and enhance bridges with new decking
4. A trailhead at Timber, where Timber Road crosses the rail corridor
5. Trail connection to Step Creek Trail

Tile #	Tile Name	Rail-With-Trail Alternative				Rail-to-Trail Alternative				Bypass Alternative			
		Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time
Valley Section													
1	Banks	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Banks to Manning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	Manning	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
4	Dairy Creek	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
5	Buxton	N/A	N/A	N/A	N/A	\$	🚶	👤👤	🏠	\$ \$	🚶	👤	🏠🏠
6	Camp Creek	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
7	Sunset Highway	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
8	Walcott	N/A	N/A	N/A	N/A	\$ \$ \$	🚶 🚶	👤	🏠🏠🏠	\$	🚶	👤👤👤	🏠🏠
9	Castor Creek	N/A	N/A	N/A	N/A	\$	🚶	👤👤👤	🏠🏠	\$	🚶	👤👤👤	🏠🏠
10	Timber	N/A	N/A	N/A	N/A	\$	🚶	👤👤	🏠🏠🏠	N/A	N/A	N/A	N/A
11	Reehers Camp	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
12	Round Top	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
13	Reliance	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A
14	Cochran	N/A	N/A	N/A	N/A	\$	🚶	👤	🏠	N/A	N/A	N/A	N/A

The matrix at left is a tile-by-tile analysis of potential trail alternatives, using four broad categories of Cost, Operations & Maintenance, Social Considerations and Time. The icons associated in each cell indicate the relative value of each category. For example, there are significant costs associated with expanding the Walcott Tunnel to accommodate a Rail With Trail, hence the three icons. Each segment features a similar matrix.

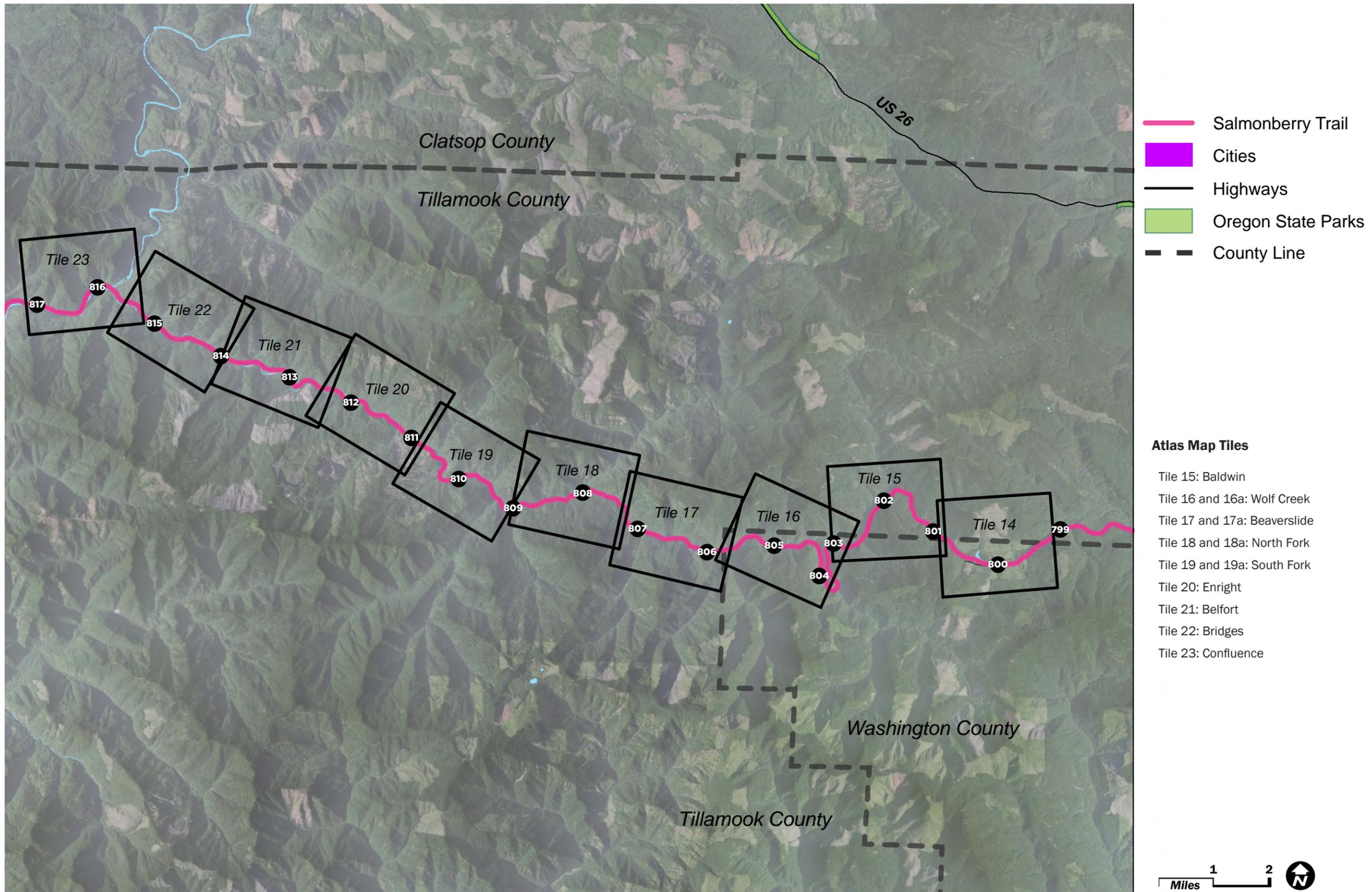


Figure 7: Salmonberry Canyon Segment Overview Map

Salmonberry Canyon Segment

Cochran (MP 800) to the Salmonberry/Nehalem Confluence (MP 816)

Introduction

This 16-mile segment is the wildest, most remote and most damaged portion of the trail corridor. The segment has the most potential for providing corridor visitors with an experience of the deep Coast Range forest and the scenic Salmonberry River but the segment also presents serious challenges to access, with major storm damage and limited road or trail connections into the heart of the segment. Until funding is secured, this segment may remain as an adventure trail for a long time, attractive as an eco-tourism destination, with some visitors drawn by the railroad relics and damage. Hikers and backpackers could make use of remote campsites within the canyon which would not require significant development. Some hikers could reasonably be expected to use a remote lodge as described above. Mountain-bikers would likely see the segment as a day-trip opportunity.

Physical Structure

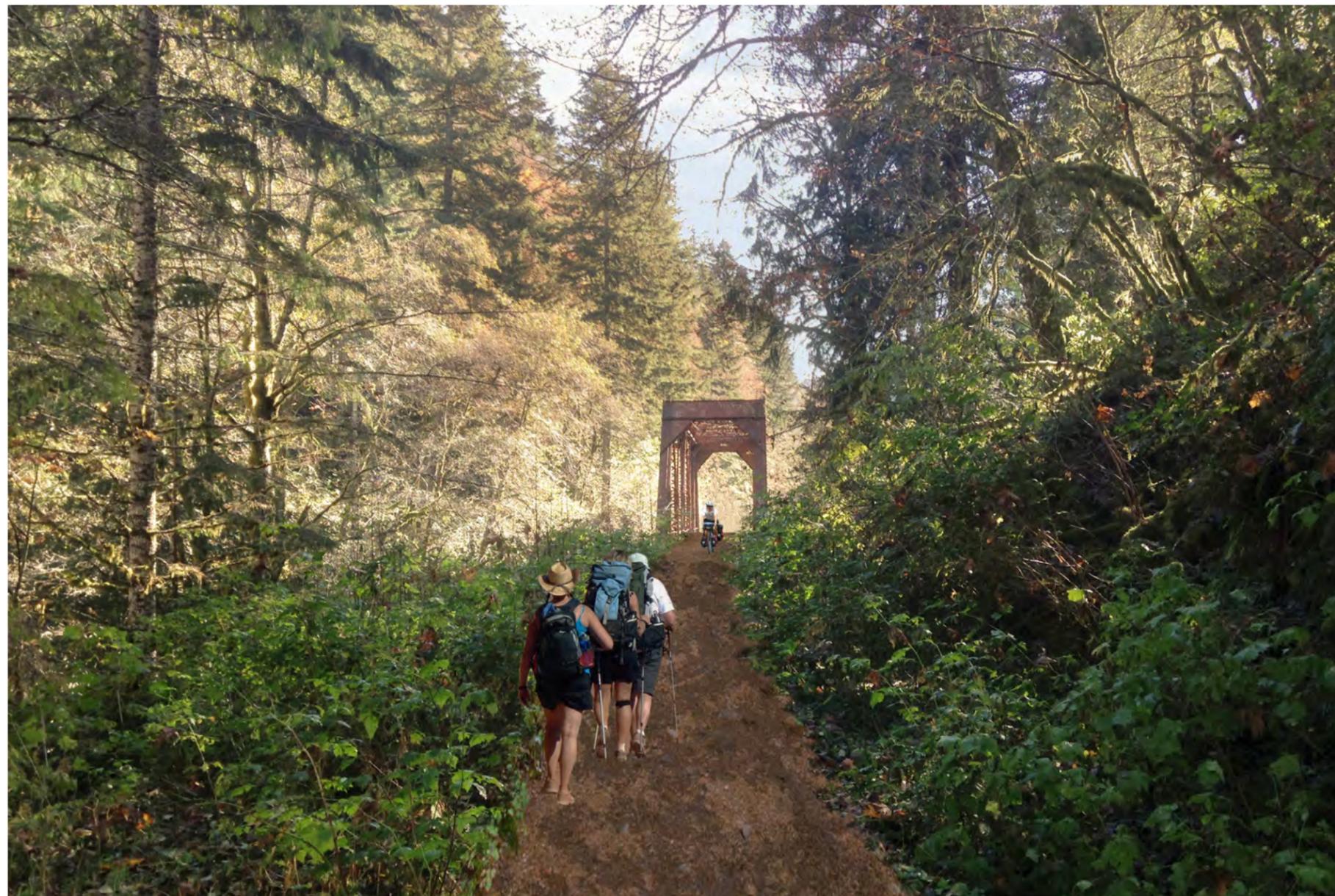
This segment begins at the former town site of Cochran, surrounded by private land, which includes a long siding as well as a spur line into a disused rock quarry (which was once owned by POTB and could be a source of ballast rock for repairs). The ROW of the segment is consistently 100', widening to accommodate the Cochran siding. At MP 811, at the former town site of Enright, the segment crosses another private in-holding surrounded by Tillamook State Forest and includes a short spur line (not a siding)

This segment includes some stretches of track that were about as steep as possible for railroad track, at a 3% gradient. The corridor's highest point is at Cochran, which also straddles the watershed boundary between the Salmonberry River drainage (Pennoyer Creek) and the Nehalem River, flowing west and then counterclockwise back into the Coast Range. The line drops steeply, crossing Baldwin Creek on a large trestle, then looping south in a long switchback that drops almost 400', then continues a more gentle descent over the next 12 miles. The total elevation drop between Cochran and the Salmonberry/Nehalem Confluence is approximately 1560'.

There are several bridges and trestles in this segment, 16 of which require major repairs, as described in detail in the FEMA Structural Engineering Assessment work, prepared by WH Pacific for IBIS Group. The most significant bridges are two trestles, the Baldwin Creek Trestle at MP 802, which was deemed undamaged in 2008 and the large trestle crossing Wolf Creek, at MP 803.61, which did sustain \$350,000 of damage. These trestles have the potential to become visitor attractions due to their height, views and unique structure. There are a few railroad relics, including an old steel shipping container, or Stac-Pac, at MP 805.6 (known as the B&B by POTB employees), an old water tank at the Baldwin Creek trestle and another water tank at Enright. None of these were deemed significant in the 2008 NRHP Evaluation.



Before and After illustration of a typical rail-to-trail



Natural Setting

This segment's most striking natural features are the Nehalem and Salmonberry Rivers. The Salmonberry is one of the most significant steelhead rivers in Oregon. The ecology of each of these rivers and surrounding State Forest is described in detail in the 2008 Environmental Assessment, prepared by AECOM. The adjacent forests are managed as directed by forest management plans of the Oregon Department of Forestry. Development of the trail here will need to be guided by the overall project goals, especially environmental goals. Work in this segment may involve unavoidable short term impacts on habitat, while improving future conditions consistent with the project goals.

The 2007 winter storm damage is most evident in this segment and tracks and railroad structure are still in the river channels. In addition, Wolf Creek and Kinney Creek remain inaccessible due to storm and railroad debris. The ROW also passes Cochran Pond, a remnant mill pond which is an interesting feature and is used by wildlife that trail users may enjoy.

Adjacent Land Uses

This segment runs almost exclusively through forestland, with 16 miles running through the Tillamook State Forest. Nearly all of this landscape was either harvested and/or burned in 1900s. Today recent harvest activity is evident, along with forest stands in various ages and conditions.

At the former town site of Enright, two cottages stand in a 160-acre private inholding parcel surrounding the POTB ROW. At the confluence of the Salmonberry and Nehalem Rivers, there are several rural residential parcels south of the Salmonberry, accessed by Tin Hat Road.

Trails in forestland are common in the Tillamook State Forest, and active forest management and recreational trails can and do coexist. There are operational conflicts to mitigate as well as educational opportunities. Where there are public access points, recreational use will need to be managed to support the trail uses and prevent conflicting uses such as Off-Highway Vehicles or other transportation forms.

2007 Damage

This segment was extensively damaged in the storm of December 2007. Of 19 recorded structural damage locations, the most significant occurred at the following points. (Damage estimates are conceptual, for re-establishment of freight rail service and are listed in 2008 dollars. Repairs to accommodate other uses may not be as extensive. The OCSRR has inspected the 7th and 8th Salmonberry Bridges and believes that repairs will not be as significant as the 2008 Assessment claims):

MP 801.73	Tunnel 26	\$256,000 (repairs)
MP 802.2	Side Hill Bridges	\$170,000 (repairs)
MP 803.6	Wolf Creek Trestle	\$350,000 (repairs)
MP 805.7	Kinney Creek Bridge	\$2.07 Million (replacement cost)
MP 806.34	Creek Bridge	\$2 Million (replacement cost)
MP 806.97	Belding Creek Bridge	\$2 Million (replacement cost)
MP 808.95	Bathtub Creek Bridge	\$1.8 Million (repairs)
MP 811.93	7 th Salmonberry Bridge	\$1.6 Million (replacement cost)
MP 814.22	8 th Salmonberry Bridge	\$100,000 (repairs)

Existing Segment Recreation

The segment's existing recreational users are more adventurous to access the rugged territory of the area.

-  • There are no official campsites or hiking trails in the segment but hikers venture into the corridor from the Beaverslide, or from the east or west portals to the river canyon.
-  • Hunting is popular on ODF forest lands. Steelhead fishing on the Salmonberry is also very popular.
-  • Some intrepid kayakers float the Salmonberry and Nehalem.



Kayaker on the Salmonberry

Of greater concern are 114 noted landslide and embankment failures along this segment of the ROW. The most significant damage occurred at the following points:

MP 803.45	Wolf Creek Landslides	>\$3 million (repairs)
MP 807.4	Grade Failure	>\$2 million (repairs)
MP 807.64	Grade Failure	±\$1 million (repairs)
MP 808.2	Grade Failure	\$0.5 Million (repairs)
MP 808.7	Grade Failure	\$1.8 Million (repairs)
MP 809.55	Grade Failure	\$1.9 Million (repairs)

The above lists alone total over \$25 million in repairs, not including permitting, or deferred maintenance needs. The biggest concern for future Trail planning, beyond the source of funding for such repairs, is whether the Trail will simply incur weather-related damage in other locations. Many of the major damage points occur where drainages perpendicular to the ROW empty into the Salmonberry and these drainages will continue to shed earth and vegetation in potentially catastrophic ways. This is a natural geomorphological process. To lessen recurring damage, building long spans under which material can pass is a possible approach but may not be feasible on some of the drainages. Even this approach is no guarantee—the Bathtub Creek Bridge was almost entirely buried with debris, despite a wide span over that drainage.

Additionally, the entire segment runs within a steep canyon, whose slopes are prone to landslide, with unstable soils on shallow basalt bedrock washing out regularly as a natural process. Finally, in many locations, the railroad tracks were built on filled embankments within the Salmonberry River's natural channel course, with no alternative route due to steep slopes. The River is constantly shifting course. Many of these embankments have washed away and replacements will require extensive permitting for in-water work and channel modification. On-going maintenance will be a major concern for future corridor use.

Since the 2007 storm, there may have been additional damage to the corridor, which should be verified before detailed design begins on trail alternatives. Vegetation growth and downed trees along the tracks are likely to be the biggest challenges since then.



Damage at MP 806

Salmonberry Canyon Segment Concept

Segment Concept Plan

Considering the physical context, this plan assumes that rails will be removed in much of this segment, at least from Cochran to Enright (MP 811) and that a multi-use trail will be constructed, with bypasses in areas with major washouts.

For much of this segment, the trail is envisioned to likely be gravel and relatively narrow, such as the width of an ATV. Trail uses (hiking, biking, equestrian, etc.) compatible with this area need to be worked out during future project design and implementation.

Overnight camping now informally occurs at the intersection of the Beaverslide Road and the Salmonberry River, as well as other dispersed locations in this section. As the trail is developed, this camping area will need to be improved to provide sanitary and fire safe camping opportunities. This camping area and other overnight areas will need to be managed consistent with the project goals and fire prevention plans.

Access to this section is very poor. Trail design, emergency access plans, maintenance, and user expectations need to recognize the poor access. The Beaverslide Road does access this section, but it was not designed for high use recreational traffic and is not envisioned as vehicular access to the recreational trail. A trailhead could be established at the top of the Canyon for user access.

Tourist rail service may continue to be a use for the area closest to the coast. The OCSR lease with the POTB states that they have a desire to restore tourist rail service deep into this Segment, to 0.5 miles east of Enright (MP 811). For this segment between Enright and the Nehalem Confluence (MP 816), there are significant challenges to a rail-with-trail alignment, due to topographic constraints, proximity to the river and damaged bridges. This will require further detailed study with more detailed survey mapping and field investigation. For the purposes of this plan, we have assumed that a Rail With Trail option will be considered in future west of MP 811 and will always be placed on the inside of the rail line, away from the Salmonberry River.

This segment offers some promise as a significant draw for visitors, but the notion of a continuous multi use trail, on either asphalt or crushed rock, must consider the extensive repairs necessary on this Segment. Previous damage assessments

evaluated the repair of the rail corridor to restore freight rail service; repairs necessary for the construction of a multi-use trail may not be as extensive, but it will still require a significant expense.

All of the 114 landslides in this Segment are blocking the ROW and would need some level of repair to allow a trail. The idea of a 3' to 6'-wide 'adventure trail' may be the most feasible and environmentally-sensitive option for much of this segment. The 17 damaged bridges would need to be repaired and have new decking added to accommodate the trail surface as well as safety railings on either side of most bridges, which would need to be higher than pedestrian bridges to provide safety for equestrian and bike use. With an adventure trail, these bridges could be simpler log stringer bridges or fords. As with the rail repairs, access for heavy machinery into the Canyon would present another expense and challenge, although the OCSR has offered to provide transport of equipment and materials into the Canyon for trail building purposes.

At the eastern end of the segment, the multi-use trail proposed from Manning to Cochran could potentially extend to the scenic Baldwin Creek trestle at MP 802 but would encounter the need for major repairs at Tunnel 26 (MP 801.73) to make this extension possible. A section of multi-use trail isolated within the Canyon, accessed via the Beaverslide Road, is not a feasible idea, since such a trail could not be built to any distance without requiring major repairs to the ROW or bridges. The POTB rail ROW is sufficiently wide to support a 10' wide asphalt multi use trail, laid atop the existing ballast, with additional ballast structure added if necessary once the rails and ties are removed. Bridge crossings will likely need additional decking to allow bikes to safely cross, as well as safety railings on either side of most bridges. An asphalt surface is not as compatible with equestrian use, but an adjacent 2' soft surface shoulder is proposed, which can accommodate horses.

A primitive campground at Beaverslide is also possible (see sketch on Tile 17A). This would assume closure of the Beaverslide Road and is envisioned as a hike or bike-in campground directly adjacent to the trail corridor, with composting toilets and no drinking water. A trailhead could be built at the top of the Beaverslide, with relatively easy access from US 26.

Bypass Alternatives

There are certain places where the full proposed multi-use trail will be difficult to achieve or may require a temporary bypass until major bridge and tunnel upgrades are completed. The simplest and least expensive option for the segment between Cochran and Enright would be to convert it entirely to a hiking and mountain-bike-only "adventure trail". It is essentially serving as one currently, but there is probably limited bike usage since the corridor is becoming overgrown with vegetation and it's somewhat difficult to walk long distances on railway ties. An adventure trail would only require the removal of rails and ties, not additional ballast and where this is not possible at major damage points, a parallel trail could be built to detour around the damage. Such a trail (and other detours) would be 4' in width and have a soil or ballast surface. Bridges will require some safety decking and railings but these could be less extensive than for multi-use trails or equestrian trails.

Hikers can access the trail from the Cochran Road to the east and from the Foss Road or Lower Nehalem Road at the Nehalem Confluence on the western end, hiking in a set distance and returning to their vehicles. A new trailhead is proposed at the Nehalem Confluence. There are also some opportunities for trail loop connections, possibly using the Beaverslide Road, combined with the Cochran Road. If hikers have two cars, a shuttle hike can be arranged, parking at Cochran and at the top of the Beaverslide Road. Hikers could descend 1.75 miles to the trail, a 1500' drop, then hike uphill on the ROW about 6 miles to a second car left at Cochran Pond. Another potential hike involves the North Fork Salmonberry Road (and Trail) to descend a wild forested area to the main stem of the Salmonberry River, where hikers can ford the river in summer low water to rejoin the Salmonberry Trail. A network of logging roads near Enright climbing up towards Pinochle Peak then west to Buck Mountain and Hatchery Creek could potentially serve as future hiking trails connecting with Foss Road but this requires further study and coordination with ODF.

Certain damage points will be very difficult to develop as a multi-use trail improvement, beyond an "adventure trail" type of treatment, given the level of damage repair needed. These major damage points and bypasses are:

- Wolf Creek slide (Atlas Tile 16)
- Kinney Creek washout (Tile 17)
- Beaverslide-area washouts including the North Fork tunnel (Tiles 17-18) **(See Section G in the Atlas)**
- Bathtub Creek washout (Tile 19), and lower right.
- Tunnel Creek bypass (Tile 19)



Tile #	Tile Name	Rail-With-Trail Alternative				Rail-to-Trail Alternative				Bypass Alternative			
		Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time
Salmonberry River Section													
15	Baldwin	N/A	N/A	N/A	N/A	\$\$\$	🚚	👤👤	📏	N/A	N/A	N/A	N/A
16	Wolf Creek	N/A	N/A	N/A	N/A	\$\$\$	🚚🚚	👤👤	📏📏	\$	🚚	👤👤	📏📏
17	Beaverslide	N/A	N/A	N/A	N/A	\$\$\$	🚚	👤👤	📏	\$	🚚	👤👤	📏
18	North Fork	N/A	N/A	N/A	N/A	\$\$\$	🚚	👤👤	📏	\$	🚚	👤👤	📏
19	South Fork	N/A	N/A	N/A	N/A	\$\$\$	🚚	👤👤	📏	\$	🚚	👤👤	📏
20	Enright	\$\$\$	🚚🚚	👤👤	📏	\$	🚚	👤👤👤	📏📏📏	N/A	N/A	N/A	N/A
21	Belfort	\$\$\$	🚚🚚	👤👤	📏	\$	🚚	👤👤👤	📏📏📏	N/A	N/A	N/A	N/A
22	Bridges	\$\$\$	🚚🚚	👤👤	📏	\$	🚚	👤👤👤	📏📏📏	N/A	N/A	N/A	N/A
23	Confluence	\$\$\$	🚚🚚	👤👤	📏	\$	🚚	👤👤👤	📏📏📏	N/A	N/A	N/A	N/A

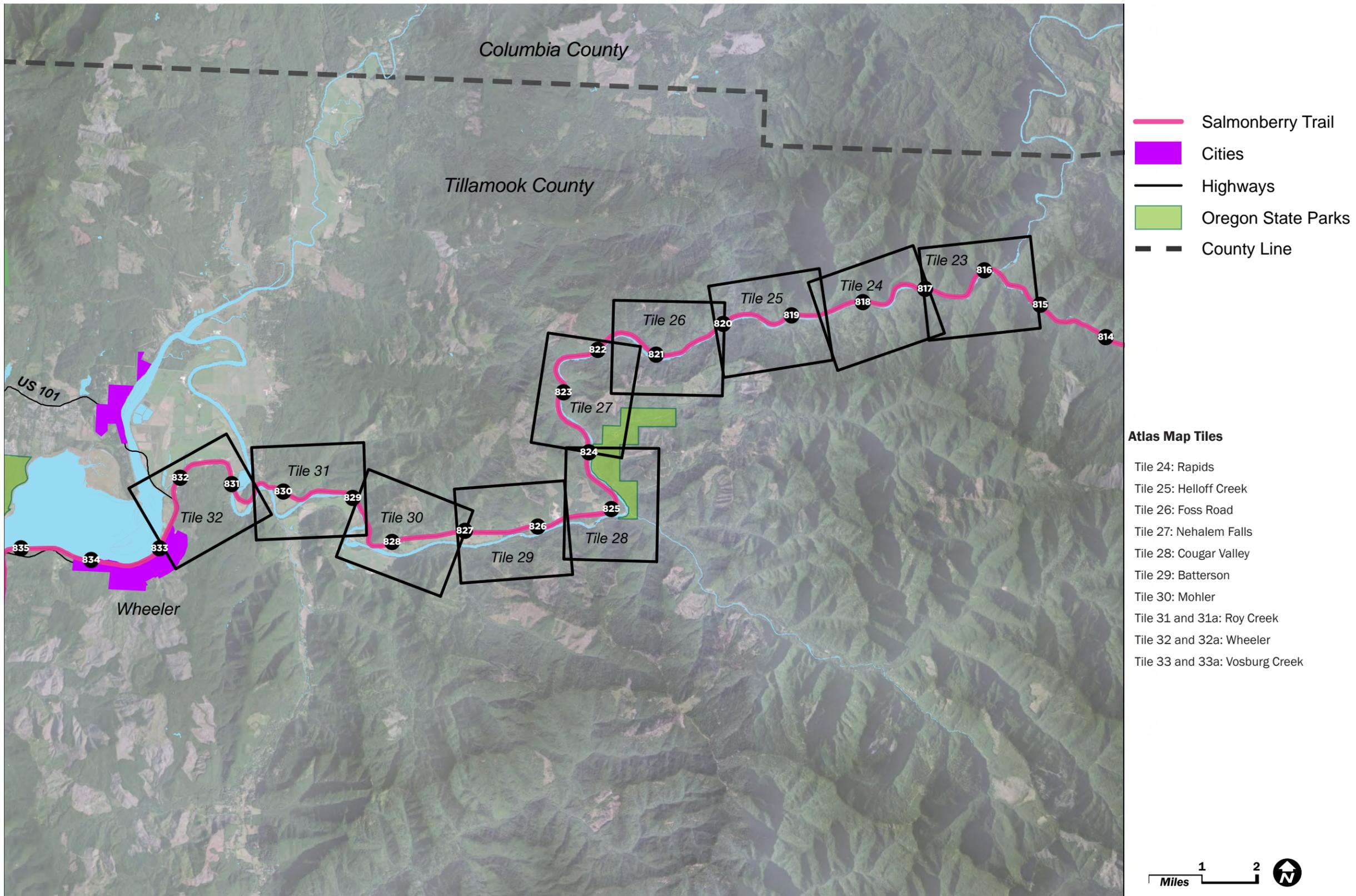


Figure 8: Nehalem Segment Overview Map

Nehalem Segment

Salmonberry/Nehalem Confluence (MP 816) to Wheeler (MP 833)

Introduction

This 17-mile segment runs from the Salmonberry/Nehalem Confluence, along the Nehalem River into rural farm and forest lands before turning west at Mohler, and running along the edge of the Nehalem estuary into Wheeler, on Nehalem Bay. This segment might see most demand from visitors already at the Oregon Coast who use the trail for a day trip into the State Forest along the Salmonberry, returning to accommodation in Wheeler or Nehalem Bay State Park. The potential Cougar Valley State Park could serve the same function (as well as providing campsites for users of this segment heading east.) This segment and the Coastal Segment continue to offer passive recreation in the form of scenic train trips.

Physical Structure and 2007 Damage

This segment begins where the ROW crosses the Nehalem River at MP 816. The Right of Way (ROW) is a standard 100' ROW all the way to Wheeler. There is one siding in this segment, at Batterson, where POTB trains once idled waiting to exchange railcars from Banks and near Mohler. This segment begins at Elevation 231' at the confluence of the Nehalem and Salmonberry, having dropped dramatically in the previous 16 miles from Cochran. The total elevation drop is approximately 200'.

There are few bridges in this segment, with only 3 requiring minor ballast repairs, repairs to small culverts, and repair of minor scour of bridge and trestle abutments. These are described in detail in the FEMA Structural Engineering Assessment work, prepared by WH Pacific for IBIS Group. The most significant bridges are in this segment are the two Nehalem River bridges, at MP 816 and MP 830.81. According to the 2008 Damage Assessment, the 2nd Nehalem Bridge is estimated to require \$84,000 of damage repair. The first bridge at the confluence has a significant washout to the west, where the new Foss Bridge over the Salmonberry was recently re-opened. A repair to this section was completed by the OCSRR in 2014. There are no significant washouts over the ROW and the OCSR has operated excursion trains to the Salmonberry/Nehalem confluence. From visual inspection, it appears that there have been minor trees downed over the ROW and some minor rockfall.

Natural Setting

This segment runs along the Nehalem River, a significant coastal fish habitat. West of the Nehalem's confluence with the Salmonberry, it runs along the steep, wooded north bank through the Tillamook State Forest. At the western end of this segment, the ROW runs along the Necanicum Highway, with views across the Nehalem Estuary and Nehalem Bay.

I can already see myself riding this trail, so excited! I just hope it keeps making such swift progress to be opened up as soon as possible.

Ian



Before and After illustration of a typical rail-with-trail



Adjacent Land Uses

From MP 816 to MP 824, the ROW is bordered by Tillamook State Forest land which has a long history of wildfire and timber harvesting. At MP 822.5, the ROW passes Nehalem Falls, with an ODF campground on the east bank accessed from Foss Road. A short distance south of the Foss Road bridge over the Nehalem River, OPRD owns a 314-acre parcel of land (with a preliminary name of Cougar Valley State Park), with long-term plans to develop the site for recreation.

At MP 825, the corridor turns west with the Nehalem River and runs adjacent to several parcels of private timberland. The Blue Rock quarry at Batterson is active, across Foss Road from a long siding on the ROW. The ROW is adjacent to a strip of farmland along the Nehalem River then passes Mohler Sand & Gravel at MP 828. The ROW parallels Foss Road until its intersection with Miami Foley Road and at MP 830 begins to loop southwards with a bend in the river, curving northwards again over the 2nd Nehalem Bridge and passing the Nehalem Bay Winery. The final mile of this segment passes along the south edge of the Nehalem Estuary before turning south and entering Wheeler. There are few private residences abutting the ROW in this segment, mainly small farms.

Existing Segment Recreation

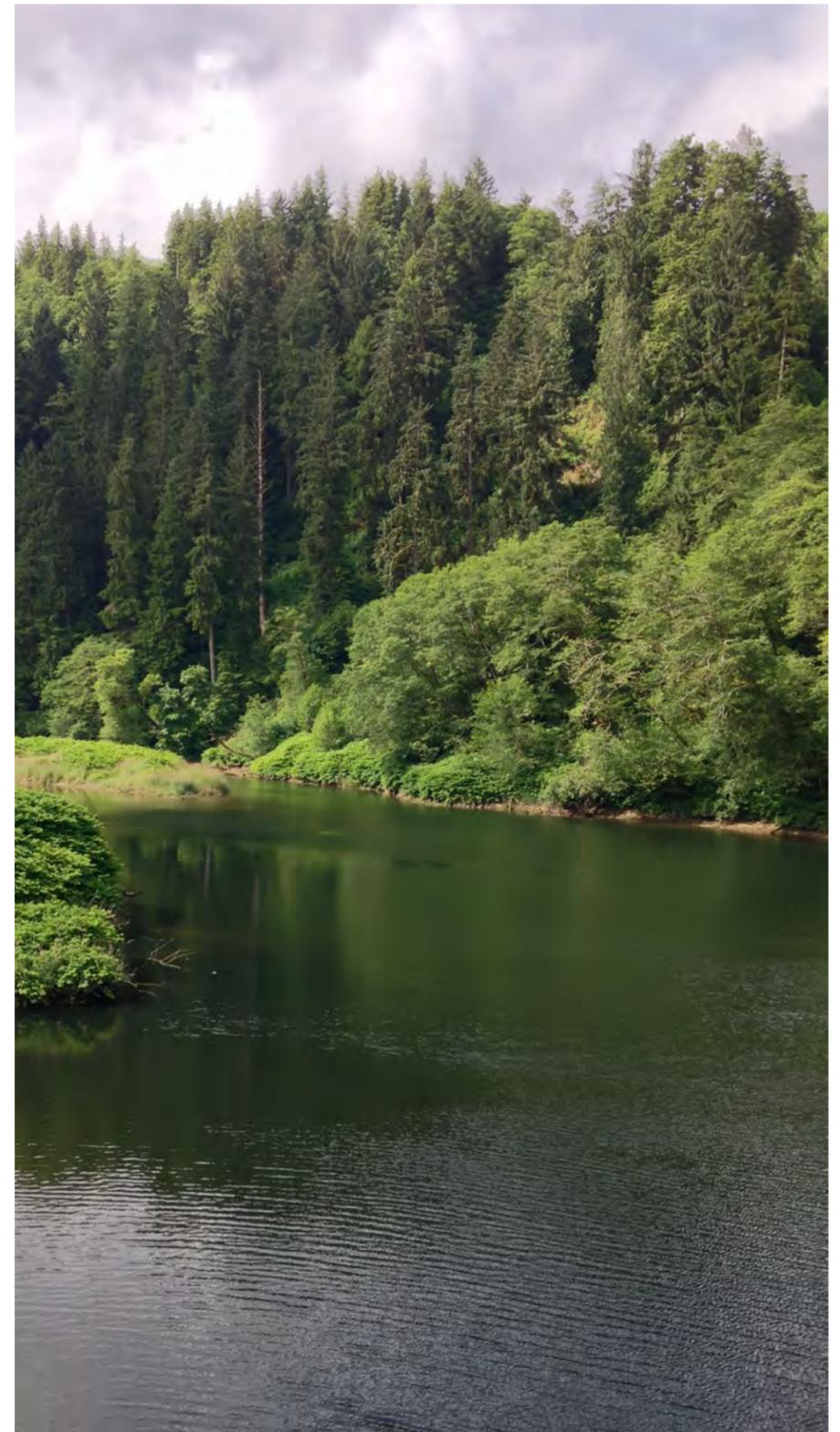
This segment existing recreational users are more adventurous to access the rugged territory of the area.



- There is one campground at Nehalem Falls, which also includes opportunities for nature-based tourism.
- Hunters may access ODF land from the corridor, and steelhead fishing is popular along the Salmonberry,
- Kayaking, canoeing and boat-based fishing is popular, on the Salmonberry for whitewater and on the Nehalem for gentler water.



Canoeist on the Salmonberry River



Stunning riverside view from a bridge over the Nehalem River, MP 831

Nehalem Segment Concept

Segment Concept Plan

The Oregon Coast Scenic RR (OCSR) currently has an agreement with the POTB that allows tourist train operations through this segment, with potential eventual expansion to Enright. It has been suggested that in future, trains from the coast could transport bicyclists, hikers, anglers and even boaters deep into the Salmonberry River Canyon. There is no current potential for freight traffic in this segment; with no loading facilities, timber from nearby forest land is more efficiently moved by truck and the existing quarries near the ROW are too small to warrant moving product by rail. A new trailhead is proposed at the confluence of the Nehalem and Salmonberry rivers.

Considering the physical context of this segment, the following are possible:

Rail with Trail Alternative

Starting in this segment, a 10' multi use trail could be located adjacent to the rail line from MP 816 west to MP 833. Generally, the constraints of this line's physical context make Rail-With-Trail (RWT) development difficult, mainly due to the narrow and wooded conditions along the ROW, which would need to be widened to accommodate the setback distance needed from an active rail, although this setback can be narrowed with negotiation with OCSR. The two Nehalem River bridges will be very expensive to widen. **(See Atlas, Section C)**

There are also sections of the trail that cross probable wetland areas along the Nehalem River near Mohler, which would need to be filled for a trail adjacent to the rail line, which is typically on an embankment in such areas. The permitting challenges involved would add another level of complexity to the RWT concept. Equestrians would probably not use this segment when trains are operating, as horses would not be comfortable with the noise and train motion.

Multi-Use Rail to Trail

If the rails are removed, this segment could be a popular 10' wide multi use trail connecting coastal recreation and visitor attractions with the deep forest of the Salmonberry River drainage and with future State Park facilities at Cougar Valley. The segment could link with trails to Nehalem Bay State Park and with the next segment of this trail. The POTB rail ROW is sufficiently wide to support a 10' wide asphalt multi use trail, laid atop the existing ballast, with additional ballast structure added if necessary once the rails and ties are removed. Bridge crossings will likely need additional decking to allow bikes to safely cross, as well as safety railings. Subsequent concept planning will determine appropriate surfacing for this trail. An asphalt surface is not as compatible with equestrian use and also must consider higher maintenance costs.

Bypass Alternatives

As funds are raised for the construction of a multi-use trail for the 6 miles of this segment that runs along the north bank of the Nehalem River, an interim bypass can use the Foss Road, which runs parallel on the south bank and provides access to the trail at the confluence of the Nehalem River and Salmonberry River. This existing road is wide, with a good gravel surface appropriate for cycling and offers access to Nehalem Falls Campground. However, logging truck and recreational vehicle traffic, along with poor sight distance in some places, all pose safety challenges for users of this road.

Catalyst Projects

The following project is seen as an achievable, key improvement that will provide clear evidence of corridor progress, helping to ensure continued momentum:

- Build an already-planned trail connection between Nehalem Falls Campground and the Cougar Valley OPRD property. This trail will need to consider forest management and steep slopes in the area.

Tile #	Tile Name	Rail-With-Trail Alternative				Rail-to-Trail Alternative				Bypass Alternative			
		Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time
Nehalem River Section													
24	Rapids	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
25	Holloff Creek	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
26	Foss Road Lateral	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
27	Nehalem Falls	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
28	Cougar Valley	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
29	Batterson	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
30	Mohler	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□
31	Roy Creek	\$\$\$	███	██	□	\$	█	███	□□□	\$	█	██	□

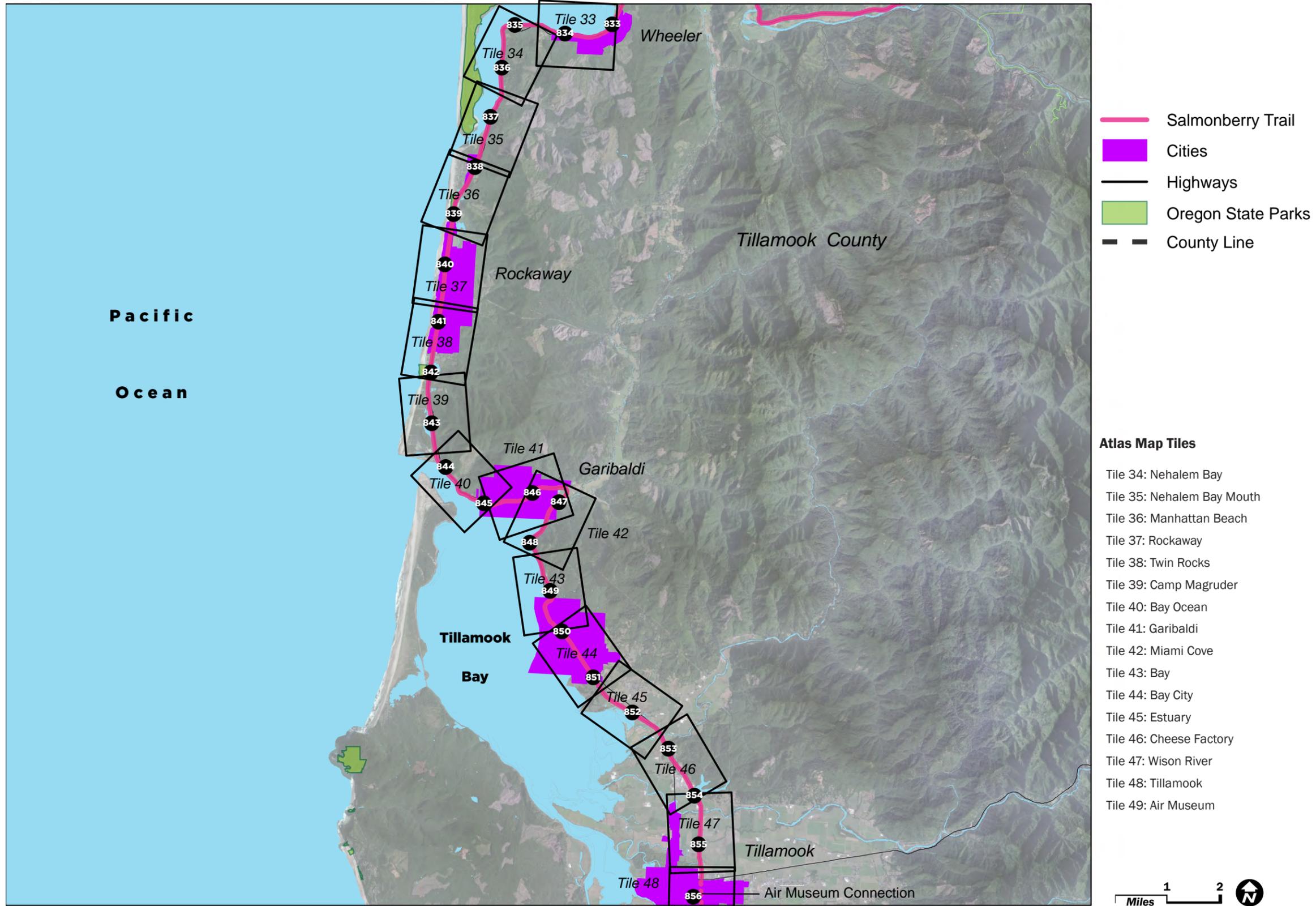


Figure 9: Coastal Segment Overview Map

Coastal Segment

Wheeler (MP 833) to Tillamook Industrial Park (MP 859.13)

Introduction

This 26-mile westernmost segment of the trail runs along the Coast, from the small community of Wheeler on Nehalem Bay, to Rockaway Beach, Garibaldi and Tillamook, ending at the Port of Tillamook's Industrial Park adjacent to the Tillamook Air Museum. This segment is currently partially leased to the Oregon Coast Scenic Railroad (OCSR), which runs excursion trains from Garibaldi to Rockaway, with excursions to Wheeler and aspirations to extend trips to Tillamook and Enright. This Segment, passing through numerous coastal communities, or 'trail towns' and close to a large number of tourist hotels and rental homes, could be popular with casual day users and would not require significant investment in trailheads since many users could access the trail on foot or bike. The Salmonberry Trail here could link to and capitalize on existing visitor attractions. (We assume that this segment's proximity to US 101 would deter equestrian users.) This segment could also be of potential interest as a recreational resource for full-time residents on the coast for fitness and casual use as well as for commuting to work.

Physical Structure and 2007 Damage

This segment begins in the town of Wheeler, at the depot used by OCSR. The Right of Way (ROW) varies, beginning at 60' in width in Wheeler, where it becomes a standard 100' ROW all the way along Nehalem Bay until Nedonna Beach, where it reverts to 60'. It widens briefly to 100' before entering Rockaway, where the ROW is directly adjacent to US 101. Additional mapping is required to determine where the two ROWs coincide. The ROW remains at 60' through Twin Rocks, then widens to 100' as it passes the large property owned by the Oregon Methodist Church and rounds Barview and enters Garibaldi. From Garibaldi to its terminus, the ROW remains 100'. The POTB owns a large parcel just south of MP 835, which appears to be undeveloped and may be a parcel that was once a mill with a dock. There are two sidings in this Segment, at Wheeler and Garibaldi (adjacent to the Port of Garibaldi). At MP 856, there are several sidings and spurs related to former loading operations at the Hampton Lumber Mill. At the Industrial Park, several sidings are now serving as storage for derelict railcars and one spur even leads into the Air Museum hangar. (This plan does not propose a trail south of Highway 6 due to farming and Hampton Lumber operational conflicts.)

The OCSR currently utilizes this segment for tourist train excursions, so the corridor is operable and in good condition. The OCSR noted that the quality of rails in this segment is lower than in the Salmonberry Canyon and they would like to replace these rails with a higher grade of steel in the future.

This segment was not extensively damaged in the 2007 flood, but there are several bridges and trestles in this segment, 12 of which require minor ballast repairs, repairs to small culverts, and repair of minor scour of bridge and trestle abutments. Some of this damage may have occurred in the 2007 event. These are described in detail in the 2008 FEMA Structural Engineering Assessment work, prepared by WH Pacific for IBIS Group. None of these repairs exceeds \$33,000. The most significant bridges requiring repairs span the Wilson River and the Trask River, the two largest rivers draining the Coast Range between Wheeler and Tillamook. The Wilson River bridge (MP 854.32) is estimated to require replacement, at a cost of \$2.6 Million. Another short bridge, over Slack Water Lake near Wheeler, requires \$225,000 in repairs.



Before and After illustration of a typical rail-with-trail



Natural Setting

This segment begins and ends essentially at sea-level so there are no major grade changes. The segment runs along the banks of Nehalem Bay south of Wheeler, passing the Slack Water Lake marsh as the line bends southwards following the outline of the Bay. The corridor runs parallel to US 101 for much of the segment, passing Manhattan Beach State Park and a number of small lakes and wetlands. South of Rockaway Beach, the line crosses Smith Lake (part of the Oregon Methodist's Camp Magruder) on an embankment. The line hugs the edge of the entrance to Tillamook Bay at Barview, protected from waves by large rock riprap. South of Garibaldi, the line crosses the estuary of the Miami River, which is significant habitat for Coho and Chinook salmon and Steelhead. The corridor crosses under 101 and runs adjacent to the highway as it parallels the shore, once again passing under the highway after MP 849 so that the line is adjacent to the Bay. The remainder of the corridor runs through primarily rural or agricultural land, with the exception of Stasek Slough on the Kilchis River, at MP 852.

Adjacent Land Uses

This segment is the most urban and complex in terms of property adjacencies, passing through several coastal communities including Rockaway Beach, Garibaldi, Bay City and Tillamook. There are several miles along the shores of Nehalem Bay and Tillamook Bay and through Tillamook County farmland. At no point does the line run directly along the Oregon Coast proper, since there are almost always private parcels between the beaches and the ROW. In one location, at MP 839, the ROW is adjacent to Manhattan Beach State Park

Most of the adjacent properties are residential lots, with a varying amount of definition to property lines along the ROW, which will require clarification. It appears as if people are parking informally within the POTB ROW in the Rockaway Beach vicinity. In several locations, the existing line runs adjacent to commercial or public uses, such as Neahkahnie High School, the Garibaldi Hardwoods Mill, the Pacific Oyster Company in Bay City, the Tillamook Creamery complex, Misty Meadows Dairy in Tillamook, the Hampton Lumber Mill in Tillamook and the POTB Industrial Park.

In discussions with dairy farmers in Tillamook County, several concerns were raised about the proposed trail, based on potential conflicts with farming operations. The farmers were concerned about trail users viewing their daily operations, with ensuing complaints about the treatment of dairy cows. They also are concerned about a Rail-With-Trail option that fills adjacent low-lying fields, which will likely result in altered drainage patterns and construction-related disruption of farming activities. They support a bypass beginning at the Tillamook Creamery, extending west of the corridor closer to Highway 101, south to the Hoquarton Slough, where a connection can be made via Goodspeed Park back to the corridor. Hampton Lumber has also expressed concerns about potential conflicts of a trail through the lumber yard (although the ROW is not owned by Hampton in this location, they still operate vehicles back and forth across the tracks.)

Existing Segment Recreation

The segment has a wide variety of existing recreational users.



- Many cyclists travel southbound along US 101 for short trips or to cycle the entire Pacific Coast. These users may favor an off-highway alternative for bikes.
- Hikers and equestrians favor trips along the beach, linking OPRD and County park properties.
- There are numerous State Parks along the segment, offering camping and beach access.
- There are numerous boat launches close to the corridor.
- Hunting is not prevalent along the Coastal Segment of the corridor due to the high number of residential and agricultural areas but fishing is popular at a variety of areas along the Coast.



ROW adjacent to 101 between Garibaldi and Barview County Park



A typical embankment on the Coast, raising the line above dairy farms, wetlands and floodplains

Coastal Segment Concept

Considering the physical context of this segment, the following are possible:

Rail with Trail

The OCSR currently operates an excursion steam and diesel-powered train from Garibaldi to Rockaway Beach. There are several daily trips in the summer with weekend off-season trips and special fall color and Christmas trips (as well as periodic 'speeder' trips for enthusiasts). Ridership has been steadily increasing (there were over 18,000 riders in 2012) and there is a committed group of supportive volunteers maintaining the line and promoting the service. The OCSR entered into a new agreement with the POTB, effective until 2016 with potential for renewal for two subsequent 5-year periods. This agreement is limited to tourist operations and allows use of the POTB ROW in exchange for OCSR's ongoing rehabilitation and maintenance of the ROW between Enright (MP 810.5) and the Tillamook Industrial Park (MP 859.13). This work includes rail, ballast and tie replacement, vegetation management and land slide repair. The agreement states that trail work can occur within the ROW, if it allows for continued use of the OCSR. The agreement also allows OCSR to recover 18 log cars that are currently stranded on a siding at Enright.

There are sections of this segment that could potentially accommodate a trail parallel to the POTB/OCSR rail line but a continuous trail would be difficult to achieve, due to a range of physical constraints, including stretches of line that run along the coast or across wetlands and active farmland. At these points, topography or open water would make it difficult to add a multi-use trail with a sufficient setback from active rail, although detours could be added, including boardwalks over wetlands. The trail need not be continuous. Smith Lake and

Tillamook Bay near Barview are particularly constrained examples. Another significant constraint is the number of bridges that would need to be widened to accommodate both rail and trail. New bridges could be built in parallel but these would be significant expenses. Since much of a Rail with Trail would entail filling in floodplain and wetlands, there are likely to be significant environmental permitting issues. **(See Atlas Cross Sections D and E—plus a section for rail line across farm fields with fill)**

The most likely parts of this segment that could accommodate a Rail with Trail are the urban ones. Short stretches of trail could be added within the ROW in downtown Garibaldi **(Atlas, Section L)**, as well as through Bay City's waterfront and along an adjacent street in Wheeler **(Atlas, Section H)**, connecting local destinations. The roadway adjacent to the ROW in Rockaway and Manhattan Beach could easily accommodate a trail, or at least a striped bike/pedestrian lane. **(Atlas Section J)**

Bypass Alternatives

Parts of the Coastal Segment could still be realized, despite physical constraints, by re-routing trail users onto a reconfigured Highway 101 shoulder or on local roadways. Traffic speeds and volume make this a difficult option to suggest unless safety upgrades are added to shoulders, with jersey barriers and signage, such as is proposed in Wheeler **(Atlas, Section I)** or at Larson Cove **(Atlas, Section N)**. The feasibility and design details of this concept would need to be reviewed and approved by ODOT and local jurisdictions.

Multi-Use Trail

If the rails are removed, this segment offers a promising potential new Oregon Coastal Trail route and an alternative to US 101 for cyclists. The expense of repairing or replacing the Wilson River bridge could potentially be reduced since there would not be as much weight loading the bridge. Such a trail might be heavily used by coastal residents and visitors. To the north, it could link major destinations such as Wheeler with Nehalem Bay SP and Manzanita's trail network. It would provide trail access to Manhattan Beach SP, Twin Rocks SP and Barview County Park and allow campers at state parks the opportunity to take short cycle trips into nearby communities and thus potentially reduce vehicle use. It would be a safe alternative for cyclists riding the entire length of the Oregon Coast, a popular summer activity. The trail could be used as a loop option for hikers in combination with the beach itself or with The Wave shuttle bus.

Catalyst Projects

The following projects are achievable, key improvements that will provide clear evidence of corridor progress, helping to ensure continued momentum:

7. Develop a shared roadway to connect downtown Rockaway with Manhattan Beach SP and Neahkahnie HS/MS, using the wide ROW that may encompass Miller Road on the west side of Highway 101.
8. Coordinate a new trail (either RWT or Multi Use Trail) between Garibaldi and Barview, to be built after a water intertie is installed, reducing future design and mobilization costs. **(Atlas, Section K)**
9. Connect Hoquarton City Park and natural areas on the slough to the corridor, coordinating with the proposed ODOT gateway project on the north end of downtown Tillamook.

Tile #	Tile Name	Rail-With-Trail Alternative				Rail-to-Trail Alternative				Bypass Alternative			
		Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time	Cost	Operations & Maintenance	Social	Time
Coast Section													
32	Wheeler	\$\$\$	██	█	□	\$	█	███	□□□	N/A	N/A	N/A	N/A
33	Vosburg Creek	\$\$\$	██	██	□□	\$	█	███	□□□	\$	█	██	□□
34	Nehalem Bay	\$\$\$	██	█	□□	\$	█	███	□□□	\$	█	██	□□
35	Nehalem Bay Mouth	\$\$\$	██	█	□□	\$	█	███	□□□	\$	█	██	□□
36	Manhattan Beach	\$\$\$	█	█	□	\$	█	███	□□□	\$	█	█	□
37	Rockaway	\$\$\$	█	█	□	\$	█	███	□□□	\$	█	█	□
38	Twin Rocks	\$\$\$	█	█	□□	\$	█	███	□□□	\$	█	█	□
39	Camp Magruder	\$\$\$	██	██	□□	\$	█	███	□□□	\$	█	██	□
40	Bay Ocean	\$\$\$	███	█	□	\$	█	███	□□□	\$	█	██	□
41	Garibaldi	\$\$	██	█	□	\$	█	███	□□□	N/A	N/A	N/A	N/A
42	Miami Cove	\$\$\$	███	██	□□	\$	█	███	□□□	\$	█	██	□□
43	Bay Ocean	\$\$\$	██	█	□□	\$	█	███	□□□	\$	█	██	□□
44	Bay City	\$\$\$	██	█	□□	\$	█	███	□□□	\$	█	██	□□
45	Estuary	\$\$\$	███	██	□□	\$	█	███	□□□	\$	█	██	□□
46	Cheese Factory	\$\$\$	██	██	□□	\$	█	███	□□□	\$	█	██	□
47	Wilson River	\$\$\$	██	██	□□	\$	█	███	□□□	\$	█	██	□
48	Tillamook	\$\$\$	██	█	□□	\$	█	███	□□□	\$	█	██	□
49	Air Museum	\$\$\$	███	██	□□□	\$	█	███	□□□	\$	█	██	□□□

Realizing the Vision

The vision for a connected recreational corridor over the Coast Range between Tillamook and the Willamette Valley has inspired many Oregonians. The idea is rooted in the same bold spirit that compelled earlier generations to forge new passages across the mountains, from native trails, to military roads, to rails and most recently, highways.

This Salmonberry Trail Concept Plan is an ambitious proposal that will take many years to realize. The energy displayed by the thousands of citizens who have participated in shaping the plan will be needed in the coming years to continue refining and propelling the idea forward while making sure that the Salmonberry Trail respects the values and ongoing interests of all people who currently live, work and recreate nearby.

Starting with small steps, some of which are described at right, the Trail can slowly be stitched together. There's a good chance that the Trail in Garibaldi will look very different from the Trail in Timber. But this will make it one of most interesting rail-trail projects in the world. While advocates build momentum and support for the ultimate vision, people will slowly come to learn about the incredible Salmonberry Trail and help Oregon realize this unique and exciting dream.

Tourists cycling, hiking, fishing or horse travel from Tillamook would spend on lodging, meals and other needs and bring a boost to the coast economy. In addition they would enjoy some of the most beautiful forests and mountain scenery in the world. The buzz among cyclist and travelers would provide a multiplier effect bringing more and more visitors as the word spreads of this wonderful travel resource. This is a huge win for Tillamook and the coast community.

Jerry W.

Next Steps

This Concept Plan is an important step in illustrating the potential for the Salmonberry Trail and should serve as a guiding resource for a range of additional studies that are necessary to facilitate construction of the first segments. Given the complexity, no single solution has been proposed. Rather, advocates and agencies can use this document as a guide for developing more specific plans and designs for individual segments of the Trail.

1. Coalition Principals and POTB will continue to clarify and secure easements for crossings of the ROW. This work should include a full legal title search in order to create legal maps and determine any existing encroachments.
2. Led by the Tillamook Forest Heritage Trust, which will raise funds and awareness for the project, advocates for this effort should continue to lobby and build political support at the state and local level for the concept.
3. Coalition Principals should initiate important additional technical studies in support of this Concept Plan, including a detailed assessment of likely permitting requirements as well as hydrology, geotechnical and more precise engineering studies.
4. In December, 2013, an EPA Environmental Site Assessment (Brownfields) grant was awarded, for the portion of POTB ROW located in Tillamook County. The redevelopment of parts of the railway into a non-motorized trail requires addressing the potential environmental impacts and identifying the cleanup considerations that will impact the reuse planning. With the EPA's \$400,000 funding, the County will conduct public outreach, assessment work, and remediation planning work. A first phase of public meetings will focus on garnering support for the project and to educate the public about brownfields. The second phase of public meetings will be focused on community health and well-being of Tillamook County's citizens and environment. Specifically, the re-use of the site and its impacts on the community's health will be explored.
5. The TFHT should begin to assemble funding for the first, most feasible catalyst projects identified in this Concept Plan from a variety of sources.
6. A detailed study of corridor bridges and the Walcott Tunnel, updating what was determined in the 2008 post-storm FEMA study, will be needed in conjunction with more detailed project planning.
7. These first specific projects should undergo detailed engineering design and initiate regulatory approvals for the designs in advance of construction. Within these projects, design standards should be established, that can guide subsequent trail development.



A new era begins...





**SALMONBERRY TRAIL
ATLAS**

Appendices

These are all hyperlinked to reports stored on OPRD's Wordpress blog.

- Long Trail Study (PSU)
- Natural Resource Study—all maps (OPRD/ODFW/ODF)
- Draft Environmental Assessment (2008)
- Cultural Resources Memo (SHPO letter)
- Economic Recreation Values Study for Coastal State Parks (OSU)
- Other Rail Trail Studies (OC&E Study, etc.)

How to Use The Atlas

The accompanying atlas for this concept plan is the source for most information and detail about proposed improvements. Each page or 'Tile' in this atlas is the same scale (1"=1 mile) and should always be printed on 11x17 paper in full color if possible. Each tile overlaps previous and following tiles and a light frame shows the extents of these overlaps on each page. The key maps at the beginning of each segment show the orientation of the tiles—it is worth noting that North is not always the top of each tile page.

Each tile page is based on an aerial photo, with key information added such as nearby roads, public lands and streams. The proposed Salmonberry Trail is drawn in a solid magenta line, with detours shown as short dashed lines and the Rail-With-Trail option shown as a long dash line. Mile posts are noted (and they reflect the distance from downtown San Francisco). Road crossings are noted, as well as all bridges and trestles and key views.

On most tiles, key features of the plan are called out as letters in white boxes. Yellow circles refer to cross-sections, illustrating in two dimensions the variety of trail conditions that could be encountered. These sections are shown in the first 14 pages of this atlas. Finally, orange star symbols describe points of interest that could become destinations or be the subjects of interpretation at a future date.



Salmonberry Trail

Typical Sections

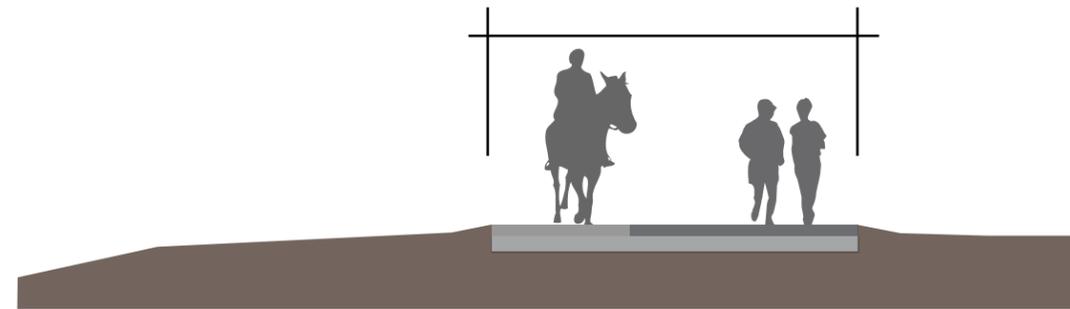
Sections do not relate to specific locations

10' - 14' Trail

Remove & salvage rail hardware and excavate ballast

Surfacing:

- Asphalt
- Compact Aggregate
- Wood Chips
- Combination of above for equestrian use

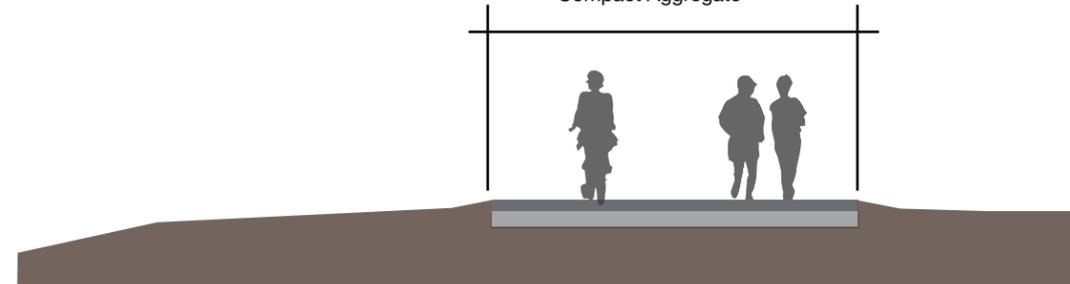


10' - 14' Trail

Remove & salvage rail hardware and excavate ballast

Surfacing:

- Asphalt
- Compact Aggregate

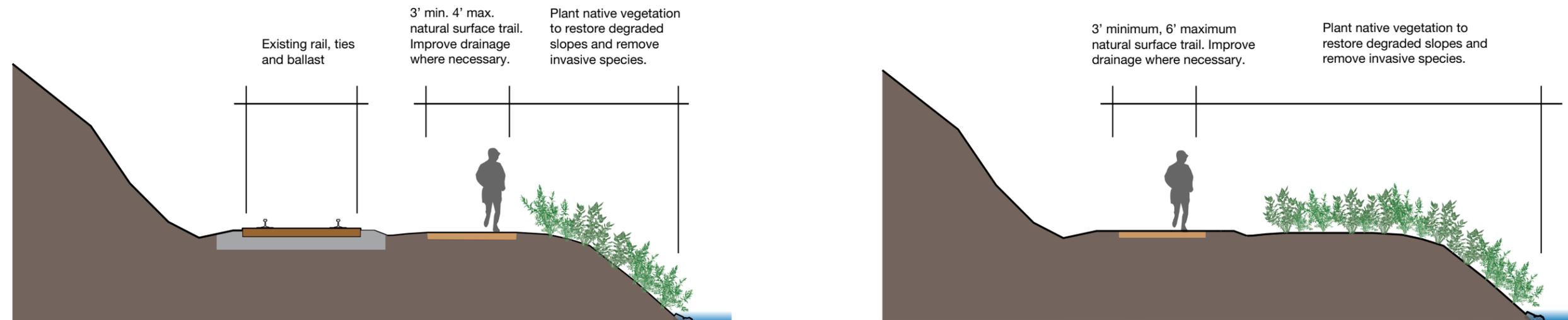


Note:

* In areas with little equestrian use, or where heavy service vehicles need to access the Trail frequently, or where the trail serves as vehicular access to homes or businesses (primarily in the Coastal Segment) it is recommended that the trail surface be limited to asphalt.



Rail-to-Trail Alternative - At Grade



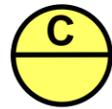
Natural Surface Trail Alternatives

*Additional study required to determine if removal of existing rail, ties and ballast is appropriate

Salmonberry Trail

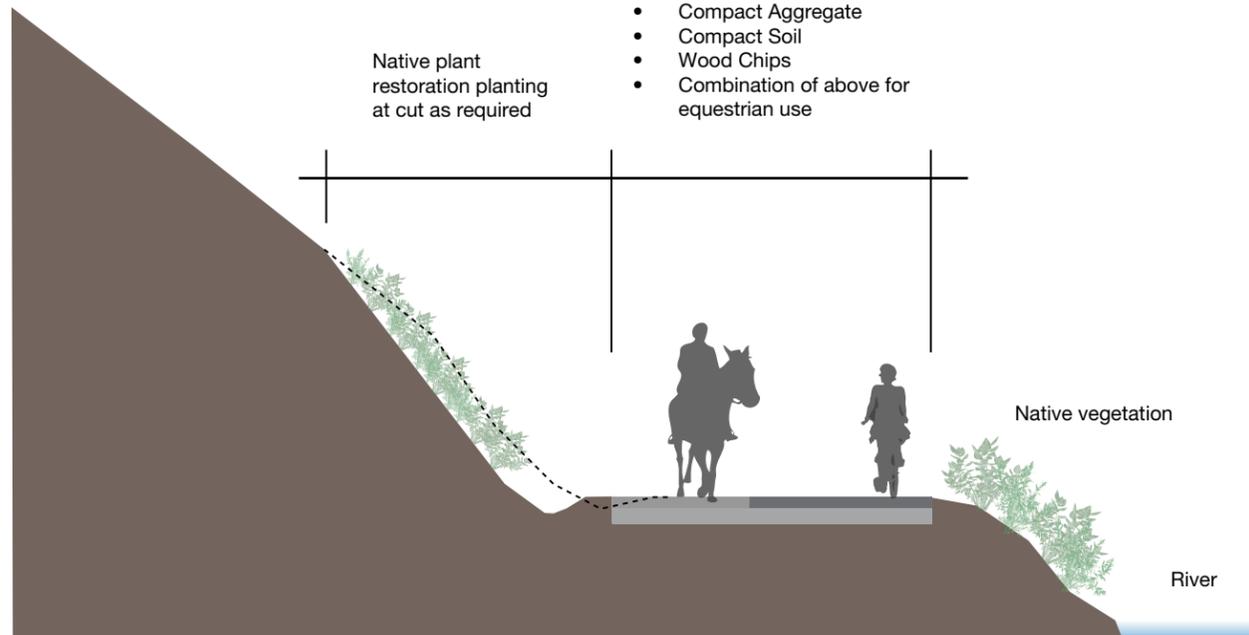
Typical Sections

Sections do not relate to specific locations



10' - 14' Trail
 Remove rail hardware and excavate ballast
 Surfacing Options:

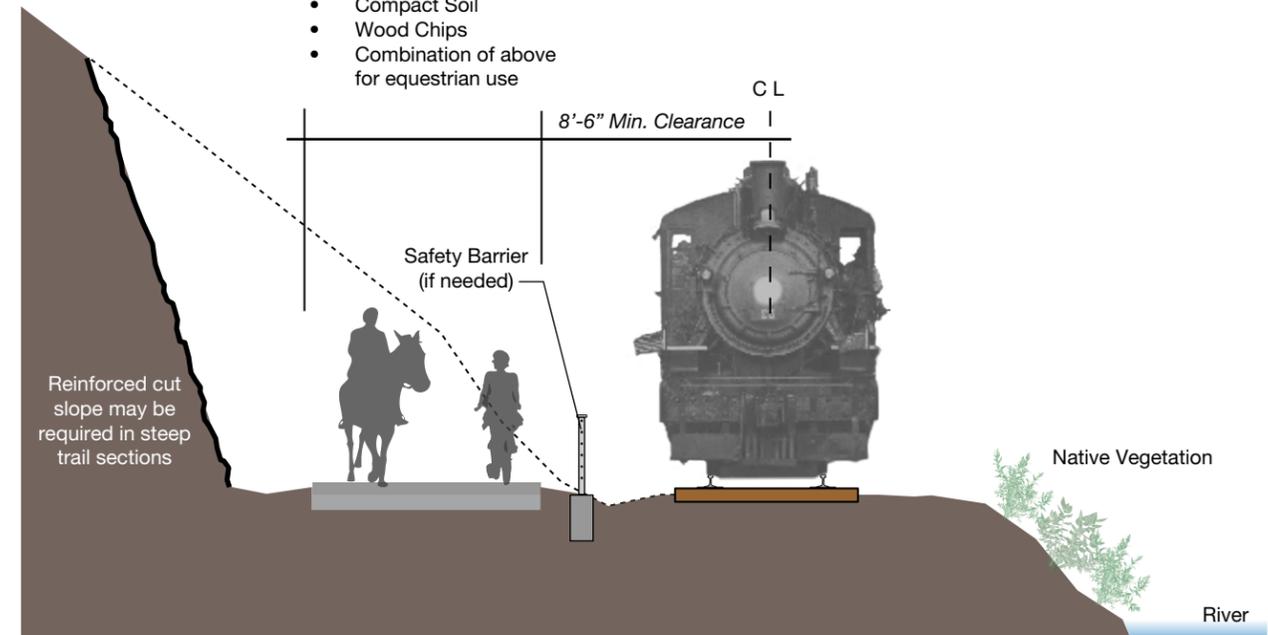
- Asphalt
- Compact Aggregate
- Compact Soil
- Wood Chips
- Combination of above for equestrian use



River Bank - Rail-to-Trail Alternative

10' - 14' Trail*
 Surfacing Options:

- Asphalt
- Compact Aggregate
- Compact Soil
- Wood Chips
- Combination of above for equestrian use



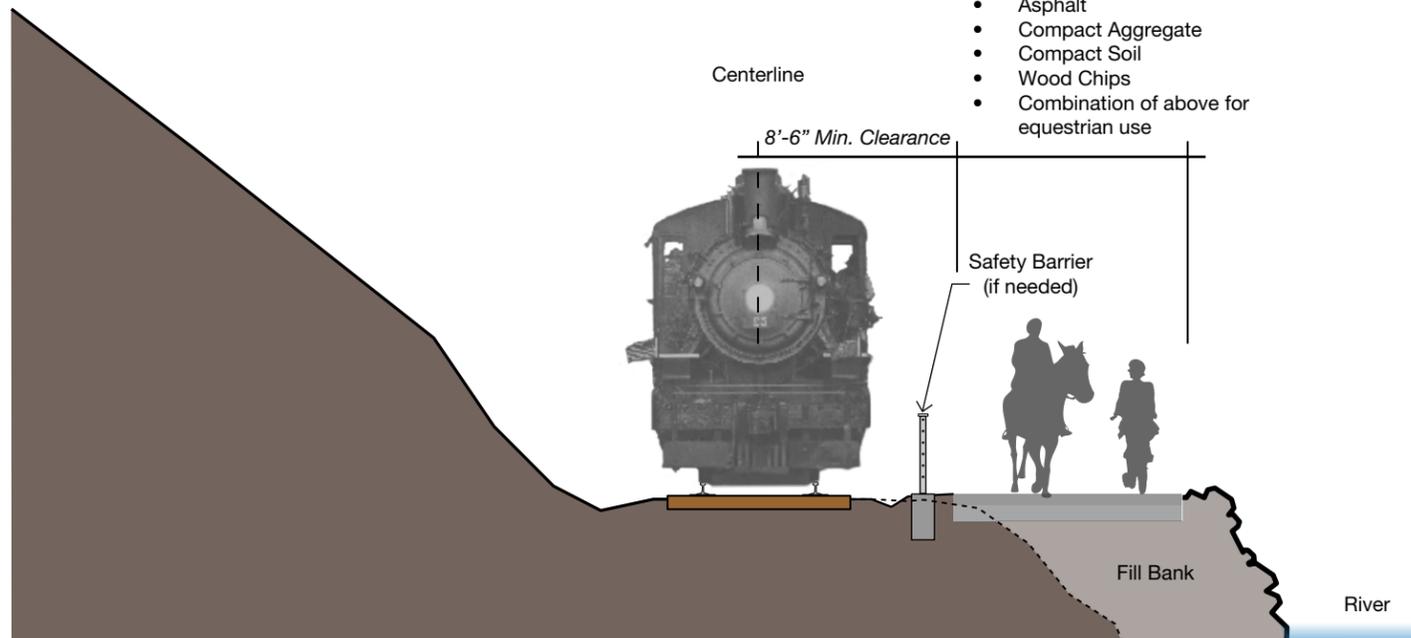
River Bank - Rail with Trail Alternative - Cut on Upland Side

Note:

* Increased trail width in this condition may increase the amount of cut required and subsequently add to the cost of construction.

10' - 14' Trail**
 Surfacing Options:

- Asphalt
- Compact Aggregate
- Compact Soil
- Wood Chips
- Combination of above for equestrian use



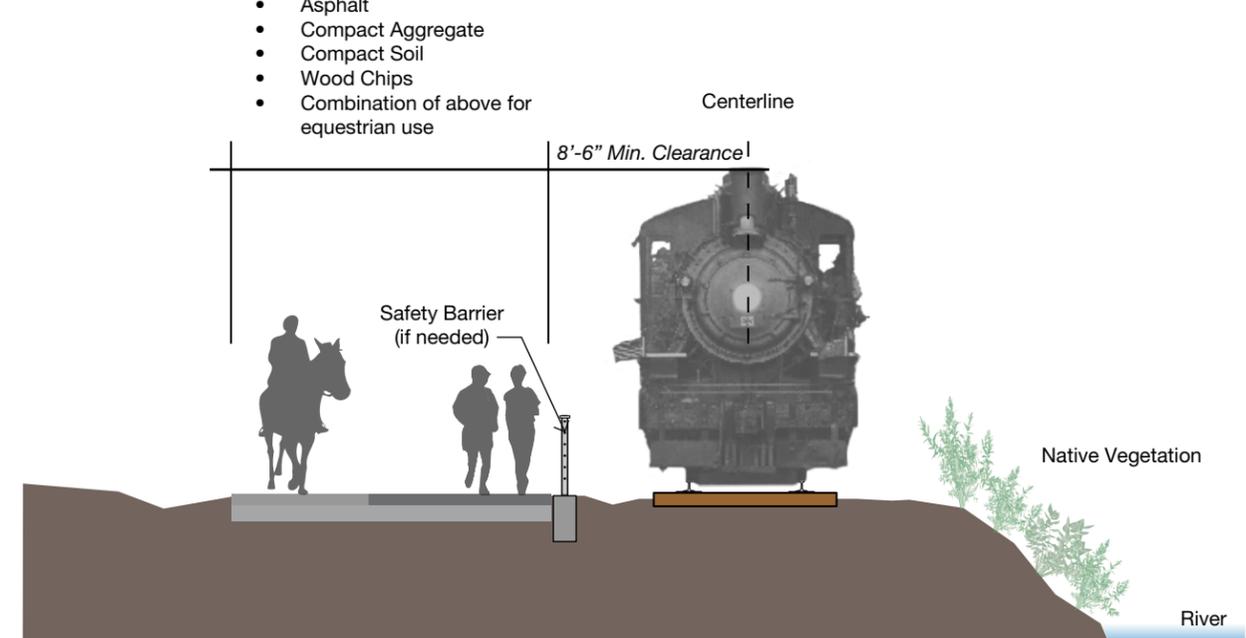
River Bank - Rail with Trail Alternative - Fill on River Side

Note:

** Increased trail width in this condition may increase the amount of fill required, require in-water work and associated permitting and subsequently will add to the cost of construction.

10' - 14' Trail**
 Surfacing Options:

- Asphalt
- Compact Aggregate
- Compact Soil
- Wood Chips
- Combination of above for equestrian use



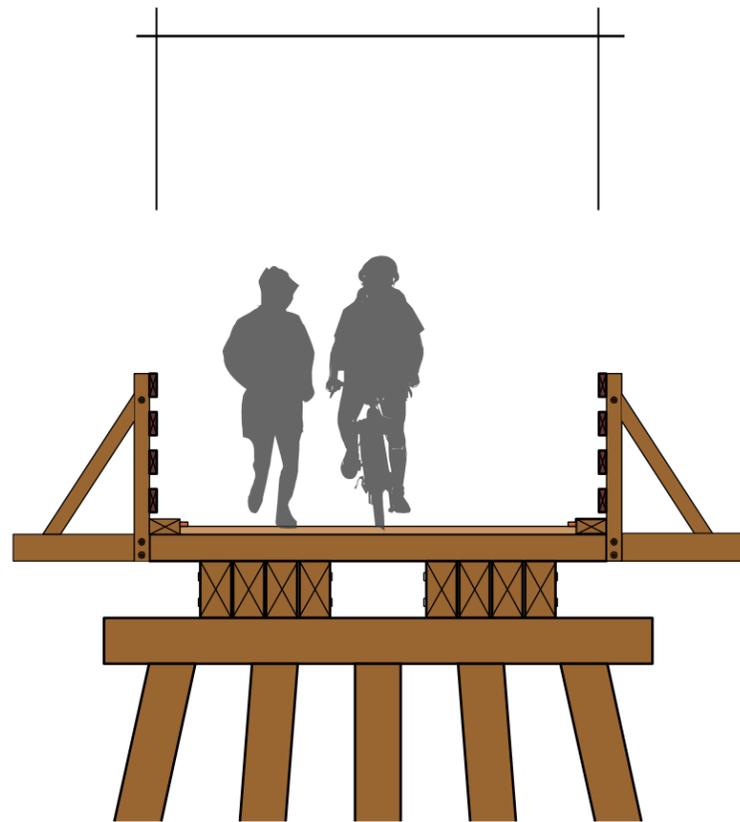
River Bank - Rail with Trail Alternative - Condition At Grade

Salmonberry Trail

Typical Sections

Sections do not relate to specific locations

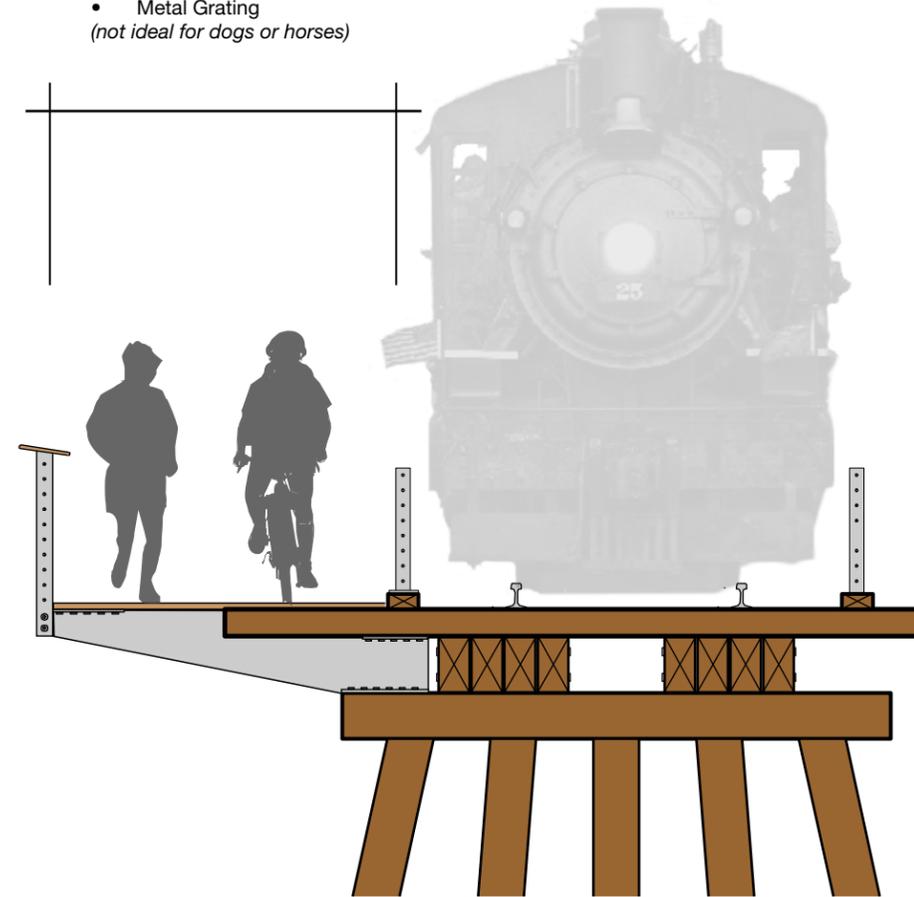
8'-10' Trail
Provide guardrails
Surfacing: Wood or composite decking
over existing rail ties.



Option A:
6'-8' cantilevered trail
Provide guardrails and safety barrier
Surfacing Options:

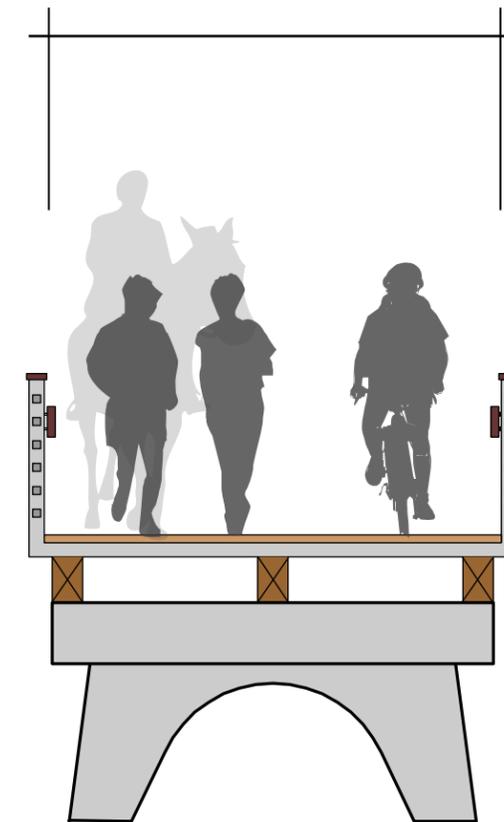
- Wood or composite decking
- Metal Grating

(not ideal for dogs or horses)



Option B:
6'-8' new, separate bridge with guardrails
and accessible surfacing
Surfacing Options:

- Wood or composite decking
- Metal Grating



Trestle - Rail-to-Trail Alternative

Trestle - Rail with Trail Alternative (Prototypical)

Note:

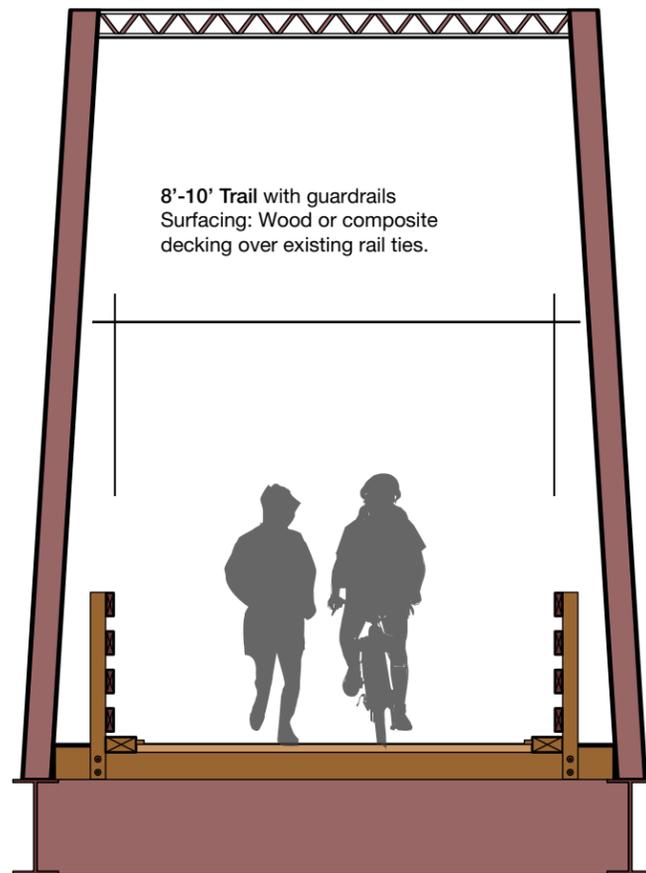
Rail with trail alternatives that share an active trestle will require coordination between rail operator and trail users to ensure safety of all parties. Signage at each shared trestle will be required and railroad operations will be required to post timetables, reduce speed, and provide ample warning of approaching trains.



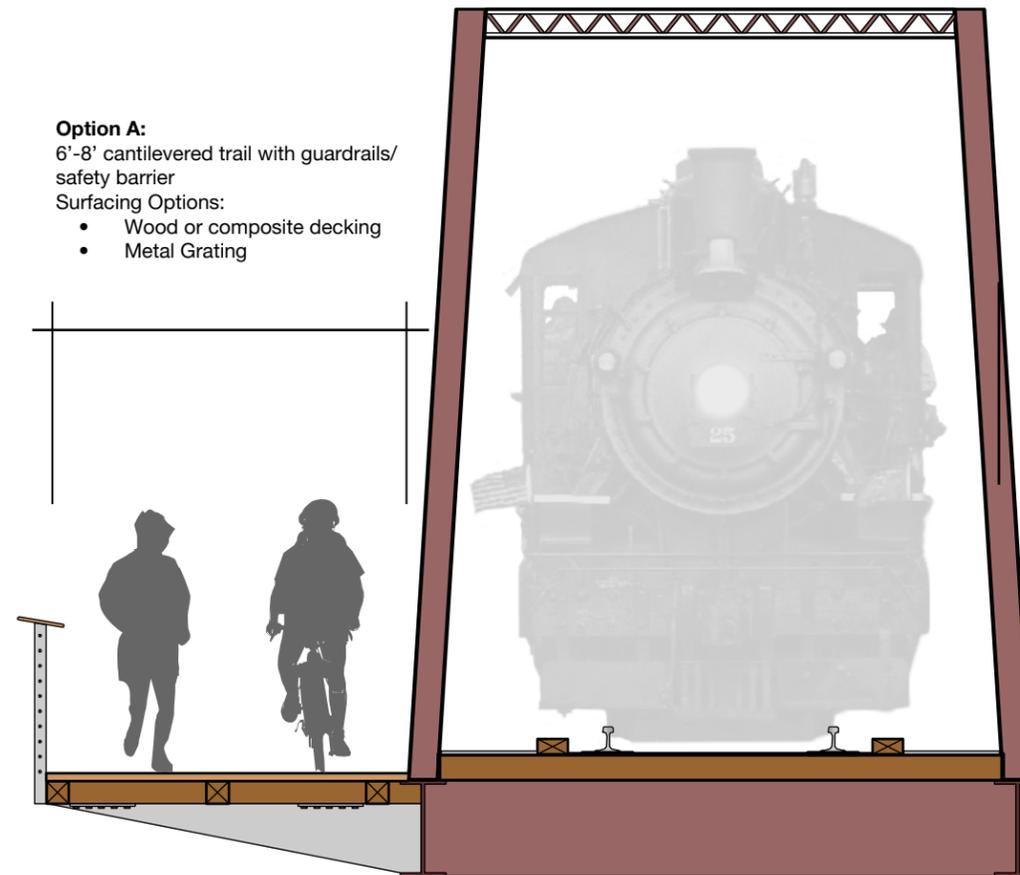
Salmonberry Trail

Typical Sections

Sections do not relate to specific locations



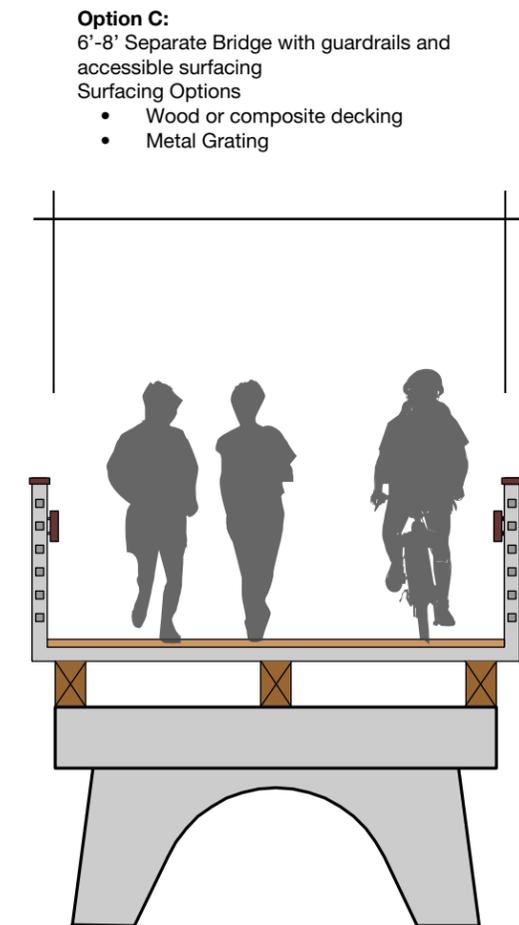
Bridge - Rail-to-Trail Alternative



Bridge - Rail with Trail Alternative (Prototypical)

Note:

Rail with trail alternatives that share an active trestle will require coordination between rail operator and trail users to ensure safety of all parties. Signage at each shared trestle will be required and railroad operations will be required to post timetables, reduce speed, and provide ample warning of approaching trains.



Salmonberry Trail

Typical Sections

Sections do not relate to specific locations

Option 1

Retain bench and fill to accommodate 6'-8' trail

Surfacing Options:

- Compacted Aggregate
- Compacted Soil

Option 2

3-6' wide 'adventure trail**

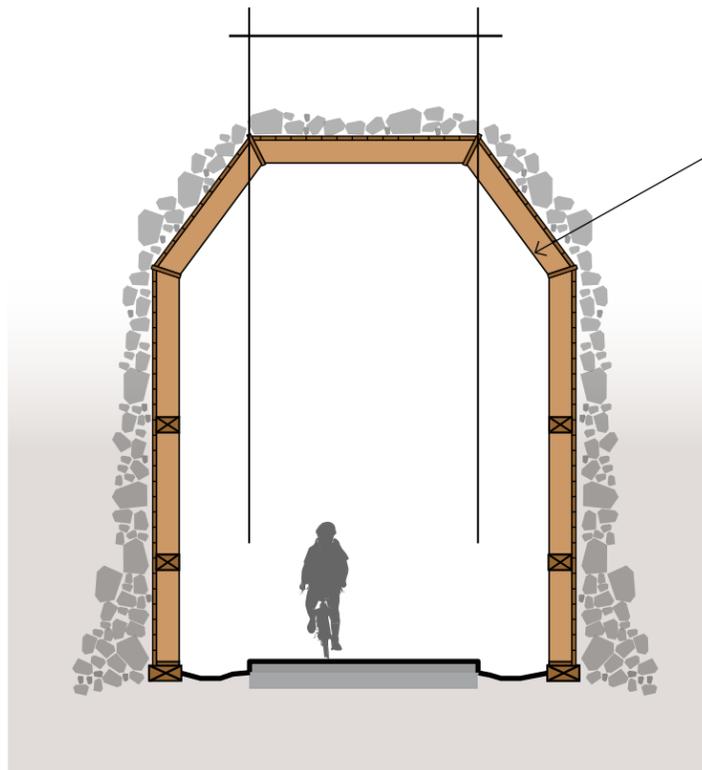
- Slope reinforcement where required
- Compact soil surface

8'-10' Trail

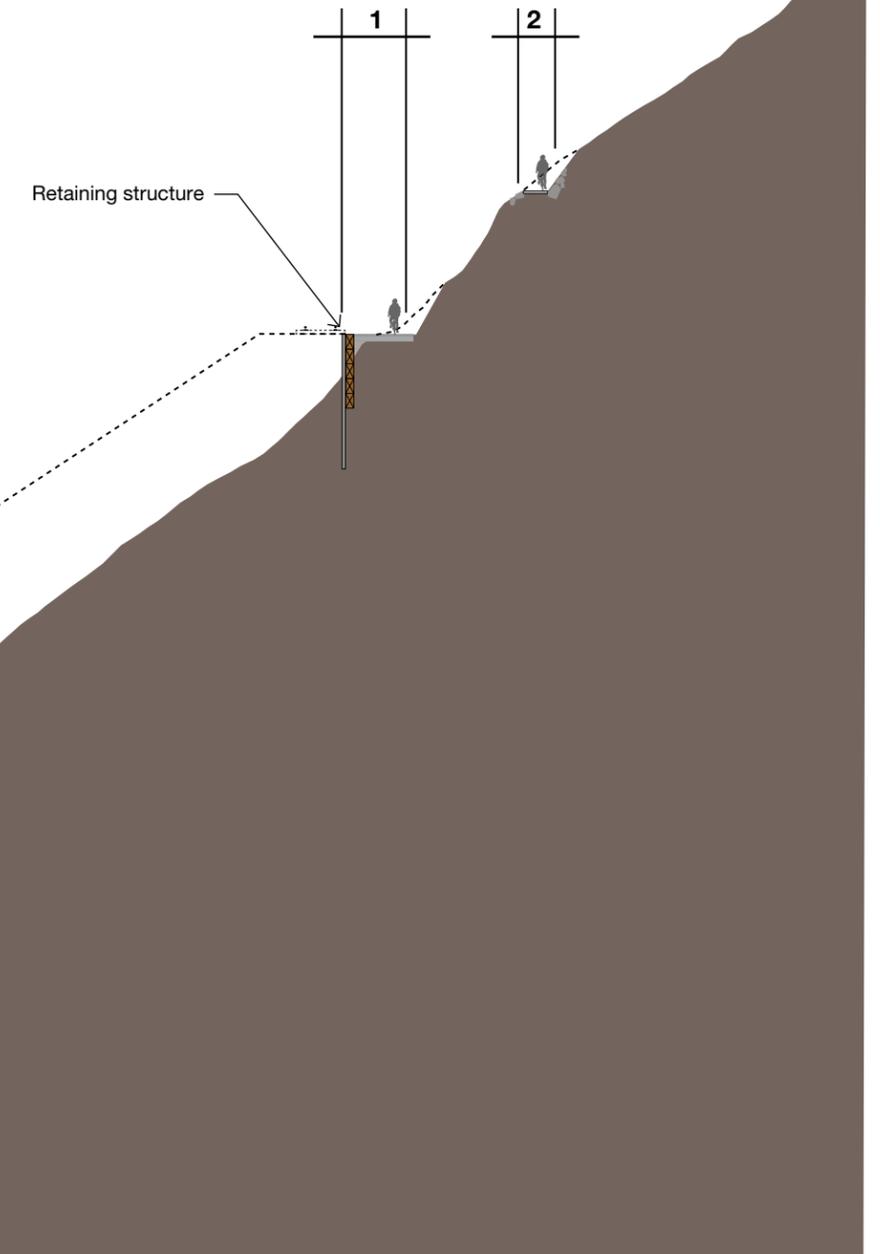
Salvage RR ties and rails

Surfacing Options:

- Compacted Aggregate
- Compacted Soil



Existing timber tunnel reinforcement requires structural study. Shotcrete facing requires patching or replacement in places.



Tunnel



Washout



Salmonberry Trail

Sections - Wheeler

Asphalt shared vehicular/
pedestrian frontage road
with safety signage and
street trees.

Street Lighting Improvements

Street Trees +
Site Enhancements

Parking

US 101

Marine Drive

Wheeler Waterfront - Rail with Trail (looking North)

10'-14' multi-use trail
Salvage RR hardware and ties
Surfacing Options:
• Asphalt
• Concrete
• Compacted Aggregate

Site Enhancements

Marine Drive

US 101

Wheeler Waterfront - Rail-to-Trail (looking North)

Salmonberry Trail

Sections - Wheeler

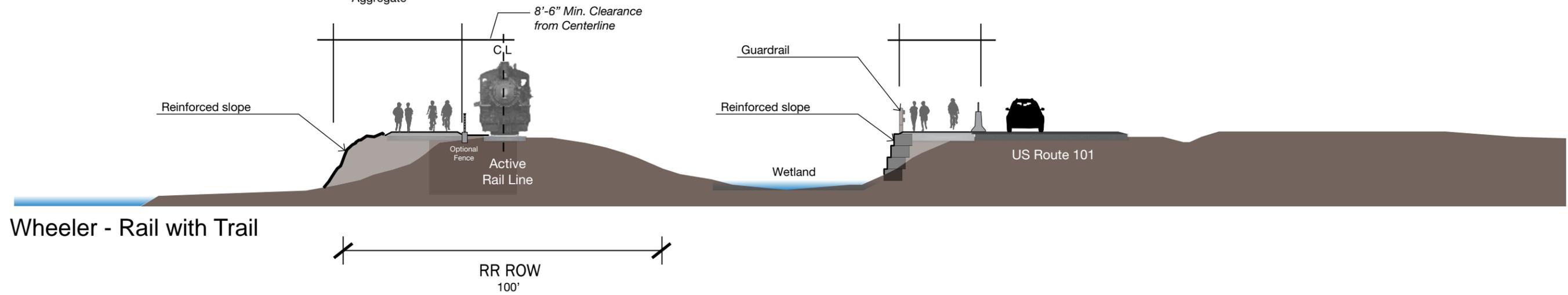


Option 1

- 14' multi-use path
 - Water side of active rail.
 - Fill required to achieve desired trail width.
 - Some locations may require permitting for in-water work
 - Asphalt or Compacted Aggregate

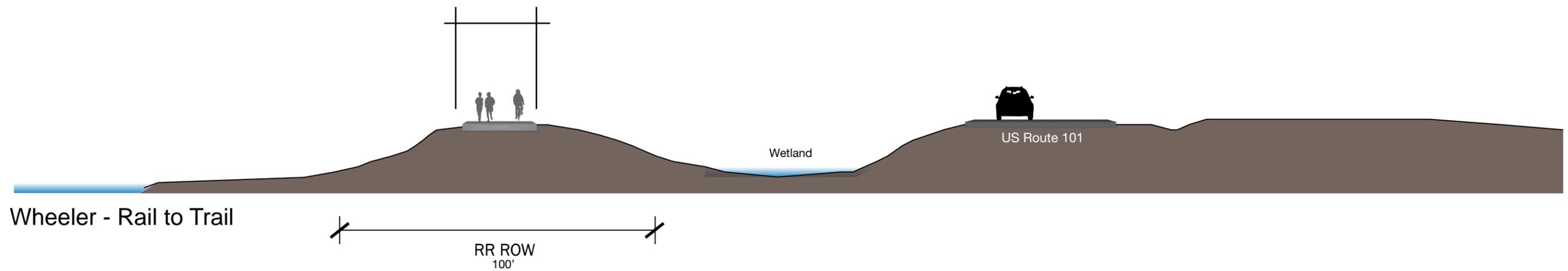
Option 2

- 14' expansion to US 101 shoulder.
- Vehicular guardrail barrier
- Fill condition likely, may have wetland impacts
- Asphalt Surfacing



Wheeler - Rail with Trail

14' multi-use path
Asphalt or Compacted
Aggregate



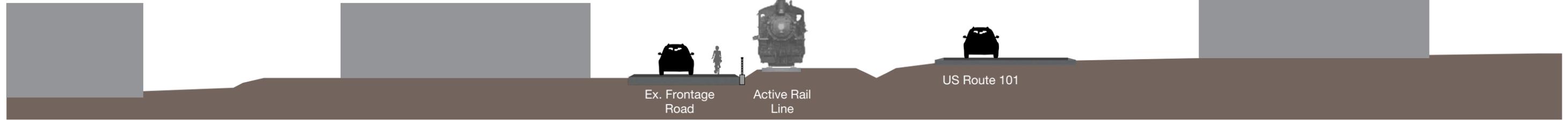
Wheeler - Rail to Trail

Salmonberry Trail

Sections - Rockaway



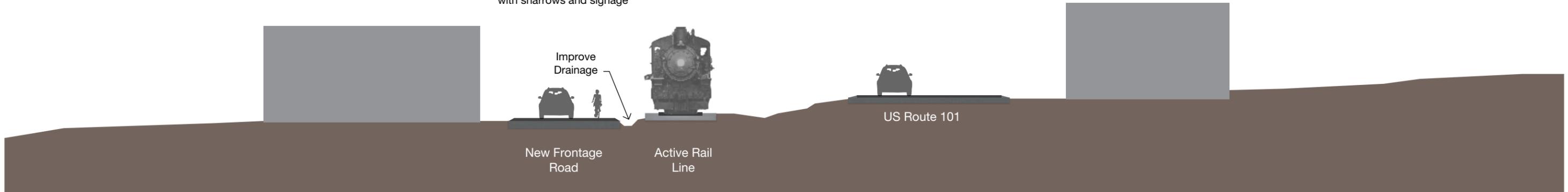
18' Asphalt Roadway
(with sharrows and signage)



Rockaway Beach - Rail with Trail
Existing Frontage Road (looking North)

18' Asphalt Roadway
(Alternate: 14' multi-use path)
with sharrows and signage

Improve
Drainage



Rockaway Beach - Rail with Trail
New Frontage Road (looking North)

14' multi-use path
Asphalt or Compacted
Aggregate

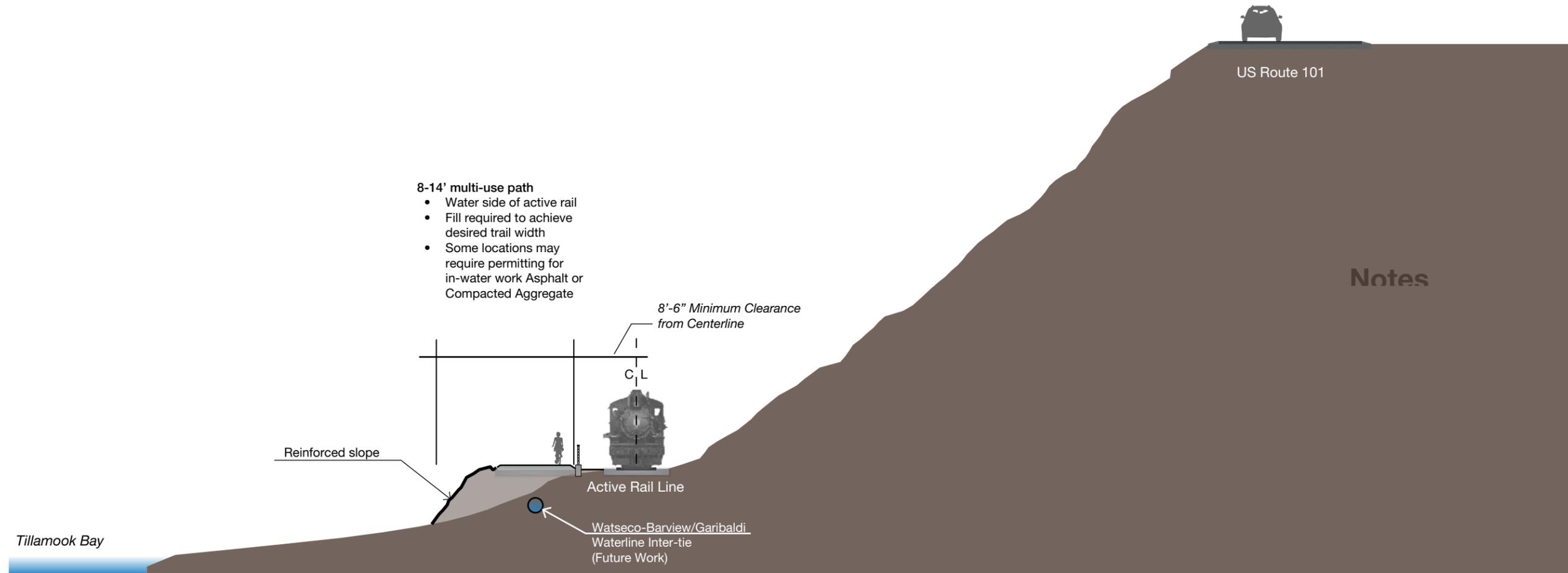


Rockaway Beach - Rail to Trail Conversion (looking North)



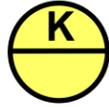
Salmonberry Trail

Section: Watseco-
Barview



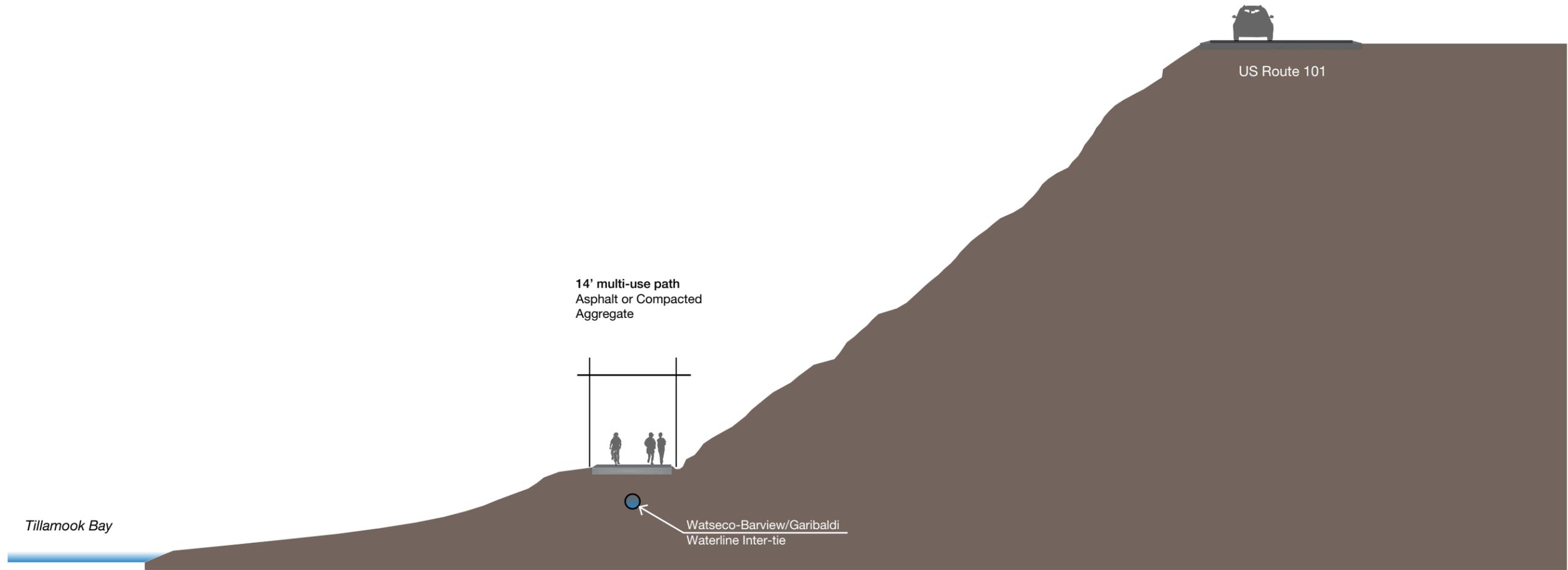
Witseco Barview - Rail with Trail (looking North)

See following page for Rail-to-Trail Option



Salmonberry Trail

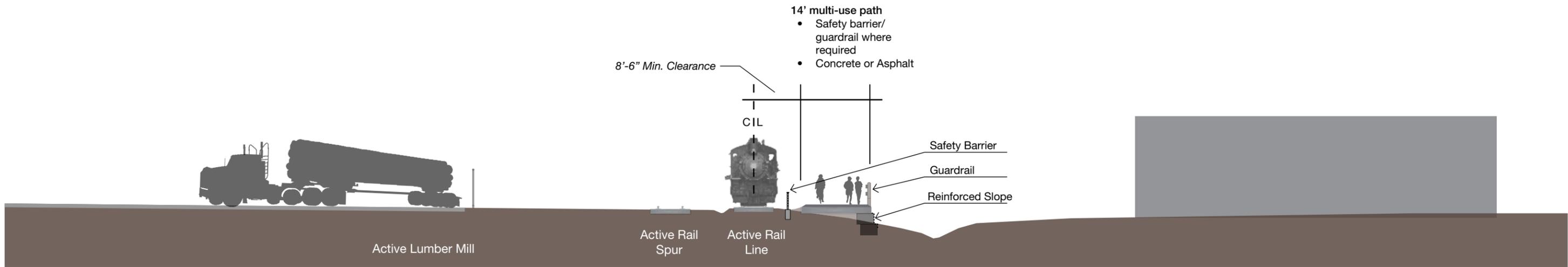
Section: Watseco-
Barview



Witseco Barview - Rail to Trail (looking North)

Salmonberry Trail

Sections - Garibaldi



Garibaldi - North (looking North)



Garibaldi - South (looking North)



Salmonberry Trail

Sections - Larson Cove

Option 1

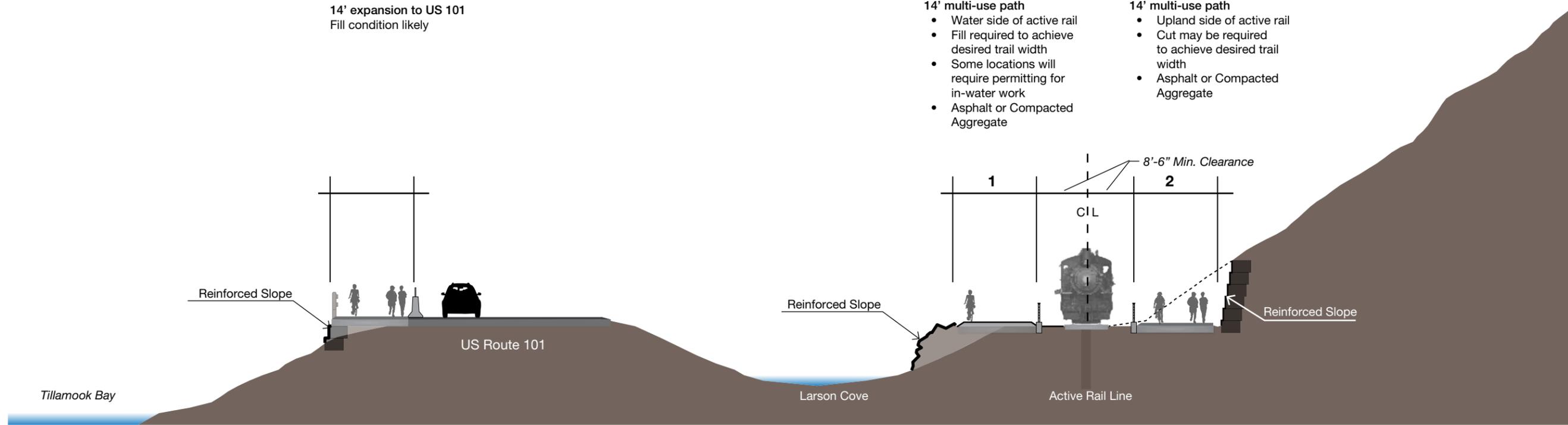
- 14' expansion to US 101
- Fill condition likely

Option 2

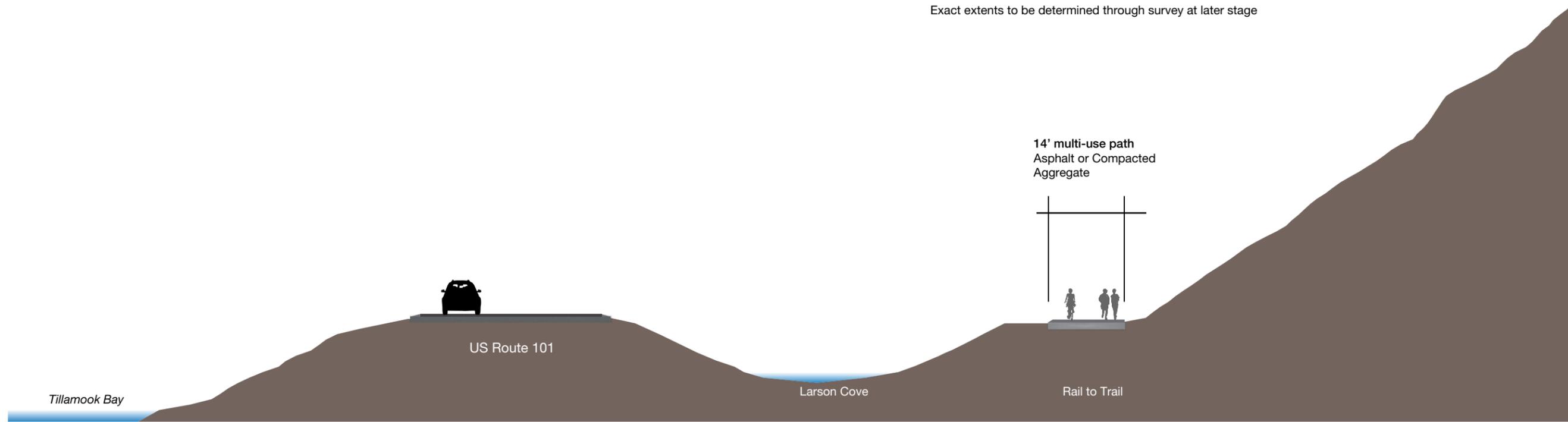
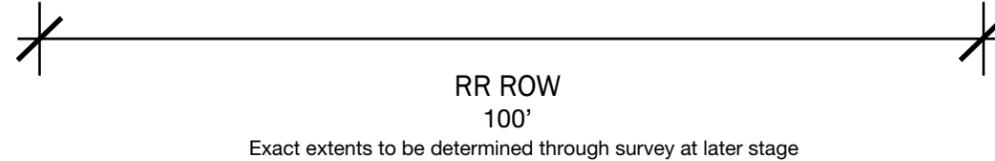
- 14' multi-use path
- Water side of active rail
- Fill required to achieve desired trail width
- Some locations will require permitting for in-water work
- Asphalt or Compacted Aggregate

Option 3

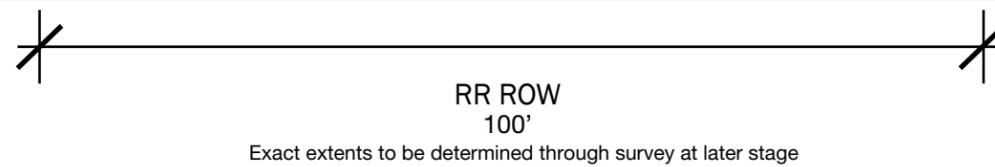
- 14' multi-use path
- Upland side of active rail
- Cut may be required to achieve desired trail width
- Asphalt or Compacted Aggregate

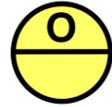


Larson Cove - Rail with Trail Option



Larson Cove - Rail to Trail Option





Salmonberry Trail

Sections - Bay City

Option 1

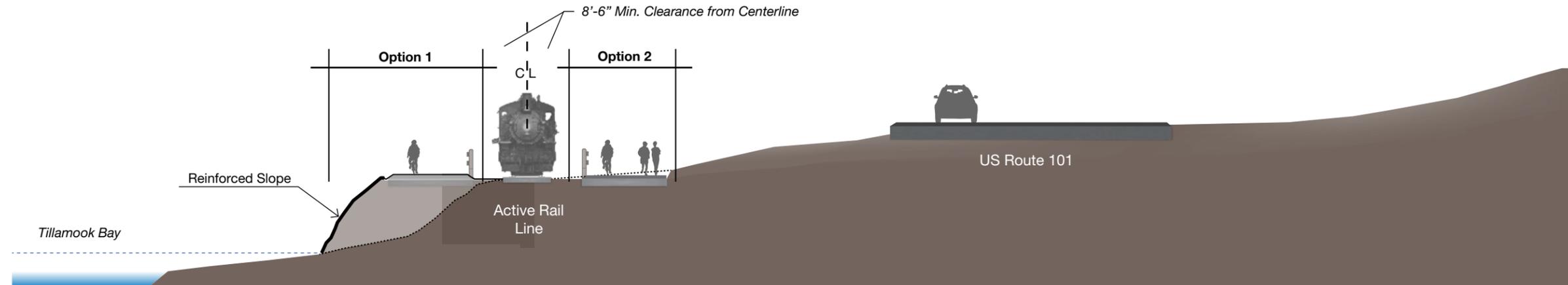
14' multi-use path

- On water side of active rail
- Fill required to achieve desired trail width
- Some locations will require permitting for in-water work
- Asphalt or Compacted Aggregate

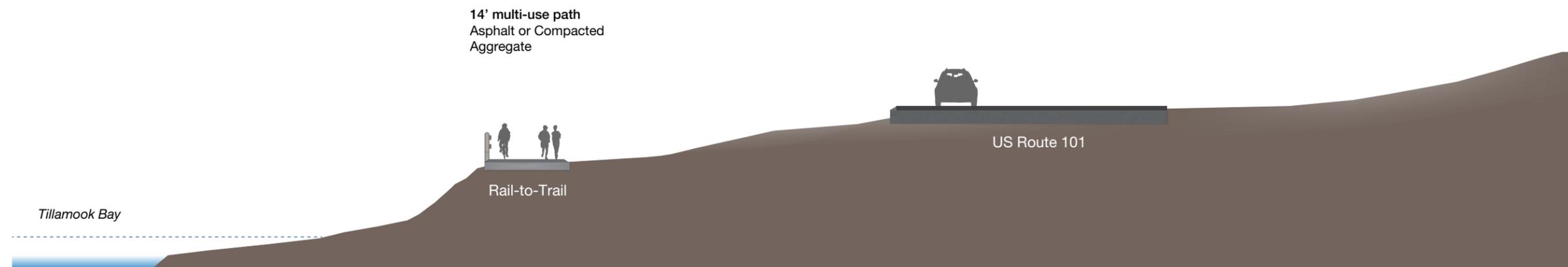
Option 2

14' multi-use path

- On upland side of active rail
- Cut may be required to achieve desired trail width
- Asphalt or Compacted Aggregate



Bay City - Rail with Trail Options

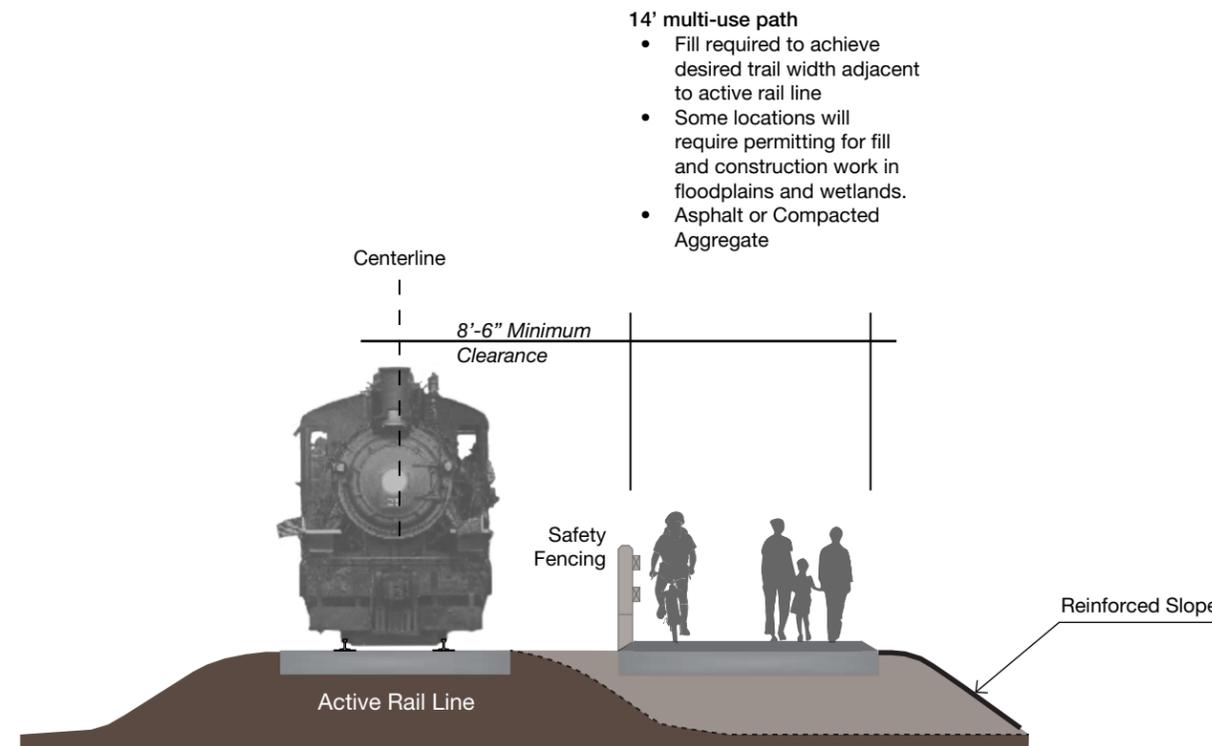


Bay City - Rail to Trail Option



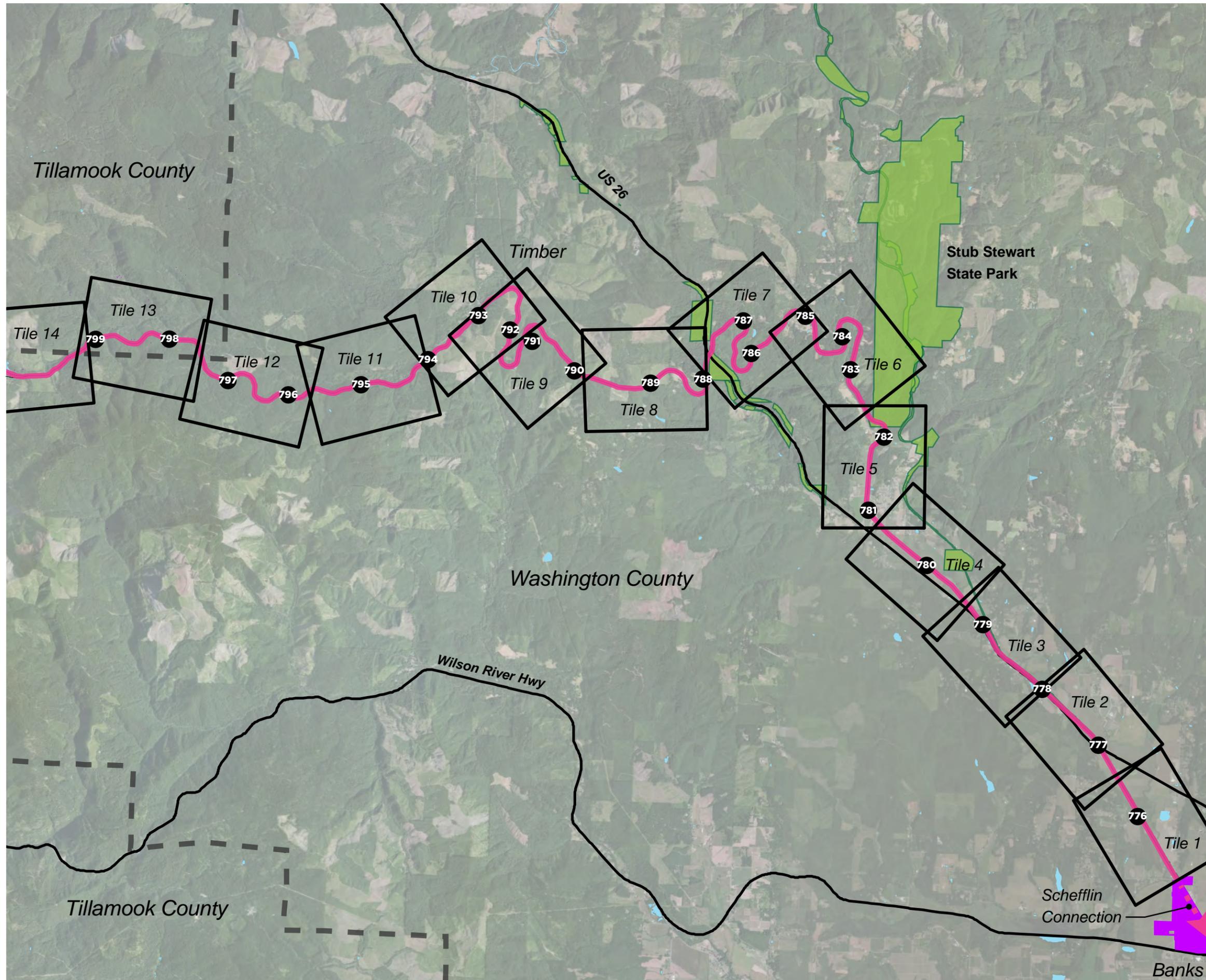
Salmonberry Trail

Section - Elevated Rail

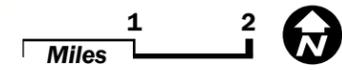


Salmonberry Trail

Valley Segment



- Salmonberry Trail
- Cities
- Highways
- Oregon State Parks
- County Line



Salmonberry Trail

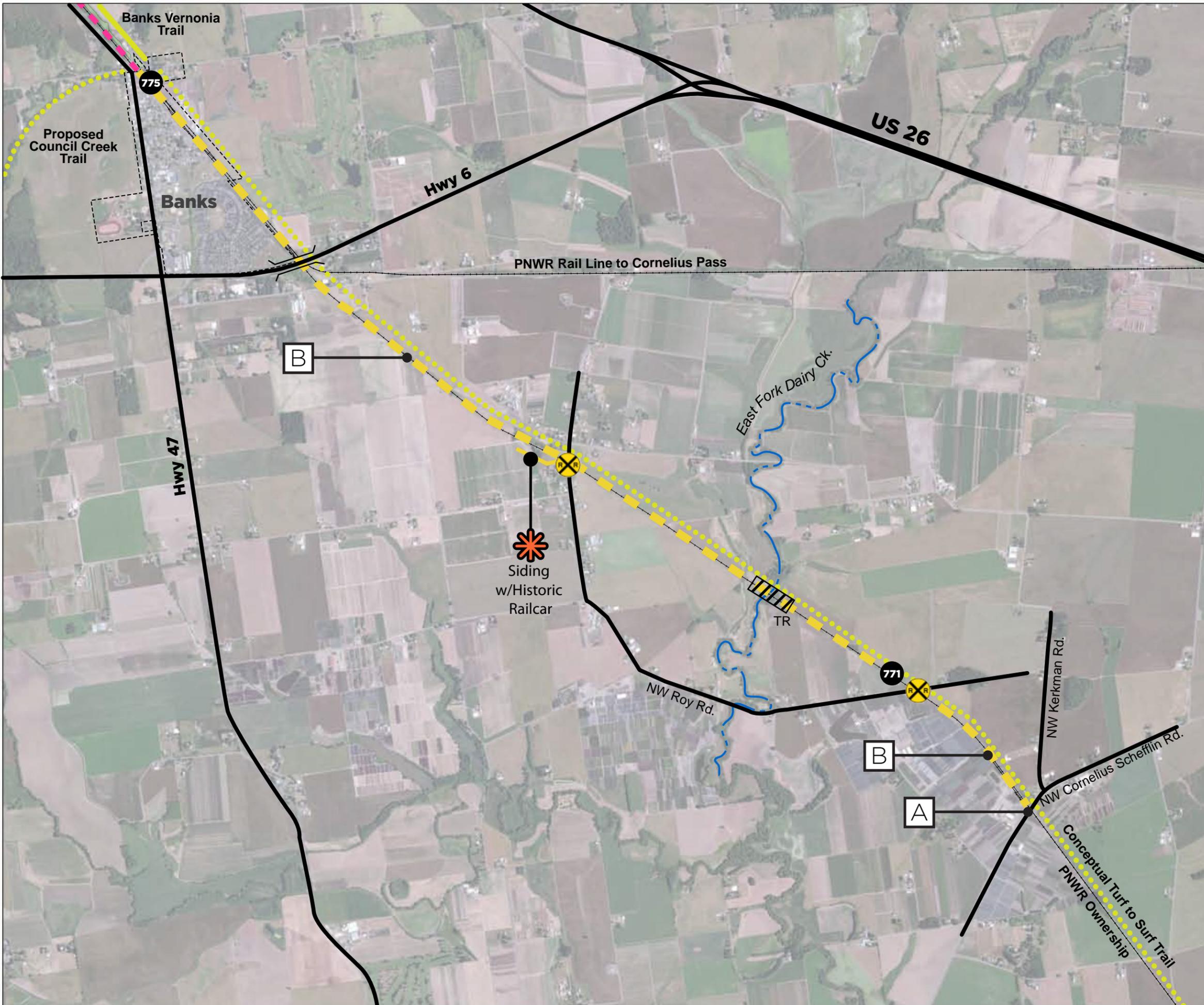
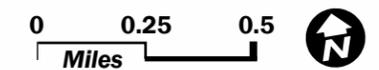
Schefflin Connection

- Portion of Salmonberry Trail adjacent to Banks/Vernonia Trail
- Negotiations under way for PNWR purchase - Sale Pending
- Proposed Trail
- City Limits
- Road
- 786 Milepost
- X Railroad Crossing
- * Point of Interest
- < Culvert
- Trestle

Notes

A End/Beginning of POTB ownership

B No need for trail conversion. Separate planning process under way for conceptual Turf to Surf and Council Creek Trail.



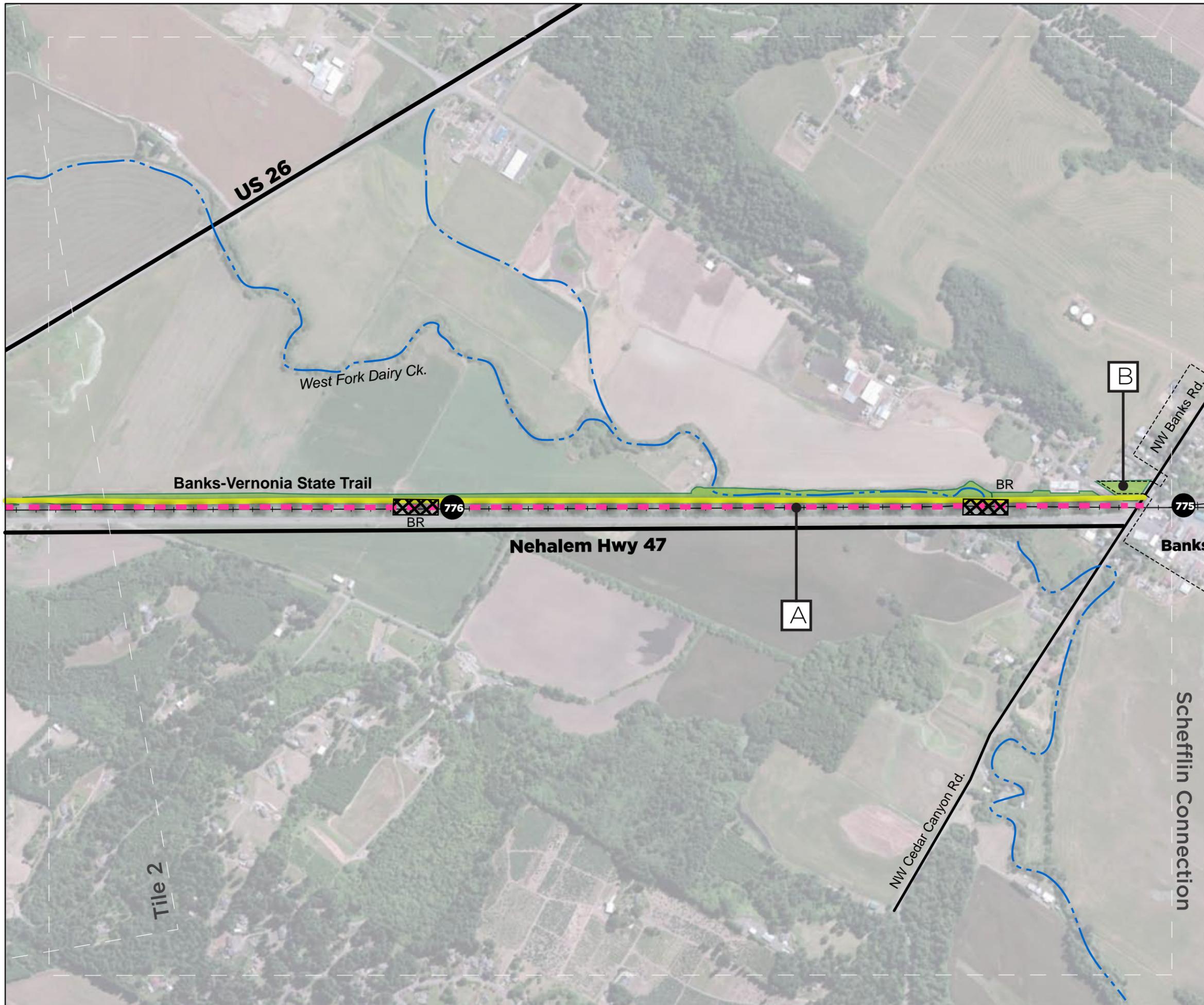
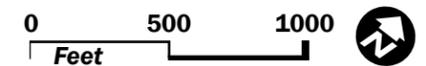
Salmonberry Trail

Tile 1: Banks

-  Portion of Salmonberry Trail adjacent to Banks/Vernonia Trail
-  Existing Trail
-  City Limits
-  Road
-  Milepost
-  Bridge
-  Public Property

Notes

- A** No need for trail conversion. ROW is parallel to Banks Vernonia Trail until Manning
- B** Banks-Vernonia TH (27-car parking lot with restrooms and bike rental shop nearby)



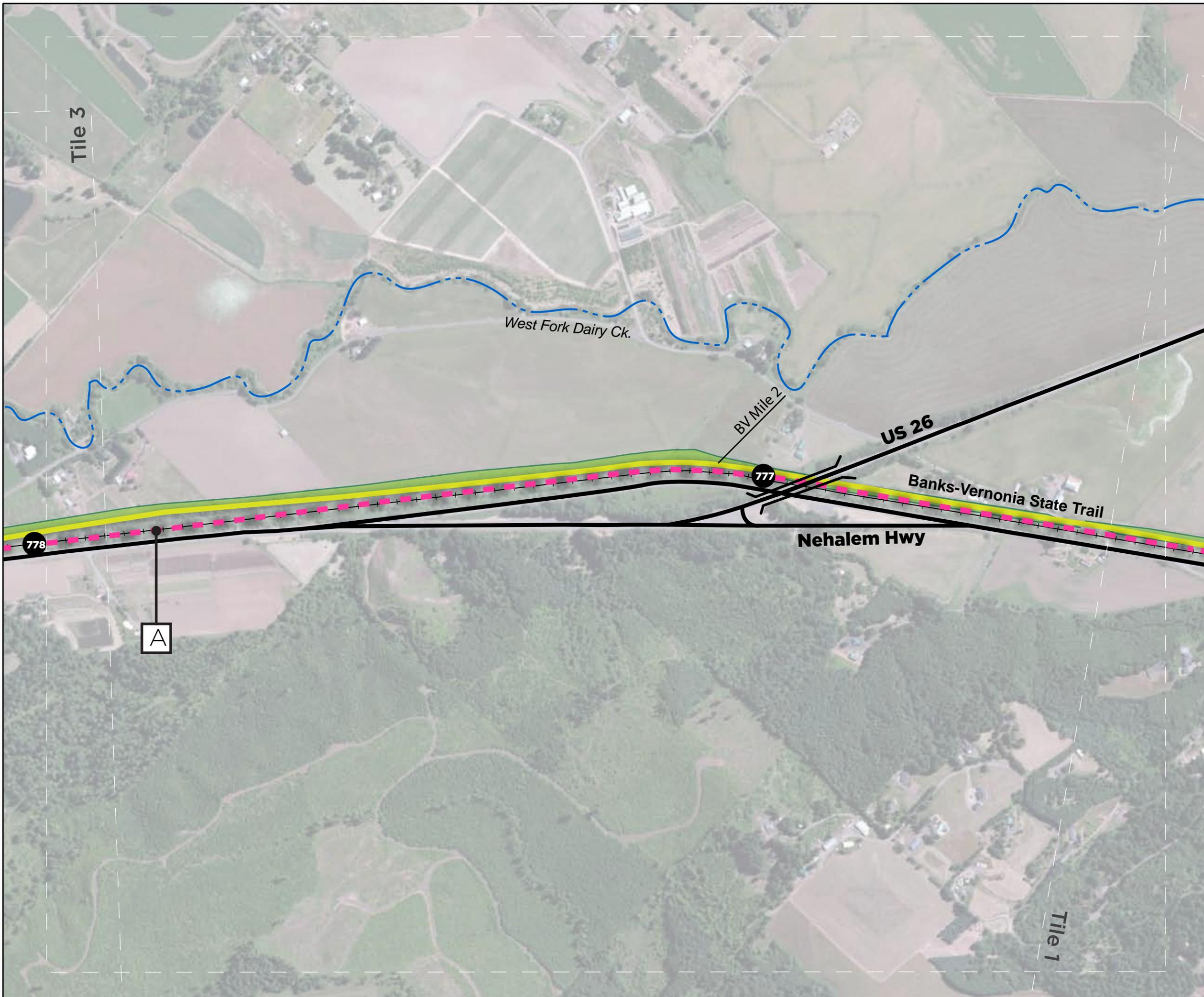
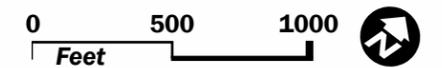
Salmonberry Trail

Tile 2: Banks to Manning

-  Portion of Salmonberry Trail adjacent to Banks/Vernonia Trail
-  Existing Trail
-  Road
-  Milepost
-  Public Property

Notes

- A** No need for trail conversion. ROW is parallel to Banks Vernonia Trail until Manning



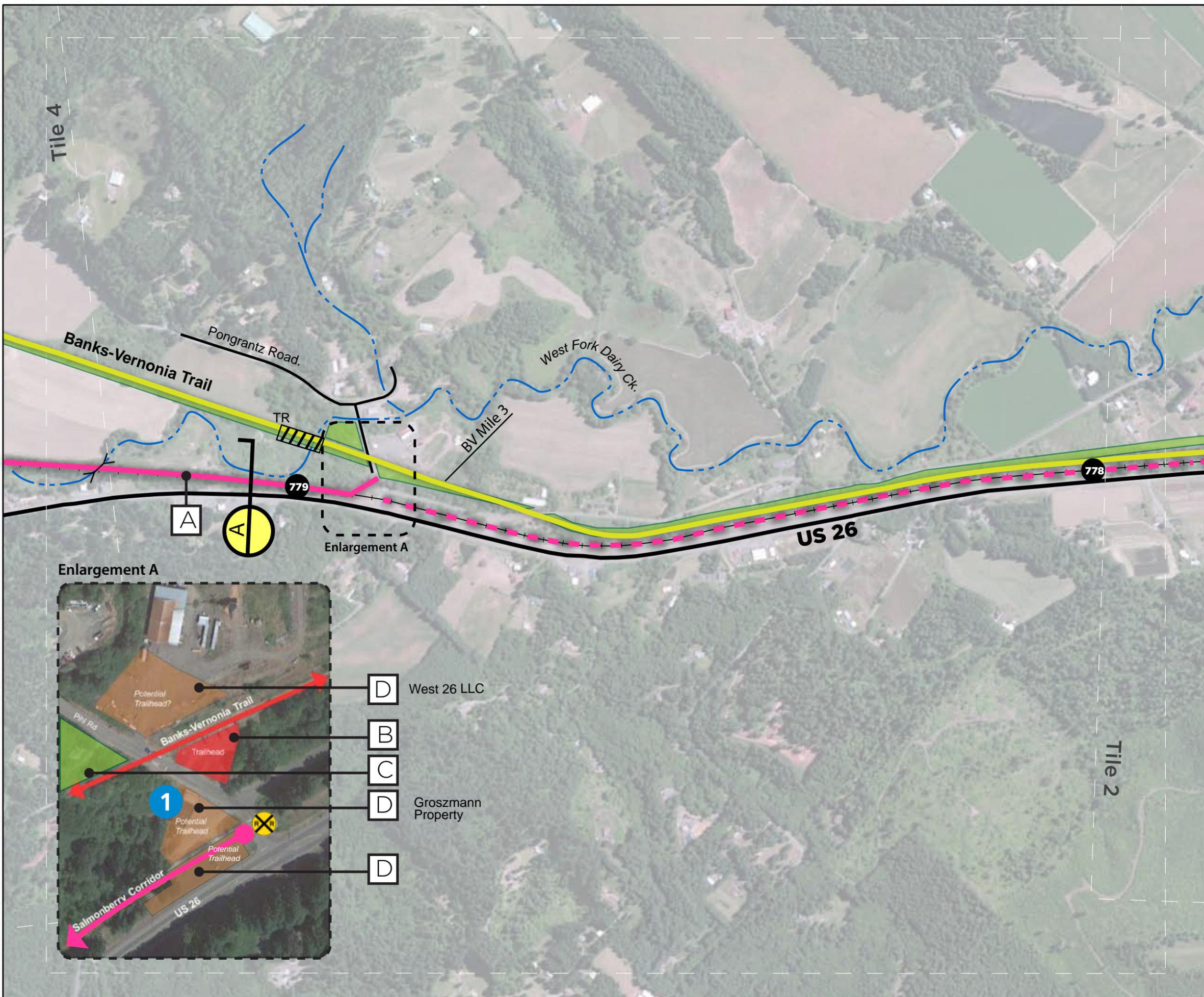
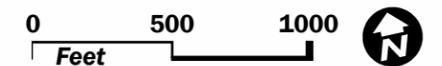
Salmonberry Trail

Tile 3: Manning

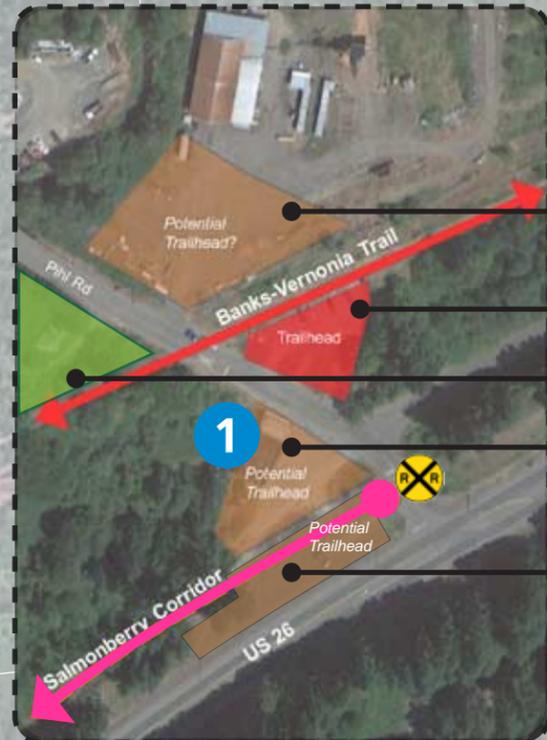
-  Salmonberry Trail
-  Portion of trail adjacent to Banks/Vernonia Trail
-  Existing Trail
-  City Limits
-  Milepost
-  Railroad Crossing
-  Culvert
-  Trestle (See Section D)
-  Public Property
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Manning trailhead at capacity. Trails separate at this point.
- C** Potential trailhead expansion area, on 0.5-ac donated by WA Co.
- D** Additional potential TH expansion areas (See Tile 3A)
- 1** Potential catalyst project: Develop new trailhead for additional vehicles, restrooms to serve both B-V Trail and Salmonberry Trail



Enlargement A



- D** West 26 LLC
- B**
- C**
- D** Groszmann Property
- D**

Salmonberry Trail

Tile 3A: Manning Trailhead



View from US 26 looking west across site of proposed trailhead. (Google Street View)

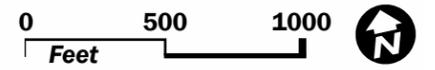
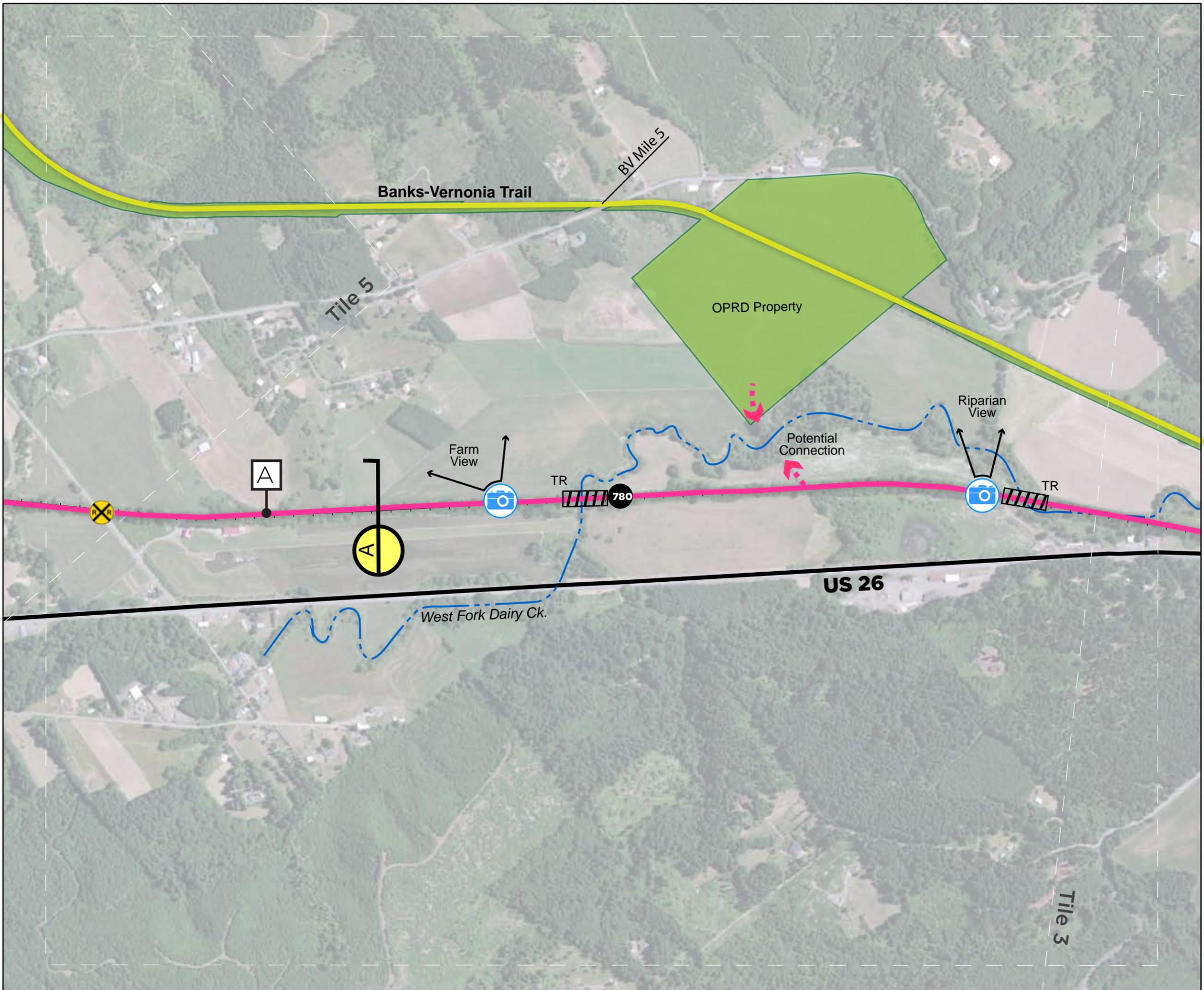
Salmonberry Trail

Tile 4: Dairy Creek

- Salmonberry Trail
- Existing Trail
- Road
- Milepost
- Viewpoint
- Railroad Crossing
- Trestle (Section D)
- Public Property
- Section Callout

Notes

A Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



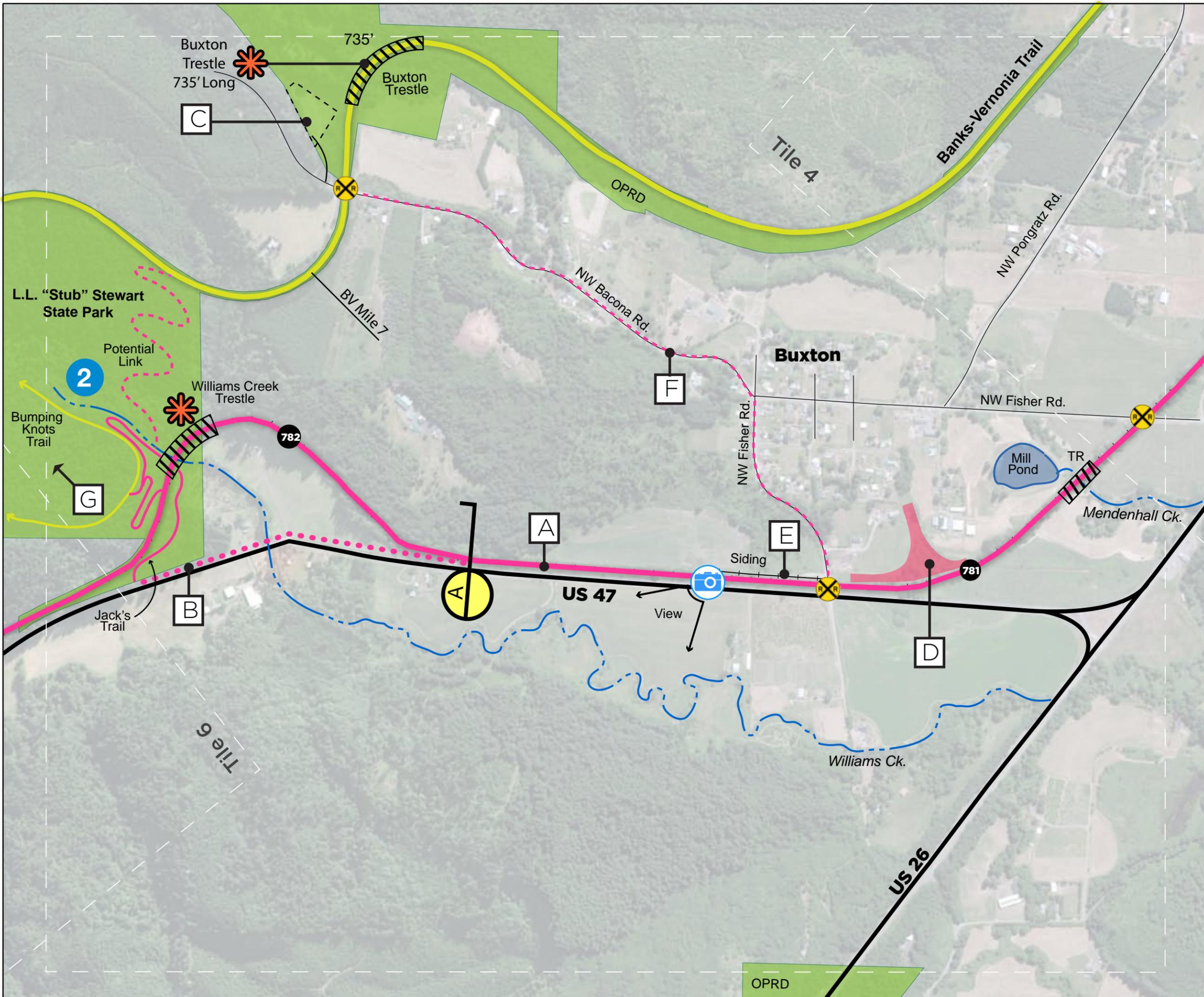
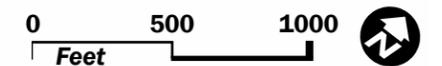
Salmonberry Trail

Tile 5: Buxton

-  Salmonberry Trail
-  Potential Regional Connection
-  Bypass Alternative
-  Existing Trail
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Trestle (See Section D)
-  Public Property
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative: Potential bypass utilizing expanded shoulder of US 47 until Williams Creek Trestle is improved.
- C** Buxton trailhead, 75 car spaces, 4 horse trailer spaces. Could be optional TH if Manning cannot be expanded.
- D** Potential trailhead opportunity on 'Y' near former mill site--potential interpretive story
- E** Potential trailhead on siding along Hwy 47
- F** Potential short-term connection to Banks Vernonia trail via Fisher Rd/ Bacona Rd. On-road bike use.
- G** Potential alternative trailhead at Stub Stewart SP. Further study needed.
- 2** Potential catalyst project: Enhance existing trails to provide access from Williams Creek trestle into Stub Stewart SP and create loop on B-V Trail



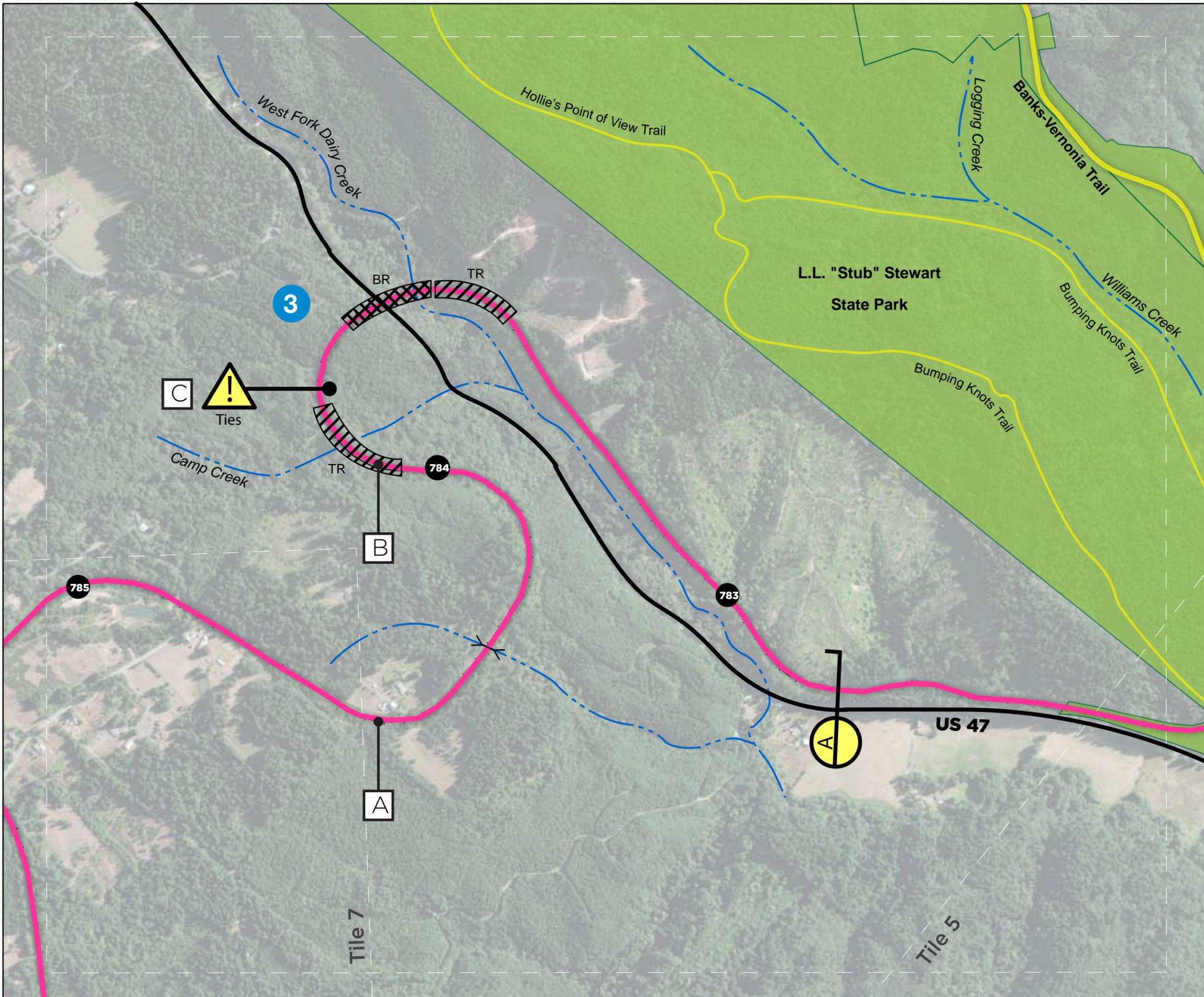
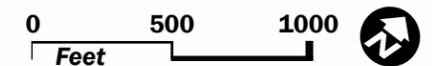
Salmonberry Trail

Tile 6: Camp Creek

-  Salmonberry Trail
-  Existing Trail
-  Road
-  Milepost
-  Culvert
-  Hazard
-  Trestle (See Section D)
-  Bridge (See Section E)
-  Public Property
-  Section Callout

Notes

-  **A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
-  **B** Potential destination/turnaround for day trips from Manning or Stub Stewart SP
-  **C** Creosote ties stacked adjacent to rails. These and other relics require further study
-  **3** Potential catalyst project: Deck existing bridge over Hwy 47 and Dairy Creek as well as Camp Creek trestle



Salmonberry Trail

Tile 7: Sunset Highway

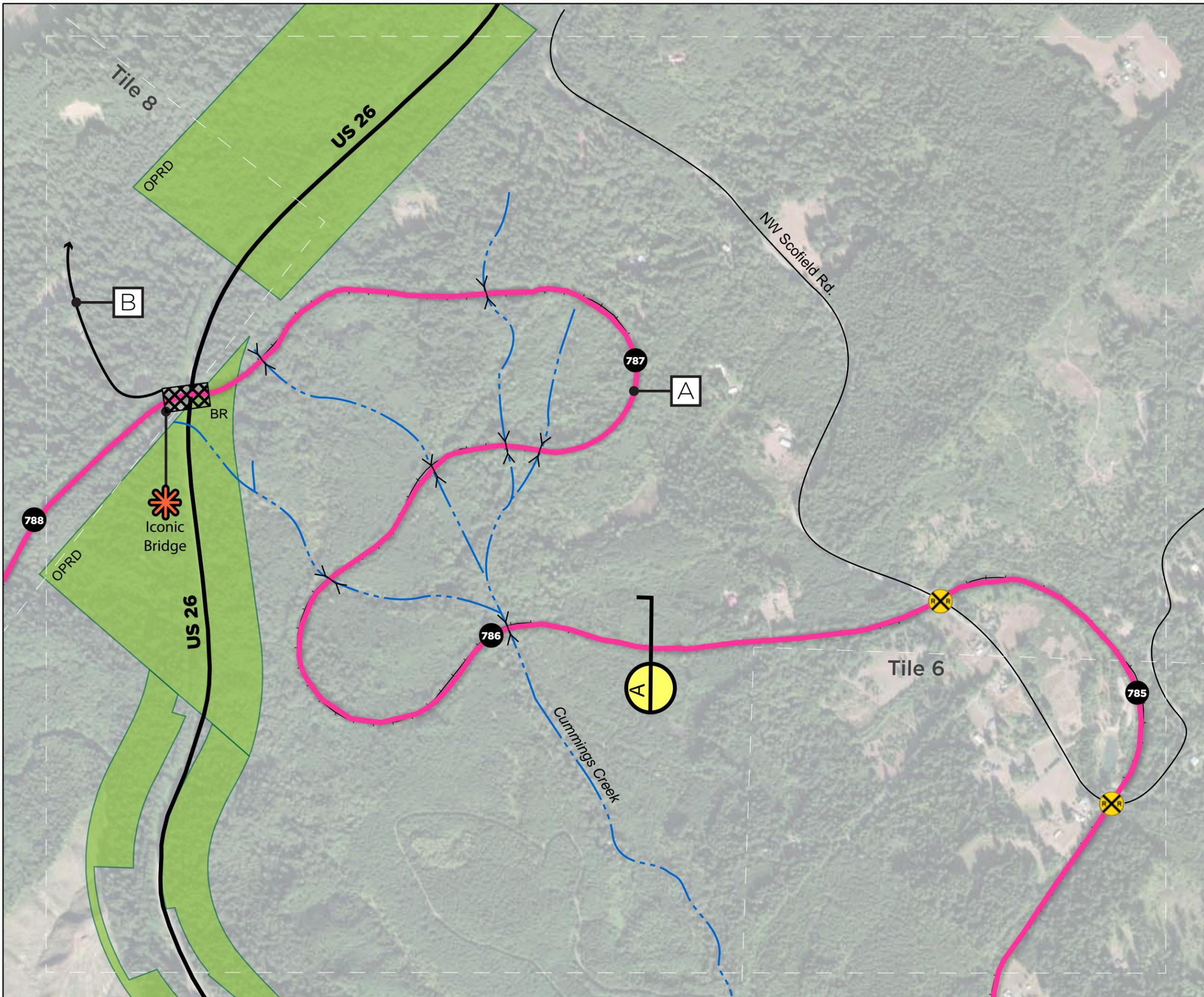
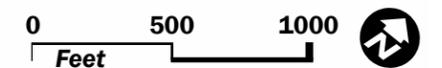
-  Salmonberry Trail
-  Road
-  Milepost
-  Railroad Crossing
-  Culvert
-  Bridge (See Section E)
-  Public Property
-  Section Callout

Notes

-  Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
-  Ridge Rd. is closed to cars but could be potential bike/hike route connection to trail.



Iconic RR bridge over US 26



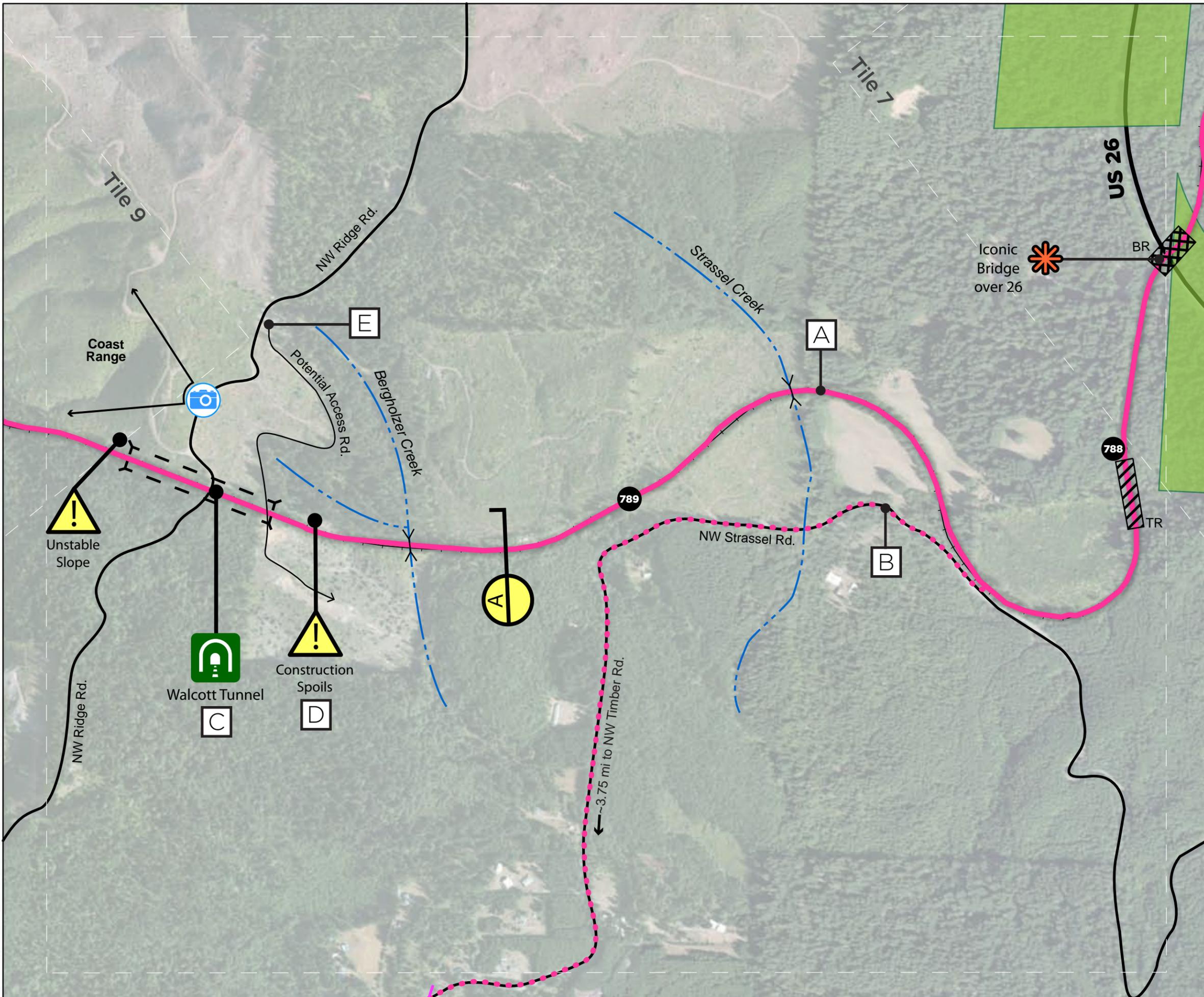
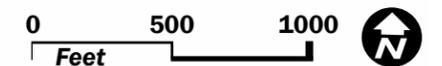
Salmonberry Trail

Tile 8: Walcott

-  Salmonberry Trail
-  Bypass Alternative
-  Road
-  Milepost
-  Viewpoint
-  Tunnel (See Section F)
-  Culvert
-  Hazard
-  Trestle (See Section D)
-  Bridge (See Section E)
-  Public Property
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative: Potential interim bypass of Walcott Tunnel: NW Strassel Rd (MP 789) to NW Timber Rd (MP 791.5) See Tile 9
- C** Walcott Tunnel is a potential destination but requires repairs to ceiling for safety (shotcrete is spalling off onto tracks)
- D** Potential hazardous construction spoils from tunnel repair, some toxic material may be present
- E** Gated road provides hiking access to point 300' above Walcott Tunnel (closest auto access to tunnel). Requires new adventure/hike trail to get down to Trail.



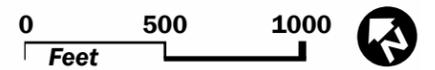
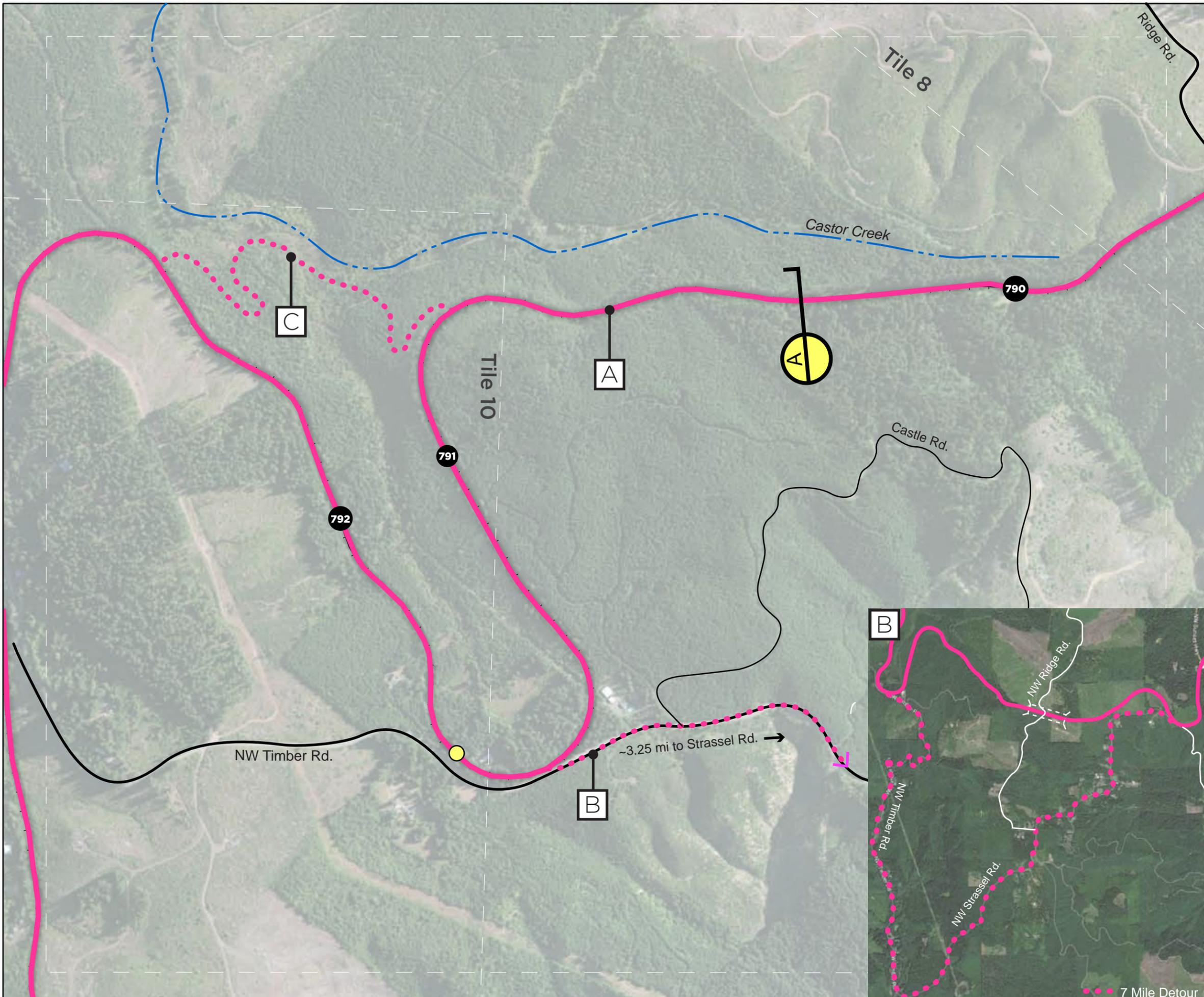
Salmonberry Trail

Tile 9: Castor Creek

-  Salmonberry Trail
-  Bypass Alternative
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative: Potential interim bypass of Walcott Tunnel: NW Timber Rd (MP 791.5) to NW Strassel Rd (MP 789)
- C** Bypass Alternative: Potential bypass requires further study.



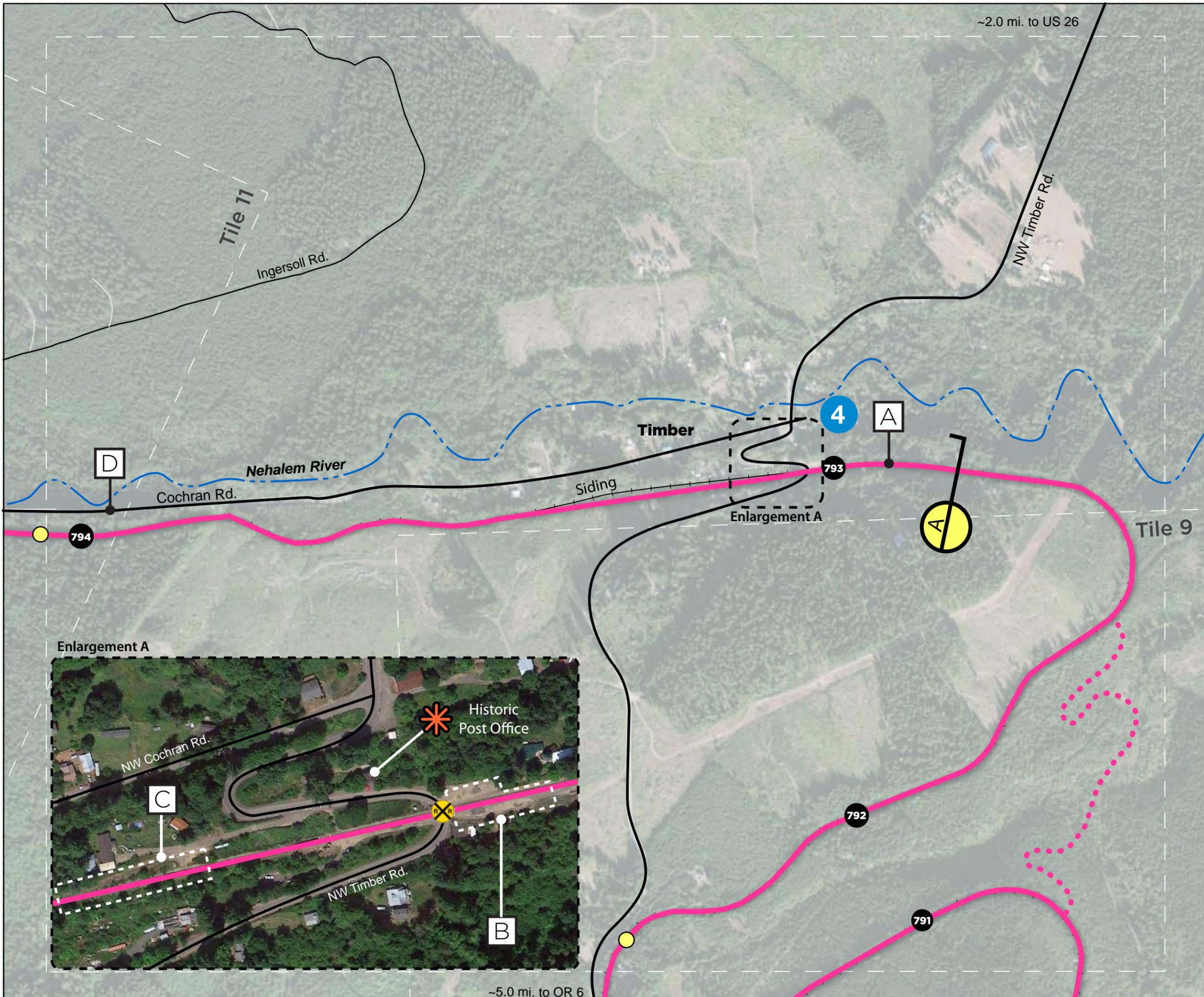
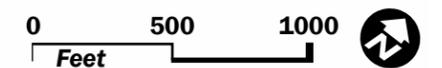
Salmonberry Trail

Tile 10: Timber

-  Salmonberry Trail
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Railroad Crossing
-  Point of Interest
-  Section Callout

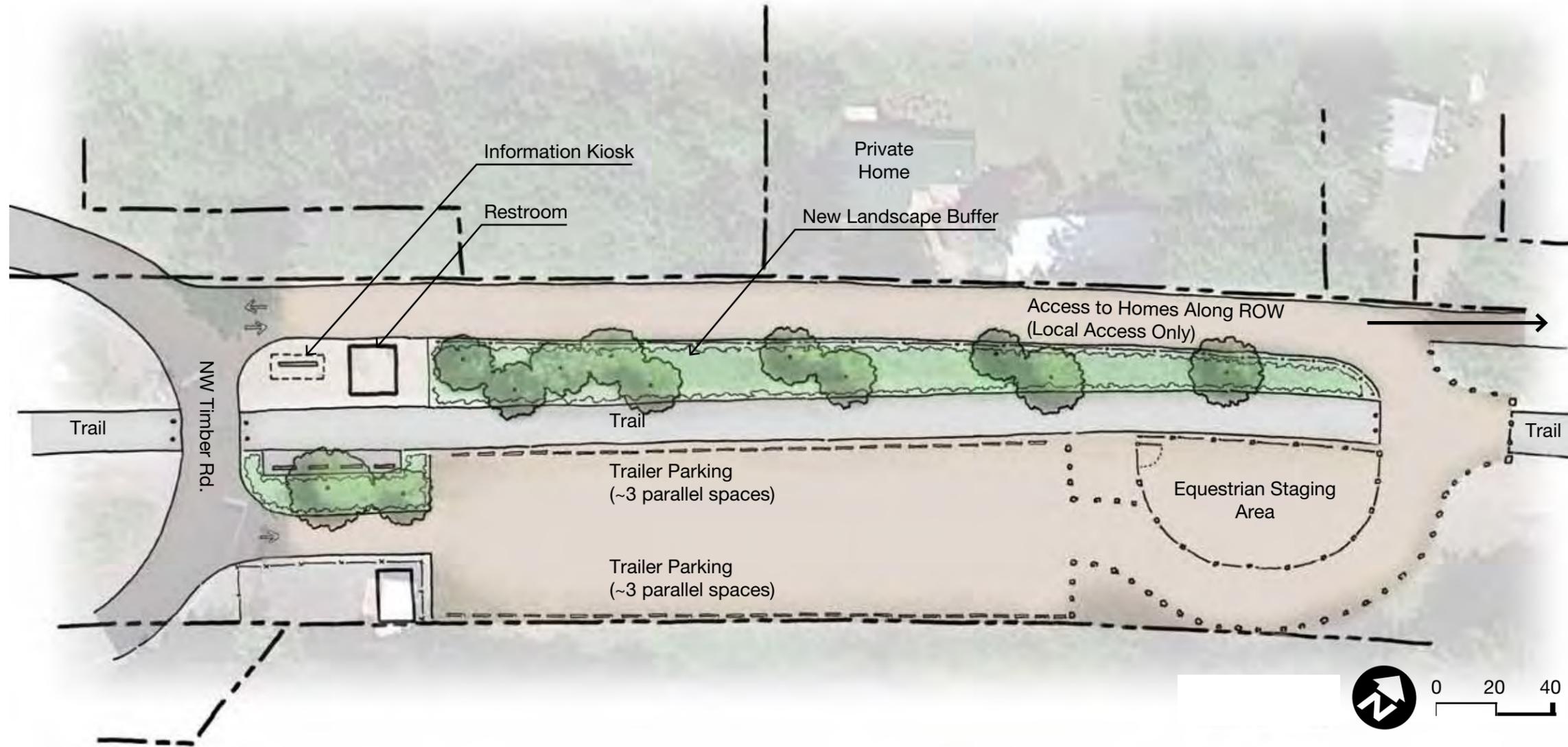
Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Wide ROW with sidings. Potential equestrian trailhead, including restrooms and trash service. (Private homes currently use ROW for access) See Tile 10A
- C** Wide ROW with sidings could allow for parking and trailhead, including restrooms and trash service. (Private homes currently use ROW for access) See Tile 10B
- D** Cochran Rd is low speed gravel road paralleling RR ROW for 2 miles; potential bypass route before trail construction
- 4** Potential catalyst project: Trailhead at town of Timber



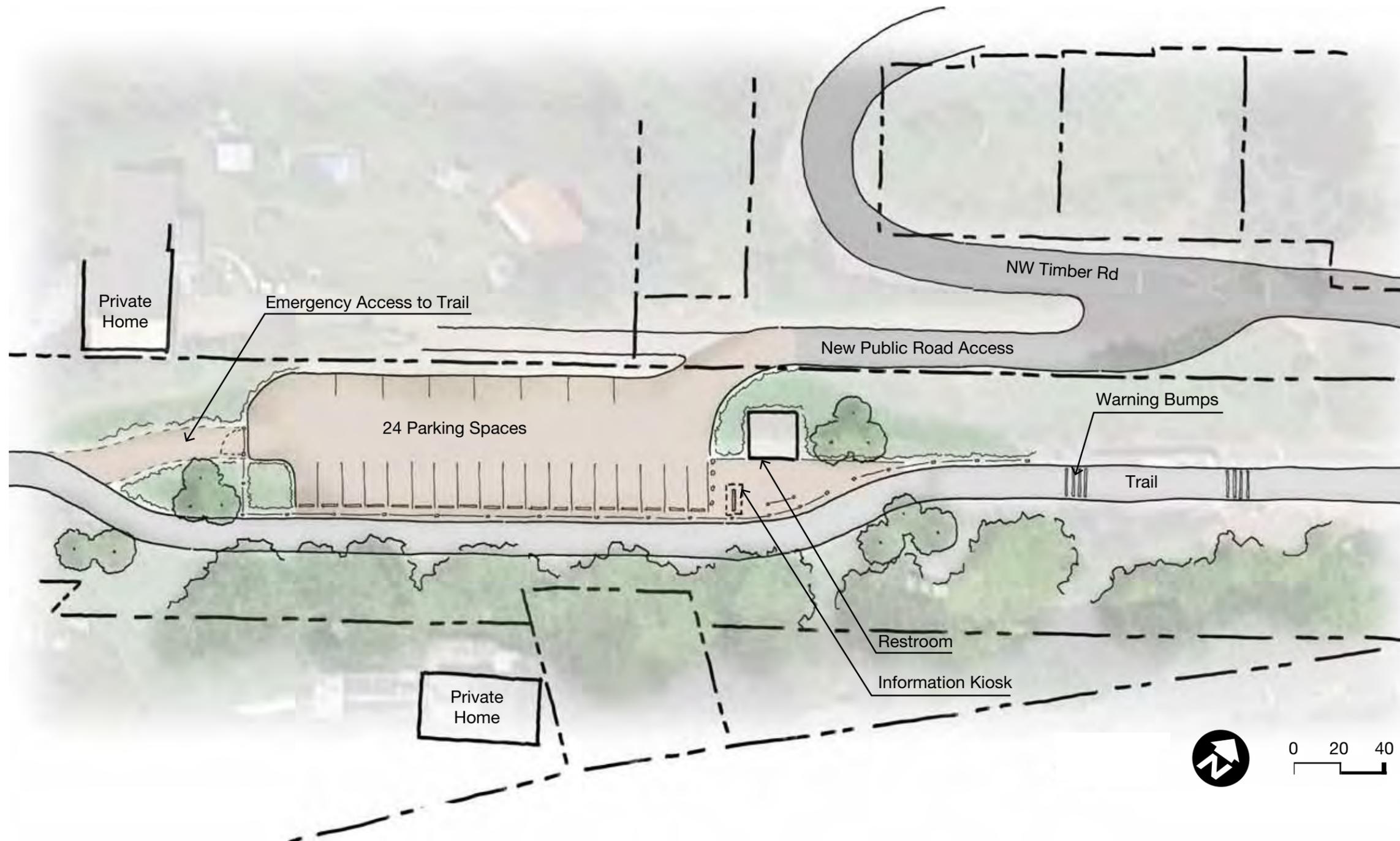
Salmonberry Trail

Tile 10A: Equestrian Trailhead



Salmonberry Trail

Tile 10B: Bike/Ped Trailhead



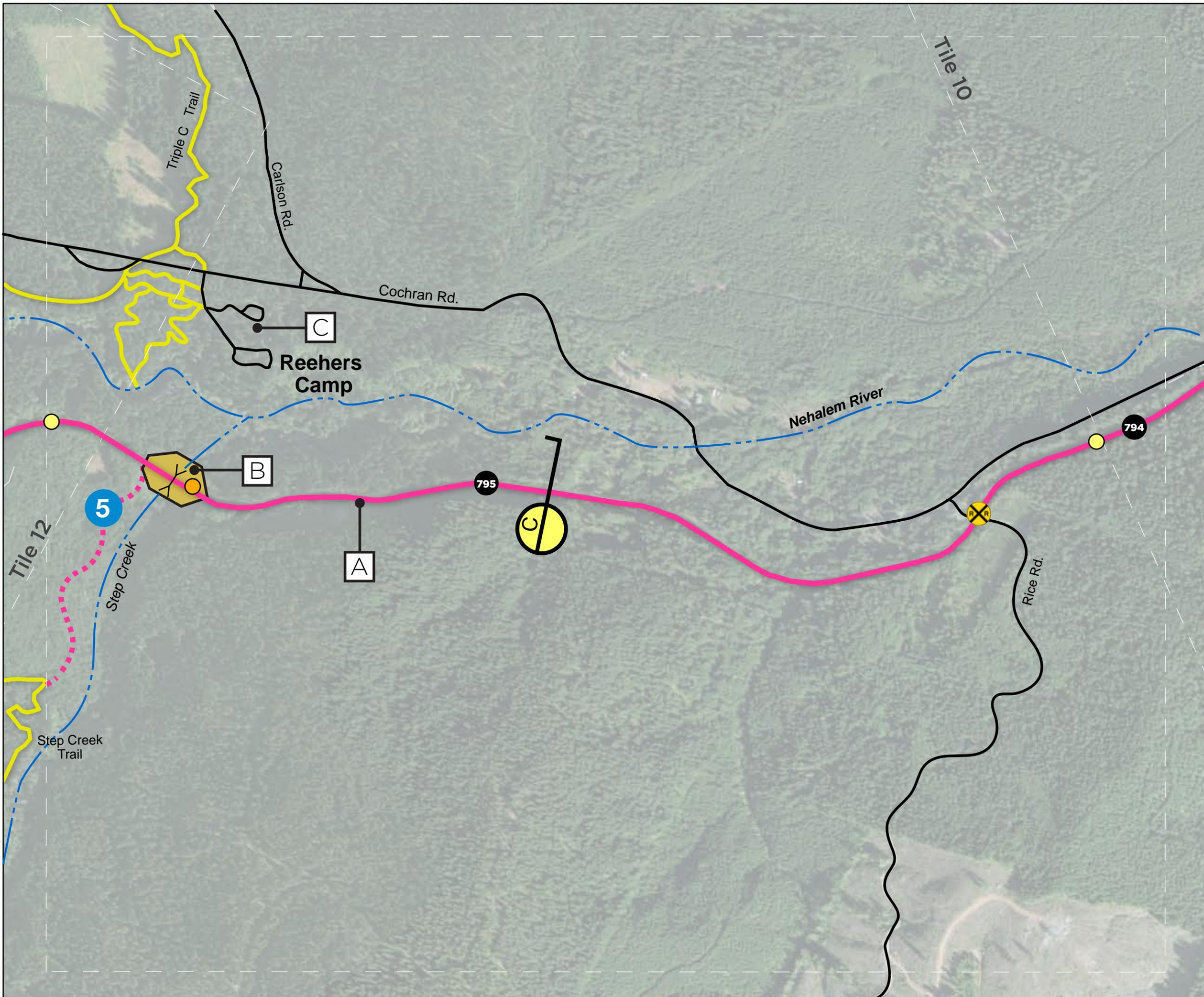
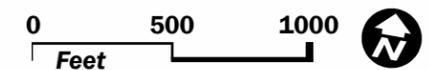
Salmonberry Trail

Tile 11: Reehers Camp

- Salmonberry Trail
- Potential Regional Connection
- Existing Trail
- Road
- Milepost
- Damage Points: Severe/Moderate/Mild
- Culvert
- Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Major fill requires culvert repair (380' long). New construction to meet ODFW fish passage requirements.
- C** ODFW Campground could be base for Trail use.
- 5** Potential catalyst project: Trail connection to Step Creek Trail.



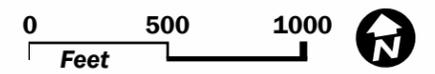
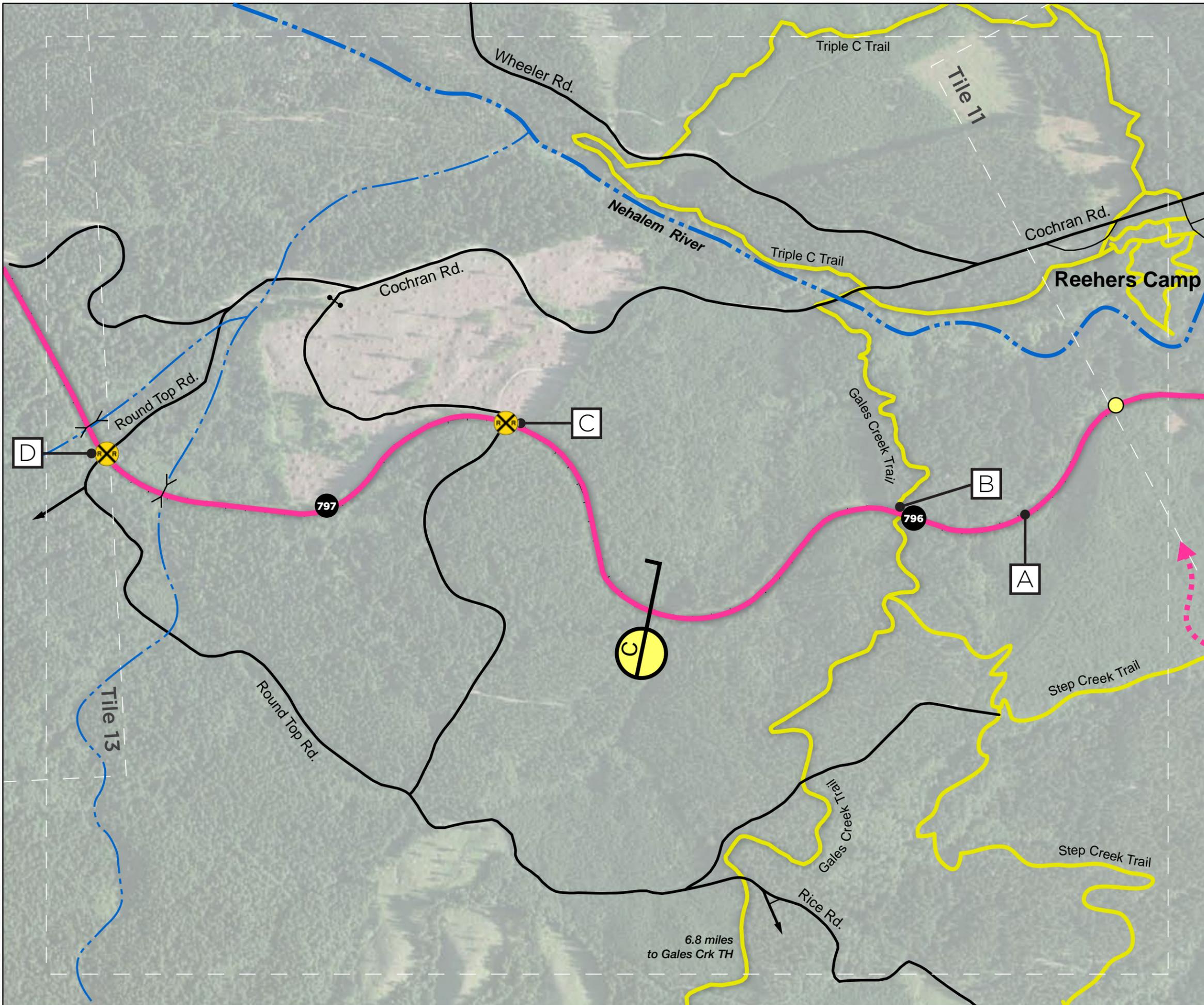
Salmonberry Trail

Tile 12: Round Top

- Salmonberry Trail
- Existing Trail
- Road
- Milepost
- Damage Points: Severe/Moderate/Mild
- Railroad Crossing
- Culvert
- Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Gales Creek Trail crosses Trail at MP 796
- C** Road on Hampton property is gated at Cochran Road.
- D** Active ODF haul road crossing. Potential Trailhead location.



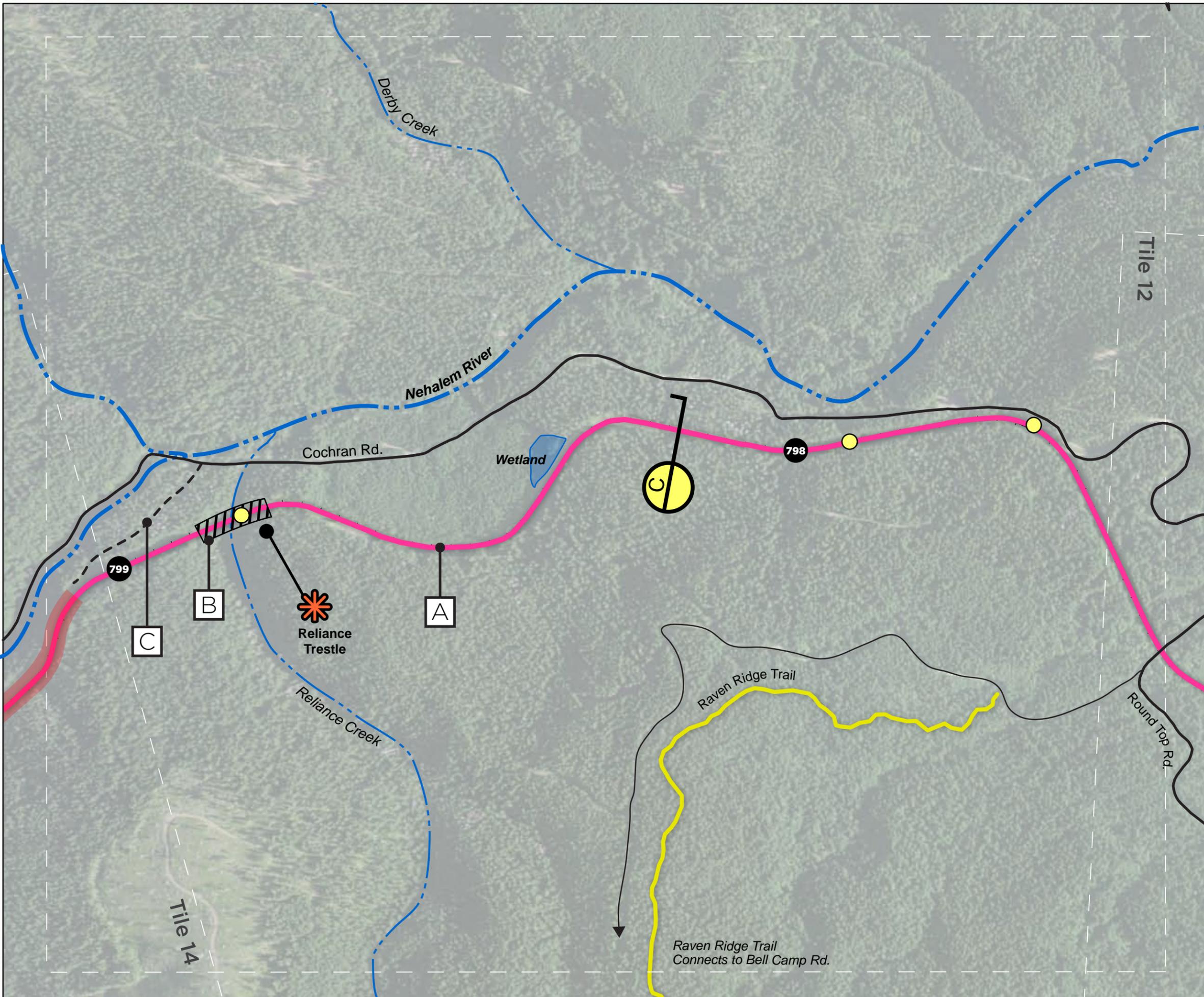
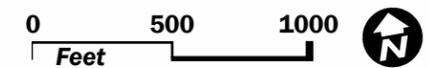
Salmonberry Trail

Tile 13: Reliance

- Salmonberry Trail
- Existing Trail
- Proposed Trail
- Road
- Milepost
- Damage Points: Severe/Moderate/Mild
- Trestle (See Section D)
- Section Callout

Notes

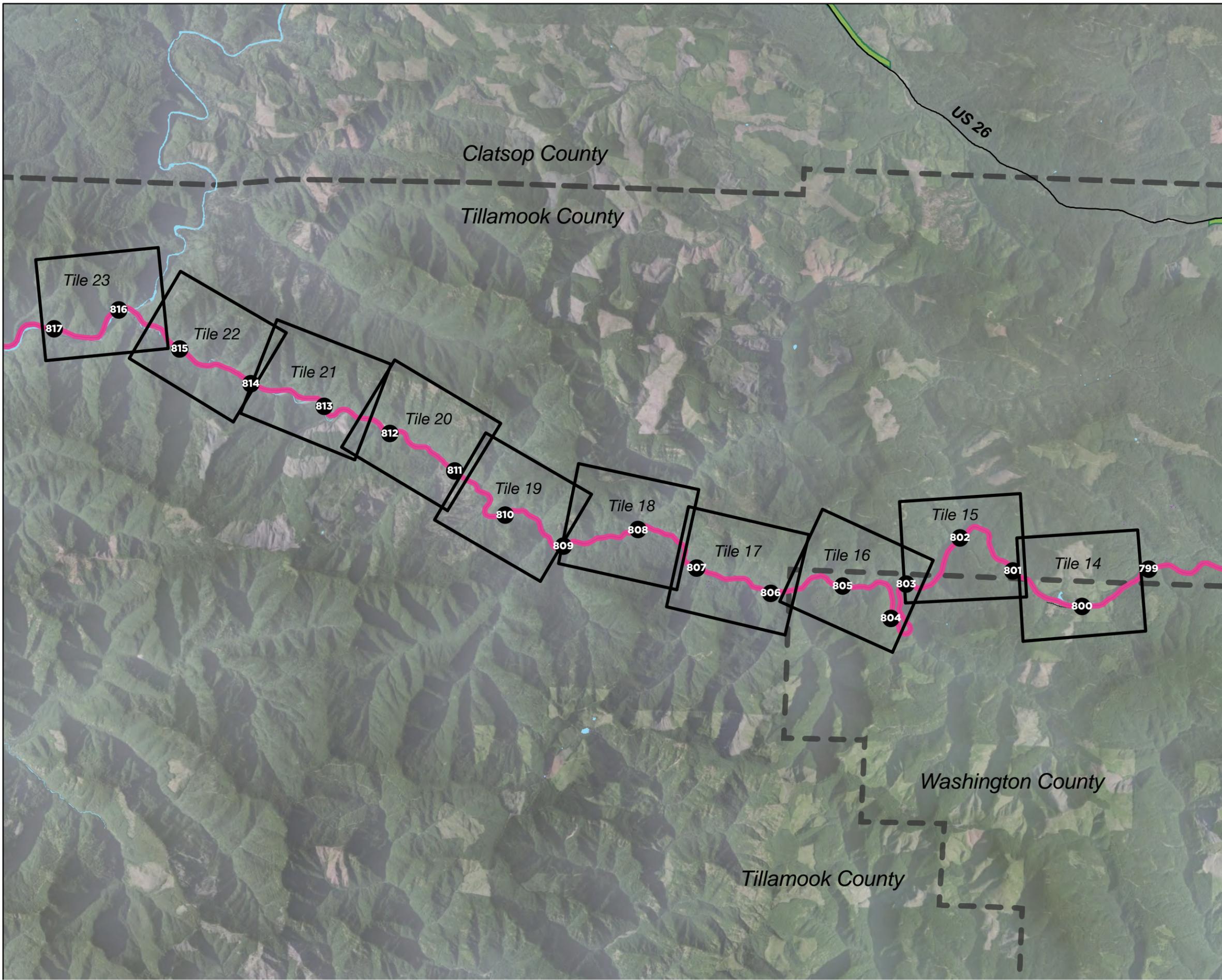
- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Reliance Trestle could be a destination from Timber and Cochran
- C** Possible project: redirect traffic away from the river and onto the RR ROW and direct the trail closer to the river and onto Cochran Road. Cochran Road could become the new trail, or the railroad ROW could become a shared trail and roadway.



Salmonberry Trail

Salmonberry Canyon Segment

- Salmonberry Trail
- Cities
- Highways
- Oregon State Parks
- County Line



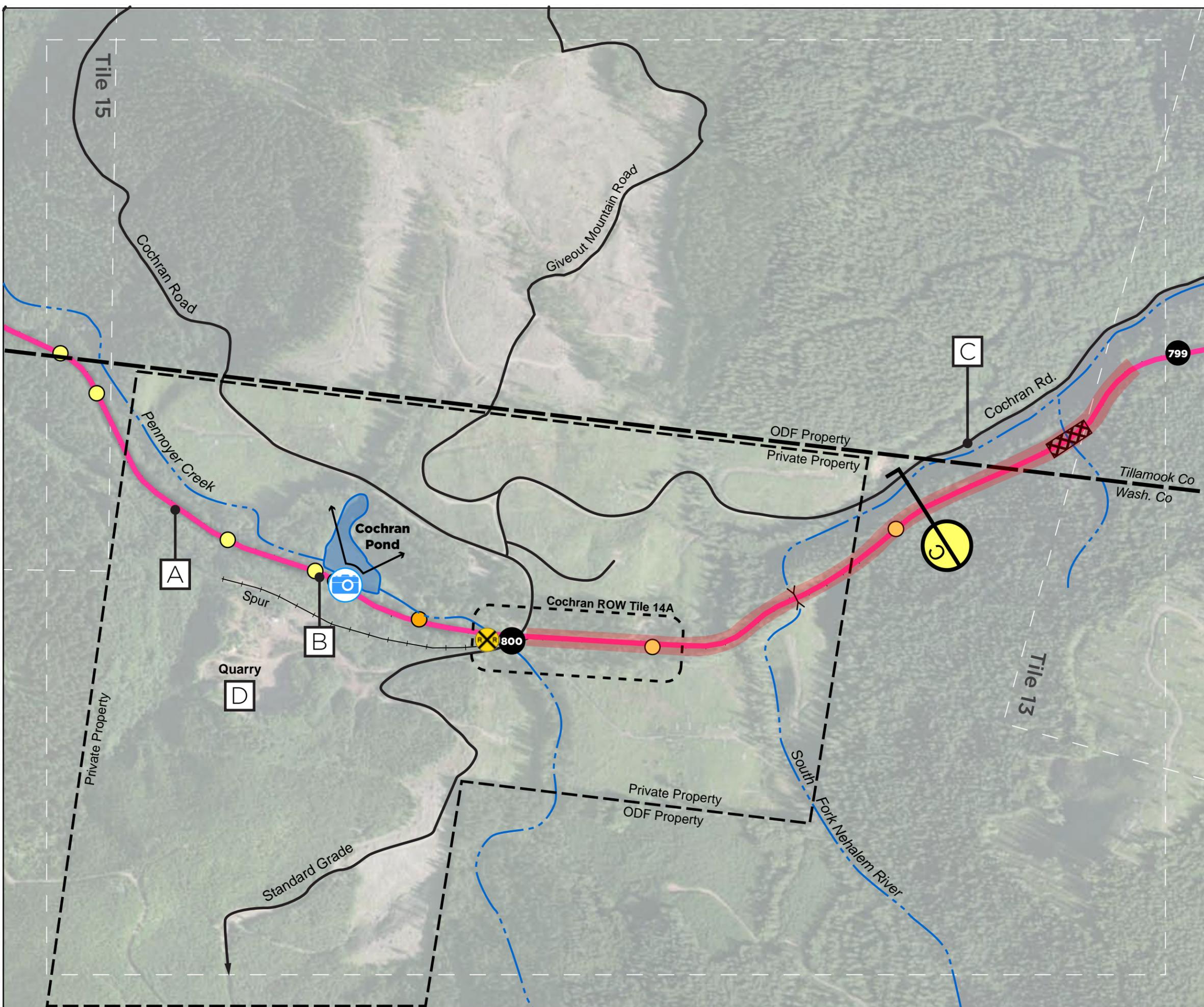
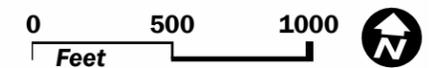
Salmonberry Trail

Tile 14: Cochran

-  Salmonberry Trail
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Bridge (See Section E)
-  Viewpoint
-  Railroad Crossing
-  Culvert
-  Hazard
-  Section Callout

Notes

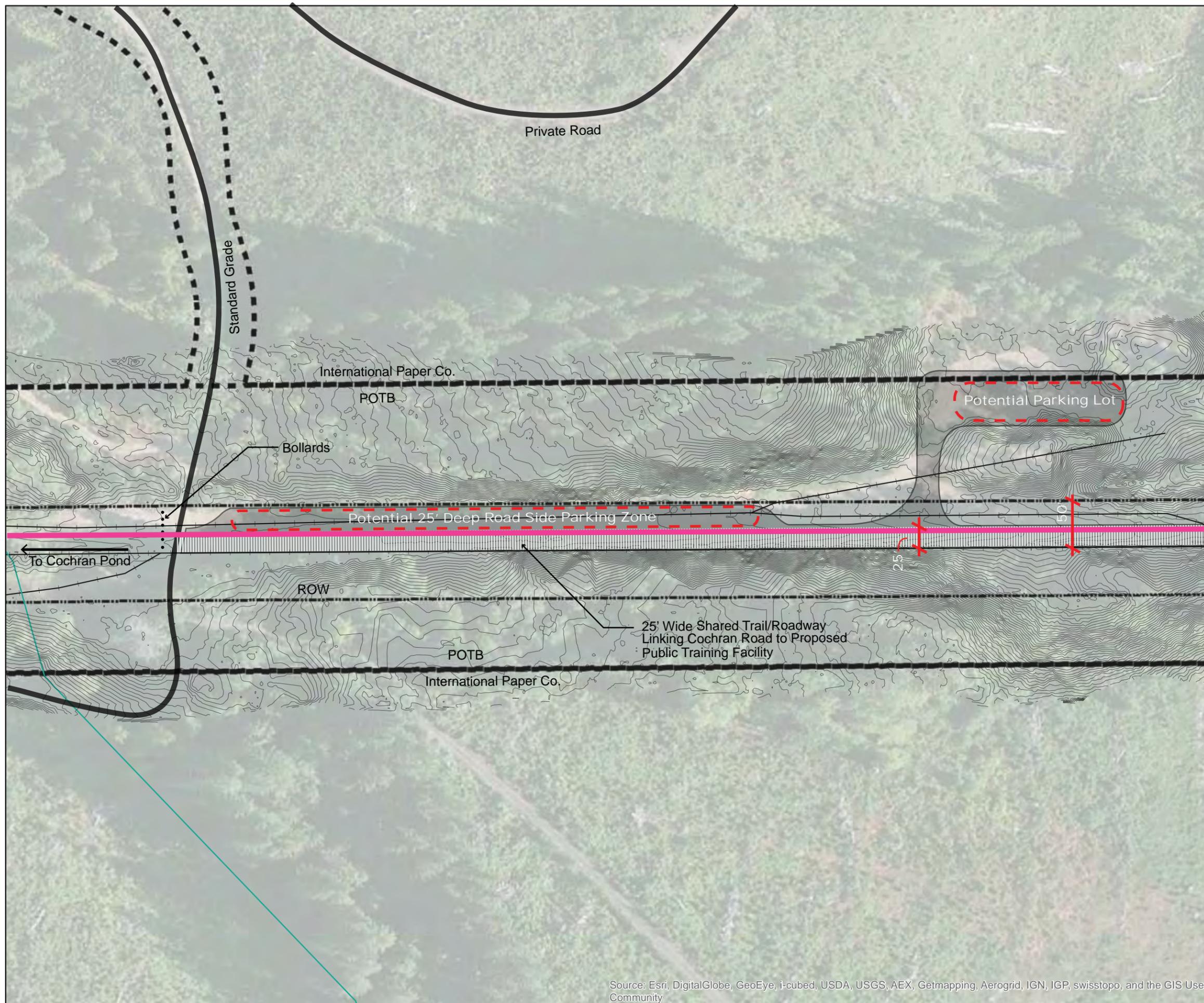
- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Wide ROW at Cochran Pond. Potential parking and trailhead location, including equestrian, depending on final plans.
- C** Cochran Road could become the new trail, or the railroad ROW could become a shared trail and roadway.
- D** Proposed public safety training center (JROC) on quarry property. Safety impacts and potential re-routes TBD.



Salmonberry Trail

Tile 14A: Cochran ROW

-  Salmonberry Trail
-  Proposed Parking Area
-  Proposed Shared Roadway



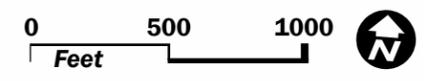
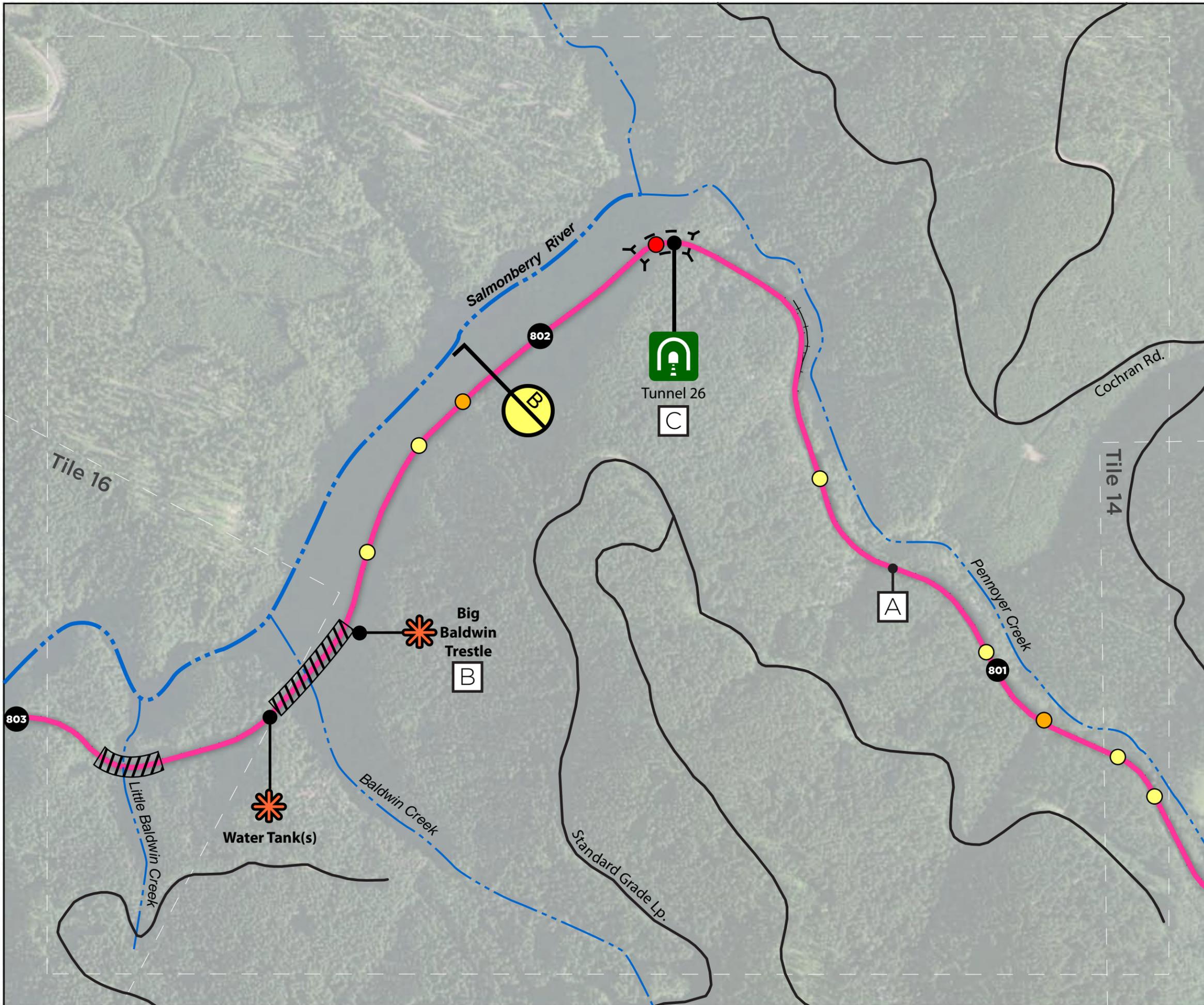
Salmonberry Trail

Tile 15: Baldwin

-  Salmonberry Trail
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Railroad Crossing
-  Point of Interest
-  Tunnel (See Section F)
-  Trestle (See Section D)
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
 - B** Big Baldwin Trestle will be a popular destination for day trips from Cochran. (Memorial plaque at trestle commemorates 7 RR workers killed in trestle collapse, 1935)
 - C** Tunnel 26 is 414'-long, with no major damage. A minor slide on the east portal needs to be monitored.
- *** *There are several sections of existing RR grade through Tiles 15-23 that are at risk of washout and where placement of a trail on existing track ROW may not be most sustainable location. Detours TBD.*



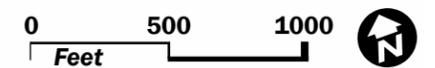
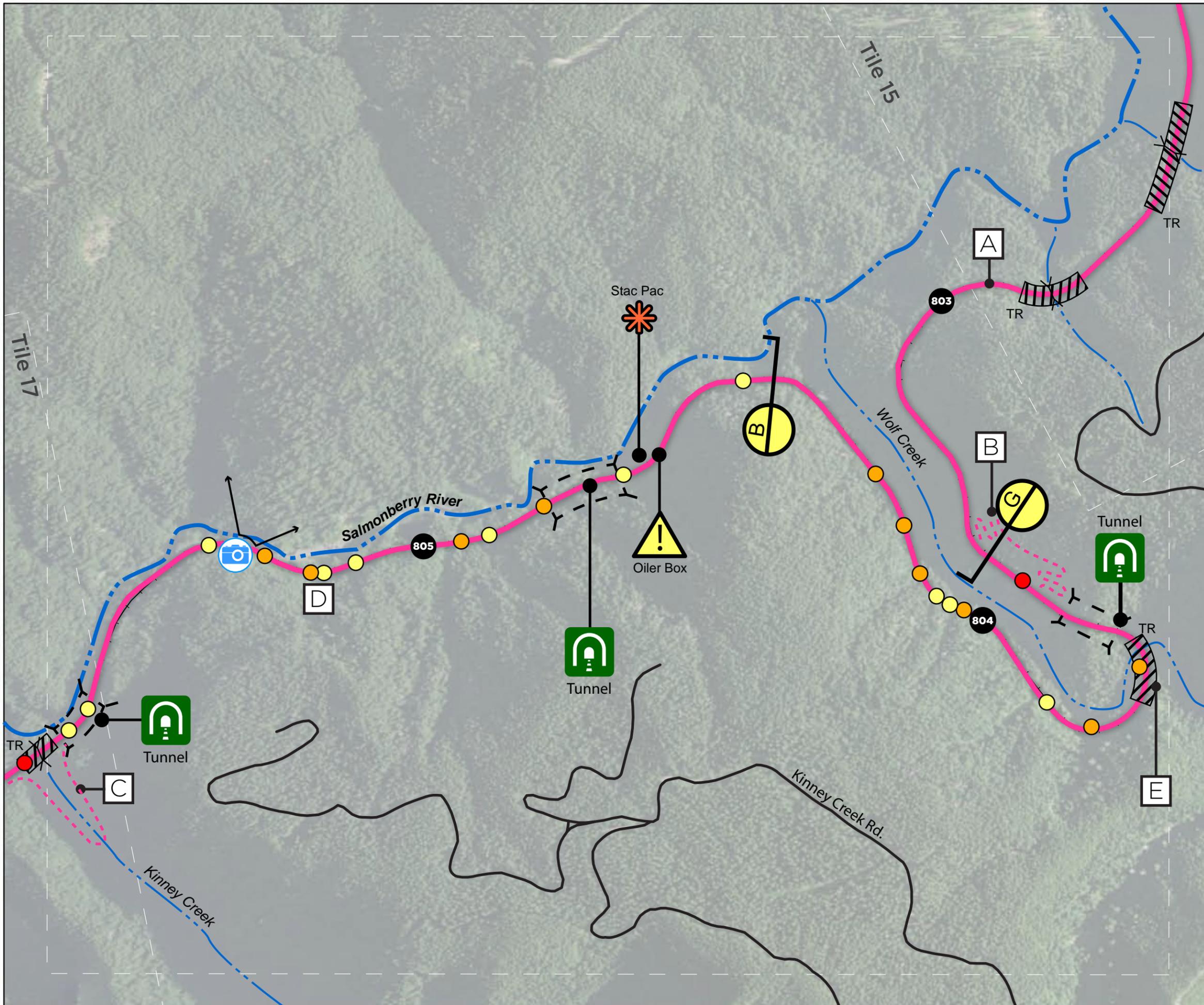
Salmonberry Trail

Tile 16: Wolf Creek

- Salmonberry Trail
- Bypass Alternative
- Road
- Milepost (786)
- Damage Points: Severe/Moderate/Mild
- Viewpoint
- Point of Interest
- Tunnel (See Section F)
- Culvert
- Hazard
- Trestle (See Section D)
- Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative 1: Major washout will likely require "adventure trail" bypass. Many damage points within this stretch will also require detours.
- C** Bypass Alternative 2: Kinney Creek trestle blown out, requires major repair. Detour would need to cross Creek.
- D** Former logging railroad and logging camp site; potential interpretive opportunity.
- E** Wolf Creek trestle and tunnel represent potential scenic destination.



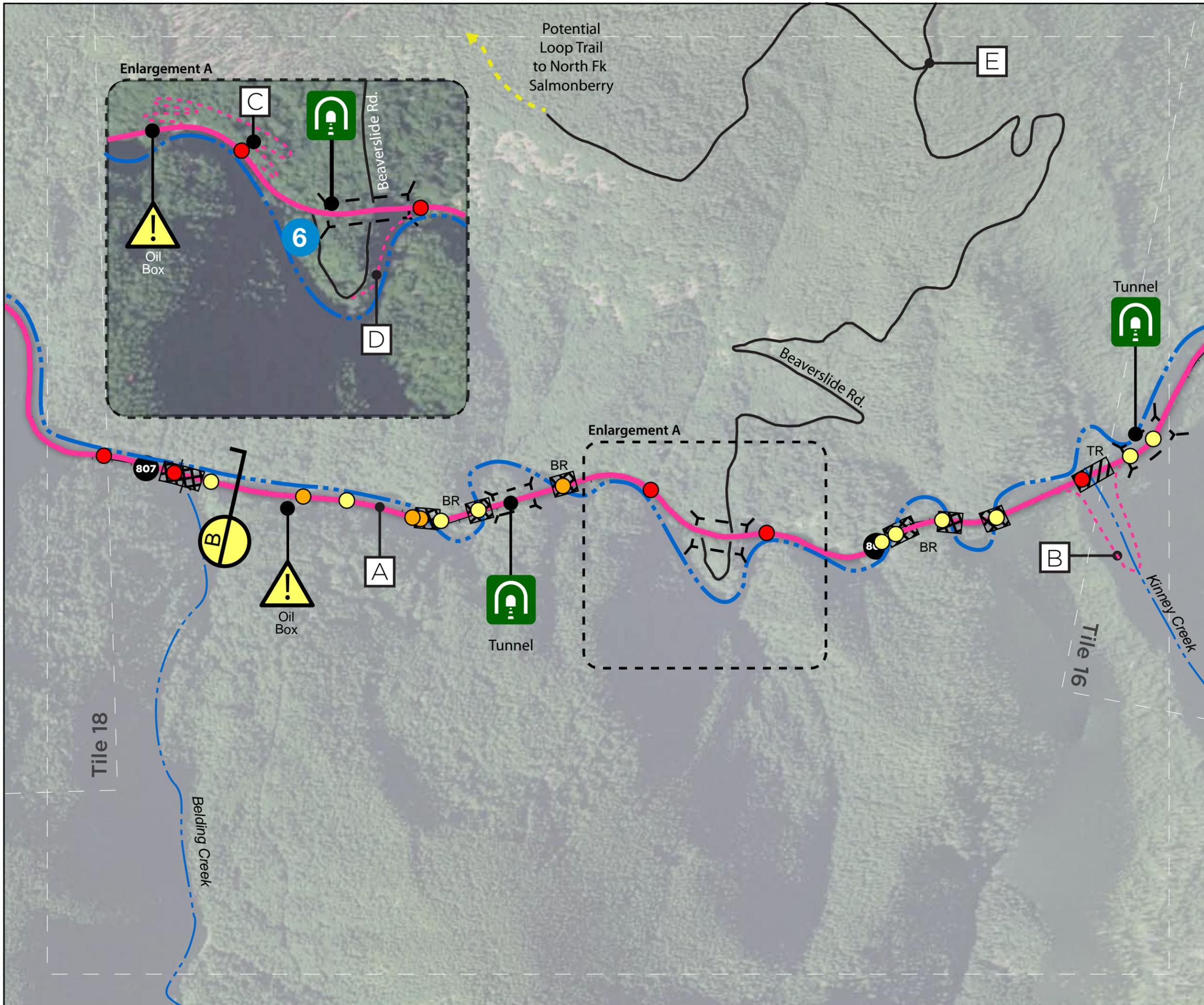
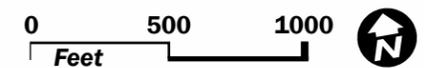
Salmonberry Trail

Tile 17: Beaverslide

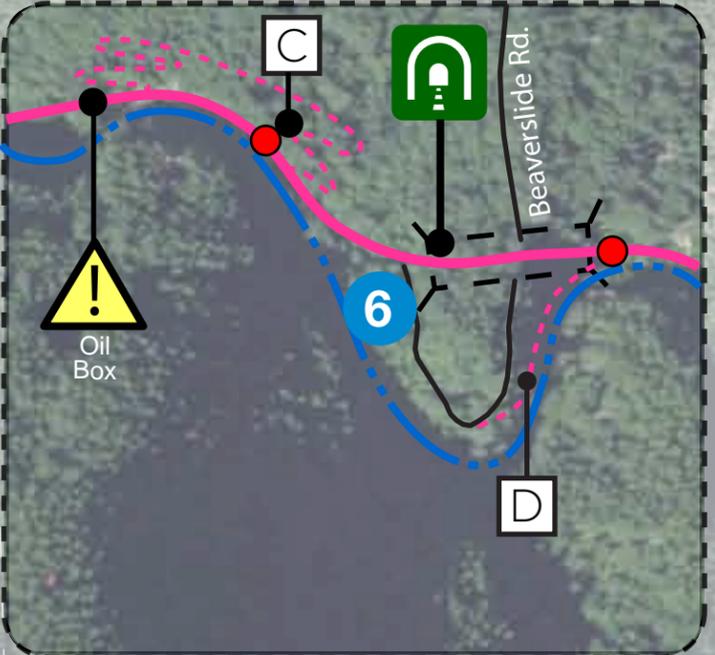
-  Salmonberry Trail
-  Bypass Alternative
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Viewpoint
-  Tunnel (See Section F)
-  Culvert
-  Hazard
-  Trestle (See Section D)
-  Bridge (See Section E)
-  Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative 1: Kinney Creek trestle wash out requires major repair. Detour would need to cross Creek in interim.
- C** Bypass Alternative 2: Major washout will likely require "adventure trail" bypass.
- D** Bypass Alternative 3: If tunnel improvements are necessary, a temporary detour may be required.
- E** Top of the Beaverslide Road. Potential for parking/TH area. Beaverslide Road descends steeply for 1360' over 2.5 miles. It is not designed for recreational use and will likely be closed during some or all of the year to manage access consistent with Trail goals and land management objectives. The road provides emergency access to the Trail between Cochran Pond and Clay Creek Rd.
- 6** Potential catalyst project: Improve existing dispersed camping site next to the river consistent with goals for environmental protection and user experience. Requires further study on governance and operations.



Enlargement A



Potential Loop Trail to North Fk Salmonberry

E

Tunnel



Enlargement A



B

Tile 16

Tile 18

Balding Creek

Oil Box

Tunnel



Kinney Creek

TR



B

807



BR



80



BR



A



Oil Box

6

D

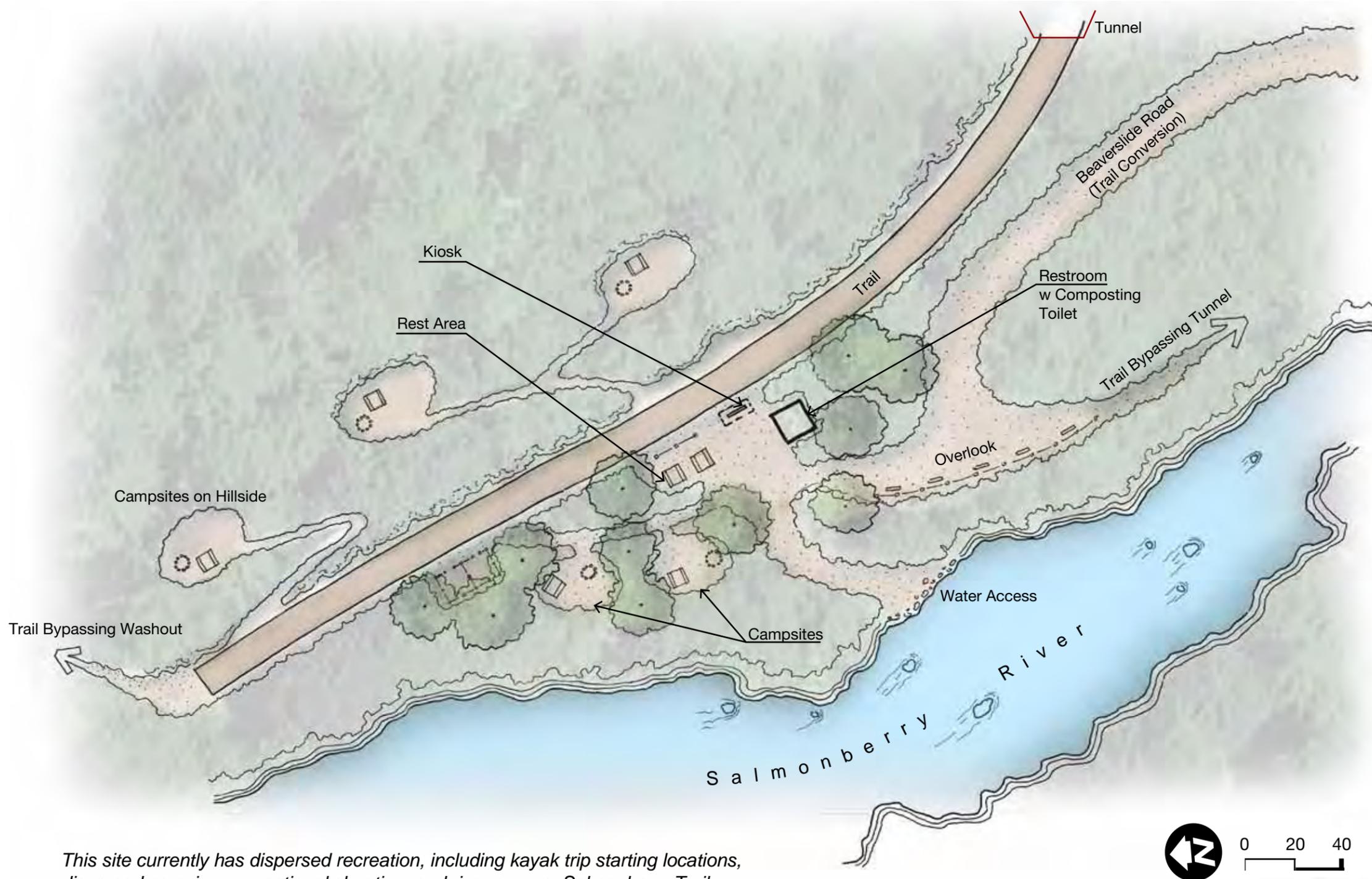


C



Salmonberry Trail

Tile 17A: Beaverslide



This site currently has dispersed recreation, including kayak trip starting locations, dispersed camping, recreational shooting, and river access. Salmonberry Trail goals can guide site development to be consistent with the overall project and with adjacent landowner goals.



Top of Beaverslide Road



View east to Tunnel at Beaverslide



General location of proposed campsites

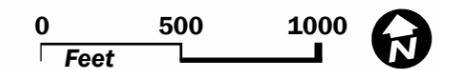
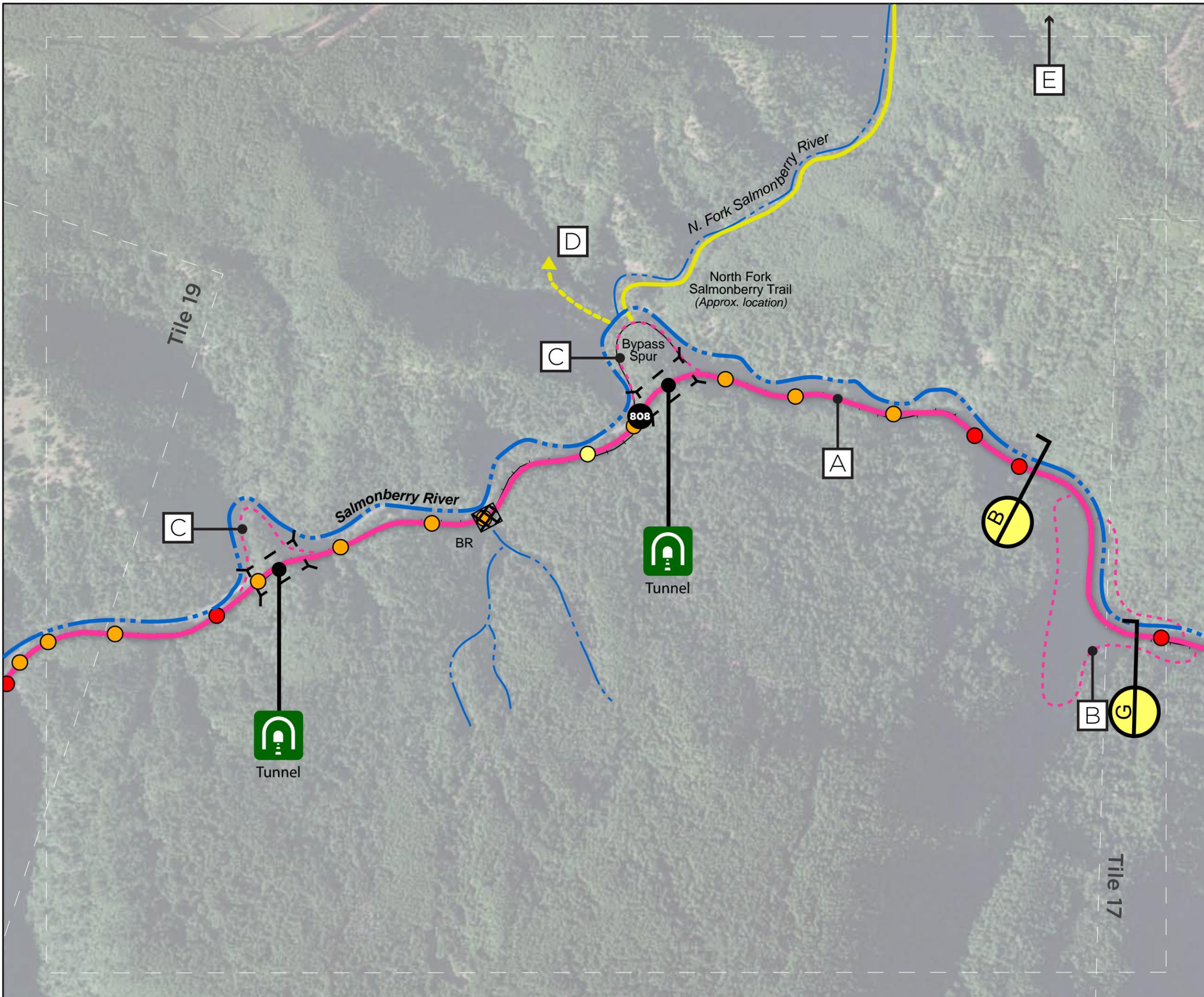
Salmonberry Trail

Tile 18: North Fork

- Salmonberry Trail
- Bypass Alternative
- Existing Trail
- Road
- 786 Milepost
- Damage Points: Severe/Moderate/Mild
- ⤵ Tunnel (See Section F)
- ⚠ Hazard
- Bridge (See Section E)
- X Section Callout

Notes

- A Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B Bypass Alternative 1: Major washout will require detour (option for low water ford detour along river in summer months)
- C Tunnel may be unsafe; at MP 808, an existing rail spur may be improved and utilized as a trail/bypass; bypass also possible for tunnel at MP 808.5
- D West Oregon Lumber Company incline railroad location. Potential interpretive opportunity.
- E Access to North Fork Trail.



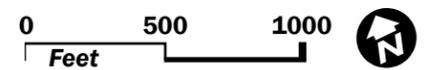
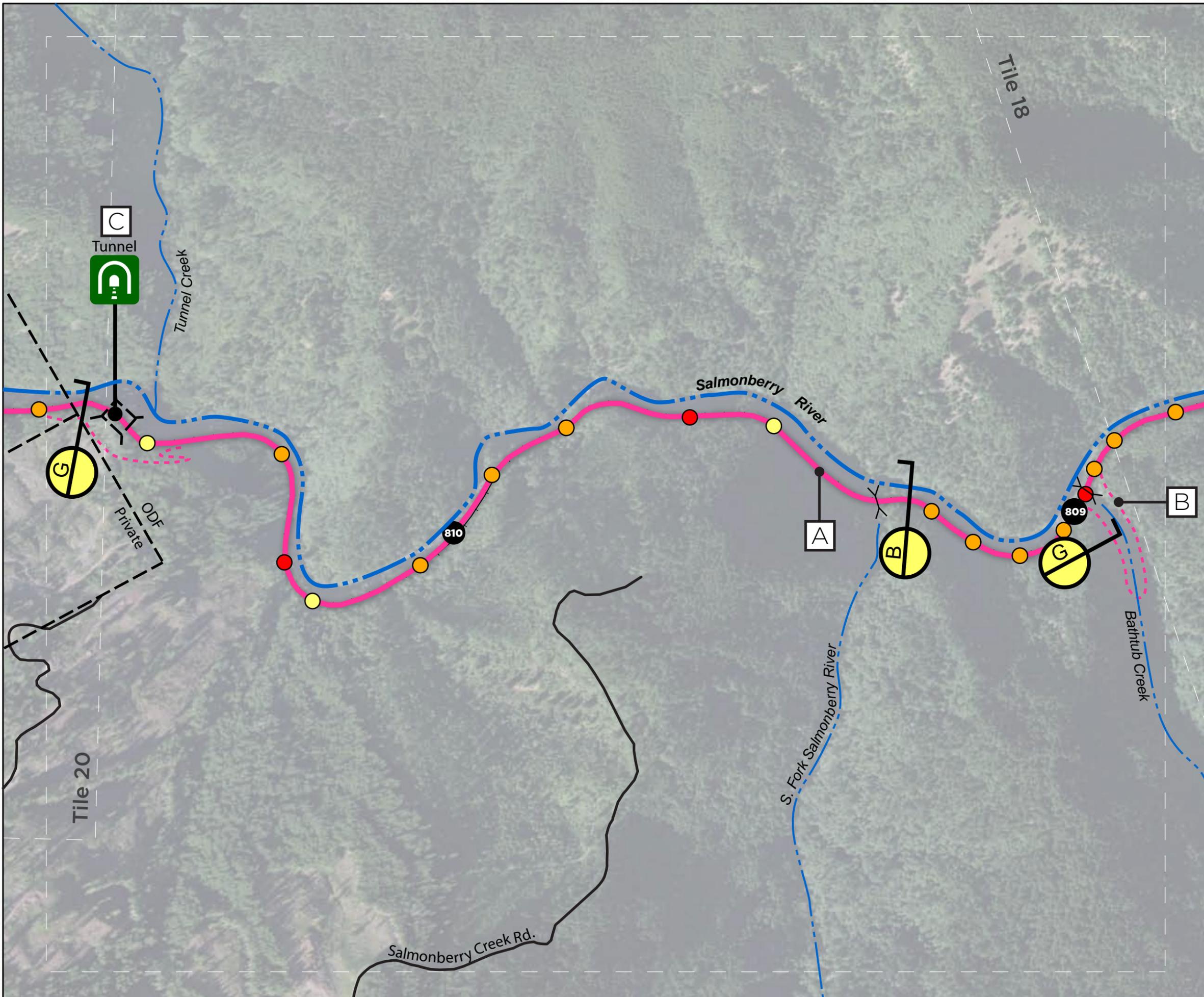
Salmonberry Trail

Tile 19: South Fork

- Salmonberry Trail
- Bypass Alternative
- Road
- Milepost (786)
- Damage Points: Severe/Moderate/Mild
- Tunnel (See Section F)
- Culvert
- Section Callout

Notes

- A** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- B** Bypass Alternative 1: Major washout will require detour or bridge replacement. Several other major washouts in this section.
- C** Bypass Alternative 2: Tunnel needs some work but in relatively good condition. Detour may be needed (as shown on map)



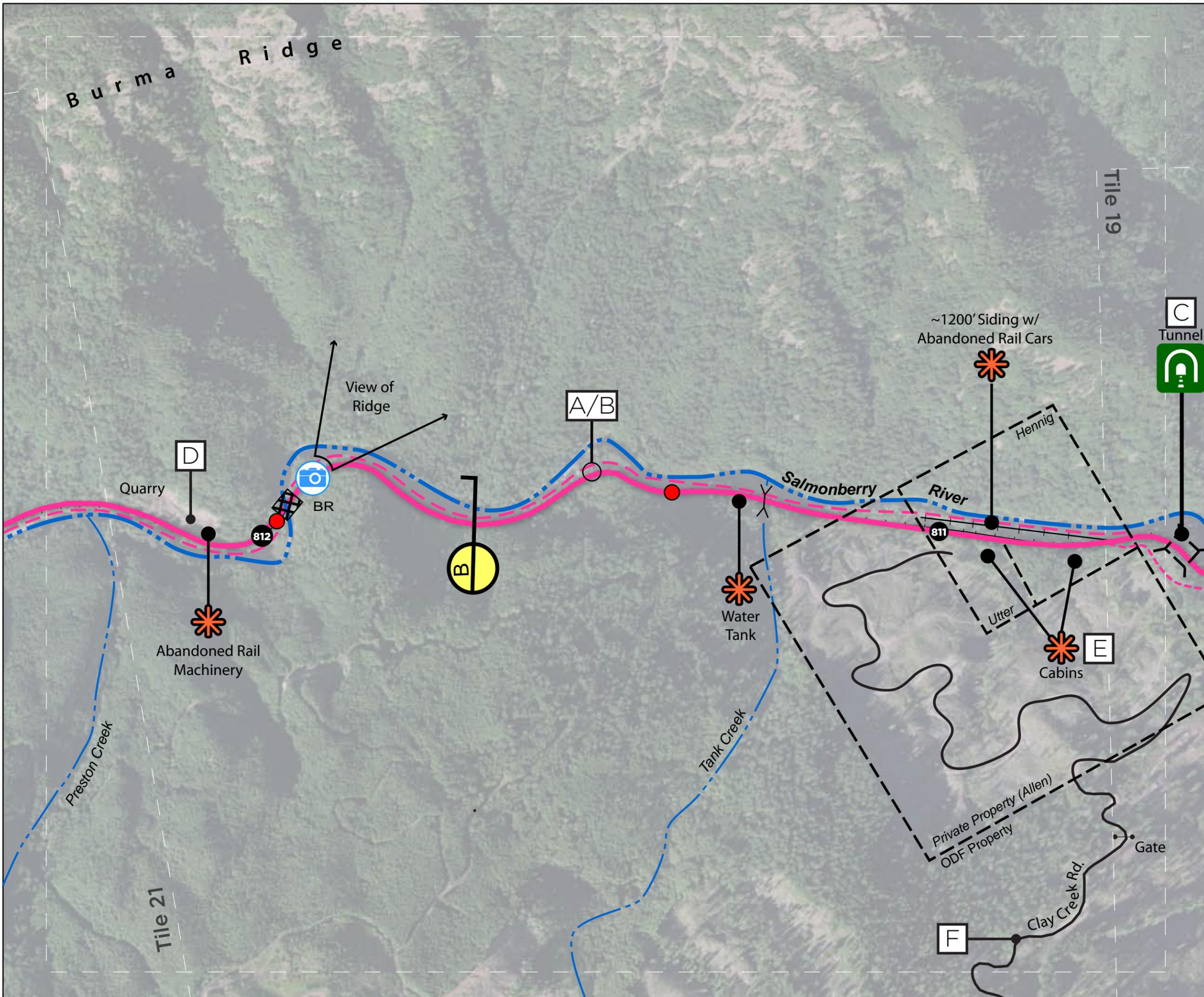
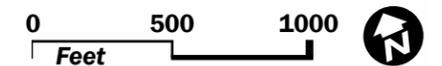
Salmonberry Trail

Tile 20: Enright

-  Salmonberry Trail
-  Conceptual Rail with Trail Alignment
-  Road
-  Milepost
-  Damage Points: Severe/Moderate/Mild
-  Viewpoint
-  Point of Interest
-  Tunnel (See Section F)
-  Culvert
-  Bridge (See Section E)
-  Section Callout

Notes

- A** Rail with Trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Bypass Alternative 1: Tunnel needs some work but in relatively good condition. Detour may be needed (schematic shown on map)
- D** Quarry may be source of trail material, permits required.
- E** Two cabins on ROW.
- F** Clay Creek Rd. provides opportunity to access Trail. Potential to establish adjacent helipad for emergency access (further study needed)



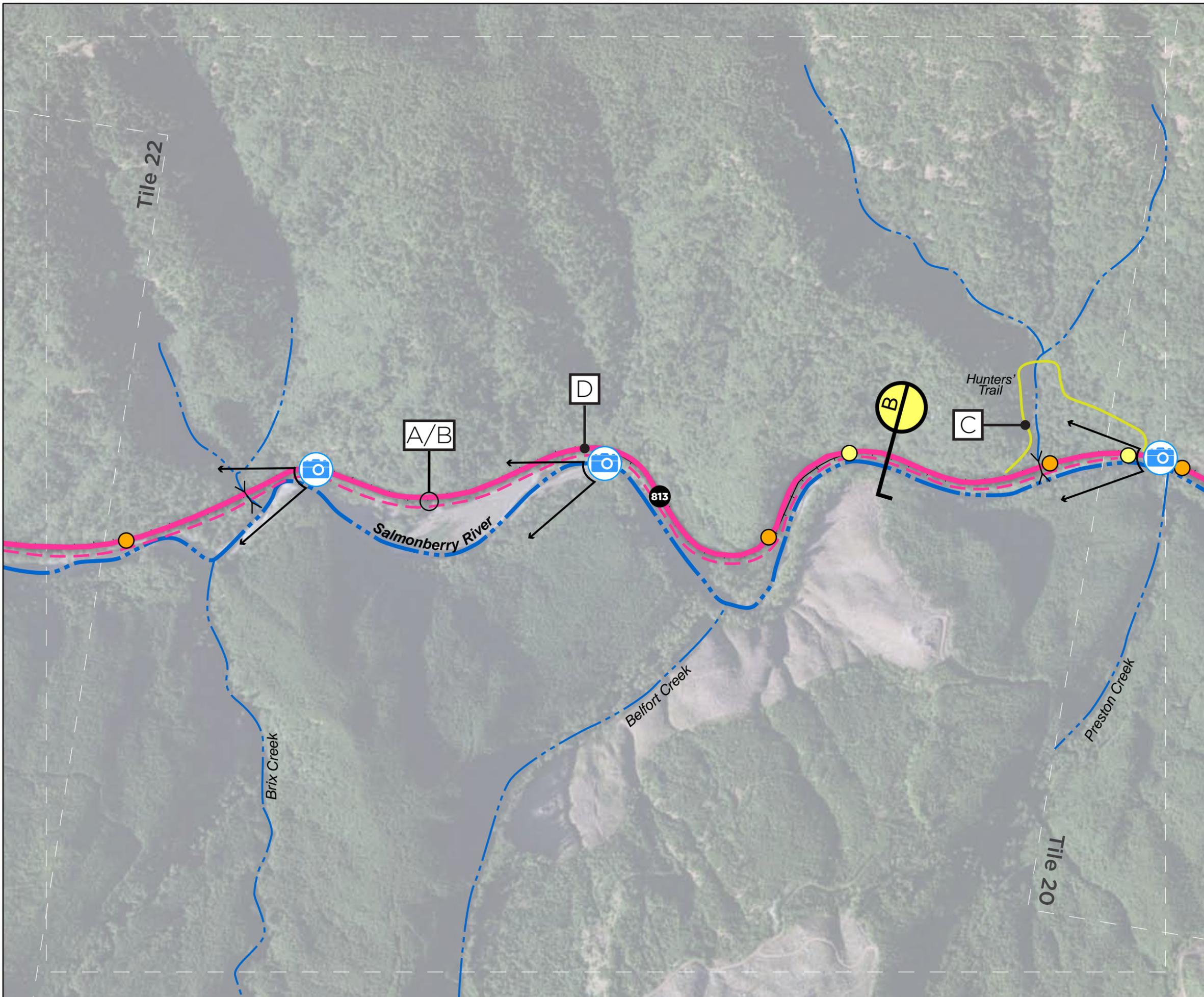
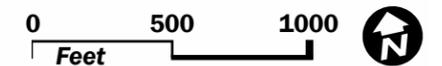
Salmonberry Trail

Tile 21: Belfort

- Salmonberry Trail
- Conceptual Rail with Trail Alignment
- Existing Trail
- Milepost 786
- Damage Points: Severe/Moderate/Mild
- Viewpoint
- Culvert
- Section Callout

Notes

- A** Rail with trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Existing unsanctioned hunter's path around washout, including bridge over creek. If this path is to be used, needs further evaluation.
- D** Expansive views of River



Salmonberry Trail

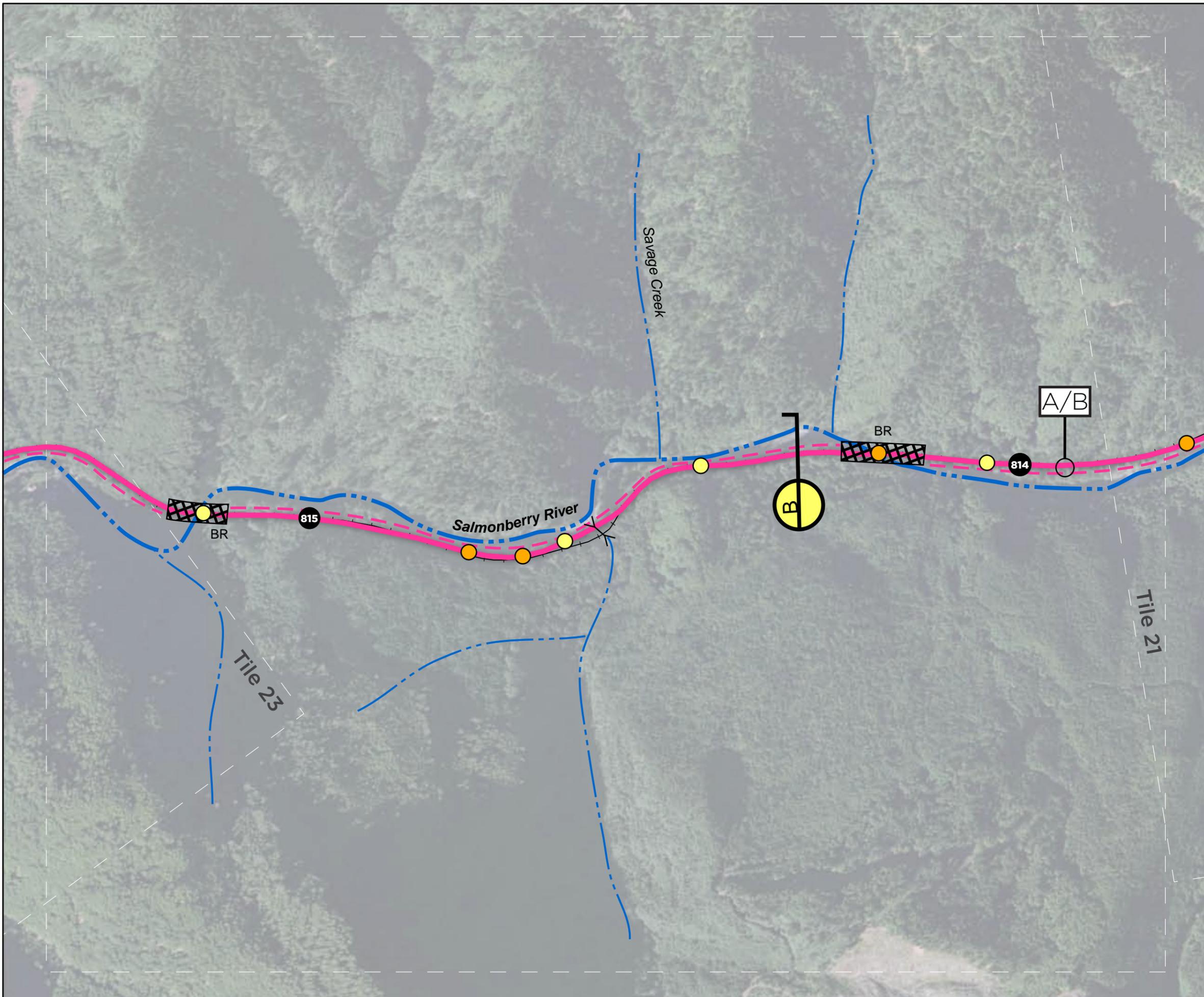
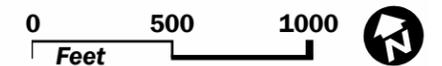
Tile 22: Bridges

- Salmonberry Trail
- Conceptual Rail with Trail Alignment
- Road
- Milepost
- Damage Points: Severe/Moderate/Mild
- Point of Interest
- Culvert
- Bridge (See Section E)
- Section Callout

Notes

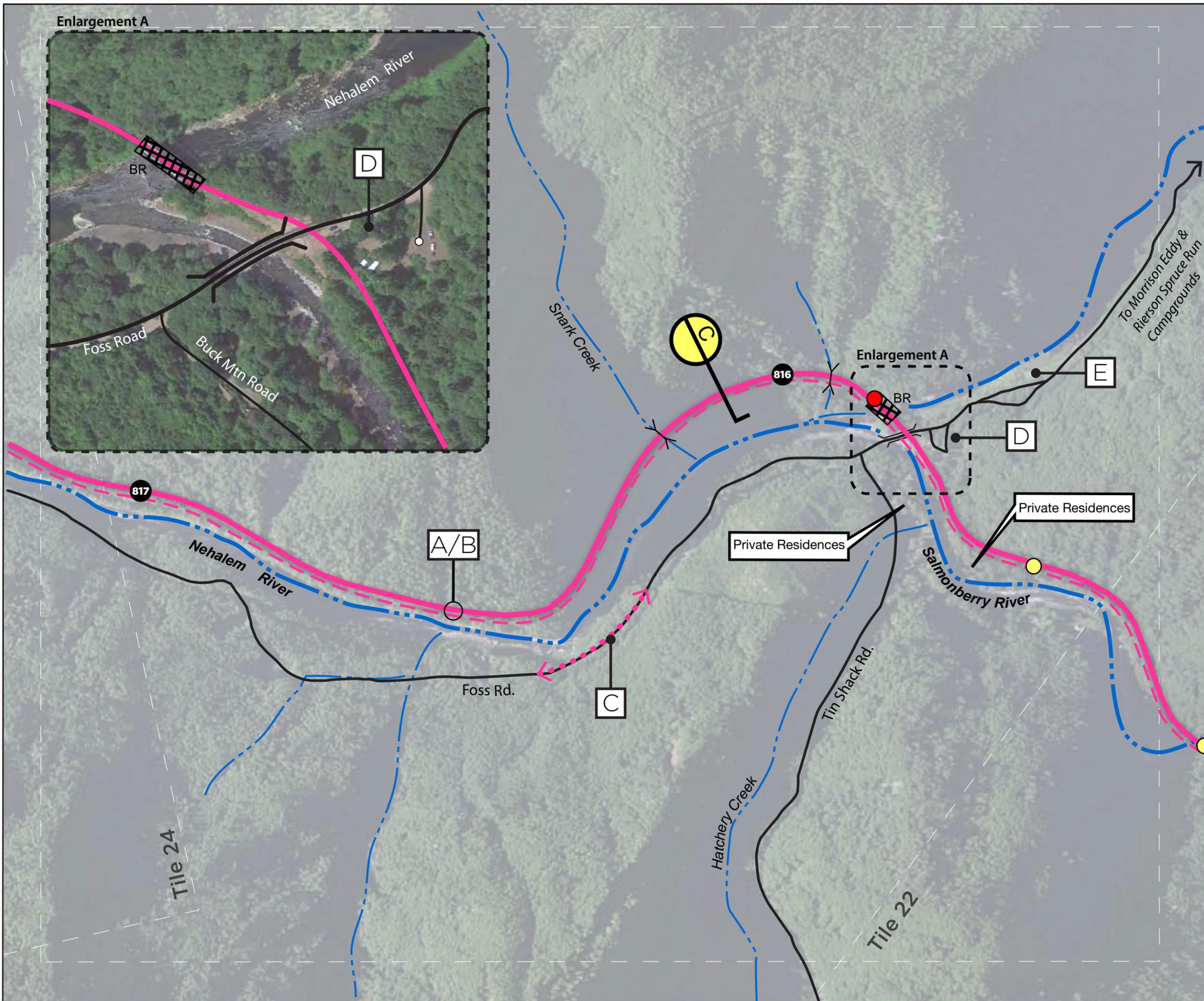
- A** Rail with Trail Alternative: Rail with trail. Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.

* OCSRR have repaired rail line to bridge at MP 814.22 (October 2014)



Salmonberry Trail

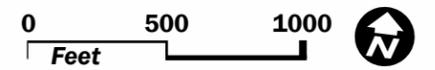
Tile 23: Confluence



- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Road
- Milepost
- Damage Points: Severe/Moderate/Mild
- Bridge (See Section E)
- Viewpoint
- Culvert
- Section Callout

Notes

- A** Rail with trail Alternative: Trail to be situated on river side of RR. Fill may be required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage alerting drivers to cyclists on roadway.
- D** Potential TH, for eastward access into Salmonberry Segment and travel on Foss Road (which will require safety enhancements). Trail wash station recommended to deter knotweed (See Tile 23A)
- E** Existing dispersed camping site could be enhanced for trail users or converted to additional TH parking, including equestrian.



Salmonberry Trail

Tile23A: Confluence
Trailhead



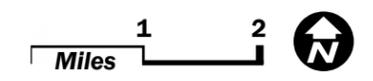
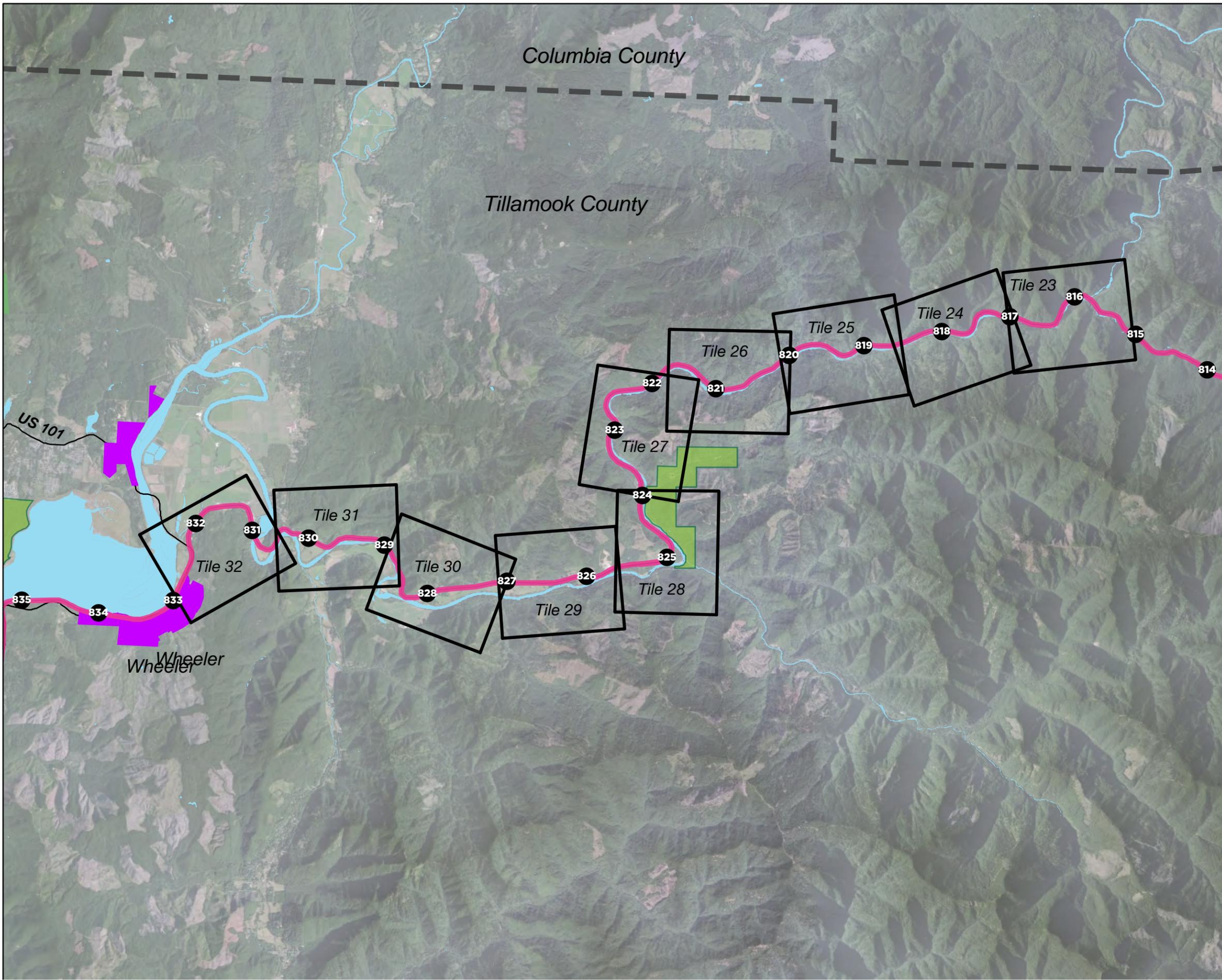
Looking east from Foss Road bridge

Existing cabins on ROW will require continued access

Salmonberry Trail

Nehalem Segment

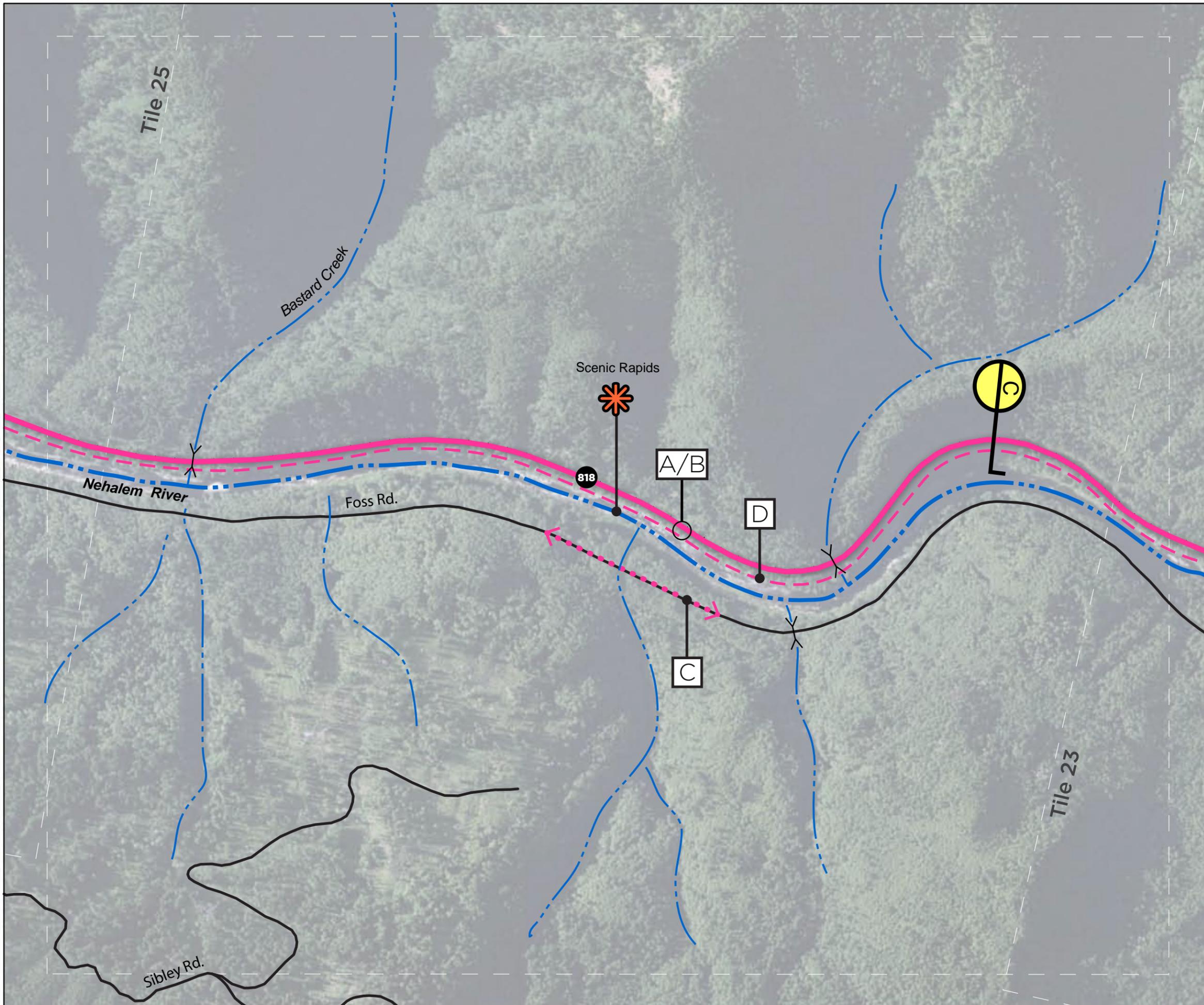
- Salmonberry Trail
- Cities
- Highways
- Oregon State Parks
- County Line



Salmonberry Trail

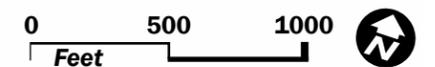
Tile 24: Rapids

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Road
- Milepost 786
- Culvert
- Section Callout



Notes

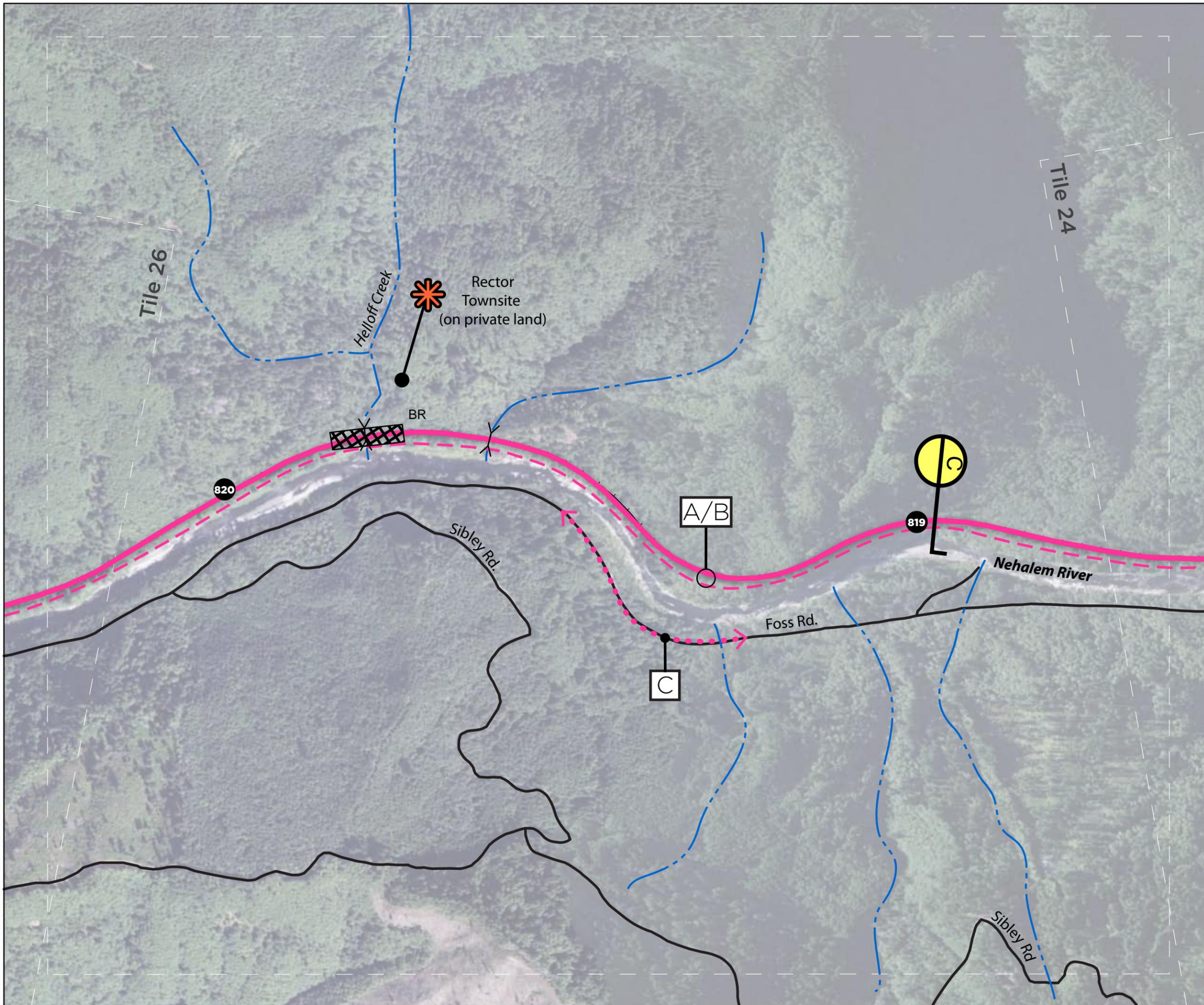
- A** Rail with trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage alerting drivers to cyclists on roadway. Foss Road washed out in 2012. Repaired, but washout dangers remain. Bike use of Foss Road may require widening and safety improvements.
- D** Area features long flat scenic stretches adjacent to RR. Potential designated hike-in campsite locations (all of which require further study).



Salmonberry Trail

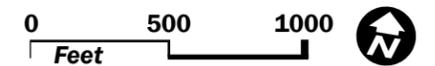
Tile 25: Helloff Creek

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Road
- Milepost
- Culvert
- Section Call
- Bridge (See Section E)



Notes

- A** Rail with trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage alerting drivers to cyclists on roadway.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



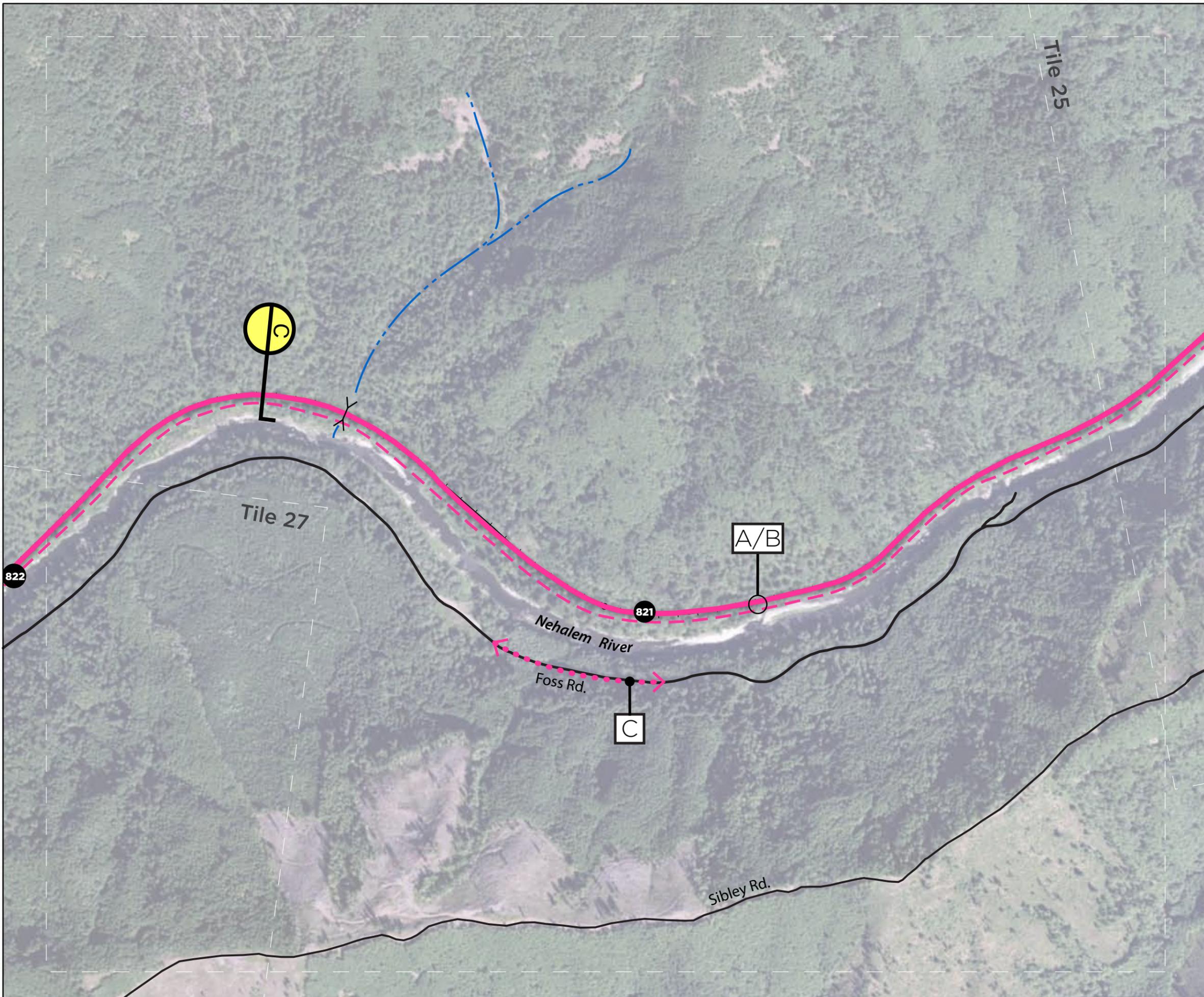
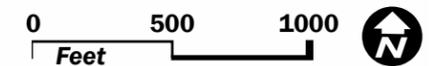
Salmonberry Trail

Tile 26: Foss Road

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Road
-  Milepost
-  Culvert
-  Section Callout

Notes

- A** Rail with trail Alternative: Trail to be situated on river side of RR. Potential fill may be required for desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage alerting drivers to cyclists on roadway.



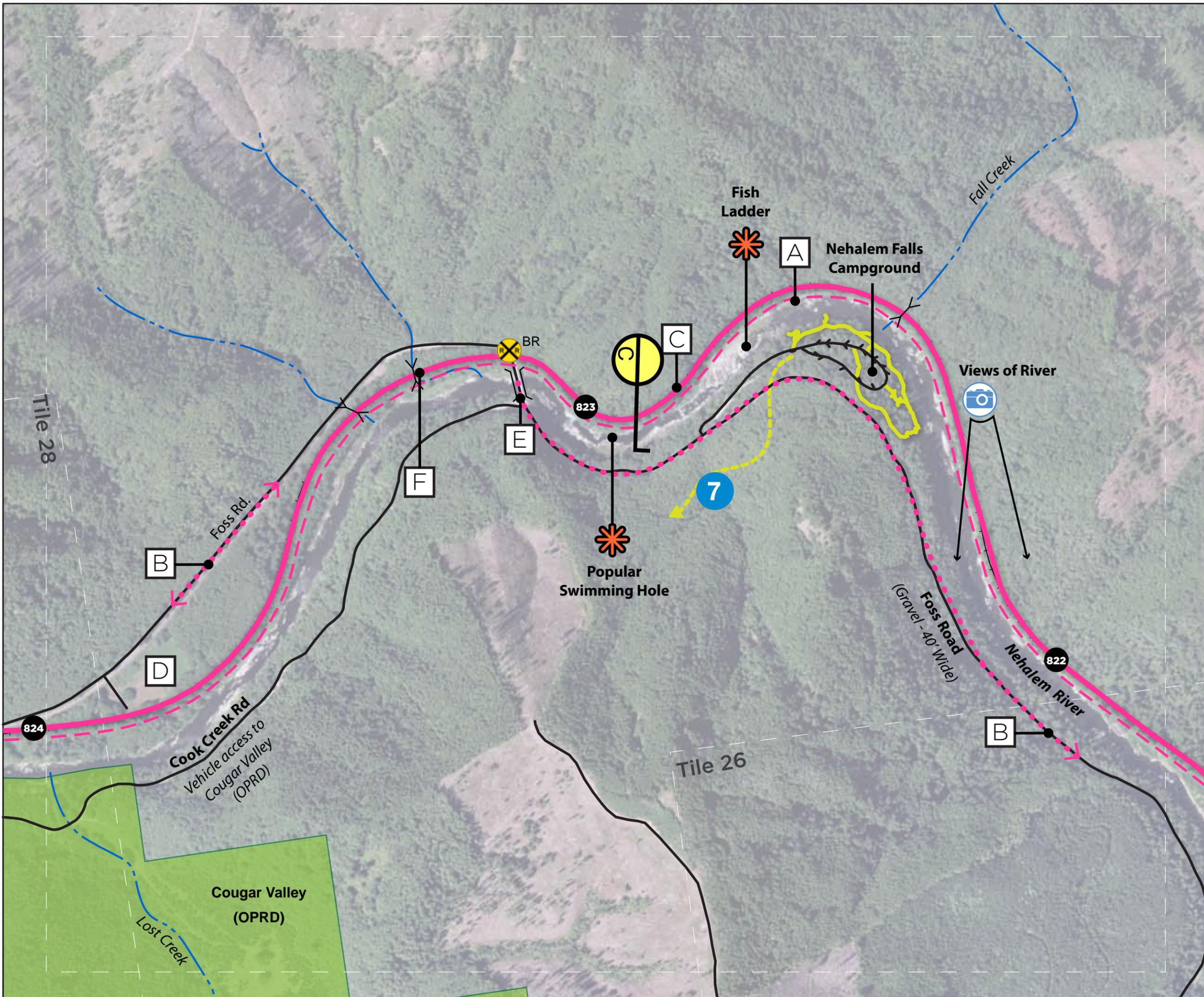
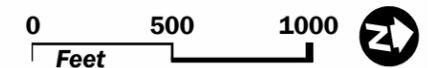
Salmonberry Trail

Tile 27: Nehalem Falls

- Salmonberry Trail
- - - Conceptual Rail w Tail Alignment
- · · · · Bypass Alternative
- Existing Trail
- Road
- 786 Milepost
- ● ● Damage Points: Severe/Moderate/Mild
- 📷 Viewpoint
- RR Railroad Crossing
- ✱ Point of Interest
- ⌵ Culvert
- Public Property
- X Section Callout

Notes

- A Rail with Trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage alerting drivers to cyclists on roadway.
- C Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D Nehalem Guard Station (with helipad) on state land. Potential trailhead (there was once a bridge across river here)
- E Bridge crossing at MP 823 is a critical point of vehicular access to Trail. Potential trailhead location.
- 7 Potential catalyst project: Build already-planned trail connection to Cougar Valley area and Nehalem Falls Campground.



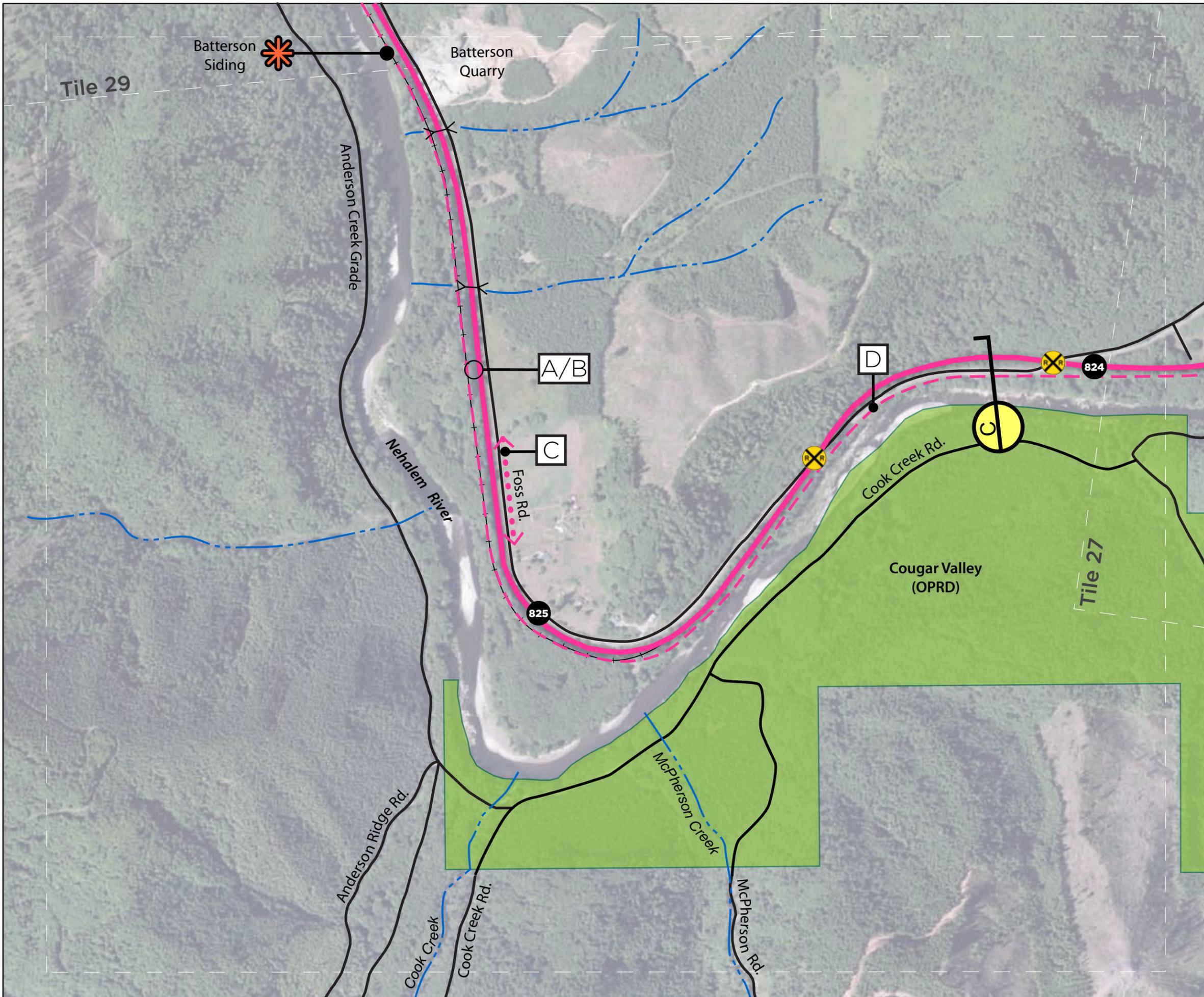
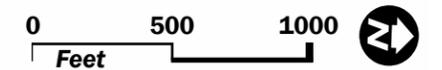
Salmonberry Trail

Tile 28: Cougar Valley

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trail
- Road
- 786 Milepost
- Damage Points: Severe/Moderate/Mild
- X Railroad Crossing
- * Point of Interest
- X Culvert
- Public Property
- X Section Callout

Notes

- A Rail with Trail Alternative: Rail with trail. Trail to be situated on river side of RR. Potential fill required to achieve desired trail width. Potential to use Batterson siding for trail.
- B Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C Bypass Alternative 1: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage and safety on roadway.
- D Beaverslide Boat Launch



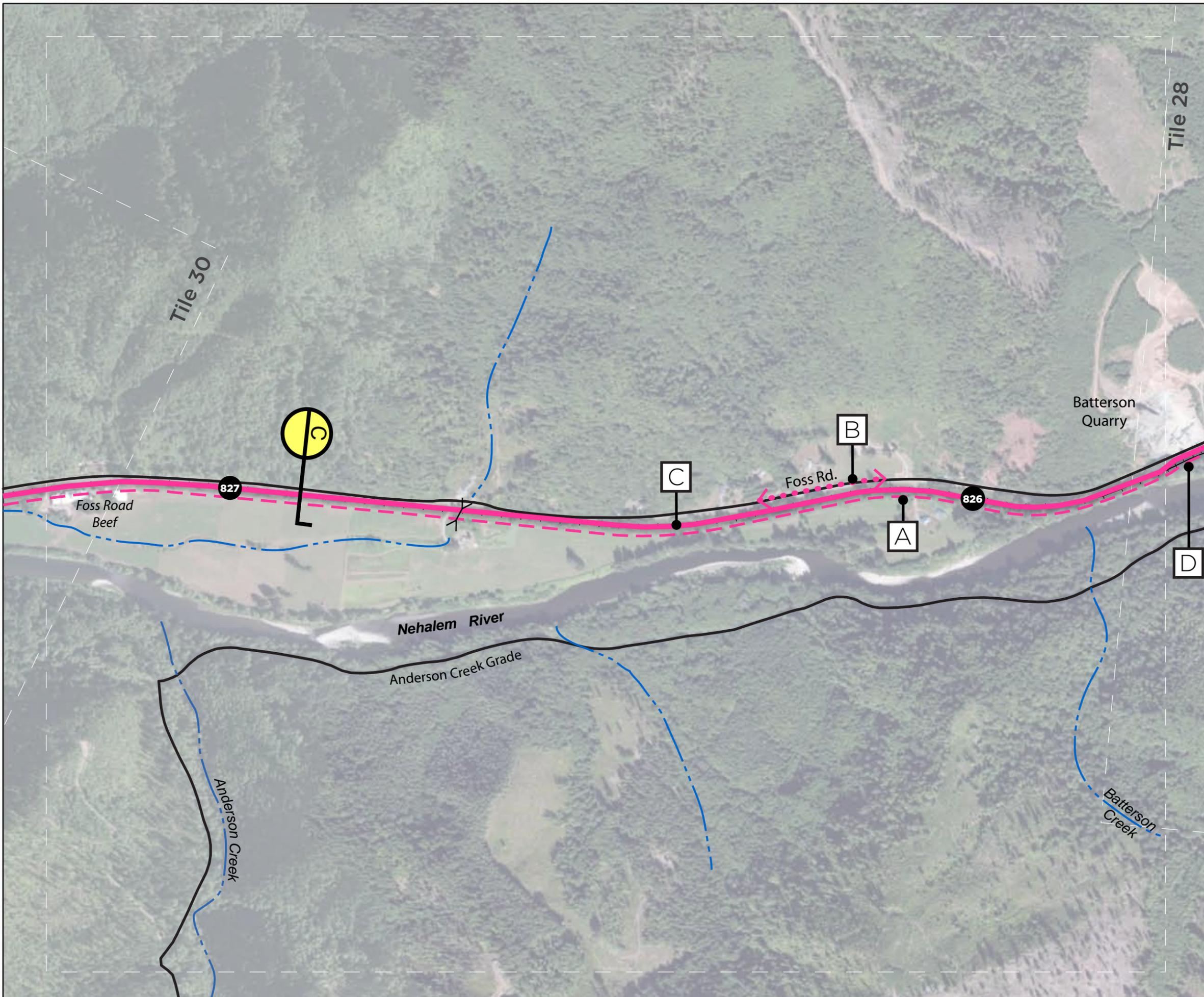
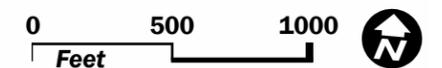
Salmonberry Trail

Tile 29: Batterson

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Road
-  Milepost
-  Culvert
-  Section Callout

Notes

- A** Rail with Trail Alternative: Trail to be situated on river side of RR. Potential fill required to achieve desired trail width.
- B** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage and safety on roadway.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** Rail with trail Option: Trail to occupy siding alongside active rail.



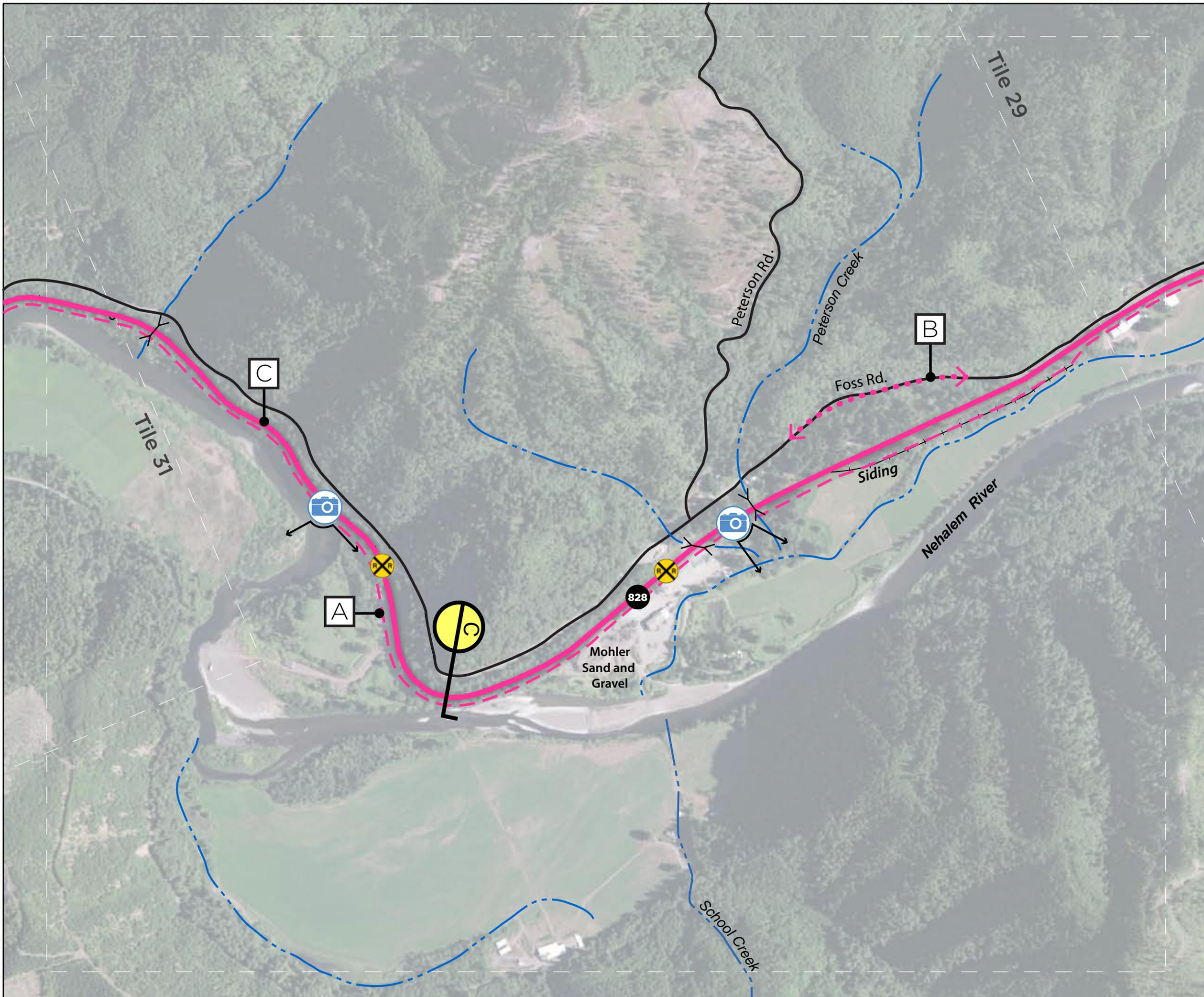
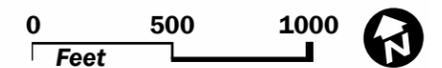
Salmonberry Trail

Tile 30: Mohler

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Road
- Milepost 786
- Viewpoint
- Railroad Crossing
- Culvert

Notes

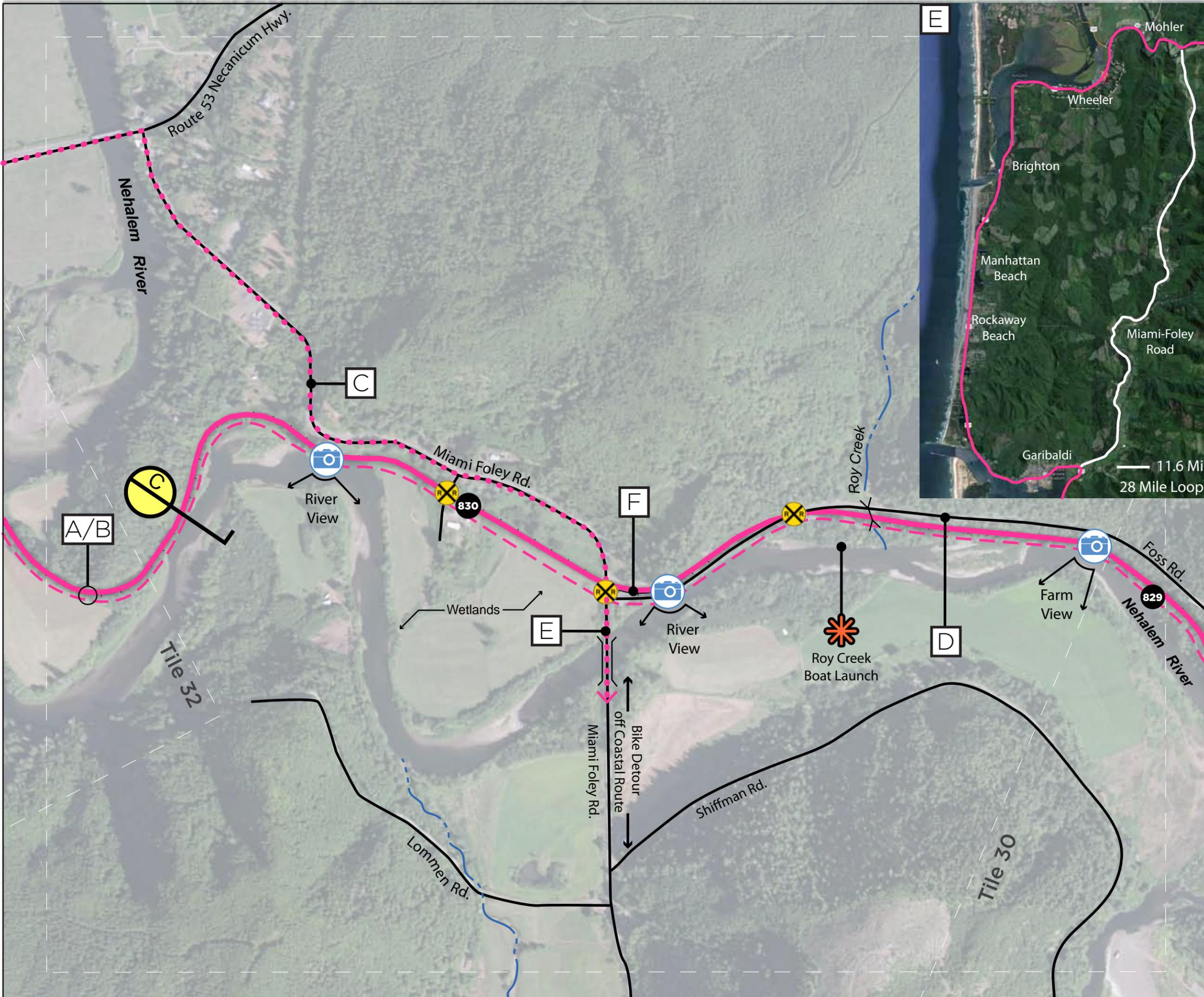
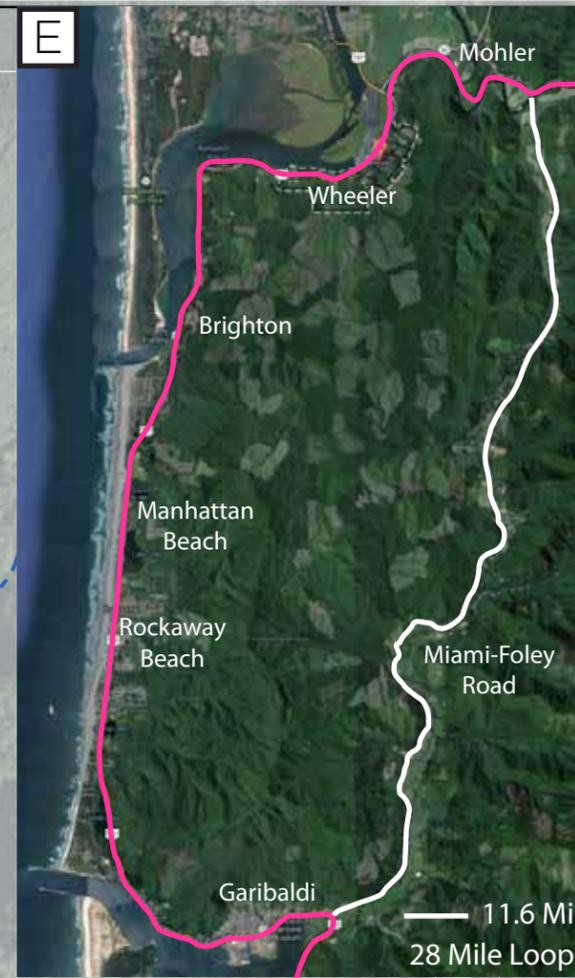
- A** Rail with Trail Alternative: Trail to be situated on river side of RR. Potential fill in wetland environment required to achieve desired trail width. Use of siding at MP 827.5 for trail possible if not needed by OCSRR.
- B** Bypass Alternative: Designate Foss Rd. from Miami Foley Rd. to confluence with Salmonberry River as an alternate bike route. Improve signage and safety on roadway.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



Salmonberry Trail

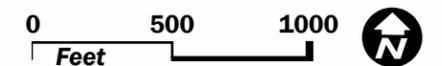
Tile 31: Roy Creek

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Road
- Milepost
- Viewpoint
- Railroad Crossing
- Point of Interest
- Culvert
- Public Property
- Section Callout



Notes

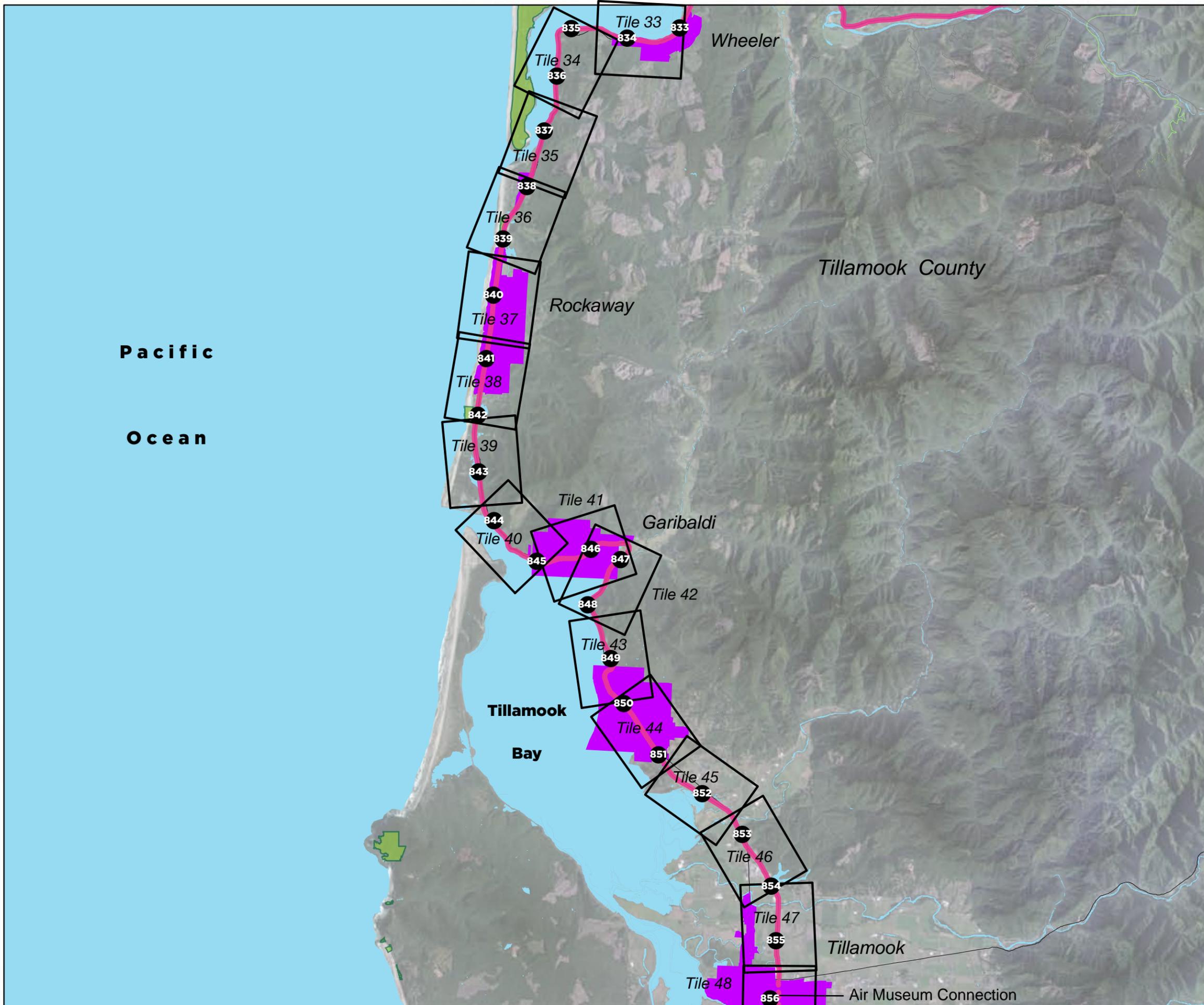
- A** Rail with Trail Alternative: Trail to be situated on river side of RR. Potential fill in wetland environment required to achieve desired trail width.
- B** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Bypass Alternative 1: Potential bike detour from RR alignment utilizing Miami Foley Rd. to Route 53 to bypass RR bridge over the Nehalem River. Rejoin RR ROW at Mohler (Tile 32).
- D** Bypass Alternative 2: Designate Foss Rd. from Miami Foley Rd. to confluence (Tile 23) as an alternate bike and hike route. Improve signage and safety on roadway.
- E** Potential bicycle circuit to Garibaldi via Miami Foley Rd. and coastal segment of RR corridor.
- F** Potential trailhead in ROW



Salmonberry Trail

Coastal Segment

- Salmonberry Trail
- Cities
- Highways
- Oregon State Parks
- County Line



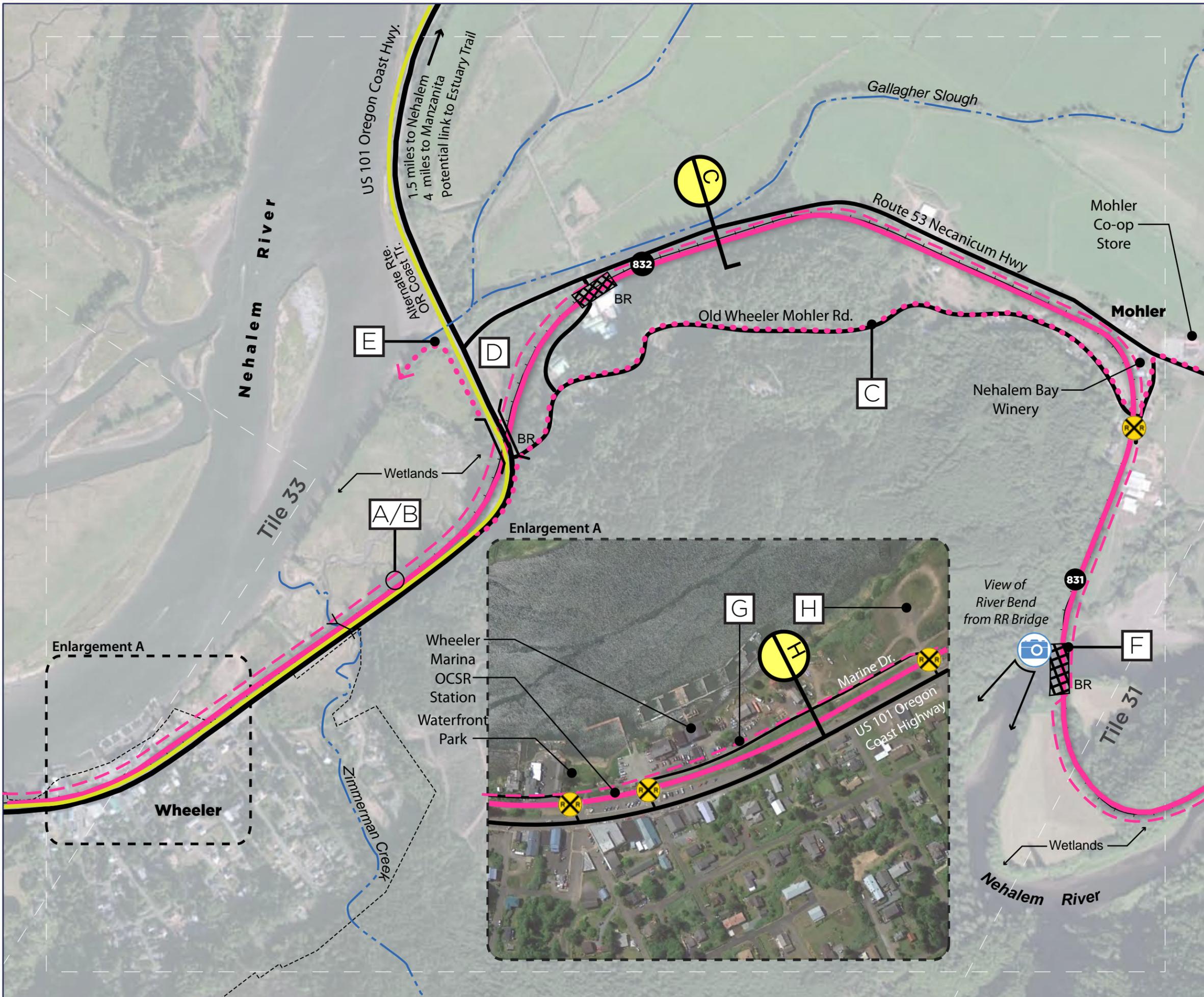
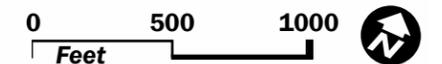
Salmonberry Trail

Tile 32: Wheeler

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trails
- City Limits
- Road
- 786 Milepost
- 📷 Viewpoint
- X Railroad Crossing
- X Culvert
- Bridge (See Section E)
- X Section Callout

Notes

- A Rail with Trail Alternative: Trail to be situated on Bay side of RR. Potential fill required to achieve desired trail width.
- B Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C Bypass Alternative: Potential detour from RR alignment utilizing Route 53 to Miami Foss Rd. to bypass RR bridge over the Nehalem River. Rejoin RR ROW at Foss Rd. (Tile 31)
- D Potential trailhead at intersection of US101 and Route 53.
- E Potential trail detour on Botts Marsh Dike, Further study required.
- F Bridge and elevated RR constricted by adjacent wetlands. Further study required to achieve rail with trail option.
- G RWT Trail to utilize Marine Drive through Wheeler
- H Planned city park and trailhead (Currently seeking acquisition funds)



Nehalem River

Tile 33

Tile 31

Wheeler

Nehalem River

US 101 Oregon Coast Hwy.
1.5 miles to Nehalem
4 miles to Manzanita
Potential link to Estuary Trail

Gallagher Slough

Route 53 Necanicum Hwy

Mohler Co-op Store

Mohler

Old Wheeler Mohler Rd.

Nehalem Bay Winery

Wetlands

Enlargement A

View of River Bend from RR Bridge

Wheeler Marina
OCSR Station
Waterfront Park

Marine Dr.
US 101 Oregon Coast Highway

Wetlands

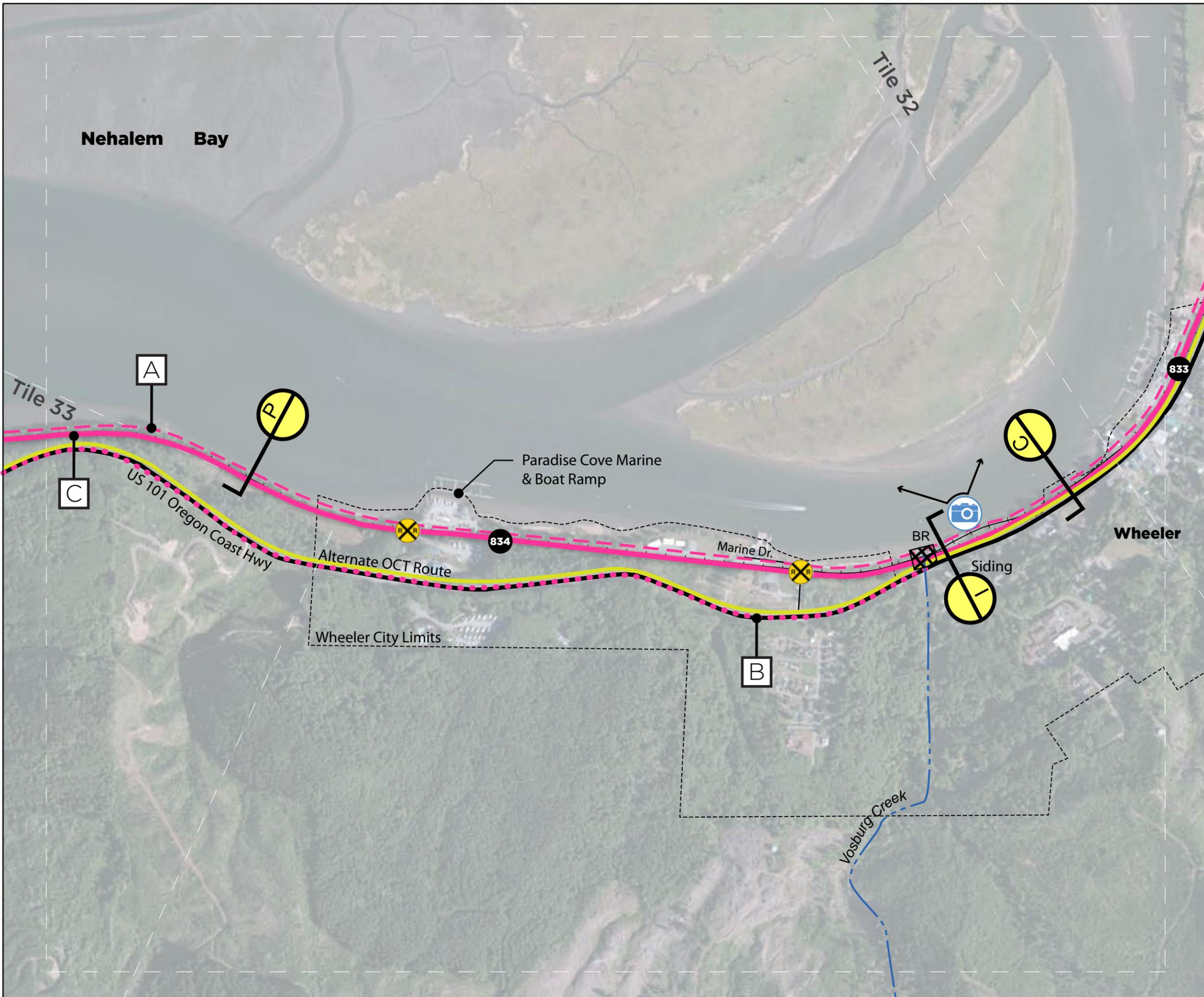
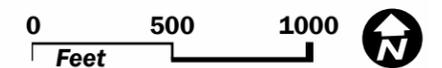
Salmonberry Trail

Tile 33: Vosburg Creek

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Existing Trails
-  City Limits
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Culvert
-  Bridge (See Section E)
-  Section Callout

Notes

- A** Rail with Trail Alternative: Trail to be situated on ocean side of RR. Potential fill required to achieve desired trail width constrained between rail and Nehalem Bay.
- B** Bypass Alternative: Potential detour from RR alignment utilizing expanded shoulder of US101 to avoid fill requirement for rail with trail in constrained condition between Nehalem Bay and wetlands.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



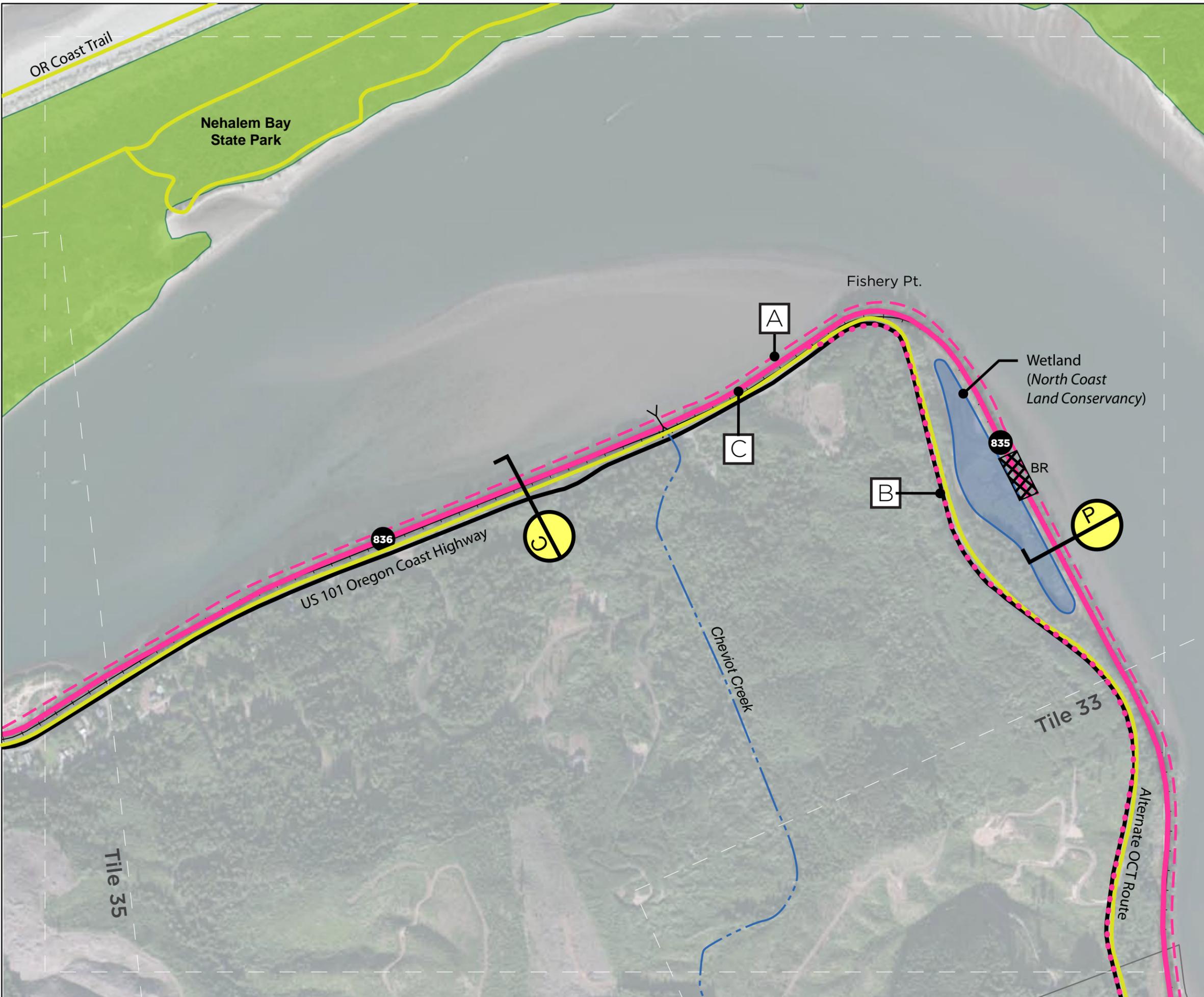
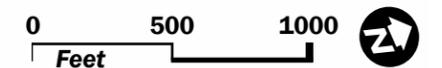
Salmonberry Trail

Tile 34: Nehalem Bay

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trails
- City Limits
- Road
- Milepost
- Culvert
- Bridge (See Section E)
- Public Property
- Section Callout

Notes

- A** Rail with Trail Alternative: Trail to be situated on ocean side of RR. Potential fill required to achieve desired trail width.
- B** Bypass Alternative: Potential detour from RR alignment utilizing expanded shoulder of US101 to avoid fill requirement for rail with trail in constrained condition between Nehalem Bay and wetlands.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



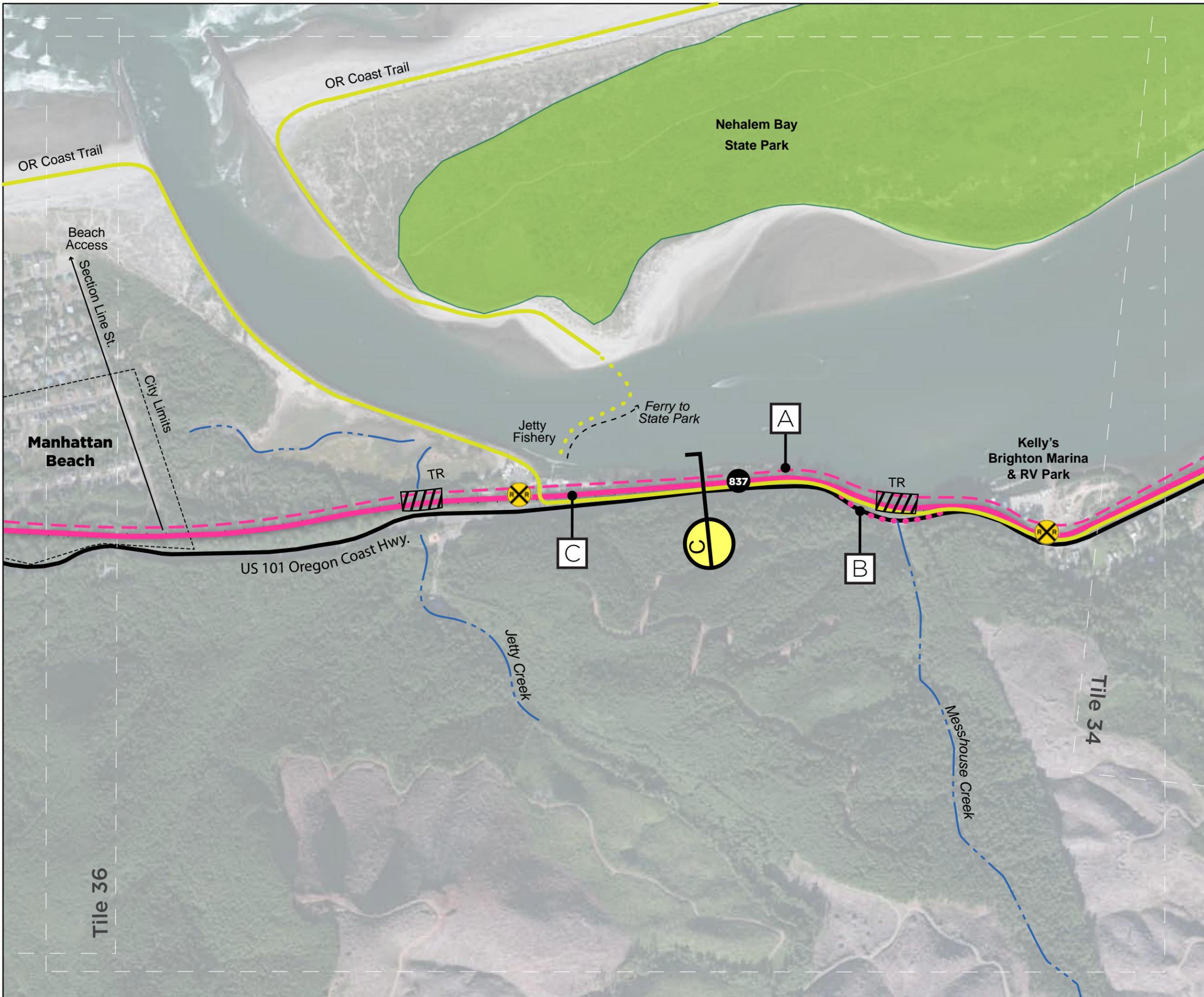
Salmonberry Trail

Tile 35: Nehalem Bay Mouth

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Existing Trails
-  City Limits
-  Road
-  Milepost
-  Railroad Crossing
-  Point of Interest
-  Culvert
-  Trestle (See Section D)
-  Public Property
-  Section Callout

Notes

- A** Rail with Trail Alternate: Trail to be situated on ocean side of RR. Potential fill required to achieve desired trail width.
- B** Bypass Alternative: Potential detour from RR alignment utilizing expanded shoulder of US101 until trestle improvements allow for shared use by trail users and RR.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



Salmonberry Trail

Tile 36: Manhattan Beach

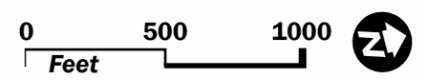


- Salmonberry Trail
- - - Conceptual Rail w Trail Alignment
- Existing Trail
- City Limits
- Road
- 786 Milepost
- X Railroad Crossing
- X Bridge (See Section E)
- Public Property
- X Section Callout

Notes

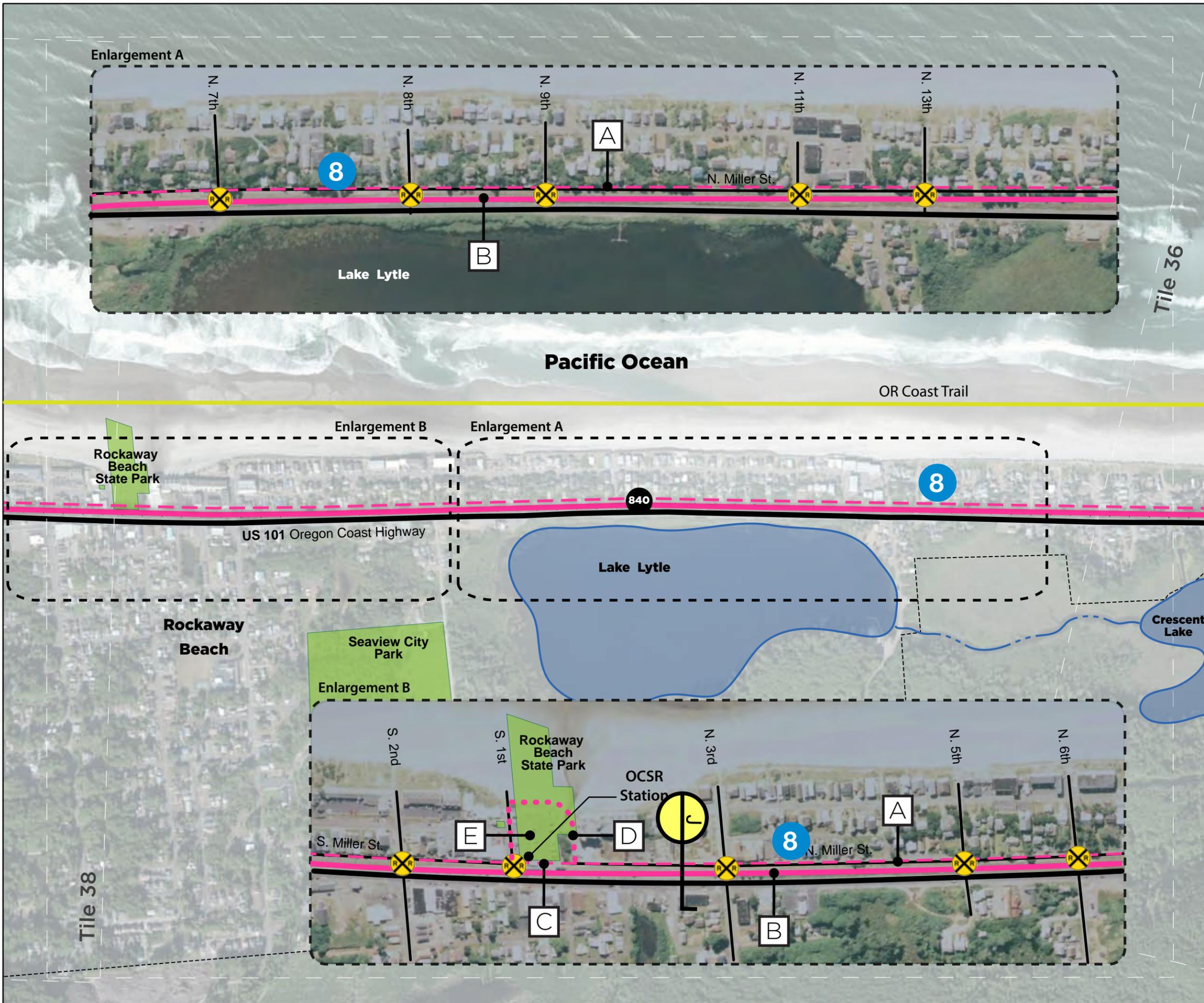
- A** Rail with Trail Alternative: Trail to be situated on ocean side of RR. Potential fill required to achieve desired trail width next to sensitive wetland area.
- B** Rail with Trail Alternative: Trail to occupy frontage road (within rail ROW). Further study needed.
- C** Rail with Trail Alternative: New section of trail required to connect disconnected segments of frontage road (within rail ROW).
- D** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.

* All options provide potential Safe Routes to Schools alternatives.



Salmonberry Trail

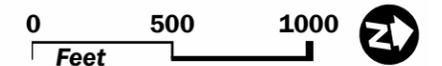
Tile 37: Rockaway



- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trail
- City Limits
- Road
- Milepost
- Railroad Crossing
- Public Property
- Section Callout

Notes

- A** Rail with Trail Alternative: Trail to occupy continuous frontage road within rail ROW (Miller St).
- B** Rail to Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- C** Rail with Trail: Trail to navigate Rockaway Beach S.P. frontage with US101. Further study needed.
- D** Rail with Trail Option: Trail to circumnavigate Rockaway Beach SP. Further study needed.
- E** Existing parking/trailhead
- 8** Potential catalyst project: Develop shared roadway to connect downtown Rockaway with Manhattan Beach SP and Neahkahnie HS/MS



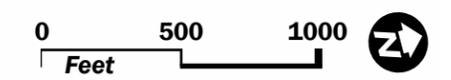
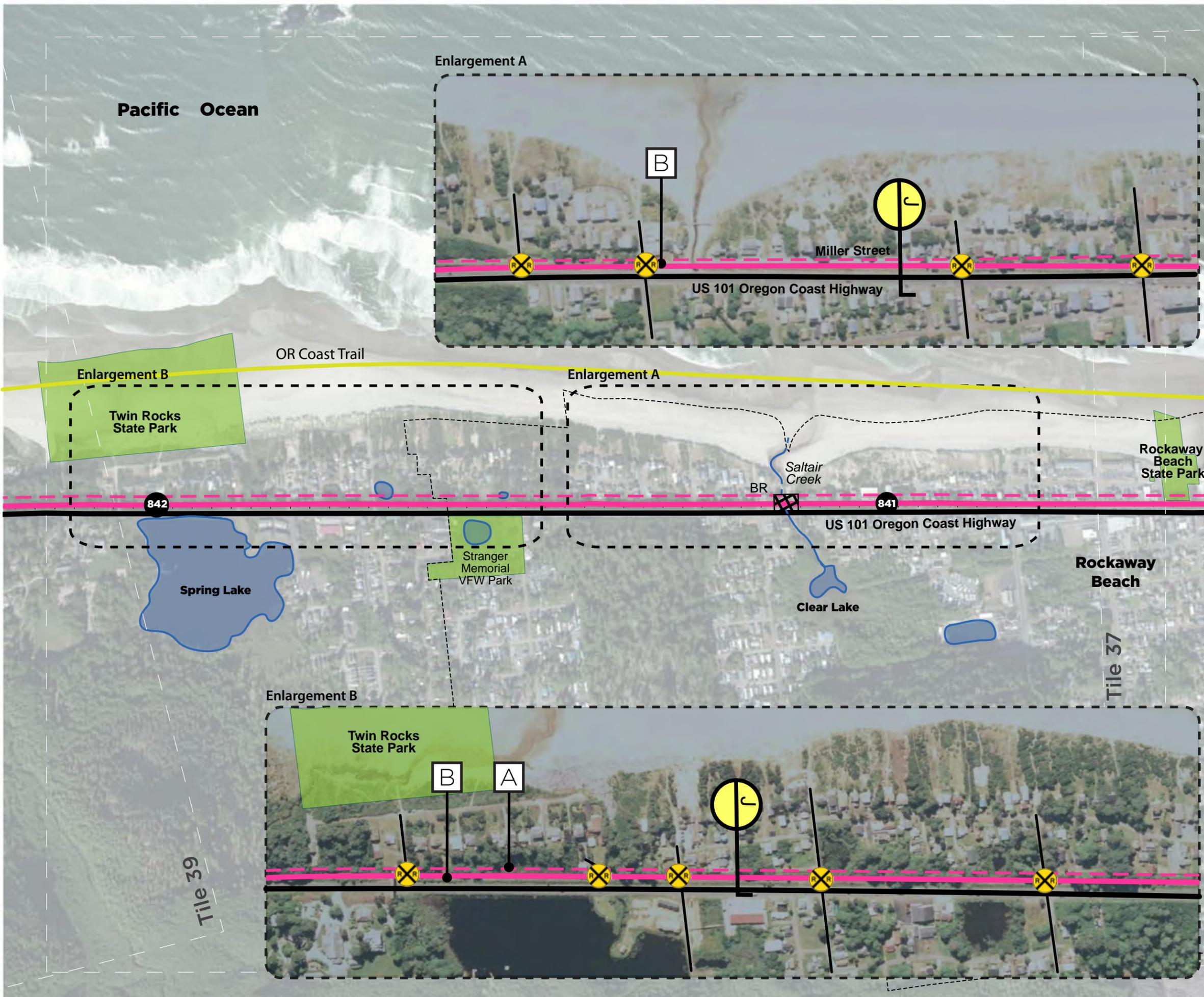
Salmonberry Trail

Tile 38: Twin Rocks

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Existing Trail
- City Limits
- Road
- 786 Milepost
- X Railroad Crossing
- Bridge (See Section E)
- Public Property
- X Section Callout

Notes

- A Rail with Trail Alternative: Trail to occupy frontage road within POTB ROW (Miller St.) where possible
- B Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.



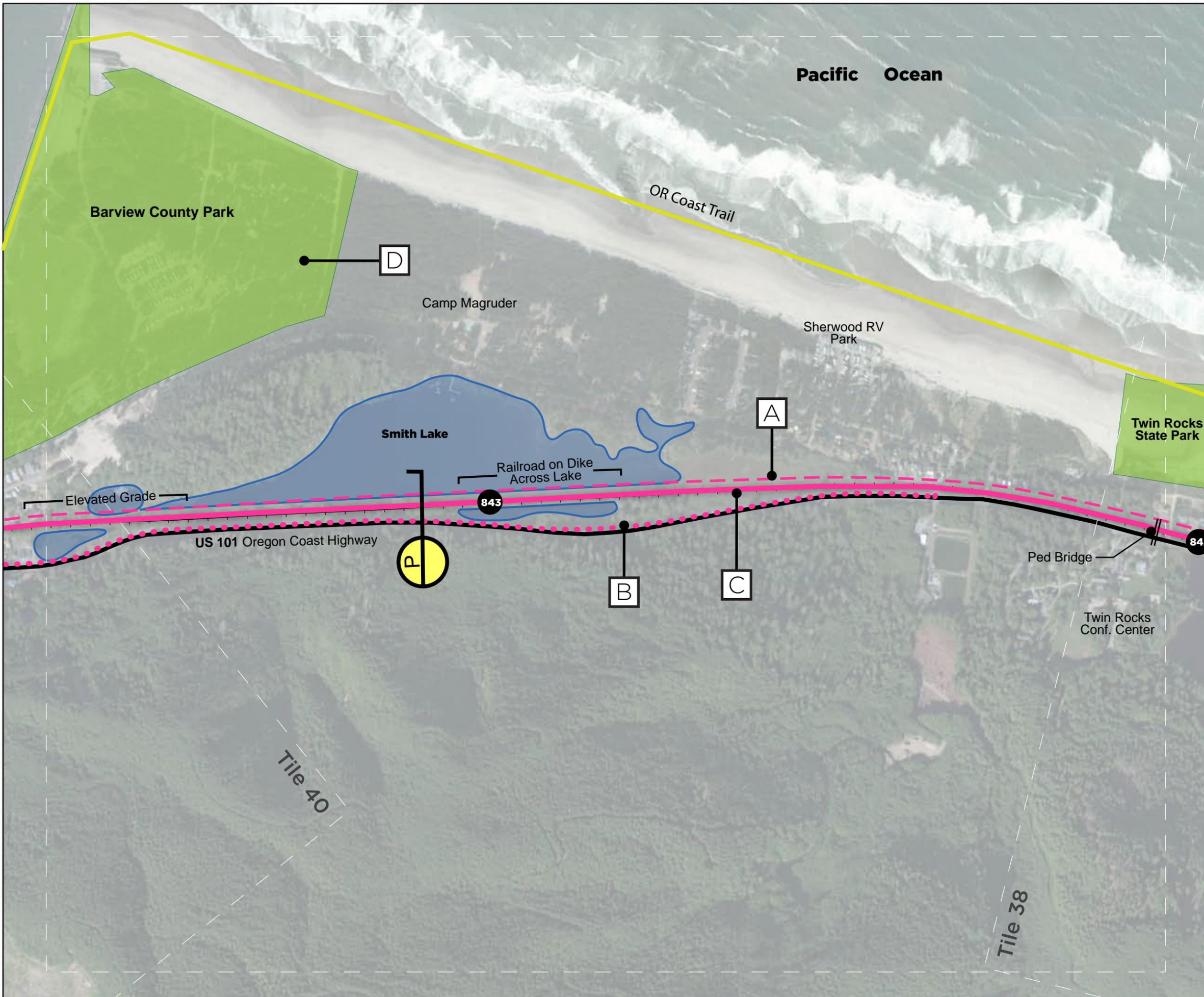
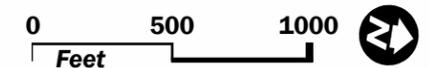
Salmonberry Trail

Tile 39: Camp Magruder

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trail
- Road
- Milepost
- Public Property
- Section Callout

Notes

- A** Rail with Trail Alternative: Fill required adjacent to RR to allow for rail with trail. Elevated RR grade is severely constrained at Spring Lake.
- B** Bypass Alternative: Alternate trail alignment to occupy expanded shoulder on US 101 to avoid private property at Smith Lake
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** Camping, Parking and Trailhead location at Barview Co. Park



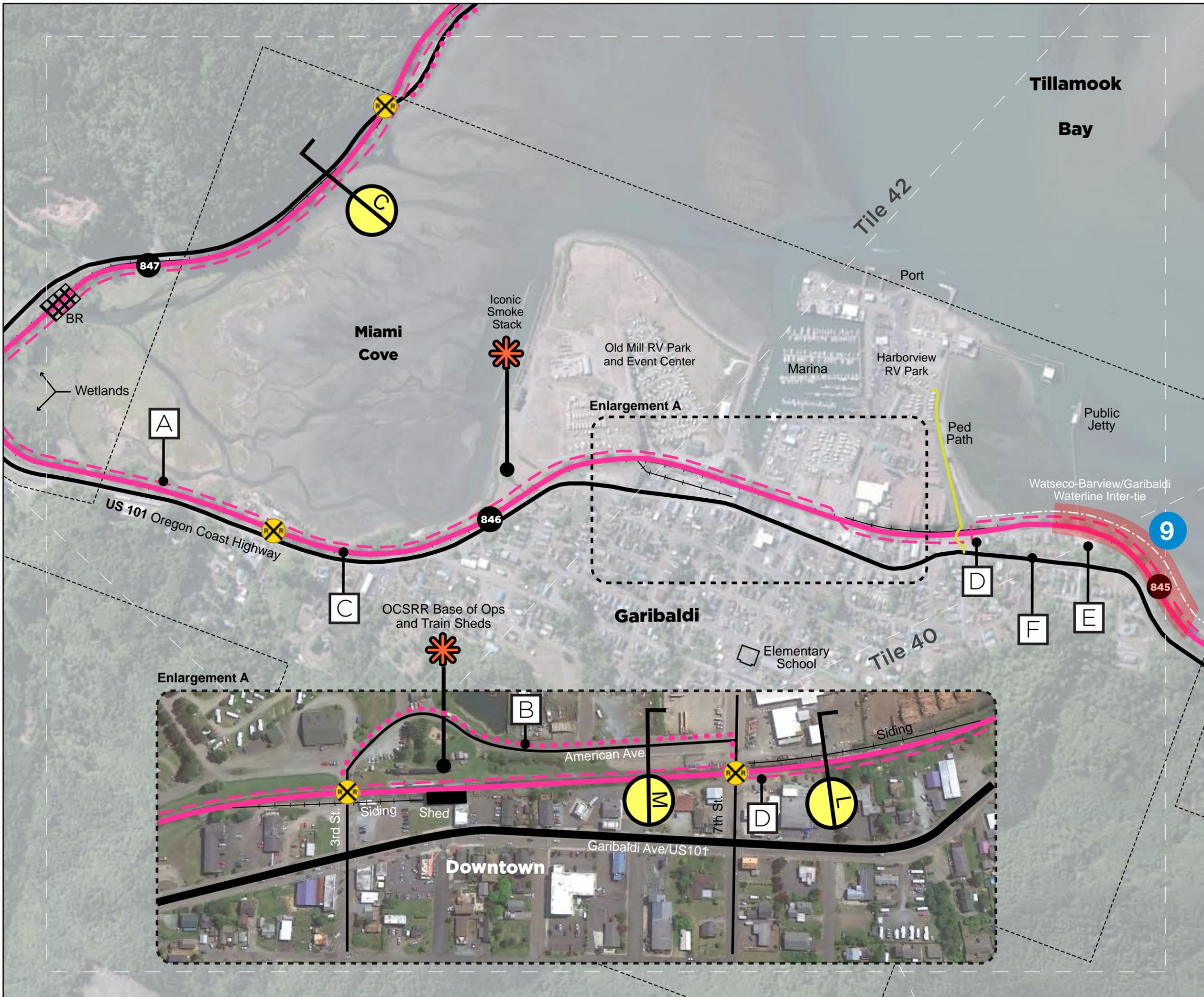
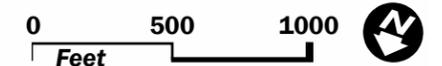
Salmonberry Trail

Tile 41: Garibaldi

- Salmonberry Trail
- - - Conceptual Rail w Trail Alignment
- Bypass Alternative
- Existing Trail
-  City Limits
-  Road
-  Milepost
-  Railroad Crossing
-  Point of Interest
-  Hazardous Roadway/Narrow Shoulder
-  Section Callout

Notes

- A** Rail with Trail Alternative: Potential fill required adjacent to RR to allow for rail with trail.
- B** Bypass Alternative: Alternate trail alignment to occupy American Ave to avoid operational requirements of RR
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** Rail with trail option: trail to cross over the RR alignment as shown to allow RR access to spurs.
- E** Existing parking lot at public jetty. Good trailhead location.
- F** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.
- 9** Potential catalyst project: Improve rail with trail from Garibaldi to Barview coordinated with new waterline project. Provides alternative to narrow section of US 101



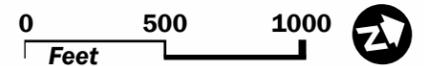
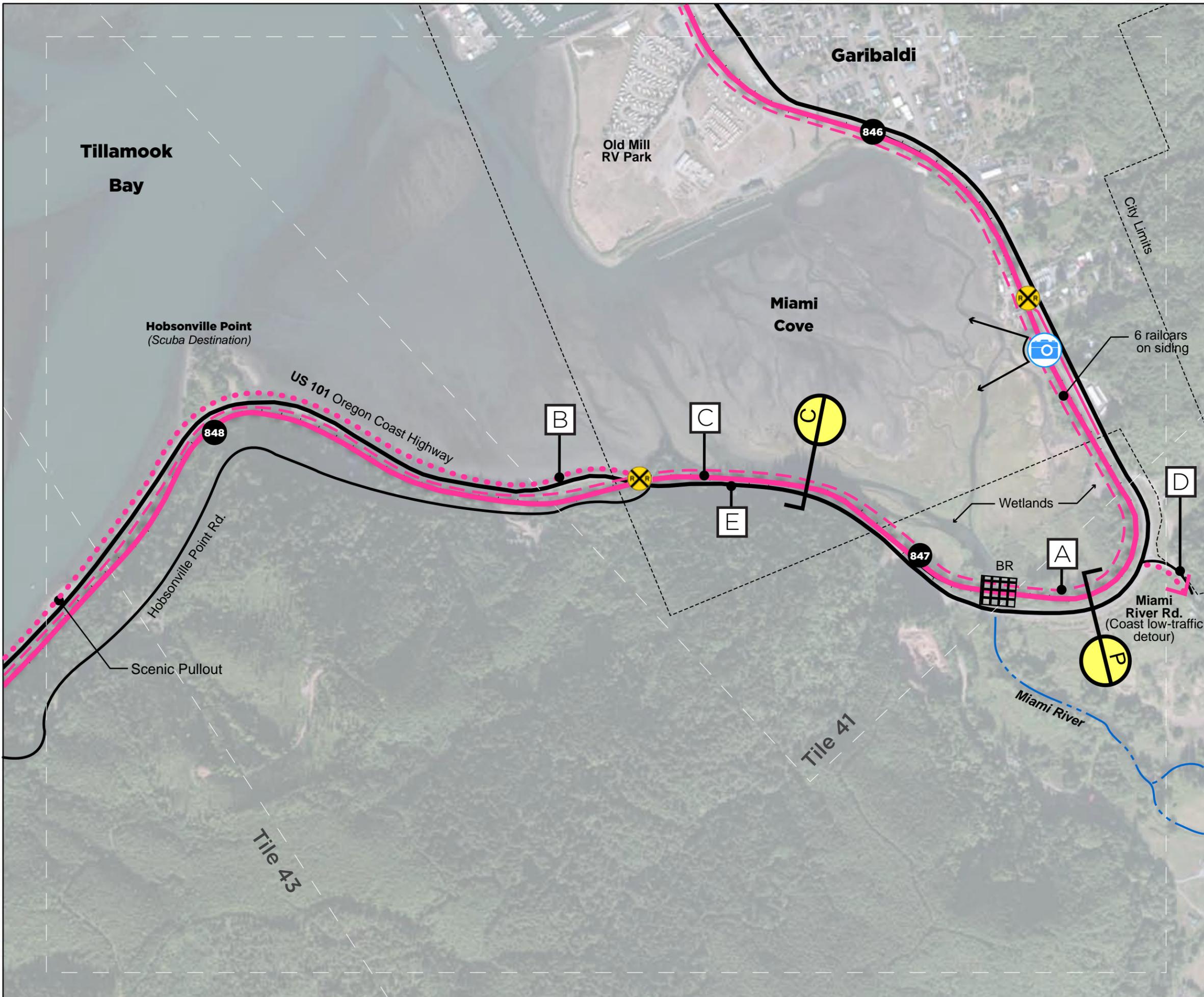
Salmonberry Trail

Tile 42: Miami Cove

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  City Limits
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Point of Interest
-  Section Callout

Notes

- A** Rail with Trail Alternative: Fill adjacent to RR to allow for rail with trail. Highly constrained by adjacent floodplain.
- B** Bypass Alternative: Re-route on expanded shoulder of US 101 on this stretch avoids RR crossings over US101, potential requirement to fill along side active RR in wetland environment (Larson Cove). Trail may rejoin RR ROW at overpass south of Larson Cove, beyond Hobsonville Point (Tile 42)
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** Potential bicycle circuit to Wheeler via Miami-Foley Rd and Coastal Segment.
- D** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.



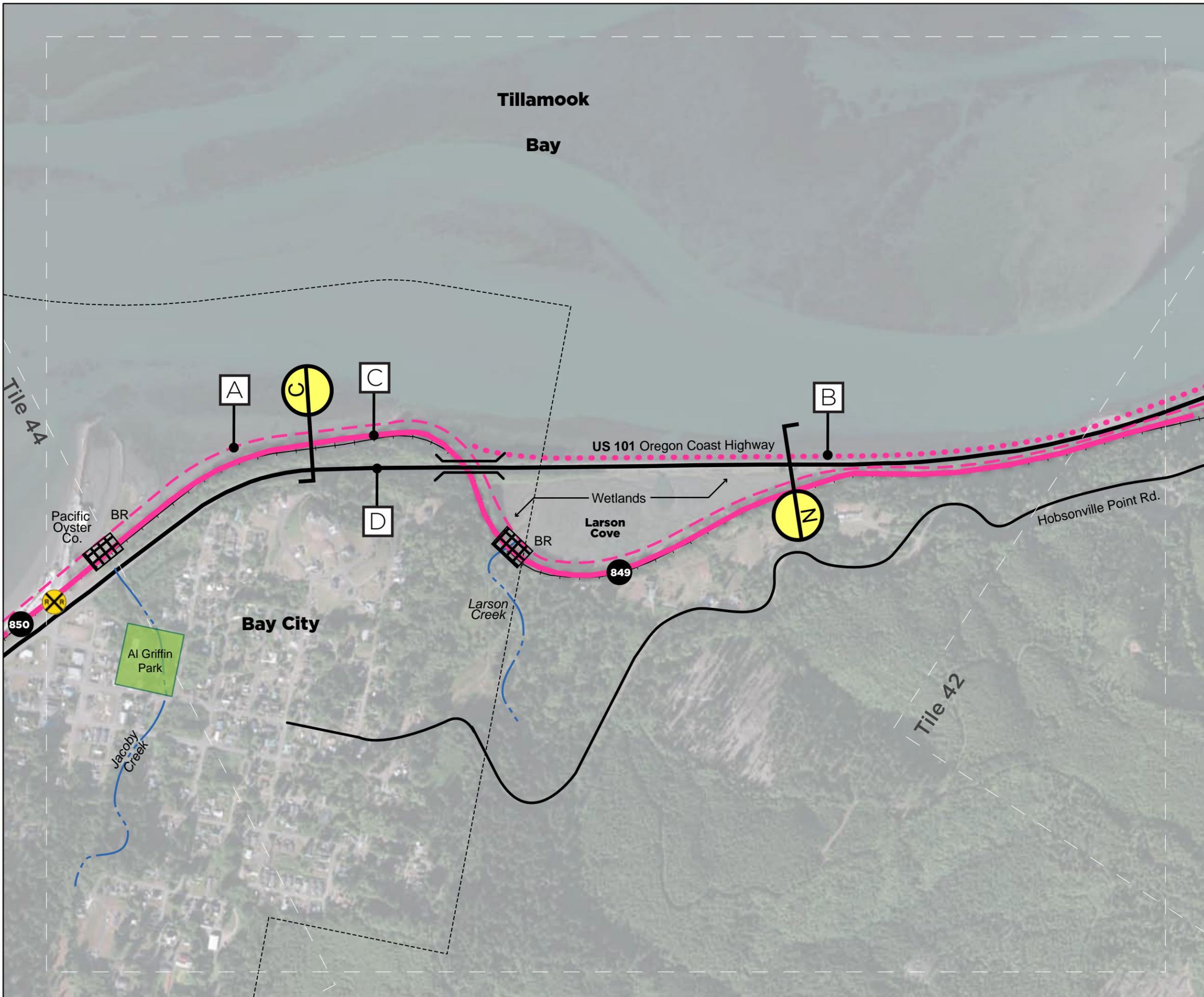
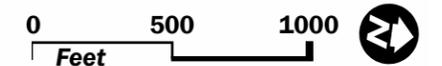
Salmonberry Trail

Tile 43: Bay

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  City Limits
-  Road
-  Milepost
-  Railroad Crossing
-  Bridge
-  Section Callout

Notes

- A** Rail with Trail Alternative: Fill adjacent to RR to allow for rail with trail. Highly constrained by adjacent floodplain.
- B** Bypass Alternative: Preferred re-route on US 101 on this stretch avoids potential requirement to fill along side active RR in wetland environment. Trail may rejoin RR ROW beyond Hobsonville Point (Tile 42)
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.



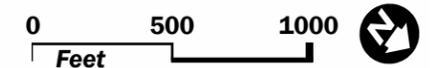
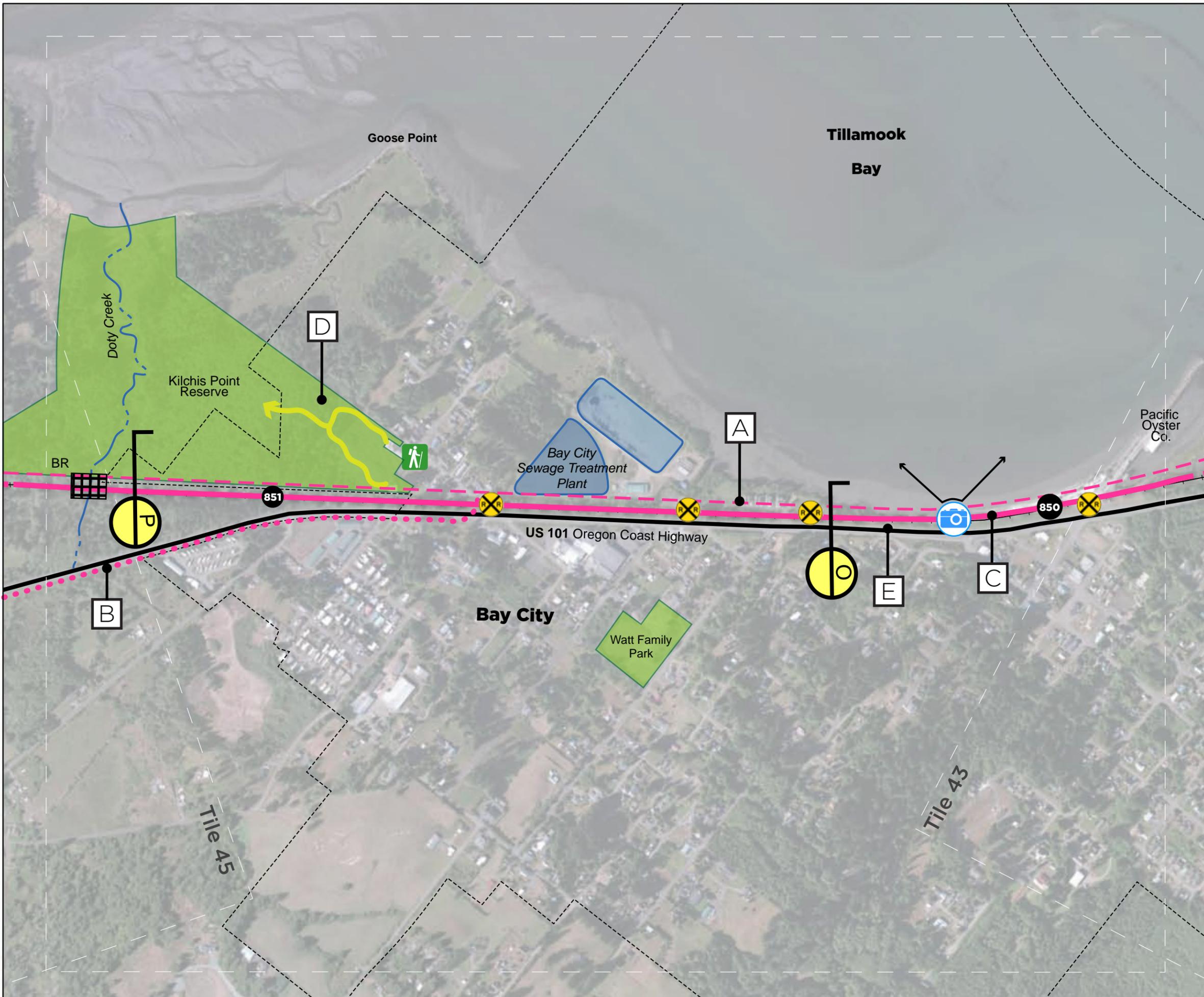
Salmonberry Trail

Tile 44: Bay City

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Existing Trail
-  City Limits
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Bridge (See Section E)
-  Section Callout

Notes

- A** Rail with Trail Alternative: Fill adjacent to RR to allow for rail with trail. Highly constrained by adjacent floodplain.
- B** Rail: Utilize RR tracks for rail-to-trail conversion.
- C** Re-route on US 101 on this stretch avoids elevated RR and numerous constrained bridge crossings in the floodplain.
- D** Kilchis Point Reserve has expressed interest in integrating their trail system with the Salmonberry Trail.
- E** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.



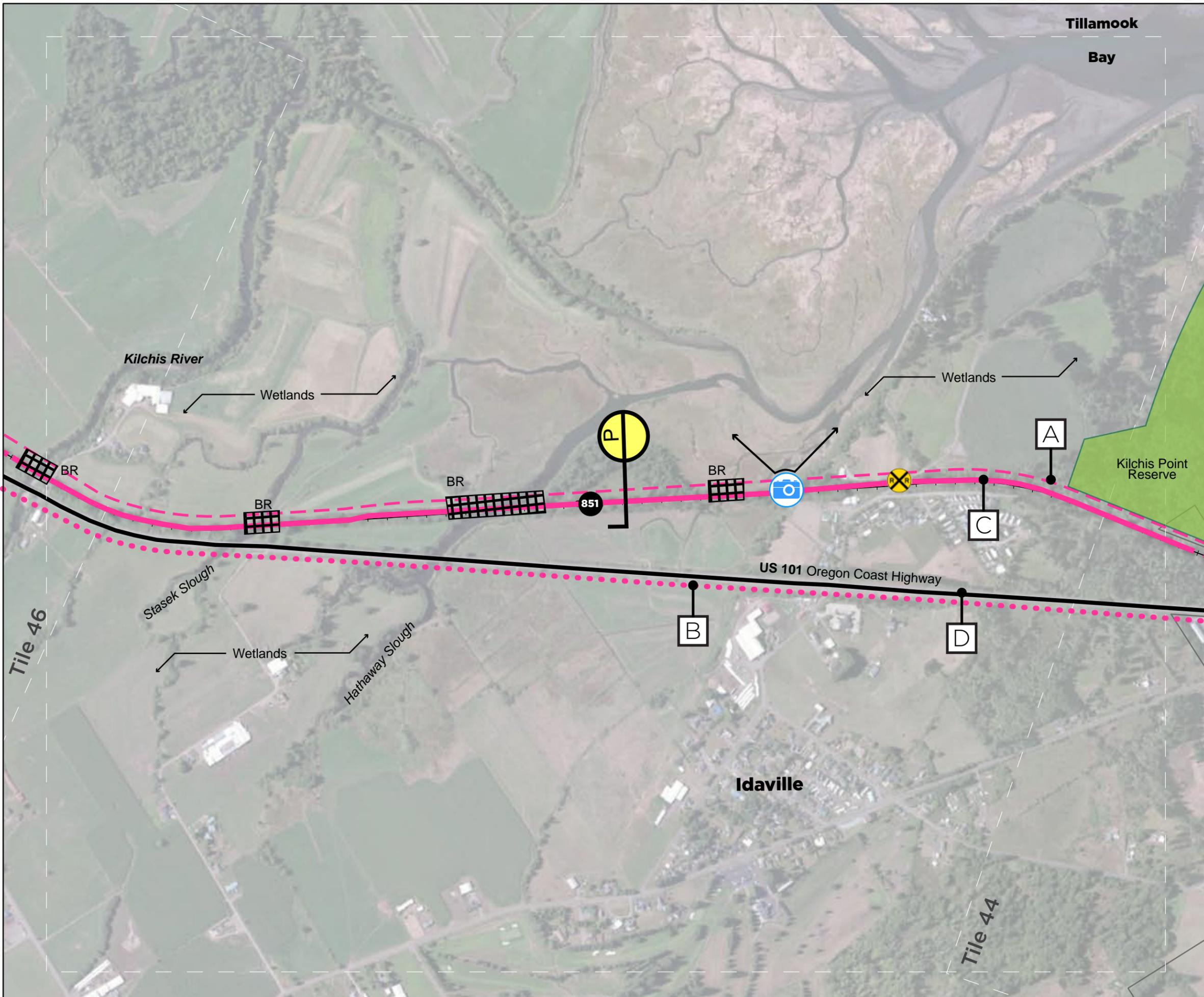
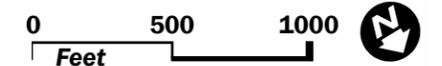
Salmonberry Trail

Tile 45: Estuary

- Salmonberry Trail
- Conceptual Rail w Trail Alignment
- Bypass Alternative
- City Limits
- Road
- Milepost
- Viewpoint
- Railroad Crossing
- Bridge (See Section E)
- Section Callout

Notes

- A** Rail with Trail Alternative: Fill adjacent to RR to allow for rail with trail. Highly constrained by adjacent floodplain.
- B** Bypass Alternative: Re-route on US 101 on this stretch avoids elevated RR and numerous constrained bridge crossings in the floodplain.
- C** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- D** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.



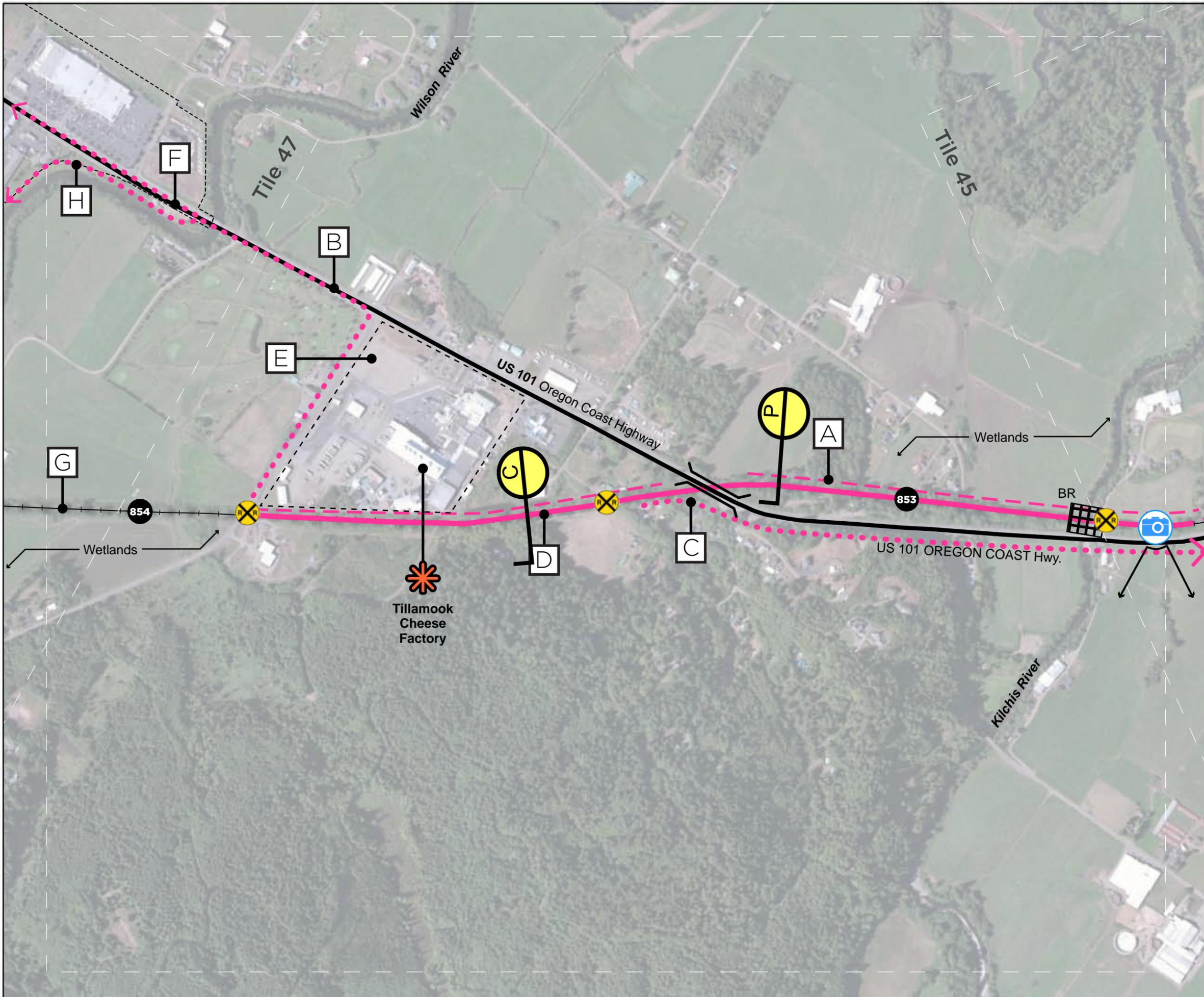
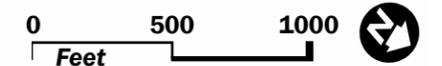
Salmonberry Trail

Tile 46: Cheese Factory

-  Salmonberry Trail
-  Conceptual Rail w Trail Alignment
-  Bypass Alternative
-  Rail Alignment Requiring Further Study
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Point of Interest
-  Bridge (See Section E)
-  Section Callout

Notes

- A** Rail with Trail Alternative: Fill adjacent to RR to allow for rail with trail. Highly constrained by adjacent floodplain.
- B** Bypass Alternative 1: Re-route on US 101 avoids numerous constrained bridge crossings in the floodplain.
- C** Bypass Alternative 2: Utilize US 101 to detour constrained portions of RR ROW. Further study needed.
- D** Rail-to-Trail Alternative: Utilize RR tracks for rail-to-trail conversion.
- E** Tillamook Cheese Factory is key regional destination and there is a clear potential connection from the Trail. Good trailhead location.
- F** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.
- G** A Rail with Trail Alternative is not feasible for this stretch of RR ROW. If in the future a Rail-to-Trail Alternative is possible, further study will be required.
- H** Bypass Alternative 3: Acquire easements to achieve trail alignment off of US 101. Further study needed.



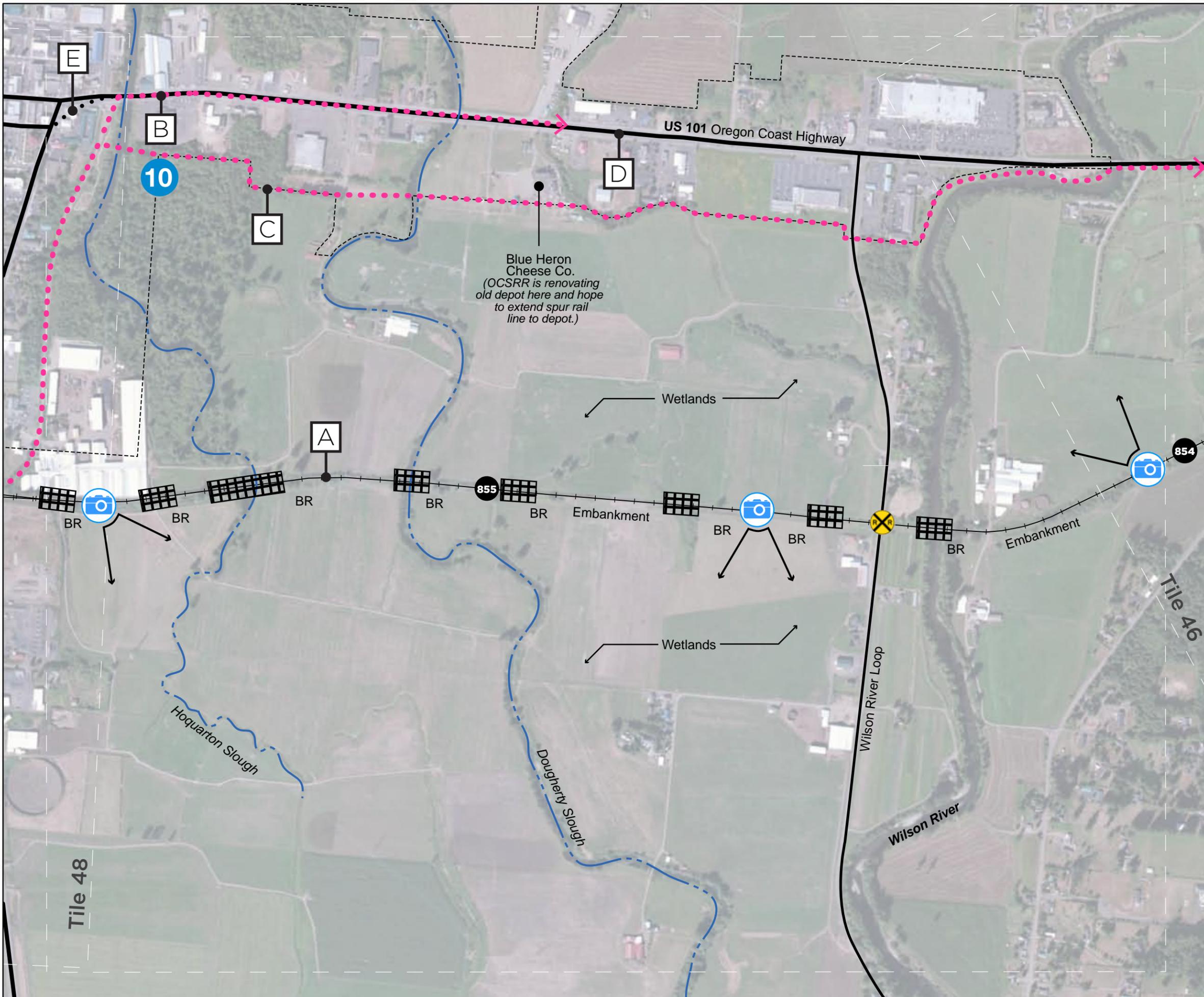
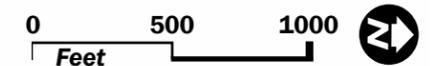
Salmonberry Trail

Tile 47: Wilson River

- Bypass Alternative
- Rail Alignment Requiring Further Study
- City Limits
- Road
- Milepost
- Viewpoint
- Railroad Crossing
- Bridge (See Section E)
- Section Callout

Notes

- A** A Rail with Trail Alternative is not feasible for this stretch of RR ROW. If in the future a Rail-to-Trail Alternative is possible, further study will be required.
 - B** Bypass Alternative: Utilize US 101 to detour constrained portions of RR ROW. Further study needed.
 - C** Bypass Alternative: Acquire easements to achieve trail alignment off of US 101. Further study needed.
 - D** The Oregon Coast Trail (OCT) shares the US Route 101 alignment.
 - E** ODOT Hwy 6 re-route project
- 10** Potential catalyst project: Connect Hoquarton City Park to Trail as part of ODOT re-route project



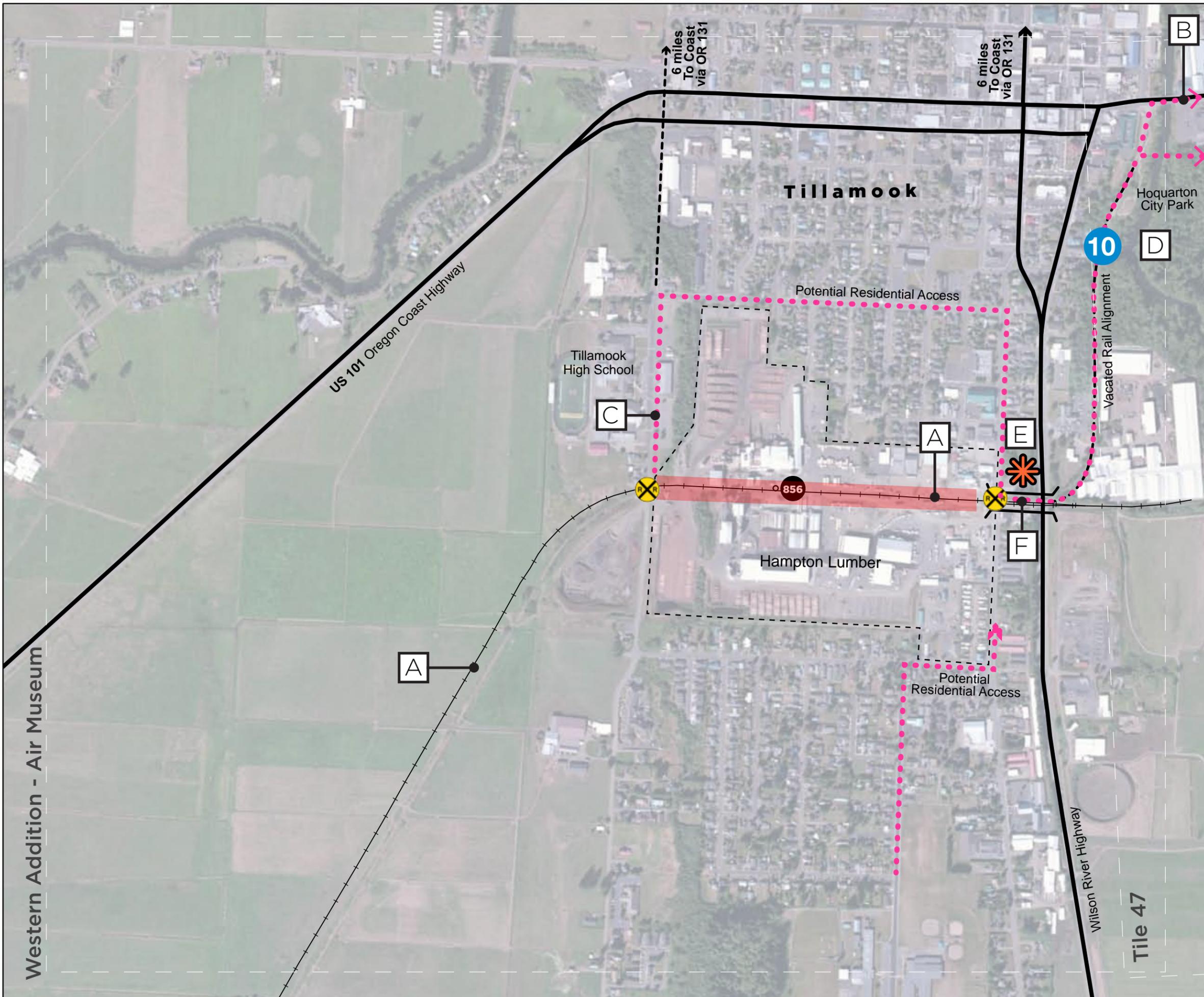
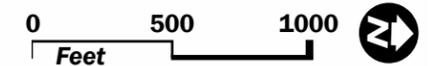
Salmonberry Trail

Tile 48: Tillamook

-  Bypass Alternative
-  Road
-  Milepost
-  Viewpoint
-  Railroad Crossing
-  Hazard - Operating Mill
-  Section Callout

Notes

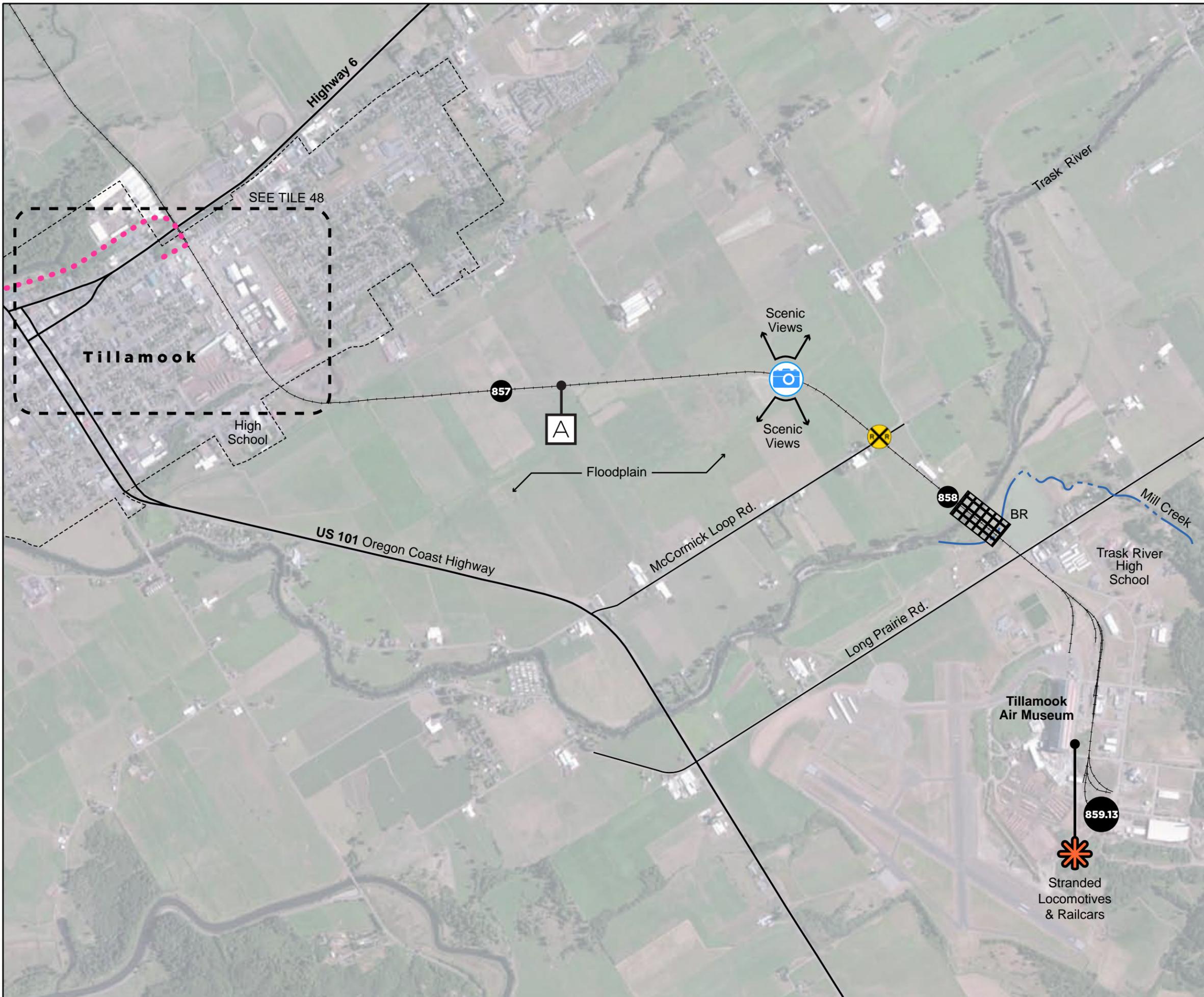
- A** A Rail with Trail Alternative is not feasible for this stretch of RR ROW. If in the future a Rail-to-Trail Alternative is possible, further study will be required.
- B** Bypass Alternative: Utilize US 101 to detour constrained portions of RR ROW. Further study needed.
- C** On-street connection to trail from HS and residential neighborhoods could be popular.
- D** Potential trail terminus at Tillamook Hoquarton City Park *OR*
- E** Potential trail terminus at Goodspeed Park
- F** Bridge over Wilson River Highway requires structural study and significant improvements
- 10** Potential catalyst project: Connect Hoquarton City Park to Goodspeed Park as part of ODOT re-route project



Salmonberry Trail

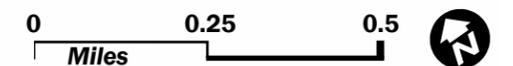
Air Museum Connection

- Bypass Alternative
- Rail Alignment Requiring Further Study
- - - City Limits
- Road
- 786 Milepost
- 📷 Viewpoint
- ⚡ Railroad Crossing
- 🌸 Point of Interest
- ▣ Bridge



Notes

A A Rail with Trail Alternative is not feasible for this stretch of RR ROW. If in the future a Rail-to-Trail Alternative is possible, further study will be required.





**SALMONBERRY TRAIL
CONCEPT PLAN**