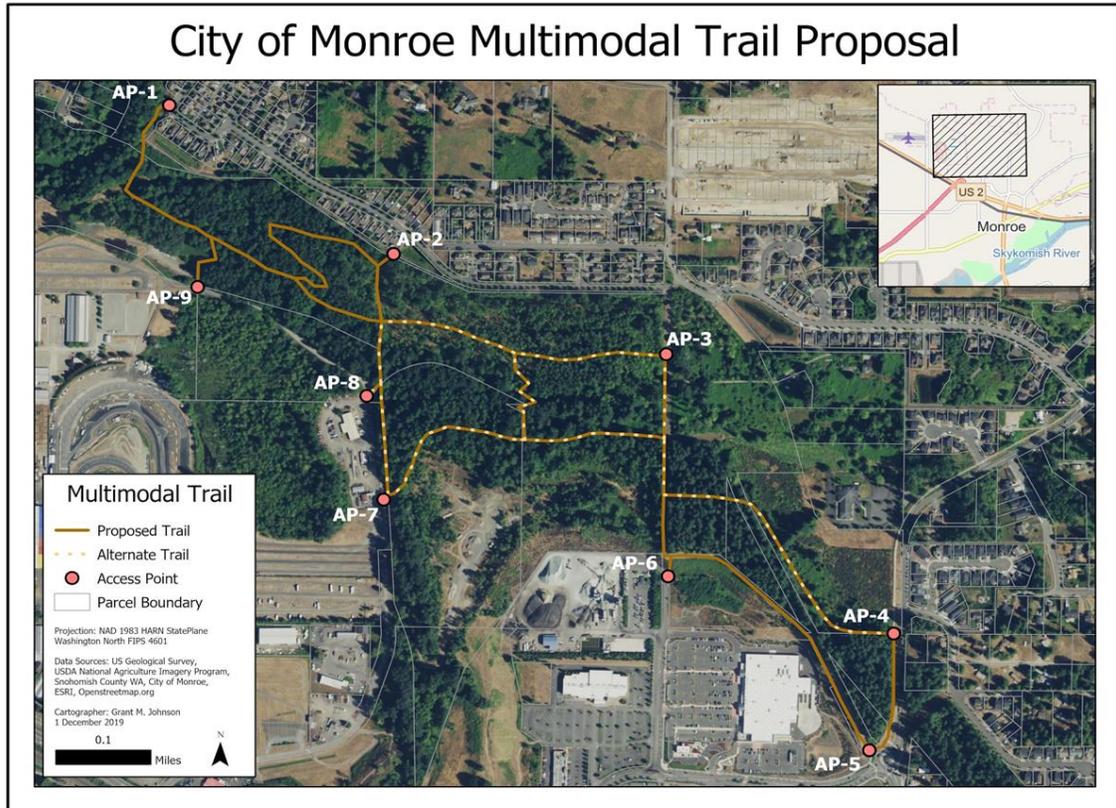


# City of Monroe, WA, Multi-Modal Trail: Environmental Impact Statement



## Project Report Environmental Impact Assessment ENVS 493, Fall 2019

Report No. 03

December 2019



## About SCP

Western's Sustainable Communities Partnership (SCP) program focuses the expertise, energy, and ideas of faculty and students upon the issues that communities face as our society transitions to a more sustainable future. SCP partners with communities each academic year, facilitating a program in which many Western courses complete community-engaged learning projects that address challenges identified by the partner.



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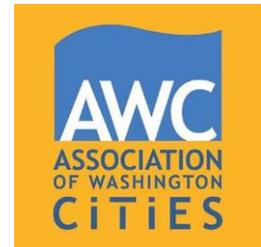
## SCP Partner for 2018-2019: City of Monroe, WA

SCP is proud to partner with City of Monroe, Washington, during the program's fourth year. Three Western courses have tackled projects identified in collaboration with city staff.



## Acknowledgement

The [Association of Washington Cities](#) (AWC) has provided invaluable assistance as SCP has grown and developed. AWC has provided advice on program development, and has assisted in promoting the program.



SCP is housed within Western's [Office of Sustainability](#)



# PREFACE

This project was completed Fall of 2019 by a group of students in Dr. Tamara Laninga’s Environmental Impact Assessment course (ENVS 493). In this course, students prepared an impact assessment for a proposed multi-use trail in the US-2 Bypass right-of-way in Monroe, Washington. Special attention was paid to the potentially adverse impacts to critical areas, including wetlands, streams, and steep slopes. This report has not been done at the request of anyone representing local governments or private individuals, nor does it necessarily represent the opinion or position of individuals from government or the private sector. The following report builds on the work of two prior reports, completed by faculty and students from Western Washington University.

## Western Team

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# CONTENTS

Dear Concerned Citizen Letter.....	1
Fact Sheet.....	2
List of Figures.....	4
List of Tables.....	4
Glossary.....	5
Executive Summary.....	6
1.0 Project Overview.....	8
1.1 Site Background.....	8
1.2 Proposed Action.....	8
1.3 Alternative Action.....	9
1.4 No Action Alternative.....	10
2.0 Environmental Setting, Impacts, and Mitigation.....	11
2.1 Earth.....	11
2.2 Water.....	13
2.3 Plants.....	16
2.4 Recreation.....	17
2.5 Transportation.....	18
2.6 Aesthetics.....	24
3.0 Summary of Findings.....	26
4.0 References.....	27

**Environmental Impact Assessment**  
Huxley College of the Environment

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Signature \_\_\_\_\_

Date 12/9/19

December 2019

Dear Concerned Citizen,

The City of Monroe is proposing to develop a multi-use trail on land owned by Washington State Department of Transportation (WSDOT). The land was originally acquired for the purpose of creating a bypass for US-2 to the north of the city of Monroe. Due to residential development north of North Kelsey Road and east of Chain Lake Road, there are no plans to create the bypass in the foreseeable future and the site currently has an informal trail network utilized by residents and the houseless population. The City of Monroe is proposing to use the WSDOT right-of-way land to develop a trail system for recreational purposes.

Western Washington University's (Western) Huxley School of the Environment offers Environmental Impact Assessment (EIA) as a culminating course known as a capstone. The following document is an Environmental Impact Statement (EIS) conducted by Western seniors as the final project in the EIA Capstone course. The environmental factors identified as being potentially impacted are earth, water, plants, recreation, transportation, and aesthetics.

The EIS that follows assesses the impacts of the proposed project and identified alternatives, and advises on potential mitigation measures aimed to protect the environment that our region depends on. This EIS – conducted under the supervision of Dr. Tamara Laninga, AICP, and prepared for the City of Monroe – offers a comprehensive review of the natural and built environmental impacts of the proposed action. Thank you for your interest in this site.

Sincerely,

Amelia Flores, Nora Harper, Grant Johnson, Alyssa Leone, & Andrew Randall  
Western Washington University – Huxley College of the Environment  
ENVS 493 – Environmental Impact Assessment  
US-2 Bypass Multi-use Trail Team

## **Fact Sheet**

### Title

US-2 Bypass Multi-Use Trail

### Description of project

The City of Monroe is proposing to develop a trail system on a WSDOT owned right-of-way. The project involves the construction of a multi-use trail network between Chain Lake Road and the Evergreen State Fairgrounds. This trail system will serve the nearby neighborhoods as a recreation area, as well as provide access to the fairgrounds and commercial areas south of the area. The proposed trail system will be 2.8 miles long by three feet wide and paved with gravel.

### Location

Monroe, Washington

### Legal description of the location

Township: 28 North

Range: 6 East

Section: 36

Latitude: 47°52'14.7"North

Longitude: -121°58'28.9" West

### Proposers

City of Monroe

806 West Main Street, Monroe, WA 98272

### Lead agencies

City of Monroe

806 West Main Street, Monroe, WA 98272

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## Acknowledgments

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Lindsey MacDonald, Sustainable Communities Partnership

## Issue Date

December 16, 2019

## Public presentation time and date

9 December 2019, 10:00 am PST

## List of Figures

Figure 1. Proposed Trail System	9
Figure 2. Alternate Trail System	10
Figure 3. Slope Angle Analysis	11
Figure 4. Elevated Boardwalk over Stream	12
Figure 5. Proposed Trail System and Critical Areas	14
Figure 6. Alternate Trail System and Critical Areas	15
Figure 7. Proposed Access Points to US-2 Bypass Trail Area	18
Figure 8. Proposed Action Access and Connectivity	21
Figure 9. Alternative Action Access and Connectivity	22
Figure 10. No Action Access and Connectivity	24

## List of Tables

Table ES-1. Decision Matrix	7
Table 1. Transportation Analysis Overview	19
Table 2. Decision Matrix	26

## **Glossary**

<u>Notation</u>	<u>Definition</u>
COM	City of Monroe
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
HOA	Homeowners Association
HPAC	Homeless Policy Advisory Committee
MBSC	Mountain Bike Skills Course
ROW	Right-of-Way
RRP	Railroad Properties LLC
SEPA	State Environmental Policy Act
WSDOT	Washington State Department of Transportation

## Executive Summary

The US-2 Bypass Multi-Use Trail project in Monroe, Washington, is a proposal by the City to develop a trail system in the Washington State Department of Transportation (WSDOT) right-of-way (ROW). The proposal would incorporate pre-existing informal social trails into an official multi-use trail system. Goals of this trail project include increasing recreational and connectivity opportunities for residents seeking to access retail opportunities, using travel modes other than personal vehicles (See: Figures 6-8). Trail access in northern Monroe is currently limited. This project aims to increase community access to local green spaces.

The existing trail system is located in a deciduous, low elevation ecosystem that includes a seasonal creek within the Snohomish River watershed, part of the Highland Water District. The area includes wetlands which are designated as critical areas according to Washington State's Growth Management Act.

There are six environmental factors identified and analyzed in this document as being potentially impacted: earth, water, plants, recreation, transportation, and aesthetics.

This Environmental Impact Statement examines the potential impacts of the City of Monroe (COM) developing an official trail within the WSDOT ROW greenspace, adjacent to the Evergreen State Fairgrounds. The three prescribed components of the project analyzed in this report include the proposed action, alternate action, and no action, which are defined below.

- The proposed action: A multi-use trail system (See: Figure 1) with 2.85 miles of trail. The proposed action maximizes trail length, connectivity, and recreation opportunities through the development of a designated trail system within the WSDOT ROW. This action will include a stream crossing.
- The alternate action: Constructing a loop trail (See: Figure 2) using a volunteer-built and maintained system. This action is dependent on the access to the Railroad Properties LLC (RRP) ROW.
  - Option 1: If access is granted to the COM, the trail will be 1.32 miles long and will not include a stream crossing.
  - Option 2: If access is not granted, the loop will be 1.14 miles long and a stream crossing will be included in this action without the use of stream crossing infrastructure.
- No action alternative: Leaving the informal, socially developed trail system as is.

Using the state of Washington’s State Environmental Policy Act (SEPA) guidelines, significant impacts were identified and assessed for each potential action identified above. Mitigation measures were suggested to minimize potential impacts identified in the analysis of each element.

Significant impacts to environmental elements earth, water, and plants were minimal overall for the potential project actions. The no action alternative was identified as having the greatest negative impact on earth and water from the continued uncontrolled disturbance associated with the existing informal trail system. Recreation, transportation, and aesthetics were identified as having the largest positive impacts resulting from the development of an official trail. The most significant positive impacts would result from the development of the proposed actions with mitigation. This is an indirect result from the overall increase in connectivity and recreational opportunity.

Based on the overall assessment of the identified environmental elements, findings are summarized in a decision matrix (Table ES-1). The decision matrix identifies “The Proposed Action with Mitigation” as having the greatest positive impact. The “No Action” alternative would result in the largest negative impact.

Table ES-1: Decision Matrix

	Proposed Action	Proposed Action with Mitigation	Alternative Action	No Action
Earth	-1	+1	-1	-2
Water	+1	+2	-1	-2
Plants	-2	-1	-1	0
Recreation	+2	+2	+1	0
Transportation	+1	+2	0	-2
Aesthetics	+1	+2	+1	0
<b>Total</b>	<b>+2</b>	<b>+8</b>	<b>-1</b>	<b>-6</b>

Legend: strong negative impact (-2), negative impact (-1), neutral impact (0), positive impact (+1), strong positive impact (+2)

## **1.0 Project Overview**

### **1.1 Site Background**

The City of Monroe (COM) is located in Snohomish County, Washington, and has an estimated population of 19,363 people. The COM is intersected by US-2, a multilane highway that connects eastern Washington with the I-5 corridor at the city of Everett. The Washington State Department of Transportation (WSDOT) has a right-of-way (ROW) set aside for a future US-2 Bypass, which is currently undeveloped. The WSDOT property is located north of the commercial core and northeast of The Evergreen State Fairgrounds, a popular amenity. Single-family housing is located to the north and east of the property. The COM has proposed the use of the US-2 Bypass ROW for the development of a multi-use trail.

Intended use of the parcel was to create a bypass along US-2 around the COM to ease congestion and reduce the impact of east/west traffic through the city center. However, residential development directly to the north of the US-2 Bypass ROW has effectively eliminated the intended use, as there is little utilitarian value in routing a highway through residential areas. Additionally, any proposed bypass will likely be met with concern from both local residents and elected officials. To make use of the land, WSDOT has agreed to consider approval for development of a temporary multi-use trail by COM in their ROW.

The COM wants to develop a public use temporary trail in the WSDOT parcel. The following document identifies the proposed trail system, alternatives to the trail system, significant impacts of trail development, and potential mitigation measures.

### **1.2 Proposed Action**

The COM desires to create a multi-use trail on WSDOT land previously set aside for the US-2 Bypass. The proposed action aims to create a trail network within the WSDOT ROW that maximizes connectivity and recreational opportunity (Figure 1). The proposed trail system will include multiple community access points and integrate the existing Homeowners Association (HOA) trail to the north and the community-built mountain bike skills course (MBSC) located at the southeast end of the WSDOT parcel. The proposed action will create a network comprised of 2.85 miles of trail, offering increased connectivity and new recreational opportunities to the community.

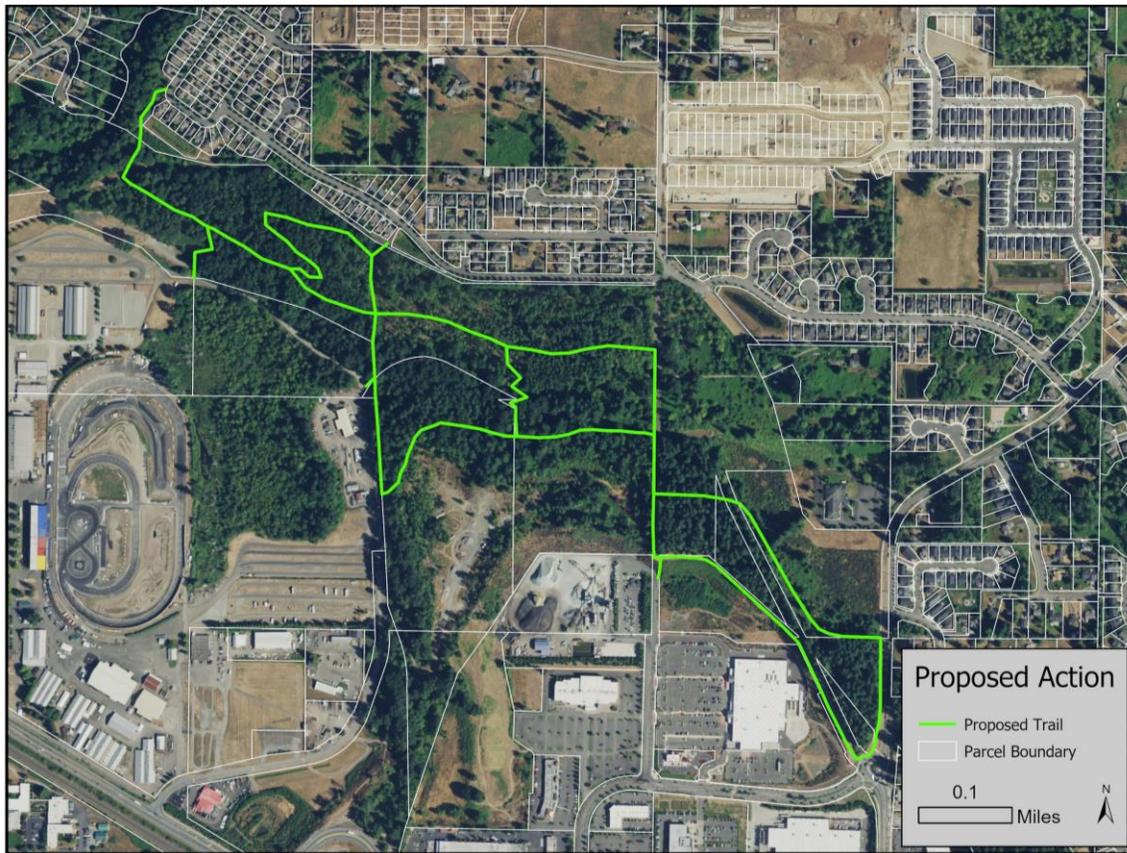


Figure 1. Proposed Trail System

### 1.3 Alternative Action

The alternative action is to create a multi-use loop trail using Washington Trails Association volunteers to construct and maintain the trail (Figure 2). WSDOT has agreed to consider approval of the COM's proposed temporary trail. To minimize environmental impact, the COM's proposed action will avoid crossing the ephemeral stream that runs through the WSDOT parcel. In order to avoid a stream crossing, the trail would need to be routed through the parcel to the south, which is currently used for gravel mining by Railroad Properties (RRP) LLC. The COM has attempted to contact RRP to discuss gaining a ROW for the trail but has yet to hear back from them. If the COM cannot gain access to the RRP parcel, they plan to create a loop trail, but would need to route it across the stream. The alternative action would create a loop trail of 1.14 to 1.32 miles long. Variability of the alternative action is dependent on whether access is granted to the RRP ROW, as defined below.

- Option 1: Access to RRP ROW-- NO inclusion of a stream crossing
- Option 2: No access to RRP ROW-- Inclusion of a stream crossing

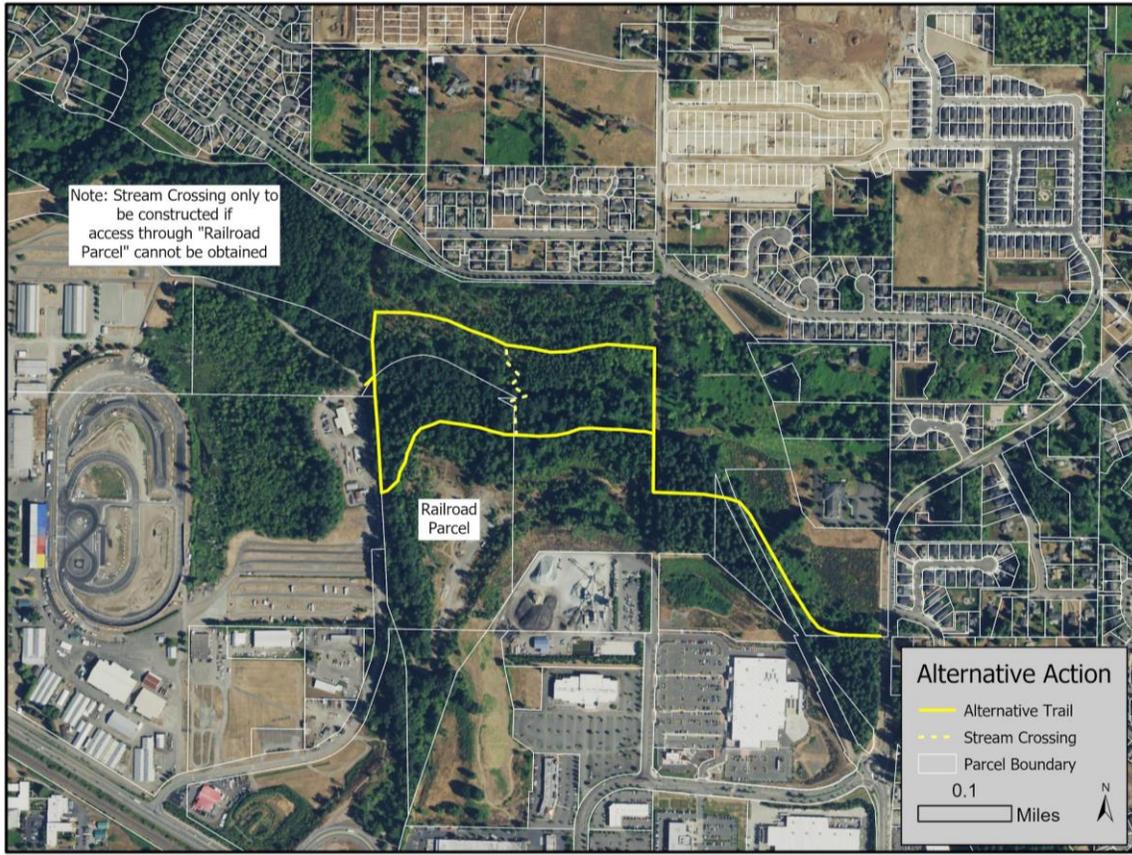


Figure 2. Alternative Trail System

#### 1.4 No Action Alternative

The no action alternative would see the current informal trail system remain as is, which shows signs of use by neighborhood residents and members of the houseless population. The current condition of the social trail network and ROW contains areas of refuse, including abandoned campsites and potentially hazardous biowaste (e.g., needles, drug vials, condoms, and other potentially hazardous materials). The No Action Alternative would see the area's continued use as an informal trail network, with little connection opportunities for residents in the northern portion of the COM, as no new access points would be added, and a safe, secure trail would not be completed.

## 2.0 Environmental Setting, Impact, Mitigation

### 2.1 Earth

#### *Existing Conditions*

The ROW has varied topography and is situated below a housing development and above a shopping center. Most slope angles are under 8%, with maximum slope angles of 25% occurring along the creek (Figure 3).

The soil types are Tokul gravelly medial loam and Terric Medisaprists, both of which are classified as poorly drained (Mealy, 2017). When wet, the soil is muddy and prone to erosion. Signs of unstable soils along the existing trail include exposed tree roots and erosion into the creek at crossings. Currently the ROW has no established trails and users are creating informal trails, leading to the removal of vegetation and increased erosion.

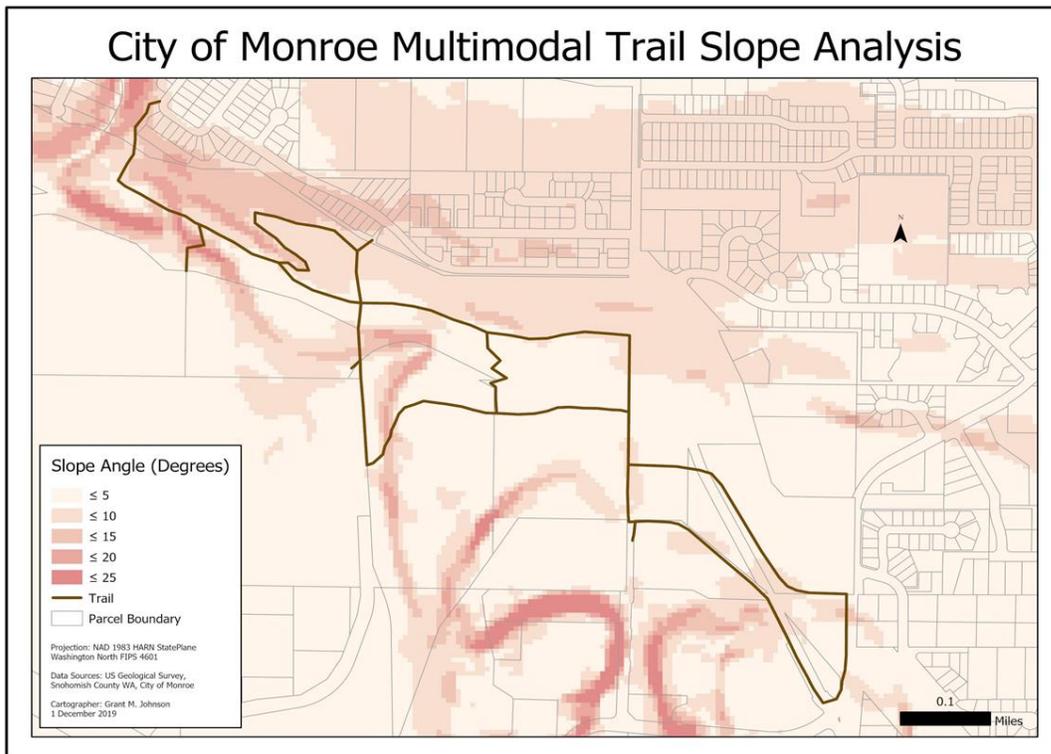


Figure 3. Slope Angle Analysis

### *Proposed Action*

The proposed action is to create a trail system that maximizes connectivity and serves as a recreation area for pedestrians and bikers. The proposed action will involve the construction of new trails and the improvement and incorporation of some of the already existing informal trails. The impact of trail creation on the earth will be minimal, since no extensive construction is necessary. An unknown amount of filling, excavation, and grading will be required to create the 2.85 mile long trail system. Erosion of the trail may occur with increased use, resulting in degradation of the trail and exposed tree roots. These impacts can be mitigated with the use of surface coverings.

### *Alternative Action*

The alternative action, to create a loop trail with limited connectivity, will have minimal impact to the earth. The impacts of the alternative are the same as the proposed action but scaled down. With the construction of new trails, existing informal trails can be reworked to be incorporated into the new trail system. Depending on access to the RRP parcel, the loop trail may need to cross over the seasonal stream running through the site. Potential for erosion into the stream is high, given the steep embankments and poorly drained soil. The likelihood of erosion on the trail itself is the same for the proposed as the alternative action, with trail degradation as a main concern. With no connectivity to the surrounding area other than 191st Avenue SE, the proposed trail may lead to the creation of additional social trails from the adjacent housing development. This informal trail creation has the potential to further erode the site.

### *Mitigation*

The largest impact to the earth element for the proposed and alternative actions is erosion. Using a surface material such as compacted gravel or concrete on the trail would reduce erosion, and act as a visual guide for users of the trail system to prevent off-trail activity. Building a simple bridge across the stream would prevent erosion and damage to the stream, while making the path more accessible (Figure 4).

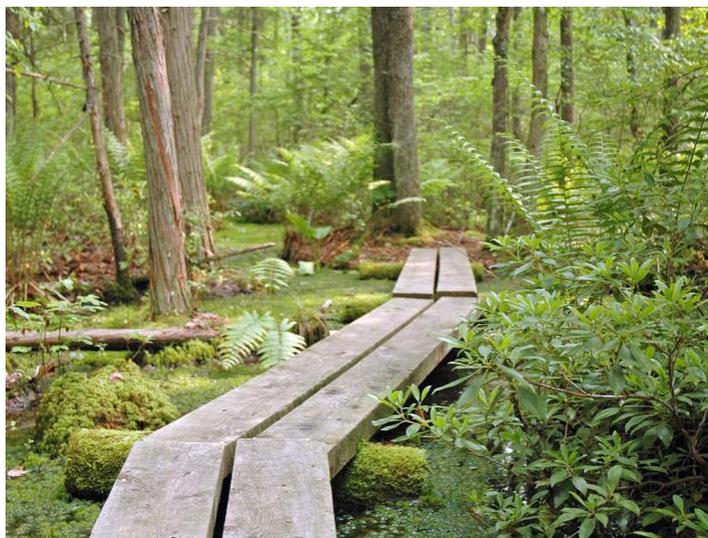


Figure 4. Elevated Boardwalk over Stream (Bushey, 2016)

For this site, the creation of an official trail system, in both the proposed and alternative actions, would be most beneficial in reducing erosion. The establishment of an official trail system would prevent users from creating informal paths and eroding more of the area. Moreover, with reduced use, the existing informal trails not incorporated into the new trail system will be repopulated with plants, which will further stabilize the area's soils.

### *No Action*

If no action is taken, users of the site will continue to create informal trails, resulting in continued erosion with potential negative effects on stream flow, as well as exposure of tree roots making them vulnerable to damage.

## 2.2 Water

### *Existing Conditions*

The WSDOT ROW includes a seasonal creek system. This creek system is within the greater Snohomish River watershed and is in close proximity to Lake Tye. The seasonal creek is reflective of the amount of surface runoff in the surrounding geographic area. The seasonality of the area's hydrologic system created a gully within the site, illustrating the lasting impacts of the creek through gradual topographic elevation changes.

Within the site there are existing wetlands, which the Washington Growth Management Act defines as critical areas (RCW 36.70A.030(5) and RCW 36.70A.060). Wetlands are "fragile ecosystems that serve important beneficial functions, such as assisting in the reduction of erosion, siltation, flooding, ground and surface water pollution, and providing wildlife, plant, and fisheries habitat" (MRSC, 2016). The understanding of critical area(s) designation and their legislative protections under the State Water Pollution Control Act, the Shoreline Management Act, and SEPA serve a greater function for the purposes of this EIS. All actions, the proposed, alternative and no action must take into consideration the protections and sensitivities placed on these areas. Any action will impact the existing hydrogeologic conditions of the site.

### *Proposed Action*

The construction of a trail system for the proposed action will create a network of trails intended for multi-use including pedestrian and bike traffic (Figure 5). The trail system will include a stream crossing for pedestrians. The continued use of the trail across the creek will intensify the volume and frequency of erosion into the seasonal creek and creek basin.

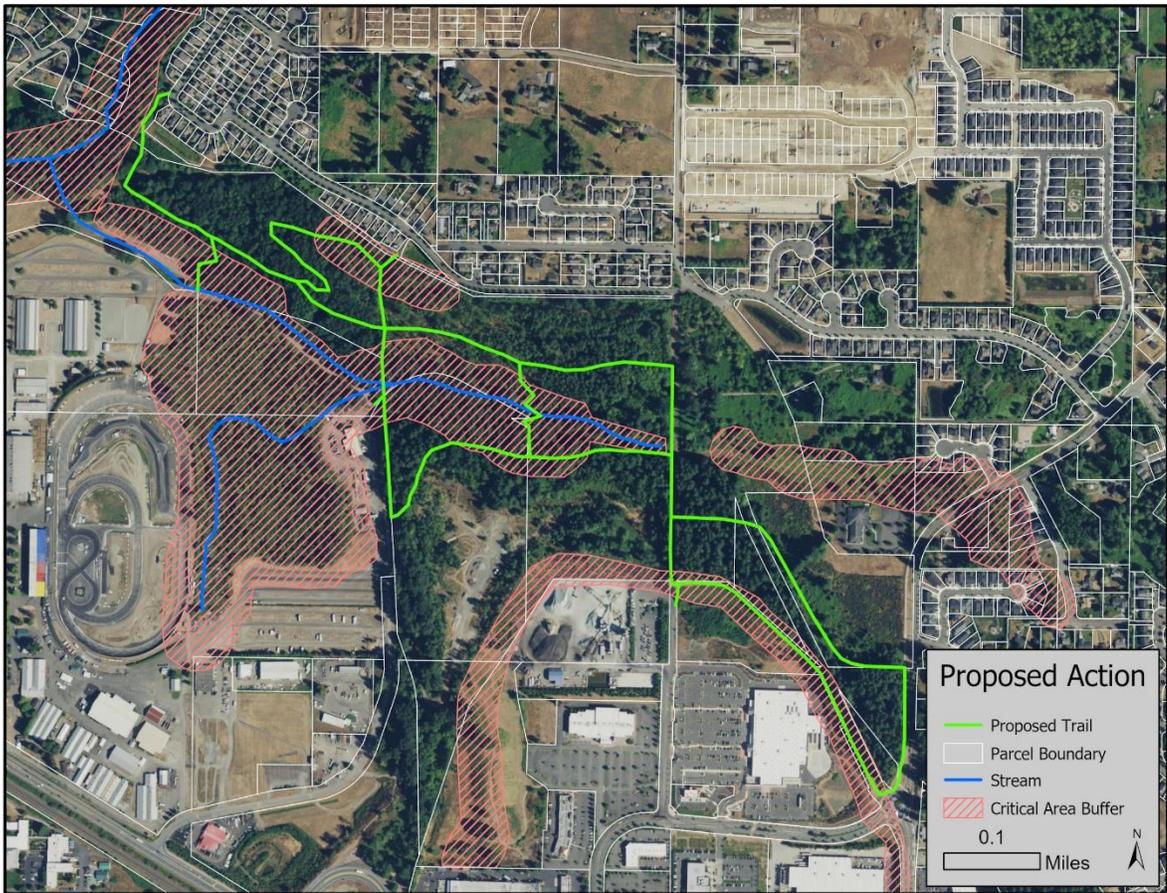


Figure 5. Proposed Trail System and Critical Areas

*Alternative Action*

The Alternative Action is to construct a loop trail (Figure 6) based on the variability of access to the adjacent parcel of land.

- Option 1: Access to RRP property -- NO inclusion of a stream crossing
- Option 2: No access to RRP property -- Inclusion of a stream crossing

Alternative action Option 1 indicates the absence of a stream crossing and will not have effects on stream health and the existing hydrogeologic conditions.

Under Option 2, the stream crossing will have impacts on the hydrologic system health of the area. There will be removal of riparian species along the stream, contributing to the probability increased effects of erosion from the use of the trail system.

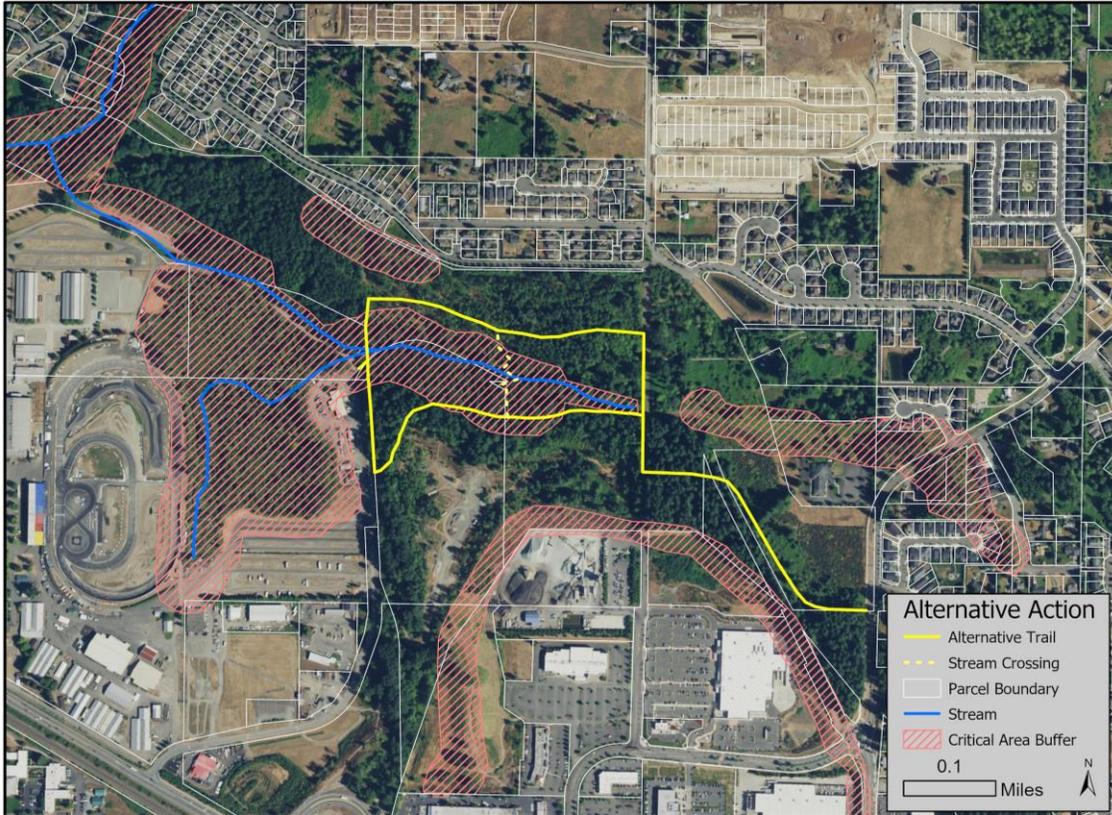


Figure 6. Alternative Trail System and Critical Areas

### *Mitigation*

Consideration of the proposed and alternative action concludes that the impacts of these actions are minimal to moderate. Under alternative action Option 2, it is undetermined how severe the erosion will be or how the erosion could impact the overall health of the ecosystem. Effects of erosion should be considered to the highest potential degree for the purposes of this study.

Stream crossing mitigation measures aim to avoid erosion impacts.

- a. The first mitigation measure would target bank stabilization using bank reinforcements such as brick retaining blocks or the construction of steps up and down the stream banks.
- b. The second mitigation measure would be the construction of a simple bridge over the stream. This would eliminate the need to remove riparian vegetation and bank reinforcement.

### *No Action*

No action proposal would have minimal to moderate impacts on water quality. There would likely be continued, and potentially additional, informal use through the seasonal creek, increasing the potential for and volume of erosion.

## 2.3 Plants

### *Existing Conditions*

The WSDOT ROW is currently a mature temperate forest. Plants growing within the project area include mostly conifers, including Western Red Cedar and Douglas Fir, and some deciduous trees and shrubs, such as Big Leaf Maple and Vine Maple. The area also includes some riparian species along the ephemeral streams that run through the site. During the team's site visit some noxious weeds, including English Ivy and Himalayan Blackberry, were identified within the project site. The team did not identify any endangered or protected species within the area, nor are any identified or listed by the Washington Department of Fish and Wildlife.

### *Proposed Action*

The proposed action of constructing a trail system will create a network of 2.85 miles of trail. Development involves the removal of all vegetation within the trail's route. The trails' routes will avoid the removal of large trees and shrubs and will not threaten any protected or endangered plant species. The continued use of the trail will limit all future plant growth on the trail. The removal of existing vegetation and the exposure of underlying soils increases the potential for the colonization and dispersal of invasive species along the trail. Overall, the proposed project will have minimal impact on the area's plant community.

### *Alternative Action*

The alternative action is to construct a 1.14 to 1.32-mile loop trail, which will involve the removal of any plants in the proposed trail's path. If the COM does not gain access to the neighboring RRP parcel, as outlined by Option 2, the constructed trail will include a stream crossing. In this situation, trail construction will include removal of riparian species along stream banks where the crossing will be. Similar to the proposed action, the trail will limit future plant growth on the path, increase the potential for the spread of invasive plant species, and will not threaten protected species. Removal of riparian species along the stream will destabilize the soil and increase the potential for erosion.

### *Mitigation*

The overall impacts to the plant community for the proposed and alternative actions are minimal. However, mitigating plant removal in a variety of forms is still useful. The removal of invasive plant species near the trail's path and the planting of native species along the trail will help to mitigate the loss of plants at the project site and help prevent the colonization and spread of invasive species. There are two mitigation measures specific to stream crossings that mitigate for the functional loss of bank stabilization due to the removal of riparian vegetation. The first would be bank stabilization using bank reinforcements such as brick retaining blocks or the construction of steps up and down the stream banks. The second is the construction of a bridge over the stream, eliminating the need to remove riparian vegetation and the addition of bank reinforcement.

### *No Action*

The no action alternative would not have any direct impacts on the plant community. No plants would be removed, and no mitigation would need to take place. However, due to the current use of

the area and the continued creation of informal trails, plants would be impacted by trampling to create and extend the informal trail system.

## 2.4 Recreation

### *Existing Conditions*

Currently the WSDOT ROW has an informal user-created trail system and a mountain bike skills course (MBSC). The trail system has many different offshoots that do not lead anywhere and are confusing to follow. The MBSC is located in the southeast corner of the parcel, but will not be negatively impacted by either the proposed or alternative action. However, the connectivity of the proposed action could potentially increase usage of the MBSC. The user created system connects the site to the adjacent housing development through the use of HOA trails, as well as the fairgrounds and nearby shopping center.

### *Proposed Action*

The proposed trail system would utilize the existing trails as much as possible. It will serve to improve the site, by further developing the small and difficult to navigate trails. The trail system will enable pedestrians and bikers to more easily traverse the area and will not diminish or impede current recreational use. The added connectivity to the adjacent housing development and fairgrounds will increase recreational opportunity in the area. Moreover, the trails may allow for bikers to easily travel to the MBSC from nearby neighborhoods by creating wider and more stable surfaces.

### *Alternative Action*

The alternative action of building a smaller loop trail, with limited connectivity, will have no impact on current recreational use. This trail, however, will discourage users from using the HOA trails due to having a singular access point at 191st Avenue SE.

### *Mitigation*

No mitigation is necessary for this site because the proposed actions do not impact current recreation use. However, the use of trail signs would be beneficial. This would allow for easier navigation and prevent off-trail activity.

### *No Action*

With no action, users will continue to use the ROW with the informal trails. This will impact the environment and would provide less recreational use than an official trail system.

## 2.5 Transportation

### *Existing Conditions*

The WSDOT ROW currently contains two informal uses, the MBSC and an informal trail network, that generate minimal trips to the area. Parking access to the area is limited to Chain Lake Road and the parking lots nearby commercial area. There is limited transit service;<sup>1</sup> the Community Transit route 270/277 stops along North Kelsey Street, about ¼ mile from the nearest access point.

Parking. The informal MBSC has nearby parking located along the shoulder of Chain Lake Road, with area for approximately four vehicles parked parallel. Some users may also access the bike park via bicycle. Users of the current informal trail network include members of the houseless population, who most likely access the area by foot or bicycle; parking is unavailable along 191st Avenue SE and long-term parking along Chain Lake Road is not allowed.

Access & Connectivity. The site is currently accessible at four locations. The existing access points are labeled as AP-3, AP-4, AP-5, and AP-6 in Figure 7. Residents can access the area along Chain Lake Road at two locations, one near the MBSC (AP-4) and one near the roundabout where the former 191st Avenue SE meets with Chain Lake Road and North Kelsey Street (AP-5). Residents north of the ROW can access the area by foot at 191st Avenue SE from Rainier View Road (AP-3). Another access point is via a roughly 25% grade trail connecting the now defunct 191st Avenue SE with Galaxy Way adjacent to Walmart (AP-6). Access is also available from the northeastern side of the fairgrounds via the northwestern portion of the RRP parcel.

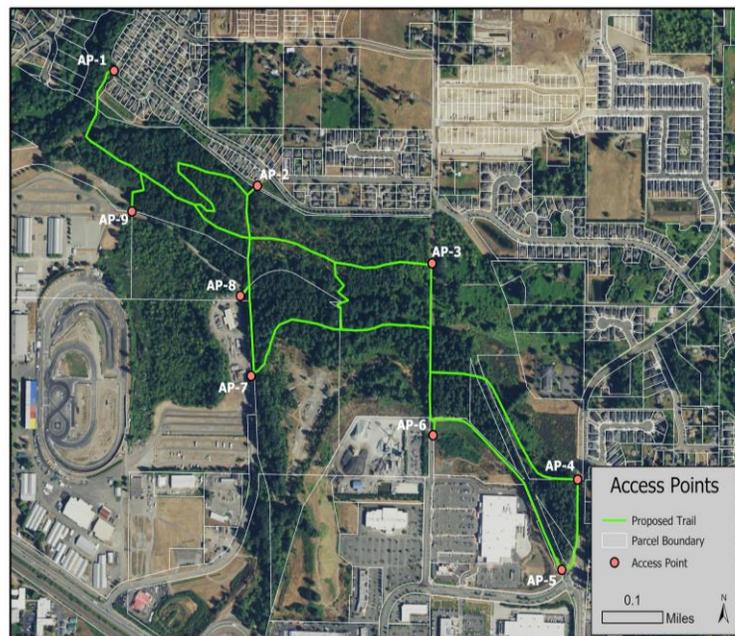


Figure 7. Proposed Access Points to US-2 Bypass Trail Area

<sup>1</sup> Demand for public transit is likely limited to regional commutes, as the population and land use patterns in the COM likely cannot sustain a robust public transit system. Therefore, the transportation considerations for the Proposed Action, Alternative Action, and No Action rely on access and connectivity, parking, trip generation, and pedestrian and bicycle facilities.

Residents along Rainier View Road have a connection to nearby shopping amenities via the access point located at Galaxy Way. Under the existing conditions, 363 residential parcels are within a half-mile of the nearest access point. This represents about 5.6% of the population of Monroe (U.S. Census Bureau, 2019). Additional information regarding the transportation element in the proposed action, alternative action, and no action is shown in Table 1. The comparison of each action shows the difference in connectivity and access provided to residents, as well as available parking to accommodate users.

Table 1: Transportation Analysis Overview

<b><u>Transportation Analysis Overview</u></b>			
<b>Action</b>	<b>Access Points</b>	<b>Reachable Parcels*</b>	<b>Parking Areas</b>
<b>No Action</b>	<b><u>Four:</u></b> <ul style="list-style-type: none"> <li>· 191st Ave SE North of Trail</li> <li>· Chain Lake Road – MBSC</li> <li>· Chain Lake Road Roundabout</li> <li>· Galaxy Way</li> </ul>	363 Residential  96 Commercial, Industrial, or Institutional	<ul style="list-style-type: none"> <li>· Chain Lake Road – MBSC Entrance</li> <li>· Walmart Parking Lot</li> </ul>
<b>Loop Trail</b>	<b><u>Six:</u></b> <b>Same as No Action and...</b> <ul style="list-style-type: none"> <li>· Cascade View Drive Adjacent to RRP Parcel</li> <li>· Cascade View Dr. – NE of Fairgrounds</li> </ul>	365 Residential  106 Commercial, Industrial, or Institutional	<b>Same as No Action and...</b> <ul style="list-style-type: none"> <li>· Cascade View Drive</li> </ul>
<b>Comprehensive Trail System</b>	<b><u>Nine:</u></b> <b>Same as Loop Trail and...</b> <ul style="list-style-type: none"> <li>· HOA Trail - Tahoma St. SE</li> <li>· HOA Trail – Rainier View Rd.</li> <li>· Cascade View Drive – North of Fairgrounds</li> </ul>	533 Residential  108 Commercial, Industrial, or Institutional	<b>Same as Loop Trail and...</b> <ul style="list-style-type: none"> <li>· Evergreen State Fairgrounds</li> </ul>

\*Reachable Parcels refers to parcels within a half-mile of the nearest access point.

### *Proposed Action*

With a comprehensive trail system, an additional five access points have been identified to increase access for nearby residents seeking recreation opportunities or utilitarian trips by foot or bicycle. Additional parking may be added along Chain Lake Road and 191st Avenue SE to accommodate for the additional demand to access the trail area. To ensure multiple uses of the trail area, additional pedestrian and cycling accommodations are suggested to create a more equitable modal split for pedestrian, cycling, and other uses (Stangl, Cordova, & Randall, 2019).

Parking. In order to fully understand any needed parking increases, a parking demand assessment should be conducted as per the Monroe Municipal Code (MMC 22.44.050.F). However, under the proposed action, four parking areas have been identified that should be able to accommodate the expected daily trips generated. The introduction of additional parking, and usage of the parking facilities can lead to runoff from vehicle fluids, and therefore the impact that additional parking has on the environment must be considered (Groundwater Foundation, n.d.).

The comprehensive trail system will be created for multi-modal transportation. Some users may choose to bike to the trail area and access the trail via foot. Due to this possibility, bike racks should be added at access points, where there is room. Access Points 3, 4, 5, and 6 have areas that can contain bike racks according to Monroe Municipal Code without impeding pedestrian or vehicular traffic (MMC 22.44.070.D). Access Points 7, 8, and 9 do not have infrastructure that can support bicycle racks, and Access Points 1 and 2 are on an HOA trail, located on private property that is not maintained by COM personnel.

Access & Connectivity. A full trail network as advocated by the proposed action will include nine access points to the trail area. Along with the initial four access points identified above, another five additional access points have been identified (Figure 8).

Access to the site and other destinations, such as the downtown shopping area and the Evergreen State Fairgrounds, are dependent on the implementation of all access points identified by residents, researchers, and COM (Stangl et al., 2019). For residents situated north and west of Rainier View Road SE, access points 1, 2 and 9 can reduce a pedestrian trip from the residential area of northern Monroe to the Evergreen State Fairgrounds by up to 3.2 miles (Stangl et al., 2019, p. 14); thus, making a trip to the fairgrounds a pleasant and pedestrian friendly experience, while reducing vehicle miles traveled.

The implementation of all nine access points will provide connectivity to residents west and north of Rainier View Road, to include many of the new single-family residences in northern Monroe. Figure 8 shows the parcels that fall within the ½-mile pedestrian shed. As larger parcels zoned as low-density single family residential are subdivided and developed, even more residences will fall into the suggested pedestrian shed.

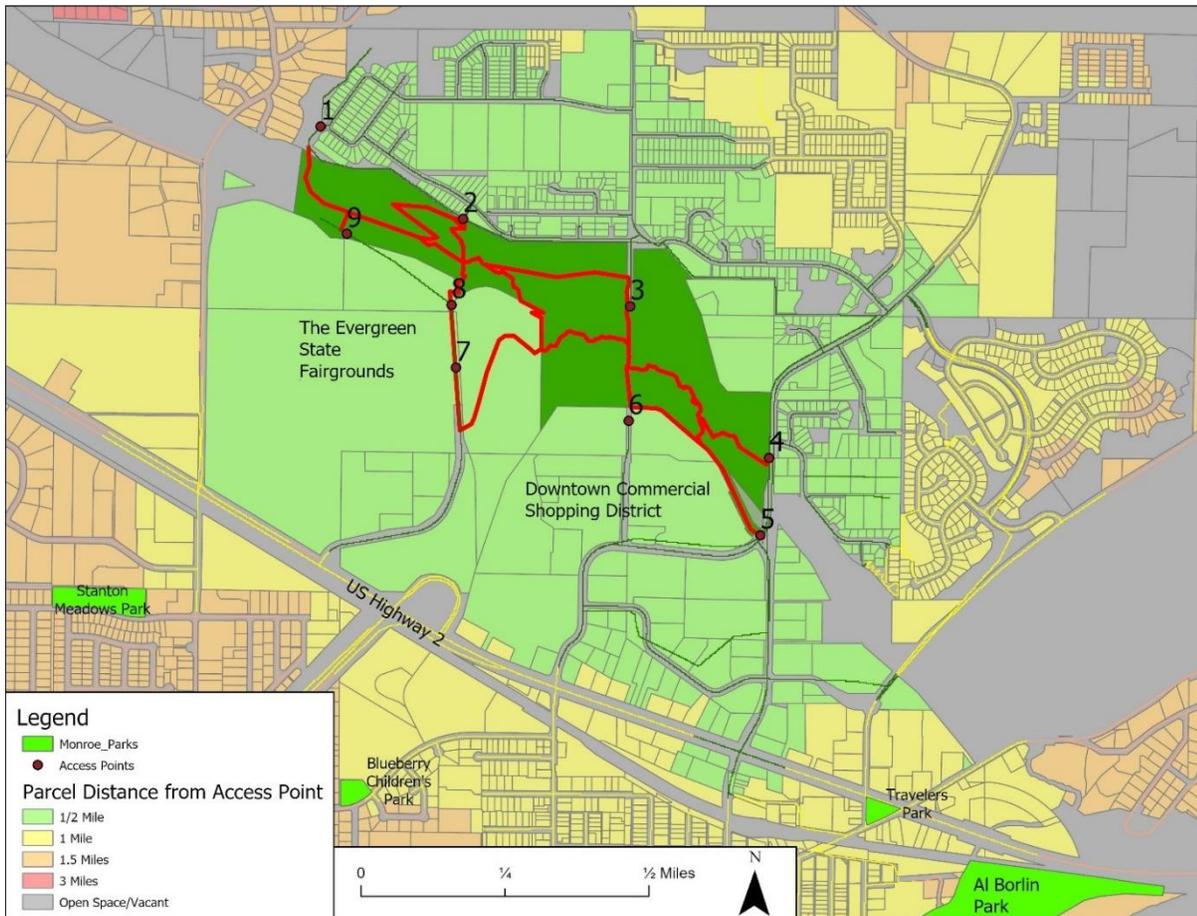


Figure 8. Proposed Action Access and Connectivity

Pedestrian and Bicycle Facilities Upgrades. A previous Western study identified proposed pedestrian and bicycle facilities upgrades (Stangl et al., 2019). Proposed bicycle and pedestrian facilities upgrades will require minimal construction on pre-existing rights-of-ways and will have no significant impact to the environment.

Trip Generation. A new recreation area will generate more trips to and from the area than currently occur. A trail network as called for in the proposed action will occur over 51.2 acres, resulting in 112.2 daily trips when accounting for the trips to a public park (TRPA, 2019). However, with an accurate count of daily users, the average trip rate would be 0.95/daily user (TRPA, 2019).

*Alternative Action*

The alternative action calls for a shorter loop trail to be constructed within the US-2 Bypass parcel. The shorter loop trail would have fewer access points and require fewer parking spots because the developed trail area would be smaller, thus reducing the expected trips generated. The shorter loop would eliminate connectivity for residents to the west of Rainier View Road to the Evergreen State Fairgrounds and shopping area, as many users would fall outside of the half-mile pedestrian shed with the loss of Access Points 1 and 2 (Figure 9).

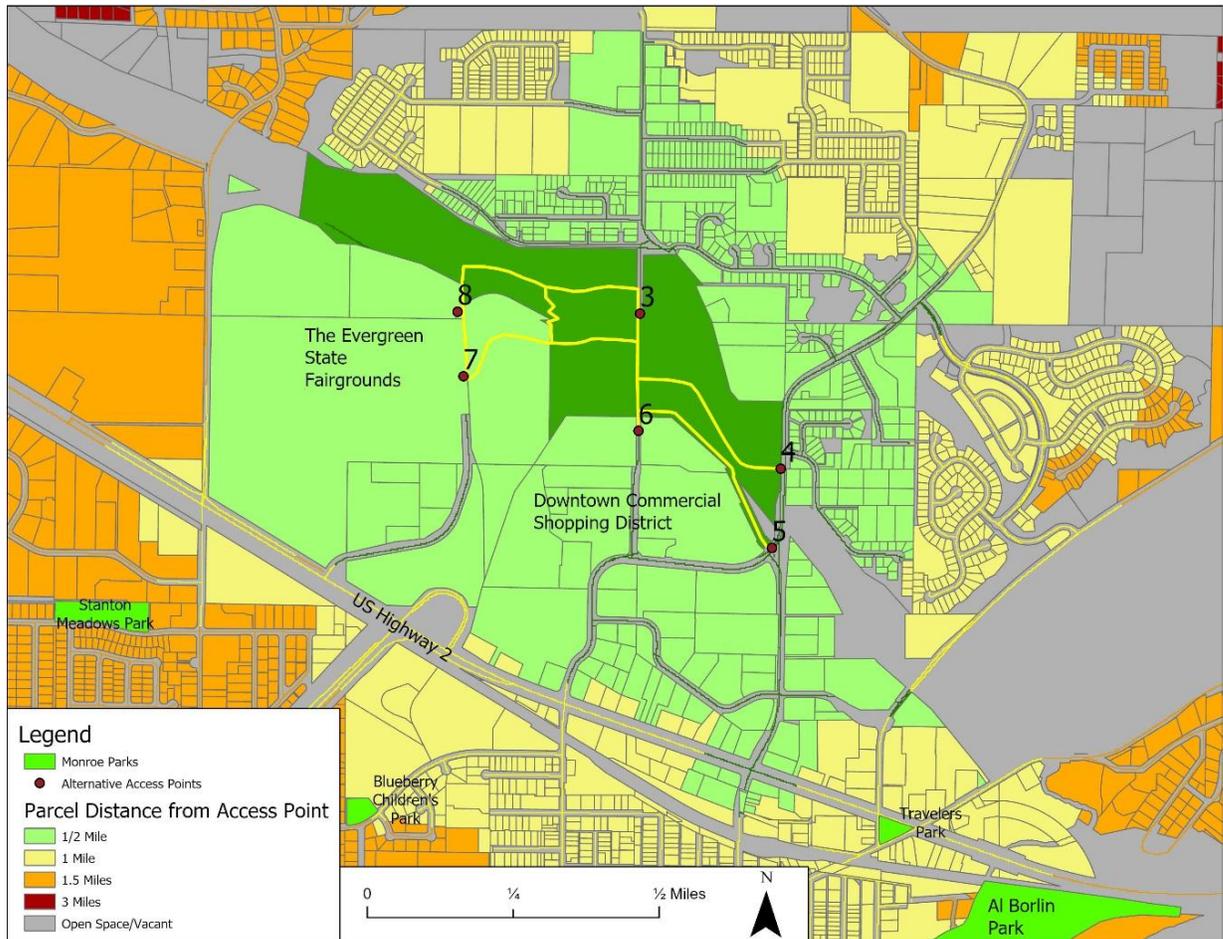


Figure 9. Alternative Action Access and Connectivity

**Parking.** A loop trail will have less parking availability than the proposed action, as the parking area located north of the Evergreen State Fairgrounds will not have access to the trail area via Access Point 9. Parking will be allowed along Cascade View Drive east and northeast of the Evergreen State Fairgrounds near Access Points 7 and 8. As with the proposed action, bicycle parking is still suggested at Access Points 3, 4, 5, and 6.

**Access & Connectivity.** The shorter, loop trail would only require the addition of two access points,<sup>2</sup> located along the gravel road east and northeast of the fairgrounds. Access Point 7 will enter the trail area through the RRP Parcel, while Access Point 8 will access the trail area further north along Cascade View Drive. These additional access points will provide access to 365 residential parcels, or roughly 5.6% of the City’s population.

**Trip Generation.** The alternative action consisting of a loop trail would encompass approximately 41.1 acres. The smaller trail area is expected to generate 90 daily trips to the multi-use trail (TRPA, 2019). Much like the comprehensive trail system, an accurate tally of daily users can give a more realistic trip generation.

<sup>2</sup> If the City does not get permission to access RRP Inc. parcel, only Access Point 8 can be implemented.

## *Mitigation*

Parking. If a parking demand analysis determines that additional parking is needed, as mentioned in the proposed action, mitigation techniques will be required to reduce the impact of additional vehicle traffic to the environment. Parking located at Access Point 3 along 191st Avenue SE will require mitigation due to potential for runoff from automobiles, particularly because the area may drain into a seasonal stream. Below are two options for reducing pollution caused by vehicle runoff in parking areas.

- Rain Gardens:
  - Rain gardens are easy to implement and cost-effective ways to reduce effluent discharge from automobile runoff (Groundwater Foundation, n.d.).
- Permeable Pavement:
  - Permeable pavement has the ability to allow excess water to filter through the concrete surface, and into the ground.

Access & Connectivity. Access from Galaxy Way up to the former 191st Avenue SE at Access Point 6 and northeast of the Fairgrounds at Access Point 8 will likely lead to long-term erosion without infrastructure additions due to the alignment of the trail entrance (Olive, 2009, p.1491). Actions to reduce erosion at these locations can include construction of stairs or switchbacks. The construction of switchbacks in those areas will lead to the movement of additional earth and soil content, though may have less loss of soil long-term. Either mitigation technique for Access Points 6, 7, and 8 will also create a safer pedestrian environment, however, the implementation of switchbacks to access the area will allow bicycle users to safely access the trail area from these locations as well.

Access points 1 and 2 are located slightly off the existing HOA trail. Any formal signage and indication of a City maintained access point may cause confusion of what entity should maintain the existing HOA trail. Therefore, Access points 1 and 2 should be informal access points that contain no signage and rely on improving the existing walking paths into the trail area.

## *No Action*

The no action alternative would see the ROW used as it currently is, for informal usage as a trail network primarily used by houseless residents and as access to the MBSC.

Access & Connectivity. Maintaining the trail area as it currently is can provide access to 5% of the City's residents. The shopping area is accessible via Access Point 6 at Galaxy Way, but there is no connection for residents to access the Evergreen State Fairgrounds (Figure 10).

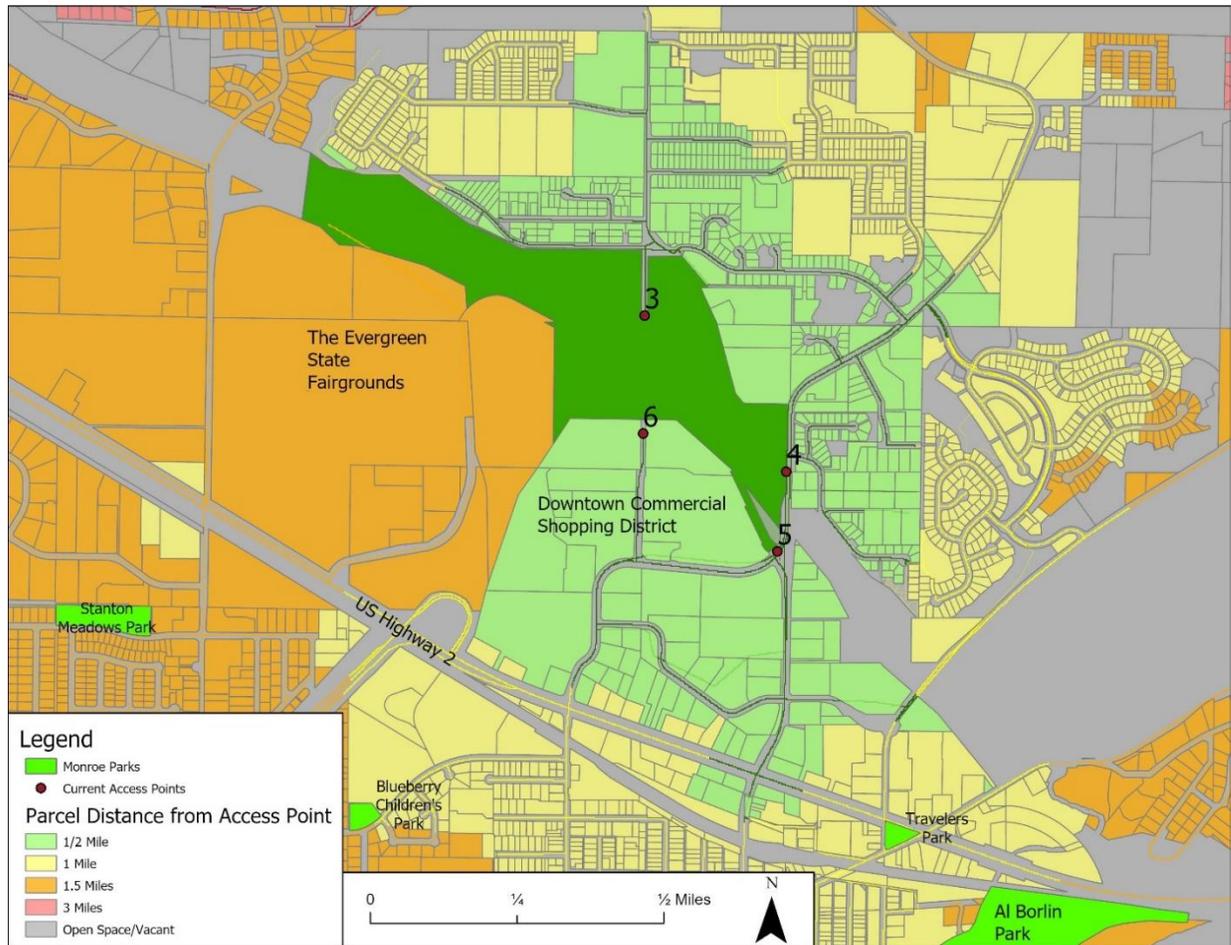


Figure 10. No Action Access and Connectivity

Parking. Parking will continue to occur along Chain Lake Road and at Walmart with minimal impact. Access via the trail connecting Galaxy Way and the former 191st Avenue SE will continue to see an increase in deterioration due to erosion with use over time.

Trip Generation. No additional trips will be generated other than users of the MBSC and the informal trails. The number of trips generated will be less than implementation of a formal trail network.

## 2.6 Aesthetics

### *Existing Conditions*

The site is currently being used primarily by the houseless population as indicated by the numerous abandoned encampments. Litter was common and dangerous obstacles like needles and other drug paraphernalia could be found on site and often impeded trail use in areas. The area east of 191st Avenue SE contains clearings in wooded areas marked with graffiti. These images were scattered around the site, but mostly concentrated in what could be described as a teen hangout area.

### *Proposed Action*

The proposed action would increase recreational use of the area and maintain the current natural viewshed for nearby homeowners and recreational users. The completion of a comprehensive trail system would require trail alignment that would include clearing of debris and encampments; this would create a safer recreational area for residents to enjoy. However, trail alignment and the clearing of encampments will likely result in the potential displacement of the houseless population.

A comprehensive trail system will travel throughout the WSDOT ROW, leaving less area for encampments as well as the constant threat of encroachment by trail users. This will likely drive the houseless population from the area as the trail is formalized and a steady stream of users begin to access the area.

### *Alternative Action*

The loop trail alternative would increase recreational use of the area, but to a lesser degree. The benefits resulting from a trail system would be greatly reduced with the loop trail. With fewer trails and connectivity, the usage of the trail would be limited and preservation efforts to maintain the natural character of the area may be hindered by continued use of the areas west of the established loop trail by the houseless and teen populations.

### *Mitigation*

In order to develop a desired character for the area and maintain the natural viewshed for users and residents, waste removal and support to the houseless population have been identified as primary mitigation measures to be taken. Waste removal prior to construction of the trail area and opportunities to maintain the cleanliness after completion will preserve the character of the area. Support to houseless individuals currently within the ROW will maintain health, comfort, and safety standards for trail users.

Waste Removal. Waste removal will help maintain the viewshed and has previously been conducted with WSDOT. Volunteer work parties from the community can pick up debris and remove unwanted graffiti from trees. Community organization around beautification of a new park area can create a sense of place for nearby community members and excitement about new recreational opportunities.

To preserve the cleanliness and viewshed of either the comprehensive trail system or shorter loop trail, trash receptacles and pet waste stations have been identified as a mitigation measure. Trash receptacles and pet waste stations with disposable bags located near the access points will ensure that users do not bring rubbish to the trail area and can easily dispose of any trash they bring out. Locating the receptacles near the access points can ensure that lasting improvements remain outside of the ROW.

Outreach and Support to the Houseless Population. The COM can utilize existing programs and services that are currently in place. These include the Homeless Policy Action Committee (HPAC), Community Outreach Team, and the Monroe City Parks Homeless Response (City of Monroe, n.d.). The Community Outreach Team has been impactful in providing outreach to support houseless individuals into housing, drug treatment, mental health assessments and other support services.

Community groups such as Take the Next Step can also provide vital assistance by connecting families and individuals in need to emergency shelter, support services, and accurate referrals to other organizations (Take the Next Step, n.d.). Additional support can be provided through community response and local policies.

Responsive action can continue to be done by the HPAC and the City Parks Department, where the HPAC can advise COM leaders on potential policies and the Parks Department provides the vital assistance to the community of cleaning debris. The Housing Consortium of Everett and Snohomish County have identified and published several policies that local jurisdictions in Snohomish County can implement to respond to the shortage of affordable housing for low-income and at-risk citizens (2018).

*No Action*

If no action is taken on the site, the current aesthetics will remain the same. This will include the unsightly graffiti, temporary encampments, and possible biohazardous materials, reducing the family-friendliness of the trail area.

**3.0 Summary of Findings**

Analysis indicates that formal development of a trail area, whether it be the proposed comprehensive trail system or the alternative loop trail will primarily have negative, but minimal, impacts on the natural environment, and positive impacts for the elements of the built and social environment (Table 2). However, by implementing the recommended mitigation measures, the proposed action far outweighs the alternative. Taking no action would result in the area continuing to be used for illegal activities, with limited use as a recreation area, and almost no utility for residents seeking alternative means of transportation to and from the commercial core of Monroe.

Table 2: Decision Matrix

	Proposed Action	Proposed Action with Mitigation	Alternative Action	No Action
Earth	-1	+1	-1	-2
Water	+1	+2	-1	-2
Plants	-2	-1	-1	0
Recreation	+2	+2	+1	0
Transportation	+1	+2	0	-2
Aesthetics	+1	+2	+1	0
Total	+2	+8	-1	-6

Legend: -2 = negative impact, -1 = limited negative impact, 0 = no impact, +1 = limited positive impact, +2 = positive impact

## 4.0 References

- Bushey, W. (2016). Stewardship Tip: The Biology of Bog Bridges. *Nature Groupie*. Retrieved from <https://naturegroupie.org/story/stewardship-tip-biology-bog-bridges>
- Groundwater Foundation. (n.d.). Retrieved November 22, 2019, from <https://www.groundwater.org/action/home/raingardens.html>.
- Housing Consortium of Everett and Snohomish County. (2018). *Housing Snohomish County Project Report*. Retrieved December 5, 2019, from <https://housingsnohomish.org/wp-content/uploads/2018/04/HousingSnohomishCountyProject.pdf>.
- Mealy, J. D. (2017). *Stormwater Site Plan for Clothier SP*. September 29. Retrieved December 6, 2019, from <https://www.monroewa.gov/DocumentCenter/View/5026/Drainage?bidId=>.
- Monroe Municipal Code (2019). *Municipal Code*. Retrieved from <https://monroe.municipal.codes/>.
- MRSC. (2016, Sept 30). *Wetlands*. Retrieved from <http://mrsc.org/Home/Explore-Topics/Environment/Critical-Areas-and-Species/Wetlands.aspx> .
- Stangl, P., Cordova, C., & Randall, A. (2019). *City of Monroe, WA, Multi-Modal Trail: Transportation Analysis*. Western Washington University.
- Tahoe Regional Planning Authority. (2019). *TRPA Trip Table*. Retrieved December 6, 2019, Retrieved from [http://www.trpa.org/wp-content/uploads/Attachment\\_A\\_Trip\\_Table\\_2019.pdf](http://www.trpa.org/wp-content/uploads/Attachment_A_Trip_Table_2019.pdf).
- Take the Next Step. (n.d.). *Our Mission, Vision, and History*. Retrieved December 4, 2019, from <https://www.ttns.org/our-mission-vision-history>.
- U.S. Census Bureau. (2019). *Quick Facts: Monroe, WA*. Retrieved November 14, 2019, from <https://www.census.gov/quickfacts/fact/table/monroecitywashington,US/PST045218>.