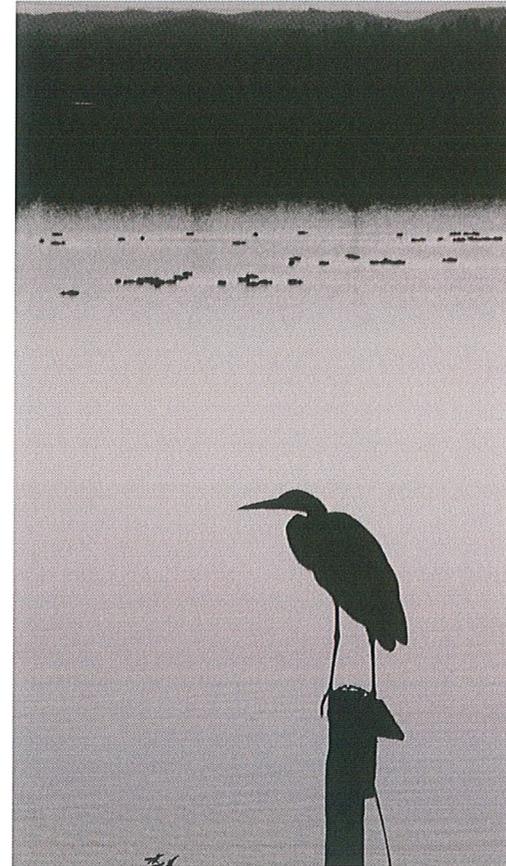


Forest Grove Community Trails Master Plan



Prepared for: The Forest Grove Parks & Recreation Department

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**city of
forest
grove**

Acknowledgements

The Forest Grove Parks and Recreation Department applied SDC to fund this project.

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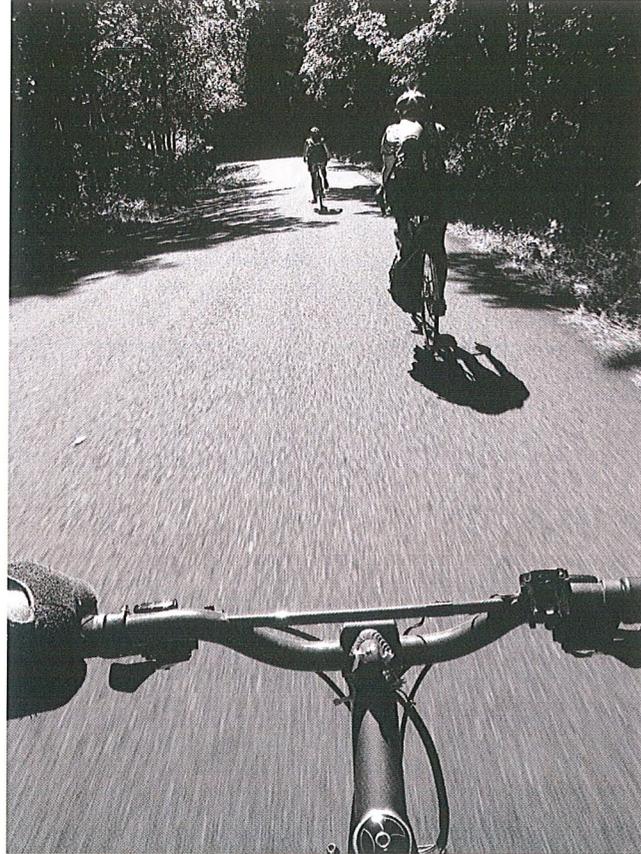
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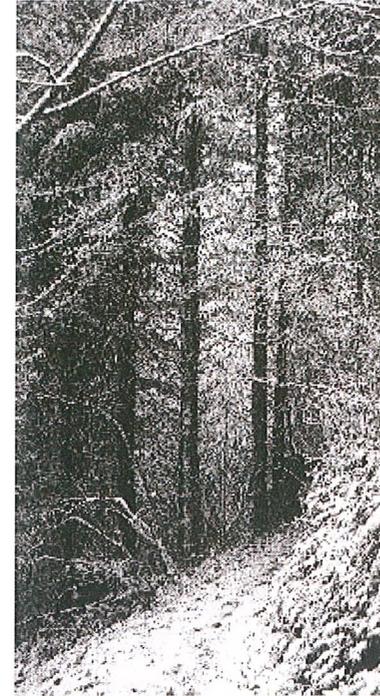
Tom Gamble, Director



Thanks to all those in the community that participated in this effort.

Table of Contents

Executive Summary	4
1. Introduction	6
2. Trail Benefits & Community Profile.....	9
Overview of State Trails Initiatives	13
Regional Context for Forest Grove Trail System.....	17
Community Needs and Priorities Assessment	18
3. Trail Types	24
4. Community Trail System Segment Descriptions.....	26
5. Trail Plan Implementation Strategy	36
APPENDICES	39
APPENDIX A. REFERENCES	39
APPENDIX B. LIST OF RESOURCES & CONTACTS.....	40
APPENDIX C. POTENTIAL FUNDING SOURCES	44
APPENDIX D. AMERICANS WITH DISABILITIES ACT.....	49
APPENDIX E. STATE LAWS AND RULES.....	51
APPENDIX F. PUBLIC COMMENT RECORD	53



Executive Summary

▪ Purpose of the Plan

This plan was commissioned to develop more thorough guidance for implementing a city wide trail system based on a main perimeter loop and connections to schools, parks, open space and neighborhoods. Based on the broad delineation of potential routes in the 2002 Parks Master Plan, information was gathered from inspections on the ground as to what was physically feasible and what the community and respective landowners were interested in supporting. This plan will also provide detail for prioritizing and developing future project proposals and grant applications. It will also feed directly into the process involved in updating the current parks master plan.

▪ Planning Process

The Parks and Recreation Commission assembled the Forest Grove Community Trails Technical Advisory Committee to oversee the project and to review information gathered for the project. The contractor used a combination of methods to build information for this plan, including:

- field work
- mail back surveys in the utility bill
- personal interviews with landowners and stakeholders
- three public forums
- a newsletter
- media outreach to local newspapers

The Parks Commission reviewed drafts of the plan and approved it for consideration by the Council on Oct 8th, 2007.



▪ Trail System Existing Resource Assessment

The City has almost half of the potential perimeter loop built along the north edge of Hwy 47 and a number of supportive landowners along the route identified for closing the loop. However, terrain and ownership challenges may not allow the city to maintain a consistent set of standards all the way around. Other alternatives may include a natural surface trail or moving people onto existing sidewalks marked with a special icon or symbol to help users connect to the main path again. Many other opportunities exist to connect parks, neighborhoods and open space areas with the loop trail, particularly in the Fernhill Wetlands area.

- **Community Involvement & Needs**

Interviews, meeting participation and survey results indicate that the community places a high priority on developing a contiguous loop trail around town. This trail should be shared use, paved and wide enough to easily accommodate all users without crowding. Where possible, the trail should include a soft surface trail adjacent to it or nearby and sufficient signage to help users stay on the trail, respect private property and learn about the cultural and natural history of the town and surrounding area. Linking to other regional trails systems was also seen as an important outcome.

- **Partnership Potential**

The plan has laid out a network of trail opportunities around town that can now be tackled systematically with the help of partners identified for each segment. Key regional partners include the Oregon Parks and Recreation Department, Metro, Washington County and Clean Water Services. Local partners include the school district, Pacific University and landowners or developers working on residential developments around town.

- **Strategy for Trail System Development**

The formation of a 501 (c) 3 Community Trails Association is the next logical step in developing this trail system because having an independent group leading the project and seeking support has proven to be a successful strategy for other small towns with similar goals.

Eugene, Warrenton and Vernonia are just three of the many communities in the Willamette Valley that offer excellent models for how to develop city trail systems.

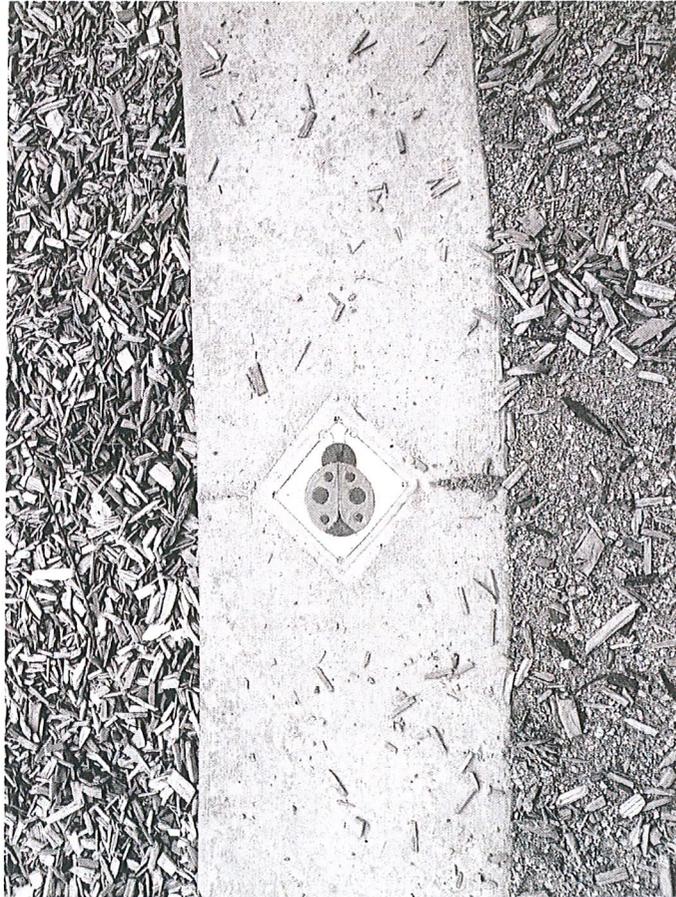
Large grants are available to support big projects but it is just as effective working on a smaller scale to maintain connections through industrial and residential developments as they are permitted. There is no set timeline for implementing this plan, rather it is meant to guide city planners, developers and the community over the next 10-20 years as Forest Grove grows and people recognize the value of good quality trails that are safe and enjoyable to use.



1. Introduction

Purpose of the Plan

The purpose of the Forest Grove Community Trail Master Plan (CTMP) is to provide direction for the development of a coherent, workable park trails plan, and includes objectives, priorities, and information for Forest Grove Parks and Recreation Department (FGPRD), other agencies, trail oriented groups and the public in general.



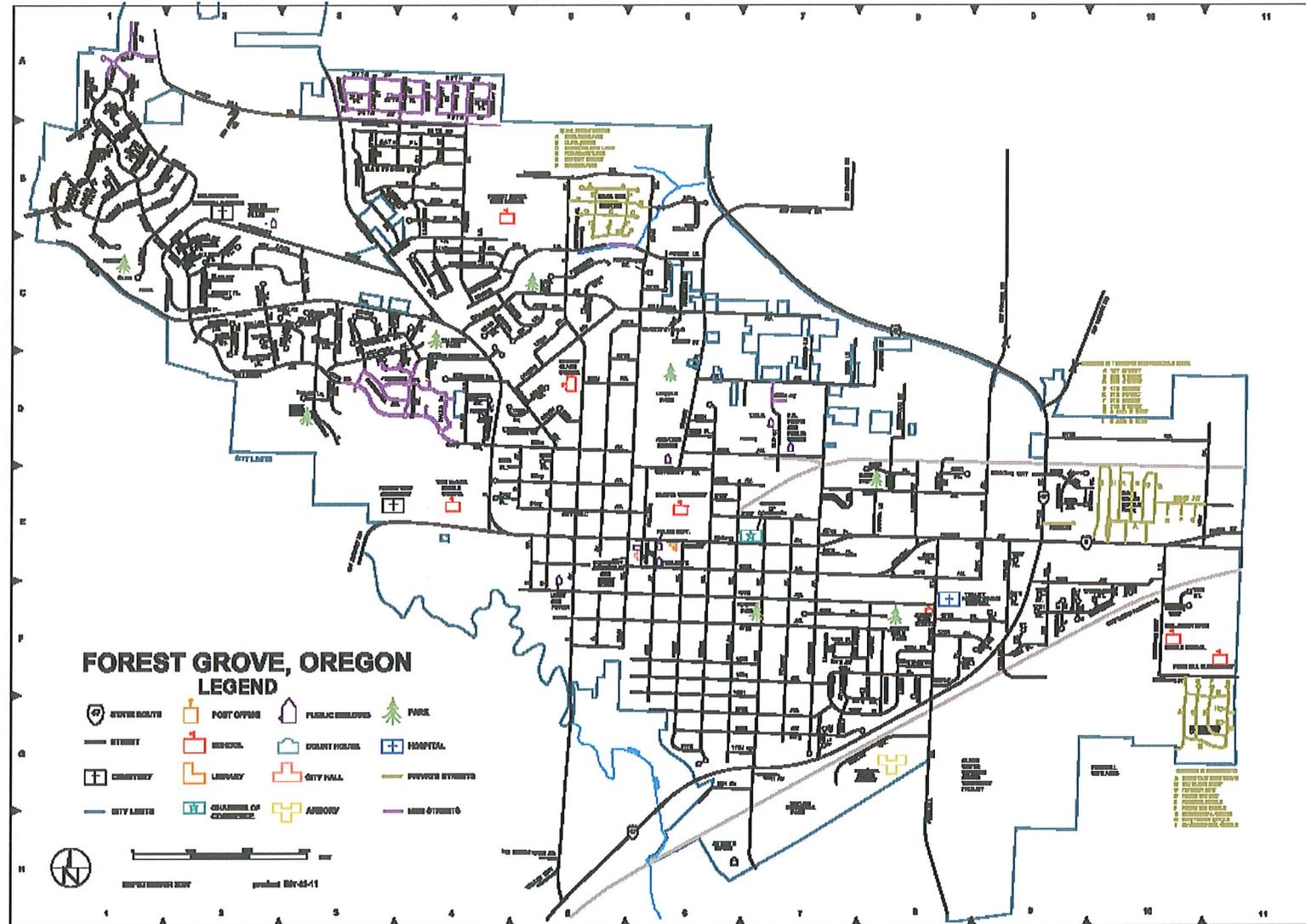
The CTMP deals only with non-motorized trails and is intended as a reference document for planning a citywide shared use trail loop system, unofficially known as the “Emerald Necklace” among early proponents. While the loop is a focus, the plan also includes other potential connector trails. It is conceptual and presented as a long-term vision for priorities, potential locations, and different types of trail.

This plan intends to provide information that will be useful for prioritizing trail segment development, and identifying funding. In addition, it provides information regarding implementation priorities and direction on special projects, such as trail volunteer projects, trail signage, and user conflicts management. This document does not address the development or maintenance of any privately owned trails or old/new roads located on private property.

As the Forest Grove Community Trail System grows and develops there will be an increasing need and demand for park pathways, and trails. The 2002 Forest Grove Parks, Recreation and Open Space Master Plan (PROMP) identifies the trail system as being a major feature among city recreational opportunities. This community is growing and changing and residents are starting to understand how trails create a community resource by providing transportation alternatives, recreational opportunities, environmental aesthetics, open space preservation, and increased adjacent property values.

Planning Area

The planning area encompasses the 6 square miles within the Urban Growth Boundary of Forest Grove and an additional 1.5 square miles within the Metro open space and Clean Water Services Fernhill Property. Trail connection opportunities outside the planning area are identified but not described in detail in this project.



Planning Process

On behalf of the City and community, Ric Balfour and Associates led a process of developing the Community Trails Master Plan using a citizen survey and interviews with residents, interested partners, adjacent landowners, and agency representatives. This is Phase One reflecting trail opportunities, community driven development priorities and partnership interests. Most segments of existing and potential trails were assessed on the ground, except where private property access was not able to be obtained.

This combined community trails picture will show where and how to proceed into Phase Two, which focuses on developing partnership projects, undertaking community outreach, and fundraising. Phase Three will focus on system development and enhancement by adding connector trails, interpretive signs, and a complete community adopt-a-trail program to help with trail maintenance. Some trail segments may be selected for action and proceed through all three phases on a shorter timetable as funds, developer interest, and staff time allow.

Other Local Planning Efforts

In addition to guiding trail development, this plan will provide the Parks and Recreation Commission with the basis for updating of the trails component of the 2002 Parks, Recreation, and Open Space Master Plan. Washington County Metro is in the process of developing regional trails master plan that includes reference to a trail along Gales Creek identified as Regional Trail #9 in their proposal. We have incorporated that route as part of the long term strategy for leveraging funding from the 26-80 Bond measure passed last May, enabling Forest Grove to apply for grant money toward trail development and open space acquisition.

Document Organization

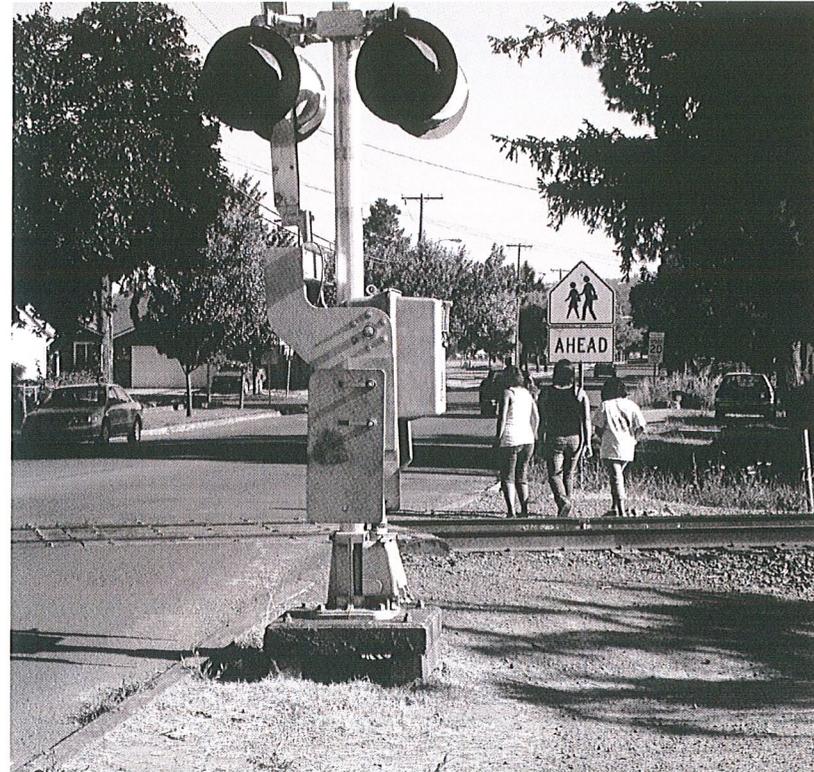
Phase 1, the Community Trails Master Plan, has five components. They are:

- Plan Goals, Objectives, Background and Planning Process
- Trail System Assessment
- Community Involvement & Needs
- Partnership Potential
- Strategy for Trail System Development

2. Trail Benefits & Community Profile

The 2002 Forest Grove Parks, Recreation, and Open Space Master Plan (PROMP) described in some detail characteristics of the city, capacities of park facilities, and community needs. The plan recognized the changing nature of the community, the growth in population and the importance of proactive acquisition of additional open space. Increasing trails for walking and bicycling was among the highest priorities identified at the time. Trails were an important part of the overall plan, but trail routes around town were identified in concept only. The recommended strategies presented in the PROMP are headlined below, two in **bold** have particular relevance to trails and are reproduced in full:

- serve all ages and abilities
- contribute to a strong economy
- preserve the character of Forest Grove
- **provide safe and convenient access to parks for everyone – It is important to provide safe access to parks, ADA access throughout parks, and parks distributed so that every resident lives within a reasonable walking distance of a park**
- create expanded partnerships
- **build physical connection – Develop walkways and multi-purpose trails that are accessible to people with and without disabilities for pedestrians and bicyclists to connect neighborhoods, schools, parks, recreation facilities, and greenways**
- promote a sense of community



The Community Trails Plan represents a major step toward updating the concepts identified in the PROMP and determining trail location opportunities and feasibility on the ground. Results from this plan will feed directly into the development of a new Parks and Recreation Master Plan slated for updating in 2008.

Direction for this project was provided by the vision statement below.

Forest Grove Community Trail System Vision Statement

“Non-motorized pathways and trails provide a recreational opportunity for residents and visitors to the community. Community trails improve the outdoor experience, park aesthetic, environment, and thus our quality of life.”



Furthermore, it is envisioned that the trail system delivers the following:

- a coordinated trail system linking all of the important destinations within the city, and that visitors have access to these trails from neighborhoods, parks and open space trailheads.
- trails that provide visible connections between destinations such as city neighborhoods, natural areas and educational opportunities.
- walking, running, and cycling paths that are convenient, safe and pleasant.
- a trail system linked to Metro Regional Trail #9 along Gales Creek and to the Banks-Vernonia State Trail and the neighboring communities.

This vision can be achieved through the development of a high-class trail system for walking, running and biking for fun, exercise and transportation. The network will connect residences and important destinations easily and safely. Enhancing that network will come from providing relevant educational and interpretive opportunities highlighting cultural and natural history of the area. Limitations of terrain and ownership will mean the trail is not one consistent standard around the loop and for the many connectors. Some will be paved like the Hwy 47 bike/pedestrian path; others will be natural surface trails or pervious material. It will therefore be important to the users of these variations that the City use a consistent marking and signage system. This will help prevent confusion and meandering from designated paths and trails, particularly on adjacent private land.

Community Trail Benefits and Opportunities

Trails enhance communities in a number of different ways by dramatically increasing options for safer commuting, recreating, and socializing. Communities and neighborhoods with trails are consistently rated higher for quality of life. The following are some of the ways trails have been found to affect communities.

Transportation: Trails can provide visitors access to parks, businesses and community resources, and they can also improve safety and increase ADA access. The trail system should encourage non-motorized travel by connecting residents and visitors to the city's resources without using the established roadways. The American Association of State Highway and Transportation Officials (AASHTO) *Green Book* for developing bicycling facilities states, "Increasingly, transportation officials throughout the United States are recognizing the bicycle as a viable transportation mode. While recreational cycling is still the primary use of bicycles in this country, the number of people using bicycles for commuting and other travel purposes has been increasing since the early 1970s. Nationwide, people are recognizing the energy efficiency, cost effectiveness, health benefits and environmental advantages of bicycling... Bicyclists have the same mobility needs as every other user of the transportation system as their primary means of access to jobs, services and recreational activities. Planning for existing and potential bicycle use should be integrated into the overall transportation planning process."

Furthermore, many trips made in cars could be done on bicycles or by foot. Research has shown that *Forty percent of all car trips in the U.S. are 2 miles or shorter – that is, they are within biking/walking/skiing distance.* — Christopher Uhl, Penn State University ecology professor.

Economic: City recreational trails can produce income for communities from tourism, special events, and other uses. Seasonal events create business, utilize campus facilities in summer, and increase overnight stays in the community by holding people in town longer. Improved recreational opportunities improve the quality of life by making an area more attractive for business relocations and migration in.

Land Use Planning: Trails and other green way corridors promote park and recreation development, wet land preservation, and buffered environmental protection. Trails preserve undeveloped lands in urban areas and serve to separate and buffer contradicting land uses. New developments can take advantage of trails and "quality of life" factors that increase property value and selling point.

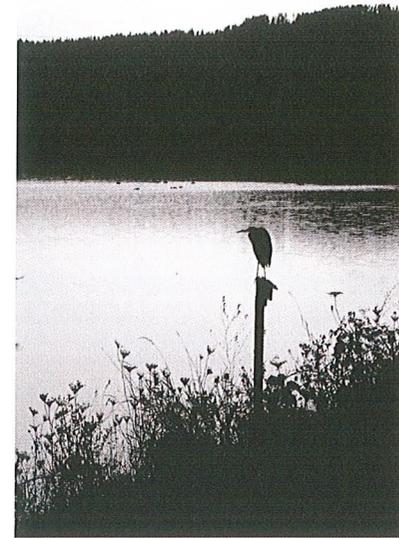
Property Values: Developers and customers are actively seeking trail opportunities within residential and commercial projects. "Trail availability outranked 16 other options, including security, ball fields, golf courses, parks, and access to shopping or business centers," according to a 2002 National Association of Realtors/National Association of Home Builders



survey. Only highway access was ranked as a more important amenity by the 2000 homebuyers surveyed.

Environment: Environmental benefits include wildlife preservation, water quality protection, storm water management, preservation of vegetation, and other benefits, such as firebreaks. Trails become mini greenways acting as wildlife corridors and promote healthy urban and open space ecosystems.

Education: A trail corridor often encompasses several different environments along its route and can be thought of as an outdoor classroom full of educational materials. The scientific community, educators and students can realize the value of trails through a wide range of studies, such as biology, geography, history, recreation management, and art. The Metro open space and Fernhill wetlands trails are poised to be a major destination and contributor to this benefit.



Historic and Culture: Trails can educate and increase awareness about the history and culture of a region. Preserved historical sites provide unique locations for cultural, local and social events. Methods, such as on site interpretive material and promotional literature, aid in the parks effort to preserve historic sites. The plan would list cultural or natural resource story themes that might be highlighted in the future with trail side interpretive signs.

Quality of Life: Increases in the quality of life associated with non-motorized trails are realized through expressions of the parks character and pride, aesthetics of the local environment, economic revitalization of communities, access to the outdoors, opportunities for socialization, and easy increase of mobility.

Universal Access: Provide universal access to and within the trail system with the level of access provided at posted trailheads. Physical barriers and hazards that obstruct access should be removed from paths and trails designated as part of the trail system. Trails should be ranked by their level of disability access.

Recreation: Trails provide an easily accessible outdoor resource for many forms of recreation, most notably walking, running and bicycle riding. Trails greatly increase access to physical activity and fitness opportunities by providing more miles of safe, attractive, and desirable walking, biking and running.

Overview of State Trails Initiatives

Leaders in Oregon's outdoor recreation, economic and health communities are mobilizing to make the development of local trails a statewide initiative. The Oregon Parks and Recreation Department (OPRD) has produced an exhaustive study of Oregon's trail system, issues, and priorities called the "Oregon Trails 2005-2014: A Statewide Action plan (OPRD 2005). Canvassing of recreation providers and consumers has produced a detailed picture of the supply and demand for trails around the state. Forest Grove is part of the NW Region and was identified as "economically distressed" which was among the factors that lead to funding for the development of the trail and bridge over Gales Creek south of town. The study also pointed to recent research that shows how developing local trails has multiple benefits including a general lifting of quality of life values in communities where trail systems are located. The Statewide Trails Plan also identifies the following regional priorities and issues that local agencies are now using to direct program priorities and are part of the criteria used to judge grant funding potential of trail project proposals:

Top Non-Motorized Issue Categories (NW Region)

- A. Need for maintenance of existing trails in the region.
- B. Need for additional funding for non-motorized trail acquisition and development.
- C. Need for additional non-motorized trails (for all user types)—especially in close proximity to where people live.
- D. Need for trail connectivity within the region providing access from urban to rural trails, connections between public facilities, parks and open space and connections from state and regional trails to community trails.

The 2002 Statewide Comprehensive Outdoor Recreation Plan (SCORP) statewide outdoor recreation survey identified running and walking for exercise and walking for pleasure as the most popular outdoor recreation activities in the state. According to the report, these activities are generally engaged in near home, and on a regular basis. The 2004 Oregon Statewide Trail User Survey also identified that trail or day hiking and walking for pleasure are clearly the top trail activities. From the statewide household recreation survey conducted by Oregon State University (OSU), several key findings indicate the importance of non-motorized recreation opportunities that are close to home. The study concluded:

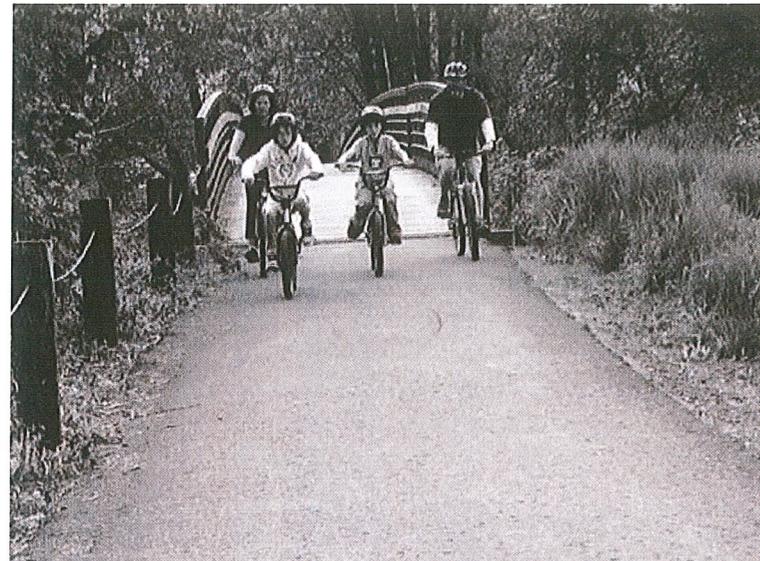
"Clearly, outdoor recreation is an important part of the everyday lives of people in the state of Oregon and a critical contributor to the unique "quality of life" that Oregonians enjoy...Traditional non-metro outdoor recreation activities that have high demands include sightseeing/driving for pleasure, nature/wildlife observation, RV/trailer camping, and ocean beach use. The implications for outdoor recreation planners and managers are that people demand most outdoor recreation opportunities in the communities in which they live, and nearby." p3.2003-07 SCORP

The table below comes from the SCORP plan and shows the most popular recreation activities for Oregonians.

Table ES.1. Top 10 Oregon Outdoor Recreation Activities – State Residents

Activity	Estimated Annual User Days* (Millions)
1. Running/Walking for Exercise	49.2
2. Walking for Pleasure	47.7
3. Birdwatching	18.7
4. Nature/Wildlife Observation	17.8
5. Sightseeing/Driving for Pleasure	12.3
6. RV/Trailer Camping	11.0
7. Golf	9.6
8. Using Park Playground Equipment	8.8
9. Bicycling	7.4
10. Ocean Beach Activities	6.0

* A user day is one instance of participation in a single outdoor recreation activity by one person.



Note: The plan also includes participation estimates for each of the 11 SCORP planning regions.

Because most non-motorized recreation takes place on trails, the study looked at the use pattern on surfaced versus un-surfaced or natural trails. Most of the activity described above takes place on surfaced trails in urban settings rather than natural trails in backcountry settings. The study also found preferences for outdoor recreation on trails close to home rather than those that require a car to get to. In addition, OPRD has been working on the dual challenges of aging and obesity in Oregonians by commissioning an Oregon State University study called “Outdoor Recreation and an Aging Oregon Population” (excerpt below from Summary Report November 6, 2006 by Kreg Lindberg OSU). Given Forest Grove’s large retirement population, the results below are an important indication of trends playing out in this community.

Participation across activities

Turning to individual activities, the following are the Top 5 activities in terms of percent of respondents engaging in them at least once in the past year (activity participation rate):

- 80%, walking.
- 68%, picnicking.
- 63%, sightseeing.
- 62%, visiting historic sites.
- 54%, ocean beach activities.

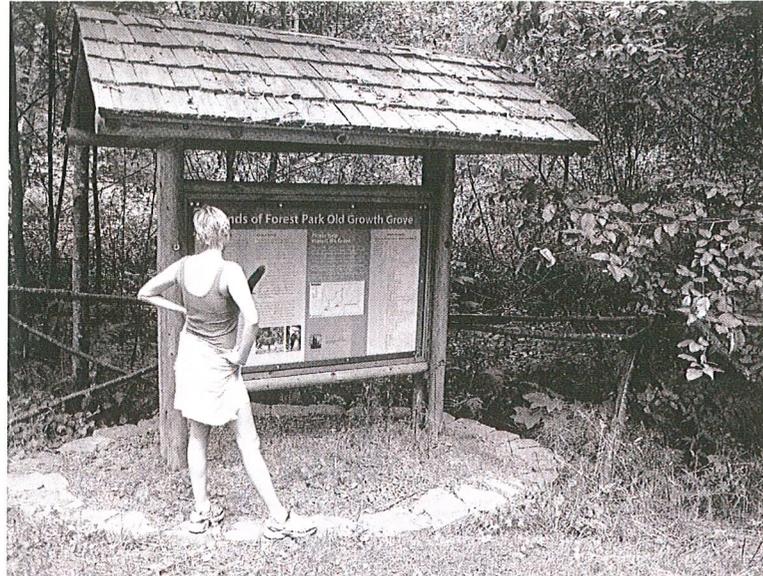
The following are the Top 5 activities in terms of average number of days engaged in the activity in the past year (activity participation intensity):

- 64.3 days, walking.

- 16.2 days, bird watching.
- 12.6 days, jogging.
- 9.9 days, sightseeing.
- 7.7 days, bicycling (road / path).

Walking tops both lists. A comparison across age categories for Top 5 activities by participation intensity leads to the following conclusions:

- *Walking is the top activity across all age categories (40-79).*
- *Jogging is a top activity between the ages of 40-59, but it is also popular for those in their 70s; only 15% of respondents in the latter age group jog, but they do so many days of the year.*
- *Bicycling is a top activity between the ages of 40-64.*
- *Sightseeing is a top activity between the ages of 45-74.*
- *Bird watching is a top activity between the ages of 55-79.*
- *RV/trailer camping is a top activity between the ages of 65-74.*



The OPRD is also very interested in the issue of health and physical activity as it is linked to aging and obesity problems in the state. In another SCORP related study by Randall Rosenberger¹, it was found that hiking trail density was positively associated with physical activity rates, and negatively associated with overweight rates. Urban trail density was found to be positively associated with physical activity rates. Annual days participating in trail or off-trail activities was positively associated with physical activity rates; and negatively associated with overweight rates and obesity rates. OPRD

The Federal Highway Administration (FHA) has established guidelines and standards for developing sidewalks and trails. With respect to mobility issues, the FHA has compiled a list of changes in the population that may affect sidewalk and trail design parameters including:

- There is an increasing proportion of older adults;
- Approximately 20 percent of Americans have a disability and the percentage of people with disabilities is increasing (U.S. Census Bureau, 1994);
- Decreasing mortality rates for a variety of disabling illnesses and injuries are resulting in an increase in the length of time that people live with functional limitations (i.e., people are living longer with less function);
- Over 50 percent of adults in the United States are now obese, making obesity the norm (Center for Disease Control, 1997);

¹ Randall S. Rosenberger. Oregon's Statewide Comprehensive Outdoor Recreation Plan (SCORP). Health and Recreation Linkages in Oregon: Physical Activity, Overweight and Obesity. DRAFT REPORT. 7 August, 2007
Department of Forest Resources, Oregon State University, Corvallis, OR 97331-5703

- Many children travel on their own to and from school.”²

Government and non-governmental organizations alike are increasingly focused on these issues and many, like the Trust for America's Health advocate for the government to play a larger role in prevention. "If we want people to be more physically active, then there have to be safe places to be active. That's not just a class issue. We've designed suburban communities where there are no sidewalks for anybody to go out and take a walk." said Jeffrey Levi, the organization's executive director. This community trail planning effort directly responds to this challenge by improving access to trails for recreation, health, and transportation across the city.



² (Information from <http://www.fhwa.dot.gov/environment/sidewalk2/sidewalks202.htm#dif>)

Regional Context for Forest Grove Trail System

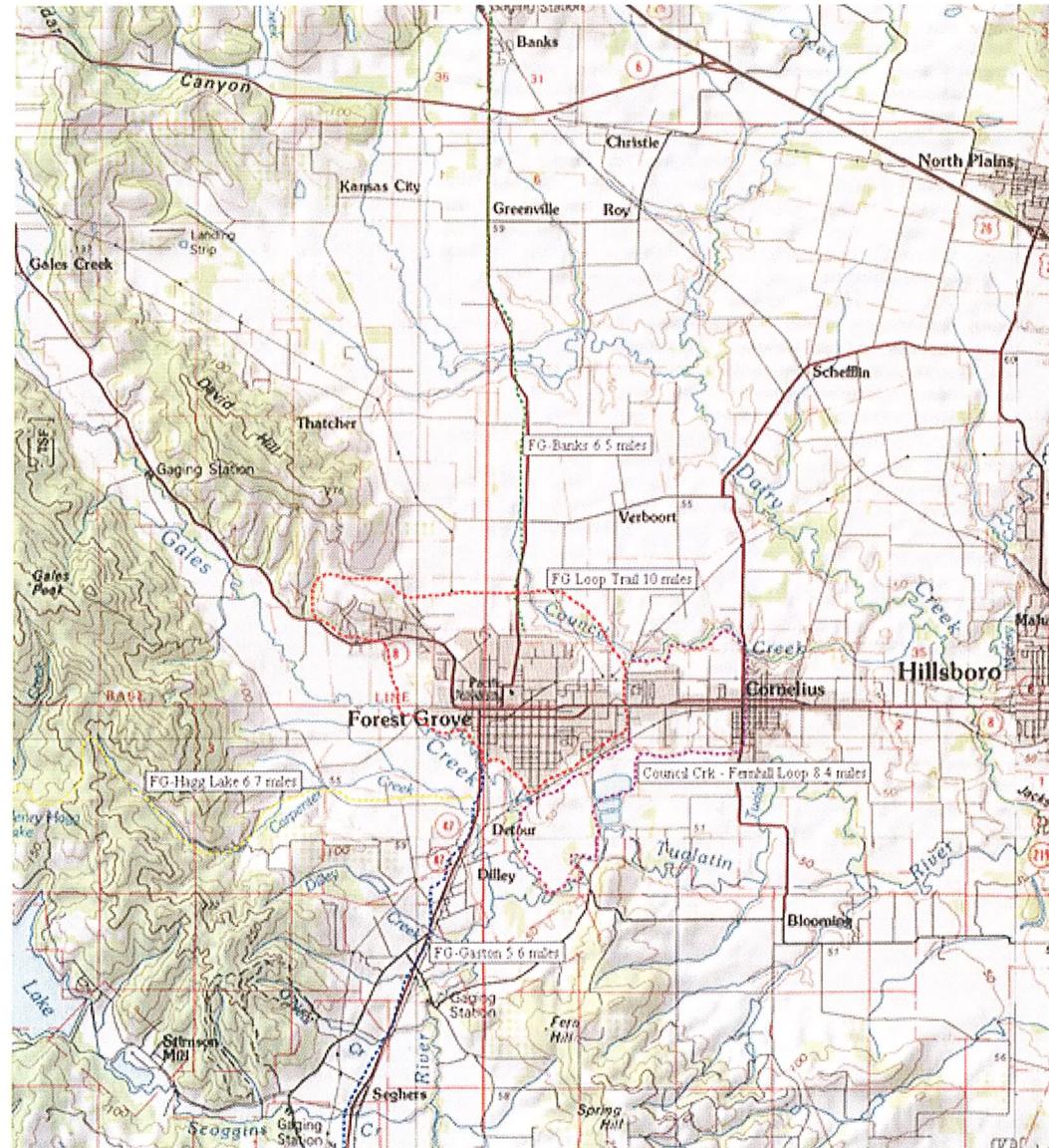
Metro is taking a strong leadership role in identifying open space acquisition opportunities, raising public awareness, passing bond measures and providing technical expertise critical to meeting the needs of an expanding population in the Portland area.

With the passage of the Natural Areas Bond Measure (26-80), Metro has gained both significant political will and funding to help local communities. Being within the Metro region, Forest Grove has access to this program to develop open space and trails projects. The Metro Regional Trails Plan includes a proposal to build a trail along Gales Creek between the Tualatin confluence and the west edge of town.

The map to the right shows other regional trail links suggested by community members during public forums including:

- A link to Hagg Lake up Carpenter Creek
- A loop around Fernhill Wetland, through Cornelius and along Council Creek.
- A link to Gaston and points south along the railroad grade.
- A link to Banks which would connect to Vernonia and Scappoose via existing proposed linear parks.

As these other trail opportunities develop, connector trails or trailheads will need to be developed to extend the distance options for residents and event participants.



Overview of Current City Trail System

Forest Grove has just over 3 miles of paved trail serving bicycle and pedestrian users and made up of one stretch of concrete sidewalk running from the Sunset Drive/Hwy 47 intersection south to TV Highway, then round to B Street on asphalt. There are no designated soft surface trails in City owned parks, natural areas, or open space. Neighboring public open spaces have no designated hard or soft surface trails. There are short routes of natural or unpaved surface material that allow pedestrians to walk between parks and neighborhoods but they are not specifically signed or marked as trails. An example of this type of connector route is the grass and gravel sewer easement that runs from just north of Gales Creek Highway (8) up to Forest Glen Park in the Forest Gales Heights neighborhood.



The city has a sidewalk and bike path system plan which guides the upgrading, connection and extension of sidewalks and bike lanes around town. One of the issues consistently brought to attention during this planning process was the poor standard and number of gaps in the sidewalks system that force pedestrians and cyclists out onto the edge of the street or major roads. Gales Creek Road between Thatcher and Forest Gale Heights has several sections where the sidewalk dead ends or merges out onto the roadside where there is little enough room for bicycles without adding runners, baby joggers and kids walking to school.

The Hwy 47 bike path also received criticism for poor maintenance and for serious deterioration on the section south of B Street. In addition, ODOT built a traffic barrier across the path entrance just west of B Street that forces people to jump over or ride close to highway traffic. Fortunately, the path received a new asphalt surface during the summer of 2007.

There are many informal trails across public open space, private farmland, and vacant lots or along highway and railroad right of ways. These offer important clues about where people are trying to get and have informed this study of potential trails around Forest Grove.

Community Needs and Priorities Assessment

The City has periodically undertaken a “visioning process” to create a set of statements representing what the city will be like ten years out. In 1991 the Forest Grove 2010 “Vision of the Future” included, under the “Space to Breathe” heading, the statement that *“Open spaces have been retained and connected so that one is never far from a natural area of park.”*

Initial direction for community needs comes from the 2002 Parks, Recreation, and Open Space Master Plan that recommends by 2010 that at least 3.51 miles of additional paved trail and 2.12 miles of natural surface trail be established.

Residents have been surveyed periodically to assess public perceptions of how well the city performs on service delivery. In 2006, **bike lanes** and **parks and trails** were both ranked around 5 on a scale of 1 (very poor) to 7 (very well)³ although the trail rating is indistinguishable from the parks ratings (in future surveys, trails, bike lanes and parks should be separate categories). In 2004, a citizen attitude survey asked what kinds of improvements were important to maintain hometown appeal and livability. The top three were “*fix up downtown,*” “*additional and improved parks & greenspaces*” and *Improved sidewalks.*” These same factors shared equal support in 1991, but the later two factors gained more support in 2005. The surrounding farms and natural beauty were ranked top quality of life factors for residents.

2007 Community Trail Survey Results Summary

Based directly on community input at the first trails forum on June 13, a survey was developed and mailed out to residents via the utility bill and placed around town (Library, Aquatic Center, City Hall, Pacific University, and some businesses). The survey yielded 232 respondents. The planners used public input provided by participants in the June 13 forum as a basis for the statements included in the survey questionnaire. Four main questions were used to help determine the degree of priority residents felt for each answer statement. The goal was to let forum attendees come up with the ideas and the wording and then have the wider community review and rank their merit. For example, under the topic heading “**What kind of loop trail do we want?**” respondents gave “**Foot trails that alleviate the need to drive.**” a rating of 4.05 (1= low, 5 = high priority). Paved trails like the Banks – Vernonia trail also ranked highly.

Overall, there is a strong level of interest in improving trail access around town and for improving the quality of trails, increasing open space access, and improving allied facilities. Citizen responses indicated that they favor establishing a loop trail all the way around town first, followed by connector trails and trailhead facilities. Key Issues included acquiring land for the loop trail, using recycled materials for the trail, and pursuing grants to fund trails. Using the trail for art, events, and business or for horses, ranked lowest. See the following tables for individual item ratings.

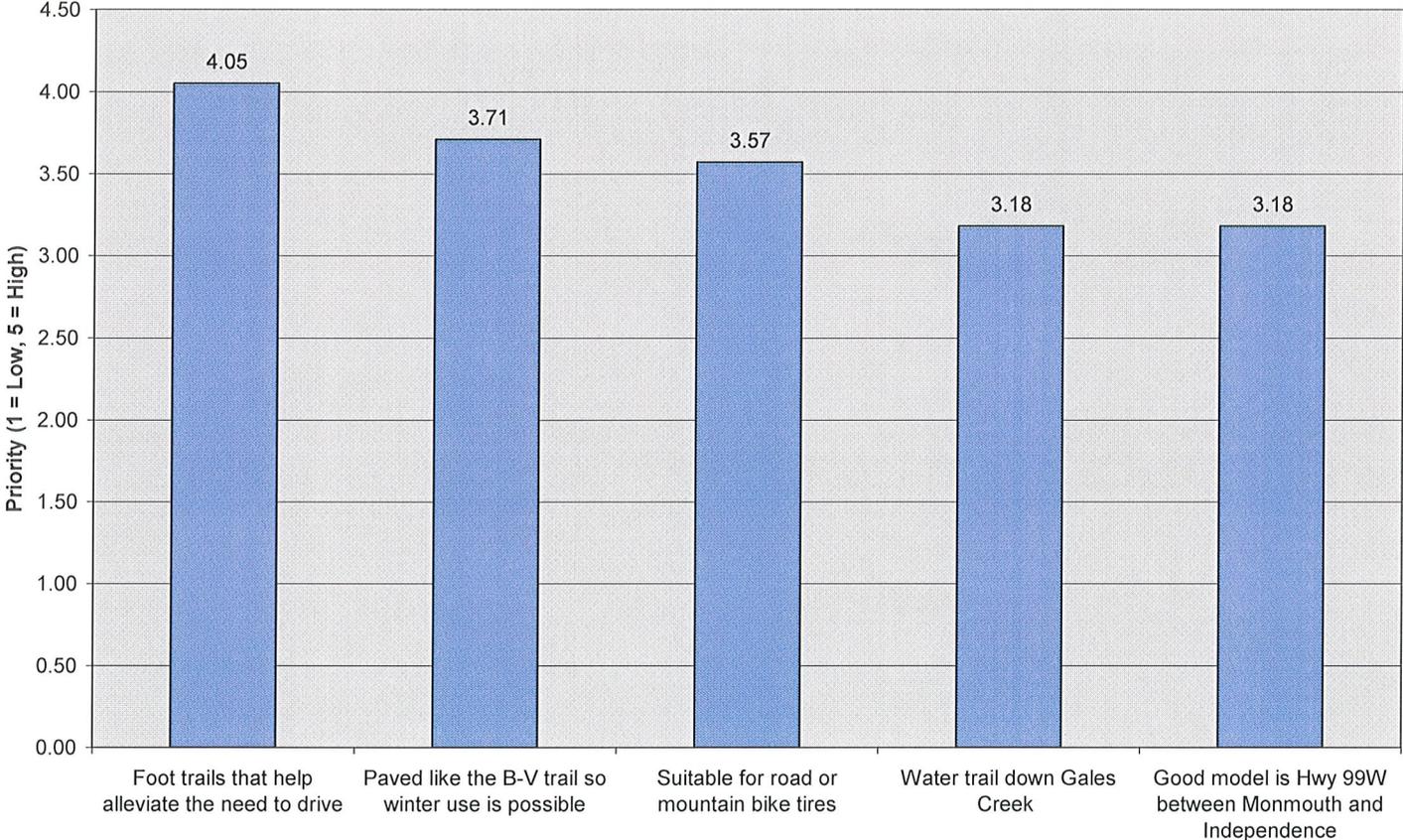


³ 2006 Citizen Attitude Survey Page 2 of 6 Summary Report
FG Community Trails Master Plan Final

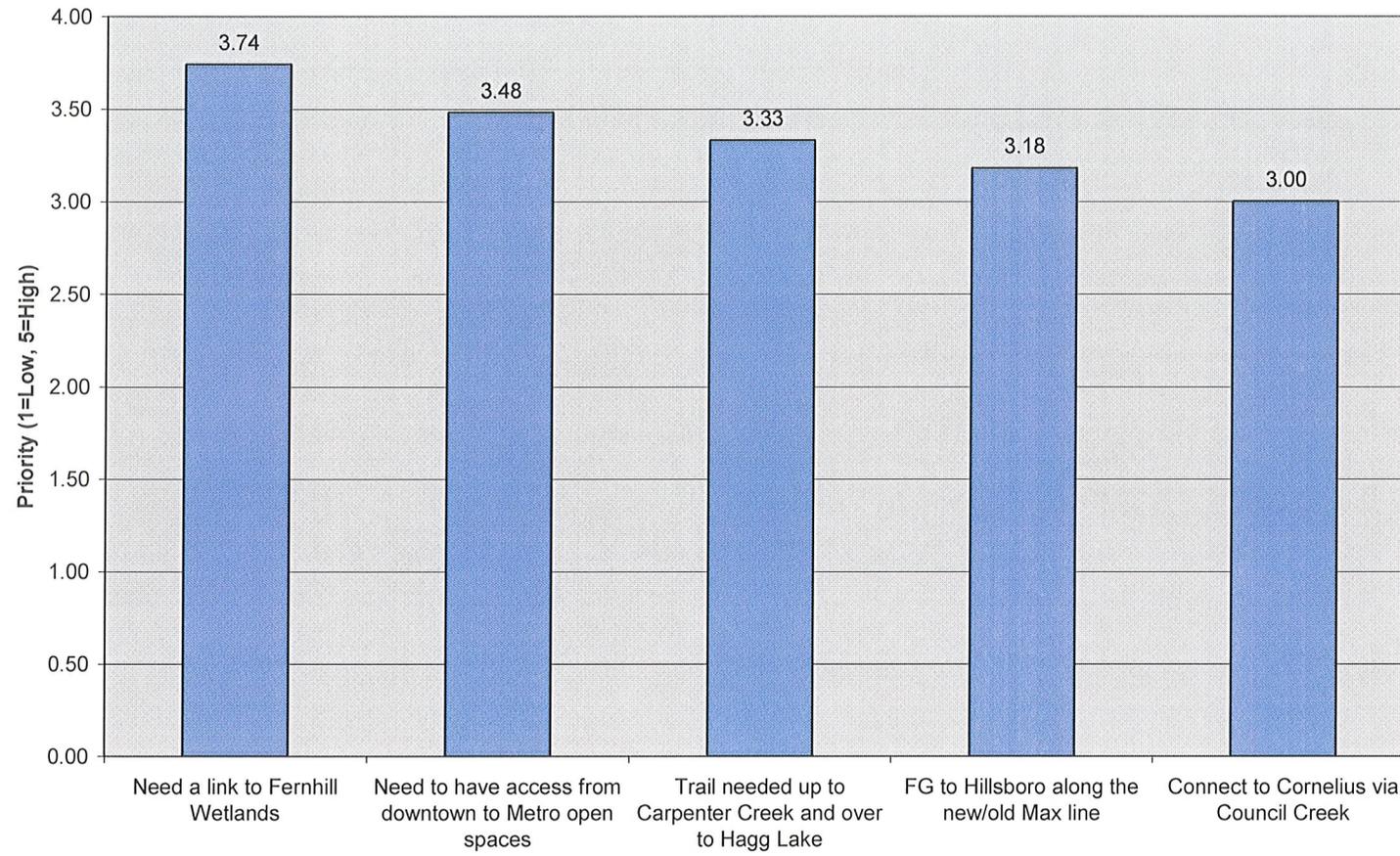
Public Forum Issue Summary

In the second public forum, a number of issues and concerns were brought up by participants (largely from a group in the Willamina/Strasbourg neighborhood) that related to crime, safety, and impacts of trail users. This generated much discussion during the forum followed by a Q&A session to resolve some of the misgivings. Other issues included calls for better sidewalk connections, hard and soft surface trails side-by-side and concerns about maintenance funding.

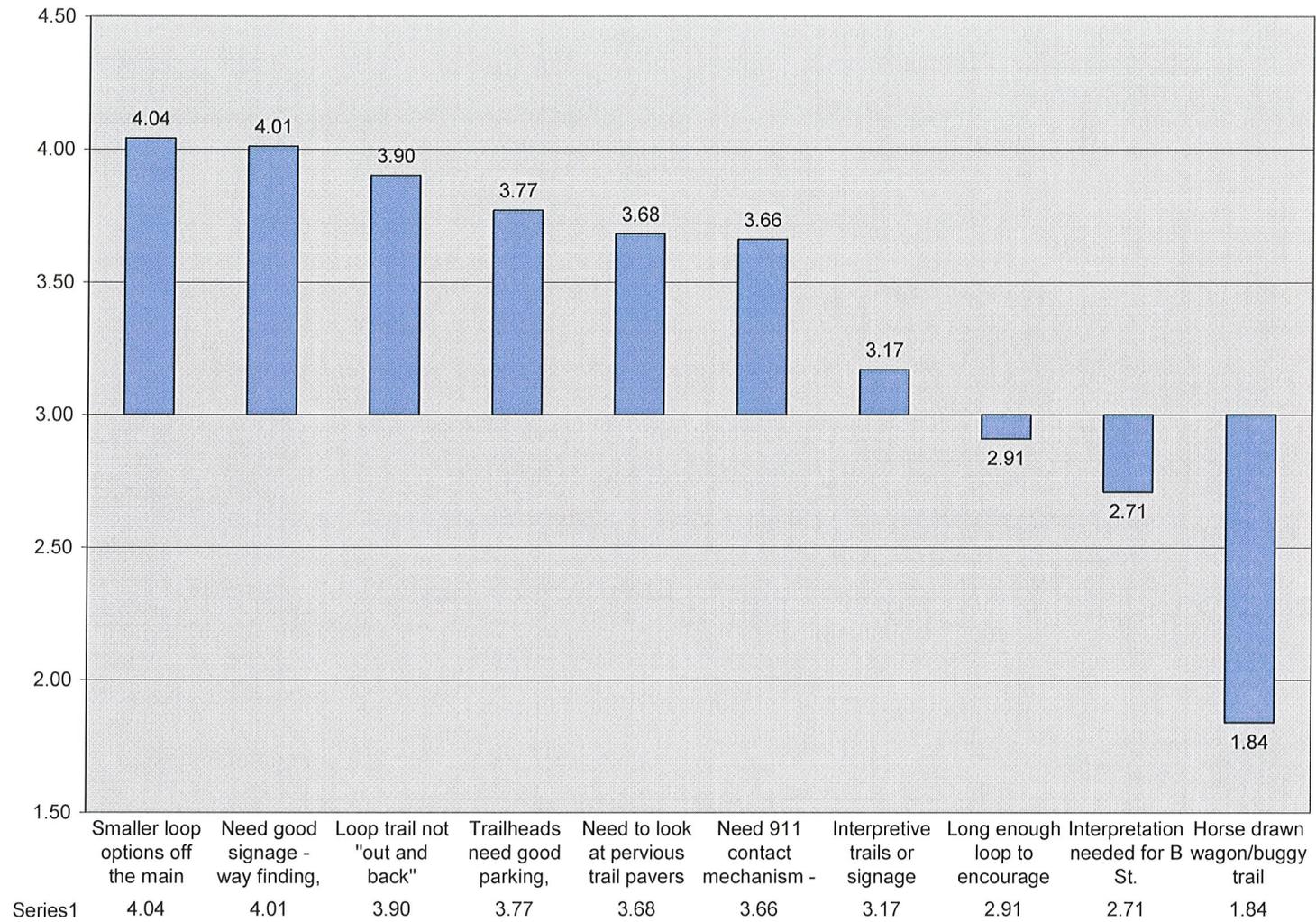
What Kind Of Loop Trail Do We Want?



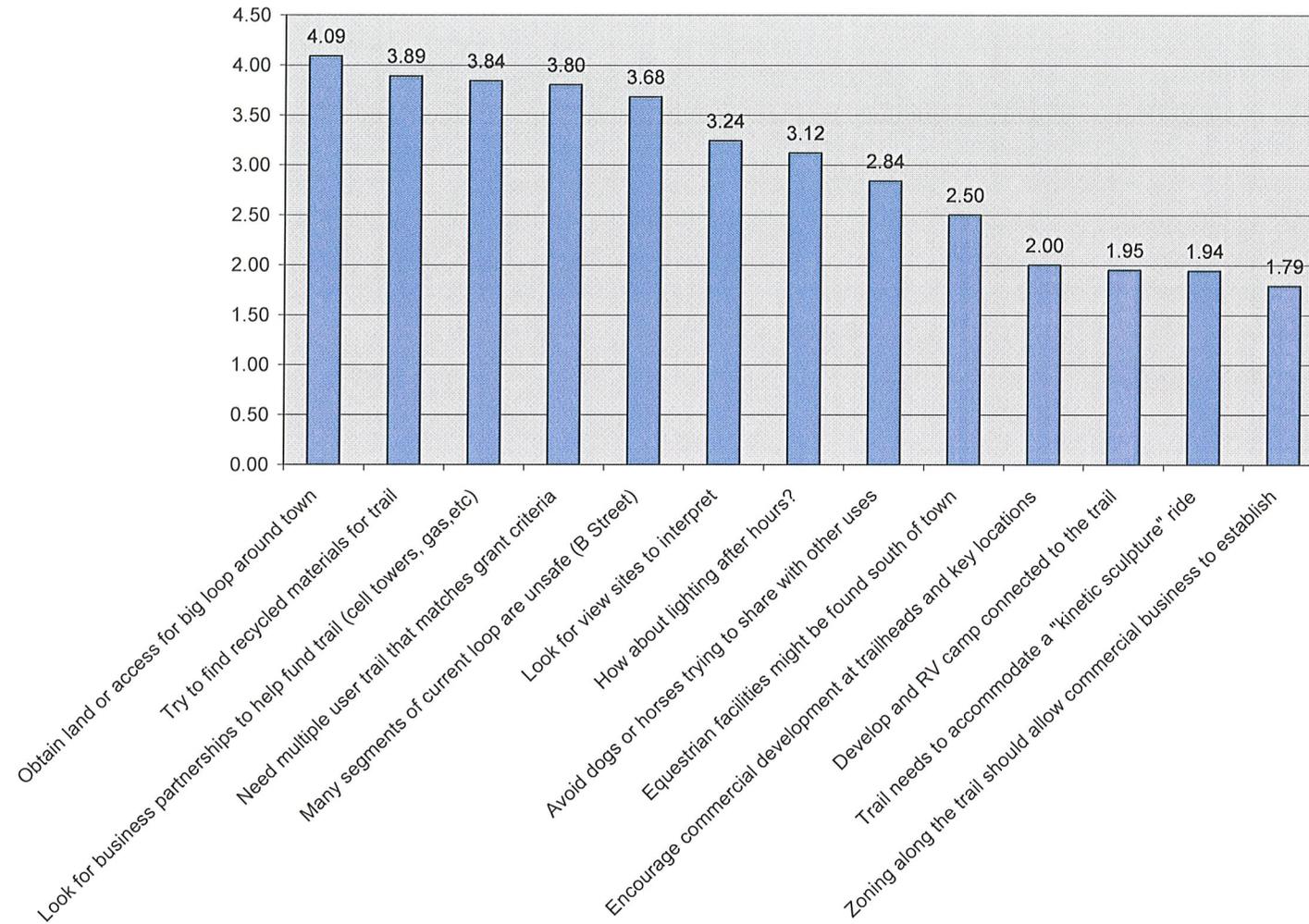
What Connections To Other Local Trails?



What Other Kinds of Trails Are Desired?



What Are The Issues?



3. Trail Types

The following are general descriptions of the range of trail types this plan is considering for inclusion in the trail system around Forest Grove. Special trail types like water trails, horse trails or technical mountain bike trails were not included based on feedback from the public forums.



Single Use: Designating trails for a single use is typically done where trails are crowded, have high (bike commuter path) or very low speed traffic (wheelchair accessible or nature trails) and part of a special purpose mountain bike park. User conflicts can be avoided by designating a single use type, but this is an expensive luxury that may not be affordable or practical in a community trail system. Backcountry settings are more conducive to separate trail options for bikers, walkers and horses.



Shared Use: Designating trails for multiple users is more common in urban areas where trails serve as transportation routes with multiple access points, varied speeds, and room for wider trail widths. Shared trails build better communities by encouraging cooperation, tolerance and broader potential for volunteerism. Shared use trails also represent the most cost effective trail as long as trail widths and signage are designed for the range of users and levels of use.

Because the proposed loop trail has a number of large gaps, interim connections will make use of sidewalks along city streets marked with a trail sign or icon inserted into the concrete. Making this alternative safe by clearly marking the trail route and by establishing sidewalks currently missing will be a top priority.



One-Way Trails: Sometimes conditions call for designating a shared use trail as a one-way route. The most common situation for this option is when cyclists and walkers are sharing a trail in steep country and descent speeds may be dangerous to uphill traffic. However, it is difficult to enforce, expensive to sign and can create animosity among users.



Paved or Impervious Surface: Most trails in urban areas are paved with either asphalt, pavers or poured concrete. While expensive, this is often the most cost effective option and sometimes the only way to meet ASHTO standards and ADA requirements⁴ in urban settings. Wet soil conditions and high traffic loads can also dictate the need for paved trails.



Natural Surface or Pervious: Trails in natural areas, or with moderate use levels or trails in dry areas can be built with natural surface material such as compacted earth, gravel, or crushed rock. The construction costs are much cheaper but maintenance can be higher in the long run. Wood chips can work in sites that have low traffic, but they are not good for wheelchairs, dogs or bare feet. Connectors in the trail system and segments located on private land are more likely to be natural surface trails to keep costs down and the footprint minimal.



Combination Paved/Natural Surface: With the right planning and trail easement width, combinations of paved and natural surface trails can be built parallel to serve multiple users. This type of trail is especially effective in congested areas and where runners and others are looking for a low impact options.

⁴ Appendix D. ADA requirements summary

4. Community Trail System Segment Descriptions

Trail segment description, opportunities, and constraints

Investigating the potential for a community trail system was the prime focus of this project. Segment descriptions below start out with the main loop trail (paved & shared use) around town based on the alpha-numerical identification system on the following four maps that cover the city. Maps are inserted after the matrix with a scale is approximately ½ inch to 500 feet. The connector trails in the system will primarily link the loop trail to schools, city parks, and open space. Some will be bike/ped trails, others sidewalk routes and the majority offer natural surface trail opportunities along natural features like Gales Creek. The City has a separate sidewalks plan that is designed to address existing gaps and problems with sidewalks around town.

“Emerald Necklace” Loop Trail Segment Characteristics

Segment i.d	Description	Opportunities	Constraints	Partners
A – B.1 Ritchey Rd to westside B St. to Bridge	<ul style="list-style-type: none"> ▪ Potential bike/ped just north of Gales Ck along UGB/100 year floodplain ▪ Undeveloped land ▪ Natural meadow, riparian forest ▪ 5000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ Developers (Rau et al) are interested in building paved trail during development ▪ Serves Tom McCall ▪ Natural history education 	<ul style="list-style-type: none"> ▪ Flood plain = submersion potential a few weeks of yr ▪ Gales Crk at Ritchey Rd bridge would need parking and trailhead 	<ul style="list-style-type: none"> ▪ Rau and others ▪ Waste Management ▪ Pacific University
B – N – Q	<ul style="list-style-type: none"> ▪ B St sidewalk north to 16th, east to proposed trailhead rail-to-trail bike/ped path ▪ 2500 ft, <10% grade 	<ul style="list-style-type: none"> ▪ safer route to Hwy 47 ▪ cultural history education ▪ trailhead could double as a neighborhood park 	<ul style="list-style-type: none"> ▪ crossing B St. ▪ heavy vehicle traffic in/out of WM transfer station 	<ul style="list-style-type: none"> ▪ Waste Management ▪ Pacific University ▪ Metro ▪ OPRD ▪ Old Town neighbors ▪ FG Charter School
Q – C	<ul style="list-style-type: none"> ▪ Trailhead park on to rail-to-trail south to Hwy 47 ▪ Raised RR embankment 	<ul style="list-style-type: none"> ▪ Natural and cultural history education ▪ Part of proposed rail-to-trail bike/ped path funded by LGG funds 	<ul style="list-style-type: none"> ▪ Bridge need over Gales Creek ▪ Private property on west side after Gales Creek 	<ul style="list-style-type: none"> ▪ Waste Management ▪ Pacific University ▪ Metro ▪ OPRD ▪ Olde Towne neighbors
C – D – E – G – H	<ul style="list-style-type: none"> ▪ Hwy 47 bike/ped path ▪ 20,000 ft (3.8 miles) ▪ <5% grade 	<ul style="list-style-type: none"> ▪ existing bike/ped path ▪ commuter/school route ▪ acquisition of north side to build a natural surface trail alternative along Council Creek north side 	<ul style="list-style-type: none"> ▪ 3 major intersections ▪ natural surface trail route on private land 	<ul style="list-style-type: none"> ▪ ODOT ▪ Washington County ▪ Neighborhood groups
H – I	<ul style="list-style-type: none"> ▪ Sunset Rd to David Hill ext (not yet built) on sidewalk ▪ 1800 ft, <5% grade 	<ul style="list-style-type: none"> ▪ Continue safe bike/ped trail north to Banks 	<ul style="list-style-type: none"> ▪ Hwy 47 Right of Way is too narrow ▪ Flood 	<ul style="list-style-type: none"> ▪ ODOT ▪ Washington County ▪ Neighborhood groups

			<ul style="list-style-type: none"> Needs bike lane 	
I – J – K #30	<ul style="list-style-type: none"> Hwy 47 at Sunset to Thatcher Rd on sidewalk 7000 ft, <10% 	<ul style="list-style-type: none"> connect the north side of the new developments with Thatcher Park sidewalk and bike lane potential for multi-use path on the north side away from residential lots and driveways potential safe-route to school avoids busy sections on Willamina w/o sidewalks 	<ul style="list-style-type: none"> David Hill not extended to Hwy 47 yet Needs bike lane 	<ul style="list-style-type: none"> Developers FGHS ODOT
K – L #29	<ul style="list-style-type: none"> Thatcher Road up David Hill to top of David Hill 4000 ft, <15% grade 	<ul style="list-style-type: none"> connect top of Forest Gale Heights to Thatcher Park and FGHS by bike/ped trail natural history education 	<ul style="list-style-type: none"> crossing Thatcher Rd no sidewalk or bike lane from K up for first 3500 ft 	<ul style="list-style-type: none"> Developers FG Parks and Recreation Burlingham Family
L – M #26	<ul style="list-style-type: none"> David Hill Road to Forest Gale Drive down to Forest Glen Park on sidewalk 6000 ft, <15% grade 	<ul style="list-style-type: none"> connect neighborhood with David Hill and Gales Crk Rd. The 1000 ft west of Forest Glen park will be upgraded in the next year 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways and intersection to cross 	<ul style="list-style-type: none"> Developers Neighborhood associations FG Parks & Rec
M – N/B #21	<ul style="list-style-type: none"> Forest Glen Park to Forest Gale Drive intersection of Gales Crk Rd by bike/ped trail; then sidewalk through Reuter Farm, Goff Road, Tom McCall ES to B St 13,500 ft, <8% grade 	<ul style="list-style-type: none"> Potential commuter/safe-route to school Dbi arched culvert under Hwy 8 could be converted into a ped tunnel to bring bike/ped traffic to south side of Hwy 8 	<ul style="list-style-type: none"> Gales Crk Hwy 8 crossing a serious problem without a light or tunnel confined to narrow sidewalk in residential neighborhood – lots of driveways, gaps, and intersection to cross 	<ul style="list-style-type: none"> Renaissance Homes Developers Neighborhood associations FG Parks & Rec

Connector Trail Segment Characteristics (shared use, natural surface unless otherwise specified)

Segment i.d	Description	Opportunities	Constraints	Partners
A – B #2	<ul style="list-style-type: none"> Ritchey Rd Bridge over Gales Creek along north side follows edge of riparian area 3000 ft, <5% grade 	<ul style="list-style-type: none"> nature trail opportunity that would have less traffic than bike/ped inside development Developer willing to donate bottom land for trail and open space 	<ul style="list-style-type: none"> Flood plain = potentially submersed for a few weeks of the winter Weed encroachment from riparian area. 	<ul style="list-style-type: none"> Developers Metro Tom McCall MS Clean Water Services Tualatin River Watershed Council (TRWC)
A – B #3	<ul style="list-style-type: none"> South side of Gales Crk from Ritchey Rd to B St 6250 ft, <5% grade 	<ul style="list-style-type: none"> natural history, nursery trade education easy conversion of levy top access track to natural surface trail or paved bike/ped trail 	<ul style="list-style-type: none"> Flood plain = potentially submersed for a few weeks of the winter Weed encroachment from riparian area. 	<ul style="list-style-type: none"> EF Nursery Tom McCall MS Clean Water Services Tualatin River Watershed Council (TRWC)

B – D #4	<ul style="list-style-type: none"> ▪ B St Bridge over Gales Creek through Permaculture Demo Farm to Metro open space along north side of Gales Crk to Hwy 47 Bridge east of main bridge ▪ 3,500 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming ▪ riparian and wetland restoration 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Tom McCall MS ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT
Q – D #5	<ul style="list-style-type: none"> ▪ 16th St & A St trailhead east to Ash St Oak Restoration project, then south under Hwy 47 bridge on to A. T. Smith Home ▪ 5000 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming ▪ riparian and wetland restoration 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Crosses P&W railroad 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Tom McCall MS ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT ▪ Friends of AT Smith Home ▪ 84 Lumber
D – E #6, 7, & 8	<ul style="list-style-type: none"> ▪ #6 heads south from Hwy 47 across railroad into Clean Water Services land along Gales Creek 2000 ft; #7 branches east to AT Smith home 1000 ft; ▪ #8 goes south from 6/7 intersection east between farm units to Fernhill Rd at Geiger intersection 7000 ft 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ Fernhill Wetlands Master Plan includes trail 6 & 8 ▪ The AT Smith home plans a perimeter trail that should be linked to. 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Weed encroachment from riparian area. ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Crosses P&W railroad and Hwy 47 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Metro ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ ODOT ▪ Friends of AT Smith Home ▪ Haworth family
# 9	<ul style="list-style-type: none"> ▪ Parallel Fernhill Rd north to Wetlands trailhead ▪ 2700 ft, <5% grade 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ waste water treatment 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Crossing Fernhill Road during busy periods 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ Friends of Fernhill Wetlands
# 8 & 11	<ul style="list-style-type: none"> ▪ From Geiger/Fernhill intersection #8 heads east along north side of Geiger then up into CWS property then east out to Golf Course Road ▪ 10,000 ft, <5% grade ▪ #11 loops up and around into CWS property to corner of Mountain View Estates (Trailer Park) back down to #8 	<ul style="list-style-type: none"> ▪ natural/cultural history, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ waste water treatment 	<ul style="list-style-type: none"> ▪ Flood plain = potentially submersed for a few weeks of the winter ▪ Ag lease holder would lose crop land from lease and may need compensation ▪ Private property needs to be crossed south of Cornelius 	<ul style="list-style-type: none"> ▪ Pacific University ▪ Clean Water Services ▪ Tualatin River Watershed Council (TRWC) ▪ Friends of Fernhill Wetlands ▪ Mountain View Estates

	<ul style="list-style-type: none"> 10,000 ft, <5% grade 			
E – F #10	<ul style="list-style-type: none"> From Fernhill Wetlands trailhead east as paved bike/ped trail 3,800 ft, <5% grade 	<ul style="list-style-type: none"> potential alternative route to Neil Armstrong Middle School (NAMS) & Cornelius natural/cultural history, native plant nursery education wetland restoration wildlife observation waste water treatment existing paved and gravel road system 	<ul style="list-style-type: none"> gap along Fernhill Road south of treatment station gates and private property Dogs must be on leash 	<ul style="list-style-type: none"> Clean Water Services Tualatin River Watershed Council (TRWC) Friends of Fernhill Wetlands Wastewater Treatment plant NAMS
F – S #12	<ul style="list-style-type: none"> Poplar St on south side of Hwy 47 east through Merix to Mountain View Rd & NAMS 4500 ft, <5% grade 	<ul style="list-style-type: none"> potential alternative route to NAMS and Cornelius High Tec industry FG City has a road easement along north edge 	<ul style="list-style-type: none"> Merix has constraints on public access along north side of plant Undeveloped land north will be sold and developed for light industrial 	<ul style="list-style-type: none"> FG & Cornelius City Development Merix NAMS & Fernhill ES
S – R #13	<ul style="list-style-type: none"> Heather St past NAMS/Fernhill ES east to SW 4th, then north to Council Creek 6,000 ft, <5% grade 	<ul style="list-style-type: none"> potential alternative route to NAMS and Cornelius industry and commerce paved sidewalk to Baseline Wal-Mart development may become partner 	<ul style="list-style-type: none"> no sidewalk north of Adair on N 4th busy TV Hwy crossings railroad crossings (2) 	<ul style="list-style-type: none"> FG & Cornelius City Development Merix NAMS & Fernhill ES Wal-Mart
R – G #14	<ul style="list-style-type: none"> N 4th St to NW Martin/Hwy 47 N intersection along south side of Council Crk to bridge then onto north side of Crk and Council Reservoir 4,300 ft, <5% grade 	<ul style="list-style-type: none"> potential alternative route to Cornelius natural/cultural history, farming education riparian and wetland restoration wildlife observation 	<ul style="list-style-type: none"> potential for private land access not determined Flood plain = potentially submersed for a few weeks of the winter Gaps in sidewalk link along NW Martin 	<ul style="list-style-type: none"> Private land holders Wal-Mart Cornelius Environmental recyclers
O #15	<ul style="list-style-type: none"> from Cedar and 21st intersection east along old railroad to Cornelius and Hillsboro 31700 ft, <5% grade 	<ul style="list-style-type: none"> potential alternative bike/ped commuter route to Cornelius and Hillsboro 	<ul style="list-style-type: none"> access permission along railroad not determined railroad crossing at Hwy 47 N 	<ul style="list-style-type: none"> Metro MAX FG & Cornelius City Development Pacific University
P #16	<ul style="list-style-type: none"> Lincoln Park/Sunset Drive east to Stites Park then north to Hwy 47 bike path 4100 ft, <5% grade 	<ul style="list-style-type: none"> neighborhood/park/loop trail connector paved 	<ul style="list-style-type: none"> private property between NE corner of Stites Park and Hwy 47 path 	<ul style="list-style-type: none"> FG Parks and Recreation Developer ODOT ISTE A
P – H #17	<ul style="list-style-type: none"> Lincoln Park/Sunset Drive north to Hwy 47 bike path 3000 ft, <5% grade 	<ul style="list-style-type: none"> neighborhood/park/loop trail connector paved Sunset sidewalks recently upgraded 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways to cross 	<ul style="list-style-type: none"> Pacific University Adjacent Developers
J – H #18	<ul style="list-style-type: none"> Hwy 47/Sunset Drive (ext) 	<ul style="list-style-type: none"> natural/cultural history, urban 	<ul style="list-style-type: none"> Flood plain = potentially 	<ul style="list-style-type: none"> Adjacent Developers

	<ul style="list-style-type: none"> west along Council Crk trib 4000 ft, <5% grade 	<ul style="list-style-type: none"> planning education riparian and wetland restoration wildlife observation developer already interested in building trail 	<ul style="list-style-type: none"> submersed for a few weeks of the winter 	
#19	<ul style="list-style-type: none"> Bonnie Lane to Gales Crk Rd through substation 475 ft, <5% grade 	<ul style="list-style-type: none"> Public land, gravel path already in place FGHS safe route to school 	<ul style="list-style-type: none"> Public safety, gates and fences block path 	<ul style="list-style-type: none"> Pacific Power/BPA
#20	<ul style="list-style-type: none"> Strasbourg Rd south to pocket park and west to Knox Ridge Crk path 1400 ft (1100 paved) 	<ul style="list-style-type: none"> Sidewalk exists Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration wildlife observation 	<ul style="list-style-type: none"> confined to narrow sidewalk in residential neighborhood – lots of driveways to cross Willamina neighborhood resistant to trails Flood plain = potentially submersed for a few weeks of the winter 	<ul style="list-style-type: none"> Renaissance Homes FG Parks and Recreation Metro (proposed Regional Trail #9)
#22	<ul style="list-style-type: none"> Tom McCall MS west along Ritchey through FV Cemetery and Knox Ridge Crk path 1800 ft, <20% grade 	<ul style="list-style-type: none"> FGSD and Cemetery are zoned open space public accessible Developers planning open space reserve and trail 	<ul style="list-style-type: none"> Cemetery pump station and access needs to be protected Flood plain = potentially submersed for a few weeks of the winter Steep grade on hillslope 	<ul style="list-style-type: none"> Adjacent Developers FGSD Tom McCall Forest View Cemetery
M – A #23	<ul style="list-style-type: none"> Under Gales Creek Hwy south around Sheelar Farm hill then east to Ritchey Rd along Knox Ridge Crk ditch 7500 ft, <10% grade 	<ul style="list-style-type: none"> Potential alternative loop to busy sidewalk on Willamina Landowner positive to possible trail along Knox Ridge Creek ditch Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration 	<ul style="list-style-type: none"> Willamina neighborhood resistant to trails close to back fences/views Flood plain = potentially submersed for a few weeks of the winter Farmers report problems with dogs/neighbors trespassing & walking on crops. Would need fencing to protect crops/stock 	<ul style="list-style-type: none"> Sheelar Farms John Knox Forest Gale Heights neighborhood
#24	<ul style="list-style-type: none"> Short connector from Willamina down to Knox Ridge Creek ditch on FG City land 500 ft, <10% grade 	<ul style="list-style-type: none"> Public land already, partly paved potential bike/ped trail Connect neighborhood to loop trail natural/cultural history, urban planning, farming education riparian and wetland restoration wildlife observation 	<ul style="list-style-type: none"> last 50 feet in flood plain Willamina neighborhood resistant to trails close to back fences/views 	<ul style="list-style-type: none"> FG City Sheelar Farms

M #25	<ul style="list-style-type: none"> ▪ From Forest Glen Park west parallel to Gales Crk Hwy at foot of hill, then up gully to trail #26 on Forest Gale Drive via easement ▪ 4200 ft, <25% grade 	<ul style="list-style-type: none"> ▪ Public land already, potential nature trail ▪ Connect neighborhood to loop trail ▪ natural/cultural history, urban planning, farming education ▪ riparian and wetland restoration ▪ wildlife observation ▪ trailhead to be developed at Forest Glen park edge 	<ul style="list-style-type: none"> ▪ thick forest, poison oak, steep sidehills and invasive weeds ▪ easement needs to be confirmed open for public access 	<ul style="list-style-type: none"> ▪ Forest Gale hts neighborhood ▪ FG Parks an Rec
M – K #27	<ul style="list-style-type: none"> ▪ From Forest Glen Park up to Ammon Way then north to forest edge, east to through Thatcher Park to Thatcher Rd ▪ 5000 ft, <20% grade 	<ul style="list-style-type: none"> ▪ Bike/ped path ▪ Connect neighborhood to loop trail ▪ natural/cultural history, urban planning, farming education ▪ riparian and wetland restoration ▪ trailhead to be developed at Forest Glen park edge 	<ul style="list-style-type: none"> ▪ confined to narrow sidewalk in residential neighborhood – lots of driveways to cross ▪ no easement from Ammon Way to forest ▪ steep slope 	<ul style="list-style-type: none"> ▪ Forest Gale Hts neighborhood ▪ Developers ▪ FG Parks and Recreation ▪ Burlingham family
#28 [27]	<ul style="list-style-type: none"> ▪ Forest Gale Drive from the northwest corner of new development east down valley through forest to top of Thatcher Park, switchback down through forest to Thatcher Road ▪ 3000ft, < 15% grade ▪ Side branch to Mountain View Cemetery ▪ 2000 ft, <12% 	<ul style="list-style-type: none"> ▪ natural surface nature trail ▪ Connect neighborhood to loop trail ▪ natural/cultural history, urban planning education ▪ riparian forest ▪ wildlife observation ▪ potential for mountain bike skills trails in forest 	<ul style="list-style-type: none"> ▪ private land for 60+% of segment length ▪ thick forest, poison oak, steep sidehills and invasive weeds 	<ul style="list-style-type: none"> ▪ Burlingham Family ▪ Falcon Rest developers ▪ FG Parks and Recreation
J #31	<ul style="list-style-type: none"> ▪ David Hill E along Brook Lane then west up bike/ped path inside development ▪ 3500 ft, <10% grade 	<ul style="list-style-type: none"> ▪ Connect neighborhood to loop trail ▪ riparian area protection 	<ul style="list-style-type: none"> ▪ Thatcher Road ped crossing needed 	<ul style="list-style-type: none"> ▪ Developers ▪ FGHS ▪ FG Parks and Recreation
D – E #32	<ul style="list-style-type: none"> ▪ short loop trail around substation park just north of Hwy 47 bike path 	<ul style="list-style-type: none"> ▪ possible dog off leash park ▪ public land adjacent to substation 	<ul style="list-style-type: none"> ▪ no parking 	<ul style="list-style-type: none"> ▪ FG Parks and Recreation ▪ Local dogwalkers



Forest Grove Parks and Trails System

City of Forest Grove - Engineering Department
 Map shown may not reflect all The City of Forest Grove
 Parks and Trails System
 Map current as of September 2007 - Product E07-06-04



- Legend**
- - - - Existing Bike Pedestrian Paved Loop Trail
 - - - - Proposed Bike Pedestrian Paved Loop Trail
 - PBPT - Proposed Bike Pedestrian Paved Connector Trails
 - - - - PNST - Proposed Natural Surface Trails
 - Urban Growth Boundary
 - Schools
 - Parks
 - Open Spaces
 - Proposed Park Sites







NOTES:

5. Trail Plan Implementation Strategy

This project developed a more detailed concept of potential trail routes around the city of Forest Grove in order for the community to successively choose segments to develop as grant funding and staff time permits. Public feedback on the plan has indicated that the loop trail is the most important, followed by trail connections from the Old Town neighborhood into the Metro open space. It will be crucial for the Planning Department to have this plan on hand when developers and street projects are being reviewed and platted. Crucial connections have been indicated that could be lost if permitting proceeds without this reference being consulted for trail opportunities. This function is one of the key means of implementing the plan.

In addition, this Trails Master Plan will provide important information during the next update of the Parks, Recreation and Open Space Master Plan. It will serve the city in other planning processes as well, including efforts by Washington County to develop a tourism strategy, and Metro's regional trails program development.

Current Projects

The City has already successfully applied for grant funding to develop two important segments of the trail system that will add significantly to the loop trail system. The first is the bike/ped path below Forest Glen Park that will provide a safe link between Forest Gales Drive and the end of Ridge Pointe Drive. The second project is the B St alternative proposed to start at the 16th St trailhead and follow the rail-to-trail bike/ped path south to Hwy 47.



There are a host of residential development plans being drawn, finalized and approved by the city planning department and every one represents a potential partnership to ensure community trails are considered in the proposals. City street improvements also represent an opportunity to establish sidewalks, close gaps and make safer routes to school.

There are several major parcels of industrial land that have adjacent trail connections which could be lost if ownership changes or subdivisions occur without reference to this plan. The parcel north of Merix is an example of a piece of light industrial land that has a city street access easement platted but not a bike/pedestrian path designation.

Clean Water Services has just completed their master plan for Fernhill Wetlands but the trail system they show does not reflect the logical connections identified in this plan. There is an opportunity to share this plan information with that agency to better coordinate future trail development projects and partnerships.

Timetable

There is no set timetable for the proposed trail system outlined above because this is a conceptual plan indicating where future trails should be planned for as developments, land exchanges and transportation planning process allow trails identified to be incorporated. As funding and community interest allow, segments will be examined for potential packaging as a grant proposal and pursued if supported. It is envisioned that the information in this plan guide development of a new FG Parks Recreation and Open Place plan in the next 5 years. Some of the timing will be dictated by developers proceeding with residential projects.

Finding Funding and Grant Sources

The Oregon Parks and Recreation Department has compiled a matrix of federal, state and private grant sources available to various entities in Oregon, some are available only to 501(c)3 groups, others are available to local government (see Appendix C for full grant list). Many cities have created a non-profit "Friends of..." group to gain access to grants and in-kind donations of services and supplies. The City of Warrenton on the Oregon Coast is an excellent example of this initiative that has enabled the community to establish a highly regarded network of trails in and around town. The following grants are major sources of funding that should be targeted for larger projects.

1. Recreation Trails Program (RTP) offers - Recreational Trails Grants that are national grants administered by OPRD for recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling, and all-terrain vehicle riding. Yearly grants awarded based on funds voted on by the U.S. Congress.
2. Local Government Grant (LGG) - OPRD gives more than \$4 million annually to Oregon communities for outdoor recreation projects. The grants funded from voter-awarded Lottery money. Forest Grove gained LGG funding in 2007 for the B St rail to trail project.
3. Land and Water Conservation Fund Grants (LWCF) grants provide matching grants to state and local governments for acquiring and developing public outdoor recreation areas and facilities. Since 1964, this national grant has awarded more than \$55 million for Oregon recreational areas and facilities.
4. Pedestrian and Bicycle Grant Program (BPGP) is a competitive grant program that provides approximately \$5 million dollars every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee. '08-'09 Program Grants were awarded by the Oregon Pedestrian and Bicycle Advisory Committee in October 2006. The next grant cycle ('10-'11) will begin in Spring 2008.

Opportunities for Creativity

With such a trail system, there are many opportunities for creativity and community involvement including:

- ✓ Creating a new name for the loop trail through a community contest (if “Emerald Loop” does not stick)
- ✓ Creating a special loop trail icon to go with the name and be applied to signage, icons and publications
- ✓ Developing a neighborhood “adopt-a-trail” program for neighbors along the loop to compete for recognition (cleanest, most interesting, best gardens, most bird boxes, etc)
- ✓ Use the loop to showcase local sculpture or kinetic art (wind chimes)
- ✓ Arrange a 1% for the trail voluntary donation at local retail businesses to help fund projects
- ✓ Highlight the distance needed to close the gap in the loop with a chart downtown
- ✓ Hold a marathon to raise awareness and money for the loop trail
- ✓ Produce a special label on local goods (wine, coffee, nuts, chocolate etc) that highlights the trail and dedicates a portion of sales.
- ✓ Start a citizen trail team to patrol the loop and hand out maps, report maintenance, respond to minor accidents and bicycle repair and help deter vandalism and trespass.

Above all, make it a celebration of this community as a great place to live, work and play.



APPENDICES

APPENDIX A. REFERENCES

Forest Grove City Council 2002 Forest Grove Parks, Recreation, and Open Space Master

Forest Grove City Council 2006 Citizen Attitude Survey Summary Report

Oregon Parks and Recreation Department. 2003-2007 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Oregon Parks and Recreation Department. Oregon Trails 2005-2014: A Statewide Action Plan.

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Oregon Department of Forestry. Tillamook State Forest Comprehensive Recreation Management Plan. January 1993

North Coast Land Conservancy Strategic Plan 2006-2008

Pacific Greenway Reassessment Project. Phase One Project Scoping: Initial Recreation and Geographical (GIS) Assessment July, 2006. Ric Balfour & Associates for Friends of Forest Park in Partnership With: Wildlife Land Trust

The Conservation Fund. Pacific Greenway – A Vision for Northwest Oregon. 1992

The Conservation Fund. Greenways: A Guide to Planning, Design, and Development. Loring LaB. Schwarz Ed. Charles A. Fink and Robert M. Searns. 1993

Metro Parks and Greenspaces and US Fish and Wildlife Service. Conserving Nature in Every Neighborhood. Program Report 2004.

American Trails “Sharing the Vision of Trails and Greenways for all Americans. Spring 2006 edition.

Metro Data Resource Center. Regional Trails and Greenways – Westside map. 2005.

APPENDIX B. LIST OF RESOURCES & CONTACTS

Organizational Resources for Trail Related Topics

1. American Trails (AT)

AT members are working to enhance and protect America's growing network of interconnected trails. We support local, regional, and long-distance greenways and trails, whether in backcountry, rural, or urban areas. Our goal is to support America's trails by finding common ground and promoting cooperation among all trail interests.

American Trails

P.O. Box 491797

Redding, CA 96049-1797

Telephone: (530) 547-2060 Fax: (530) 547-2035

E-mail: trailhead@americantrails.org

2. The International Mountain Bicycling Association (IMBA)

IMBA is a non-profit educational association whose mission is to create, enhance, and preserve trail opportunities for mountain bikers worldwide. IMBA mail, PO Box 7578, Boulder, CO. 80306

303-545-9011 1-888-442-4622 fax: 303-545-9026

info@imba.com membership@imba.com www.imba.com

IMBA office, 207 Canyon - Suite 301

Boulder, CO 80302

3. Volunteers for Outdoor Colorado (VOC)

Volunteers for Outdoor Colorado (VOC), a 501(c)3, non-political, not-for-profit environmental organization established in 1984, dedicated to promoting and enabling citizens and visitors to be active stewards of their public lands in Colorado.

600 South Marion Pkwy

Denver, Colorado 80209

(303) 715-1010 (800) 925-2220 FAX (303) 715-1212

e-mail: voc@voc.org web: www.voc.org

4. Professional Trailbuilders Association (PTBA)

Founded in 1976 as the Western Trailbuilders Association and renamed in 2004, the Professional Trailbuilders Association (PTBA) is North America's largest private sector group of trail specialists, professional trail contractors, designers, and consultants.

Web: <http://www.trailbuilders.org/about.html>

5. Oregon State Parks and Recreation Department (OPRD)

OPRD has a state trails coordinator and a volunteer program that are excellent resources for trail management and volunteer coordination. The State Trail Coordinators are:

Rocky Houston
 State Trails Coordinator
 Recreation Programs
 Oregon Parks and Recreation Department
 725 Summer St, NE Suite C
 Salem, OR 97301
 503-986-0750
 503-986-0792 Fax

Iris Riggs
 Bicycle Recreation Coordinator
 Oregon Parks and Recreation Department
 725 Summer St. N.E. Suite C
 Salem, OR 97301
 Work Phone: 503-986-0631
 Cell Phone: 503-480-9092
 General Info: 503-986-0707
 Fax: 503-986-0794
 iris.riggs@state.or.us

The Volunteer Hotline is 1-877-225-9803

6. Other State Agencies Contact List

<p>James Johnson, Land Use and Water Planning Coordinator Natural Resources Division Oregon Dept of Agriculture 635 Capitol Street NE Salem OR 97301-2532 503-986-4706</p>	<p>Anna Buckley, Wetlands Specialist Oregon Division of State Lands 775 Summer Street NE Salem, OR 97301 503-378-3805 EXT. 281</p>
<p>David P. Stevens Office of Energy 625 Marion Street Salem OR 97310 503-378-5489</p>	<p>Patty Snow Wildlife Division Oregon Dept of Fish and Wildlife 3406 Cherry Avenue SE Salem, OR 97310 503- 947- 6089</p>
<p>Roberta Young Dept of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204 503-229-6408</p>	<p>David Morman Oregon State Dept of Forestry 2600 State Street Salem, OR 97310 503-945-7413 Lane Shetterly, Director</p>

Director Oregon State Dept of Transportation 355 Capitol Street NE Room 135 Salem, OR 97301-3871 503-986-3452 Bill Fuji, Intergovernmental Liaison Oregon Water Resources Dept 725 Summer St. NE, Suite A Salem, OR 97301 503-986-0887	Dept of Land Conservation and Development 635 Capitol Street NE #150 Salem, OR 97301-2540 503-373-0050
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Information Source References

1. LIGHTLY ON THE LAND: The SCA Trail Building and Maintenance Manual, 2nd Edition By Bob Birkby, The Student Conservation Association \$24.

For half a century, the Student Conservation Association (SCA) has inspired people of all ages to take part in projects that enhance the environment. In settings from city parks to backcountry wilderness, the practical skills presented in its pioneering handbook have been tested in the field by volunteer and professional work crews throughout the nation. Their input enriches every chapter of the new edition with fresh approaches, new ideas, and modern applications of traditional skills.

- New chapters on arid lands restoration and involving conservation volunteers
- The latest in effective management of work crews of all ages
- How to build "sustainable" trails to fit dwindling park maintenance budgets
- For weekend volunteers, youth group leaders, outing club members, and anyone involved in caring for the land

In addition to conservation crew leadership and risk management, Lightly on the Land presents the nuts and bolts of trail construction and maintenance; building with rock; felling and buckling; building with timber; bridge construction; and environmental restoration. It gets down and dirty with tools, knots, and rigging. Throughout, it teaches how to build pathways and reshape existing routes to require a minimum of attention over the years-essential in this era of shrinking park budgets.

2. Wetland Trail Design and Construction

Robert T. Steinholtz - *Bristlecone Trails, Lakewood, CO*

Brian Vachowski - *Project Leader*

This document was produced in cooperation with the Recreational Trails Program of the Federal Highway Administration, U.S. Department of Transportation.

3. Trail Solutions: IMBA's Guide to Building Sweet Singletrack

Trail Solutions is IMBA's premier trailbuilding resource. This 272-page book combines cutting-edge trailbuilding techniques with proven fundamentals in a colorful, easy-to-read format.

Price: \$30 for IMBA Members, \$35 for Non Members

4. Creating Connections - The Oregon Recreational Trails How-To Manual

A Component of the Oregon Trails 2005-2014: A Statewide Action Plan

May 2004 Oregon Parks and Recreation Department

Web Sites

- 1. American Trails** at www.americantrails.org/resources/index.html
- 2. IMBA** at www.imba.org
- 3. Professional Trailbuilders Association (PTBA)** at <http://www.trailbuilders.org/about.html>
- 4. State Trails Website**

Annual Events (dates accurate for 2007)

- a. Earth Day April 20/SOLV April 28**
- b. National Trails Day: June 2**
- c. National Public Lands Day: September, 29**
- d. Washington County Clean and Green/SOLV Clean Up Day October 20**

APPENDIX C. POTENTIAL FUNDING SOURCES

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other Clubs
American Canoe Assoc.	Club Fostered Stewardship	http://www.acanet.org/conservate-cfs.htm			X	X									
American Hiking Society	National Trails Endowment	www.americanhiking.org			X	X									
Americorps		http://www.americorps.org/joining/direct/direct-or.html			X			X		X	X	X	X		
Avista Foundation	Avista Foundation Grants	http://www.avistafoundation.org/application.asp			X				X						
Barnes & Nobles	Affiliates Program	www.barnesandnoble.com		X					X						
Bikes Belong Coalition	Bikes Belong Grants Program	http://bikesbelong.org/site/page.cfm?PageID=21			X				X		X	X	X	X	
Boeing Charitable Foundation	Civic and Environmental Contributions	http://www.boeing.com/companyoffices/aboutus/community/charitable.htm	X	X	X	X			X	X					
Center for Disease Control (CDC)	Preventive Health & Health Services Block Grant Program	http://www.cdc.gov/nccdphp/aag/aag_blockgrant.htm		X	X						X	X	X		
Eastman Kodak Company	Kodak American Greenways Program	www.conservationfund.org	X						X		X	X	X	X	
Federal Dept. of Health & Human Services	Healthy People 2010 Implementation Grants	www.health.gov/healthypeople	X	X					X		X	X			
Federal Highway Admin.	Recreational Trails Program National Program	www.fhwa.dot.gov/environment/recretrail.htm			X	X			X		X	X	X	X	
Ford Family Foundation	Rural Civic & Community Enhancement Program	http://www.tfff.org/main/guidelines.html#a			X				X						
Kongsgaard Goldman Foundation	Environmental Protection and Conservation	http://www.kongsgaard-goldman.org/program	X		X				X						

APPENDIX C: POTENTIAL TRAIL FUNDING SOURCES IN OREGON															
FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
	Program	html													
Metro	Parks & Greenspaces Grants Program	www.metro-region.org								X	X	X	X		
Meyer Memorial Trust	General Purpose Grants	http://www.mmt.org/		X	X			X		X	X	X	X	X	
National Fish & Wildlife Foundation		www.nfwf.org								X	X	X	X	X	X
National Park Service	River Trails & Conservation Assistance Program	http://www.nps.gov/ccs/rtca/application.html	X	X						X		X	X	X	X
National Park Service	Disposal of Federal Surplus Real Property for Parks and Recreation and Historic Monuments	http://www.cfda.gov/public/viewprog.asp?progid=471					X		X			X	X	X	
National Tree Trust	Multiple Programs	www.nationaltreetrust.org		X	X					X	X	X	X	X	X
New England Foundation for the Arts	Art and Community Landscapes Program	http://www.nefa.org/grantprog/acl/	Trailside Art						X		X	X	X	X	
Nike - Community Investment	Community Investment Program	http://www.nike.com/nikebiz/nikebiz.jhtml?page=26&item=giving		X						X					
Oregon Dept. of Trans.	Transportation Enhancement Program	http://www.odot.state.or.us/techserv/engineer/pdu													
ODOT/Oregon Dept. of Land Conservation & Development	Transportation and Growth Management Program	http://www.lcd.state.or.us/tgm/grants.htm	X									X	X		COGs, METRO
Oregon Economic and Community Development Dept.	Needs and Issues Inventory	http://www.econ.state.or.us/needs_issue.htm				X				X		X	X		
Oregon Parks & Recreation	ATV Fund	http://atv.prd.state.or.us/grant	X	X	X	X	X	X	X	X		X	X	X	X

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FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Dept.															
Oregon Parks & Recreation Dept.	Recreation Trails Program	www.prd.state.or.us/grants-rectrails.php			X	X	X	X	X		X	X	X	X	X
Oregon Parks & Recreation Dept.	Land & Water Conservation Fund	www.prd.state.or.us/grants_lwcf.php			X	X					X	X	X		X
Oregon Parks & Recreation Dept.	Local Government Grant Programs	www.prd.state.or.us/grants-localgov.php			X	X					X	X	X		X
Oregon Watershed Enhancement Board	Small Grant Program	http://www.oweb.state.or.us/SmallGrant/smallgrant.shtml			X				X		X	X	X	X	
Patagonia	Environmental Grants Program	www.patagonia.com	X	X					X		X	X			
Polaris Industries	Trail Safety and Grants	http://www.polarisindustries.com		X					X				X	X	
Power Bar	Direct impact on Rivers and Trails (DIRT) Program	www.powerbar.com		X											
Recreation Equipment Inc. (REI)	Recreation and Conservation Grants	www.rei.com		X					X						
Rockefeller Family Fund		www.rfund.org	X	X	X										
SOLV	Project Oregon	http://www.solv.org/programs/project_oregon.asp	X	X	X			X	X	X	X	X	X	X	
Surdna Foundation		www.surdna.org		X	X				X		X	X	X	X	
The Collins Foundation		http://www.collinsfoundation.org/			X		X		X						
The Conservation Alliance		http://www.conservationalliance.com/grants_m			X	X			X						
The Hugh & Jane Ferguson Foundation	Foundation Grant Fund	http://fdncenter.org/grantmaker/ferguson/guide.html	X		X				X						
The Kresge Foundation	Bricks & Mortar Program	http://www.kresge.org/programs/index.htm		X	X				X	X	X	X	X	X	
The		www.mountaineersfou						X	X	X	X				X

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FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Mountaineers Foundation		ndation.org													
The Oregon Community Foundation	Oregon Historic Trails Fund	http://www.ocf1.org/grant_programs/grant_programs_fr.htm		X	X	X	X		X		X	X	X	X	
The Oregon Community Foundation	Community Grants Fund	http://www.ocf1.org/grant_programs/community_grant_fr.htm		X	X		X		X						
The Trust for Public Land		http://www.tpl.org/tier2_sa.cfm?folder_id=1825								X	X	X	x	x	
Tom's of Maine/National Park Foundation	River Conservation Grants	http://www.tomsofmaine.com/toms/community/rivers2004/framesetoverview.asp			X	X	X		X						
Tread Lightly!	Restoration For Recreation	http://www.treadlightly.org/restore.mv		X			X		X	X	X	X	X	X	X
U.S. Dept. of Commerce Economic Development Administration	Various Grant Programs	http://www.eda.gov/InvestmentsGrants/Pgmguide.xml	X		X						X	X			
U.S. Dept. of Health & Human Services	Steps to a Healthier U.S. Initiative (STEPS)	http://www.healthierus.gov/steps/	X	X			X			X	X				Tribes
U.S. Dept. of Transportation	Transportation & Community & System Preservation Pilot Program	http://www.fhwa.dot.gov/tcsp/	X		X						X	X	X		
U.S. Fish & Wildlife Service	Partnership for Wildlife	http://federalaid.fws.gov/pw/partwld.html			X								X		
U.S. Fish & Wildlife Service	Jobs in the Woods Program	http://pacific.fws.gov							X		X	X	X		
U.S. Forest Service	Coop Programs - Rural Community Assistance: Economic Recovery Program	http://www.fs.fed.us/r6/coop/Oregon%20State%20Coordinators			X				X		X	X	X		
U.S. Forest Service	Cooperative	http://www.fs.fed.us/r6/			X				X		X	X	X		

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FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS						
			Plan	Program	Develop	Acquire	Education	Equipment	Non Profit	Sch.	City	County	State	Federal	Other
Service	Programs - Rural Development Program	coop/Oregon%20State%20Coordinators													
U.S. Forest Service	Urban & Community Forestry Program	http://www.fs.fed.us/ucf/			X				X		X	X	X		
Wal-Mart Foundation		www.walmartfoundation.org							X	X	X	X	X	X	
Wild Bird Unlimited	Pathway to Nature Conservation Fund	www.pathwaystonature.com/index.htm			X									X	

APPENDIX D. AMERICANS WITH DISABILITIES ACT
FHA Accessibility Standards for Pedestrian Sidewalks.

The pedestrian zone should be at least 1.525 m (60 in) wide. This provides sufficient space for two pedestrians to travel side by side without passing other pedestrians, or for two people going in opposite directions to pass one another. In commercial and urban areas, pedestrian volumes are often much higher than in residential areas. The pedestrian zone should be expanded according to the Highway Capacity Manual based on the anticipated volume of users. In areas with heavy pedestrian traffic, the sidewalks should be wide enough to accommodate groups of pedestrians traveling in both directions. The expanded area should still remain free of obstacles. If additional utilities are necessary in an urban setting, the planter/furniture zone should also be expanded.

Table 4 - 2. Guidelines for New Sidewalk Installation

Roadway Classification and Land Use	Sidewalk Requirements	Future Phasing
Highway (rural)	Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Highway (rural/suburban - less than 2.5 d.u./hectare (1 d.u./acre))	One side preferred. Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Suburban Highway (2.5 to 10 d.u./hectare (1 to 4 d.u./acre))	Both sides preferred. One side required.	Second side required if density becomes greater than 10 d.u./hectare (4 d.u./acre).
Major Arterial (residential)	Both sides required.	
Collector and Minor Arterial (residential)	Both sides required.	1.525 m (60 in)
Local Street (Residential - less than 2.5 d.u./hectare (1 d.u./acre))	One side preferred. Min. of 1.525 m (60 in) shoulders required.	Secure/preserve ROW for future sidewalks.
Local Street (Residential - 2.5 to 10 d.u./hectare (1 to 4 d.u./acre))	Both sides preferred. One side required.	Second side required if density becomes greater than 10 d.u./hectare (4 d.u./acre).
Local Street (Residential - more than 10 d.u./hectare (4 d.u./acre))	Both sides required.	
All Streets (commercial areas)	Both sides required.	
All Streets (industrial areas)	Both sides preferred. One side required.	

Note: d.u. stands for dwelling unit

The U.S. Access Board has addressed design considerations for ORARs through the work completed by the Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas. According to the Committee, ORARs should be designed within the following specifications:

- **Surface** - Firm and stable;
- **Clear tread width** - Minimum of 915 mm (36 in);

- **Openings** - Do not permit the passage of a 13 mm (0.5 in) diameter sphere. Elongated openings should be placed so that the long dimension is perpendicular or diagonal to the dominant direction of travel;
- **Tread obstacles** - Maximum height of 25 mm (1 in);
- **Protruding objects** - Objects between 685 mm (27 in) and 2.030 m (80 in) above the surface may not protrude into the route more than 101 mm (4 in);
- **Passing space** - 1.525 m x 1.525 m (60 in x 60 in) provided at maximum intervals of 61 m (200 ft) whenever the clear tread width is less than 1.525 m (60 in);
- **Cross slope** - Maximum of 3 percent;
- **Running grade** - 5 percent or less for any distance; 8.33 percent for a maximum of 15.24 m (50 ft); and 10 percent for a maximum of 9.14 m (30 ft). If the running grade exceeds 5 percent, resting intervals should be provided before and after the maximum grade segment;
- **Resting intervals** - 1.525 m (60 in) minimum in length and at least as wide as the widest portion of the trail segment leading to the resting interval with a cross slope that does not exceed 3 percent in any direction; and
- **Edge protection** - Where provided, should be a minimum of 75 mm (3 in).

APPENDIX E. STATE LAWS AND RULES

1. Liabilities on Trails or Pathways

Trail use on mixed bike/pedestrian trail systems can be dangerous, but it can be very safe if you take the time to build proper trails and educate users on proper etiquette and techniques. Much like a public basketball court or skatepark, there are certain dangers, which may invoke the question of liability. Public recreation on public land is free from any liability issues, as stated in ORS 105.688(1)(a). This statute states that “[A]n owner of land is not liable in contract or tort for any personal injury, death or property damage that arises out of the use of the land for recreational purposes...when the owner of land either directly or indirectly permits any person to use the land for recreational purposes [.]”

To Minimize Liability:

Mark trails clearly according to AASHTO Design Guidelines. Trailhead signs that alert visitors to trail etiquette, rules and conditions are helpful and may reduce liability.

1. Build trails to accepted standards. Both natural and non-natural surfaced trails must be durable, predictable and designed to minimize injuries when trail users fail to negotiate them properly.

To Maximize Safety:

1. Don't surprise trail users with unexpected trail changes or obstacles, or make sure they are properly signed. Make sure that people can see challenging trail sections well in advance.
2. Clearly indicate the distance, use type and etiquette at entry points into the system.
3. Designing proper flow into trails is important. Abrupt transitions from long straight sections to tight and obscured sections may increase the chance of injuries.

Offer riding skills clinics. In addition to riding techniques, include tips on responsible, self reliant, safe riding.

2. Oregon Revised Statutes pertaining to Liabilities: PUBLIC USE OF LANDS

105.672 Definitions for ORS 105.672 to 105.696. As used in ORS 105.672 to 105.696:

- (1) “Charge” means the admission price or fee asked by any owner in return for permission to enter or go upon the owner's land.
- (2) “Harvest” has that meaning given in ORS 164.813.
- (3) “Land” includes all real property, whether publicly or privately owned.
- (4) “Owner” means the possessor of any interest in any land, including but not limited to possession of a fee title. “Owner” includes a tenant, lessee, occupant or other person in possession of the land.
- (5) “Recreational purposes” includes, but is not limited to, outdoor activities such as hunting, fishing, swimming, boating, camping, picnicking, hiking, nature study, outdoor educational activities, waterskiing, winter sports, viewing or enjoying historical, archaeological, scenic or scientific sites or volunteering for any public purpose project.
- (6) “Special forest products” has that meaning given in ORS 164.813.
- (7) “Woodcutting” means the cutting or removal of wood from land by an individual who has obtained permission from the owner of the land to cut or remove wood. [1995 c.456 §1]

105.676 Public policy.

The Legislative Assembly hereby declares it is the public policy of the State of Oregon to encourage owners of land to make their land available to the public for recreational purposes, for woodcutting and for the harvest of special forest products by limiting their liability toward persons entering thereon for such purposes and by protecting their interests in their land from the extinguishment of any such interest or the acquisition by the public of any right to use or continue the use of such land for recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §2]

105.682 Liabilities of owner of land used by public for recreational purposes, woodcutting or harvest of special forest products.

(1) Except as provided by subsection (2) of this section, and subject to the provisions of ORS 105.688, an owner of land is not liable in contract or tort for any personal injury, death or property damage that arises out of the use of the land for recreational purposes, woodcutting or the harvest of special forest products when the owner of land either directly or indirectly permits any person to use the land for recreational purposes, woodcutting or the harvest of special forest products. The limitation on liability provided by this section applies if the principal purpose for entry upon the land is for recreational purposes, woodcutting or the harvest of special forest products, and is not affected if the injury, death or damage occurs while the person entering land is engaging in activities other than the use of the land for recreational purposes, woodcutting or the harvest of special forest products.

(2) This section does not limit the liability of an owner of land for intentional injury or damage to a person coming onto land for recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §3]

105.688 Applicability of immunities from liability for owner of land; restrictions.

(1) Except as specifically provided in ORS 105.672 to 105.696, the immunities provided by ORS 105.682 apply to:

(a) All public and private lands, including but not limited to lands adjacent or contiguous to any bodies of water, watercourses or the ocean shore as defined by ORS 390.605;

(b) All roads, bodies of water, watercourses, rights of way, buildings, fixtures and structures on the lands described in paragraph (a) of this subsection; and

(c) All machinery or equipment on the lands described in paragraph (a) of this subsection.

(2) The immunities provided by ORS 105.682 apply only if:

(a) The owner makes no charge for permission to use the land;

(b) The owner transfers an easement to a public body to use the land; or

(c) The owner charges no more than \$75 per cord for permission to use the land for woodcutting. [1995 c.456 §4; 1999 c.872 §7; 2001 c.206 §1]

105.696 No duty of care or liability created; exercise of care still required of person using land. ORS 105.672 to 105.696 do not:

(1) Create a duty of care or basis for liability for personal injury, death or property damage resulting from the use of land for recreational purposes, for woodcutting or for the harvest of special forest products.

(2) Relieve a person using the land of another for recreational purposes, woodcutting or the harvest of special forest products from any obligation that the person has to exercise care in use of the land in the activities of the person or from the legal consequences of failure of the person to exercise that care. [1995 c.456 §6]

APPENDIX F. PUBLIC COMMENT RECORD

First public meeting title/date: FG Community Trails Forum 6/13/2007 7-9pm

Location : FG City Auditorium Attendance: 14

- Ric Balfour - recreation planner
- Tom Gamble - City Parks Director
- Steve Huffman - City Parks Manager
- Mike Olson – Business owner/resident
- Rich Barnett – Trails Committee/resident
- Jacob Weiss – News Times
- Rich Van Buskirk – Pacific University
- Quinn Johnson - resident
- Dick Koven – Parks Commission/Council
- John White – Parks Commission/trails Committee
- Susan Cooper – resident
- Jill Smith – Oregonian Newspaper
- Steve O’Day – Pacific University
- David Morelli - resident
- Mary Jo Morelli – resident/AT Smith Home
- Ron Thompson – Councilor

Forum Agenda

7:00 pm - Welcome, introductions, outline of forum agenda, purpose and process

- * Project overview Tom and PowerPoint presentation Ric
- * Public involvement "listening posts" description Ric
- * Listening posts staffed by trails subcommittee (at up to four key topics)

Begin gathering input at listening posts

8:00pm Break -

8:30pm Stop, gather input and summarize

8:45pm Summary of key points, next steps and other means of gathering public input

9:00pm End

Recorded input on Trails Plan under four key topics of forum:

- **What kind of loop trail do we want?**
 - Need trail suitable for fat and skinny tires
 - Foot trails that help alleviate the need to drive

- Water trail down Gales Creek from Ritchie Road to AT Smith home and Tualatin River
- Paved like the B-V trail so winter use is possible
- Good model is Hwy 99W between Monmouth and Independence; Moscow to Pullman or Moab to Zion trails

- **What connections to other local trails?**

- Trail needed over Carpenter Creek to Hagg Lake
- Need to have access from downtown to Metro open spaces
- Connect to Cornelius via Council Creek
- Need a link to Fernhill Wetlands
- FG to Hillsboro along the new/old MAX line

- **What other kinds of trails are desired?**

- Need interpretive trails or signage along loop trail to highlight cultural and natural history
- Interpretation needed for B St restoration projects
- Horse drawn wagon/buggy trail opportunities needed
- Long enough loop to encourage a marathon or triathlon or Ironman race around FG
- Loop rail not “out and back”
- smaller loop options of the main loop linking neighborhoods, downtown, parks, schools
- need good signage – way finding, orientation, directional and interpretive
- trailheads need goods parking, toilets, signage (orientation) and picnic tables
- need 911 contact mechanism – cell coverage or emergency phone boxes
- need to look at pervious trails pavers that allow water through

- **What are the issues?**

- How about lighting after hours?
- Encourage commercial development at trailheads and key locations along trail
- Zoning along the trail should allow for supporting commercial businesses to establish – on trail
- Develop an RV camp connected to the trail
- Many segments of current loop are unsafe (B St)
-
- Trail needs to accommodate a “Kinetic sculpture” ride like Da Vinci Days in Corvallis
- Obtain land or access for big loop around town before it is lost/too late!
- Need multiple user trail that matches grant criteria
- Try to find recycled materials for trail
- Look for view sites to interpret
- Avoid dogs or horses trying to share with other users on same trail
- Equestrian facilities might be found south of town

- Look for business partnerships to help fund trail (cell towers, gas, cable, utilities)

Second public meeting title/date: FG Community Trails Forum 7/10/2007 7-9pm

Location : FG City Auditorium Attendance: 14

- Ric Balfour - recreation planner
- Tom Gamble - City Parks Director
- Steve Huffman - City Parks Manager
- Mike Olson – Business owner/resident
- Rich Barnett – Trails Committee/resident
- Jacob Weiss – News Times
- Rich Van Buskirk – Pacific University
- Quinn Johnson - resident
- Dick Koven – Parks Commission/Council
- John White – Parks Commission/trails Committee
- Susan Cooper – resident
- Jill Smith – Oregonian Newspaper
- Steve O’Day – Pacific University
- David Morelli - resident
- Mary Jo Morelli – resident/AT Smith Home
- Ron Thompson – Councilor

Forum Agenda

7:00 pm - Welcome, introductions, outline of forum agenda, purpose and process

- * Project overview Tom and PowerPoint presentation Ric
- * Public involvement "listening post" description Ric
- * Listening post session (at up to four key topics)

Begin gathering input at listening posts

8:00pm Break -

8:30pm Stop, gather input and summarize

8:45pm Summary of key points, next steps and other means of gathering public input

9:00pm End

Feedback from July 10 public meeting at FG Auditorium

▪ **What ideas and issues related to trails are of interest?**

- Make sure privacy concerns of Willamina and Strasbourg Road residents are addressed, including safety and security
- Does the failed FG bond measure affect maintenance of the future trail system?
- Knox Ridge Creek/ditch has seasonal flooding