SALMONBERRY CORRIDOR
CONCEPT PLAN

Winter 2015

WALKER | MACY

Oregon Board of Forestry

January 7, 2015

Salmonberry Rail Trail

Context

Salmonberry Rail Trail

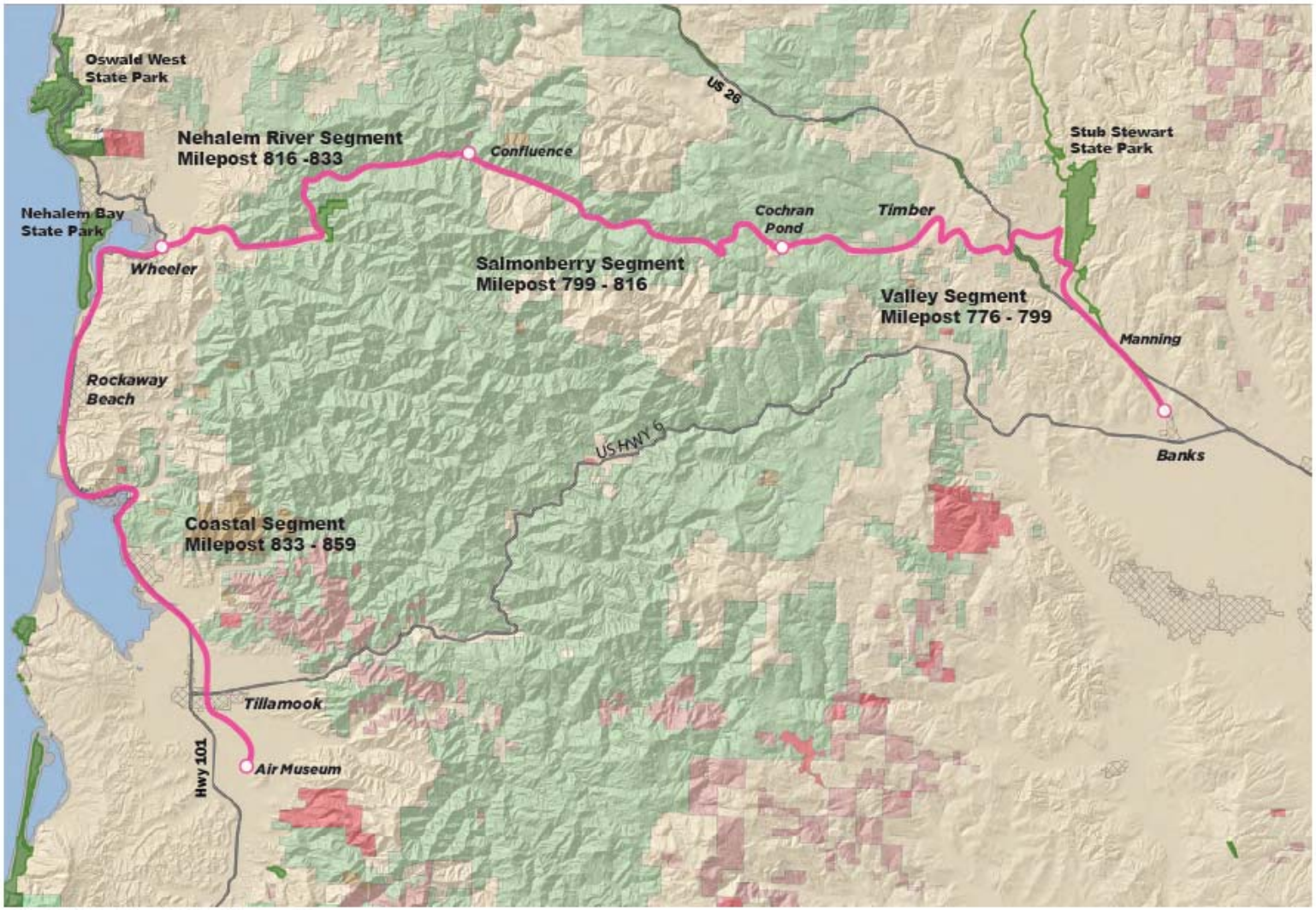
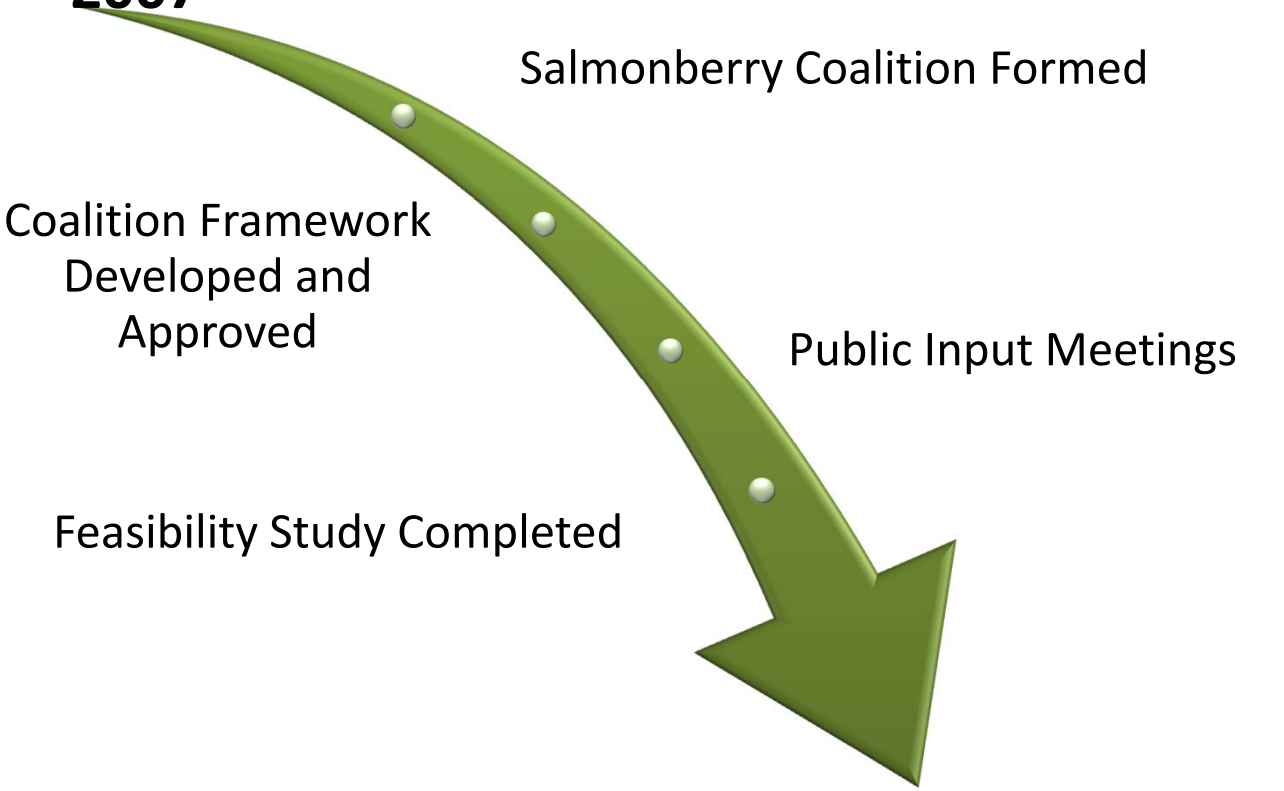


Figure 2: Salmonberry Corridor Overview Map

Salmonberry Rail Trail

Storm Damage

2007



Master Plan Started

Salmonberry Rail Trail

Planning

Salmonberry Rail Trail

MILD

MODERATE

SEVERE

Salmonberry Rail Trail

Concept Plan Timeline

1. Planning Kick off
   Public Input
   September 2013
2. Assessments, Opportunities & Constraints
   Public Input
   February 2014
3. Alternatives
   Public Input
   June 2014
4. Final Draft Plan
   Public Input
   September 2014
5. Plan Adoption
   November 2014

Salmonberry Rail Trail

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


TO
Tillamook Beaches
$3.00
Go Saturday or Sunday—return Sunday
Other Round Trip Tickets
On Sale Fridays, Saturdays and Sundays — $4.00
Season tickets on sale daily — $5.00
Southern Pacific Lines
JOHN E. SCOTT, Asst. Passenger Traffic Manager
(OVER)
PRN timetable (*Tillamook Forest Center*)


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

Stac Pac relic (MP 804.5)

Salmonberry Rail Trail

Barview Jetty County Park, near Garibaldi

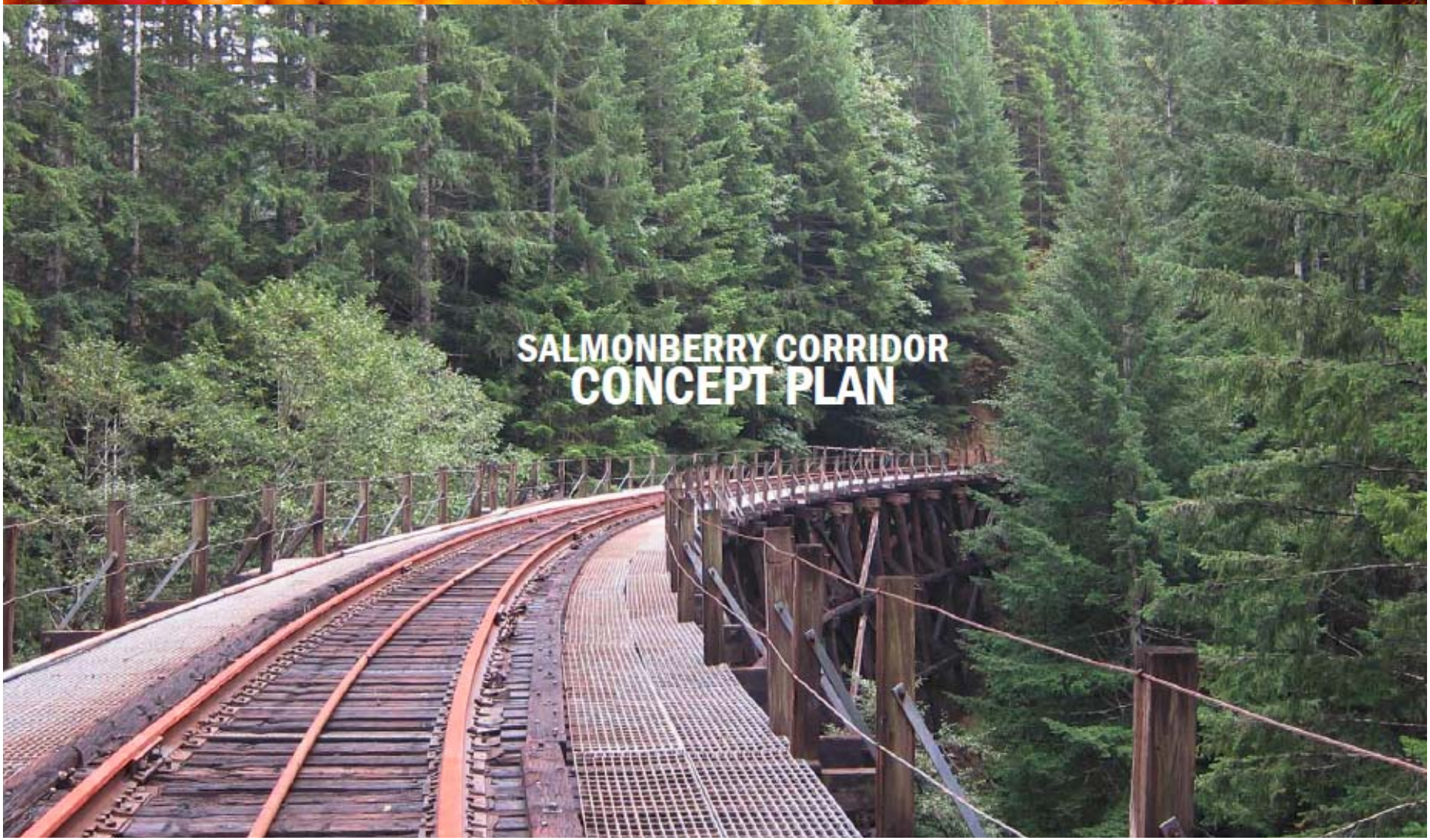
Project team meeting at Reehers Camp

Kilchis Point Reserve

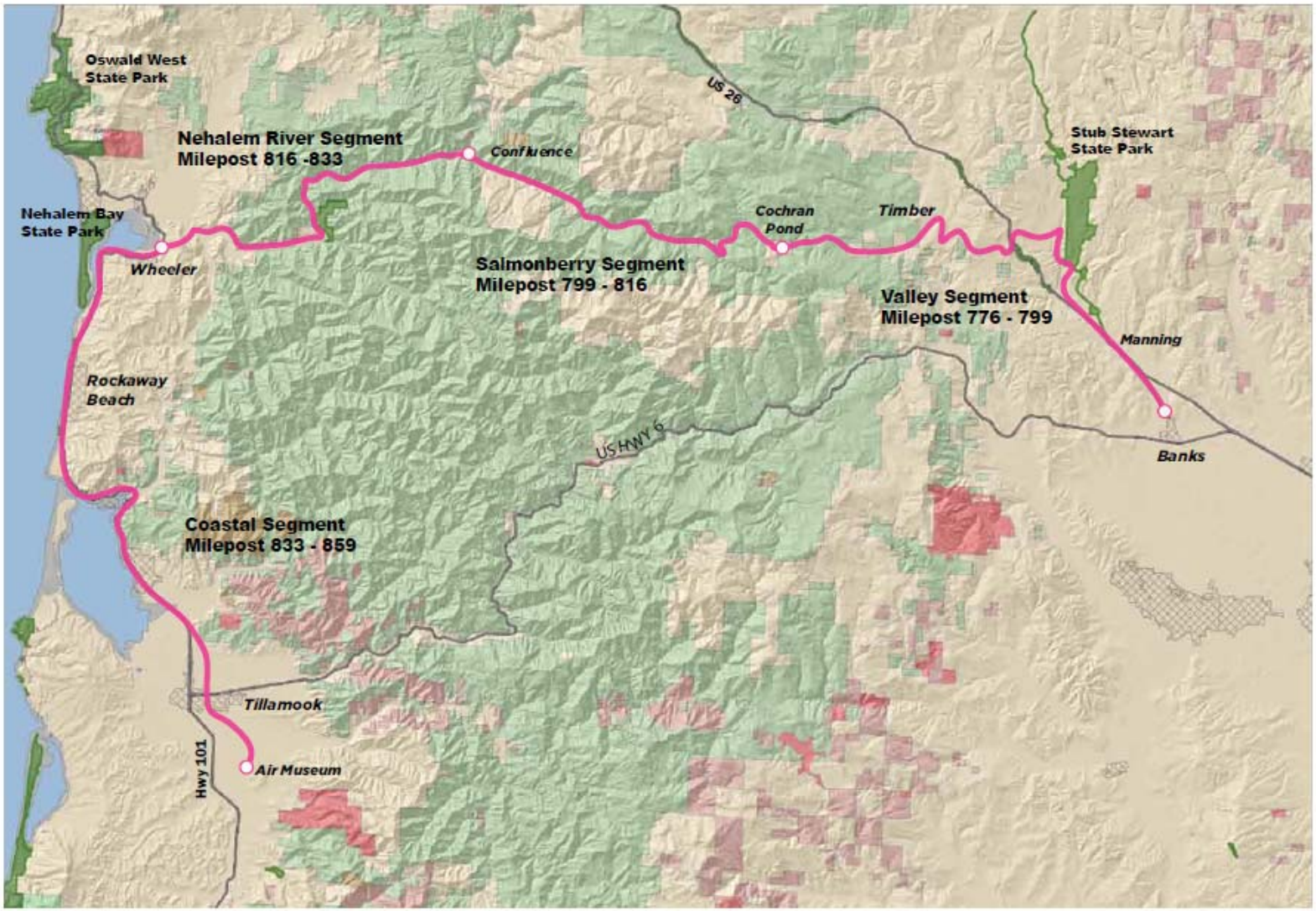
Nehalem Falls

Cabins at Stub Stewart SP

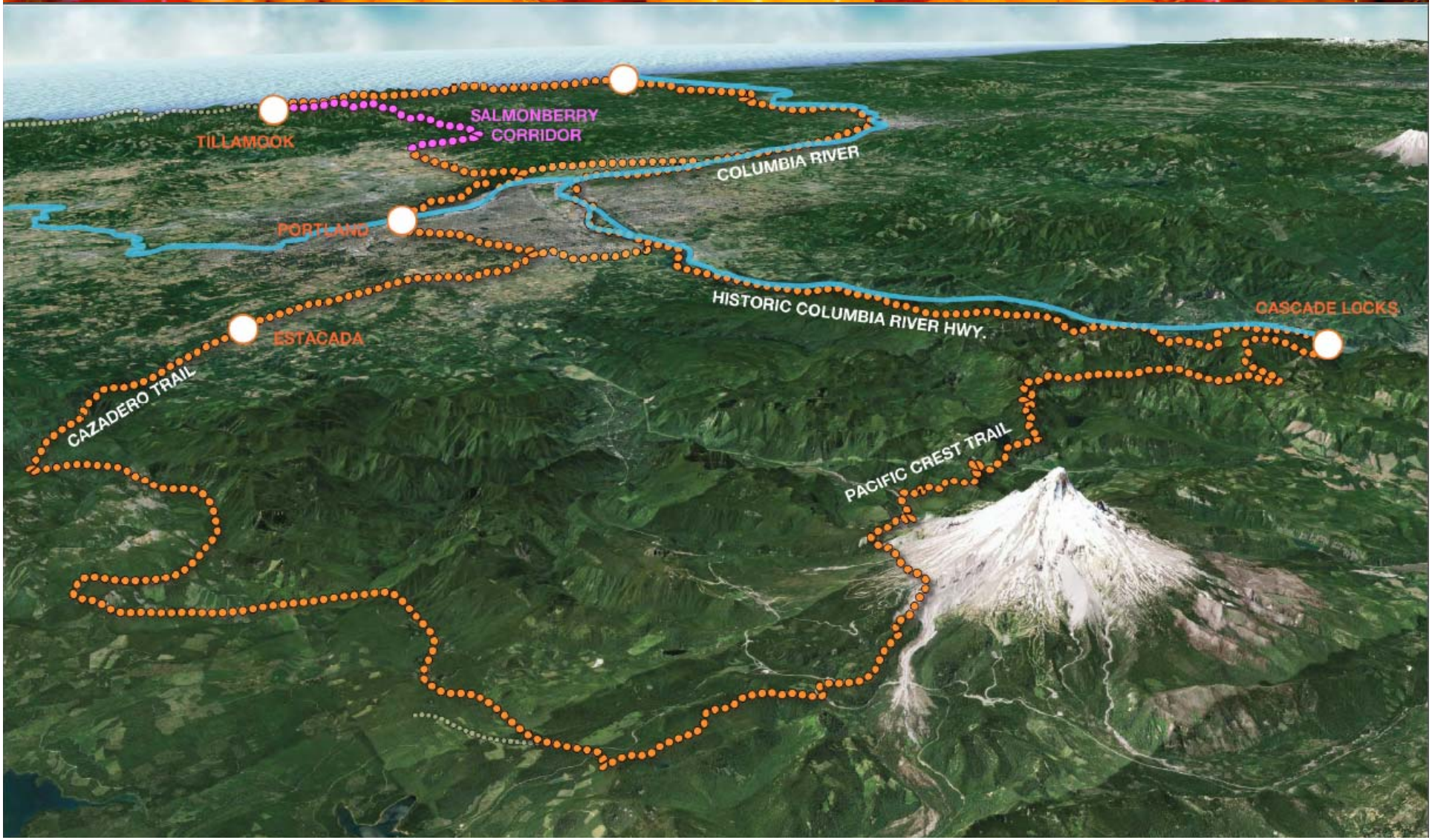
Salmonberry Rail Trail



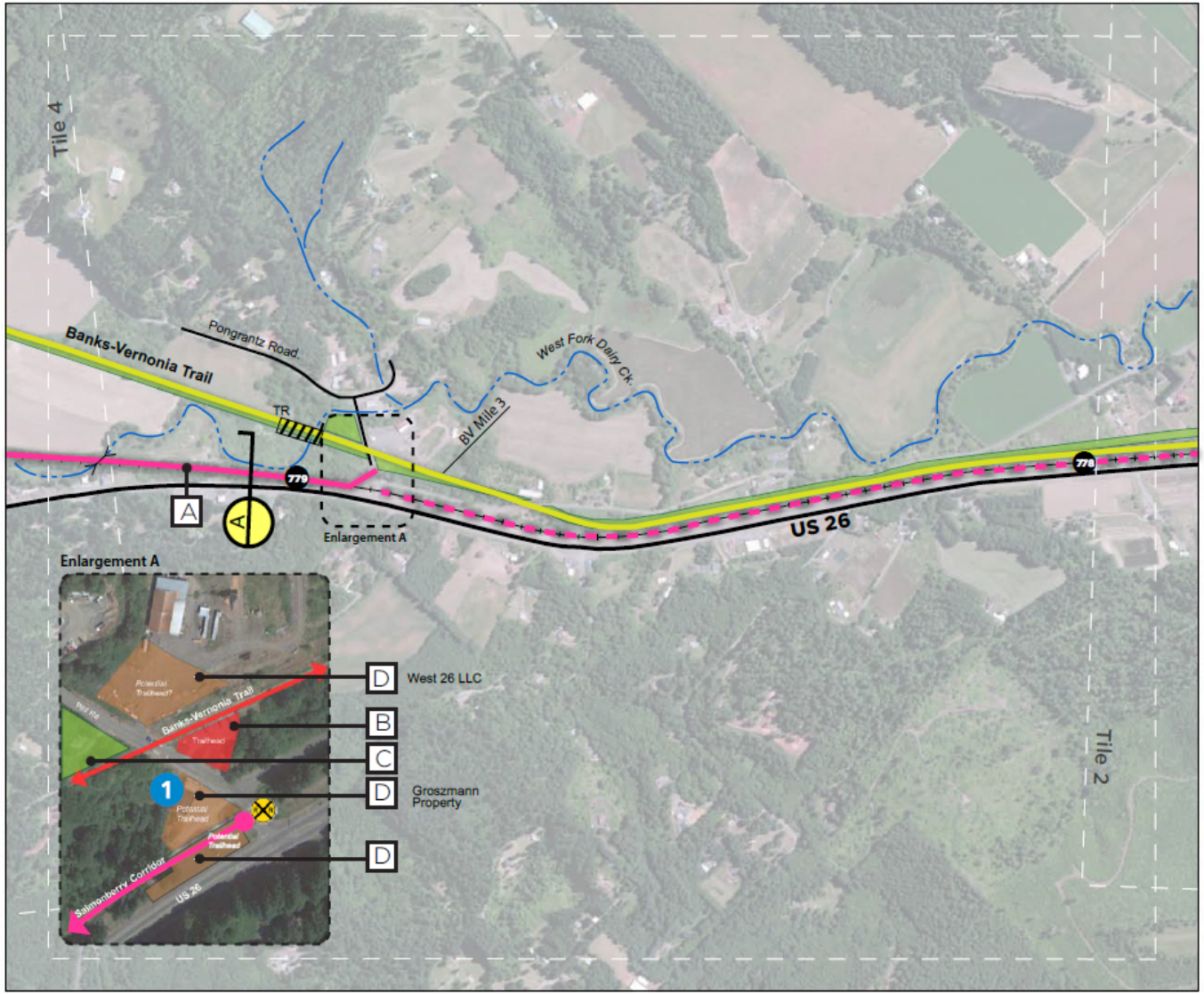
Salmonberry Rail Trail



Salmonberry Rail Trail



Salmonberry Rail Trail



Salmonberry Corridor

Tile 3: Manning

- Salmonberry Corridor
- 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 Corridor

0 500 1000 Feet

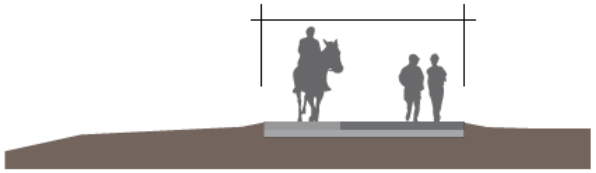
Salmonberry Rail Trail

Salmonberry Corridor

Typical Sections

Sections do not relate to specific locations within the Corridor

10' - 14' Trail
Remove & salvage rail hardware and excavate ballast
Surfacing:
- Asphalt
- Compact Aggregate
- Wood Chips
- Combination of above for equestrian use



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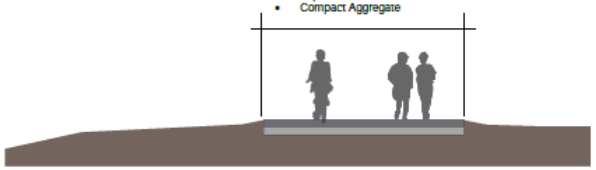
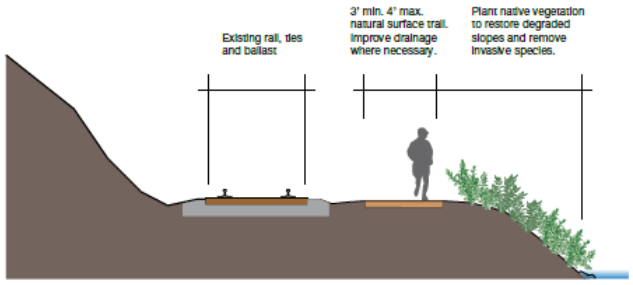
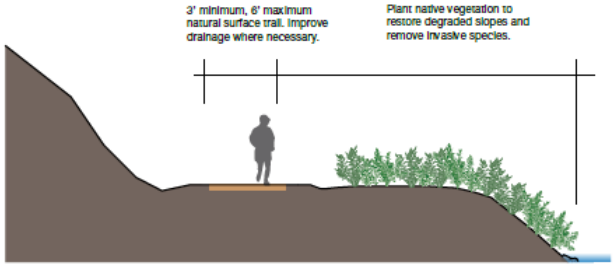


Note:
* In areas with little equestrian use, or where heavy service vehicles need to access the Corridor frequently, or where the trail serves as vehicular access to homes or businesses (primarily in the Coastal segment) it is recommended that the trail surface be limited to asphalt.

A Rail-to-Trail Alternative - At Grade





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

B Natural Surface Trail Alternatives

Salmonberry Rail Trail

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

Valley Segment

Banks (MP 774.7) to Cochran (MP 800)

Introduction

This 25-mile easternmost segment of the Corridor 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 PDTB 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 PDTB 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 (El 325') and Timber (El 975'), which are only 5 miles apart "as the crow flies." The Corridor continues climbing to its highest point, at Cochran (El 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.

Salmonberry Rail Trail

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

Salmonberry Segment

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

Introduction

This 16-mile segment of the Corridor is the wildest, most remote and most damaged portion of the line. 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. This Segment may remain for a long time, until funding is secured, as an adventure trail, 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 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.

Salmonberry Rail Trail

Before and After illustration of a typical rail-with-trail portion of the Corridor

Nehalem Segment

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

Introduction

This 17-mile segment of the Corridor runs from the 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 Corridor as a day trip into the State Forest along the Salmonberry, returning to accommodation in Wheeler or Nehalem Bay State Park. The proposed 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 along the Corridor.

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 Nehalem Confluence, 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 of the Corridor, 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 Confluence, it runs along the steep, wooded north bank though 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

Salmonberry Rail Trail

Before and After illustration of a typical rail-with-trail portion of the Corridor

Coastal Segment

Wheeler (MP S33) to Tillamook Industrial Park (MP 859.13)

Introduction

This 26-mile westernmost segment of the Corridor 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 Corridor 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.

Salmonberry Rail Trail

Salmonberry Rail Trail

People on the Corridor, 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.*

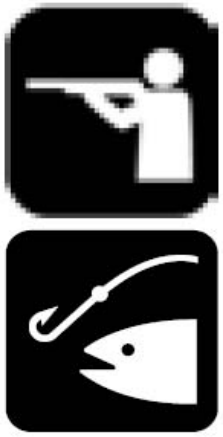
Salmonberry Rail Trail

People on the Corridor, 2035

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 Corridor, riding as far as the Walcott Tunnel before looping back on remote roads to Stub Stewart State Park to complete the workout.*

Salmonberry Rail Trail

People on the Corridor, 2035



Jeff and his son Tyler *have come to love the Corridor 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.*

Salmonberry Rail Trail

IMPLEMENTATION

Salmonberry Rail Trail

Conceptual Costs

Assumptions:

- High Level (not precise)
- Bridge & Tunnel upgrades not included
- High contingency (30-50%)
- Linear Foot Regression Model

Conceptual Costs – Typical Costs

Item	Unit	Cost	Notes
10' Paved Trail	LF	$60	
12' Aggregate Trail	LF	$60	
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	$120	Assumes wall is 4' high

Conceptual Costs

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**

Salmonberry Rail Trail

Maintenance Estimate

Hours Estimated: 49,000 per yr

- 24 FTE
  - 6.24 FTE Staffing need (min)

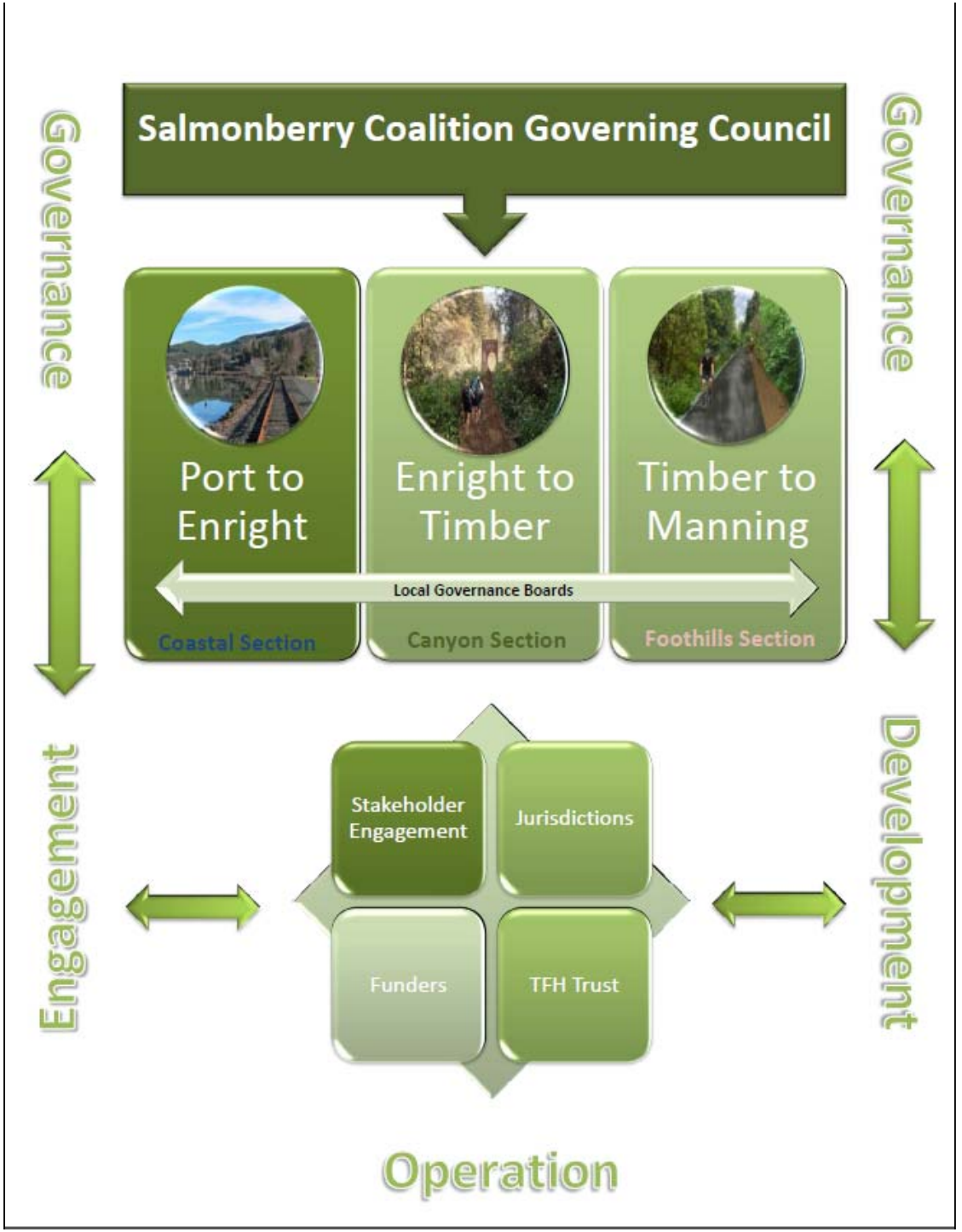
Facility Maintenance
Signs
Grounds
Restrooms
Public Buildings
Non-Public Buildings (shop)
Water Systems
Sewage Systems
Painting
Landscape Maintenance
Mowing
Trimming
Planting Grass
Irrigation
Misc. Turf Care
Tree Maintenance
Shrub Maintenance
Hard Surface Maintenance
Trail Maintenance
Marine Facilities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

Salmonberry Rail Trail

Salmonberry Rail Trail

Governance

Salmonberry Rail Trail



Salmonberry Rail Trail

Salmonberry Rail Trail

Governance Charter:

- Oregon Solutions model to develop:
  - Parties
    - Existing MOU parties
    - Units of Government
  - Transitional Charter
    - To manage current phase of project, flexibility to change


START


Questions?