SR 14 & DOG MOUNTAIN CONGESTION AND SAFETY STUDY

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FOREST SERVICE U.S. DEPARTMENT OF AGRICULTURE

WSDOT

U.S. Department of Transportation
Federal Highway Administration

Agenda

10:00 AM – 10:15 AM	Welcome / meeting objectives
10:15 AM – 10:30 AM	Review baseline conditions
10:30 AM – 11:30 AM	Draft strategies
11:30 AM - noon	Group discussion

Welcome / Meeting Objectives

- Focus of the study is to address **congestion** and **safety** relating to accessing federal lands.
- Meeting objectives:
  - **Review draft strategies** that can be applied at specific recreation sites as well as as-needed throughout the corridor.
  - Gather stakeholder **feedback on feasibility and timing**.
- Outcome of study: options and strategies that local, state and federal agencies can consider to address the transportation and safety needs.

Schedule

Summer 2020

Identify needs and draft objectives for the SR 14 corridor.

Fall 2020 - Winter 2021

Develop existing and projected conditions report based on corridor

January: Open house #1

Virtual

Stakeholder Meeting #1

1/21

Spring - Summer 2021

Identify and evaluate improvement options

Fall 2021

Prepare draft feasibility study

October: Open house #2

10/11-11/1

Virtual Drop-in Community Conversations

10/14 & 10/20

4-6 PM

Stakeholder Meeting #2

9/30

Winter /Spring 2022

Finalize study report after considering all comments received

January 2022: Open house #3

Virtual

Stakeholder Meeting #3

Early December

Review Baseline Conditions

- **SR 14 and Recreation Hot Spots**
  - SR 14 Congestion Management Plan (1997)
  - Recreation sites identified for recurring congestion and safety concerns
  - Agencies are actively working to identify and implement improvements
- **Dog Mountain Trailhead**
  - 3 different jurisdictions
  - 3 different recreation intensity classes (RIC)
  - Previous project cancelled in 2008 due to “complexities with land ownership and preliminary results from environmental studies”.

Questions?

Strategy Toolkit Focus Areas

Recreation Areas

- "Hot spots" for recurring congestion and safety

Dog Mountain Trailhead

- Separate FLAP application
- Trailhead relocation
- Safety and congestion

System

- Corridor management strategies
- TSM/TDM

SR 14 Segments

- Address safety on the highway
- Segments based on geography/landscape

Recreation Areas – Site Specific

1. Cape Horn Viewpoint
2. Cape Horn Trailhead / Salmon Falls Park and Ride
3. Beacon Rock State Park
4. Dog Mountain Trailhead – will discuss separately
5. Drano Lake Boat Ramp
6. Swell City
7. Coyote Wall Trailhead (Courtney Road and SR 14) / East Syncline (Old Hwy 8 and SR 14)
8. Catherine Creek Trailhead

*We recognize Klickitat Spit is also a concern. Some of the toolkit strategies developed during this study will likely benefit the area, but they are not comprehensive and there are additional complexities that will need to be addressed separate of this study.

Cape Horn Viewpoint

Concern	Draft Strategy
Horizontal curves/sight distance with congestion	• Congested area/slow vehicles warning signs • Variable speed limit/speed limit reduction • Rumble strips
Congestion from westbound vehicles turning into shoulder	• Prohibit westbound left-turn (signage) • One-way parking signage
Road/shoulder width	• Replace with wider structures (1997 plan)

R3-2 Sign

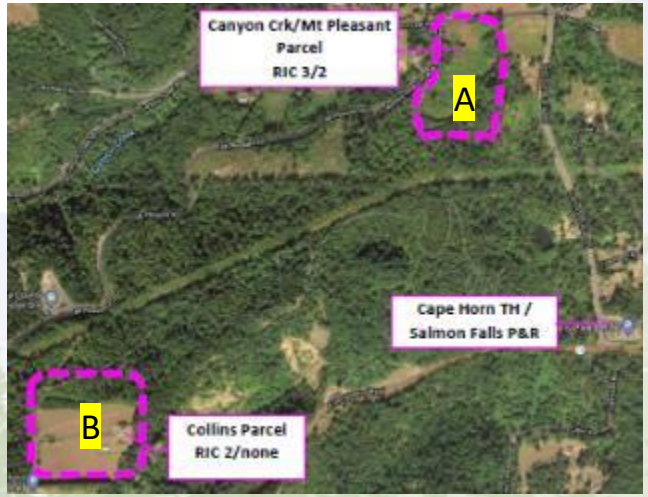
W14-2202 Sign

Cape Horn Trailhead / Salmon Falls Park and Ride

Concern	Draft Strategy
Parking overflow	• Real-time parking availability • Implement permit system for Park & Ride users/Fee for trail • Shuttle system originating in Clark County

Accessibility	• Opportunities to expand accessibility and/or provide parking
	  • A: Canyon Creek/Mt Pleasant Parcel – parking
	  • B: Collins Parcel – accessibility

Parked vehicles blocking traffic and driveways	• No parking zones on Salmon Falls Rd and Canyon Creek Rd • Local access only signage for Canyon Creek Rd (pilot study)



R7-1 Sign

Beacon Rock Trailhead

Preferred Concept (WA State Parks Study)	
1. Roundabout at Kueffler Rd	9. New information kiosk
2. 4-way intersection at Little Rd	10. Bioretention stormwater area
3. Improved Hamilton Mtn Rd intersection	11. Auxiliary parking (north)
4. 2-way Hamilton Mtn Rd w/ 5’ path	12. Short-term & accessible parking (east)
5. New parking lot (west)	13. Replace culverts for fish passage
6. New Visitor Center & Restroom	14. Retaining wall
7. Grade-separated ped undercrossing	15. Separated sidewalk from SR 14 (north)
8. Trail to new parking lot	16. Park entry sign on SR 14

Drano Lake Boat Ramp

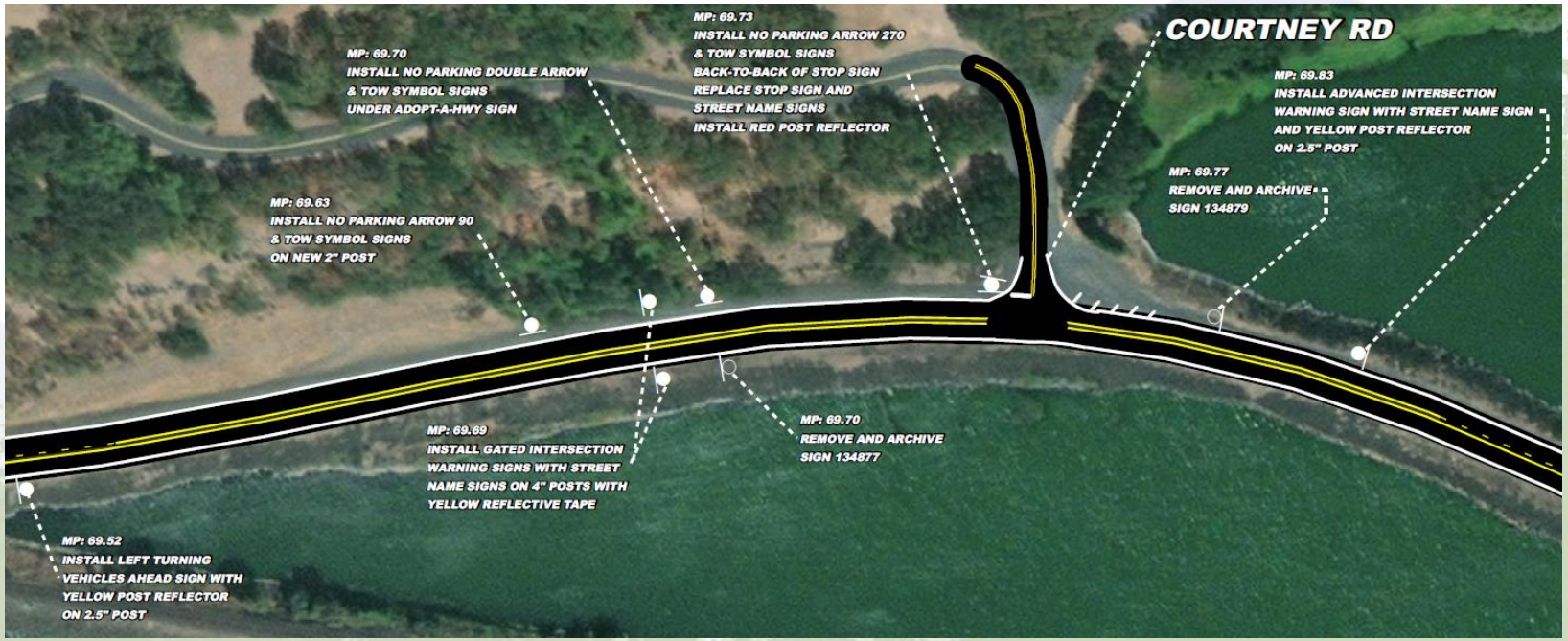
Concern	Draft Strategy
Parking overflow	• Real-time parking availability • Implement reservation system during peak fishing season(s)
Inability to expand in current location	• Provide limited spaces for single vehicle parking (with fee)
Vehicles parked on SR 14	• Seasonal congestion ahead signs (VMS) • Rumble strips • No passing zone through parking area • Extend no parking • Increased enforcement during peak season(s)

Swell City to Spring Creek State Park

Concern	Draft Strategy
Uncontrolled access (private property)	• Provide one-way circulation with curb/barrier • Provide more formalized parking delineation
Vehicles parked on SR 14	• Congestion ahead signs • Rumble strips • Provide buffered ped path between gravel lots
Pedestrians crossing SR 14 near Spring Creek Hatchery Rd	• Install gate or barrier to prohibit parking north of SR 14 (private property)

Coyote Wall

Concern	Draft Strategy
Parking overflow	• Real-time parking availability • Implement usage fee • Mountain bike/shuttle system originating in White Salmon/Hood River
Vehicles parked on Courtney Rd	• No parking zones on Courtney Rd • No Parking and tow symbol signs near SR 14
SR 14/Courtney Rd Intersection Safety	• Advanced intersection warning sign with street name • Eastbound left turning vehicles ahead sign



Similar intersection safety/warning improvements proposed at Old Hwy 8

Catherine Creek

	Draft Strategy
Parking overflow	• Real-time parking availability • Implement usage fee • Channelize and provide angle parking • Transit shuttle (seasonal - originating in White Salmon/Hood River)
Vehicles parked on Old Hwy 8	• No parking zones on Old Hwy 8 *(installed summer 2021)*
Old Hwy 8 Safety	• Traffic calming measures (speed table, speed radar signs, pavement demarking delineation) • Provide designated crossing of Old Hwy 8 to connect trail systems • Provide pedestrian wayfinding signage • Consider accessible trail connection to universal access trails

Questions?

Dog Mountain Trailhead

Key Findings

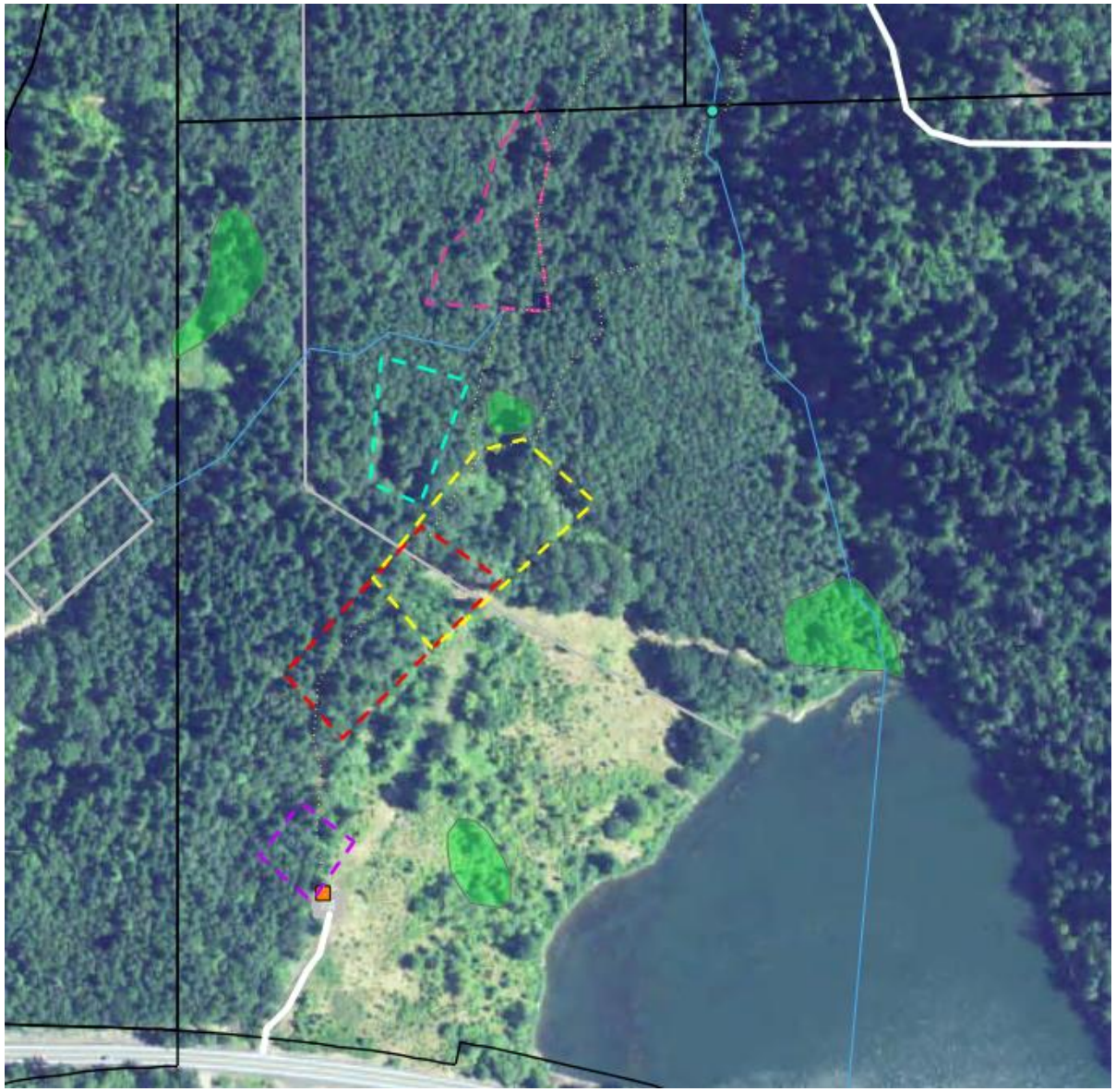
- Lot reaches max capacity by 10 a.m. on weekends in May and June
- No near-by parking alternatives
- Vehicular circulation does not meet modern standards
- Vehicles parking along SR 14 and pedestrians walking along highway
- Uncontrolled access with limited sight distance to east
- Current measures are overwhelmed and problem continues
- Potential HazMat risks of improving existing lot
- Multiple landowners/jurisdictions
- Multiple RIC for the existing parking lot

Dog Mountain Trailhead

- Explored options further west toward Bergen Rd, north toward Mountain Glade Rd and south on WSDOT parcel
- Dropped due to unmitigable natural resource impacts, distance to existing trail, and/or low benefit/cost.
- Narrowed to areas in map →

Dog Mountain Trailhead

- Further refinement to areas NW of Grant Lake
- Not without impacts (there's no silver bullet!)
- Work to be done to clarify impacts/mitigations – particularly regarding KVA and water resources



Dog Mountain Trailhead

Concern	Draft Strategy
Parking overflow	• Real-time parking availability • Expand peak season reservation system • Extend No Parking sign to east • Guardrail to block access to shoulder • Congested ahead/slow vehicles warning signs • Shuttle expansion
Inability to expand in current location	• Option 1: Conduct a Phase II hazmat assessment (geophysical survey) to evaluate the potential presence of an out-of-service UST. Should also test site soil and groundwater to document residual conditions related to historic land use. Implement improvements from early 2000s project (if no UST). • Option 2: Relocate trailhead NW of Grant Lake – abandon, improve or repurpose existing site
Uncontrolled access/site distance	• Create consolidated access point to existing parking lot through aesthetically appropriate barrier

Questions?

System – Technology/Demand Management

Draft Strategy	Description
Portable Changeable Signs and Variable Message Signs	• Provide VMS in Urban Areas indicating parking lot capacity or congestion at trails • Temporary signs during peak seasons with informational messages
Reservation System	Manage the number of visitors and manage traffic congestion at popular destinations for specific days/times/seasons/year-round
Closed-Circuit Cameras	Monitor congestion with closed-circuit cameras. Can also monitor weather conditions.
Real-Time Parking Information	In high-use areas, parking sensors or closed-circuit video to identify availability; provide info via variable message signs, app, and/or website. “Know before you go!”
Parking Management and Parking Area Improvements	Establish a nonprofit, member-controlled organization that provides parking resource management for the CRGNSA
Trail Apps	Trip sharing to avoid crowded areas (TREAD Map App)

System – Technology/Demand Management

Draft Strategy	Description
Dynamic and Variable Speed Limits	Temporary or permanent. Slow SR 14 traffic near congestion hotspots or related to weather events
Visitor Information Center	Provide a one-stop location where visitors can park, board shuttles, determine where parking is available, pay for parking/reserve a parking spot, and get information on how to access destinations throughout the CRGNSA.
Timed Parking	Assign time limits to a few parking stalls to encourage turnover.
Parking Fees	Establish parking fees for high-use sites without permit or parking fees.
Traffic Monitoring, Data Collection, and Analysis	Regular data collection helps define the frequency and magnitude of congestion or safety issues.
Enforcement	Increase enforcement of illegal parking or non-payment

System - Transit

Draft Strategy	Description
Seasonal transit recreation route(s)	Establish seasonal transit routes to service peak demand. East of White Salmon (March-April), west of White Salmon (April - June). Thursday - Sunday?
Park and Ride Lots	Provide Park and Ride Lots to reduce single vehicle parking congestion at high-use sites
Coyote Wall Mountain Bike Shuttle	Work with recreation departments/bike shops to create a weekend shuttle from White Salmon/Bingen to Coyote Wall
2 "Loop" Shuttles	Establish a shuttle loop (Dalles/Hood River, Hood River/Bridge of the Gods)
Connect with Oregon transit systems	Coordinate with Columbia Gorge Express
Frequent and convenient	Work with transit agencies to establish a frequent, convenient and reliable transit schedule to WA busiest sites

System - Transit

Draft Strategy	Description
Focus on shifting visitor behavior in Washougal to Cape Horn	Establish weekend shuttle between Camas and/or Washougal and Cape Horn Park and Ride
Form Transportation Management Association	Establish a CRGNSA Transportation Management Association to manage visitor information and provide dedicated staff to work on transit shuttles, mitigating traffic congestion and implementing tools.
Port of Portland/PDX Seasonal Gorge Connection	Appeal to ecotourism by connecting Gorge transit to Portland International Airport during the Spring and/or Summer
Shuttle Incentives	Provide a reason to use transit instead of driving self: Pass reduction rates for locals, low-income, students
Transit Pullouts and amenities	Provide Transit pullouts with bench and/or shelter at recreation sites

SR 14 Segments – Safety Toolkit

- **Safety Trends TYPE:**
  - **Run off the road/fixed object**
  - **Rear end collisions**

- **Safety Trends CAUSE:**
  - **Exceeding reasonable safe speed**
  - **Inattention**

Draft Strategy	Crash Type	Crash Reduction Factor
Install Oversized, Doubled Up and/or Fluorescent Yellow Sheeting for Advance Curve Warning Signs	Run off the road	20%
Install Advance Curve Warning Flashers (Curve Warning Signs Exist)	Curve Crashes	10%
Install Post-Mounted Delineators (Curve Application)	Nighttime Curve Crashes	30%
Install Shoulder Rumble Strips	Run off the road	22%
Install New Guardrail (Not Median Barrier Application)	Run off the road	47%
Install Centerline Rumble Strips	Head on & Sideswipe Meeting	45%

A) MP 18 to MP 28: Beginning of CRGNSA through Cape Horn

Table 9. SR 14 Segments Exceeding Critical Crash Rate (2015-2019)

Segment Description	Beg. MP	End MP	5-Year Crash Total	Segment Crash Rate (crashes/MVM)	Segment Critical Crash Rate
West end of CRGNSA	18.00	23.42	66	1.24	1.08
Cape Horn	23.42	26.38	54	1.89	1.16
Doetsch Ranch Rd to West Bonneville	34.08	37.04	37	1.49	1.19

- Climbing lanes
- Rockfall protection (near Cape Horn Viewpoint)
- Half Bridge replacement (Cape Horn)

B) MP 28 to MP 38: Just east of Cape Horn to North Bonneville

Table 9. SR 14 Segments Exceeding Critical Crash Rate (2015-2019)

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Cape Horn	23.42	26.38	54	1.89	1.16
Doetsch Ranch Rd to West Bonneville	34.08	37.04	37	1.49	1.19

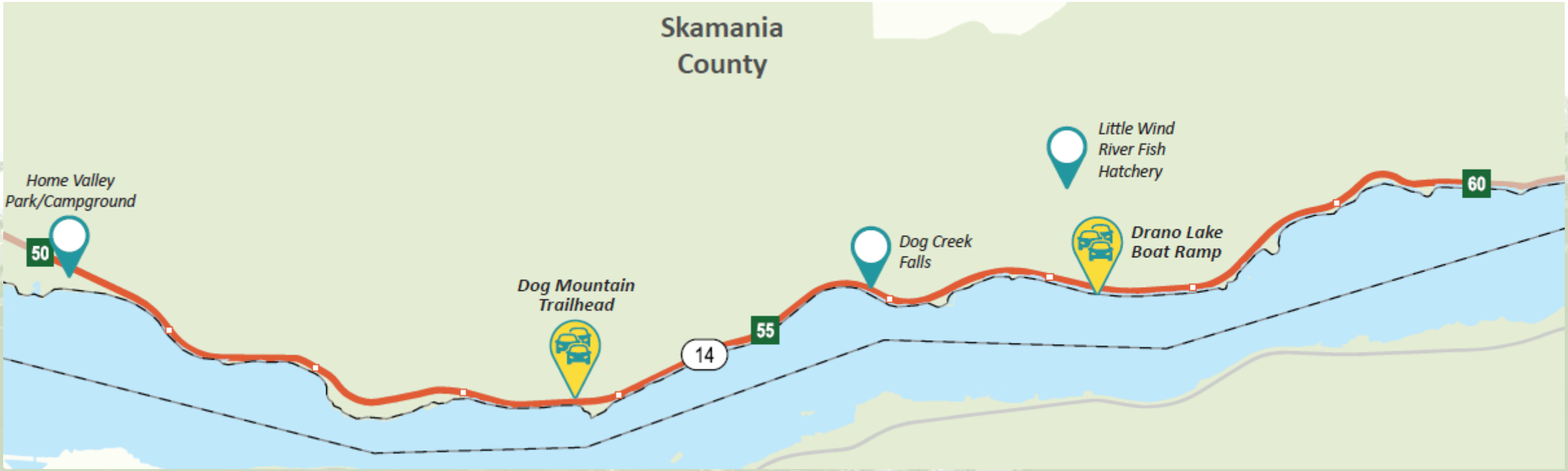
- Rockfall protection (west end)
- Widen shoulders where feasible

C) MP 38 to MP 50: North Bonneville to Home Valley

- Port of Cascade Locks has identified potential improvements for Bridge of the Gods and PCT to improve bike/ped connectivity
- Rockfall protection
- Widen shoulders where feasible

D) MP 50 to MP 60: Home Valley to Gulch Bridge

- Widen shoulders where feasible
- Rockfall protection



E) MP 60 to MP 69: Gulch Bridge. White Salmon, Bingen

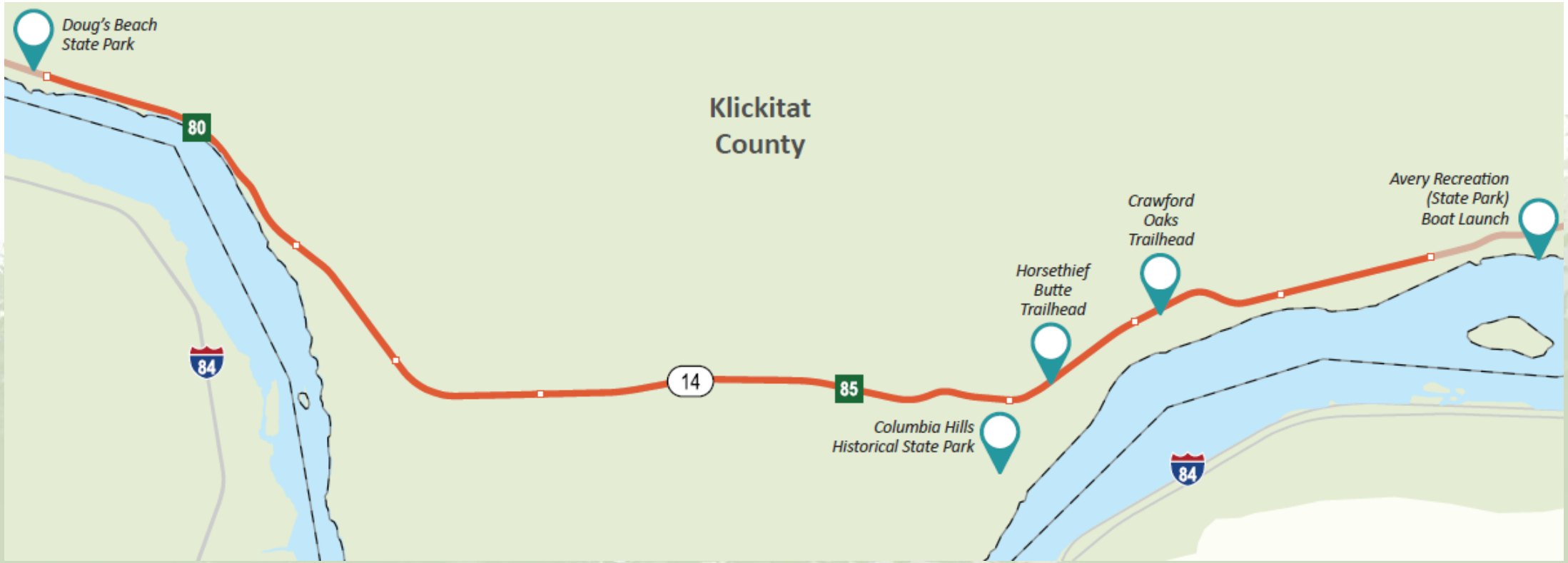
- Rockfall protection
- Widen shoulders where feasible
- Cook-Underwood Rd, intersection improvements with left-turn pockets
- SR 141 Spur/SR 14 Intersection improvements
- East end is urban

F) MP 69 to MP 79: Lyle

- Widen shoulders where feasible
- Rockfall protection

G) MP 79 to MP 89: Dallesport

- Rockfall protection
- Widen shoulders where feasible
- Through Dallesport is urban

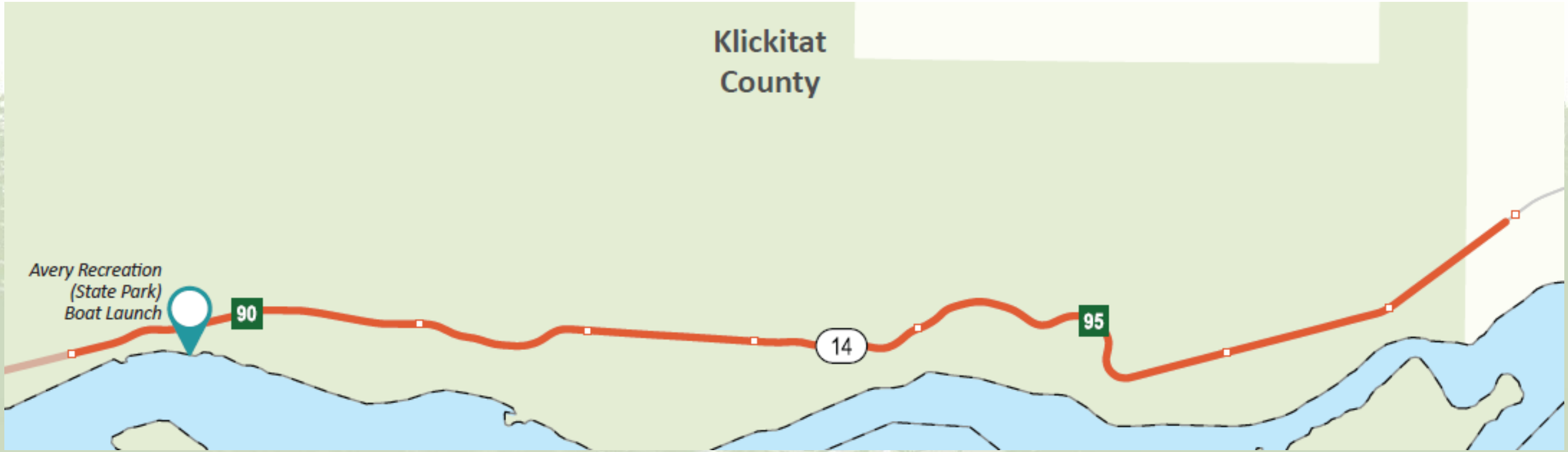


H) MP 89 to MP 97.83: West of Wishram to east boundary of CRGNSA

Table 9. SR 14 Segments Exceeding Critical Crash Rate (2015-2019)

Segment Description	Beg. MP	End MP	5-Year Crash Total	Segment Crash Rate (crashes/MVM)	Segment Critical Crash Rate
East end of CRGNSA	94.38	98.07	18	1.34	1.31

- Rockfall protection
- Widen shoulders where feasible
- *Earth Berm removal? (MP 93.5)*




Group
Discussion