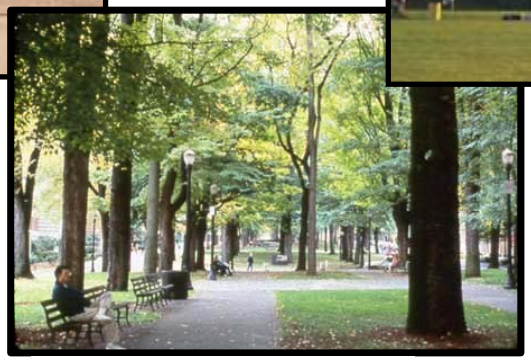
Surveying the View: Park Master Plans and their Effectiveness in Oregon Cities

Source: City of Eugene, West Eugene Wetlands

Source: City of Eugene, Amazon Park



Source: Friends of Trees, Portland Park Blocks

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"Surveying the View: Park Master Plans and their Effectiveness in Oregon Cities," a terminal project prepared by Sarah Coates in partial fulfillment of the requirements for the Master of Community and Regional Planning degree in the Department of Planning, Public Policy and Management. This project has been approved and accepted by:

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Executive Summary

Purpose

Parks provide environmental, economic, and social benefits for Oregon cities. Many Oregon cities are developing park master plans to help manage their park systems. To best understand park master plans as a management tool, this paper asks the following questions:

- Are there differences between city park systems with park master plans and city park systems without park master plans?
- In what ways have park master plans been effective for Oregon communities?
- Are there ways in which park master plans could be more effective?

This paper evaluates the effectiveness of park master plans in Oregon communities by comparing survey responses from communities using a park master plan as a management tool to responses from communities without a park master plan. By analyzing this information, this paper makes recommendations about the types of communities best served by park master plans in Oregon.

Context

Oregon's population is growing, with 6% population growth between 2000 and 2005 (PSU). Urban areas are growing faster than rural areas, with Oregon's population becoming 1.9% more urban during that five-year period (PSU). As populations expand, so does the need for open spaces and parkland to maintain the current quality of life and level of park service. The growth of urban areas also contains an opportunity for communities to look toward the future and re-think the ways in which parkland and open space should be integrated into the overall community planning process.

This paper presents an overview of Oregon's city park systems, with specific analysis done to highlight system differences in cities with and without a park master plan. It is based upon results from two city surveys. The first is a statewide park system mail survey, sent to all 241 incorporated cities in Oregon in spring of 2006. Thirty-nine percent, or 94 Oregon cities responded to the statewide park system survey. A subsequent park master plan online survey was conducted for all 29 communities that responded to the first survey and also had a park master plan, to determine the effectiveness of park master plans at achieving community park system goals. Twenty cities responded to this second survey, for a response rate of sixty-nine percent. This report describes the results of both the statewide park system and park master plan surveys.

Key Findings

Analysis from the statewide park system survey shows that most cities in Oregon (78%) operate a park system, although most cities (79%) do not have a city sponsored recreation program.

Park master plans are frequently used methods of managing and planning for park systems in Oregon. Of the cities that operate a park system, fifty-seven percent responded that they had a park master plan. Results from the park master plan survey show that park master plans are an effective management tool and good investment for communities overall. Of cities with a park master plan, 71% responded that having a park master plan has been useful or very useful for their community. Ninety-six percent responded that having a park master plan has been a good investment for their community.

Survey findings showed differences between cities with park master plans, and cities without.

Cities with park master plans tend to:

- Be larger in size;
- Have calculated their level of service, and contain a higher trails and pathways level of service;
- Have more diverse funding sources;
- Have a parkland and open space acquisition plan;
- Have more partnerships with the community.

Additionally, survey results showed several areas where park master plans are effective for Oregon communities, and identified one area where park master plans had not been effective.

Park master plans have been effective for Oregon communities by:

- Enabling cities to diversify funding sources;
- Making parkland acquisition and development easier;
- Increasing community involvement with and support for park systems.

Park master plans should work to be more effective at:

- Improving park system maintenance.

These key findings will assist communities in evaluating when and how to adopt a park master plan as an effective park system tool.

Chapter 1
Introduction

Oregon's population continues to grow, from 3,421,399 in 2000 to 3,631,440 in 2005 (PSU). The population is growing more urban than rural, with Oregon's population becoming 1.9% more urban in that time (PSU). As populations expand, especially in urban communities, so does the need for open spaces and parkland to maintain the current quality of life and level of park service. Research continues to show the social, environmental, and economic benefits of parks and open spaces, and the benefits they bring to communities. To best meet the social, environmental, and economic needs of their populations, communities may also want to evaluate increasing their current level of service, and may want to consider expanding the variety of park types they currently maintain. The growth of urban areas also contains an opportunity for communities to look toward the future and re-think the ways in which parkland and open space should be integrated into the overall community planning process, including the ways in which trail and pathway systems can provide important transportation and recreation corridors throughout cities.

While there are many benefits to including parks and open spaces in communities, there are also some general provisions for parks and open spaces in the Oregon land use planning system. Oregon's Statewide land use planning has been in effect since 1973, requiring every city in the state to have an Urban Growth Boundary, and to complete comprehensive plans that address the type and rate of growth within their UGB. Goal 8 of the Statewide Planning Goals addresses recreation and the need for Oregon communities to "satisfy the recreational needs of the citizens of the state and visitors" (OAR 660-015-0000(8)). Within that framework, there is significant flexibility regarding how communities approach their public spaces. Park and recreation systems vary in Oregon communities, but the statewide park survey results show that most cities are concerned about funding, maintaining, or expanding their park systems.

Park master plans have been developed and adopted by many Oregon communities to help strategically guide the development and maintenance of their park systems. However, there is no research to show the effectiveness of park master plans at a statewide level. For cities considering adopting a park master plan to guide their future growth, having concrete examples of the ways in which other Oregon cities are using park master plans successfully or unsuccessfully will help to better inform their decision-making process. Having evaluations of plan effectiveness will also help to ensure that future park master plans are even better able to meet the needs of Oregon communities.

Purpose

This paper presents an evaluation of park master plans and their use in Oregon's city park systems, with specific focus on their success in accomplishing their intended results in the communities that have adopted them. To examine exactly how park master plans have impacted communities, the paper addresses the following three questions:

- Are there differences between city park systems with park master plans and city park systems without park master plans?
- In what ways have park master plans been effective for Oregon communities?
- Are there ways in which park master plans have not been effective for Oregon communities?

By helping to fill a gap in knowledge about the characteristics of Oregon's city park systems, this paper will allow Oregon cities to see how their park systems compare to systems throughout the state. Evaluating characteristics of cities with park master plans, and the ways in which park master plans are most effective for cities will help communities determine when and how to use a park master plan as an community planning tool.

This paper is organized as follows:

Chapter 2: Framework for Park System Planning. Chapter 2 provides background research demonstrating the value of parks and open spaces for communities, outlines a framework for thinking about park master plans in the context of their benefits for communities and park systems, and provides an overview of legal considerations for park and open space planning in Oregon.

Chapter 3: Key Findings. Chapter 3 presents an overview of key findings from the statewide park system survey and park master plan surveys and highlights the differences between cities with and without park master plans.

Chapter 4: Conclusion. Chapter 4 presents conclusions about the ways in which park master plans are effective for Oregon communities, and provides recommendations for further study that will enhance knowledge of how to increase park master plan effectiveness.

Appendix A: Statewide Park System Survey Results. Appendix A provides the full list of questions asked in the statewide city survey, with response percentages listed. Full answers to open-ended questions are included.

Appendix B: Park Master Plan Online Survey Results. Appendix B provides the full list of questions asked in the park master plan follow-up

survey, with response percentages listed. Full answers to open-ended questions are included.

Chapter 2
Framework for Park System Planning

Parks provide important recreation and open spaces in communities. There are many ways in which cities approach park and recreation system planning in Oregon. To thoroughly address the multiple research questions this paper seeks to answer, it is important to look at (1) how parks are important for communities, and the ways in which parks interact with larger community planning, and (2) park planning guides currently developed to assist communities in park system development and management, and (3) the legal requirements in Oregon statutes and goals that relate specifically to park planning.

Parks and Communities

Research shows that parks have benefits to communities on multiple levels, including increasing the health of humans, the environment, economy and improving community planning.

Health

According to the National Recreation and Parks Association (NRPA), parks increase community health in a variety of ways. NRPA research shows that "parks and trails are positively associated with physical activity- and the closer people live to a park or trail, the stronger the effect" (NRPA, 2006). Physical activity is an important component of health. NRPA research has found that "people with access to recreational facilities are two times more likely to get the recommended level of physical activity than those without access" (NRPA, 2006). Additionally, their research has found that "people living in areas without sufficient public outdoor recreation facilities are more likely to be overweight." In an American Planning Association (APA) briefing paper titled "How cities use parks to improve public health," created for their City Parks Forum, the APA states that natural areas and access to natural areas has a variety of health benefits, including "lower blood pressure and cholesterol levels, enhanced survival after a heart attack, more rapid recovery from surgery, fewer minor medical complaints, and lower self-reported stress" (Frumkin, 2003). Additionally, the APA briefing paper finds that parks have an important impact on mental, not just physical, health. The APA states "exercise is more beneficial- leading to enhanced tranquility, and more relief of anxiety and depression- when it occurs in natural settings, like parks, rather than along urban streets" (Frumkin, 2003).

Environment

Park systems can also play an important part in revitalizing the environment, and reducing the negative impacts of cities on surrounding natural systems. The NRPA states "one of the most fundamental benefits provided by parks is that they help to keep the environment healthy for human life. They do this simply because trees and natural areas help clean the air and water and cool the environment" (NRPA, 2006). In their article "Why Small Parks Matter," Ann Forsyth and Laura Musacchio state that small parks "help with water infiltration and runoff...their vegetation helps to reduce air pollution and to moderate air temperature by offering shade" (Forsyth, 2005). Using parks as a natural water infiltration system can help prevent flooding hazards in communities. In addition, as the changing climate increasingly becomes a consideration for communities, trees in community parks and open spaces can help to provide shade and cooler air, shelter from wind, and absorb carbon pollution (Trees for Cities, 2005).

Parks and open spaces also provide important habitat corridors for species, enabling species to link to additional habitat areas and follow natural migration routes (Daniels, 2003).

Economy

The International City Manager's Association (ICMA) notes that parks have positive impacts on human health, as well as having positive economic advantages, stating, "communities that support active living gain health benefits, economic advantage and improved quality of life" (ICMA, 2003). Two of the ways in which parks directly benefit the economy are through increasing real estate values, and creating an environment that is attractive for new residents and labor sources for business industries.

The NRPA states, "homes located near trails and parks command higher selling prices than those farther away" (NRPA, 2006). In their research on home values, they cite a 1994 study by American Lives, which found that "walking and biking paths" was the third highest consideration governing where people decided to buy a home. The fifth highest consideration was a preference for areas with "lots of natural open space" (NRPA, 2006).

Additionally, one aspect of the world becoming more technology focused is that businesses have more flexibility regarding where to locate. In his article "Parks and the City," Michael Barrette notes that parks can bring businesses to cities and make them more economically competitive. He writes, "quality of life is the primary factor in choosing where to locate a business and that access to parks and recreational opportunities is central to quality of life" (Barrette, 2001). Literature shows that parks also have a positive benefit for existing commercial areas in communities. The APA notes that "parks that serve as central walking, resting, and meeting places can revive failing or threatened commercial areas" (Harnik, 2002).

Community Planning

Literature shows that parks impact community health and are a key ingredient to promoting active living and healthy economies for communities. Parks and their use in communities are also integral parts of community planning processes. The APA notes that parks "significantly define the layout, real estate value, traffic flow, public events, and the civic culture of our communities" (Harnik, 2002). Parks and their presence in communities have a multitude of benefits for community design by providing "structure, beauty, breathing room, and value" (Blaha, 2005).

The 2002 "Guide to Oregon Community Park and Recreation Planning" states, "having a plan does not ensure success, but neglecting to plan often leads to failure" (SCORP, 2002). For communities to manage and direct the ways in which their communities are shaped as they continually move into the future, it is important for them to consciously create plans for all areas of community growth.

In Oregon, where cities have Urban Growth Boundaries to protect farmland and promote concentrated areas of growth, parks help to promote those ideals. The APA states "parks enhance mixed development and redevelopment strategies, offsetting higher density concerns with accessibility to greenspace" (Blaha, 2005). The APAcites a study of residential lot sizes in Texas, which stated that "people are twice as likely to accept smaller residential properties if there is a park nearby" (Blaha, 2005). The APA also notes that parks "can both strengthen the urban core and protect the fringe from overdevelopment" (Blaha, 2005).

Parks are important design features in cities as well, and play a role in mitigating the impersonal effects of dense development. Frederick Law Olmstead, who championed and designed the famous Central Park in New York City, writes in "Public Parks and the Enlargement of Towns," that "a park fairly well managed near a large town, will surely become a new center of that town" (Olmstead, 1870). Olmstead advocates for parks to counteract the cement and impersonal features of cities by providing openness and spaces for people's minds to interact with nature and each other. Parks are important for the vitality of community, and can play a key role in defining land use patterns.

To manage a successful park system, communities must first consider what makes a successful park system, and then determine the best ways to manage that park system. There are guidelines communities can use for developing park systems, as well as guidelines for developing Park Master Plans.

Park Planning

In their "Leadership for Active Living publication," the ICMA has a specific strategy to "support recreation facilities, parks and trails" (ICMA, 2003). The three tactics they promote to address this strategy are to (1)

"develop a cohesive system of parks and trails," (2) "ensure that physical activity facilities are accessible and affordable," and (3) "support programming that promotes active living within the park system" (ICMA, 2003). According to this strategic guidebook, parks are an important tool communities can and should use to promote active living and community health.

The State of Colorado prepared a guidebook titled "Small Community Park and Recreation Planning Standards" in 2003 to give basic planning guidelines for small communities to consider when creating a Park Master Plan. The Colorado guidebook notes that there are many benefits to including open space in a community's park system. Benefits include:

- "Economic benefits- open space can enhance the quality of life in a community which attracts business and improves property values
- Fiscal benefits- in some cases, it costs the local government less to purchase a property and conserve it than to pay for the infrastructure and services required for private development, similarly in some cases purchase of watersheds can lead to decreased treatment costs.
- Protected river corridors keeps construction from the floodplain, preventing costly damage to personal property
- Environmental and aesthetic benefits" (State of Colorado, 2003).

In Oregon, communities have, on average, a greater number of open space or natural area acreage than developed park acreage in their park systems, with an average 279 acres of open space, or natural areas (including water areas), and an average 112 acres of developed park space. The Colorado guidebook states that there are no guidelines for open space LOS, since open space needs depend upon the proximity of state or national open areas in or around a particular community (State of Colorado, 2003). This is consistent with the NRPA guidebook. Oregon communities, in including open space in their plans, show an understanding of the value of open space in a park system.

Park Master Plans

The National Recreation and Parks Association published a Park, Recreation, Open Space and Greenway Guidelines in 1995. Their guidebook includes descriptions of park system planning elements, as well as specific descriptions of components necessary to include in a Park Master Plan, or as they describe, a Park Strategic and System Plan (NRPA, 2005). In their guidebook, they cite the importance of including the following elements in Park Master Plans:

- Leadership (Mission, Goals, Policies)

- Finance
- System Plan
- Staffing
- Recreation
- Land Acquisition
- Maintenance and Operations
- Natural Resources
- Capital Improvement Plan
- Marketing/Public Relations (NRPA, 1995)

The NRPA argues that the most effective Park Master Plans consider the elements above, and that considering all elements together allows a Park Master Plan to be developed in relation to overall community planning, rather than in a "vacuum" (NRPA, 1995).

The Washington State Department of Community, Trade and Economic Development Interagency Committee for Outdoor Recreation published the "Planning for Parks, Recreation, and Open Space in Your Community" guidebook in 2005. The Washington guidebook outlines the park planning process that communities should use when creating Park Master Plans. Washington's Growth Management Act requires every City to complete a Comprehensive Plan that includes a park, recreation, and open space element. The element has to include "estimates of park and recreation demand for a ten-year period, an evaluation of facilities and service needs, and an evaluation of intergovernmental coordination opportunities to provide regional approaches for meeting park and recreational demand" (RCW 36.70A.070(8)). The State of Washington determined that requiring specific park, recreation, and open space planning as a part of the general land use planning process was necessary to preserve quality of life in Washington communities.

The State of Oregon provides a similar guidebook created by the Oregon Parks and Recreation Depart. The 2002 guidebook, "A Guide to Oregon Community Park and Recreation Planning," provides guidelines for Oregon communities to use when creating a Park Master Plan. The Oregon guidebook advocates planning for communities, and stating that park planning "encourages:

- provision of recreational opportunities in an effective and efficient manner,
- conservation of open space and natural and cultural resources,

- community quality of life,
- environmental education,
- sensible community growth, and
- economic development, especially recreation related tourism (Oregon Parks and Recreation, 2002).

The Oregon guide sets out a framework for communities to create a park master plan that will function as "an overall framework to guide the provision of park and recreation services in a community" and achieve the benefits stated above (Oregon Parks and Recreation, 2002).

The NRPA has documented the financial benefits to communities considering investing in a park master plan in their publication "The Economics of Urban Park Planning" (Pack, 2006). They state:

A comprehensive and strategic plan for park and recreation facilities at the state, regional or local level can enhance opportunities for economic development in urban areas by facilitating effective park site selection, program development and financing. Indeed, effective strategic planning is the first step in achieving a community's vision for parks and recreation, economic development and social and environmental benefits (Pack, 2006.)

While creating a park master plan is an economic investment for communities, the NRPA finds that the investment can create greater financial opportunities for communities, in addition to improving quality of life.

Legal Requirements for Park Planning in Oregon

Cities in Oregon are not required to have park systems. However, every incorporated city in Oregon is required to have a comprehensive plan, and they are required to address recreational needs in their comprehensive planning processes. Legal requirements for parks planning come from both the Oregon Administrative Rules, as well as the Oregon Revised Statutes. Goal 8 of the Statewide Planning Goals addresses recreational needs, and requires every community in Oregon to consider and address recreational needs in their planning processes (OAR 660-015-0000(8)). Additionally, Chapter 390 of the Oregon Revised Statutes addresses State and Local Parks, Recreation Programs, Scenic Waterways, and Recreation Trails, and provides general requirements for communities to consider these park and open space elements during their planning processes (ORS, 2005). Within these legal frameworks, Oregon communities have leeway regarding how they choose to approach managing their park systems, if they have a park system.

Summary

Parks and open spaces have huge social, environment, and economic benefits for communities. This section has looked at existing park system resources, park master plan guidelines and resources, and provided an overview of the general legal requirements for cities to consider when planning for their park systems in Oregon.

The rest of this report will focus on applying this park background to the actual state of parks and open spaces in Oregon, based upon two surveys that gathered information from incorporated cities in Oregon. The paper will provide a brief overview of the surveys themselves, summarize key survey results, use the survey results to make conclusions about the characteristics of Oregon cities with park master plans compared to those without, present an evaluation of park master plans and their effectiveness in Oregon cities, and provide recommendations for further study based upon the conclusions of this research.

Chapter 3
Key Findings

While there are general park system and park master plan guidelines, there is no existing database that includes a comprehensive look at Oregon park systems, the types of elements present in Oregon park systems, and the methods Oregon communities are using to manage their park systems. To gather this information, the Community Planning Workshop at the University of Oregon developed two surveys, sent to Oregon cities. The first survey was sent to every incorporated city in Oregon and asked a variety of questions about the city park system. To provide more targeted analysis of the effectiveness of park master plans in Oregon communities, a follow-up park master plan survey was sent only to cities that responded to the first park system survey, and had a park master plan. The results of the surveys are used together to provide an overall look at the effectiveness of park master plans for Oregon cities. Chapter 3 presents the key findings of these results.

Data Sources

Data for the report was gathered from two surveys, (1) a park system survey and (2) a park master plan survey.

Park system survey: An 8-page, 51-question survey was mailed to the planning or appropriate department of every incorporated community in Oregon that existed in April of 2006. La Pine has since been added as an incorporated city in Oregon, but was not at the time and therefore was not included in the survey. The park system survey asked questions about park systems in general, including funding, acreage, staffing, maintenance, acquisition, and overall system concerns. To maximize responses, a second mailing was sent to Oregon cities that had not responded to the first survey. An online survey was also made available to each city in Oregon, to maximize the ways in which cities were able to participate in the survey. Between the two mailings and online responses, two hundred and forty-one total communities were contacted and 94 cities responded, with a response rate of 39%. A copy of the survey is attached as Appendix A.

Park master plan survey: A follow-up online survey was conducted in December and January 2006-2007 with those communities who both responded to the first survey and had a parks master plan. The follow-up survey focused on questions evaluating park master plans and areas in which they have, or have not been effective for communities. Thirty-five cities responded to the first survey indicating that they had a park master plan and operated and maintained a park system. An email request was sent out to each of these 35 cities, sent to the email address indicated on the initial mail survey. In cases where an email address was not present, CPW

researched an appropriate email address, by contacting the cities via the phone. To gain the maximum response rate, cities were contacted via email three times throughout the online survey, as an initial request, and in two subsequent reminder emails. Twenty-six cities responded to the online survey. Two of these cities indicated that they did not have a park master plan. They were removed from the online survey population, and the survey response rate was changed from 26 responses out of 35 cities, to 24 responses out of 33 cities. Overall, this is a 73% response rate of cities that do have park master plan for the online survey. Cities with a park master plan but who did not own and operate their own park system were not included in the online survey.

Analysis

Analysis was conducted utilizing Statistical Package for the Social Sciences (SPSS) and Excel. Because there was a statistically significant correlation between city size and whether a city had a park master plan, the author controlled for city size when calculating correlations between park master plans and other survey elements. Correlations significant at the 0.05 or 0.01 level are noted in the appropriate data tables.

Assumptions

It is assumed that all self-reporting done by cities responding to survey questions is accurate, with the exception of a few responses that did not match the type of question asked (example, questions that asked for a numeric percentage, responses that provided a numeric formula). In these instances, the answers were removed from the analytical process.

Key Findings

This chapter summarizes key findings from the survey and analysis of the correlation between park system elements, city size, and whether the city has a park master plan, to provide a brief look at how Oregon cities are addressing the park system elements.

Results from the statewide park system survey show that most responding cities in Oregon (76%) own and operate a park system. To plan for park systems, most Oregon cities (57%) have adopted park master plans. Most cities (84%) also address open space in their park plan.

Overall, Oregon cities find park master plans to be an effective planning tool for their communities. Ninety-six percent of Oregon cities feel that having a park master plan has been a good use of funds for their community. Seventy-one percent found that park master plans were "useful" or "very useful" for their community. To address the specific ways in which park master plans are effective for communities, this chapter presents detailed key findings on the following park system elements:

- City size;
- Level of future park system concern;
- Budget;
- Funding;
- Level of Service;
- Parkland Acquisition;
- Parkland Development;
- Park System Maintenance;
- Community Involvement.

City Size

Finding: *Park Master Plans are more likely to be adopted in larger cities.*

Cities of various sizes have different park system needs. To assess Oregon's city park systems for cities of different sizes, CPW organized cities into seven size categories. Table 1 shows the number and percentage of cities in each size category for Oregon as a whole, cities responding to the park system survey, and cities responding to the park master plan survey.

Table 1. Number and Percentage of Cities by Size, Oregon, 2005*

City Size (in thousands)	All Oregon Cities		Park System Survey Respondents		Park Master Plan Survey Respondents	
	#	%	#	%	#	%
>50	10	4%	8	9%	6	25%
20 to 50	16	7%	4	4%	3	13%
10 to 20	17	7%	6	6%	3	13%
5 to 10	30	12%	9	10%	6	25%
2.5 to 5	27	11%	12	13%	2	8%
1 to 2.5	55	23%	25	27%	4	17%
Less than 1	86	36%	29	31%	0	0%
n/a	0	0%	1	1%	0	0%
Total	**241**	**100%**	**94**	**100%**	**24**	**100%**

Source: Portland State University Population Estimates, CPW Analysis

* Note: The relationship between city size and having a park master plan is statistically significant at the 0.05 level (2-tailed).

Cities with park master plans tend to be larger than cities without. This is most evident in the category of cities under 1,000 residents. These small cities make up over one third of all Oregon cities, and represented 31% of the park system survey responses. However, no cities with a population of less than 1,000 responded that they had a park master plan. Therefore, results for park master plan effectiveness can only be evaluated for cities with over 1,000 residents.

Level of Future Park System Concern

Finding: *Park master plans are more likely to be adopted by cities with concerns for how future growth will impact their park system.*

Cities with and without park master plans have concerns about how growth and parkland availability will impact their park systems in the next 5 years. In every issue area, cities with park master plans registered higher concern for their park systems in the next five years than cities without a park master plan. Table 2 shows the areas and levels of concern cities with and without park master plans had for their park systems between 2006 and 2011.

Table 2. Oregon Park System Concerns for 2006-2011

Issue	Big Problem		Moderate Problem		Slight Problem		Not a Problem	
	PMP	No PMP	PMP	No PMP	PMP	No PMP	PMP	No PMP
Amount of available park land	35%	3%	20%	27%	30%	23%	15%	47%
Amount of available open space	18%	3%	32%	10%	24%	27%	26%	60%
Amount of developable land	26%	10%	28%	30%	23%	23%	23%	37%
Encouraging single family housing development	11%	13%	32%	23%	22%	17%	35%	47%
Uncontrolled growth	3%	3%	29%	7%	20%	14%	49%	76%
Achieving the park land level of service goal	29%	0%	38%	14%	18%	29%	15%	57%
Generating adequate funds for park acquisition	46%	21%	21%	21%	9%	11%	24%	46%
Generating adequate funds for park maintenance	60%	24%	26%	31%	11%	24%	3%	21%

Source: Community Service Center Statewide Park System S urvey, 2006. Author Analysis.

Possible reasons for the differences may include the fact that cities develop park master plans in part to address their growing park system concerns, or that cities with park master plans have thought about future concerns as part of the park master planning process, whereas cities without park master plans have not gone through the same process of creating a future park system planning guide to address concerns.

Budget

Finding: *Cities with park master plans spend a higher percentage of their budgets on staffing and capital improvements, and a smaller percentage on operations and maintenance.*

On average, staffing (35%) makes up the highest percentage of annual parks budgets, followed by park facilities operation and maintenance (33%), capital improvements (15%), other operational costs (10%), equipment (5%), and land acquisition (2%). There are difference in average park budget allocations between cities with park master plans and cities without. Table 3 shows the overall budget averages, budget averages for cities without park master plans, and budget averages for cities with park master plans for Oregon cities in 2006.

Table 3. Average Annual Park Budget, by Category, Oregon, 2006

Budget Item	Total Average Percent of Budget	Cities Without Park Master Plans	Cities With Park Master Plans
Staff	35%	26%	40%
Other operational costs (insurance, etc.)	10%	10%	10%
Equipment	5%	6%	5%
Park facilities operation and maintenance	33%	44%	25%
Land acquisition	2%	1%	3%
Capital improvements	15%	12%	17%
Total	**100%**	**100%**	**100%**

Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

As Table 3 shows, cities with park master plans allocate the highest percentage of their budgets (40%) for staffing. Cities without park master plans allocate an average of 26% of their budgets for staffing, with their highest percentage of resources (44%) being spent on park facilities operation and maintenance. Cities with park master plans spend 20% of their budgets on capital improvements and land acquisition, compared to cities without park master plans, who spend 13% of their budgets on capital improvements and land acquisition. Expenditures on equipment and other operational costs are roughly the same for cities with and without park master plans.

Level of Service

Finding: *Park master plans make it easier for cities to provide a higher level of service for their inhabitants.*

Levels of Service (LOS) are calculated as acres of parkland per 1,000 residents, and can help communities gauge the amount and type of parkland that they currently have and what they will need to meet the needs of their community. The statewide park system survey asked cities to record their natural/open space, developed park area, undeveloped area, and paved and unpaved trails LOS. Within the developed park area

acreage, cities were further asked to report their mini, neighborhood, community, and system-wide developed park acreage.

The statewide park system survey shows that the average LOS for park acreage type is 46 acres/1000 residents of natural/open areas (including water acreage), 9 acres/1000 residents of developed parkland (including water acreage), 28 acres/1000 residents of undeveloped areas (not open to the public, including water acreage), and less than 1 acre/1000 residents of trails and pathways.

Cities with park master plans are more likely to have a higher LOS for all park acreage types, indicating that cities with park master plans are more likely to have planned for and acquired park acreage in all park acreage types than cities without park master plans. When controlling for city size, having a park master plan is a statistically significant predictor of having more trails and pathways, indicating that cities without park master plans are much less likely to plan for their trails and pathways than other elements of their park system. Table 4 shows the trails and pathways LOS differences between the number of cities with and without a park master plan.

Table 4. Trail and Pathway Levels of Service for Cities with and without a Park Master Plan, Oregon, 2006*

Trails and Pathways LOS (in acres/1000 residents)	With a Park Master Plan	Without a Park Master Plan
0.46 and more	6	1
0.21-0.45	8	2
0.01-0.20	10	2
0.00	4	10

Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

* Note: The relationship between having a park master plan and trail and pathway LOS is statistically significant at the 0.05 level (2-tailed).

Table 4 shows that cities with park master plans are more likely to have a higher trail and pathways LOS than cities without. Ten cities without park master plans responded that they had no trails and pathways, and just one city without a park master plan had a trails and pathways LOS greater than 0.46 acres per 1,000 residents. In contrast, just four cities with a park master plan had no trails or pathways, and six cities with a park master plan had a trails and pathways LOS greater than 0.46 acres per 1,000 residents.

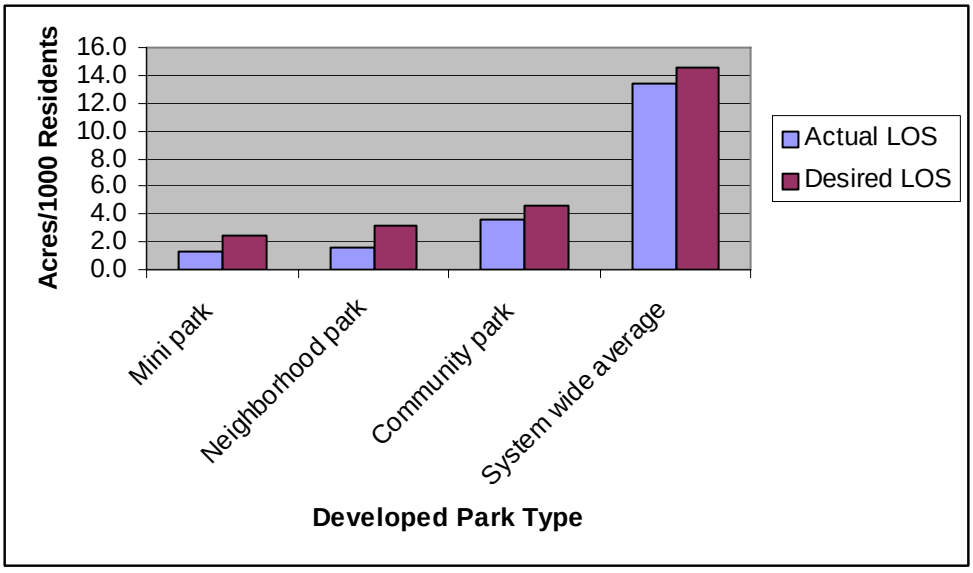
Results from the park master plan survey show that of the 83% of Oregon cities that include trail and pathway acquisition as part of their park master plan, 79% found that with a park master plan it was easier to

acquire and develop trails and pathways in the locations specified in the Plan.

Because only cities with park master plans responded to the more detailed question of specific developed park types, analysis could only be done for cities with park master plans. In the 34% of cities that have included a LOS standard in their parks master plans, the average LOS is 2.5 acres/1000 residents for mini parks, 3.1 acres/1000 residents for neighborhood parks, 4.6 acres/1000 residents for community parks, and 14.6 acres/1000 residents for a system wide LOS.

The actual LOS in these cities currently is 1.3 acres/1000 residents for mini parks, 1.6 acres/1000 residents for neighborhood parks, 3.6 acres/1000 residents for community parks, and 13.4 acres/1000 residents for a system wide LOS. Figure 5 shows the actual and desired LOS for Oregon cities.

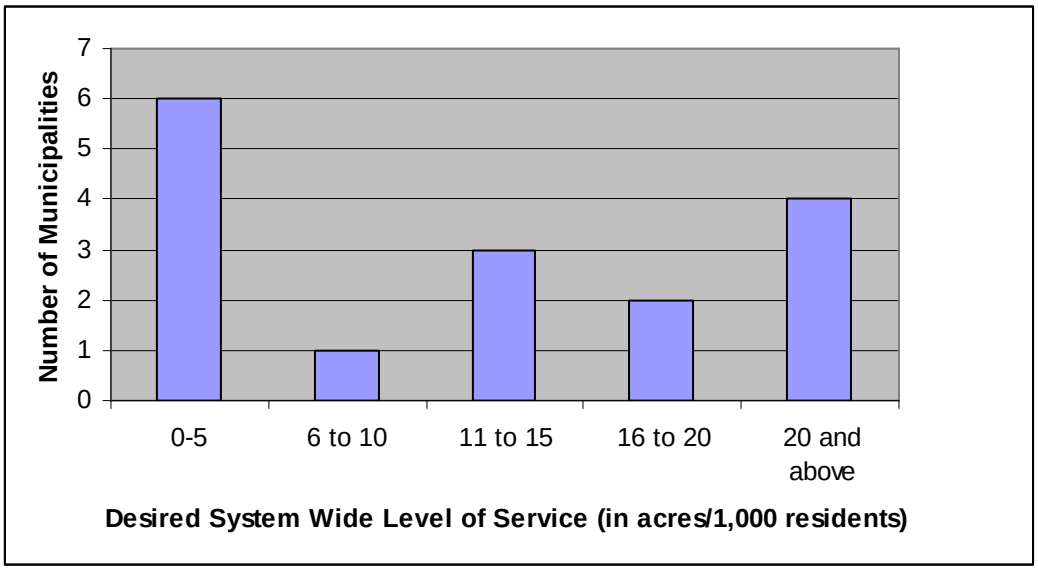
Figure 5. Actual versus Desired LOS, by Developed Park Type, Oregon, 2006



Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

Cities with park master plans were the only cities that answered the developed parkland LOS questions. As a result, a correlation between developed park-land LOS and having a park master plan could not be determined, although it does tell us that calculating and using the LOS system to gauge overall system performance is much more common for cities that have gone through the park master planning process than for cities who have not. Figure 6 shows the frequency distribution for a system-wide LOS.

Figure 6. System Wide Level of Service Frequency Distribution, 2005



Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

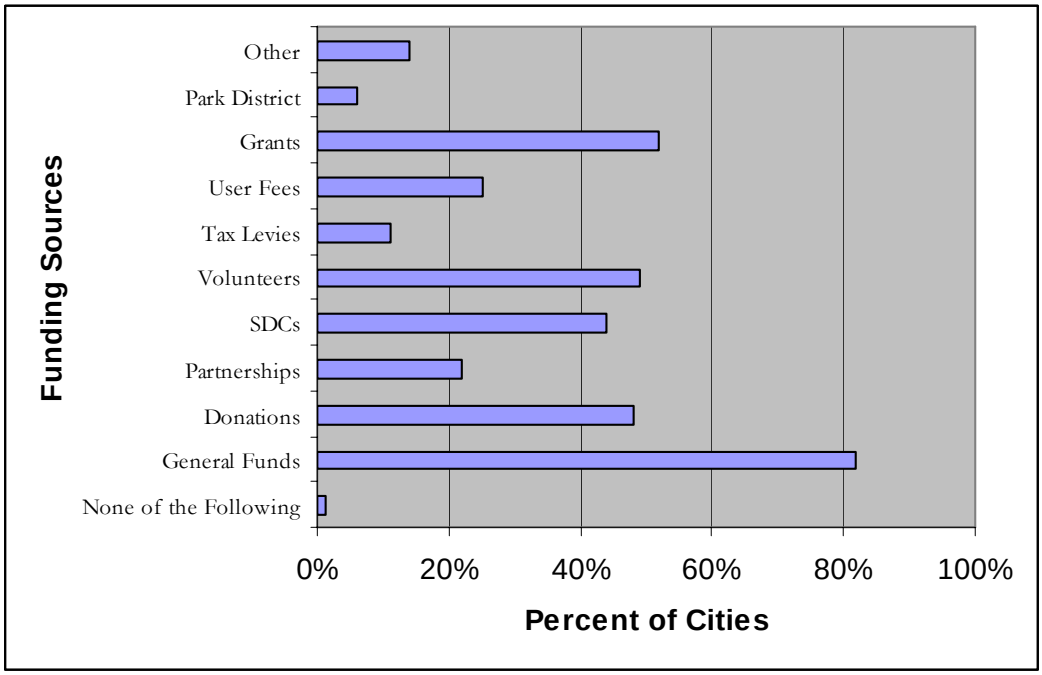
Cities had different system-wide LOS goals for their communities, ranging from 1 acre/1,000 community members, to 33 acres/1,000 community members. Land availability, price, the proximity of state and federal natural areas, open spaces, or developed parkland may all be factors contributing to different community LOS needs.

Funding

Finding: *Park master plans make it easier for cities to leverage funding from more diverse sources.*

In the statewide park system survey, respondents were asked to indicate all of the funding sources they used to fund their park systems. General Funds, used by 82% of Oregon communities with park systems, are the most frequently used form of park system financing. More than half of Oregon cities are also using grants to fund their park systems. Volunteers, System Development Charges (SDCs) and donations are other funding sources that are used by more than 40% of Oregon cities. Figure 7 shows the variety of funding sources and the levels used by all responding cities.

Figure 7. City Park System Funding Sources for all Cities, Oregon, 2006



Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

Results from the statewide park system survey show that both city size and whether a city has a park master plan impact the types of funding sources cities use. Larger cities, and cities with park master plans, were much more likely to use the following funding sources:

- Donations
- Partnerships
- SDCs
- Volunteers
- User fees
- Grants

There is no correlation between city size or whether a city had adopted a park master plan and use of the following funding sources: general funds, tax levies, and creation of a park district.

Of the 49% of Oregon cities who use SDCs, all charge for residential development. Thirty-two percent also charge for non-residential development. Seventeen percent of Oregon cities without adopted SDCs anticipate adopting one in the next 12 months.

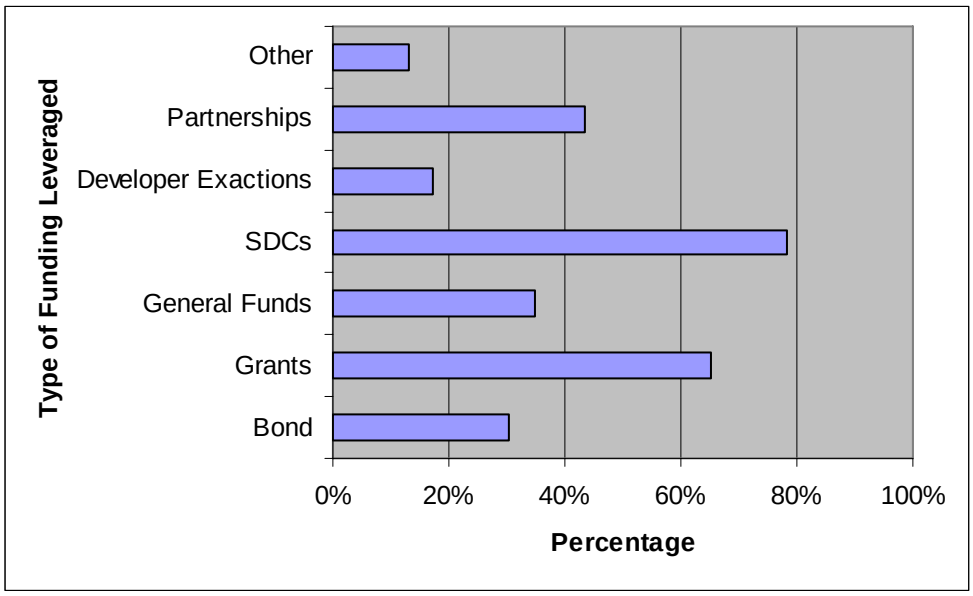
Adopting SDCs seems to be a legally secure way for Oregon communities to fund park system capital improvements. As of Spring, 2006, no cities in Oregon have had their SDC be the subject of legal action.

Thirty-three percent of cities also require parkland dedication/ exactions from developers in building for building and maintaining their park systems. Cities with park master plans were much more likely to require parkland dedication/ exactions from developers than cities without park master plans.

Results from the statewide park system survey indicate that cities with park master plans are able to leverage funding from more diverse sources, providing a stable, more resilient base of park system funding.

Results from the park master plan survey indicate that not only do cities with park master plans have access to a more diverse funding base, they have an easier time leveraging funding as well. Seventy-eight percent of Oregon cities with a park master plan found that the plan made it easier for them to leverage funding through increased or updated system development charges. Sixty-five percent also found that the plan made it easier to leverage funding through grants. Figure 8 shows the percentages of each area in which park master plans made it easier for cities to leverage funding.

Figure 8. Ways in which the Park Master Plan makes Leveraging Funding Easier, Oregon, 2006



Source: Park Master Plan Survey, 2006. Author Analysis.

Parkland Acquisition

Finding: *Park master plans make parkland acquisition easier.*

Having a park master plan was strongly correlated with having a parkland acquisition plan, and both make parkland acquisition easier.

More than half of Oregon cities (61%) have no long-term strategy for park and open space land acquisition. Twenty-seven percent have a capital improvements program, while 13% have a separate acquisition strategy to address park and open space land acquisition. Cities with a park master plan are much more likely to have a parkland acquisition plan, consistent with the NRPA recommendation of including land acquisition as a component of park master plans.

Just under half (48%) of Oregon cities have not experienced any barriers in the past three years in acquiring parkland. The largest barrier experienced by cities in the last three years is land price (42%). Other barriers experienced include land availability inside the UGB (24%), being unable to find land in appropriate places (24%), and being unable to find parcels of appropriate size (21%). Table 9 shows the percentage of cities experiencing parkland acquisition barriers in the past three years, divided further by cities with and without a park master plan.

Table 9. Parkland Acquisition Barriers Experienced in the Past Three Years, Oregon, 2006

Barriers	Cities Without a Park Master Plan	Cities With a Park Master Plan
No Barriers	68%	36%
Land Availability Inside the UGB	16%	28%
Land Price	24%	53%
Unable to Find Land in Appropriate Places	4%	36%
Unable to Find Parcels of Appropriate Size	0%*	33%*

Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

*Note: Being unable to find parcels of appropriate size and having a park master plan was the only statistically significant variable at the 0.05 level.

While a greater percentage of cities with park master plans experienced barriers to parkland acquisition, the correlation was not strong enough to be statistically significant for most barriers when controlling for city size. However, there is a statistically significant relationship showing that cities experiencing difficulty finding parcels of appropriate size are much more likely to have a park master plan than cities who have not experienced that barrier. The results may show that cities not experiencing barriers have a

lower incentive to develop a park master plan, while cities experiencing barriers have a higher incentive to develop a park master plan.

City size also has a statistically significant relationship to some barriers experienced by cities. The larger a city, the greater difficulty they have finding land in appropriate places and finding parcels of appropriate size. There is not a statistically significant correlation between city size and other barriers experienced.

Results from the park master plan survey show that most park master plans include land acquisition strategies, and these land acquisition strategies made land acquisition easier for Oregon communities. Of the 91% of Oregon cities that include land acquisition in their park master plan, 81% found it easier to acquire land in the locations and sizes stipulated in their park master plan.

Parkland Development

Finding: *Park master plans make parkland development easier.*

Results from the park master plan survey show that of the 96% of Oregon cities that include parkland development as part of their park master plan, 74% found that with a park master plan it was easier to build higher quality parks.

Park System Maintenance

Finding: *Park master plans do not help enough with maintenance.*

Having a park master plan was strongly correlated with having a maintenance and capital improvement plan.

The majority (74%) of Oregon cities do not have a plan for the long-term maintenance and replacement of capital improvements in parks. Cities with park master plans are much more likely to have a long-term maintenance and capital improvement plan. Having a maintenance or capital improvement plan is recommended by the NRPA as a necessary component of creating a park master plan.

More than 50% of Oregon cities had moderate to big maintenance concerns about staffing levels (66%), generating adequate funds for park maintenance (74%), vandalism (66%), old/degraded facilities (58%), sports courts and fields (50%), and equipment (67%). Areas with lower concern include irrigation systems (44%), turf (28%), open space (35%), parking and access roads (37%), and trees/vegetation (42%).

Table 10 shows the different levels of maintenance concern for cities with and without park master plans.

Table 10. Parkland Maintenance Concerns for Cities with and without Park Master Plans, Oregon, 2006

Issue	Big Concern		Moderate Concern		Slight Concern		Not a Concern	
	PMP	No PMP	PMP	No PMP	PMP	No PMP	PMP	No PMP
Staffing levels	48%	17%	36%	24%	10%	28%	7%	31%
Generating adequate funds for park maintenance	60%	24%	29%	28%	10%	38%	2%	10%
Vandalism	24%	28%	45%	31%	31%	31%	0%	10%
Old/degraded facilities	26%	24%	41%	17%	21%	35%	12%	24%
Irrigation systems	5%	10%	50%	17%	24%	45%	21%	28%
Turf	10%	4%	26%	14%	43%	39%	21%	43%
Sports courts and fields	26%	3%	43%	24%	17%	31%	14%	41%
Open space	14%	3%	29%	17%	43%	41%	14%	38%
Parking and access roads	14%	7%	36%	10%	29%	41%	21%	41%
Trees/ vegetation	17%	7%	32%	24%	34%	52%	17%	17%
Equipment	34%	7%	39%	48%	20%	35%	7%	10%

Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis

Cities with park master plans were much more likely to have maintenance concerns about all areas of their park system. This may be due to the fact that cities with maintenance concerns are more likely to develop park master plans to strategically address those maintenance concerns. Cities with park master plans may also be more likely to have considered maintenance issues in the park master planning process than cities without.

For most areas of parks planning, park master plans have resulted in significant benefits for cities. However, the one area in which park master plans have not been effective is in planning for park maintenance. Results from the park master plan survey show that most Oregon cities (65%) found that their park master plan has not improved park maintenance.

For the 35% of cities that have found an improvement in maintenance, 75% state that improvements are due to the plan providing strategies for maintenance, 38% state that improvements are due to the plan providing increased funding for maintenance, and 38% state that improvements are due to the plan increasing volunteerism or community involvement in park maintenance.

Community Involvement

Finding: *Park master plans improve community involvement.*

Results from both surveys show that park master plans increase community support for park systems in a variety of ways.

Results from the park master plan survey show that many cities (48%) either found that park master plans increased community support for their park systems, or were unsure as to whether the park master plan increased community support for their park system (44%). Nine percent did not feel that having a park master plan increased community support. Of the 48% of Oregon cities that did note an increase of community support, 82% found that there is increased community involvement with parks planning, 46% noted an increased usage of the parks, 46% noted increased financial support, 27% noted other community involvement increases, and 18% noted increased involvement with recreation planning.

The statewide park system survey shows that cities with a park master plan are also much more likely to have a variety of partnerships to implement their park programs. Table 11 shows the percentage of cities that specific partnership types, depending upon whether the city has a park master plan.

Table 11. Percentage of Cities with Partnerships, Oregon, 2006

Partnerships	Cities Without a Park Master Plan	Cities With a Park Master Plan
School district	17%	83%
Park or recreation district	14%	86%
County	12%	88%
State agencies	11%	89%
Federal agencies	17%	83%
Non-profit sports program	28%	72%
Local businesses	9%	91%
Foundations	0%	100%
Other	25%	75%

Source: Community Service Center Statewide Park System Survey, 2006. Author Analysis.

The survey shows that cities with park master plans are much more likely to have developed partnerships with a wide variety of agencies, departments, or other organizations to implement their park programs than cities without park master plans, increasing the methods cities can use to make their park systems and park programs more effective.

Overall, the park master plan survey shows that park master plans have been a good investment for the Oregon cities that have adopted them, and

have been a successful planning tool in the areas of funding, land acquisition, trails and pathways, parkland development, and community support.

Chapter 4
Conclusions and Recommendations

Parks and open spaces have an impact on the health, environment, economy, and land use patterns of communities. In Oregon, communities have a responsibility to plan for recreational and environmental needs, but the elements of Oregon's park systems, as well as the methods communities are using to manage and develop their park systems vary.

As survey results show, Oregon communities are using different methods to ensure that parkland location, type, and amount continue to meet their recreational and environmental community needs. Park master plans are used by more than half of Oregon's cities to manage their park systems. Survey results show that there are differences between city park systems with park master plans and city park systems without park master plans.

Cities with park master plans tend to:

- Be larger in size;
- Have calculated their level of service, and contain a higher trails and pathways level of service;
- Have more diverse funding sources;
- Have a parkland and open space acquisition plan;
- Have more partnerships with the community.

Park master plans have been effective for Oregon communities by:

- Enabling cities to diversify funding sources;
- Making parkland acquisition and development easier;
- Increasing community involvement with and support for park systems.

Park master plans should work to be more effective at:

- Improving park system maintenance.

Park master plans have not been effective in improving park maintenance in Oregon communities, and further research should be conducted to assess ways to make park master plans more effective in this area.

Overall, however, park master plans have been effective for the Oregon communities that have adopted them. Ninety-five percent of cities with a

park master plan feel that the plan was or is a good investment for their community.

Because park master plans have been an effective, good investment for the Oregon communities that have adopted them, cities without park master plans should consider developing them to strategically organize their park system development and management.

Recommendations for Further Study

The results of this survey provide a starting point for evaluating park master plans and their effectiveness for Oregon cities. Further studies should be done to better understand the impacts that parks have in communities, and the impacts that park master plans have in impacting park system management. There are five additional areas of research that could assist Oregon communities in assessing, developing, and managing their park systems:

- **Update survey results regularly:** park system and park master plan studies could be updated at timely intervals to continue providing Oregon communities the ability to assess how their own system elements and management techniques compare to those present in other Oregon communities. This would ensure that evaluative information is current and relative for cities to reference.

- **Compare park master plan effectiveness and city size:** subsequent research could focus more heavily on evaluating effectiveness for communities by size. City size is highly correlated to many of the survey questions, and subsequent research could provide more detailed insight regarding potential differences in the ways park master plans are most effective for smaller versus larger communities.

- **Evaluate community-member park system satisfaction:** future research could gather more in-depth information regarding community satisfaction with current park systems based upon their elements, funding, maintenance, and other features. This could help communities determine the types of park system features that are meeting or exceeding their community-member's needs, and whether having a park master plan has an effect on increasing community satisfaction.

- **Expand surveys to include county and state park systems and park master plan use:** future surveys could address city, county, and state park systems and park master plan use, to provide a more comprehensive picture of parks in the state as a whole. Two percent of Oregon's cities had a park system that was managed by a larger park district and including all Oregon

park systems will help to provide a more complete base of knowledge about all parks in the state of Oregon.

- **Investigate the specific ways that maintenance strategies can be improved to increase park master plan effectiveness.** Survey results show that park maintenance is not an effective area of current park master plans. Future research to determine the how exactly maintenance chapters are benefiting the communities that identified positive results would provide guidance for cities considering updating existing plans or adopting new plans.

Continuing to add to the body of knowledge about park systems in Oregon and cities' use of park master plans as management tools will enable communities to maximize the benefits of developing or using park master plans. If Oregon communities continue to add to the body of knowledge about park systems and learn from the techniques and methods tried in other communities, Oregon will be able to provide the most effective park systems for all residents of and visitors to the State.

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