






Figure 1: Ian Mackay and Nancy Kohn on the ODT, photograph by Don Willott

## MERIT CRITERIA

### Merit Criteria Overview

	Primary Purpose	RAISE Merit Criteria	Puget Sound to Pacific Response	Rating Self Assessment
A	✓	Safety	The Puget Sound to Pacific (PS2P) trail network protects non-motorized travelers and local communities from safety risks, and incorporates specific improvements identified in USDOT’s National Roadway Safety Strategy plan and the state Active Transportation Plan.	High
B	✓	Environmental Sustainability	The completed PS2P will reduce transportation-related greenhouse gas emissions and air pollution by completing multi-use trail routes to service areas and points of interest. Active transportation construction practices per State Environmental Protection Act (SEPA) will avoid adverse environmental impacts to air and water quality, wetlands, endangered species and cultural resources.	High
C	✓	Quality of Life	The completed PS2P will improve public health and well-being by adding new facilities that promote walking, biking, and other forms of active transportation. The PS2P will increase affordable living by reducing reliance on automobiles. It will improve access to places of work, education, worship, business, agriculture, recreation and transit.	High

	Primary Purpose	RAISE Merit Criteria	Puget Sound to Pacific Response	Rating Self Assessment
D		Improves Mobility and Community Connectivity	Trail segments are part of regional transportation plans that were based on community participation as well as data that identifies and addresses gaps in the existing network. The PS2P is designed as Accessible as well as All-Ages Universal Design.	High
E		Economic Competitiveness and Opportunity	Tourism and visitor services are a primary industry in this rural region. In addition to providing local commute and utility trips, the completed PS2P will itself become a destination connecting major tourism locations including Olympic National Park.	High
F		State of Good Repair	PS2P Components continue to create new infrastructure in rural communities that will be maintained in a state of good repair. Trail segments along abandoned road and railroad grades and existing utility easements utilize existing footprint of transportation and utility infrastructure.	High
G		Partnership and Collaboration	The PS2P Project was initiated and pursued as part of a private-public partnership. Project development has supported and engaged diverse people and communities that go above and beyond, including collaboration with Tribes and non-profits. Previous and proposed PS2P segments were accomplished through collaboration with public and/or private entities.	High
H		Innovation	The Great American Rail-Trail is an innovative 3700-mile cross-country collaboration. PS2P shows innovation in collaboration between every level of government, Tribal Nations, and nonprofit organizations. A Wayfinding Component encompasses the entire PS2P and all jurisdictions are envisioned to incorporate GIS and adaptive reality in addition to branding and physical signage.	Medium



# Merit Criteria: Safety

## SUMMARY

Safety is a primary concern and motivation for the Puget Sound to Pacific (PS2P). Much of the current active transportation infrastructure connecting these communities is a sequence of two-lane rural highways with high traffic volumes and high speeds.

As communities grow, the Puget Sound to Pacific (PS2P) trail network will provide greater safety for active transportation. The PS2P consists of sections of separated multi-use trails that are designed in accordance with guidelines including AASHTO, MUTCD, FHWA Small Town and Rural Multimodal Networks Guide and NACTO<sup>1</sup>. Thus, in accordance with USDOT's National Roadway Safety Strategy Plan, the PS2P prioritizes safety, comfort, connectivity and accessibility.

1 (1) NACTO, National Association of City Transportation Officials, <https://nacto.org/>

## PROJECT COMPONENTS

### 1. Trail On Roadway

The PS2P has segments where users use low traffic volume, low speed rural roadways that are not characterized as having high ADTs and high traffic speeds. These projects require wayfinding and improvements at intersections with busier roads.

The majority of PS2P Components address situations where non-motorized users must currently use the travel lane or shoulders of high volume, high speed highways. In these locations, separated multi-use trails are proposed for safety. Components may be on roadway shoulders, located adjacent to, or within the existing Right-of-Way due to proximity to points of interest or due to lack other feasible options.



Figure 2: John Fleming on State Route 20 at the Eaglemount Gap, photograph by Don Willott

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*“Yet people walking and biking suffer disproportionately from serious injuries and fatalities when a crash occurs compared to people in vehicles. Moreover, fatalities among pedestrians and bicyclists have been increasing faster than roadway fatalities overall in the past decade,... we need road and street systems that feel safe and are safe for all road users”*

*USDOT National Roadway Safety Strategy*

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## 2. Trail Off Roadway

Some Puget Sound to Pacific (PS2P) components are proposed on former railroad grades, abandoned roadway alignments, other public lands, and right-of-way. These segments typically have not been developed yet due to additional engineering design requirements.

## 3. Highway Crossings

Non-motorized users are most vulnerable to collisions with motorists at crossings. These projects will improve crossings with planning and studies for measures like tunnels, signing or signalization, and overhead structures.

## 4. Bridges

Two Components are trail bridges that require replacement/upgrade and others that are new bridges to separate trail users from vehicular traffic. One bridge at the State Route 110 crossing of the Bogachiel River near La Push is a bottleneck for a planned separated multi-use trail off of the highway where bikes and pedestrians are forced into mixing with vehicular traffic in the same lane.

Bridge modifications or replacements will be considered in Type/Size/Location studies. These structures are in place, however have steep access grades and tight corners approaching the bridges. Identifying trail routing for approaches and property location for bridges for increased safety for all ages and abilities.

## 5. Wayfinding

Wayfinding includes signage to help users connect to and stay within non-motorized facilities. GIS resource searches allow users to access rest stops, accommodations, food, assistance, etc.



Figure 3: Ferry and the Olympics, Source: Don Willott



# Merit Criteria: Environmental Sustainability

## SUMMARY

Multi-use trails like Puget Sound to Pacific (PS2P) are an essential component of state, regional and local strategies for active transportation and for reducing reliance on motor vehicles for commuting and recreation. PS2P directly supports active transportation and carbon-reduction planning, in alignment with the “Washington State Active Transportation Plan: 2020 and Beyond.” (WSATP)

The multi-use PS2P serves many functions identified in the WSATP, including transportation, recreation, tourism, and access to places for healthy activity and experience of the outdoors. P2SP fulfills state and local planning and policy goals and directives including comprehensive planning for trails and development of new trails, including those that promote multi-day trips.

PS2P promotes environmental sustainability through the completion of a 200-mile multi-use trail corridor and greenway stretching from Puget Sound to the Pacific Ocean. The PS2P fills in gaps between existing trail segments,

and completes key new trail plans like the Sound to Olympics Trail that cross community and jurisdictional boundaries.

Community Connector Components of PS2P link smaller, local trail networks serving communities along the corridor, cumulatively enabling and promoting longer active transportation trips by residents to reach commercial areas, parks and schools, and enhancing trail experiences of visitors.

More than half of all trips in the United States are within a 20-minute bike ride or less, and more than one in four trips are within a 20-minute walk or less, according to the Rails-to-Trails Conservancy (“2017 National Household Travel Survey”). The improvements included in PS2P Project Components will increase the accessibility, convenience, and reliability of non-motorized transportation as a realistic substitute for many of these trips in the study area.

The switch from automobile use to walking or biking results in numerous positive environmental outcomes, including reduced pollution and greenhouse gas emissions (Washington State Active Transportation Plan: 2020 and Beyond). In 2017, motor vehicles, boats, planes, and trains caused the biggest single share of the greenhouse gasses in Washington state (44.6 percent), with personal cars and trucks making up over half of that. Every motor vehicle trip replaced with a walk or bicycle trip is a positive environmental outcome.

Connectivity is key to Washington state carbon reduction goals, and multi-use trails that link communities are identified as an essential element of active



Figure 4: Trestle at Morse Creek,  
Source: Don Willott

transportation infrastructure planning.<sup>1</sup> Puget Sound to Pacific (PS2P) fulfills these policy goals by connecting numerous communities along its route.

### **FISH PASSAGE COORDINATION**

PS2P Project Components may be located in areas where the State of Washington has assessed fish passage. This necessitates investigation of opportunities for partnering with state and local agencies.

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<sup>1</sup> “Washington State Active Transportation Plan: 2020 and Beyond,” and “Economic, Environmental, & Social Benefits of Recreational Trails in Washington State,” WA State Recreation and Conservation Office, 2020



Figure 5: Cyclists Riding Mountain Bikes with a view of the Olympics, Source: Don Willott



# Merit Criteria: Quality of Life

## SUMMARY

Cycling, hiking, walking and bird-watching are popular year-round in the Pacific Northwest lowlands, due to its mild marine climate. PS2P delivers quality of life by increasing non-motorized access in the region. The completed PS2P will improve public social and physical well-being by completing a trail network that promotes walking, biking, ebiking and other forms of active transportation and recreation.

## LOCAL COMMUTING USE

Project Components within the cities of Port Angeles, Port Townsend, Sequim, Poulsbo, Bainbridge Island and on the Suquamish Nation already contain sections of trail used by the local population for commuting, utility trips, access to schools and other activities within their communities.

Housing prices in Washington state are among the highest in the nation. As the region accommodates a growing population there is a greater need for affordable housing. Cities and towns along

the PS2P are planning for more clustered affordable housing near town centers. PS2P will create greater connectivity, enabling more residents to use active transportation to travel to work, school, and service centers. Components on Bainbridge Island and in Kitsap County serve commuter access to the state and county ferry terminals in Kingston and Bainbridge Island.

## LOCAL RECREATIONAL USE

Local trail systems within communities are destinations themselves as they traverse forests and streams, enhanced by coastal and mountain views. Local trail systems serve as linear parks, providing access to nature and to parkland. Trails are designed as All Ages and Abilities facilities that feel protected and safe for people along the alignments and at intersections, enhancing the full social fabric of communities. Trails are equitable and accessible in accordance with U.S. Access Board Guidance and ADA requirements.



Figure 6: 2016 Canoe Journey at Point Julia, Source: Don Willott



Figure 7: The Olympic Discovery Trail on a former railroad bed in Clallam County, crossing the Dungeness River on a historic railroad bridge near the Dungeness River Nature Center, Source: [dungenessrivercenter.org](http://dungenessrivercenter.org)

### **OPPORTUNITIES FOR ENGAGEMENT WITH THE ENVIRONMENT**

The quiet and relaxed atmosphere of the trail allows non-motorized users to move through nature. Throughout the route sections of trail immerse the user in natural settings: to see trees and waterways, to hear coastal waters and birds, to feel the effort of traversing the land, and to value the practice of protecting and conserving our surroundings.

### **EDUCATIONAL BENEFITS**

The Puget Sound to Pacific (PS2P) trail network traverses land that is sustainably lived on and stewarded by Tribal Nations.

The five Tribal communities participating or supporting PS2P along this route teach us about the Pacific Coastal first people and their long and storied relationships to this land. PS2P travels through and provides view corridors for a range of ecosystems, from marine to rain forest, undammed rivers and glaciated peaks. These habitats are rich with biodiverse life. Industries, particularly fishing and

logging, rely on local natural resources. Opportunities to learn are vast, and interpretive elements will enrich and educate trail users to better understand other beings, the Earth's processes, and the need to protect habitats.



# Merit Criteria: Mobility and Community Connectivity

## SUMMARY

The Puget Sound to Pacific (PS2P) prioritizes Mobility and Community Connectivity through all its component projects. Trail segments are part of Transportation Improvement Plans that were based on community participation as well as data that identifies and addresses gaps in the existing network. Trails are designed as accessible as well as All-Ages Universal Design.

## DESTINATION FOCUSED

The trail segments are part of a larger nationwide and statewide trail network that enables a non-motorized tourist to travel from Seattle across Bainbridge Island, and the Kitsap and Olympic Peninsulas to the Pacific Coast over approximately 200 miles. The trail along the north side of the Olympic Peninsula overlooks the Strait of Juan de Fuca, with

Canada beyond on one side, and the majestic Olympic Mountain range on the other. Close to the trail, shops, farmland, marinas, inns and preserved open space enrich the trail experience.

## PROJECT COMPONENTS

### 1. Trail On Roadway

Some components provide separation from higher volume/higher speed highway users with additional safety measures like jersey- barriers between the vehicular highway shoulder and the trail, thus filling gaps in the protected facility trail network and facilitating non-motorized users' mobility.

### 2. Trail Off Roadway

These shared use facilities are designed as All Ages and Abilities facilities, promoting a user sense of safety along



Figure 8: Governor Jay Inslee on the Sound to Olympics Trail, Source: Douglas Crist

the alignment and at intersections. Trails are Accessible in accordance with U.S. Access Board Guidance and ADA requirements.

The width is typically 10 to 12 feet wide to have ample room for safety and emergency vehicle access. Railroad grades are typically not steep, but other sections of trail traversing hills need to be graded to have less than 5% slope, or up to 8% in short, ramped segments. The trail is paved to provide a smooth, long-lasting surface that can be used by everyone with all levels of mobility.

### 3. Highway Crossings

Where trails cross highways with high annual daily traffic (ADTs) and speeds, non-motorized crossings are best located with vertical separation using a non-motorized overpass or a tunnel,

especially where envisioned as an All Ages and Abilities facility.

At-grade crossings using striping, signing and additional signalization can also be developed to improve connectivity in concert with improved safety.

### 4. Bridges

Two components require bridges to complete the protected facility trail network.

### 5. Wayfinding

Wayfinding is the most visible component of an integrated trail system with directional trail signs and educational signs. Trail networks can be navigated with maps as well as GIS real-time applications that are envisioned in the Wayfinding projects.



Figure 9: Washington State Ferry with Seattle's Space Needle, Credit: Don Willott



# Merit Criteria: Economic Competitiveness and Opportunity

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## SUMMARY

Recreational and multi-use trails are a major economic driver in Washington state, contributing more than \$8.2 billion to the state economy every year, including \$3.14 billion in labor income via 81,000 jobs annually.<sup>1</sup> The completed Puget Sound to Pacific (PS2P) trail network will leverage and capitalize this economic engine in the three Washington counties represented in the RAISE grant, and in their respective Tribal and non-tribal communities served by the PS2P route.

## TRAIL EXPERIENCE

The Puget Sound to Pacific (PS2P) trail network extends and enhances access to the area's wealth of celebrated public lands and other natural areas including rugged coastlines, snow-peaked mountains, lush rainforests and scenic plains and valleys on the Olympic and Kitsap peninsulas and Bainbridge Island of Western Washington.

Participation will increase as PS2P gaps are completed, community connections built, and the finished trail promotes longer and farther-reaching trips by local residents and visitors, compounding economic benefits at every level.

## ECONOMIC ACTIVITY AND JOBS

An estimated 292 million total annual destination "user days" are now spent on trails within Washington state, with concomitant spending by trail visitors and users. Spending related to trail use (both day and overnight trips)

1. Source: "Economic, Environmental, & Social Benefits of Recreational Trails in Washington State," WA Recreation and Conservation Office, 2020.

*"People come to the Olympic and Kitsap peninsulas to enjoy active recreation which directly supports the essential tourism economy, creating incentives to expand biking and walking opportunities and the ability to arrive and depart without needing a car... Efforts to complete the Olympic Discovery Trail, expand the network built on that trail, and increase multimodal access to and from the national park and forest support many regional objectives including economic vitality."*

*page 83, Regional Transportation Plan 2040 by the Peninsula Regional Transportation Planning Organization*

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presently accounts for 1.45 percent of the Washington state Gross Domestic Product – 11 times more than commercial logging, and 7 times more than brewing (Ibid).

Primary direct economic benefits accrue from consumer surplus spending, which is money spent on trail experience-related goods and services like restaurants, lodging and outdoor equipment. Much of this spending remains in the local economy with positive supply-chain and consumption effects across all sectors, circulation and re-circulation of spending throughout the economy known as the "multiplier effect."

## DIRECT SPENDING RELATED TO TRAIL USE

Locally, Washington residents spend an average of 38-42 days per person engaged in recreational and non-motorized trail use, with concomitant

consumer spending at services related or adjacent to outdoor recreation areas. (Ibid.)

Meanwhile, tourism accounts for approximately 13 percent of all employment and businesses in the counties served by the PS2P, and represents a significant economic growth opportunity.<sup>2</sup>

Improved trail connectivity will attract more out-of-area visitors to use the trail network for long-distance or multi-day outdoor recreation activities. This in turn stimulates economic activity through new spending in communities along the trail corridor.

One study suggests that Olympic Peninsula counties (the westernmost two counties on the PS2P) could see \$460,950 to \$850,560 of new annual local economic activity from each additional \$1 million in visitor spending through demand for local goods and services. (Ibid.) When a tourist pays for a local hotel, that business pays employees and other local businesses that support its operations. The induced economic contribution reflects the degree to which each dollar spent recirculates in the region. State and local taxes also see a boost, as well as employment (full-year job equivalents). (Ibid.)

## SECONDARY ECONOMIC BENEFITS

Indirect or secondary economic benefits accrue from the siting of new commercial ventures in areas served by trails, and provide additional benefits to residents.

## HEALTH SAVINGS

Research has shown that access to recreation, walkable transportation networks, and connected communities

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2. Source: Peninsula Regional Non-Motorized Connectivity Study, Parametrix, 2019.

provide additional benefits to residents. People living in walkable neighborhoods engage in 35 to 45 minutes more moderate-intensity physical activity per week and are substantially less likely to be overweight or obese (controlling for socioeconomic factors) compared to those living in non-walkable areas. (Ibid.) Similarly, when measuring the association between natural amenities and physical activity, areas with high levels of natural resources also have higher levels of access to those natural resources like trailheads and bike facilities.

Health and wellness impacts resulting from access to recreation, walkable transportation networks, and connected communities can be measured in terms of stress reduction, which can lower healthcare costs and increase workplace productivity. One study finds an estimated \$21M in health savings annually from present trails use by residents across the three counties of the PS2P region.<sup>3</sup> Another often cited study also found that “every \$1 invested in trails resulted in \$2.94 of savings in health care costs.” With the rising cost of medicine, this benefit has likely matched or exceeded the cost of growth in trail development.<sup>4</sup> Statewide, physical activity associated with trail use results in more than \$390 million of health savings annually.<sup>5</sup>

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3. Source: “Economic, Environmental, & Social Benefits of Recreational Trails in Washington State,” WA Recreation and Conservation Office, 2020.

4. Source: “A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails,” National Institute of Health Library of Medicine, 2005.

5. Source: <https://rco.wa.gov/reports-and-studies/recreation/benefits-of-recreational-trails/>



# Merit Criteria: State of Good Repair

## SUMMARY

State of Good Repair is a primary purpose of the Puget Sound to Pacific (PS2P) Project. PS2P Project Components will create new infrastructure in remote communities that will be designed in order to be maintained in a state of good repair.

## WHO IS RESPONSIBLE?

The Model Maintenance and Operations Guidelines will provide a standardized approach for timely maintenance of emergent issues, as well as programmed evaluation and upkeep or replacement of aging infrastructure. Continuity across the PS2P network will benefit visitors and residents, while prolonging the infrastructure life-cycle investments.

Cities maintain segments of the trail in their areas, including Port Angeles, Sequim, and Bainbridge Island. Olympic National Park maintains the segments at the northwest corner of the park.

Other segments are maintained by volunteer organizations like Peninsula Trails Coalition (PTC), which organizes work parties and Adopt-A-Trail Program. PTC also provides rented portable restroom facilities.

On Bainbridge Island, the greenway corridor is being restored and maintained through a public-private partnership between the Bainbridge Island Parks and Trails Foundation and the City.

## MAINTENANCE REQUIREMENTS

Trail maintenance includes cleaning paved surfaces of vegetation, leaves and debris, as well as maintaining paved surfaces damaged by root intrusion and routine wear. The gravel shoulders of the trail also require regular maintenance to remove noxious weeds.

Trail sections that include adjacent drainage swales and culverts require regular maintenance.

Maintenance includes repairs of trail structures, graffiti removal, and sign replacements. Evaluation and programming of PS2P infrastructure life-cycle costs will help the jurisdictions plan for and implement timely repairs and replacement.

**Clallam County Road Dept.**  
*General Maintenance Expenditures 2016 - Present*

Year	General Maintenance Expenditures*
2016	\$83,256
2017	\$67,110
2018	\$103,875
2019	\$173,020
2020	\$134,762
2021	\$182,420 (YTD)*
<b>6-YEAR TOTAL</b>	<b>\$744,443 (2016 - Sept. 2021)</b>



Figure 10: Olympic Discovery Trail Briefing

# Merit Criteria: Partnership and Collaboration

## SUMMARY

Puget Sound to Pacific (PS2P) demonstrates collaborative planning between the traveling public, community leaders, advocates, and state, Tribal and local governments, to form a regional and community multi-user trail network.

This grant application was initiated and funded by a coalition of trail-related nonprofits, which have, in turn, collaborated with community members and organizations in their communities to support the Sound to Olympics Trail and the Olympic Discovery Trail as well as community connectors. PS2P is greater than a sum of its parts, including years of planning by all participating stakeholders.

The collaboration includes distinct and integrated underserved communities. Many of the practices outlined in the USDOT’s Promising Practices for Meaningful Public Involvement in Transportation Decision- Making Guide have been implemented as outlined in section 4.1 of the guide, in the development of the existing PS2P. Jurisdictions managing project Components as co-applicants will be required to sign interlocal agreements including the commitment to following these Promising Practices, as outlined in the guide, and will report on Engagement Outputs and Outcomes.

Project Components dedicated to network development expand this project for greater coordinated impact. Trails will help build connections between isolated Tribal reservation land, affordable housing and business centers as well as essential transit hubs, such as rural bus routes and ferry terminals.

Because a high percentage of the gap components align with Washington State Highways, local jurisdictions are partnering with WSDOT under the Complete Streets Program. New Washington state legislation (RCW 47.24) directs the Department to incorporate “Complete Streets” features for certain specified projects.

Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enables access along and across the street for all people, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets prioritizes more comfortable and equitable, context-sensitive network connectivity for all roadway users through close coordination with our local partners and stakeholders. This is aligned with WSDOT’s policy and commitment to develop and maintain an interconnected and integrated multimodal transportation system that provides all Washington travelers with safe, sustainable, and equitable access. Under ESSB 5974 (2022), the Legislature directed the Department to incorporate the principles of Complete Streets on all projects to be constructed on state highways routed over city streets with an estimated cost of \$500,000 or more.



Figure 11: North STO Open House, Credit: Don Willott



## Merit Criteria: Innovation

### SUMMARY

The Puget Sound to Pacific (PS2P) Grant presents project components that in total and individually demonstrate innovation.

The Great American Rail Trail (GART) route from Washington DC to the Pacific Coast is a breakthrough concept for nonmotorized travel. Every effort to complete this route facilitates alternative transportation connectivity, and PS2P will help realize the westernmost 200 miles of the trail, connecting three rural counties to the Greater Seattle metropolitan area.

The PS2P stretch of the GART is different from the majority of the nationwide trail in that it provides connectivity through an area that was historically dominated by marine transportation. This route has only a short stretch of logging-related legacy existing railroad routes for trail development, demanding a different kind of planning for the missing 100 miles of trail than other places along the GART. Geographic features such as Hood Canal, the Olympic Mountain range, Olympic National Park and Olympic National Forest, limit human development in this area. Towns and small cities create a string of business and residential areas along land that provided sustainable living to a similar string of Native American communities for thousands of years. PS2P will enhance alternative connectivity in this area that is 200 miles long and dominated by bodies of water of the Salish Sea and Pacific Ocean.

PS2P is transformative because it creates deep regional partnerships, initiated with management and funding support through a nonprofit coalition. With RAISE funding, this regional network

will compound collaboration to support the planning and construction of all the gaps in the PS2P route. The PS2P shows innovative promise as a kind of public-private partnership that can help deliver this complex cross-jurisdictional project.

As electric bikes become affordable low-carbon replacements for everyday cars, PS2P enhances the environment for e-bike use by providing safe separated trails for all-ages-all-abilities. The popularity growth of e-bikes is not yet being matched by the development of safe infrastructure for their use, especially for young and elderly populations.

Projects will also include universal wayfinding to provide consistent, clear, and accessible guidance for users in the comprehension of route connectivity and network opportunities.



Figure 12: Great American Rail Trail,  
Source: [www.railstotrails.org/greatamericanrailtrail/](http://www.railstotrails.org/greatamericanrailtrail/)