The Sullivan's Gulch Trail Study

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THE SULLIVAN’S GULCH TRAIL STUDY

Master of Urban and Regional Planning Workshop Project
Portland State University
June 2004
THE SULLIVAN’S GULCH TRAIL STUDY

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Master of Urban and Regional Planning Program
College of Urban and Public Affairs
Portland State University
Planning Workshop

June 2004
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*Thanks to Dave Brook for the web survey
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**About Planning Workshop**
Planning Workshop, the capstone course for Portland State University's Master of Urban and Regional Planning Program, provides graduate students with professional planning experience. Students develop consulting contracts with clients for planning services that address local and regional issues and the students’ personal and professional interests. The Workshop provides experience in planning for constructive social and environmental change, while considering the planner’s ethical responsibility to serve the public interest.

The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
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The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
INTRODUCTION

Bicycle use reduces dependency on motorized travel of all types; it saves money; it decreases air pollution; it limits roadway congestion and energy consumption; and it improves public health. Because it meets so many of our common aims, bicycle use enjoys broad neighborhood and political support in the Portland area.

The regional trails network envisioned by Metro is a key component of the regional transportation planning landscape, and Metro funding guidelines support projects that help complete this bicycle network. Metro Council members Rod Monroe and Rex Burkholder have both expressed support for this study and the project. In sum, the project is politically viable.

The primary advantage of the trail alignment is complete grade separation from the road system; however, this separation also isolates the trail, and creates concerns about the quality of the trail experience for users, especially concerns about public safety. Alignment within Sullivan’s Gulch also requires substantial engineering work that will increase costs.

Currently, the trail area is something of a no man’s land, blighted with invasive vegetation and unauthorized camping. In and of itself, a 12-foot wide path through the area will not resolve these concerns.

What can be done to make the trail a positive factor for improvement of the corridor? The trail must function as more than a transportation facility. It must engage and interact with the community as a neighborhood amenity that people use throughout the day and week. It must become part of the social fabric.

Right now, the functional edge of the centers and neighborhoods is at the top of the slope. The Banfield transportation corridor will always form an edge; the challenge is for the trail area to be within the edge; rather than beyond it. We must learn how to extend and grow these areas down to and through the trail area. Only then will the concerns stemming from isolation of the trail be overcome.

What is this Study About?

This study was completed for Metro’s Regional Parks and Greenspaces department, through a partnership between Mel Huie, Senior Regional Planner and Regional Trails Coordinator, and Portland State University (PSU) graduate students. This study follows a recent engineering study by PSU students, which offers a potential trail alignment in the Sullivan’s Gulch.

Metro Parks and Greenspaces asked for a product that would identify whether and how the trail would meet regional goals if constructed as an off-street path. This report is intended to research and explain the planning issues that follow from the potential trail alignment. This report provides information to support a decision on whether to apply for funding for further planning and engineering study. It also serves as a practical resource for future action.

Approach and Methodology

The study describes project issues as seen from the diverse viewpoints of the client and other interested individuals; groups and agencies. Public outreach was undertaken through letters to community organizations and interest groups, and through presentations at neighborhood association meetings. Planning officials were consulted and interviewed, individually and in groups. Relevant local and regional plans, other trail studies and related literature were reviewed. Finally, the team conducted field observations. Through this process many issues and concerns were identified. The primary issues are:

- Is it physically feasible to build a trail on a slope next to the railroad and freeway?
- Is there enough demand for a trail to justify the expense of building it?
- Can the trail be built in a manner that will be attractive for people to use?
- Will the trail meet community goals that are currently unmet?
PROJECT CONTEXT

What is the Trail Concept?

Where is the Trail?

What is the History of the Area?

How Does the Trail Meet Broader Goals?
WHAT IS THE TRAIL CONCEPT?

The idea is to create a 4.3 mile off-street path for bicyclists and pedestrians through the open space on the north side of the freight rail tracks in the Banfield Corridor from the Eastbank Esplanade to the Gateway District. This trail is a rails-with-trails project, in which unused open space is productively utilized and improved. To be successful, the trail must also be integrated with neighborhoods on both sides of the corridor.

Horizontal and vertical separation prevents conflicts with freight rail activity and other modes in the corridor. The name “Sullivan’s Gulch Trail” was recommended based on its historical significance. The path is referred to as such in this document.

“Bicycling [in Portland] has grown substantially in the last ten years. By providing bike lanes, bike boulevards, and paths, we are giving people a safe place to ride. So people have really responded to that.”
- Quote from Roger Geller, Bicycle Coordinator, Portland Office of Transportation

Key Planning Issues

The Sullivan’s Gulch Trail shares many planning themes with other rails-with trails projects. These include the benefits of a gently sloping railroad grade and separation from the road network, and detriments such as safety problems and rail company resistance to the presence of trails in the trail right-of-way.

Additional planning concerns and benefits relate to circumstances of the Sullivan’s Gulch Trail. These include the prevalence of homeless and transient camping, poor security, freeway noise and air pollution, and the cost of constructing a trail on the slope. The benefits include completion of a missing link in the regional trails network, excellent connectivity with regional centers and the neighborhoods in between, and the enhancement of a blighted portion of the Banfield Corridor.

PROJECT PLANNING HISTORY

- 1996: The City of Portland Bicycle Master Plan is adopted, and includes the Sullivan’s Gulch Trail as a “Priority 3 (10-20 Year)” project.
- 2000: Metro Council adopted the proposed trail route in Metro’s Regional Transportation Plan.
- 2001: Placed on Metro’s Regional Trails Plan.
- 2003: Placed on Metro’s Financially Constrained List, making the project eligible for feasibility study funding.
- 2004: Portland State University Engineering Alignment Study (Appendix A).

‘Rails-with-trails’ describes any off-street path or other trail located directly adjacent to an active railroad corridor.

OFF-STREET PATH—A bikeway and pedestrian-way physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers and other non-
Rails-with-Trails

The proposed Sullivan’s Gulch Trail is an example of a Rails-with-Trails (RWT) project. ‘Rails-with-Trails’ describes any shared use path or other trail located directly adjacent to an active railroad corridor.¹ There are currently 65 RWT facilities located in 30 states across the nation. In these cases, cooperation between trail managing agencies and railroad companies led to agreements for easements and liability, and the subsequent opening of trails to public use in railroad corridors.

The fact that so many RWT’s exist and are planned is testament to the appeal which linear corridors (such as railroad and utility) hold for trail planning agencies. This is especially true in urbanized areas similar to the area the Sullivan’s Gulch Trail would transect. In urban settings, railroad corridors are very often the last remaining opportunity to provide a linear trail to connect diverse land uses, thus bridging the isolation of auto-based planning.

Placing a trail next to an active railroad is complicated. There are many concerns on the part of the railroad company (Union Pacific) that will have to be addressed in order for a RWT project planning process to move forward.

In the Portland region, there are four recent RWT projects that have been built: the OMSI-Springwater Trail; I-205 Trail adjacent to Airport MAX; the Steel Bridge Riverwalk; and the bridge over the railroad tracks at the Eastbank Esplanade. The latter two projects coordinated with Union Pacific, who owns and manages railroad operations in the Banfield corridor. These projects demonstrate that local planning agencies have the ability to plan and implement a RWT project in the Banfield corridor.

¹ Rails-with-Trails: Lessons Learned

The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
WHERE IS THE TRAIL?

Location

The proposed Sullivan’s Gulch Trail alignment is within the Banfield Corridor in Northeast Portland. The corridor extends from the Eastbank Esplanade at the Willamette River to I-205 at Rocky Butte and the Gateway District. The trail corridor is adjacent to an interstate highway, a MAX light rail line, and a freight rail line. The trail would be placed in the open space on the north side of the freight rail lines2 and be approximately 4.3 miles in length. The western end of the trail would connect with the Eastbank Esplanade, and the east end of the trail connects to the I-205 trail.

FROM: Eastbank Esplanade and the OMSI-Springwater Trail

TO: Gateway District and the I-205 Trail

---

2 This corridor would ultimately expand along Interstate 84 east from Interstate 205 to Troutdale and the Sandy River. Due to the constraints of time and resources, this study is limited to the boundaries described above. Future studies may consider extending the trail east to the Sandy River, especially since some segments of trail already exist in this eastern portion.
WHAT IS THE HISTORY OF THE AREA?

The Sullivan’s Gulch and I-84 Banfield corridor has served as a transportation corridor since 1881 when the Union Pacific Railroad first laid tracks. In 1926 the Highway Commission revealed plans for a freeway in the Gulch. No action was taken and the Lloyd Corporation developed later part of it into a golf course. The golf course eventually was buried under the Banfield Freeway (I-84), which was finished in 1957. Light rail tracks joined the auto and freight rail traffic in 1986. In the 1990’s, planning began for a rails-with-trails project, or an off-street path, on the north side of the Union Pacific railroad tracks in Sullivan’s Gulch. This would add yet another dynamic to this transportation corridor, serving both transportation and recreational needs while simultaneously reintroducing people to an area that once served as a favorite picnic spot in the early days of Portland’s history.

The Gulch - from Parkland to Shantytown to Freeway

“The Gulch itself has a story all to its own. The Gulch was once filled with trees, a clear spring with waterfalls and a pool. The waterfall was near what is now 19th Street and was called Sullivan’s Spring. It was a favorite picnic area. By 1894 the firs were harvested and the Union Pacific Railroad ran through the bottom of the Gulch.

Between 1932 and 1941 the Gulch developed a town of its own, “Hooverville” or “Shantytown,” where over 300 homeless men lived. By this time the Gulch was no longer used for picnics; the stream was stagnant and polluted. A fire in the Gulch destroyed most of Shantytown and in 1941, the last shack was torn down to prepare for a modern expressway. The freeway was finished in 1957 and, after much controversy, named the Banfield Freeway after the head of the Highway Commission instead of for Timothy Sullivan, one of the first people to settle claim on the land”.


1858 General Land Office Survey of Northeast Portland, including Sullivan’s Gulch.
HOW DOES THE TRAIL MEET BROADER GOALS?

Sullivan’s Gulch Trail is a missing link in the regional network of off-street paths. It will link major regional trails, as well as local bikeways, walkways, and streets, enhancing travel across an urban area filled with various barriers. The route will serve transportation demand generated by major employment centers, including Lloyd Center and Downtown Portland, and residential neighborhoods. As noted by Metro Councilor Monroe, it will provide residents in eastern Portland neighborhoods with direct bicycle access to the jobs and amenities located near the central city. It will also improve pedestrian and bicycle access to public transit and public facilities including schools, parks and libraries.4

The influence of urban planning on public health is gaining notoriety. The trail can provide users with a healthy option for transportation and recreation.

Specific benefits include:

- Uninterrupted trail link from the Eastbank Esplanade to the I-205 Trail
- Smooth, American Disability Act (ADA) accessible grade for the entire length
- Connections to Downtown Portland, the Rose Quarter and Convention Center, Lloyd District, Hollywood District, 82nd Ave., Gateway District, and the City of Maywood Park.
- Connection to all MAX light rail stations from the Rose Quarter Transit Center to the Gateway Town Center
- Direct connection with fourteen neighborhoods
- Completely mode separation from streets and train tracks
- Approximately 50 trail access points on the north side
- 17 existing bridges connect to neighborhoods south of the freeway
- Habitat restoration potential in Sullivan’s Gulch
- City beautification and gateway to Portland and the region

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4 See Appendix F for more information about the trail’s relationship to other adopted plans

### City of Portland Bicycle Master Plan Proposed Projects:

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT LOCATION</th>
<th>LENGTH (FT)</th>
<th>COST ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW Pomona</td>
<td>Capitol to 35th</td>
<td>3,633</td>
<td>$1,600</td>
</tr>
<tr>
<td>SW Stephenson</td>
<td>35th to Boones Fy.</td>
<td>10,454</td>
<td>$3,479</td>
</tr>
<tr>
<td>SW 30th</td>
<td>B-H Hwy to Vermont</td>
<td>5,000</td>
<td>$931</td>
</tr>
<tr>
<td>SW Taylors Ferry</td>
<td>35th to Terwilliger</td>
<td>7,271</td>
<td>$4,900</td>
</tr>
<tr>
<td>SW Boones Ferry Rd.</td>
<td>Terwilliger to city limits</td>
<td>10,508</td>
<td>$4,900</td>
</tr>
<tr>
<td>SW Kingston</td>
<td>Jefferson to Knights</td>
<td>10,000</td>
<td>$40</td>
</tr>
<tr>
<td>SW Arnold</td>
<td>35th to Boones Fy.</td>
<td>6,363</td>
<td>$3,479</td>
</tr>
<tr>
<td>SE 7th/Sellwood</td>
<td>Spokan to Bybee</td>
<td>3,333</td>
<td>$5</td>
</tr>
<tr>
<td>NE Sullivan's Gulch Trail</td>
<td>Parallels I-84 from Willamette River to I-205</td>
<td>27,725</td>
<td>$2,500</td>
</tr>
<tr>
<td>W Burnside</td>
<td>23rd to city limits</td>
<td>11,187</td>
<td>$265</td>
</tr>
<tr>
<td>SW Vermont</td>
<td>45th to Terwilliger</td>
<td>10,000</td>
<td>$36</td>
</tr>
<tr>
<td>SW Sunset Blvd.</td>
<td>Dosch to Capitol</td>
<td>5,909</td>
<td>$3,136</td>
</tr>
</tbody>
</table>

“Complete a network of bikeways that serves bicyclists’ needs for travel to employment centers, commercial districts, transit stations, and recreational destinations.”

-A policy objective from the City of Portland Bicycle Master Plan
PROJECT DEMAND

Who Will Use the Trail?
Why Will They Use the Trail?
What May Discourage Trail Use?
WHO WILL USE THE TRAIL?

A Regional Connection

More than 39,000 people reside within a half-mile of the Sullivan’s Gulch Trail corridor\(^5\). That is the most important piece of demographic information.

Currently, no off-street paths exist in this section of Portland. Existing bike routes in this area are all on streets, where bicyclists conflict with automobiles and are interrupted by signed and signalized intersections. These factors discourage the choice to bicycle because the safety risk and the travel time are greater on streets than on an uninterrupted trail with neither automobiles nor intersections. Increased safety and reduced travel time encourage additional bicycle trips for both recreation and commuting.

The Sullivan’s Gulch Trail provides an important connection between several centers identified in Metro’s Region 2040 Growth Concept. The plan outlines three types of centers: central city, regional center, and town center.\(^6\)

Figure 1 illustrates four targeted growth areas within in the vicinity of the trail corridor. The trail intersects with three of these four areas (Lloyd District, Hollywood, and Gateway) and provides an important connection to the Central City and the Lloyd District.

\(^5\) U.S. Census 2000 Block Groups; Appendix D lists the block groups that comprise the study area.

\(^6\) A definition of these centers is outlined in Appendix F.
Figure 1: Major Employment and Growth Centers Near the Corridor

The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
A demographic study area was developed using U.S. Census (2000) block groups (Figure 2). The block group geographical level was chosen due to the size of the study corridor and the availability of economic data. There are 36 block groups with 50 percent or more of total area within half a mile of the trail, and these were included in the demographic study area. A more complete demographic analysis, including environmental justice data, is located in Appendix D.

Figure 2: Sullivan’s Gulch Trail Corridor Demographic Study Area
The City of Portland’s population increased by approximately 21 percent between 1990 and 2000, compared to approximately 14 percent for the Sullivan’s Gulch Trail Study Area (Table 1). The population of the Portland Primary Metropolitan Statistical Area (PMSA) increased approximately 22 percent from 1990 to 2000. While the study area represents a small proportion of Multnomah County’s population growth, the study area has increased at a slightly faster rate than the county.

In general, the Sullivan’s Gulch Trail Study Area is as racially diverse as the City of Portland and Multnomah County, though the percentage of Hispanics is lower than in other areas analyzed. The average household size is also smaller than the four other geographic areas shown in Table 1. Median income, per capita income, and the poverty rate are similar to the City of Portland and Multnomah County. The study area has slightly more people 65 years or over than the city, county, and Portland region, but less than the State of Oregon.

The projected population for Multnomah County in the year 2025 is 750,949 (U.S. Census, 2001). Transportation planning typically uses a 20 year horizon, and it is important to account for the additional demand for transportation infrastructure that will occur in future years as the population grows. Accurate population estimates are essential for estimating demand, as shown in Table 1.

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Population 1990</th>
<th>Population 2000</th>
<th>Average Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan’s Gulch Trail Study Area7</td>
<td>33,902</td>
<td>39,513</td>
<td>1.4%</td>
</tr>
<tr>
<td>City of Portland</td>
<td>437,319</td>
<td>529,121</td>
<td>2.1%</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>583,887</td>
<td>660,486</td>
<td>1.3%</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>1,283,402</td>
<td>1,572,771</td>
<td>2.2%</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>2,842,321</td>
<td>3,421,399</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

7 U.S. Census 2000 Block Groups; Appendix D lists the block groups that comprise the study area.
The Lloyd District and Downtown Portland are two large employment nodes, with almost 100,000 employees combined (Table 2).

The Portland bicycle commute mode split within four miles of the Burnside Bridge is 4 percent\(^8\). Mode splits for Downtown Portland are listed in Table 3.

The Portland Business Alliance estimates 45 percent of all downtown employees live within the City of Portland. By providing an improved option for bicycle commuting, the Sullivan’s Gulch Trail would attract a large number of people that live within the City of Portland and commute to downtown.

Biking and walking in neighborhoods and districts along the corridor can be difficult. Connectivity for bicycle travel in the trail area is currently limited to streets where bicyclists share the right-of-way with autos. This trail would separate the modes, improving safety and reducing travel times. The trail can also create new links; for example, many streets dead end to the north of the trail corridor. Trail connections could increase safety on these streets by putting additional eyes on the dead end streets, and improving trail access.

### What community goals will be met besides more bikers and walkers?

- Upgrades public safety in the Gulch.
- Puts vacant land in north portion of corridor to productive use.
- Encourages higher density along the transit corridor.
- Decreases pollution and road congestion.
- Improves public health by providing a lengthy and convenient trail.

---

\(^8\) Defined as the area bounded by the I-5, NE Broadway, NE 15th, and I-84.

\(^9\) Defined as the area bounded by I-405 and I-5.

\(^{10}\) Portland Department of Transportation, 2002

---

**Table 2: Employment Population, 2003**

<table>
<thead>
<tr>
<th>Area</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lloyd District(^8)</td>
<td>17,000</td>
</tr>
<tr>
<td>Downtown Portland(^9)</td>
<td>82,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>99,000</strong></td>
</tr>
</tbody>
</table>

**Table 3: Downtown Portland Mode Splits, 2002**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Alone</td>
<td>46%</td>
</tr>
<tr>
<td>Bus</td>
<td>23%</td>
</tr>
<tr>
<td>MAX</td>
<td>18%</td>
</tr>
<tr>
<td>Carpool</td>
<td>5%</td>
</tr>
<tr>
<td>Bike</td>
<td>4%</td>
</tr>
<tr>
<td>Walk</td>
<td>3%</td>
</tr>
<tr>
<td>Streetcar</td>
<td>1%</td>
</tr>
</tbody>
</table>
WHY WILL THEY USE THE TRAIL?

Residential and employment demographics are important; however, there are other influences on demand for a pedestrian and bicycle trail. There are significant differences between bicycle and pedestrian travel, in terms of travel characteristics and factors influencing the decision to bike or walk:

- Pedestrian trips are shorter than bicycle trips
- Many pedestrian trips are actually trips to access other modes, whereas bicycle trips are primarily stand-alone trips. Therefore, pedestrian travel will complement automobile and transit trips rather than replace these trips.
- The decision to ride a bicycle involves a greater conceptual leap than the decision to walk. Everyone is a pedestrian, but not everyone is bicyclist. The choice to use a bicycle for a particular trip depends on the specific characteristics of that trip, and especially on the willingness of individuals to bicycle.

Table 4 lists factors that influence non-motorized travel, and their relevance to the Sullivan’s Gulch Trail. Some methods focus on demand for a specific facility. Others focus on travel over an entire area, such as total levels of bicycling in a city. These factors influence choices to bicycle or walk, but there are others that are more difficult to quantify, such as climate and topography.

One estimation method, developed by Neil Goldsmith of the City of Seattle, predicts the number of bicycle commute trips. The method was deemed applicable because Seattle and Portland have similar climate and topography. The next page outlines the Goldsmith method for the Sullivan’s Gulch Trail.

| Table 4: Factors Influencing Non-Motorized Travel |
|-----------------------------------------|-----------------|--------------------------------|
| **Factor**                              | **Description**                  | **Relevance to the** |
| Physical Environment                     | Characteristics such as facility types, widths, connectivity, safety, and aesthetic quality. | Sullivan’s Gulch Trail |
| Demographics                             | Characteristics of the local population which influence bicycling and walking. e.g. socio-economic characteristics (age, income, household structure) as well as attitudes and beliefs. | Within a half mile of the trail are over 39,000 people, nearly 10,000 students, 4 retirement centers, and socio-economic characteristics that reflect the City of Portland and the Portland region. |
| Characteristics of Other Modes           | Relative travel times and costs of bicycling or walking are compared to other modes. Policy variables may include parking pricing, and transit service improvements. | Portland suffers from vehicle congestion, and as congestion worsens over time, bicycle and walking travel times will improve when compared to motorized travel. |
| Land Use                                 | Density and distribution of population, employment, and other activities which affect where people travel, how many trips are generated, and trip length. | The trail connects several schools, parks, two main employment centers (Downtown and the Lloyd District), and three 2040 centers: Central City, Hollywood and Gateway. |
| Supporting Policies                      | Other programs, policies, and facilities which affect the appeal of bicycling or walking, such as bicycle parking, showers, lockers, or educational programs. | The City of Portland and Metro are committed to implementing supportive policies for bicyclists. This trail encourages future programs, policies, and facilities that support bicycling. |
ESTIMATING SINGLE OCCUPANT VEHICLE (SOV) COMMUTE TRIPS PER MILE OF BIKE LANE

1. If there are 39,513 people within 0.5 mile of the Sullivan’s Gulch Trail Corridor\(^\text{11}\),

2. And 66.9% of general population has a daily commute\(^\text{12}\) (26,434),

3. And 5.6% of this population are active or potential bicycle commuters\(^\text{13}\) (1,480),

4. And inner city bicycle mode split = 2.8% = 740 per half square mile\(^\text{14}\)

5. Then total – current = 1,480 – 740 = 740

**740 POTENTIAL NEW BICYCLE COMMUTE TRIPS\(^\text{15}\)**

6. And assuming that 10% of potential bicycle commuting public would bicycle commute with better facilities,

7. Then 10% * 740 = 74 NEW BICYCLE COMMUTERS PER HALF MILE\(^\text{16}\);

8. And assuming that one in two bicycle trips replace an automobile trip\(^\text{17}\), then

9. 37 SOV trips eliminated per half mile of bike lane;

10. And if the proposed trail was to be a total 5 miles,

**THEN 370 SOV COMMUTE TRIPS WOULD BE ELIMINATED**

\(^{11}\) 2000 US Census Data; block groups with 50 percent or more of its area within 0.5 miles of the corridor

\(^{12}\) 2000 US Census Data, percent of persons employed with a commute to work, aged 18 and over.

\(^{13}\) Statistic calculated by Neil Goldsmith, City of Seattle, for Seattle, WA. According to Metro, Portland’s percentage would be about the same, if not greater.

\(^{14}\) Portland Department of Transportation, Transportation Options (2000). Inner City is defined as all areas within a 4 mile radius of the Burnside Bridge.

\(^{15}\) Using this method, it is estimated that there will be 740 weekday commute trips on the Sullivan’s Gulch Trail, with 370 single-occupant vehicle trips eliminated. Trails in the Portland-Vancouver region were selected to estimate projected Sullivan’s Gulch Trail use.

\(^{16}\) The estimate of 74 bike trips per half mile of trail was developed using data from the 2000 census and the Portland Department of Transportation. Conservative assumptions were also used to predict the number of commute trips and the resulting number of single occupant vehicles (SOV) eliminated.

\(^{17}\) Assumptions based on a literature review of bicycle demand for new off-street route or trail.
Table 5 compares factors of the Sullivan’s Gulch Trail with the other trails in the region.

### Table 5: Regional Demand Factors for the Sullivan’s Gulch Trail

<table>
<thead>
<tr>
<th>Factor</th>
<th>Sullivan’s Gulch Trail (Proposed, Portland)</th>
<th>Waterfront Path (Vancouver, WA)</th>
<th>Springwater Corridor (Gresham, OR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Users</td>
<td>---</td>
<td>720</td>
<td>830</td>
</tr>
<tr>
<td>Segment Characteristics</td>
<td>Approximately 5 mile path with no roadway crossings.</td>
<td>Short, recreation attractor with few crossings</td>
<td>17 mile path with intermittent crossings</td>
</tr>
<tr>
<td>Employment and Residential Density</td>
<td>3,800 per square mile</td>
<td>3,503 per square mile</td>
<td>1,700 per square mile</td>
</tr>
<tr>
<td>Population Characteristics</td>
<td>Unknown, although likely more commuters than recreation</td>
<td>Mainly recreation</td>
<td>Commuters and recreation</td>
</tr>
<tr>
<td>Network Characteristics</td>
<td>Bikeway connections at all bridges and other areas where feasible</td>
<td>Less bikeway connections</td>
<td>Less bikeway connections</td>
</tr>
<tr>
<td>Land Use Mix</td>
<td>Mixed use and single family residential</td>
<td>Mix of residential, retail, and industrial</td>
<td>Mix of residential, retail, and industrial</td>
</tr>
</tbody>
</table>

--- Alta Planning + Design, 2003

### Public Support

This study included a public outreach component, in the form of letters to neighborhood associations and other community leaders, affected agencies, and bicycle advocates. Study team members attended five neighborhood association meetings.

Meetings were held with the client and key agency personnel responsible for trails, including staff from the City of Portland Office of Transportation and Bureau of Parks and Recreation, and Metro’s Regional Trails and Greenspaces. The study team also presented the project at a PSU transportation seminar where additional feedback was received.

Thus in addition to the public outreach that is customary for this type of study, we also communicated extensively with interested staff and decision makers at the important public agencies. The comments received from the outreach program highlight several key issues:

- Multiple access points improve connectivity and safety, but interrupt high speed bicyclists.
- High speed bicyclists may conflict with pedestrians, especially children and seniors.
- Lighting is critical for safety after dark.
- In the Sullivan’s Gulch area, there is poorly maintained greenspace so the trail could become a greenway.
- Security should include measures to protect against trespassing on the freight railroad and light rail areas.
- What other projects might be deferred to pay for this trail?
- Can a landscaped buffer really reduce the noise from the freeway
Completion of Missing System Links

The railroad and interstate highway divide communities. In addition, streets dead end, since crossing is limited to bridges. Some bridges are more suitable for crossing than others.

The proposed trail will create new links, bringing people into the wide corridor that now separates the human-scaled environment that exists on either side. The gap between communities is decreased by the presence of the trail, because more people from south of the corridor will come to the north side if an attractive trail is constructed there.

The Sullivan’s Gulch Trail is identified as a “Proposed” trail on Metro’s Regional Trails map. The trail would complete a missing regional trail link through central east Portland, and connect outer Portland with inner Portland.
Enhancing the Existing Regional Bicycle and Pedestrian Network: Connectivity

A major reason to use a trail is that the trail takes people to where they want to go. The connectivity of transportation networks affects accessibility to desired destinations (i.e., places of employment; parks; schools; stores). Accessibility in turn affects mode choice decisions. If the connectivity in one’s neighborhood is good, that person may opt to bike from their home to work rather than driving. Conversely, poor connectivity may lead a person in another neighborhood to drive to work rather than bicycle. The Sullivan’s Gulch Trail features numerous convenient connections to the existing bike and transit networks. Table 6 lists and Figure 5 illustrates the bicycle facilities that would connect with the Sullivan’s Gulch Trail.

Table 6: Bicycle Network Connections

<table>
<thead>
<tr>
<th>Link Name</th>
<th>Link Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbank Esplanade Bike Path</td>
<td>Multi-Use Path</td>
</tr>
<tr>
<td>MLK/Grand Avenue</td>
<td>Bike Route - Caution Area</td>
</tr>
<tr>
<td>NE 12th Avenue</td>
<td>Bike Lane</td>
</tr>
<tr>
<td>NE 21st Avenue</td>
<td>Bike Lane</td>
</tr>
<tr>
<td>NE 28th Avenue</td>
<td>Bike Route - Low Traffic Through Street</td>
</tr>
<tr>
<td>NE Sandy Boulevard</td>
<td>Bike Route - Caution Area</td>
</tr>
<tr>
<td>NE 42nd Avenue</td>
<td>Bike Route - Low Traffic Through Street</td>
</tr>
<tr>
<td>NE 47th Avenue</td>
<td>Bike Lane</td>
</tr>
<tr>
<td>NE 53rd Avenue</td>
<td>Bike Route - Moderate Traffic Through Street</td>
</tr>
<tr>
<td>NE Halsey &amp; 68th Avenue</td>
<td>Bike Route - High Traffic Through Street</td>
</tr>
<tr>
<td>NE 74th Avenue</td>
<td>Bike Lane</td>
</tr>
<tr>
<td>NE Halsey &amp; 81st Avenue</td>
<td>Bike Route - High Traffic Through Street</td>
</tr>
<tr>
<td>I-205 Bike Path</td>
<td>Multi-Use Path</td>
</tr>
</tbody>
</table>
Figure 5: Bike Network Connections

The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
In addition to bicycle network connections are multiple transit network connections. Table 7 lists and Figure 6 illustrates the bus lines and light rail connections that would intersect with the Sullivan’s Gulch Trail.

Table 7: Transit Network Connections

<table>
<thead>
<tr>
<th>Connection Point</th>
<th>Tri-Met Bus Lines Linked</th>
<th>Light Rail Station Linked?</th>
<th>Transit Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eastbank Esplanade</td>
<td>1, 4, 5, 6, 8, 9, 10, 33, 40, 70, 74, 77, 85, 95</td>
<td>Yes - Rose Quarter</td>
<td>Rose Quarter</td>
</tr>
<tr>
<td>2. MLK/Grand Avenue</td>
<td>6, 74</td>
<td>Yes - Convention Center</td>
<td></td>
</tr>
<tr>
<td>3. NE 12th Avenue</td>
<td>70, 74, 95</td>
<td>Yes - Lloyd Center</td>
<td></td>
</tr>
<tr>
<td>4. NE 21st Avenue</td>
<td>10</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>5. NE 33rd Avenue</td>
<td>10, 77</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>6. Sandy Boulevard</td>
<td>12, 66, 75, 77</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>7. NE 39th Avenue</td>
<td>12, 66, 75, 77</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>9. NE 47th Avenue</td>
<td>19</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>10. NE 53rd Avenue</td>
<td>19</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>11. NE 60th Avenue</td>
<td>19, 71</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>12. NE Halsey/68th Avenue</td>
<td>19, 71, 77</td>
<td>Yes - 60th Avenue</td>
<td></td>
</tr>
<tr>
<td>13. NE 82nd Avenue</td>
<td>72, 77</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>14. Gateway Transit Center</td>
<td>19, 22, 23, 25, 27, 33, 37</td>
<td>Yes - Gateway District</td>
<td>Gateway</td>
</tr>
</tbody>
</table>

Two examples of transit connections are the Hollywood Transit Center (above) and the NE 82nd Avenue MAX station (below).
Figure 6: Transit Network Connections
Frequent Access to and from Trail

The trail will provide access points at all 17 streets that bridge the north and south sides of the corridor. In addition, there are many opportunities for other surface street access points where slope conditions are moderate.

As part of the study, an on-foot walking survey was performed, which revealed that there are fifty potential access points, or about one access every two blocks on the north side of the corridor.

Access from the south side of the corridor occurs about every seven blocks. The greatest distance between access points on the north side of the corridor is five blocks (between NE 16 Avenue and NE 21st Avenue) while the greatest distance between bridges providing access from the south is fifteen blocks (between Interstate 205 at NE Glisan Street and NE 82nd Avenue).

A Direct and Convenient Route

Bicycle commuters, like their motorist counterparts, are greatly concerned about the commute travel time. The proposed trail will serve commuters with an unimpeded continuous trail from the Willamette River to the Gateway District. Trail users will enjoy reduced commute times. These users would not be subject to the travel-time delays experienced on the surface-street bike network due to stop signs and red lights. Travel-time savings could prove to be a major selling point of this trail project and is suggested as a topic for further research by Metro staff in its planning process.
WHAT MAY DISCOURAGE TRAIL USE?

Outreach identified concerns and constraints about use of the corridor for a bicycle and pedestrian path.

Can the trail be safe and secure?

Proper design of the facility will help ensure both the safety and security of users, local residents and workers, and public and private property. A secondary concern is the physical safety of users, and protection from hazards such as the rail line.

Significant homeless and transient camping occurs in the western section of the corridor from MLK Jr. Blvd to the Hollywood District. The presence of homeless people and transient campers is a major public concern.

Construction and use of the trail will likely displace many homeless and transients. Clearing of invasive underbrush will remove the cover in which they camp. It is also likely that users will disturb their privacy, which will further discourage their presence.

The Eastbank Esplanade is a good example of this situation: before it was constructed, the slope from the freeway to the river was overgrown and used by homeless and transients. The Esplanade has improved the security of the area substantially, and reduced the prevalence of unauthorized camping.

Active, visible use of the trail will help deter unauthorized camping and other illegal activity.

Recommended design measures to address these concerns include:

- Appropriate lighting to deter illegal activity, especially under bridges
- Frequent access points to provide for routes of escape from danger
- View corridors to allow surveillance
- Signage to prevent disorientation
- Adequate width to allow access by emergency vehicles
- Encourage development to place eyes on the trail
- Web cams for monitoring of trail access
- Separation from rail tracks
- Construct a high fence at the bottom of slope as a physical barrier to the rail line
- Install a sturdy railing on downhill side of trail to prevent falls from the trail
Homelessness in the Corridor

"In 1934 they lived in shanties
At Hooverville, Sullivan's Gulch.
When the Portland-bound train came through
The trainmen tossed off coal."
- poet Gary Snyder

- Homelessness has a long and storied history in the corridor - between 1932 and 1941 it was home to a “Hooverville” where over 300 homeless men lived. A fire in the Gulch destroyed most of the shantytown. In 1941 the last shack was removed to prepare for a modern expressway. Homelessness in the corridor remains, and poses safety and liability risks, and a human environmental justice concern.

An existing homeless camp in Sullivan’s Gulch.

Feedback from local homeless advocates provided the following recommendations for approaching the homelessness issue:

- Trail construction workers spend time with JOIN representatives to gain some sensitivity and insight into the homeless situation in the corridor.
- Have JOIN representatives serve as a “translation service” between planners and homeless persons.
- Post bi-lingual notices in the homeless areas prior to beginning construction.
- Use interpretive signage to mark the history of homelessness in the Gulch to make people aware of the issue.
- Have volunteer as well as police bike patrols.

Portland Area Homelessness Groups that should be Consulted

- JOIN, A Center for Excellence
- Southeast Uplift, Homeless Working Group
- City of Portland Bureau of Housing and Development, Ending Homelessness Campaign
- Sisters of the Road Cafe
Can noise and pollution be overcome?

Noise is a serious concern, and volume levels are likely to influence trail use. The Sullivan’s Gulch Trail will experience noise conditions similar to those found on other local and regional trails.

For example, the Eastside Esplanade is very close to Interstate 5 in some areas. Placing it below the freeway grade and installing landscaping has provided an acceptable sound buffer.

The OMSI-to-Springwater extension to the Springwater Trail and the Steel Bridge River Walk have no sound buffer between the rail and trail users. For most of the Sullivan’s Gulch Trail, there is sufficient space for landscaping, and the trail will be on the upper parts of the slope away from the tracks.

MAX stations at Hollywood, NE 60th Avenue and NE 82nd Avene are located between the train tracks and Interstate 84. They have been in use since 1986 without significant protection from noise or pollution.

Based on these examples, Sullivan’s Gulch Trail can provide an environment consistent with other trails in terms of noise and pollution. Use of landscaping as a buffer and alignment of the trail as far from the tracks as possible will aid in addressing this concern. Of course, this is not to say the trail will be located in an idyllic greenway, but there is no alternate east-west corridor in this area of the city. Future study should include careful analysis of existing sound levels and the degree to which landscaping and other design tools can reduce the levels experienced by trail users.

Would the trail be attractive to users over alternative routes?

Alternative routes are less safe due to the interaction with automobiles. They will be slower due to intersections, stop signs and street signals. The grade separation has raised questions about the speed of bicycles on the trail. Therefore, it is recommended that the trail have sufficient width to meet the demand for high volumes and high speeds. A trail width of 14 to16 feet is recommended. Consideration should be given to separation of pedestrian and bicycle use.

To add to the attractiveness of the trail for recreational users, art and historical information should be displayed.

- The areas under bridges are ideal for murals. Local school art programs could be commissioned every year to paint the walls with a mural. This would add color under the bridges and provide graffiti removal in the process.
- Train and pioneer history is rich in the corridor. Historical plaques could be used.

An example of potential public art for the trail.
PROJECT IMPLEMENTATION

How Will the Trail Be Developed?

What Obstacles Must Be Overcome?
HOW WILL THE TRAIL BE DEVELOPED?

Alignment

This study follows a recent engineering analysis by PSU engineering students that proposed an alignment which meets the design standards for off-street paths in the City of Portland’s Bicycle Master Plan Design Guidelines and the Pedestrian Master Plan Design Guidelines. Maps of the proposed alignment are provided in Appendix A.

The alignment meets ADA standards. Cross slope is resolved with engineering tools such as retaining walls and mass grading. The alignment does not cross any streets or railroad tracks, thus providing a continuous unimpeded trail from the Eastbank Esplanade to the I-205 Path.

Real Property Impacts

One key issue in selecting the trail alignment is whether the desired real estate is available, and in what form. Since this is a rails-with-trails project, about 76 percent of the trail is located on property owned by the Union Pacific Railroad. Smaller portions are owned by the City of Portland and Metro (combined total is 7 percent), and by private parties (17 percent).

The proposed alignment would require acquisition of easement, or full property acquisitions from nineteen property owners, in addition from Union Pacific. Of these 19 properties, eight properties will be bisected by the trail in the Sullivan’s Gulch neighborhood, between NE 15th Avenue and NE 24th Avenue. One elevated billboard lies within the alignment, at the southern terminus of NE 32nd. A corner of one commercial building would need to be trimmed off.

In commercial areas, where the trail is placed on the level area at the top of the slope, the proposed alignment will displace approximately 70 auto parking spaces, and four truck parking spaces. The proposed alignment does not displace any residences or commercial buildings. However, there are numerous homeless camps located along the trail, especially in the wooded areas of Sullivan’s Gulch, and under the numerous bridges.

This information is based on review of aerial photos and site visits. Field surveys are needed and will likely identify additional property impacts. Where existing improvements encroach onto public right-of-way or the railroad property, displacements caused by construction of the trail may not require payment for acquisition of property rights; however, substantial administrative effort will be required to clarify ownership boundaries and nonconforming uses.
Regulatory Roadmap

The two primary jurisdictions are the City of Portland and Metro.

Like most cities, the City of Portland incorporates the Transportation System Plan (TSP) into the Comprehensive Plan by reference. The TSP list numerous projects by line item, but not this trail. However, the TSP does include a map for bicycle routes in northeast Portland. The trail (except the westernmost portion from Lloyd Center to the Willamette River) is identified on this map as a “Recommended Off-Street Path”.

Additionally, the City maintains a Bicycle Master Plan Proposed Projects list. The trail is identified as item 9 on the Priority 3 list, meaning it is a low priority for construction. The description indicates the trail extends from the river to I-205, and indicates a cost of $2.5 million. No alignment or design information is provided.

The city’s Bureau of Parks and Recreation is creating a Trails System Master Plan. Naturally there will be some overlap with the Office of Transportation and the TSP. Given that the Bureau of Parks and Recreation is a leading candidate for “ownership” of the trail once the trail is completed, the project should be on the Trails System Master Plan.

To improve the position of the project for funding, the trail should be explicitly listed in the TSP, and moved from the Priority 3 list to the Priority 1 list on the Bicycle Master Plan.

Metro’s Regional Transportation Plan (RTP) also lists the project as a proposed trail. The trial also appears on Metro’s Regional Trails Plan. Thus the project is in a good position to obtain funding for additional preconstruction work at Metro.

The independent Bicycle Transportation Alliance is creating a “Top 40” list of regional trail projects. As an influential lobbyist, the Alliance can be very helpful in pushing a project through to completion.

The documents referenced above and the trail’s relationship to other adopted plans is located in Appendix F.

Funding Sources

MTIP is Metro’s funding list. As a first step, funds will be requested for a detailed feasibility study and/or master plan. The specific requirements are described in Metro’s Transportation Priorities 2006-09 Program Project Solicitation Packet. Proposed bicycle projects are evaluated for ridership, safety, support of Metro 2040 land use objectives, and cost effectiveness.

In addition to these technical evaluation factors, consideration is given to broader qualitative elements. These including finishing a critical gap in a mode network, relationship to other regional goals and public support.

Because Metro provides such a generous match, this is the most likely source of funding for the project.

A False Start

The Sullivan’s Gulch Trail concept has been around for several years. In 1989, a condition of approval for the Marriott Residence Inn, at the SE corner of Multnomah and 17th, required construction of a pathway on the slope behind the hotel buildings.

However, in 1999 the hotel owner was allowed to fund other neighborhood amenities in lieu of building the trail, though the trail easement is to remain. What lessons can be learned?

Absent comprehensive trail planning, the commitment of property owners and public agencies to follow through is diminished.

Identifying the alignment will allow easements for trail segments to be accurately placed as redevelopment occurs, such as at the Albina Fuel site.

More information about the Marriott Residence Inn condition of approval is located in Appendix E.
**Signs**

Signs along the trail could be sponsored by local business. The design could include directions or distance to their business as well as direction and distance to community resources such as libraries or schools. Include a mock up of a sign. (i.e. Mile post also could include distance to Fred Meyer; Exit sign at access point could have arrow saying Grant High School 600 yards, Fernwood Middle School 500 yards, Hollywood Theater 500 feet, John’s Shoe store 100 feet; The traditional logo on bottom, “This sign provided through a generous donation from Your Business Name Hear”). An effective marketing and sales approach to signage could help deflate the costs of constructing the trail while giving users valuable information about community amenities and commercial venues at their toe tips.

**Operations and Maintenance**

While Portland Parks and Recreation would likely be the main agency for operations and maintenance, this could become a community effort through an “Adopt a Trail” program similar to that on state and federal highways. Regular volunteer events could focus on refuse collection and invasive plant species monitoring and removal. Trail sections could be logically divided up into segments by bridges. Each segment could have a sign with the name of the group just like highway program signs.

**Development Opportunities**

Throughout the corridor are several sites that are either under-developed or vacant. Implementation of the Sullivan’s Gulch Trail would encourage development at these sites with orientation towards the trail. Examples of sites include:

- Convention Center parking lot near I-84
- NE Martin Luther King Jr. Blvd. at NE Lloyd Blvd.
- NE 21st Avenue and NE Multnomah Street
- Albina Fuel Site (picture to the left)
- NE Broadway west of NE 33rd Avenue
- Copeland’s Hardware on NE Halsey near the Hollywood Transit Center
- NE 67th Avenue and NE Halsey

**Parks and Open Spaces**

There are also sites within the corridor where parks and open spaces could be built for recreational or habitat and wetland restoration. Examples of sites include:

- West of Martin Luther King Blvd
- At NE 21st Avenue
- West of I-205, south of Rocky Butte
- Between I-84 and I-205 southeast of Rocky Butte

---

*The Albina Fuel Site and Broadway Main Street Planning Study (November, 2003) Concept Plan includes the “Gulch Trail” alignment in the development of the Albina Fuel Site.*

*Source: Crandall Aramba, 2003*
WHAT OBSTACLES MUST BE OVERCOME?

**Railroad Property**

Perhaps the greatest obstacle to implementation is the need for Union Pacific Railroad to sell or grant an easement on their property. This is essential given that, of the 4.3 miles of conceived trail alignment, Union Pacific owns approximately 76%.

There are many successful examples of trails in rail corridors. A November 2000 study by the Rails to Trails Conservancy documented 61 trails along active rail corridors, including 14 new trails since the previous major study in 1996.

In Portland, two recent successful rails-with-trails projects demonstrate that Union Pacific is amenable to solutions. The Steel Bridge Riverwalk connects Waterfront Park and the Eastside Esplanade. A relationship was built with Union Pacific where construction, maintenance and liability concerns were resolved.

A similar story can be told about the extension to the Springwater Trail, also known as the OMSI-to-Springwater segment that runs along the Oregon Pacific Railroad line in SE Portland. Local officials were able to purchase right of way from the company and address trespassing concerns.

In a 1998 study entitled “Rails with Trails”, the Wheeling Corporation outlined the circumstances under which a railroad company would consider a trail next to one of their active lines. These include consideration of train speed and function, property availability, proper trail separation, suitable legal arrangements, property compensation, and clearly defined operations and maintenance responsibility.

A study produced by Alta Planning called Rails-with-Trails, Lessons Learned is a good resource for this process.

Source: Alta Planning + Design

**Railroad Approach**

Planners should consult:

- "Rails-with-Trails: Lessons Learned" study as submitted to the US Department of Transportation on August 1, 2002 by Alta Planning
- AASHTO Guide to Developing Bicycle Facilities
  - [www.railstrails.org](http://www.railstrails.org)
  - Wheeling Corporation Study
About the Slope

Sullivan’s Gulch is just that – a gulch. The prior engineering study considered slope in the context of ADA requirements. Cross slope was not examined in detail, nor is it our intention to do so here. However, it remains a significant design and engineering issue, so a few brief observations are in order.

In its natural state the gulch was an inlet to the Willamette River, which flooded as far east as NE 16th Avenue. A stream extended east to about NE 33rd Avenue. When not flooded, numerous ponds and wetlands covered portions of the lower lying areas. Land filling began in 1881 with construction of the rail line along the northern edge of the lower lying area, the same freight rail line that remains in service today. Most of the northern slope was logged at this time as well.

Subsequently, most of the land filling and disruption to the natural environment occurred south of the freight rail line, and does not directly affect the slope. There is no comprehensive documentation of land filling which has occurred on the slope itself. There is a remarkable dearth of retaining walls or other indications of large scale construction that changed the topography of the slope.

When the Banfield Expressway was built in the 1950s, the relatively flat land at the top of the slope was already largely developed, without building extensions down the slope. The presence of the expressway and the freight rail line may have discouraged builders from extending their projects over the edge and down into the gulch.

Contemporary geological techniques provide more detailed technical information about the slope than was available to these early builders, and this information shows those builders were likely quite wise to limit their projects to the flat areas on top of the slope.

The identified hazard areas where slopes exceed 20 percent and where there are landslide hazards extend slightly east of NE 28th Avenue. These maps and earthquake hazard maps are available from Portland Maps (Figure 7 illustrates an example of these hazard maps). What are the implications of this information?

First, it is important not to overstate the hazards. In addition to the sloped areas of the gulch, the maps identify many developed areas along the top of the slope as hazardous, even though they have been built upon for nearly a century without adverse consequences. In the low lying areas, which are also identified as hazardous, the expressway and rail lines have also been built successfully. Numerous bridges span the gulch, relying on foundations set into the slopes of the gulch. Of course the weight loads on these bridges vastly exceed the loading of the proposed trail.

This condition will require substantial geological investigation in the gulch to determine the bearing capacity of the soils for the trail, which in turn will influence the structural design. While areas east of the gulch are not identified as hazardous, the slopes will still require similar investigation.

Figure 7: Earthquake Hazard Areas
CONCLUSION

Because bicycle use meets so many of our common aims, it enjoys broad neighborhood and political support.

The regional trails network envisioned by Metro is a key component of the regional transportation planning landscape. Metro funding guidelines support this network, and Metro Council members Rod Monroe and Rex Burkholder would like to see this project qualify for further study.

This study is intended to identify whether and how the trail would meet regional goals if constructed as an off-street path, and explore the planning issues that follow the recommended alignment selected during the prior PSU engineering study.

Outreach to the public and affected agencies revealed the planning issues, and this study considered those issues in the context of how other trails in the region address them. One key finding is that for the trail to be used by more than a small but dedicated group of bicycle commuters, the general public requires that personal safety issues be resolved.

There are several important technical issues that arose which are beyond the scope of this report, but ripe for additional study. These include:

- Analysis of current background bicycle use in the corridor area
- Analysis of sound conditions in the corridor
- More specific right-of-way information on narrow segments of the trail
- Estimating the construction options and cost

The one key community development question is the redevelopment opportunities in the central and eastern portions of the trail. Numerous vacant industrial properties may be suitable for zone changes and redevelopment into higher density uses.

A planning issue worthy of further study is whether segments of the trail, especially in the Sullivan’s Gulch area and near I-205, are suitable for development as a greenway.

This study’s primary conclusion is that the complete grade separation from the road system is both the primary advantage and the primary detriment of the trail alignment. It can potentially isolate the trail, increasing concerns about the quality of the trail experience for users, especially concerns about public safety. The alignment also requires substantial engineering work that will increase costs.

What can be done to overcome this detriment? The trail must function as more than a transportation facility: it must interact with the community as a neighborhood amenity. The Banfield transportation corridor will always form a neighborhood edge; the challenge is for the trail area to be within the edge, rather than beyond it. We must learn how to extend and grow these areas down to and through the trail area. Only then will the concerns stemming from isolate of the trail be overcome.
APPENDICES

A. PSU Civil Engineering Maps
B. Land Use
C. Real Property Analysis
D. Demographics and Environmental Justice
E. Marriott Residence Inn Information
F. The Trail’s Relationship to Other Adopted Plans
Appendix A – PSU Engineering Study Maps
Appendix B – Land Use

Land use information for the area within the 0.5 mile buffer of the Sullivan’s Gulch Trail was derived from Metro’s 2004 Regional Land and Information System (RLIS) data.

Zoning

Single-family residential land uses comprise 74.9 percent of the corridor. The area in the vicinity of the trail is almost completely built. Residential neighborhoods are generally composed of older housing stock with intermittent newer infill housing. In general, commercial land uses are limited to major arterials, such as Broadway, Burnside, and NE Sandy. Industrial land uses are scattered throughout the corridor.

<table>
<thead>
<tr>
<th>Zoning</th>
<th>Total Taxlots</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential</td>
<td>9,985</td>
<td>74.9</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,514</td>
<td>11.3</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>945</td>
<td>7.1</td>
</tr>
<tr>
<td>Vacant</td>
<td>581</td>
<td>4.4</td>
</tr>
<tr>
<td>Industrial</td>
<td>308</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13,333</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The Sullivan’s Gulch Trail: An East-West Path in the Heart of the Region
Parks and Recreational Areas
There are currently 15 park, plaza, or recreational areas within 0.5 mile of the proposed trail corridor. All areas are public facilities, owned and maintained by the City of Portland. In general, the parks and recreational areas are concentrated equally throughout the corridor. The Sullivan’s Gulch Trail would provide an important connection between these recreational areas.

Schools
There are 12 schools in the study area and 2 small colleges; 11 of the schools are City of Portland public schools and one, All Saints Catholic Elementary, is private. Total enrollment for the 2002-2003 school year was 9,709. The closest school to the corridor is Benson Polytechnic High School, which has the second highest enrollment in the corridor. The Sullivan’s Gulch Trail would encourage bicycling and walking to school, and provide an important connection between these educational facilities.

Retirement Communities
There are 4 retirement communities within the corridor. Three are located in the Lloyd District. The trail would provide an opportunity for the elderly to exercise and recreate away from vehicular traffic.

<table>
<thead>
<tr>
<th>Retirement Community</th>
<th>Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holladay Park Plaza</td>
<td>2</td>
</tr>
<tr>
<td>ICARE Incorporated</td>
<td>2</td>
</tr>
<tr>
<td>Calaroga Terrace</td>
<td>2</td>
</tr>
<tr>
<td>Laurelhurst House</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School or College Name</th>
<th>Current Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benson Polytechnic High School</td>
<td>1,498</td>
</tr>
<tr>
<td>Grant High School</td>
<td>1,835</td>
</tr>
<tr>
<td>Fernwood Middle School</td>
<td>644</td>
</tr>
<tr>
<td>Hollywood Elementary School</td>
<td>250</td>
</tr>
<tr>
<td>Mount Tabor Middle School</td>
<td>729</td>
</tr>
<tr>
<td>Laurelhurst Elementary School</td>
<td>561</td>
</tr>
<tr>
<td>All Saints Catholic Elementary School</td>
<td>382</td>
</tr>
<tr>
<td>Madison High School</td>
<td>1,194</td>
</tr>
<tr>
<td>Lee Elementary School</td>
<td>387</td>
</tr>
<tr>
<td>Gregory Heights Middle School</td>
<td>749</td>
</tr>
<tr>
<td>Da Vinci Middle School</td>
<td>314</td>
</tr>
<tr>
<td>Vocational Village School</td>
<td>160</td>
</tr>
<tr>
<td>Cascade College</td>
<td>306</td>
</tr>
<tr>
<td>Multnomah Bible College</td>
<td>700</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9,709</td>
</tr>
</tbody>
</table>
Appendix C – Real Property Analysis

RIGHT OF WAY TABLE

In addition to the Union Pacific Railroad right-of-way, the trail alignment proposed by the PSU engineering study would cross 19 properties in other private ownership, and two in public ownership, as follows (from west to east):

<table>
<thead>
<tr>
<th>TAXLOT NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1N1E 34DA 00100</td>
<td>Bisects property on slope (Metro property)</td>
</tr>
<tr>
<td>1N1E 35CB 00500</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35CB 00300</td>
<td>Corner of property only (City of Portland property)</td>
</tr>
<tr>
<td>1N1E 35A 00100</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 11800</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 12100</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 10700</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 12300</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 10500</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 35AA 12400</td>
<td>Bisects property on slope</td>
</tr>
<tr>
<td>1N1E 36BA 06300</td>
<td>Displaces double-sided billboard</td>
</tr>
<tr>
<td>1N2E 31BB 03400</td>
<td>Loss of approximately 20 parking spaces</td>
</tr>
<tr>
<td>1N2E 31AC 05400</td>
<td>Loss of approximately 14 parking spaces</td>
</tr>
<tr>
<td>1N2E 31 00100</td>
<td>Displaces unused rail spur</td>
</tr>
<tr>
<td>1N2E 32BB 00500</td>
<td>Loss of approximately 4 truck parking spaces;</td>
</tr>
<tr>
<td>1N2E 32BB 00100</td>
<td>potential conversion to car spaces</td>
</tr>
<tr>
<td>1N2E 29CD 00700</td>
<td>Loss of storage sheds</td>
</tr>
<tr>
<td>1N2E 29CD 00807</td>
<td>Vacant parcel</td>
</tr>
<tr>
<td>1N2E 29CD 00806</td>
<td>Corner of building must be removed</td>
</tr>
<tr>
<td>1N2E 29CD 01000</td>
<td>Corner of property only</td>
</tr>
<tr>
<td>1N2E 31BD Lots 10,11,&amp;12 of Laurelton Heights</td>
<td>Strip acquisition; Loss of approximately 26 parking spaces</td>
</tr>
</tbody>
</table>
Appendix D – Demographics and Environmental Justice

Executive Order 12898 requires federal agencies to determine whether agency actions would have disproportionate adverse impact on minority and low-income populations. Title VI of the Civil Rights Act of 1964 requires that federal actions do not create an undue hardship on elderly, handicapped, or minority populations.

Minority Populations
Racial composition for the Sullivan’s Gulch Trail Study Area is more diverse than the county, the Portland region, and state, but slightly less diverse than the City of Portland (Table D-1). Whites account for 78.9 percent of the total population in the study area; whites comprise more of the total population for the county and state. The percentage of non-white residents countywide is 20.8 percent, whereas in the study area, the percentage of non-white residents is 21.1 percent, indicating a slightly more racially diverse population compared to the county as a whole, but slightly less racially diverse than the City of Portland. The state-wide percentage of non-white residents is 13.4 percent.

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Total Population</th>
<th>One Race</th>
<th>Two or More Races</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>White</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Sullivan’s Gulch Trail Study Area†</td>
<td>39,513</td>
<td>31,179</td>
<td>2,171</td>
</tr>
<tr>
<td>City of Portland</td>
<td>529,121</td>
<td>412,241</td>
<td>35,115</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>660,486</td>
<td>522,825</td>
<td>37,434</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>1,572,771</td>
<td>1,314,442</td>
<td>45,612</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>3,421,399</td>
<td>2,961,623</td>
<td>55,662</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2000, Table P3.

† The Sullivan’s Gulch Trail Study Area is defined by Census Tract 17.01, Block Group 1, 2, 6, 7; Census Tract 17.02, Block Group 1, 2, Census Tract 18.01, Block Group 1, 2, 3, 4, Census Tract 18.02, Block Group 1, Census Tract 19.00, Block Group 1, 2; Census Tract 20.00, Block Group 1, 2, 3; Census Tract 21.00, Block Group 1, 2; Census Tract 23.02, Block Group 1; Census Tract 24.02, Block Group 1, 2, 3, Census Tract 25.01, Block Group 1; Census Tract 25.02, Block Group 1, 2, 3, 4; Census Tract 26.00, Block Group 3; Census Tract 27.02, Block Group 1, 2, Census Tract 28.02, Block Group 2, 3, Census Tract 29.02, Block Group 3, 4, Census Tract 29.03, Block Group 2, 3, and Census Tract 31.00, Block Group 3.
A closer analysis of the study area’s census block groups indicates a proportion of minority populations ranging from 5.3 percent (Census Tract 25.01, Block Group 3) to 42.2 percent (Census Tract 81, Block Group 3).

People of Hispanic origin form approximately 5.8 percent of the total population of the study area (Table D-2), lower than the county and the state.

Table D-2. Hispanic Origin by State, County, City and Study Area, 2000 (percent)

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Total Population</th>
<th>Hispanic Origin</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan’s Gulch Trail Study Area¹</td>
<td>39,513</td>
<td>2,283</td>
<td>5.8%</td>
</tr>
<tr>
<td>City of Portland</td>
<td>529,121</td>
<td>36,058</td>
<td>6.8%</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>660,486</td>
<td>49,607</td>
<td>7.5%</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>1,572,771</td>
<td>126,196</td>
<td>8.0%</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>3,421,399</td>
<td>275,314</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2000, Table P7.

The average household size in the Sullivan’s Gulch Trail Study Area (2.38 persons per housing unit) is lower than the City of Portland, county and state averages (Table D-3). The City of Portland indicates a slightly higher average than study area. Multnomah County indicates a slightly lower average than the state.

Table D-3. Average Household Size by Geographic Area, 2000

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Average Household Size (persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan’s Gulch Trail Study Area¹</td>
<td>2.38</td>
</tr>
<tr>
<td>City of Portland</td>
<td>2.47</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>2.52</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>2.65</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2000, Table H18.

Low-Income Populations

Per capita and median income level data consists of thirty-six block groups within the study area. The Sullivan’s Gulch Trail Study Area median income and per capita income is slightly higher than the City of Portland (Table D-4). The study area has a slightly lower proportion of individuals below the poverty level than the City of Portland, but more individuals below the poverty level than the Portland region, county and state.

Table D-4: Earnings, Income, and Poverty Rate (1999)

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Median Household Income</th>
<th>Per Capita Income</th>
<th>Poverty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan’s Gulch Trail Study Area¹</td>
<td>$40,551</td>
<td>$23,146</td>
<td>13.0%</td>
</tr>
<tr>
<td>City of Portland</td>
<td>$40,146</td>
<td>$22,643</td>
<td>13.1%</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>$41,278</td>
<td>$22,606</td>
<td>11.7%</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>$46,789</td>
<td>$23,732</td>
<td>9.5%</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>$40,916</td>
<td>$20,940</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2000, Table DP3.
Elderly Populations

Elderly populations are comprised of people aged 65 years and over. The study area has a slightly larger proportion of elderly persons (12.4 percent) than the City of Portland, Multnomah County (Table D-5). The proportion of elderly persons for study area is lower than the state. The number of people aged 60 and older will increase by approximately 60 percent by 2020, making up a larger proportion of the City of Portland’s population (2000 US Census). This older population will increase the demand for recreation facilities.

Table D-5. Elderly Population for Selected Geographic Areas

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Population 65 years and over</th>
<th>Percent of Population 65 years and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sullivan’s Gulch Trail Study Area</td>
<td>4,907</td>
<td>12.4%</td>
</tr>
<tr>
<td>City of Portland</td>
<td>61,163</td>
<td>11.6%</td>
</tr>
<tr>
<td>Multnomah County</td>
<td>73,607</td>
<td>11.1%</td>
</tr>
<tr>
<td>Portland-Vancouver PMSA (OR Part)</td>
<td>165,426</td>
<td>10.5%</td>
</tr>
<tr>
<td>State of Oregon</td>
<td>438,177</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2000, Table DP-2.

Environmental Justice Summary

In general, the Sullivan’s Gulch Trail Study Area is as racially diverse as the City of Portland and Multnomah County. People of Hispanic population form less of the total population of the study area than all four geographic areas analyzed. The average household size is also less than the four geographic areas. Median income, per capita income, and people living below the poverty level are similar to the City of Portland and Multnomah County. The study area has slightly more people 65 years or over than the city, county, and Portland region, but less than the State of Oregon.
Appendix E – Marriott Residence Inn Information

The Sullivan’s Gulch Trail concept has been around for several years. In 1989, a Comprehensive Plan Map change and Zoning Map Designation change were conditionally approved for the Marriott Residence Inn at the SE corner of Multnomah and 17th. Condition F of that approval reads:

F. Applicant must provide a 16-foot public access easement for a pedestrian pathway on the south side of the proposed fence on the south perimeter of the parking lot for this project. The easement is to be retained in private ownership and maintenance. The easement must be submitted prior to the issuance of Building Permits for this development. Applicant shall improve the pedestrian pathway to City standards at such time that path improvements at such time that path improvements to the west connecting to this easement are completed.

1. Prior to the issuance of Building Permits for this development, the applicant shall provide preliminary plans for review and approval by the City Engineer that defines the width and location of the pathway and easement. Generally, the pathway will be at approximately 6 feet wide of surface improvements with a potential reduction to 4 feet at appropriate locations, within a 10 foot wide clear area, within the 16 foot wide public access easement referenced in Condition F. It is understood, however, that the applicant or its successor in interest shall not be responsible for the construction or maintenance of future pathway improvements, except as specified above, within such easement as may be proposed by the City at a future date…. 

Fast forward to 1999, and the hotel owner obtained approval from the city to delete the following language from Condition F: “Applicant shall improve the pedestrian pathway to City standards at such time that path improvements to the west connecting to this easement are completed.” The hotel owner offered other substantial neighborhood amenities, which essentially were traded for the requirement to build the path.

Fast forward to 2004, and the trail is not constructed. What lessons can be learned?

1. The language from 1989 emphasizes the pedestrian character of the trail. The term multiuse path is preferable for ensuring use by bicycles as well.

2. Obtaining easements when properties are redeveloped works, but collecting all the easements necessary for the trail this way requires many years to complete.

3. Without a preferred alternative, easements obtained may be in the wrong location.

Bottom Line: Knowing the alignment will allow easements for trail segments to be accurately placed. Absent clear trail planning, the commitment of property owners and public agencies to follow through is diminished.
Appendix F – The Trail’s Relationship to Other Adopted Plans

A number of different plans and policies provide guidance for land uses in the project area. These include the Metro Region 2040 Growth Concept, the City of Portland Comprehensive Plan, and any other applicable transportation, recreation, environmental, or sub-area plans for the project area. Relevant land use plans for this project were researched, and the applicable goals and policies for each plan were determined. These plans are listed below, with a brief plan description and a summary of how each plan is relevant and applicable to the proposed Sullivan’s Gulch Trail. The project was reviewed for consistency against the goals, policies, and objectives for a total of X applicable plans.

Planning of the trail would be conducted within the goals, objectives, and policies of state, regional, and local adopted plans that guide land use, transportation, and recreational / open space planning for the corridor. In general, the plans discussed below for smaller areas are consistent with or comply with those of larger areas and at the state level. These plans are there consistent with local adopted plans and policies, regional plans and policies, and the state’s planning rules and goals.

Metro Region 2040 Growth Concept

The Region 2040 Growth Concept is the document that establishes direction for managing growth in the Portland region through 2040. The plan was developed by Metro, the regional planning agency for the Portland metropolitan area, and adopted in 1995. The Growth Concept includes land-use and transportation policies that will allow the Portland metropolitan area cities and counties to manage growth, protect natural resources and make improvements to facilities and infrastructure while maintaining the region’s quality of life. The cities and counties in Metro’s jurisdiction, including the City of Portland, jointly designated mixed-use urban centers with the urban growth boundary to concentrate employment and housing. These centers would be well served by transit to concentrate retail, cultural, and recreational activities and to enhance multi-modal transportation.

The Growth Concept identifies three main types of centers:
- Central City Center: The largest market area with the region, and the region’s employment and cultural hub.
- Regional Centers: Large market areas outside the central city, connected to it by high capacity transit and highways.
- Town Centers: Contain local shopping and employment opportunities within a local market area and connect to each regional center by road and transit.

Planning for the three centers seeks to balance jobs and housing with other urban amenities to decrease the trip length and to encourage transit, bicycle, and pedestrian trips.

The Sullivan’s Gulch Trail would provide a connection with the central city (Downtown Portland), one regional center (Gateway), one town center (Hollywood), several main streets (E. Burnside, NE Sandy, NE Broadway, NE Martin Luther King, and NE Grand Avenue), and 2 station communities (NE 60th MAX station, and NE 82nd MAX station). Providing a connection between these different regional growth centers would promote a transportation system that includes bicycle and pedestrian travel, one of the main goals of the 2040 Growth Concept. Below is a description of each type of growth center. The Sullivan’s Gulch Trail would connect with at least one of the following:

- Regional Centers: As centers of commerce and local government services serving a market area of hundreds of thousands of people, regional centers become the focus of transit and highway improvements. They are characterized by two to four story compact employment and housing development served by high quality transit. In the growth concept, there are eight regional centers. Gateway serves central Multnomah County…”

- Regional Center / Central City: “Downtown Portland serves as the hub of business and cultural activity in the region. It has the most intensive form of development for both
housing and employment, with high-rise development common in the central business district. Downtown Portland will continue to serve as the finance and commerce, government, retail, tourism, arts, and entertainment center for the region.

- **Main Streets:** Similar to town centers, main streets have a traditional commercial identity but are on a smaller scale with a strong sense of immediate neighborhoods. Main Streets feature good transit access.

- **Town Centers:** Town centers provide localized services to tens of thousands of people within a two to three mile radius. One to three story buildings for employment and housing are characteristic. Town centers have a strong sense of community identity that are well served by transit.

- **Station Communities:** Station communities are areas of development centered around light rail or high capacity transit station that feature a variety of shops and services that will remain accessible to bicyclists, pedestrians, and transit users, as well as cars.

**Regional Transportation Plan**

The Regional Transportation Plan (RTP) is the document that outlines the Portland region’s transportation system for the next 20 years. The RTP is consistent with the goals and policies of the 2040 Growth Concept. Goals and policies are outlined in the RTP for all forms of travel, including bicycle and pedestrian travel. The following are the main strategies of the RTP, of which all are relevant to the Sullivan’s Gulch Trail:

- Expand transportation choices by providing safe and convenient alternatives to driving.
- Target transportation investments to rejuvenate main streets and traditional downtowns.
- Maintain access to the natural areas around the region.
- Balance transportation and land use plans to protect the livability of the region.
- Sustain economic health by providing access to jobs and industry.
- Reduce the need to drive or travel long distances by making jobs and shopping more convenient to where people live.

The RTP intended to implement the 2040 Growth Concept by providing more and better transportation choices to the diverse mix of destinations throughout the region. There are four key goals pertaining to bicycle use in the plan:

- Provide a regional network of safe and convenient bikeways, including bike lanes, multi-use paths and bicycle boulevards.
- Increase the number of bicycle trips throughout the region.
- Ensure that transportation projects use appropriate design guidelines to accommodate bicyclists.
- Encourage bicyclists and motorists to share the road safely.

All these goals would be relevant to the Sullivan’s Gulch Trail.

**Sullivan’s Gulch Neighborhood Action Plan**

The Sullivan’s Gulch Neighborhood Action Plan is a product of three planning efforts. First, the Sullivan’s Gulch Problems, Issues, and Strategies document was completed by Portland State University graduate students in 1982. Secondly, neighborhood residents, property, and business owners produced the original Sullivan’s Gulch Neighborhood Action Plan in 1986 after securing a grant from the Oregon Communities Foundation. The final planning effort between the Bureau of Planning and the Sullivan’s Gulch neighborhood refined the first two planning documents to assure compliance with the City of Portland’s Comprehensive Plan and other policies. City Council adopted the Sullivan’s Gulch Neighborhood Action Plan in July of 1987. The Plan is a tool for the neighborhood to be involved with the City’s planning for the neighborhood. The goals, policies, and objectives identified in the plan were developed to enhance the future of the neighborhood.

The following policies and objectives would be applicable to the Sullivan’s Gulch Trail:

- **Objective 6E:** Establish pedestrian access through the gulch to connect with the path provided behind the Lloyd Cinemas.
- **Objective 7G:** Reduce the negative impacts of traffic and nonresidential uses on the neighborhood residences.
- **Policy 8:** Improve the livability of the neighborhood through the development of public open spaces for recreational and aesthetic purposes.
- **Objective 8B:** Establish a recreational trail through the gulch which can be constructed as properties in the gulch are redeveloped that connects the neighborhood open spaces and Lloyd Center.
Policy 9: Reduce the impacts of traffic on the neighborhood
Objective 9F: Improve pedestrian crossings and access to NE Broadway, Lloyd Center, light rail, and the east end of the neighborhood

Other Neighborhoods in the Corridor
The Sullivan’s Gulch Trail would be located within the boundaries of five neighborhoods: Lloyd, Sullivan’s Gulch, Hollywood, Rose City Park, and Madison South. Of these five neighborhoods, the Sullivan’s Gulch neighborhood is the only neighborhood with an adopted plan. An adopted plan for the Sandy and Hollywood area was developed and discussed below.

Portland Parks and Recreation 2020 Vision Plan
A team of city residents and Portland Parks and Recreation staff (the Vision Team), along with thousands of city residents, began to “protect our heritage, to make recreation services to all, and leave a legacy for our children that is better than our inheritance.” The result of this effort is the 2020 Vision Plan. The purpose of the 2020 Vision Plan is to guide the future work needed to maintain and build the City of Portland’s parks. The plan includes a “Parks 2020 Vision” and a number of goals and objectives. 2020 Goals and objectives applicable to the Sullivan’s Gulch Trail include:

- Pursue all opportunities to provide park and recreation services in new urban centers, along rivers, and in our communities.
- Develop fully programmed, fully operational, and well-maintained parks, facilities, and other programs that meet both current and future park and recreation needs.
- Coordinate planning, management, development, and funding of parks, natural resources, trails, and recreation needs and concerns with city and regional planning efforts.
- Provide safe and convenient access between parks, natural areas, and recreation facilities and connect them with residential areas, civic institutions and businesses.
- Double the amount of PP&R’s most heavily used resource – paved and soft surface trails – from 150 to 300 miles of trails.
- Integrate parks, community centers, and trails in our neighborhoods.

The 2020 Vision Plan is divided into six sub-areas by geography: Central City/Northwest, North, Northeast, Outer East, Southeast, and Southwest. Each sub-area section describes the strengths and weaknesses of existing park and recreational facilities. Recommendations are listed to address maximizing park and recreation areas, planning projects, park deficiencies, renovations and improvements for new parks, existing parks, and program improvements.

The Central City/Northwest and Northeast sub-area sections would be applicable to the Sullivan’s Gulch Trail. The entire trail corridor is located within the Northeast section, except the Lloyd District and the eastbank of the Willamette River. The Northeast Sub-Area Plan includes the following recommendations that would be applicable to the Sullivan’s Gulch Trail:

- Develop Park Access, Trails and Connections: Work Cooperatively with City Planners to develop a multi-modal trail in Sullivan’s Gulch to connect Gateway and the I-205 Bikeway to the Eastbank Esplanade.
- Protect and Improve Natural Resources: Enhance the natural resources of Sullivan’s Gulch in conjunction with trail development.

The Central City/Northwest section includes the following recommendation that would be applicable to the Sullivan’s Gulch Trail:

- Develop Park, Access, Trails, and Connections: Enhance connections from the Eastbank Esplanade to the adjacent residential neighborhoods.
- Acquire Land and Develop Parks: Consider Park acquisition and development in non-traditional areas such as marginal industrial land, rooftops, and under freeways.

City of Portland Comprehensive Plan
Adopted in 1980, the Comprehensive Plan identifies goals, policies, objectives, and planned maps to guide future development and redevelopment of the city. These goals, policies, and objectives have been amended to respond to changes and new circumstances. The Comprehensive Plan contains goals and policies relating to land use plan review, transportation, citizen involvement, economic development, energy, environment, urban design, public facilities, and neighborhoods. Transportation goals and policies would be the most relevant to the Sullivan’s Gulch Trail. While the Sullivan’s Gulch Trail is not specifically stated in the comprehensive plan, the following
alludes to the continuation of bicycle route development within the Northeast Transportation District.

**Northeast Transportation District**

6.35 Support the efficient use of land in Northeast Portland by focusing development and redevelopment where there will be a reduction in reliance on the automobile.

- Objective G: Continue to develop east / west and north / south bicycle routes, both on-street and off-street, to connect with existing bikeways (including those on East Burnside and I-205) and with work, school, commercial, and recreational destinations.

**City of Portland Bicycle Master Plan**

The Bicycle Master Plan was first developed in 1976. The current update sought input from over 2,000 residents, including neighborhood activists, business people, parents, educators, and bicyclists. Additional input came from regional government agencies, such as the Portland Department of Transportation, Tri-Met, and Multnomah County. The Plan provides guidance over a 20-year period for improvements that will encourage more people to ride more frequently for daily needs. The mission of the Master Plan is to make bicycling an integral part of daily life in Portland. Key elements of the Master Plan are:

- Policies and objectives that form part of Portland’s Comprehensive Plan Transportation Element;
- Developing a recommended bikeway network;
- Providing end-of-trip facilities;
- Improving the bicycle-transit link; and
- Promoting bicycling through education and encouragement.

Associated with each of these elements are objectives, action items, and 5, 10, and 20 year benchmarks to measure progress. Policy 6.12 of the Transportation Element of the City’s Comprehensive Plan is the following statement:

*Make the bicycle an integral part of daily life in Portland, particularly for trips of less than five miles, by implementing a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer.*

Policy objectives relevant to the Sullivan’s Gulch Trail include:

- Complete a network of bikeway that serves bicyclists’ needs, especially for travel to employment centers, commercial districts, transit stations, institutions, and recreational destinations.
- Provide bikeway facilities that are appropriate to the street classifications, traffic volumes, and speed on all rights-of-way.
- Increase the number of bicycle-transit trips. Support Tri-Met’s “Bikes on Transit” Program.
- Promote bicycling as transportation to and from school.

The Bicycle Master Plan proposed projects list has been ranked using the following criteria:

- Land uses served: higher priority for projects that serve intensive land uses, trip generators, and commercial areas apt to attract bicyclists.
- Barriers overcome: higher priority for a bikeway that helps to overcome barriers such as river crossings (e.g. bridge improvements); freeway, arterial, or railroad crossings; and other “squeeze points” such as缺乏 shoulders of high speed/volume roadways, complicated intersections, etc.
- Potential cyclist usage: higher priority for projects that have or are likely to have high cyclist usage.
- Connectivity: higher priority for projects that connect to existing or funded bikeways.
- Lack of parallel facilities: higher priority for those projects where an existing parallel route is not nearby.
- Ease of implementation: higher priority for those projects that will be relatively easy to implement (e.g. no contentious parking removal, signal modifications, other design issues).
- Topographical constraints: higher score for those projects without terrain that limits potential usage (e.g. steep slopes, limited access).

The Sullivan’s Gulch Trail is identified on the Bicycle Master Plan as a proposed project, priority 3 (10-20 years):

- NE Sullivan’s Gulch Trail: Parallels I-84 from Willamette River to I-205.
City of Portland Pedestrian Master Plan
The purpose of this plan is to establish a 20-year framework for pedestrian improvements in order to enhance the pedestrian environment and opportunities to walk as a mode of transportation. The Plan is divided into five elements: Pedestrian Policies; Pedestrian Street Classifications; Pedestrian Design Guidelines; Capital Project List; Recommended Funding Strategies. The Pedestrian Master Plan lists action items to achieve the goals, policies, and objectives relating to pedestrian travel in the City of Portland. The following action items would be applicable to the Sullivan’s Gulch Trail:

- Develop routes that reinforce connections between neighborhoods as well as connections to regional and town centers.
- Identify and mitigate impediments and obstacles to walking to school
- Develop needed connections that make direct routes for walking where they are missing
- Require direct on-site pedestrian connections between new development and transit stops

The Pedestrian Master Plan identifies five projects in the immediate vicinity of the Sullivan’s Gulch Trail. The following proposed project s listed in the Pedestrian Master Plan intersects the Sullivan’s Gulch Corridor:

- Phase 1, Project 292: Hollywood Pedestrian District
- Phase 1, Project 391: Gateway Pedestrian District
- Phase 2, Project 5901: NE 82nd MAX Station Pedestrian Access to Transit
- Phase 2, Project 5902: NE 60th MAX Station Pedestrian Access to Transit
- Phase 3, Project 5904: Pedestrian Access to Transit: NE Sandy, 12th to 37th

Transportation System Plan (Portland Department of Transportation)
Oregon’s Transportation Rule requires the cities within the metropolitan region within one year following the adoption of the Metro plan to complete and adopt a local 20-Year system Plan that is consistent with the Metro’s plan (the Regional Transportation Plan). Phase I of the TSP was adopted by City Council in 1996. According to the Portland Department of Transportation, The Transportation System Plan (TSP) is the long-range plan to guide transportation investments in Portland. The TSP meets State and regional planning requirements and addresses local transportation needs for cost-effective street, transit, freight, bicycle, and pedestrian improvements. The plan provides transportation choices for residents, employees, visitors, and firms doing business in Portland, making it more convenient to walk, bicycle, take transit, and drive less to meet their daily needs. The TSP provides a balanced transportation system to support neighborhood livability and economic development.

Hollywood and Sandy Plan
Completed and adopted in 2000, the Hollywood and Sandy Plan outlines improvements to the Hollywood District and NE Sandy Boulevard to enhance access to transit, the pedestrian environment, vehicular movements and parking opportunities. The vision developed in this document for Broadway and Sandy Boulevard and the Hollywood Town Center guides the future of the area. Vision principles relevant to the Trail:

- Promote open spaces/gathering places
- Improve and enhance the transportation system

Policies, objectives, and goals in the Hollywood and Sandy Plan are organized by topic area, such as Multimodal Transportation and Recreation and Open Space, the two topic areas that would be relevant to the Sullivan’s Gulch Plan. The policies from the plan with relevant goals and objectives are:

Policy 4: Multimodal Transportation
4A: Support development of the Sandy and Broadway Main Streets as active mixed-use areas by improving access and safety along and to the streets and by improving the pedestrian environment.
4B: Enhance Hollywood’s role as a place to live, shop, work, and play by improving access for all modes of travel and using transportation improvements as a tool to add to the area’s vitality and success.

Relevant objectives include:

- Develop a system of bikeways that lead to Hollywood from adjacent neighborhoods
- Reduce reliance on the single-occupant vehicle by encouraging ridesharing, the use of transit, and walking and bicycling.
Policy 5: Recreation and Open Space
5B: Develop and enhance urban open spaces/parks and recreational programs in Hollywood and encourage other opportunities for public spaces or plazas as part of new development.

Relevant objectives include:

- Make the existing and new open spaces attractive and useful for people of all ages.
- Encourage additional green areas within the Hollywood District.
- Ensure that existing and new open spaces accommodate activities and program for people of all ages.

Central City Transportation Management Plan/Downtown Plan
The purpose of the Central City Transportation Management Plan (CCTMP) is to promote economic vitality, livability and environmental quality in Portland’s central core. These plans are relevant to the Sullivan’s Gulch Trail because they include the Central Eastside and the Rose Garden Arena area. The CCTMP is the latest step in a process that began with the Downtown Plan, which was first adopted in 1972, and continued with the 1988 Central City Plan. These plans while focusing on the Central City, seeks to achieve city and region-wide benefits for a sustainable community.

Specific goals of the Plan are relevant to the Sullivan’s Gulch Trail are:

- Promote a mass transit system that will carry 75% of the passenger trips to and through the core and which provides a viable alternative to the private vehicle, i.e., fast, economical, convenient, and comfortable.
- Give maximum accommodation to walking in the core.
- Promote use of bicycles as an alternative mode of transportation.