

Appendices

Chelatchie Prairie

Rail with Trail Corridor Study
Clark County, Washington

DRAFT v2
6/4/2008



proud past, promising future

CLARK COUNTY
WASHINGTON

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*Cover: Mt. St. Helens from the
Chelatchie Rail with Trail Corridor
near Mile Post 9.*

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Introduction 1

Location & History 1

Purpose. 1

Background & Approach 2

Phases of the Study 2

Vision and Goals 3

Context 4

Recommendations 7

Uses & Alignment 7

Implementation 8

Recommended Alignment 11

Design Guidelines 27

Appendix A - Alignment Narrative A-1

Appendix B - Site Analysis B-1

Resources B-1

Permitting B-6

Mitigation B-12

Appendix C - Public Engagement C-1

Appendix D - Implementation D-1

Phasing D-1

Funding Sources D-2

Appendix E - Education & Outreach E-1

Table of Contents

*The Chelatchie Prairie
Railroad corridor near
Lucia Falls, MP-24.*

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6/4/2008



Photo: Steve Durrant

Columbia Basin Railroad (CBRR)/Portland Vancouver Junction Railroad (PVJR) locomotive No. 211 at Rye Yard.



Photo: Steve Eshom

BYCX steam locomotive in Yacolt, WA.

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Recommended Alignment

This chapter describes the recommended alignment for the Chelatchie Prairie Rail with Trail for the length of the corridor.

Alternatives were considered and evaluated in each segment of the corridor during the development of the recommended alignment.

Interim alignments are suggested to work around narrow right-of-way or other constraints in some segments. These out of corridor alignments were not evaluated for suitability as bicycle, pedestrian, or equestrian routes, and require further study.

Please refer to Maps 1 through 14 in the Recommendations chapter.

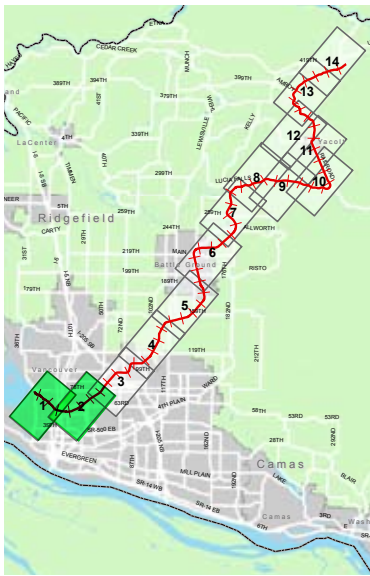
Appendix A

Recommended Alignment Narrative

Key Map

The alignment narrative in this section describes the recommended alignment and improvements beginning at Mile Post-0 (MP-0) at Fruit Valley Road. References to left and right refer to orientation within the right-of-way while facing the end of the line. See Maps 1 through 14 in the Recommendations chapter.





Map 1: MP-0 to MP-1.5.
Map 2: MP-1.5 to MP-4.

Map 1

FRUIT VALLEY ROAD TO NE HAZEL DELL AVENUE (MP-0 to approximately MP-1.5):

RECOMMENDED: Out of ROW: Burnt Bridge Creek Greenway. Less than 1000 feet south of MP-0, the Burnt Bridge Creek Greenway begins at a trailhead at NW Fruit Valley Road and NW Bernie Drive. This 1.5 mile segment of the Greenway is a paved multi-use path with scenic views to Burnt Bridge Creek and wetlands. The trail is scheduled for reconstruction in 2008.

A mid-block crossing of NE Hazel Dell Avenue and construction of 780' gap paralleling Hazel Dell are required to continue along the Burnt Bridge Creek Greenway.

Map 2

NE HAZEL DELL AVENUE TO STREET NE ST. JOHNS ROAD. (MP-1.5 to MP-3.25)

RECOMMENDED: Out of ROW continues - Burnt Bridge Creek Greenway/ Hwy 99 Trail/ Railroad Corridor: Continue following the Burnt Bridge Creek Greenway Trail at the east bound intersection with NE Hazel Dell Avenue (build the 780' gap parallel to Hazel Dell). The posted speed limit for NE Hazel Dell Avenue is 35 MPH and the ADT is 3,258 (2007). The Burnt Bridge Creek Greenway includes the existing trail underpass of Hwy 99/Main Street and overpass of Interstate-5.

On the east side of the Interstate-5 crossing, the Hwy. 99 Trail runs north adjacent to the highway ending at the signalized intersection of NE Ross Street/NE North Street at Hwy. 99. Continue the alignment across this intersection with the existing ladder crosswalk. The posted speed limit here at Ross Street is 25 MPH. Rejoin the railroad corridor approximately 400 feet north at the top of an embankment. This is a potential trailhead location. Coordinate connections to Hwy 99 Sub Area pedestrian access.

Continue on the right side of the 150 foot ROW through the BPA Ross Substation. Cross two spurs serving the substation. Continue on the right side of the 60 foot ROW to the underpass of NE Minnehaha Street. Cross to the left side of the rail at the existing permitted crossing at Cold Creek, east of NE Minnehaha Street. Continue to NE St. Johns Road at MP 3.25.

This alignment avoids the need for new bridges across I-5 and Hwy. 99 and uses the existing Burnt Bridge Creek Greenway and Hwy. 99 trails and bridges.

CROSSING NE ST. JOHNS ROAD AT NE 69th STREET (MP-3.25)

RECOMMENDED: The alignment approaches NE St. Johns Road on the left side of the 60 foot ROW. Divert north to the north side of T-intersection of NE 68th Street and St. Johns Road. Build a new on-grade crossing of St. Johns Road at NE 68th Street in conjunction with a proposed traffic signal. Include high visibility crosswalks and a pedestrian refuge in the median. The posted speed limit on NE St. Johns Road is 40 MPH and the ADT is 14,677 (2007).

NE ST. JOHNS ROAD TO NE 78th AVENUE (MP-3.25 to MP-4)

RECOMMENDED: The recommended alignment runs parallel to NE St. Johns Road in the road ROW to the northeast end of the Rye Yard. After crossing NE 40th and NE 43rd Avenues (minor industrial access roads with stop signs) the alignment re-enters a 60 foot wide rail ROW on the left side and continues to NE 78th Street. Acquisition may be required.

The rail corridor continues across NE 78th Street, a major arterial (posted speed limit of 45 MPH/ADT 25,543 (2004)), at a stop controlled T-intersection with NE 47th Avenue, a minor industrial access route.

The recommended alignment leaves the rail right-of-way on the south side of NE 78th Street and runs east to the Padden Parkway Trail.

Map 3

NE 78th AVENUE/Padden Parkway Detour (MP-4 to MP-7.25)

North from NE 78th Street, the Chelatchie ROW narrows for almost two miles to as little as 50 feet. Industrial properties are encountered on both sides of the right-of-way. Coordinating trail development with industrial rail service on both sides of the corridor, combined with the narrow right of way make trail alignment difficult. The recommended alignment outlined below provides an out of ROW detour around this difficult segment of the corridor using the existing Padden Parkway Trail and future road corridor improvements on NE 94th Street. Future rail related acquisitions and improvements between MP-4 and MP-7.25 should anticipate a trail alignment within the rail ROW.

RECOMMENDED Out of ROW: PADDEN PARKWAY/NE 94th STREET WORK-AROUND: Create a 2,000 foot connection east from the Chelatchie Rail ROW paralleling NE 78th Street to the existing Padden Parkway Trail. Sign the Padden Parkway Trail for easy wayfinding.

Connect back to the Chelatchie Prairie Rail corridor via a new shared-use path (not detailed in this report) developed along with future roadway improvements on NE 94th Avenue and NE 119th Street. Include a trail crossing and crosswalks at future signalization of NE 94th Avenue and NE 119th Street (posted speed limit: 50 MPH/ADT 5,540 (1989)). Rejoin the rail ROW near MP-7.6. The total length of this out of ROW detour is approximately four and one-half miles.

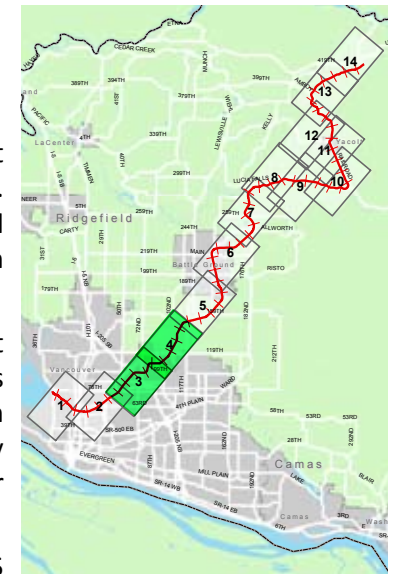
Map 4

NE 119th STREET to NE 149th STREET

RECOMMENDED: Rejoin Railroad Corridor: At NE 119th Street the trail alignment stays to the right side of the 100 foot ROW. Moderate to significant clearing and grubbing will be required because of heavy tree canopy adjacent to the corridor in certain areas.

The on-grade crossing of NE 131st Street has a posted speed limit of 40 MPH and an ADT of 1,518 (2005). The alignment switches to the left side, between the railroad corridor and NE Laurin Road. Laurin Middle School and Glenwood Heights Elementary are located to the west on NE 134th Street. There are two minor on-grade crossings serving 5 residences in this segment.

Proposed Railroad Industrial Zone: From MP-8.6 to MP-9.25 the right of way narrows to 60' as it traverses an area proposed for rezoning to Railroad Industrial. The development code language creating this new zone should be crafted to anticipate the need for trail continuity through the development, either in the rail corridor or as a separate, well connected, safe and convenient alignment integrated into the site. Provide access to Summit View High School on the north side of NE 149th Street.



Map 3: MP-4 to MP-7.
Map 4: MP-7 to MP-9.1.

Figure A-1: A Railroad Industrial Zone is currently under consideration for an area served by the Chelatchie Prairie rail corridor south of Caples.



Map 5: MP-9.1 to MP-12.5.

Map 5

NE 149th STREET TO NE 137th AVENUE (MP-9.1 to MP-10.6)

RECOMMENDED: NE 149th/HWY 503 Trail/Railroad Corridor:

The recommended alignment is on the north side of NE 149th Street, east to the signalized intersection with Hwy 503 at Caples Road (posted speed limit of 50 MPH/ADT 25,357 (2005)).

Improve the ladder crosswalk and pedestrian activated signal crossing Hwy 503. Join the existing Hwy 503 Trail heading north.

The 503 Trail continues north in the highway ROW to Battle Ground. Approximately 800 feet north of Caples Road the 503 Trail crosses the Chelatchie Rail ROW. The recommended Chelatchie Prairie RWT rejoins the 60 foot ROW on the left (north) side of the track near MP-9.6.

In Brush Prairie, the rail makes an on-grade crossing of NE Caples Road which has a posted speed limit of 35 MPH and an ADT of 2,000. The recommended RWT alignment switches to the right side and runs parallel to a siding for approximately ¼ mile in this 100 foot ROW. This area will require coordination with future industrial and rail development to minimize land use and rail/trail conflicts.

Trail alignment on the right side of the track minimizes interaction with potential industrial rail access at the industrial site north of the ROW. Moderate clearing and grubbing with minor on site grading will be needed up to NE 137th Avenue.

NE 137th Avenue to NE 142nd Avenue (MP-10.6 to MP-11)

RECOMMENDED: Out of ROW:

At MP-10.6 the recommended trail alignment leaves the ROW as a shared-use path on the west side of NE 137th Avenue. Run north to a future traffic signal at NE 159th Street. Follow the north side of NE 159th Street east to NE 142nd Avenue and turn north. This detour avoids mid block on-grade crossings at NE 137th Avenue (50 MPH/ADT 2,000 (2006)), NE 159th Street (50 MPH/ADT 4,859 (2006)), and NE 142nd Avenue (50 MPH/ADT 3,097 (2007)). Coordinate with future roadway improvements.

Future roadway improvements should include shared-use path access east one mile to Hockinson Middle and High School via NE 159th Street. Minor clearing and grubbing will be needed up to NE 142nd Avenue.

NE 142nd AVENUE TO NE 199th STREET (MP-11 to MP-13.1)

RECOMMENDED: Out of ROW Work Around:

At Mile Post-11 the rail right-of-way crosses NE 142nd Avenue and continues to the northeast. The ROW narrows to 66 feet and encounters several natural features that complicate trail implementation. While the desirable alignment does ultimately follow the right-of-way, an interim route can parallel NE 142nd Avenue and NE 199th Street. Rejoining the rail corridor where it crosses NE 199th Street near MP-13. The posted speed limit for NE 142nd at MP-11 is 50 MPH with an ADT of 3,097 (2007).

Future Implementation in the Railroad Corridor: Rejoin the right side of the ROW at MP-11 where it crosses NE 142nd on-grade. Acquisition may be required. Wetland areas and large trees in the vicinity of Mile Post 11 may require special design measures and/or mitigation. Minor grading and moderate clearing and grubbing will be needed up to NE Cedars View Drive.

The alignment stays to the right after the on-grade crossing of NE Cedars View Drive, serving one residence. Near NE 152nd Avenue the ROW widens to 100 feet and parallels NE 152nd Avenue to NE 181st Street. The trail runs between the track and roadway in 100 foot ROW. Minor to moderate clearing and grubbing will be required. Cross NE 181st Street on-grade at the intersection with NE 152nd Avenue. The posted speed limit here is 40 MPH with an ADT of 1,000.

North of NE 181st Street the ROW narrows to 66 feet. The trail remains on the right with Cedars View Golf Course across the railroad to the west. Moderate to significant clearing and grubbing will be needed.

A significant bridge will be required across Salmon Creek. Coordination with Salmon Creek open space managers and/or Cedars Golf Course could provide alignment and crossing alternatives. The alignment continues on the right side creating better

coordination with Salmon Creek open space and riparian area interpretation. Minor to moderate clearing and grubbing to NE 199th Street will be needed.

Map 6

NE 199th STREET TO EAST MAIN STREET IN BATTLE GROUND (MP-13.1 to MP-14.2)

RECOMMENDED: Railroad Corridor: The interim route on NE 142nd Avenue may rejoin the ROW at NE 199th Street.

Improve an on-grade crossing of NE 199th Street which has a posted speed limit of 40 MPH and an ADT of 12,456 (2007). Future roadway improvements should include shared-use path access to Maple Grove Middle School approximately one mile west on NE 199th Street.

Rejoin the right side of the 66 foot ROW to provide access to new development, interpretive opportunities for existing wetlands and stormwater ponds, and to avoid sidings and spurs on the left side. Coordinate trail development with alignment opportunities within developments adjacent to the corridor and provide trail connections. Improve the on-grade crossing of SE Rasmussen Blvd which has a posted speed limit of 25 MPH and an ADT of 2,350.

Continue on the right side of the 100 foot ROW to Main Street. Coordinate with reconstruction of NE Grace Avenue, the intersection of Grace and Main Street, and improvements to the Battle Ground Rail Yard. Acquisition may be required.

Include the shared-use trail in the design of a new Grace/Main intersection including pedestrian/bicycle activated signals and ladder crosswalks. East Main Street has a posted speed limit of 25 MPH and an ADT of 4,750.

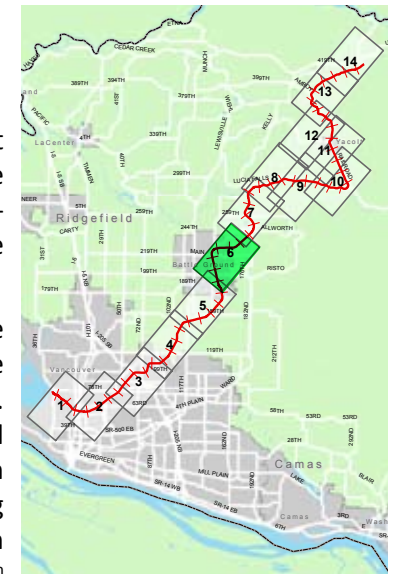
Downtown Battle Ground provides many trail user needs including a local bike shop adjacent to the corridor, restaurants and retail stores. Battle Ground High School is one half-mile west on Main Street.

EAST MAIN STREET AT FAIRGROUND PARK TO NE 249th STREET NEAR BATTLE GROUND LAKE STATE PARK (MP-14.2 to MP-17)

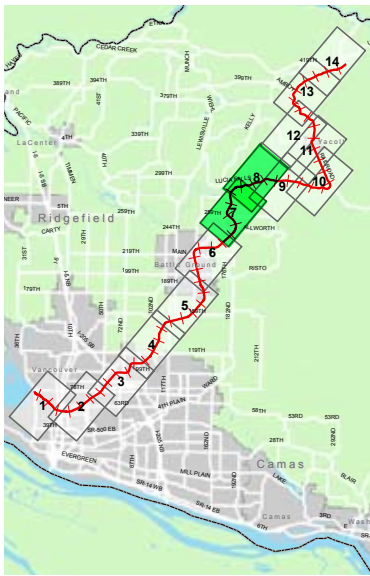
RECOMMENDED: Railroad Corridor: Coordinate alignment through Fairground Park with city park department. Rejoin the right side of the 100 foot rail ROW in Fairground Park to a crosswalk of Fairground Avenue at Grace Ave. NE Fairground Avenue has a posted speed limit of 25 MPH and an ADT of 1,050.

After the crossing of NE Fairground Avenue at Grace Avenue (MP-14.4), the recommended trail alignment continues on the right side of the 100 foot ROW to MP-17 at NE 249th Street. There are no public roadway crossings between NE Fairground and NE 249th Street (2.6 miles). Tukes Mountain rises steeply on the right (south) and moderate to significant grading, clearing and grubbing may be necessary on the upslope side between MP-14.5 and MP-15.5. Construction from MP-15.5 to NE 149th Street will require minor to moderate grading and clearing. Riparian and wetland impacts may be expected in this segment and drainage improvements may be required to maintain rail access as well as to improve the trail corridor.

Alternative Access to Battle Ground Lake State Park: Near MP-16 the rail corridor crosses diagonally through an eighty acre parcel of state land. Access to a trailhead at the southwest corner of Battle Ground Lake State Park could be made through this parcel and along NE 167th Avenue to NE 244th Street. This access to Battle Ground Lake State Park permits trail users to bypass the busy main entrance to the park, located on a curve on Palmer Road at NE 249th Street near MP-17.



Map 6: MP-12.5 to MP-16.



Map 7: MP-16 to MP-19.
Map 8: MP-19 to MP-21.

Map 7

NE 249th STREET TO NE 279th STREET - BATTLE GROUND LAKE STATE PARK TO HEISSON (MP-17 to MP-18.7)

RECOMMENDED: Railroad Corridor: The on-grade crossing of NE 249th Street, at NE Crawford Road, has a posted speed limit of 50 MPH and an ADT of 1,214 (1998). Improve the crossing with signing and a ladder crosswalk.

Side trail to Battle Ground Lake State Park main entrance: Develop a side trail west on NE 249th Street to access Battle Ground Lake State Park. Improve pedestrian crossing to the State Park main entrance at NE 249th Street and NE 182nd Avenue.

Railroad Corridor: The trail continues on the right side of the 100 foot ROW with moderate grading and clearing/grubbing to NE 182nd Avenue. At NE 182nd Avenue, turn north 100 feet to cross adjacent to an existing driveway. Install a ladder crosswalk perpendicular to traffic. NE 182nd Avenue has a posted speed limit of 50 MPH and an ADT of 1,892 (2002). Visibility is limited by vertical and horizontal curves in the roadway alignment. Re-join the 100' rail ROW and cross to the left side of the ROW.

Connection to Battle Ground Lake State Park: The left side of the ROW provides opportunities to connect to trails and facilities in Battle Ground Lake State Park. Minor to moderate grading and clearing is required.

Improve an on-grade crossing of NE 259th Street which has a posted speed limit of 50 MPH and an ADT of 1,080 (2002). The alignment stays on the left side of the 100 foot ROW between the railroad and NE Webster Road for approximately one half mile with moderate grading and clearing.

The ROW increases to 150 feet as it approaches a fill section across a creek and wetland complex of Heisson. The rail bridge in this segment shows problems related to soil movement. A trail alignment will traverse the creek and wetlands by a stand-alone structure or boardwalk. Moderate clearing and minor grading will be needed up to NE 279th Street.

Map 8

NE 279th STREET TO NE HANTWICK ROAD - HEISSON TO EAST FORK LEWIS RIVER TRAILHEAD (MP-18.7 to MP-22)

Cross NE 279th Street on-grade near the Heisson Store. The Heisson Store vicinity would be a good location for a trailhead. NE 279th Street has a posted speed limit of 50 MPH and an ADT of 1,627 (2003). This intersection marks the division between freight and scenic rail operators.

RECOMMENDED: Due to extremely steep side slopes, a majority of the ROW from Heisson to Hantwick Road is not suitable for shared-use trail development at the standard recommended by this study until rail improvements are made, or the rail use is abandoned. A natural surface hiking and equestrian trail, possibly suitable for mountain biking, is recommended for this segment with an on-road route improved between Heisson and the East Fork Lewis River Greenway at the Hantwick Road trailhead (MP-22).

Natural surface trail in/adjacent to the railroad corridor: Cross NE 279th Street on-grade near the Heisson Store (50 MPH/ADT 1,627 (2003)). The trail alignment switches to the right side of the 100 foot ROW. The trail character and signing for natural surface and narrow steep conditions should begin immediately at Heisson. For the first half-mile, minor to moderate grading and clearing is required.

From MP-19.7 to MP-20.2 the terrain becomes very challenging with close to vertical side slopes in some areas requiring a combination of grading and natural surface trail construction techniques. An primitive road runs parallel to the ROW varying to no more than 75 feet outside of the ROW, which could be used as part of the alignment. At MP 20.2, the recommended alignment is back adjacent with the rail.

A bridge would be required at MP-20.5 to cross Basket Creek near the existing 100' long rail trestle. Immediately after this crossing, the recommended alignment traverses steep side slopes and again rises above the rail. There will be sections in

this next quarter mile that will be out of the ROW. At MP 20.75, the alignment returns to the rail ROW.

At MP-20.9 the corridor borders Lucia Falls Regional Park and moderate to significant side slopes are present through MP-21.4 requiring extensive grading and/or structures. Using an unused primitive road bed could be a possibility. The road varies from being just inside to no more than 75 feet outside of the ROW.

Near MP-21.4, the corridor moderates as the alignment parallels a wetland and residential subdivision.

From MP-21.75 to MP-22 the corridor runs adjacent to Hantwick Road. The trail remains on the right side of the corridor throughout this segment.

The track makes an on-grade crossing of NE Hantwick Road (50 MPH/ADT 149 (2007)).

The East Fork Lewis River Greenway trailhead at Hantwick Road includes parking, water, picnic, and toilet facilities.

Map 9 & 10

NE HANTWICK ROAD TO NE LUCIA FALLS ROAD - AT MOULTON FALLS REGIONAL PARK (MP-22 to MP-24.5)

RECOMMENDED: East Fork Lewis River Greenway Trail. After the on-grade crossing of NE Hantwick Road, the recommended alignment follows the existing 2.25 mile East Fork Lewis River Greenway Trail which can be accessed at a parking area and equestrian staging area off of Hantwick Road. This paved 10 foot trail parallels the right side of the rail corridor outside of the right-of-way for over one mile before diverging as the rail approaches a long trestle over the East Fork Lewis River.

The existing trail is paved for close to 1 mile and then becomes a well-graded and formed soft surface tread.

The popular single track Bells Mountain Trail (with links to the Tarbell Trail) intersects the East Fork Lewis River Greenway Trail about a quarter mile before the bridge crossing over the East Fork Lewis River.

After approximately 2.5 miles the Greenway Trail crosses the East Fork Lewis River on a dramatic wooden arch bridge. Minor to moderate grading is required for no more than one-quarter mile to NE Lucia Falls Road.

Map 10 & 11

MOULTON FALLS REGIONAL PARK TO YACOLT. MP-24.5 to MP 26.85

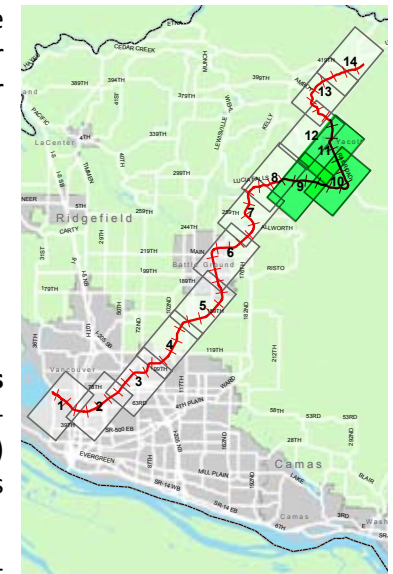
RECOMMENDED: Railroad Corridor Parallel to NE Lucia Falls Road & NE Railroad Avenue: Improve the existing ladder crossing treatment of NE Lucia Falls Road (50 MPH/ADT 1,781 (2003)) with signing for on coming motor traffic, and adding stop signs for cyclists at the crossing.

A short, approximately 30 foot structure will be needed immediately after crossing NE Lucia Falls Road across a down slope to connect to a parking area across from NE Sunset Falls Road. Parallel to NE Sunset Falls Road is an access road up to a 47 space parking area that can be used to access the trail.

Pedestrian traffic is often heavy in this vicinity. Redesign and formalize the parking lot across from the NE Sunset Falls Road intersection. Minor to moderate grading and a traffic barrier will be required to widen the alignment and separate it from roadway traffic on NE Railroad Avenue.

Re-join to the right side of the 100 foot rail ROW where NE Railroad Avenue comes parallel to the ROW approximately ¼ mile north of Sunset Falls Road near MP 24.5. Minor to moderate grading and clearing will be required. Near MP-25 a bridge or boardwalk may be required where the ROW traverses a wetland and beaver ponds.

Divert the trail to a new perpendicular crossing of Railroad Avenue before the diagonal rail crossing near MP-25.25. Return to the right side of the rail ROW. NE Railroad Avenue has a posted speed limit of 50 MPH and an ADT of 1,484 done in 2003. Remain on the right side of the 100 foot ROW.



Map 9: MP-21 to MP-23.
Map 10: MP-23 to MP-26.
Map 11: MP-26 to MP-27.



Map 12: MP-27 to MP-29.
Map 13: MP-29 to MP-32.

Map 12

EAST YACOLT ROAD TO NE AMBOY ROAD. MP-26.85 to MP-27.4

RECOMMENDED: Eastern rail spur (Yacolt Wye)/ Railroad Corridor: From MP-25.25 to MP-26.75 the trail remains on the right side of the 100 foot ROW. There are three on-grade street crossings and several private driveway crossings as the trail enters Yacolt through a parkway like setting requiring minor grading and clearing. The three crossings are East Hoag Street, East Jones Street and East Cushman Street, all having a 25 MPH posted speed limit.

In Yacolt, provide linkage west on Yacolt Road for approximately 800 feet to Yacolt Elementary School.

Improve on-grade crossing of East Yacolt Road, which has a posted speed limit of 25 MPH and follow the eastern spur of the wye on the right side through a 100 foot ROW.

At MP-27, the ROW decreases to 50' for approximately 700 feet. There are possible encroachments into the ROW on the right side.

Town Well Park and ball fields are adjacent to the corridor on the left side of the tracks. Informal access trails from Town Well Park may develop in this segment via unpermitted crossings.

Continue on the right side of the corridor traveling toward Cedar Creek. The ROW widens to 200 feet to accommodate tall ballast fill slopes covering the Cedar Creek culvert. Cross Cedar Creek by way of a low level bridge separated from the rail at the toe of the fill slope.

After crossing Cedar Creek the ROW narrows to 66 feet. Minor to moderate grading with moderate clearing will be necessary. Acquisition may be required.

PARALLEL TO NE AMBOY ROAD MP-27.5 TO MP-29.6

RECOMMENDED: Railroad Corridor: The on-grade crossing at NE Amboy Road (at MP-27.5) requires improvements such as signing and striping to provide motorists and trail users an awareness of the crossing, develop a perpendicular crossing.

The posted speed limit on NE Amboy Road is 50 MPH with an ADT of 1,383 (2002). The alignment remains to the right of the track in a 100 foot ROW. Minor to moderate grading and clearing, wetlands, and stream crossings will be encountered in this segment.

Near MP-28.8, the alignment nears Amboy Road and parallels it beginning near NE Gerber Road. For a short distance the roadway and railroad right-of-ways are adjacent. The rail ROW narrows to 50 feet. Retaining walls, moderate grading, and possibly acquisition may be required in this narrow stretch to provide separation from Amboy Road.

The ROW widens to 100 feet at MP-29. Moderate grading and clearing will be needed up to the next Amboy Road crossing at MP-29.5.

Map 13

NE AMBOY ROAD TO YALE BRIDGE ROAD. MP-29.6 to MP 33

RECOMMENDED: Railroad Corridor: Remain on the right side of the 100 to 150 foot ROW to an on-grade crossing of NE Amboy Road at MP-29.6. The posted speed limit here is 50 MPH and the ADT is 1,168 (1996). Provide improvements such as signing and striping to improve motorists and trail users awareness of the crossing, develop a perpendicular crossing.

Beyond Amboy Road the first quarter mile is relatively flat with minor grading and minor to moderate clearing required. Several private road crossings are encountered. Beginning at MP-30 occasional very steep slopes are encountered on both sides of the corridor to MP-32. The right side of the track may provide a better construction location in most locations. Trail development

should be coordinated with track upgrades and realignment through this segment.

Options include cutting into the rock face, a natural surface trail aligned above the steep slope, or realignment of the rail within the corridor to MP-32.

Map 14

MP-32 to the End of the Line

The alignment beyond MP-32 will entail minor grading and minor to moderate clearing to the end of the line at MP-33.

The trail can exit the ROW near the extension of NE Yale Bridge Road at MP-32.6. Acquisition may be required, providing connection to Yale Bridge Road and the USFS Ranger Station for Mt. St. Helens Volcanic Monument.



Map 14: MP-32 to MP-33 (end of the line).

Table A-1: Chelatchie Prairie RWT Segments Summary

| Location | Length (miles) | Right-of-way | Comments – special design considerations |
|---|-----------------------|--------------------------------|---|
| NW Fruit Valley Rd. to NE Hazel Dell Ave. | 1.5 | Existing trail | This Burnt Bridge Creek Trail segment is scheduled to be re-paved in 2008. |
| NE Hazel Dell Ave. to MP-1.7 | 1 | Road and Existing trail | 1/3 mile gap in BBC trail on Hazel Dell. |
| MP 1.7 @ Hwy. 99 to MP 3.25 @ St. John's Rd. | 1.5 | Railroad | 2 railroad spur crossings, grading to get up to RR corridor. Redevelop existing rail crossing near Minnehaha Street. Narrow ROW may require acquisition. Coordinate trail crossing of St. Johns Road with traffic signal at NE 68th Street. |
| MP 3.25 to MP 4 @ NE 78 th St. | .8 | Railroad | Crowded road and rail ROW. Coordinate trail development with St. Johns roadway improvements. |
| Padden Parkway Trail | 2.3 | Existing Trail | Cross NE 47th Ave at T-intersection. Develop connector trail to Padden Parkway Trail. |
| NE 94th Avenue, NE 119th Street | 2.1 | Road ROW | Develop shared-use path parallel to NE 94th Avenue to NE 119th St. Develop shared-use path parallel to NE 119th to rail ROW at MP-7.6 |
| NE 119 th St. to NE 149 th St. | 1.65 | Railroad/out of ROW | Coordinate with proposed Railroad Industrial zoning to provide trail continuity through or around proposed development. |
| NE 149 th St. to NE 142 nd Ave. | 1.8 | Railroad, Road, Existing Trail | Several road and rail crossings. Industrial spur in Brush Prairie. Narrow ROW may require acquisition. Maintain shared-use path continuity in sections out of rail ROW. |
| NE 142nd Ave. to NE 199 th St. | 2.0 | Road ROW | Interim alignment follows NE 142nd ave. Narrow ROW may require acquisition, development code coordination, bridge crossing of Cedar Creek. |
| NE 199 th St. to E. Main St. in Battle Ground | 1.0 | Railroad and adj. development | Coordinate with adjacent developments outside of ROW for multi-use path. |
| E. Main St. to NE 249 th St. near B.G. Lake S.P. | 2.9 | Railroad | Moderate to significant grading and clearing. Streams and wetlands adjacent to rail ROW may require mitigation. |
| NE 249 th St. to NE 279th St. @ Heisson | 1.75 | Railroad | Rural high speed road intersections. Wetland and bridge crossings. |
| NE 279th St. to NE Hantwick Rd. | 3.2 | Railroad and out of ROW | Very steep terrain may require acquisition. Single track interim trail, develop share-use trail upon rail improvement or abandonment. |
| NE Hantwick Rd. to NE Lucia Falls Rd. | 2.9 | Existing Trail | Connect to existing East Fork Lewis River Greenway Trail. |
| NE Lucia Falls Rd. to E. Yacolt Rd. (In Yacolt) | 2.5 | Road and Railroad | Wetlands and minor bridge crossing. |
| E. Yacolt Rd. to NE Amboy Rd. | .8 | Railroad | Narrow ROW may require acquisition. Crossing Creek adj. to steep fill slope. |
| Parallel to NE Amboy Road | 2 | Railroad and road | Moderate grading and clearing. Narrow ROW adj. to road. |
| NE Amboy Rd. to MP 33 | 3.5 | Railroad | Steep side slopes. Major to moderate grading and clearing |
| | 35 miles | | |

Resources and Permitting

The proposed alignment extends diagonally through Clark County for 33 miles. The trail commences near Vancouver Lake at the Burnt Bridge Creek Trail Stewart Glenn trailhead located at Fruit Valley Road and NW Bernie Drive and extends across the county terminating at Chelatchie Prairie northeast of Amboy, near the junction of NE Healy Road and Yale Bridge Road.

Development of the trail corridor has the potential to impact a variety of environmentally sensitive areas present along the alignment, including wetlands, priority habitats and species, floodplain, streams, geologic hazard areas and rare plants. In addition, future project actions have the potential to involve several local, state and federal regulatory agencies. The following jurisdictions and agencies could have permitting authority depending on the type and location of the action: cities of Vancouver, Battle Ground, and Yacolt; Clark County; Washington State Department of Fish and Wildlife; Washington State Department of Ecology; and, the U.S. Army Corps of Engineers.

The discussion below provides an overview of the resources found along the alignment and summarizes the permits likely to be required to implement the master plan.

NATURAL RESOURCES

Wetlands

The National Wetland Inventory (NWI) and the Clark County Wetland Inventory both identify a large number of wetland areas near the alignment. These wetlands range in quality from ditches along the railroad grade to high quality wetlands, all of which are regulated. The majority are located along the first 17 miles of the alignment. During field reconnaissance additional potential wetland areas not shown on the NWI or Clark County maps were identified. These areas are located between railroad mile post 16.5 and mile post 26.

The Clark County Geographic Information System (GIS) data identifies the locations of the high quality wetlands (Table 1).

Table B-1: Clark County High Quality Wetlands within 500-feet of Alignment

| Start MP | End MP | Description |
|----------|--------|---|
| 0 | 1.5 | North of alignment Along Vancouver Lake and Burnt Bridge Creek |
| 4.5 | 7.5 | Both sides of and across alignment |
| 10 | 10.5 | South of alignment |
| 11 | 12 | Southeast of alignment Along tributaries to Salmon Creek |
| 14.5 | 15 | North of alignment Along Weaver Creek |
| 18 | 18.5 | Cross alignment Along tributaries to East Fork Lewis River |
| 20 | 22 | North of alignment Adjacent to East Fork Lewis River |
| 25 | 25.5 | West of alignment Adjacent to Yacolt Creek |
| 27.5 | 28 | West of alignment Along Cedar Creek |
| 30 | 31 | North and west of alignment Adjacent to Chelatchie Creek and its tributaries |
| 32 | 33 | North of the alignment Adjacent to Chelatchie Creek and its tributaries |

(Source: Clark County GIS Data, August 2006, wetpoly.shp)

Streams

The alignment crosses or is within the immediate vicinity of a number of streams and their tributaries, including Burnt Bridge Creek, Curtin Creek, Salmon Creek, Weaver Creek, East Fork Lewis River, Basket Creek, Big Tree Creek, Cedar Creek, Yacolt Creek, Chelatchie Creek and many unnamed streams. Within

the project area, the major streams have the characteristics outlined in Table 2.

Table B-2: Stream Characteristics

| Stream | Designated Shoreline of the State | Shoreline Buffer | Fish | 303(d) List |
|-----------------------|-----------------------------------|------------------|------|-------------|
| Basket Creek | √ | — | √ | — |
| Big Tree Creek | √ | √ | √ | — |
| Burnt Bridge Creek | √ | √ | √ | √ |
| Cedar Creek | √ | √ | √ | — |
| Chelatchie Creek | √ | √ | √ | — |
| Curtin Creek | √ | √ | √ | — |
| East Fork Lewis River | √ | √ | √ | √ |
| Salmon Creek | √ | √ | √ | — |
| Weaver Creek | √ | — | √ | √ |
| Yacolt Creek | √ | √ | √ | √ |

(Source: Washington State Department of Ecology, GIS Data, 303d_polys.shp; Clark County GIS Data, Washington State Department of Natural Resources Stream Classification Information, dnrwc.shp; Clark County GIS Data, shorebuf.shp)

Priority Habitats and Species

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

Riparian Zones

Riparian Habitat Conservation Areas are those areas adjacent to aquatic systems with flowing water containing elements of both aquatic and terrestrial ecosystems that mutually influence each

other. Riparian habitat begins at the ordinary high water mark and extends to that portion of the terrestrial landscape influenced by, or directly influences, the aquatic ecosystem. Riparian habitat includes the entire extent of the floodplain and riparian areas of wetlands directly connected to stream courses.

The alignment passes through a number of riparian areas associated with the following water bodies: Burnt Bridge Creek, Curtin Creek, Salmon Creek and tributaries, Weaver Creek and tributaries, East Fork Lewis River and tributaries, Basket Creek, Big Tree Creek, Yacolt Creek and tributaries, Cedar Creek and tributaries, and Chelatchie Creek tributaries.

Waterfowl Concentrations

Waterfowl habitat is primarily associated with wetlands and wetland fringe areas. Areas commonly or traditionally used on a seasonal or year-round basis are defined as “Regular Concentrations” (RC). Areas commonly or traditionally used by significantly large aggregations of animals, relative to what is expected for a particular species or geographic area are referred to as “Regular Large Concentrations” (RLC).

The only WAFO habitat area along the alignment is associated with Vancouver Lake. WDFW PHS data identifies a RC and RLC covering Vancouver Lake and extending just over a mile up Burnt Bridge Creek.

Urban Natural Open Space

Urban Natural Open Space is identified when a priority species resides within or is adjacent to the open space and uses it for breeding and/or regular feeding; and/or the open space functions as a corridor connecting other priority habitats (e.g. oak woodlands, waterfowl concentrations, wetlands), especially those that would otherwise be isolated; and/or the open space is an isolated remnant of natural habitat larger than 10 acres and is surrounded by urban development. Local considerations may be given to open space areas smaller than 10 acres.

UNOS areas are identified within the first 5 miles on both sides of the alignment and south of the alignment between mileposts 14 and 16.

Oak Woodland

Oak woodlands are defined by WDFW as stands of pure oak or oak/conifer associations where canopy coverage of the oak component is 25%; or where total canopy coverage of the stand is less than or equal to 25%, but oak accounts for at least 50% of the canopy coverage present. In non-urbanized areas west of the Cascades, priority oak habitat consists of stands greater than or equal to 1 acre in size. In urban/urbanizing areas, single oaks or stands less than 1 acre may also be considered a priority habitat when found to be particularly valuable to fish & wildlife.

Oak woodlands were identified along the alignment by both the PHS data and by staff during the reconnaissance survey (Table 3).

Table B-3: Oak Woodlands within 500-feet of alignment

| MP Start | MP End | Source | Description |
|----------|--------|-----------------|--|
| 0 | 1.5* | PHS Field Study | Oak stand north of Burnt Bridge Creek |
| 3 | 3.5 | Field Study | Oak stand along north edge of alignment |
| 5.5 | 6 | Field Study | Single large oak north of alignment near NE 101st Street. Oak stand south of alignment west of NE 72nd Avenue |
| 13 | 13.5* | PHS | Oak stand east of alignment along SE Grace Avenue, north of NE 199th Street |
| 18 | 19 | Field Study | Oak stands along eastern and western edge of alignment. |

(Source: Clark County GIS Data, August 2006, phswild.shp)

* within 1,000 feet of alignment

Rare Plants

The Washington Natural Heritage Program (WNHP) collects and distributes information on rare plants and ecological communities. The WNHP GIS data identifies the following WHNP plant species and high-quality or rare plant communities along the alignment: Hairy-stemmed Checker-mallow (*Sidalcea hirtipes*); Small-flowered Trillium (*Trillium parviflorum*); Tall Bugbane (*Cimicifuga elata* var. *elata*); and, Douglas-fir/Beaked Hazel/Swordfern Forest (*Pseudotsuga menziesii*/*Corylus cornuta*/*Polystichum munitum*).

Areas of Special Flood Hazards

Areas of special flood hazards are those areas identified by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Rate Maps for Clark County. These areas include the floodway, floodplain, and flood fringe. Areas of special flood hazards along the following streams have the potential to be impacted by the alignment: Burnt Bridge Creek, Curtin Creek, Salmon Creek, East Fork Lewis River, Basket Creek, Big Tree Creek, Yacolt Creek, and Cedar Creek.

Geologic Hazard Areas

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

Clark County GIS data identifies geologic hazard areas at multiple areas along the alignment. In addition to the areas listed in Table 4, large sections adjacent to the alignment feature slopes greater than 15%. These slopes primarily exist along Curtin Creek, Cedar Creek, and East Fork Lewis River and along the final 14 miles of the alignment.

Table B-4: Geologic Hazard Areas

| MP Start | MP End | Description |
|----------|--------|--|
| 0 | 3 | Area of potential instability; slopes >25% |
| 11.5 | 12 | Area of potential instability |
| 12 | 12.5 | Area of potential instability |
| 14.5 | 15.5 | Area of potential instability |
| 19.5 | 24.5 | Area of potential instability |
| 21.5 | 22 | Older landslide debris |
| 29 | 29.5 | Area of potential instability |
| 30 | 33 | Area of potential instability |

(Source: Clark County GIS Data, August 2006, *Indslp.shp* and *Indslide.shp*)

Critical Aquifer Recharge Areas

The vast majority of the alignment is located within a Category II Critical Aquifer Recharge Area (CARA). A CARA is an area that has a critical recharging effect on aquifers used for potable (drinking) water. A Category I CARA is defined as the highest priority critical aquifer recharge area; whereas, a Category II CARA is a primary critical aquifer recharge area. The alignment passes through three Category I CARAs between the following mile posts: 10-10.5, 21-22, and 26.5-27.5.

ARCHAEOLOGICAL AND CULTURAL RESOURCES

Clark County was historically a gathering place for Native American tribes and the site of the first non-native settlement in the Pacific Northwest, Fort Vancouver. The Hudson's Bay Company established Fort Vancouver in 1825. American immigration to Clark County began in the 1840s. However, archaeologists estimate that early Indian settlements were established along the Columbia River as early as 10,000 to 15,000 years ago. Chinook, Klickitat, and Cowlitz peoples historically used areas along waterways within Clark County.

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

The Clark County GIS data portrays identified historic sites and the Predictive Model Probability Levels for the presence of archaeological resources throughout the county. Several historic sites have been identified along or within ¼ mile of the alignment. The majority of these sites occur within the city limits of Battleground (Table 5). Three sites are listed on the Clark County Heritage Register (Henry Heisen House, Covington House, and Packard House). Of these, two are listed on the National Register of Historic Places (Henry Heisen House and Covington House).

Table B-5: Historic Sites

| MP Start | MP End | # of Identified Historic Sites |
|----------|--------|--------------------------------|
| 0 | 5 | 7 |
| 5 | 10 | 3 |
| 10 | 15 | 11 |
| 15 | 20 | 2 |
| 20 | 25 | 1 |
| 25 | 30 | 1 |
| 30 | end | 2 |

(Source: Clark County GIS Data, August 2006, *amod-sim.shp*)

The City of Vancouver identifies areas as having a higher (Level A) or lower (Level B) probability of the presence of archaeological resources. The majority of the alignment within the Vancouver city limits is Level A.

Clark County identifies areas as having a high (80-100 percent), moderate-high (60-80 percent), moderate (40-60 percent), low-moderate (20-40 percent), or low level (0-20 percent) probability of resource presence. Portions of the alignment pass through each of these areas.



Near Mile Post 19.5

PERMITTING

Trail construction will require several local, state, and federal permits (Table 8). The following jurisdictions and agencies could have permitting authority depending on the type and location of the action: cities of Vancouver, Battle Ground, and Yacolt; Clark County; Washington State Department of Fish and Wildlife; Washington State Department of Ecology; U.S. Army Corps of Engineers; National Marine Fisheries Service; and the U.S. Fish and Wildlife Service.

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

Environmental permits will be required if project actions impact any of the resources discussed above.

Local Permitting

Site Plan Review

Construction of trail segments and support facilities will require development permits from the applicable local jurisdiction. Each jurisdiction will require supporting documentation and additional permits dependent on the type and location of the proposed activity, including, but not limited to, environmental, land use, transportation, water, and sewer review.

It is likely that a Clark County Type II Site Plan Review process will be required for each new segment of trail or new support facilities within the county. The proposed improvement plans necessary for application include environmental, land use and transportation, landscaping, sign and outdoor lighting plan. In addition to the required plans, supporting documents will be necessary for the Clark County submittal and may include the following: soil analysis report, preliminary stormwater design report, proposed storm plan, traffic study, SEPA, sewer district

utility review letter, water utility review letter, health department project evaluation letter, covenants or restrictions, and other associated environmental applications as detailed below. For support facilities, the necessary permits may include commercial building, mechanical/plumbing, signs, retaining walls, trash enclosures and outbuildings.

The City of Vancouver will also require a Type II Site Plan Review Application for trail segments and support facilities within the city. This application requires a pre-application conference, which will specify the details of submittal. The required elements of a Type II plan include existing conditions plans, a site plan, and architectural plans and elevations where applicable. Additionally, engineering plans with a utility plan, stormwater and erosion control, grading, and street design will be necessary. Other information required for submittal include a sign plan, lighting plan, landscape plan, tree plan, Clark County Health Department Development Review letter, and Certificate of Concurrency request. The City of Vancouver may also request a traffic study, SEPA checklist, and Archaeological Predetermination and survey, soils report, hydrology report or other associated environmental reports contingent on environmental conditions onsite. New support facilities within the City of Vancouver may require other building permit applications, contingent on the size and services provided.

A Type I Site Plan will most likely be required for new support facilities or new trails within the City of Battle Ground. This application requires a site plan, landscape plan, architectural elevations, lighting and preliminary utility plans.

New trails developed in BPA right-of-way may require an application for Proposed Use of BPA right-of-way. This application requires plans showing existing and proposed grading plans.

The proposed trail alignment passes through a number of zoning districts within each jurisdiction. Table 6 outlines whether the trail is a permitted or conditional use within those districts. Trailhead facilities may have different requirements.

Table B-6: Zoning and Trail Use

| Jurisdiction | Zoning | Permitted Use (Trail) | |
|---------------|----------------------------------|------------------------------|------|
| Clark County | AG-20 | Agriculture-20 | P |
| | BP | Business Park | P1 |
| | CR-2 | Rural Commercial | P |
| | FR-40 | Forest tier II-40 | P |
| | FR-80 | Forest tier I-80 | P |
| | MH | Heavy Industrial | P1 |
| | ML | Light Industrial | P1 |
| | MX | Mixed Use | P |
| | Parks/OS | Parks/Open Space | U |
| | Parks/WL | Parks/Wildlife Refuge | U |
| | R-5, R-10, R-20 | Rural-5 | P |
| | R-22 | Urban Residential | P |
| | R1-5, R1-6, R1-7.5, R1-10, R1-20 | Single Family Residential | P |
| RC-1, RC-2.5 | Rural Center Residential | P | |
| UR-10 | Urban Reserve | P | |
| Battle Ground | CC | Community Center | P |
| | DC | Downtown Commercial | P |
| | ML | Light Industrial | P |
| | MU-E | Mixed Use - Employment | P |
| | R5, R7, R10, R12, R20 | Residential | U |
| Vancouver | IL | Light Industrial | C |
| | OCI | Office Commercial Industrial | C |
| | Park | Park | P |
| | R-6, R-9 | Low-Density Residential | L2 |
| | R-18 | Medium-Density Residential | L3/C |
| Yacolt | Park | Park | U |

P – Permitted Use; L – Limited Use; C – Conditional Use; U – Unknown

1 Permitted only in association with a use permitted in the district.

2 Trails are limited uses subject to the additional development standards contained in Section 20.410.050(E).

3 Trails that meet all of the development standards in Section 20.420.050(E) (1), (2), and (3), respectively, are permitted as limited uses; all others require Conditional Use approval.

Critical Areas

The Washington State Growth Management Act (GMA) identifies the protection of five critical areas as necessary for protection of the natural environment and the public’s health and safety. Each city and county in Washington State has the responsibility to identify, designate, and protect those critical areas found in their local environment. The trail alignment passes through the cities of Battle Ground, Vancouver, and Yacolt and Clark County. The identified critical areas include fish and wildlife habitat conservation areas, wetlands, frequently flooded areas, critical aquifer recharge areas, and geologic hazard areas. Each of these jurisdictions has local ordinances protecting these resources (Table 7).

Table B-7: Local Regulatory Authority

| Permit | Local Critical Areas Ordinance ¹ | | | Clark County |
|------------|---|----------------|----------------|--------------|
| | Battle Ground | Vancouver | Yacolt | |
| Wetlands | BMC 18.270 | VMC 20.740.140 | Ordinance #387 | CCC 40.450 |
| Habitat | BMC 18.280 | VMC 20.740.110 | Ordinance #387 | CCC 40.440 |
| Geohazards | BMC 18.300 | VMC 20.740.130 | Ordinance #387 | CCC 40.430 |
| Floodplain | BMC 18.310 | VMC 20.740.120 | Ordinance #387 | CCC 40.420 |
| CARA | BMC 18.290 | VMC 14.26 | Ordinance #387 | CCC 40.410 |
| | | | | |

1. BMC – Battle Ground Municipal Code; VMC – Vancouver Municipal Code; CCC – Clark County Code

Specific actions to implement the master plan may require all or a combination of the local environmental permits from one or more, of the jurisdictions depending the location and type of the action (Table 8).

Each jurisdiction has slightly different rules and requirements for their critical area permits. In addition, the jurisdictions also require supporting documentation for many of the permits. Necessary information could include any of the following: no rise certification; wetland delineation; habitat impact assessment and mitigation; wetland mitigation plan (see discussion below); rare plant survey; geologic hazard area study; buffer impact mitigation; historical and cultural resources survey; or a biological assessment.

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

Archaeological and Cultural Resources Review

Archaeological and cultural resources are regulated by local jurisdictions in different ways. For instance, Vancouver has an Archaeological Resource Protection ordinance while Clark County regulates these resources through the SEPA process. The predictive model is used to determine if an archaeological review is needed to obtain a development permit. In Vancouver, all parcels within Level A are required to undergo review. Clark County determines the need for an archaeological predetermination based on the probability index (low, moderate, etc.) and the potential for impacts by the proposed action. An archaeological predetermination is a method to determine whether cultural resources exist on a particular site without requiring a full archaeological survey. Project actions with moderate to high potential for impacts located within a moderate, moderate-high, or high predictive model map designation will require an archaeological predetermination, as will actions with a high potential for impacts located within a low-moderate area.

State Regulatory Authorities

Washington State Department of Fish & Wildlife

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

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

Washington State Department of Ecology

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

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

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

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

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

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

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

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

An applicant is required to apply for coverage under the state’s construction stormwater general permit if the proposed project involves soil disturbing activities where 1 or more acres will be

disturbed, and if stormwater will be discharged to a receiving water directly or to storm drains that discharge to a receiving water.

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

Washington State Department of Natural Resources

The Washington State Department of Natural Resources (DNR) houses the Washington Natural Heritage Program (NHP), which provides information related to the presence of rare plant species and natural ecosystems. There is no state law protecting rare plant species/communities in Washington. However, local jurisdictions may provide protection through their ordinances, regulations and permitting requirements (e.g., Habitat Permit).

Federal Regulatory Authorities

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) issues permits for certain activities in, over, under or near waters of the U.S. or special aquatic sites, including wetlands. A Section 10 permit is required for any work in, over, or under navigable waters. A Clean Water Act Section 404 permit is required for the discharge of dredged or fill material into waters of the U.S., including special aquatic sites such as wetlands.

The Section 404/10 permit application, Joint Aquatic Resources Permit Application (JARPA), also requires the applicant provide an alternatives analysis discussing how alternative sites and designs were evaluated in an effort to avoid or minimize anticipated project impacts. Any impacts to wetlands will require the submittal of a wetland delineation report and a compensatory mitigation plan for any unavoidable impacts to wetlands or waterways.

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

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

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

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

Table B-8: Potential Permits or Reviews Required for the Chelatchie Rail with Trail Project

| Jurisdiction | Site Plan Review | Fish & Wildlife Habitat Conservation Areas | Critical Areas ¹ | | | | Shorelines | SEPA | Archaeological & Cultural Resources | Section 404/Section 10 | Section 401 Water Quality Certification | NPDES Construction Stormwater | Hydraulic Project Approval | Endangered Species Act |
|--|------------------|--|-----------------------------|------------|---------------------------------|-------------------|------------|------|-------------------------------------|------------------------|---|-------------------------------|----------------------------|------------------------|
| | | | Wetlands | Floodplain | Critical Aquifer Recharge Areas | Geological Hazard | | | | | | | | |
| Local | | | | | | | | | | | | | | |
| Battle Ground | X | X | X | X | | X | | X | X | | | | | |
| Vancouver | X | X | X | X | | X | X | X | | | | | | |
| Yacolt | X | | | X | | | | X | | | | | | |
| Clark County | X | X | X | X | | X | X | X | | | | | | |
| State | | | | | | | | | | | | | | |
| Washington Department of Ecology | | | X | | | | X | | | | X | X | | |
| Washington Department of Fish and Wildlife | | | X | | | | | | | | | | X | |
| Federal | | | | | | | | | | | | | | |
| US Army Corps of Engineers | | | X | | | | | | X | X | | | | X |
| National Marine Fisheries Service | | | | | | | | | | | | | | X |
| US Fish and Wildlife Service | | | | | | | | | | | | | | X |

1. Based on the currently identified critical areas present within each jurisdiction.

Mitigation

The Corps and local jurisdictions both regulate impacts to wetlands; whereas, only the local jurisdiction regulates impacts to wetland buffers. Both the Corps and local jurisdictions require mitigation to compensate for impacts to the functions and values of the impacted wetland(s) and buffer(s) so that no overall net loss in wetland acreage and functions occur. Each local jurisdiction requires mitigation to occur on-site or within the same local watershed as the impacted wetland. The City of Vancouver permits mitigation to occur in a different watershed if specific criteria are met.

Both the Corps and local jurisdictions have an established hierarchy of preferred mitigation methods. Some jurisdictions are more specific about the type and location of mitigation than others (Table 9).

The proposed alignment is predominantly within the Chelatchie right-of-way. When necessary, portions of the alignment will run along adjacent roadways, adjacent properties, or existing trails. The width of the right-of-way ranges from 58 to 200 feet along the alignment. As such, the right-of-way boundary will likely hinder the ability for on-site mitigation to occur. In some instances, it may prove difficult to locate mitigation within the same watershed as the impact. Locating an appropriate mitigation site may require the acquisition of property or conservation easements. The use of off-site mitigation will increase project costs.

Impacts to riparian areas, fish and wildlife habitat areas, and all associated buffers also require mitigation. The right-of-way will also constrain on-site mitigation opportunities for impacts to these resources. Buffer averaging is permitted and may help alleviate this constraint.

Table B-9: Mitigation Type and Location

| Mitigation – Order of Preference | | | | |
|----------------------------------|---|---|--|-------------------------------------|
| Jurisdiction | 1 | 2 | 3 | 4 |
| U.S. Army Corps of Engineers | Mitigation Bank | In-lieu payment | Mitigation - Watershed - On-site, in-kind - Off-site, out-of-kind | |
| Battle Ground | On-site ¹ , in-kind ² | Same local watershed, in-kind | | |
| Vancouver | On-site, in-kind | In-kind, within: 1. contributing area 2. stream reach 3. sub-watershed 4. watershed | In-kind, different watershed (specific criteria must be met) | |
| Yacolt | In-kind | | | |
| Clark County | On-site | Off-site ³ , same watershed Mitigation bank | In-kind, off-site | Out-of-kind ⁴ , off-site |

1. On-site: within the project boundaries and/or areas adjacent or contiguous to the impact area
2. In-kind: the same physical and functional type as the impact area
3. Off-site: areas not meeting the definition of on-site
4. a different physical and functional type than the impact area

Public Open Houses & Displays

Evening open houses were held in Brush Prairie and Yacolt on July 10 and 11, 2007. Approximately 50 citizens attended at Prairie High School and almost 30 citizens attended at Yacolt Elementary. Open houses were again held in the fall, drawing over 60 people to two events in Yacolt (October 2) and Brush Prairie (October 4).

Approximately 110 people attended the February 26, 2008 open house where project staff displayed information about the corridor and the recommended trail alignment for public review and comment. Attendees were asked to vote for their preference for a first segment of trail to be developed. Feedback gathered at the public meeting assisted project staff in refining the trail alignment and recommendations for the first segment to build. Comments were taken by staff, on questionnaires and in writing on the maps at each meeting. An electronic questionnaire was published on the project website following each open house and the results tabulated.

Final open house on February 26, 2008 at Prairie High School attracted over 120 people. The event was attended by Yacolt Mayor Joe Warren, Battle Ground Deputy Engineer Scott Sawyer, Battle Ground Lake State Park Superintendent Jim Presser, all advocating for the first trail segment to be built nearest to them.

Project display boards were posted at Yacolt Town Hall February 27 to March 11.

Public Engagement



A total of nearly 300 people attended five open houses during the project. The meetings were held in Yacolt Elementary and Prairie High School (pictured), near Battle Ground.



Presentations

July 16 2007 and March 3, 2008, Battle Ground City Council Presentation

- Supported by the Mayor and Council and expect a resolution of support for the planning and proposed segment development of the trail.

July 17 Battle Ground Parks Advisory Commission Presentation

- The plan and proposed trail segments for development are supported by the Commission

July 11, 2007, and March 10, 2008 Railroad Advisory Board

- The plan and proposed trail segments for development are supported by the Board

Ongoing updates Vancouver-Clark Parks and Recreation Advisory Commission

- The plan and proposed trail segments for development are supported by the Commission.

Staff assist people comment on alternative alignments at an open house in Yacolt.



Agency and Stakeholder Outreach Meetings

City of Battle Ground Public Works Director Rob Charles & Planning Director Robert Maul

- Supportive and interested in partnering to speed trail development

Washington DNR, Brian Poehlein, Regional Supervisor

- Supportive, no issues identified

Town of Yacolt, Mayor Joe Warren & Paul Tester, Public Works Director

- Supportive and interested in partnering to speed trail development

Washington Department of Fish and Wildlife, Ann Freize

- Supportive, no issues identified

Southwest Washington Regional Transportation Council

- Supportive with ongoing coordination

State Parks, Jim Presser Park Superintendent

- Supportive and interested in partnering to speed trail development

Portland Vancouver Junction Railroad, Eric Temple and Kim Rath

- Supportive with ongoing coordination

City of Vancouver Transportation

- Supportive with ongoing coordination

Clark County Community Planning and Legal

- Supportive with ongoing coordination

Clark County Bicycle Advisory Committee

- Supportive with ongoing coordination

Clark County Executive Equestrian Council, Back Country Horseman, & Clark County Endurance Riders

- Supportive and interested in partnering to speed trail development

Implementation

Maps 1 through 14 in the Recommendations chapter identify the recommended alignment for the RWT including segments that leave the rail ROW to use existing shared-use trails or future trails to be included in roadway improvement projects. As with many long trails, the Chelatchie Prairie RWT will be realized over a period of years, built as funds become available, and in coordination with rail and roadway improvements. Some portions may be built as a result of land development or as other opportunities arise for right-of-way acquisition and trail development. This appendix provides a summary of many of the funding sources available.

The primary purpose for phasing trail development is to break very large projects into smaller, logical segments for more feasible implementation. Individual trail segments must be safe and complete experiences in their own right, with logical termini and good connections within and to the community.

Candidates for First Phase Implementation

Several candidate segments were evaluated for the first phase of implementation for the Chelatchie Prairie Rail with Trail. The initial criteria for selecting segments for review included:

- logical termini (safe connection to the street grid or existing trails)
- adequate existing right-of-way width
- minimum conflicts with rail operations
- projected construction cost opinion of approximately \$2 million

Five candidates were identified and evaluated further, via a more detailed engineering and permitting assessment, review with agencies and the rail operator, and review with the community at the final project open house.

The Battle Ground to Battle Ground Lake State Park segment (see Maps 6 and 7) had consistent support from the community, user groups, rail operator and the agencies and was by far the most popular candidate in the public open houses.

Table 1 - Recommended first phase

| Segment | Mile Post | Length (feet) |
|---|--------------|---------------------------------|
| NE Fairground Ave to NE 167th | 14.4 to 15.8 | 7,200 |
| NE 167th St to NE 182nd Ave. at Battle Ground Lake State Park (including out of ROW access on NE 167th) | 15.8 to 17 | 6,600 (plus 3500 ft out of ROW) |

This segment connects Fairground Park in downtown Battle Ground to Battle Ground Lake State Park. It can extend existing equestrian opportunities and make use of existing trailhead facilities and conveniences. It crosses few roads, has very infrequent rail operations, and the right-of-way is relatively wide at 100 feet.

Funding

The majority of funding for trail implementation is acquired through the nonmotorized programs and funding opportunities provided by the Federal Highway Administration's *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)* program, which was enacted in 2005. Additional sources may include state and local agency revenues and contributions from citizens and corporations.

Federal & State Sources

SAFETEA-LU

There are a number of programs identified within SAFETEA-LU that provide for the funding of bicycle and pedestrian projects.

Recreational Trails Program

The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails

- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

In Washington, The National Recreational Trails Program is administered by the Recreation and Conservation Office. The timeline for funding application is as follows:

- February: Application workshops
- Early March: Letter of Intent due
- May 1: Application due
- August 1: Evaluation Packets due
- October: Awards announced

Information about the program, and links to information about the application process can be found online at: <http://www.rco.wa.gov/rcfb/grants/nrtp.htm>

Safe Routes to School (SR2S)

The Department of Transportation (WSDOT) provides state and federal funding for the Safe Routes to School Program. The purpose of the Safe Routes to Schools program is to provide children a safe, healthy alternative to riding the bus or being driven to school.

The Washington State Legislature included \$74 million to support pedestrian and bicycle safety projects such as pedestrian and bicycle paths, sidewalks, safe routes to school and transit. The Safe Routes to School Grants were established to address pedestrian and bicycle mobility and safety near schools.

The purpose of the Safe Routes to School program is to increase the number of children walking and biking to school safely. Eligible projects may include three elements:

1. Engineering Improvements (e.g. pedestrian and bicycle crossing improvements, off-street pedestrian and bicyclist facilities, secure bicycle parking facilities)

-
2. Education and Encouragement Efforts, and
 3. Enforcement Efforts

All projects must be within two-miles of primary or middle schools (K-8). More information about the Safe Routes to School Program may be found online at: http://www.wsdot.wa.gov/bike/Safe_Routes_Program.htm, or by contacting the program administrator Charlotte Claybrooke at 360.705.7302. Project proposals are due in early May.

Surface Transportation Program

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Eligible bicycle and pedestrian improvements include on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds.

Highway Safety Improvement Program

This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program. This program replaces the Hazard Elimination Program from TEA-21.

Transportation Enhancements

Administered by WSDOT, this program is funded by a set-aside of STP funds. Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems.

Congestion Mitigation/Air Quality Program

The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions. These federal funds can be used to build bicycle and pedestrian facilities that reduce travel by automobile.

Eligible bicycle and pedestrian facilities and programs include:

- Constructing bicycle and pedestrian facilities (paths, bike racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips
- Non-construction outreach related to safe bicycle use
- Establishing and funding State bicycle/pedestrian coordinator positions for promoting and facilitating nonmotorized transportation modes through public education, safety programs, etc. (Limited to one full-time position per State)

States may choose to transfer a limited portion of their CMAQ apportionment to the following Federal-aid highway programs: Surface Transportation Program (STP), National Highway System (NHS), Highway Bridge Program (HBP), Interstate Maintenance (IM), Recreational Trails Program (RTP), and the Highway Safety Improvement Program (HSIP).

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Park Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no

implementation funds available. Projects are prioritized for assistance based on criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a Federally-funded program that provides funding to assist in preserving, developing, and assuring accessibility to outdoor recreation resources including but not limited to parks, trails, wildlife lands, and other lands and facilities desirable for individual active participation. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Washington Recreation and Conservation Office.

Grant recipients must provide at least 50% matching funds in either cash or in-kind contributions. The timeline for the grant process is as follows:

- February: Application workshops
- Early March: Letter of Intent due
- May 1: Application due
- July 1: Technical Completion deadline
- Late July: Evaluation meetings
- Late August: Awards announced

Information about the program, and links to information about the application process can be found online at: <http://www.rco.wa.gov/rcfb/grants/lwcf.htm>

Washington State Bicycle and Pedestrian Program Grants

Pedestrian and Bicycle Safety Grants

The Washington State Legislature included \$74 million to support pedestrian and bicycle safety projects such as pedestrian and bicycle paths, sidewalks, safe routes to school and transit.

The Pedestrian and Bicycle Safety Grants were established to address the nearly 400 statewide fatal and injury collisions involving pedestrians and bicycles each year. More information about the Pedestrian and Bicycle Safety Grants may be found online at: http://www.wsdot.wa.gov/bike/Ped_Bike_Program.htm, or by contacting the program administrator Paula Reeves at 360.705.7302. Project proposals are due in early May.

Local Funding Sources

Local Bond Measures

Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities.

Tax Increment Financing/Urban Renewal Funds

Tax Increment Financing (TIF) is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this fi-

nancing, a project (or a portion of it) must be located within the URA.

System Development Charges/Developer Impact Fees

System Development Charges (SDCs), also known as Developer Impact Fees, represent another potential local funding source. SDCs are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

Street User Fees

The revenue generated by the street user fee is used for operations and maintenance of the street system, and priorities are established by the Public Works Department. This type of fee may free up more general fund money for off-street projects.

Local Improvement Districts (LIDs)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation.

TOPS-style Sales Tax

TOPS (Trails, Open Space and Parks), is the process used by the City of Colorado Springs to administer the Trails, Open Space and Parks ordinance passed by voters in April of 1997. The sales tax, 1/10 of one percent, generates about \$6 million annually for trails, open space and parks.

The process, administered by the Parks and Recreation Department of Colorado Springs, provides for the prudent acquisition, development and preservation of Trails, Open Space and Parks (TOPS) in the Pikes Peak region. More information on the TOPS program, including maps of trails, open space and parks, as well as funding of projects is available at the TOPS web site. To fund a project, an application is submitted to the City of Colorado Springs.

Bike Tax

The City of Colorado Springs has a \$4.00 per bike tax to provide funding for bikeway improvements. The tax generates nearly \$100,000 annually and has been used for both on- and off-street projects. It is used primarily to provide a local match for other grants such as the Colorado State Trails Program or SAFETEA-LU grants.

RCW Chapter 35.75 of Washington State law clarifies legal interpretation and uses of such funds:

RCW 35.75.030 - Every city and town by ordinance may establish and collect reasonable license fees from all persons riding a bicycle or other similar vehicle within its respective corporate limits, and may enforce the payment thereof by reasonable fines and penalties.

RCW 35.75.050 - The city or town council shall by ordinance provide that the whole amount or any amount not less than seventy-five percent of all license fees, penalties or other moneys collected under the authority of this chapter shall be paid into and placed to the credit of a special fund to be known as the "bicycle road fund." The moneys in the bicycle road fund shall not be transferred to any other fund and shall be paid out for the sole purpose of building and maintaining bicycle paths and roadways authorized to be constructed and maintained by this chapter or for special police officers, bicycle tags, stationery and other expenses growing out of the regulating and licensing of the riding of bicycles and other vehicles and the construction, maintenance and regulation of the use of bicycle paths and roadways.

Private Funding Sources and Volunteer Services

Local businesses can help defray some of the costs associated with trail and greenway development and operation. Some examples include:

- Cash donations
- Donations of services, equipment, and labor
- Discounted materials
- Contribution of employee volunteer time

Foundations

Many trail elements, particularly if they have a focus on education, civic issues, health or the environment, can be funded through private foundations. Funding opportunities are better from local foundations and should be approached before national foundations. It is important to keep in mind that many foundations only solicit grant proposals from non-profit organizations. If a non-profit Friends of Chelatchie RWT group is formed, they can be key grant applicants for trail funding.

Land Trusts

Land trusts are local, regional, or statewide nonprofit conservation organizations directly involved in helping protect natural, scenic, recreational, agricultural, historic, or cultural property. Land trusts work to preserve open land that is important to the communities and regions where they operate. Land trusts are typically more nimble than government agencies and can act more quickly on opportunities to acquire property. Some land trusts actively manage land, others reconvey properties to land management agencies.

Service Clubs

Community organizations can be very successful at hosting fundraisers and providing volunteer labor for trail building and maintenance activities. Local examples include 4-H, Boy Scouts

of America, Rotary Club, university service clubs, equestrian and cycling groups and others.

Individual Sponsors

Individuals, businesses, or corporations can contribute donations to sponsor sections of trail or project elements. Plaques or other forms of recognition are typically placed on constructed pieces in the trail corridor or at a prominent entry point. Sponsorship is a good way to fund trail elements, like benches, trash receptacles, and interpretive areas.

Sections of trail can also be sponsored through a “Buy a Foot” program. Community members can purchase a section of trail at a fixed cost per linear foot and have their names (or dedication) listed on a plaque, sign, or inscription.

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Education and Outreach Events

The educational and events component of the Chelatchie Prairie RWT study will serve as a catalyst to raising awareness of the Chelatchie RWT as a public resource and ultimately to promote public use of the trail.

A public education program will look at the trail as a place of celebration, a place that speaks to the uniqueness of the historic rail line and communities it passes through, a place that offers health and environmental benefits, and a place that enhances the identity of Clark County. This will be complemented with events programming recommendations, a key strategy that builds trust and ownership with the public, and ultimately builds a successful trail.

Near Term Recommendations

Develop a Chelatchie identity

A unique and identifiable image for trail will create a sense of continuity and consistency throughout the corridor. The County should coordinate with local schools, artists, and university students to develop an image or concept that embodies the trail and greenway corridor for trail signs, interpretive areas, maps, and brochures.

Potential themes include:

- Dominant landscape elements – the creeks and rivers, vegetation, mountains.
- Railroad, walking, bicycling and equestrian elements – silhouettes of people walking and riding, equipment.
- Place names – city name, creek name, watershed name.
- Historic elements – timber, native cultures, agriculture, history of the railroad.
- Environmental elements – salmon, waterfowl, waterway, vegetation

Trail Marketing Strategies

Create several marketing mini-campaigns aimed at the following audiences:

1. Residents living along the proposed rail corridor
2. Residents of the cities
3. Businesses within each city

The first campaign will be aimed at educating residents to the benefits of the trail and how living along the corridor will raise property values, reduce trespassing and vandalism, and provide a safe place for the family to recreate.

The second campaign will be aimed at educating residents to the location of the trail itself, as well as the most suitable connector points from various locations in town. People will not use a facility if they do not feel safe, confident, and comfortable in getting there.

The third campaign will be aimed at educating the local businesses within the various towns and cities about the benefits of trail related tourism, and how to exploit their relative closeness to the trail to attract trail users to the local economy.

VIP Rides

A one-time event programmed to occur prior to the official opening of the RWT to allow those in a decision-making capacity the chance to preview the built trail and any major accomplishments or obstacles still necessary to overcome. Invitees should include elected officials, high-level agency officials, and the press. This can be held prior to the Kick-Off Party to generate interest.

Chelatchie Prairie Rail-with-Trail Kick-Off Celebration: Making Connections in Clark County (aka - a party on pedals)

The Kick-Off Celebration would be a public event at selected locations along the trail in every city along the RWT. A ribbon cutting ceremony at various locations with local and regional politicians involved to show public support for the trail. In addition,

there could be live music, food booths, etc at multiple locations to encourage people to travel along the trail.

Clean Up Days / Trail Watch / Trail Stewardship program

An opportunity for local businesses and individuals to sponsor various segments of the trail while taking responsibility for basic clean-up of their trail segment. The operating jurisdiction can sponsor a trail-long clean-up day and provide materials, as well as refreshments and entertainment to make a simple activity into a fun event.

Trail Fun Runs

Sponsored Fun Runs (potentially as fundraisers) to raise awareness of the Trail. Have activity booths, food, music, perhaps at start/end point. Use as community/team building exercises.

Interpretive Rides / Walks

Rides and walks led by experts in their field to encourage on-going educational events throughout the year along the trail corridor. These rides/walks would be easy-going affairs that would encourage people to get out and use the trail while learning more about the environment around them. Examples/Suggestions include:

- Wild in the City Ride
- Birds of Clark County
- History of the Chelatchie Rail Corridor

Trail Planting Days

Perhaps separately, or in conjunction with a clean up day or an Interpretive Ride/Walk – seek sponsorship from local nurseries and gardening clubs to clean out invasive species along the trail and plant native species. Create educational signs that explain the various plantings and their role in the ecosystem.

Trail-Education link / Kids Day on the Trail

A great opportunity to work with Project WILD and the Washington Department of Wildlife (<http://wdfw.wa.gov/outreach/education/wild.htm>) to provide a field-based educational program to the kids going to school near the Chelatchie corridor.

Medium Term Recommendations

Trail Marketing Brochure

The trail operator can work with the local jurisdictions to produce a trail marketing brochure for distribution in the Chamber of Commerce's, athletic shops, bike shops, restaurants and cafes, and other locations where residents and visitors alike might pick up a brochure. The brochure would highlight the existence of the trail, along with the many connections that can be made from the trail corridor.

Public Art Program

The trail operator/local jurisdictions can sponsor/support a public art program that provides the opportunity to showcase local artists and work related to the trail corridor and surrounding environment. This could be on a permanent or rotating basis, depending on the support and interest generated.

Treats on the Trail

Modeled on Shift's "Breakfast on the Bridges" in Portland, this would provide an opportunity for fun and food on the trail on a semi-regular basis.

On a selected day each month, volunteers would provide beverages (hot coffee, water, soda, etc) and delicious pastries to trail users. This could be conducted in either the morning or evening commute times.

This is a fun, community-building event, allowing all to join in. People could stop by on their way to work, school, shopping, or where-ever they are going.

Chelatchie RWT Celebration Week (Birthday celebration)

This week of trail related activities could be hosted by a Friends of Trail group. It could include clean-up activities, nature hikes, parades, a scavenger hunt, a race, and several parties.

Senior Cycling/Senior Strolls Program

Seniors are less frequently struck by a motor vehicle than children, but are more likely to die after being struck by a motor vehicle than other members of our community. In 2001, people 65 and older represented only 12% of the population but accounted for 8% of injuries and 21% of fatalities. Starting at age 70, the death rate for seniors involved in a traffic fatality is nearly twice as high as it is for people younger than 70.

In partnership with Elders in Action, the Portland Department of Transportation has developed a range of products and services based on education, engineering, enforcement, and encouragement to promote safe travel by seniors. The range of services includes:

- Senior Pedestrian Safety
- Senior Motorist Safety
- Safe Routes to Senior Centers
- Senior Bicyclist Safety
- Senior Transit Safety

Officially named the Older Adult Three-Wheeled Bicycle Program, the program is already proving to be a big success, and could serve as a model for the Chelatchie Senior Cycling/Senior Strolls program.

Family Bike Fun Day

Modeled on an event run by the San Francisco Bicycle Coalition (SFBC), Family Bike Fun Day provides the opportunity for all trail users to get out and enjoy the trail and a variety of fun, kid-friendly activities. Activities might include:

- Bike Road-eo: a "little-city" course where kids learned basic bike skills
- Freedom From Training Wheels: a group effort to get kids riding on two wheels

- Family Biking Showcase: gear advice and show-and-tell of baby bike seats, trail-a-bikes, bike trailers, Xtracycles and more!
- Family Bike Parade
- Free Basic Bike Maintenance: Mechanics from local bike shops set up shop to get family bikes up and rolling
- Certified Safety Instructors: Instructors on hand to explain the rules of the road and bike safety to both young riders and adults
- Picnic locations with shade and entertainment

Scouts (Boy, Girl, Eagle)

Cycling merit badges are a popular goal for many boy scouts. To earn this badge, scouts must demonstrate knowledge of first aid, basic bicycle maintenance and repair, safe braking, flat repair, road skills and state cycling laws. They must also plan and complete two rides of 10 miles each, two rides of 15 miles each, two rides of 25 miles each, and one 50-mile ride.

Many local Girl Scout troops earn their Rolling along Interest Award by participating in cycling activities.

Long Term Recommendations

National Bike Month celebration

May is National Bike Month, and the League of American Bicyclists also promotes Bike-to-Work Week and Bike-to-Work Day on the Friday of Bike-to-Work Week. Ideas for celebrating include:

- Encourage local businesses and business associations to participate in Bike-to-Work Week/Day. Consider holding a friendly competition for businesses to track number of participants and miles logged.
- Have a progressive dinner along the trail: Various user groups could put on various portions of the dinner and participants could bike or walk between courses.
- Have mechanics along the trail for free tune-ups and bike inspections.
- Create a Bike Buddy program to connect new and interested riders with other riders in their general area.

Walking/Biking School Bus (source: <http://www.walkingschoolbus.org/>)

A walking school bus is a group of children walking to school with one or more adults. If that sounds simple, it is, and that's part of the beauty of the walking school bus. It can be as informal as two families taking turns walking their children to school to as structured as a route with meeting points, a timetable and a regularly rotated schedule of trained volunteers.

A variation on the walking school bus is the bicycle train, in which adults supervise children riding their bikes to school. The flexibility of the walking school bus makes it appealing to communities of all sizes with varying needs.

Parents often cite safety issues as one of the primary reasons they are reluctant to allow their children to walk to school. Providing adult supervision may help reduce those worries for families who live within walking or bicycling distance to school.

When beginning a walking school bus, remember that the program can always grow. It often makes sense to start with a small bus and see how it works. Pick a single neighborhood that has a group of parents and children who are interested. It's like a carpool—without the car—with the added benefits of exercise and visits with friends and neighbors.

“Lights On” Campaign

Washington state law requires bicyclists to use a front light at night, many cyclists, especially students, are unaware that lights are required by law, or they have simply not taken the trouble to purchase or repair lights. Research shows that cyclists who do not use lights at night are at much greater risk of being involved in bike-car crashes. For these reasons, increasing bicycle light usage is a priority for Clark County, and a successful effort will reduce crash risk for bicyclists.

Every fall in the Netherlands, as days get shorter, a national “lights on” campaign reminds cyclists to use bicycle lights. This “lights on” campaign focuses several complementary strategies into a short time frame for maximum impact, pairing media messages (ads, posters, radio spots, and TV ads) with police enforcement of ‘fix it’ tickets.

A similar Lights On campaign is recommended for Clark County. This multi-pronged outreach effort should take place every September, as the days are getting shorter and as kids and university students are returning to school.

The Clark County Lights On campaign should include the following elements:

- Well-designed graphic ads, to be placed on transit benches, transit vehicles, and local newspapers, as well as around WSU-Vancouver. Ad space may be purchased or donated. Small-format ads can be placed on bike handlebars as well if desired.
- Police enforcement of bike light laws. This enforcement will be most likely to result in behavior change if the cyclist is able to avoid penalty if they obtain a bike light. Ideally, the police would give a warning, explain the law, and then install a bike light on the spot. If this is not possible, the cyclist should receive a ‘fix

it ticket’ along with a coupon for a free or discounted light at a local bike shop; once the cyclist shows proof that they have purchased a bike light, their fine will be waived.

- Partnership with local cycling groups to get the word out to their members and partners. These groups can be counted as campaign partners at no cost to them, enhancing the campaign’s credibility and community exposure. Groups should be supplied with key campaign messages to distribute with their constituents along with coupons for free or discounted bike lights.
- Earned media outreach: Clark County Parks should distribute media releases with statistics about the importance of using bike lights, relevant legal statutes, and the campaign’s goal, timing, activities, and partners. If possible, a meeting with local media editorial boards should be sought.

Depending on partners, volunteer capacity and interest, the Clark County Lights On campaign may also include the following:

- In-school presentations about bike lights, including reflective material giveaways
- A community bike light parade with prizes
- Discounts on bike lights and reflective gear at local bike shops during September (publicized through the campaign outreach)
- Volunteers stationed at key intersections, trails, and on the WSU-Vancouver campus who thank bicyclists using bike lights and reward them with a small gift

“Share the Path” Campaign

Many cities around the country are implementing “share the path” programs in response to concerns about conflicts between pedestrians and cyclists on shared-use paths. Ada County is home to numerous popular paths. A Share the Path program will encourage responsible path usage and creates community goodwill around bicycling.

It is recommended that Clark County Parks partner with Vancouver, WSDOT, trail user groups to implement a Share the Path campaign. The campaign should include the following steps:

- Develop a simple, clear Share the Path brochure; distribute through local bike shops, equestrian groups, walking groups and wherever bike and walking maps are distributed.
- Host at least one bicycle bell giveaway event on the RWT. A table should be set up with maps and brochures, and knowledgeable staff should be present to answer questions.
- Volunteers and Vancouver, Clark County, etc staff can partner to hand out bells to cyclists. Signs (e.g. “burma shave” style signs), pavement chalk, and banners should be used to explain the event and give cyclists warning so they can stop and receive a bell. Volunteers should mount the bells on handlebars (EasyFit bells are recommended because installation requires no tools: <http://www.bbbparts.com/products/accessories/others/bbb12.htm>)
- If desired, volunteers can walk along the path and give a thank you and a small gift to bicyclists who use their bell when passing.
- Clark County should do media outreach before the event; the bell giveaway will be a positive story about bicycling, and will provide good visual opportunities.

Establish a “Friends of Chelatchie RWT” Organization

The strong community interest in the Chelatchie Prairie RWT has been demonstrated in the series of public open houses conducted for the project in 2007. The positive energy expressed and the offers of volunteer assistance offered by the community should be activated to provide implementation opportunities for the trail and greenway corridor.

The primary purpose of a Friends group would be to generate political and community support for development of the Chelatchie Prairie RWT, to encourage the use of local resources for development and maintenance, to engage community members in ‘ownership’ of the corridor and to establish a cadre of volunteer eyes on the use and condition of the trail. Ultimately, the group would encourage the agencies to remain interested in the corridor and to nurture trail once it is implemented.

The group could designate and organize events that improve the rail corridor (i.e., tree plantings, clean up activities, trail monitoring, bridge building, invasive plant removal, etc.) and generate support for the trail.

Working with other civic organizations and local businesses the group could attract in-kind donations for cleaning up the corridor (e.g., local arborists and hauling services could donate expertise and trucks to remove hazard trees and haul away debris, or a local nursery could donate native plants for enhancement activities). The Friends could work with local artists and designers to develop user maps and signs, interpretive illustrations, and functional artwork for the corridor.

The Friends could perform fundraising activities for trail enhancements, such as an interpretive site along the East Fork Lewis River, and the group could assist the county with grant writing efforts to secure funding for the next phases of development.

*Back cover photo: A Christmas
season excursion train leaving
Yacolt Station.
Photo credit: Chelatchie Prairie
Railroad Association.*

