Cartographic Visualization of Parks, Trails, and Recreation Centers in Albany, Oregon

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SCYP
Sustainable City Year Program

UNIVERSITY OF OREGON

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About SCI

The Sustainable Cities Initiative (SCI) is a cross-disciplinary organization at the University of Oregon that promotes education, service, public outreach, and research on the design and development of sustainable cities. We are redefining higher education for the public good and catalyzing community change toward sustainability. Our work addresses sustainability at multiple scales and emerges from the conviction that creating the sustainable city cannot happen within any single discipline. SCI is grounded in cross-disciplinary engagement as the key strategy for improving community sustainability. Our work connects student energy, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

About SCYP

The Sustainable City Year Program (SCYP) is a year-long partnership between SCI and one city in Oregon, in which students and faculty in courses from across the university collaborate with the partner city on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner city through a variety of studio projects and service-learning courses to provide students with real-world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations resulting in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

SCI Directors and Staff

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About Albany, Oregon

The city now known as Albany has an established history as a central hub in the Willamette valley. Founded in 1848 and incorporated in 1864 the city has served as the Linn County seat since 1851. Albany's unique place in Oregon's history is exemplified in its dedication to historical preservation. Albany is often noted to have the most varied collection of historic buildings in Oregon. Its "four historic districts are listed in the National Register of Historic Places by the United States Department of the Interior." This downtown core has served as the center of revitalization efforts since 2001.

Located on the Willamette and Calapooia rivers Albany spans both Linn and Benton counties. With a population of 51,720 people, Albany is Oregon's 11th largest city and the second largest city in Benton County. Albany is administered under a home rule charter, adopted in 1957 establishing a Council and City Manager model. The city's vision, to be a "vital and diverse community that promotes a high quality of life, great neighborhoods, balanced economic growth and quality public services," is exemplified by its administration and government. Albany has a very active civic community with nearly 100 citizens serving on advisory commissions and committees dedicated to municipal issues.

Historically, Albany's economy has relied on natural resources. As the self-styled "rare metals capital of the world," Albany produces zirconium, hafnium and titanium. Major employment sectors include "wood products, food processing, and manufactured homes." Because of its short, dry temperate growing season Albany farmers excel in producing specialized crops like grass flower and vegetable seeds, "tree fruits, nursery stock, nuts, berries, mint and grains." Albany and the surrounding (Linn and Benton) counties are so agriculturally productive it is often called "The Grass Seed Capital of the World."

Albany's central location and mild climate has made it a popular destination for a variety of outdoor and leisure activities. Located in the heart of Oregon's most populous region with the Pacific coast to the west and the Cascade Range to its east, Albany is connected to the wider state by Interstate 5, Oregon Routes 99E and 34, and US Route 20. The city is also served by Amtrak, a municipal airport, and a local and regional bus network.

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This report represents original student work and recommendations prepared by students in the University of Oregon's Sustainable City Year Program for the City of Albany. Text and images contained in this report may not be used without permission from the University of Oregon.

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Executive Summary

In order to aid the City of Albany's Park and Recreation Department (P&R) in the creation and visualization of their 2017 P&R Master Plan and to help serve the growing population, Albany partnered with the Sustainable City Year Program (SCYP) at the University of Oregon. SCYP students strive to aid the Parks and Recreation Department in effectively showing areas of access, opportunity, and amenities across Albany.

P&R hopes to expand funding to areas that may serve greater areas of the population while the City of Albany hopes to connect riverfront parks and amenities with other areas of the city by means of trails and bike networks. They also hope to utilize the results produced by students to analyze areas for increased funding to promote usage by the public.

In order to help visualize accessibility, cost, and location variables, the City of Albany collaborated with an Advanced Cartography class at the University of Oregon, to find ways to seamlessly present large amounts of information in one layout. By utilizing basic design principles, the students worked with ArcMap and Adobe Illustrator to effectively portray existing and proposed trails, park locations, maintenance costs, and accessibility, and recreation center access.

Introduction

City of Albany P&R sought to visualize recreation facilities within the city in order to help increase accessibility for the growing population. The students used parks and recreation data to map existing amenities as well as possible areas for growth and funding. Students mapped recreation trail systems, as well as parks, recreation centers, and park and facility maintenance costs. Students used cartographic principles to effectively display the parks and recreation amenities for the P&R Master Plan.

Map Guides

Trails (Figures 1&2)

The City of Albany has over 17 miles of trails, from the riverfront to the southern city limits. P&R hopes to continue building trails that connect the whole city, connecting the waterfront with residential areas around the city, as well as shops and restaurants downtown.

The existing list of trails received two new trails: The Corvallis Connector Trail connects Albany with Corvallis and Oak Creek Greenway Trail connects the Oak Creek Greenbelt trail with the Freeway Lakes County Park. These will be added as proposed trails to the city's 2017 P&R Master Plan.

Parks (Figure 3)

This map helps visualize the distribution of amenities along three main riverfront parks, and lists activities and attributes all four riverfront parks. It also shows the acreage of each park, along with a symbolization of amenities like boat docks, shelters, and benches.

Park and Facility Maintenance (Figure 4)

Maintenance costs are categorized between operational costs required to maintain the park, and capital costs that can improve the parks or facilities. Capital costs are generally more expensive as they are typically larger projects that require more funding. This map classifies population density within the city compared to park locations and maintenance costs. This demonstrates a basic accessibility and usage analysis for parks, and compares this to the amount needed to maintain the park, as well as possibly improve it.

Recreation Areas (Figure 5)

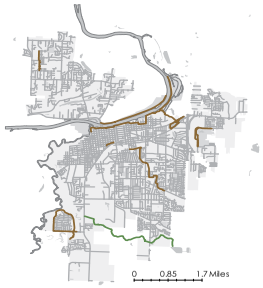
In Albany, there are four publicly-funded recreation centers within city limits. The three-minute "service area" around the centers demonstrates areas that are within a three-minute car ride of the facilities, and is shown in the graphs to the lower right of the graphic. This shows comparative accessibility to type of recreation center and its service ability, and shows areas that may be high priorities for improvements or funding.

Park Maintenance (Figure 6)

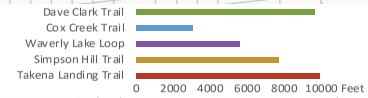
Parks in Albany are divided into seven different classifications. Between citywide parks, community parks, natural areas, neighborhood parks, riverfront parks, trail corridors, greenways, and urban open spaces, there are over 40 parks in Albany. This map shows the price of park renovation for each type of park, as well as each individual park. Citywide parks are found to be the most versatile due to location and goals for use, but are also the most expensive. The map displays each park's renovation cost as a circle, and categorizes the parks within the seven classifications.

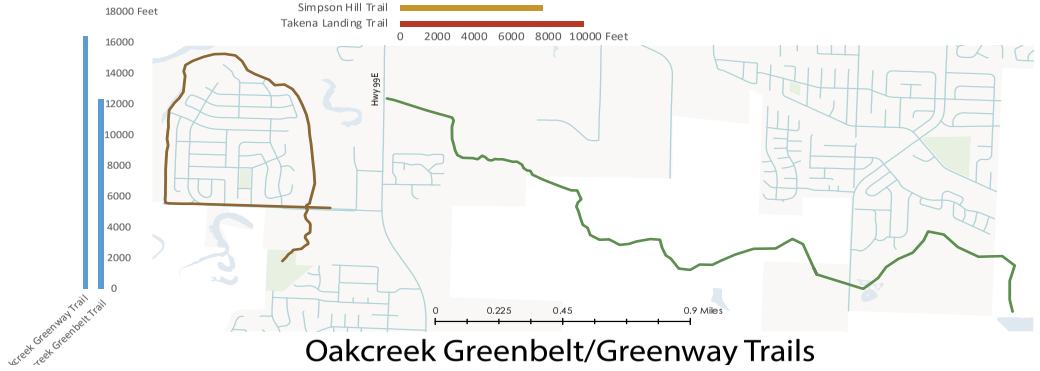
Trails: The City of Albany

The city of Albany, Oregon has over 48,000 residents, with over 17 miles of accessible paths. This map highlights three areas with the largest paths: The riverfront area has four seperate trails, the Periwinkle path that runs through the middle of the city, and the Oakcreek Greenbelt/Greenway area near Linn Benton Community College



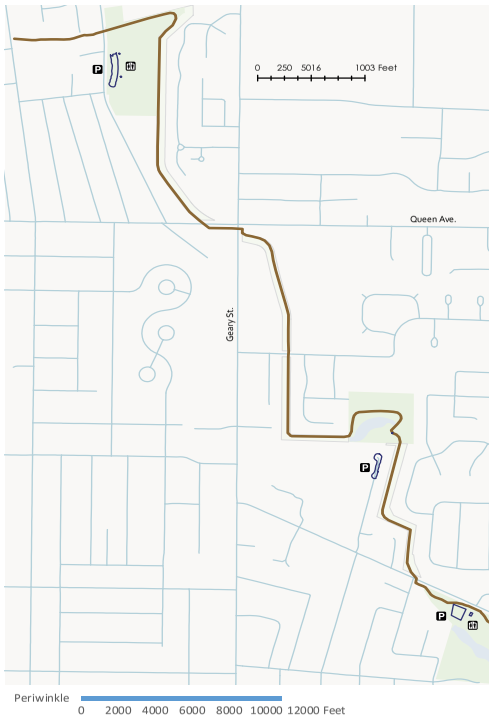
Riverfront Area





Oakcreek Greenbelt/Greenway Trails

Periwinkle Path



Author: Zech Small, 03/2017
Source: City of Albany Geodatabase

Figure 1: Three Albany trail maps

Trails Map

City of Albany
Parks & Recreation

Emily Miley
City of Albany Public Geodatabase
Streetmap USA

Info about Trails:

Trail Development continues to be a popular recreation activity in the City. Multi-purpose trails encourage walking, jogging, biking, or wildlife watching. Developers are encouraged to connect trails near residential areas from park to park due to the difficulty in designing trails for already developed areas.

The City hopes to create two new trails, one going from Albany to Corvallis as the "Corvallis Connector Trail", and another trail extending from 99E to Freeway Lakes County Park along Oak Creek. Trail planning must consider other proposed developments, and trails may vary in width depending on land availability and location.

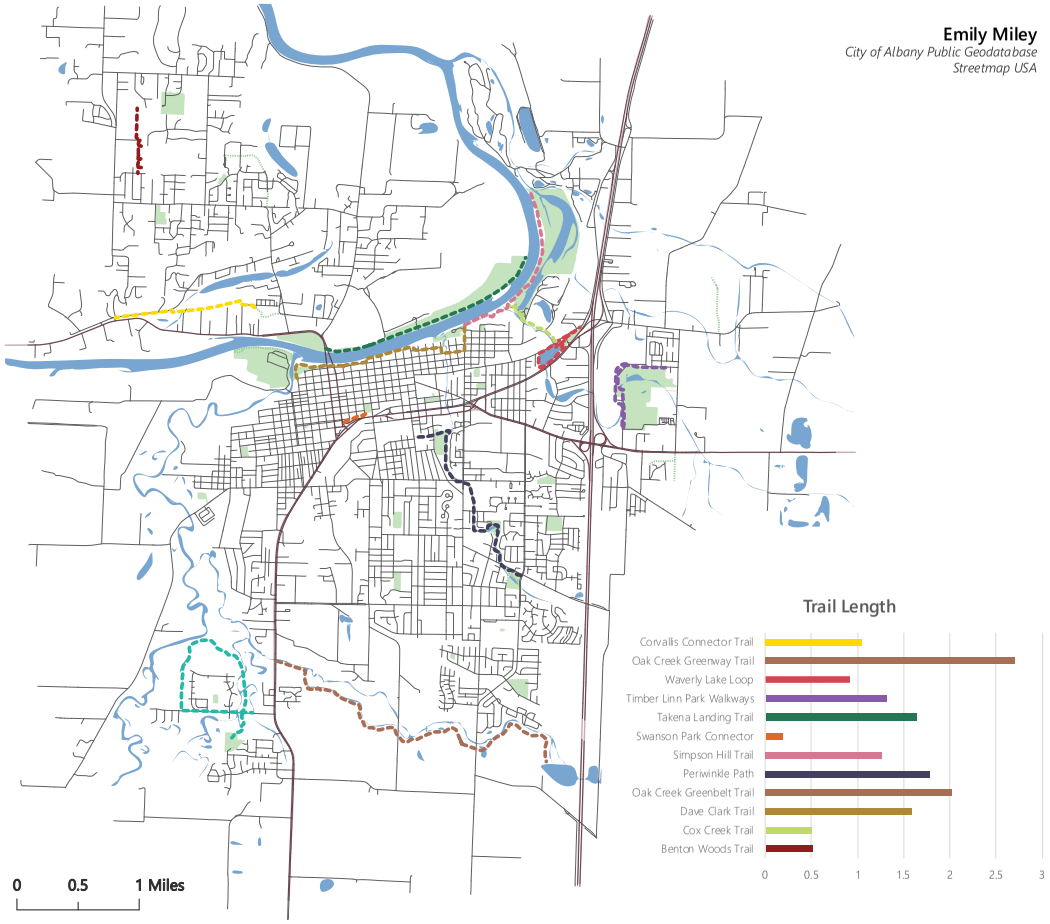


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Figure 2: Focused trails map for three sections of the city

Figure 3: Riverfront parks and amenities

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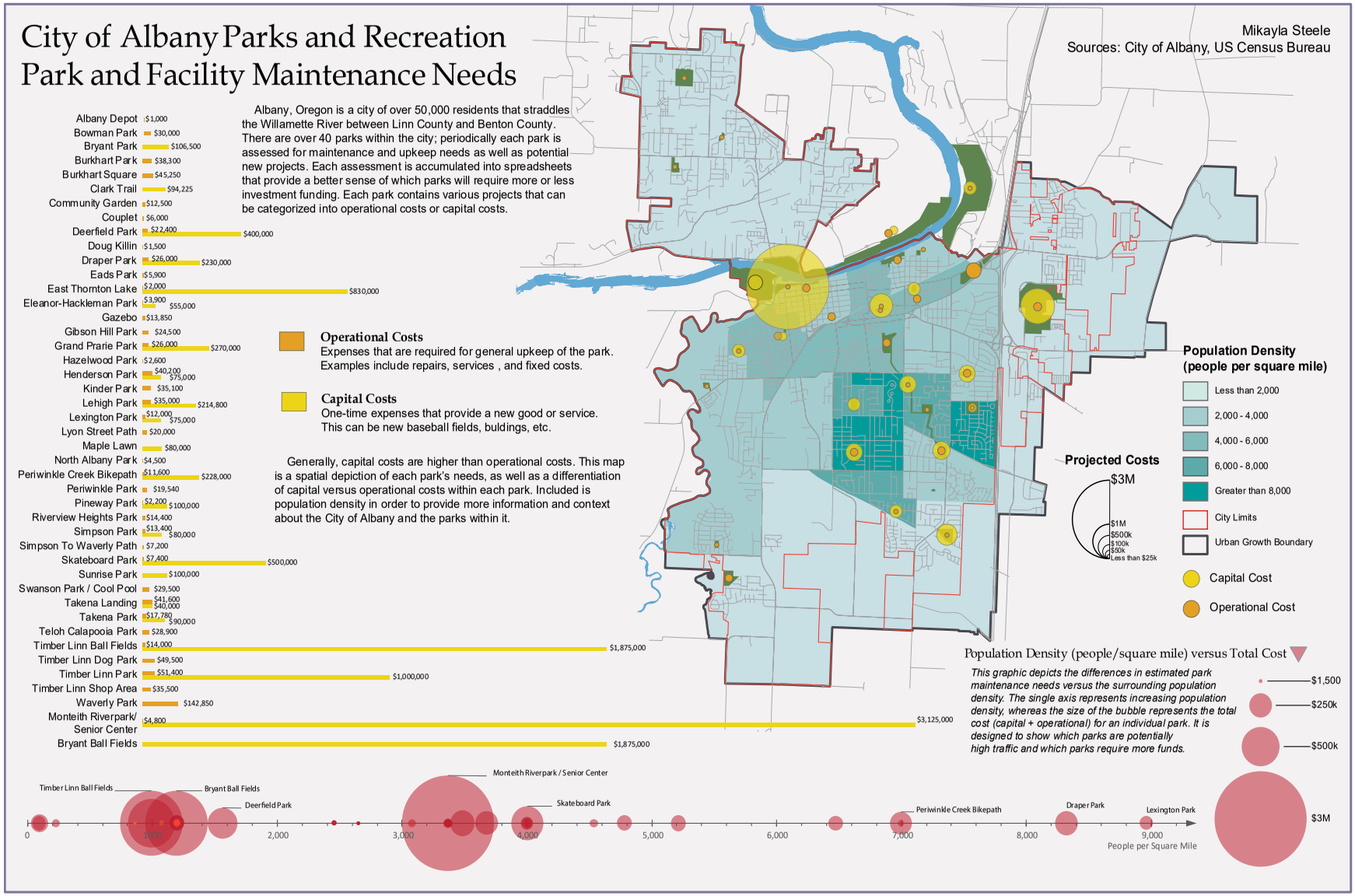
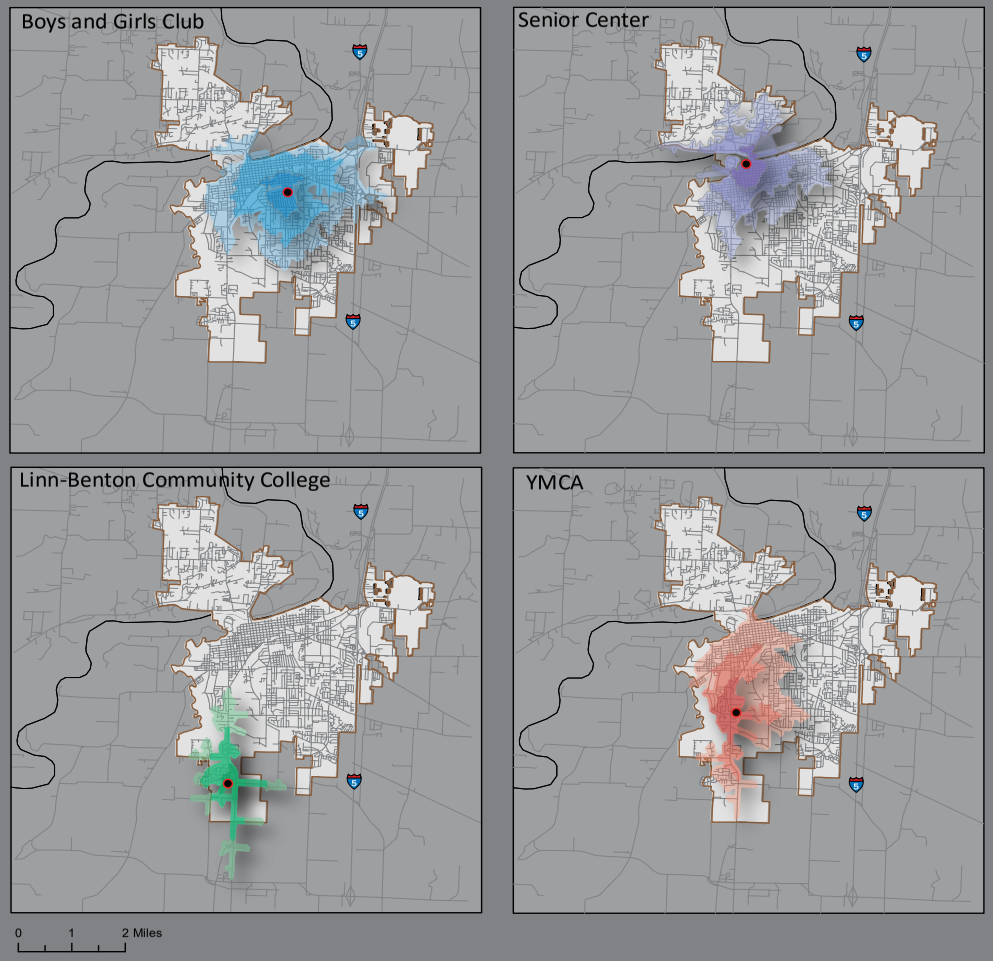


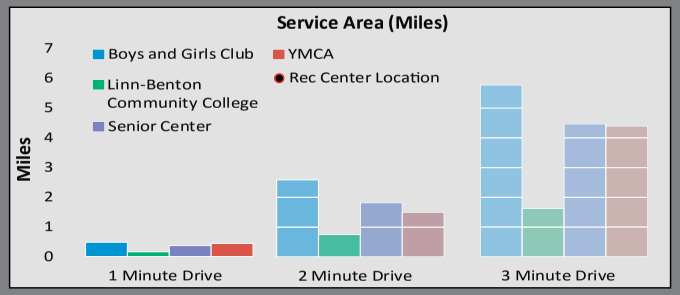
Figure 4: Park and facility maintenance costs

Communal Recreation Center Service Areas



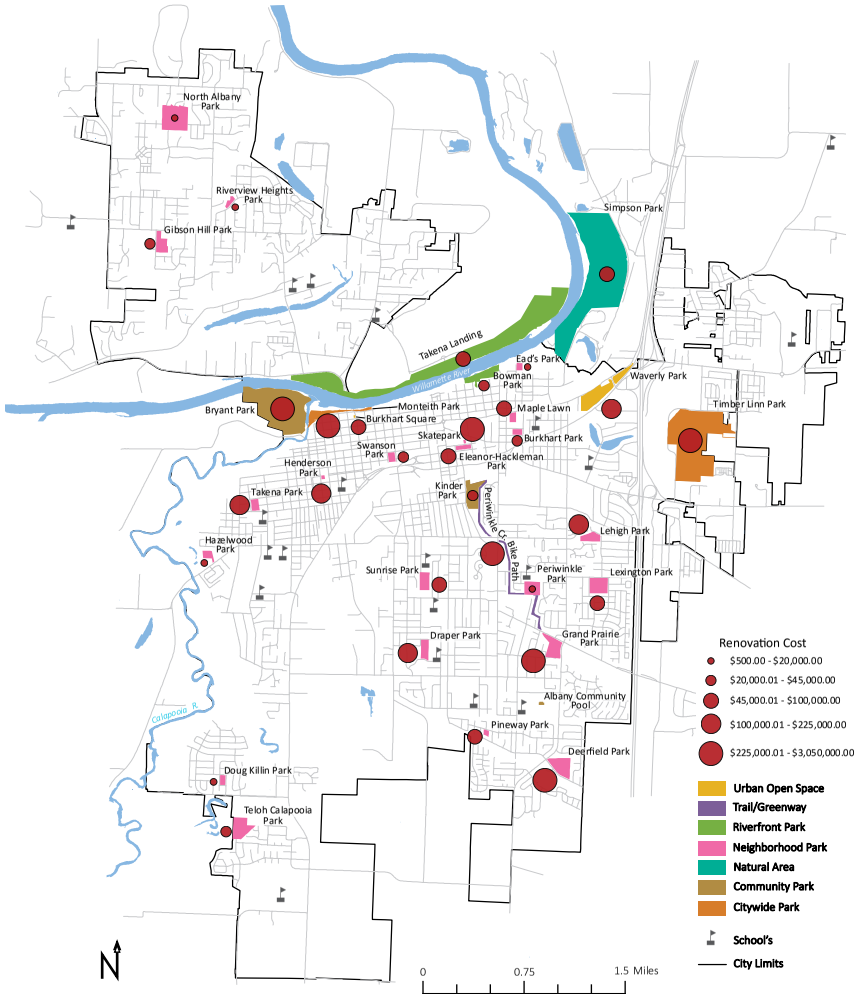
Albany is a small town located in Western Oregon with a population of just under 52,000. Having an area of 17.75 miles I thought Albany would be a perfect town to conduct an analysis of the service areas of the communal recreation centers. I took the four rec centers in Albany that receive public funding and created a three-minute service area around each facility. This shows the distances that can be covered in a 1-3 minute drive from each of the facilities. Below, I have graphed the total areas that can be covered from each rec center with respect to drive time.

The aim of my analysis is to inform Albany City officials of the areas in their city that can be serviced by each rec center. Ideally, this will help in deciding which rec centers should receive more or less funding or the location of a new rec center in the future. From my analysis, assuming area covered as the primary criterion, I would say the Boys and Girls Club should have priority for funding as its 5.8 mile service area offers access to the largest region of Albany when compared to the other facilities. However, while the Boys and Girls Club is a great foundation, it only services kids between the ages of 6 and 18. With this in mind, the Senior Center would be my next recommendation to receive funding. With a service area of nearly four and a half miles, the Senior Center service area covers 25% of Albany making it a great investment for the community.



Author: John Leonard
Data from: The City of Albany, ESRI and Census.gov

Figure 5: Recreation center accessibility



Maintenence costs of Parks in Albany, OR

The park and recreation department in Albany, Oregon has their parklands divided into seven different classifications. Those classifications are Citywide parks, Community parks, Natural Areas, Neighborhood parks, Riverfront parks, Trail Corridors or Greenways and Urban Open Spaces.

Citywide parks are the most versatile parks within the Albany park system, they are meant to serve the entire city as well as attract visitors from out of town. They have room to accommodate multi-sport fields and festivals due to their larger open spaces accompanied by facilities like restrooms and food /beverage services.

Community parks are meant to serve several neighborhoods with a few sports fields, picnic areas unlike the larger citywide parks.

Neighborhood parks are focused on close to home recreation that promotes more walk-in visitors. These parks are often located near schools.

The main objective of Natural areas is to preserve or protect environmentally sensitive areas, which will sometimes limit public access. However trails, viewpoint and other seating areas are commonly provided.

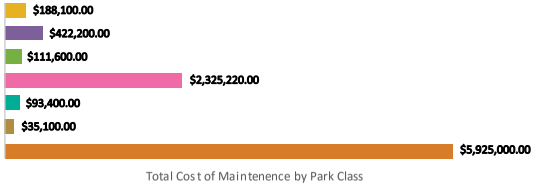
Trail corridors and Greenways are less developed corridors that follow linear features like railroad, power lines or streams and provide seating areas and trails.

Riverfront parks are focused around their access to the Willamette and Calapooia Rivers. There are boat ramps and docks, but are also accompanied by picnic areas, shelters, swimming and fishing areas.

Finally Urban open spaces are landscaped areas and plazas that provide a space for socializing in high density or commercial areas. They often feature art, fountains and downtown performances.

Total cost	Park
$0.00	Albany Community Pool
$519,400	Albany Skatepark
$30,000	Bowman Park
$1,875	Bryant park
$38,300	Burkhart Park
$45,250	Burkhart Square
$400,000	Deerfield Park
$1,500	Doug Killin Park
$186,000	Draper Park
$5,900	Eads Park
$58,900	Eleanor-Hackleman Park
$24,500	Gibson Hill Park
$226,000	Grand Prairie Park
$2,600	Hazelwood Park
$100,200	Henderson Park
$35,100	Kinder Park
$179,800	Lehigh Park
$87,000	Lexington Park
$90,500	Maple Lawn
$3,050,000	Monteith River Park
$4,500	North Albany Park
$422,200	Periwinkle Cr. Bike Path
$19,540	Periwinkle Park
$100,000	Pineway Park
$14,400	Riverview Heights Park
$93,400	Simpson Park
$100,000	Sunrise Park
$29,500	Swanson Park
$81,600	Takena Landing
$107,780	Takena Park
$28,900	Teloh Calapooia Park
$2,875	Timber Linn Park
$142,850	Waverly Park

Data acquired from City of Albany GIS



Kyle Hendricks March 2017

Figure 6: Facility maintenance costs

Conclusion

This project aimed to created a holistic representation of the recreational amenities around Albany. As Albany continues to search for ways to accommodate its growing population, these maps will hopefully provide a visual analysis of current amenities within the city. If future funding is allocated to particular parks or facilities, city officials will have a visual aid to demonstrate where the money may be best allocated.

The work done for P&R shows maintenance cost analysis, service accessibility, and renovation cost analysis for parks, recreation centers, facilities and trails. The goal of these maps is to present the data in a clear and unbiased way that can be used for the city's 2017 P&R Master Plan.