



# A Policy Analysis: Evaluating the Level of Service Standard for Lynnwood's Park System

Report prepared for  
the City of Lynnwood Parks,  
Recreation & Cultural Arts Department

Authored by:  
Jeremy Blomberg, Aurora Deng,  
Emma Li & Carly Marshall

University of Washington  
Evans School of Public Policy & Governance

# TABLE OF CONTENTS

01

## INTRODUCTION

- Background
- Problem

02

## DIAGNOSIS & RESEARCH

- Literature Review Summary
- Full Literature Review

03

## RESEARCH METHODS

- Introduction
- Research Questions
- Methods

04

## RESULTS & ANALYSIS

- Current Lynnwood Park System
- Policy Analysis
- Scorecard

05

## RECOMMENDATION & IMPLEMENTATION

- Policy Option Trade-Offs
- Conclusion & Overall Recommendation
- Limitations & Future Work
- Acknowledgements

# EXECUTIVE SUMMARY

- The Problem
- Our Research questions
- Policy options
- Criteria
- Evaluation

# Recommendation

We recommend that the City of Lynnwood adopt the **half-mile walk** to a park or trail LOS into its future comprehensive parks planning, and prepare to use **capital value per person** as its long-term LOS approach.

01



## INTRODUCTION



## City of Lynnwood

### Parks, Recreation & Cultural Arts Department

*“create a healthy community  
through people, parks, programs and  
partnerships”*

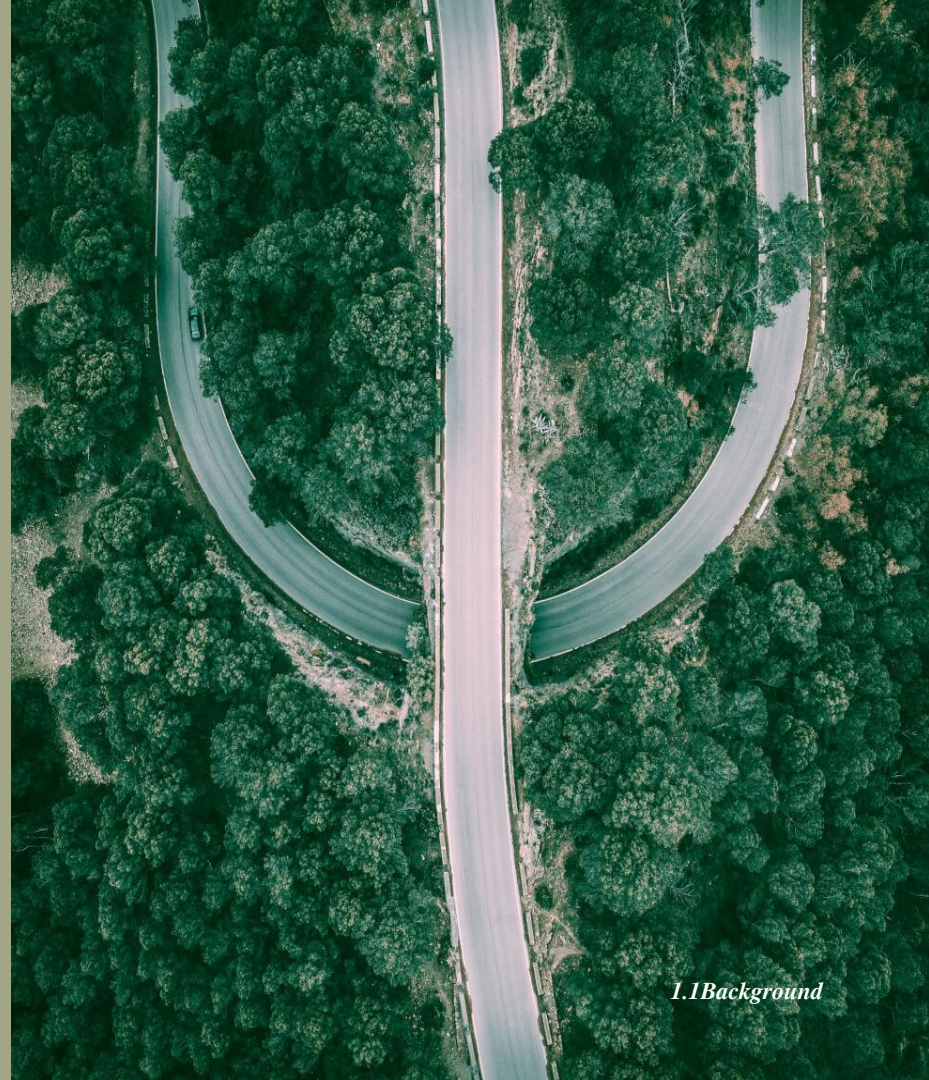


# Parks, Arts, Recreations, and Conservation (PARC) Plan

The PRCA Department evaluates its park system using Level of Service (LOS) standards. The status quo LOS methodology is park acreage/1,000 residents.

The main goals of the PARC Plan:

1. To foster a healthy, active community
2. To create great parks & spaces
3. To ensure sound management
4. To prepare for the future
5. To encourage connectedness



# Research Questions

*What is the prevailing standard methodology of Lynnwood's LOS policy, and are there current and future needs that should be addressed?*

*Based on the research of current best practices, which metrics should be integrated into the LOS standards to more accurately represent the values and needs of the Lynnwood community?*



02



## DIAGNOSIS ET RESEARCH



## Literature Review

### Park Access

- **Proximity:** *% of residents living within ½ mile walk of a park*
- **Barriers:** *investment in removing walking network barriers*

### Park Quality

- **Condition:** *measure of deferred maintenance and ADA compliance issues*
- **Variety:** *mix and location of park amenities*

**Park Availability:** *measure of park capacity, use, and demand*

**Trail Connectivity:** *total linear miles, trail ratio to population, and overall connectedness*

**Capital Value Per Person:** *ratio of a city's total value of parks and recreation inventory compared to their equivalent population*

**Criteria for Developing LOS for Parks**

**Case Example**

## *Park Access*



### **Proximity**

People are more likely to use a park if it is in close proximity to where they live.



### **Barriers**

There are many obstacles that can limit one's ability to get to a park.

## *Park Quality*



### **Condition**

Deferred maintenance and ADA compliance issues usually lead problems impacting people's visiting experience in parks.



### **Variety**

Park amenities can increase park usage, provide health benefits to the community, and promote satisfaction between different ethnic and socioeconomic groups.



## *Park Availability*

- Capacity, usage, & demand
- Expensive & costly to measure, not commonly used
- LOS option → criterion



# Trail Connectivity



## Total linear miles of trails

National average: 11 miles  
West coast avg: 16 miles



## Total linear miles per thousand residents

Current standard:  
0.25 miles per 1,000  
population



## Number of trail connections

Dependent on needs &  
goals of the community



# Capital Value Per Person

## 1. LOS Parks Capital Value per Person

*Value of Parks and Recreation  
Inventory ÷ Equivalent  
Population = Capital Value per  
Person*

## 2. Value Need for Growth

*Capital Value per Person × City's  
Population Growth = Value  
Needed for Growth*

## 3. Investment Needed

*Existing Value of Parks  
Inventory + Value Needed for  
Growth = Value Needed for  
Next Year*

## 4. Investment to be Paid by Growth to Maintain LOS

*Value Needed for Growth - City  
Revenue Investment =  
Investment Needed to Maintain  
LOS*

# Criteria for Developing LOS for Parks

What are the specific  
needs of the residents?  
Do measurements align?

Is the data logical, clear, easy to  
collect, and available?



Does the LOS represent  
economic, health, social  
and environmental  
benefits?

Do they provide a comprehensive  
and representative assessment of  
the parks system?

03



## RESEARCH METHODS

- 
- I. Literature Review**
  - II. Current Park System**
  - III. Policy Analysis**
  - IV. Final Scorecard**

## **Research Methods**

# Policy Options



Status Quo  
(Park Acreage per Resident)



Park Access  
(Number of Residents living  
within ½ Mile Walk to Park)



Capital Value Per Person



Trail Connectivity  
(Trail Presence)



# Evaluative Criteria

The ideal LOS will:

1. Increase Social **Health Equity** within the Community
2. Increase **Economic Equity** within the Community
3. Increase **Environmental Equity** within the Community
4. Increase Ability to **Meet Demand for Future Growth**

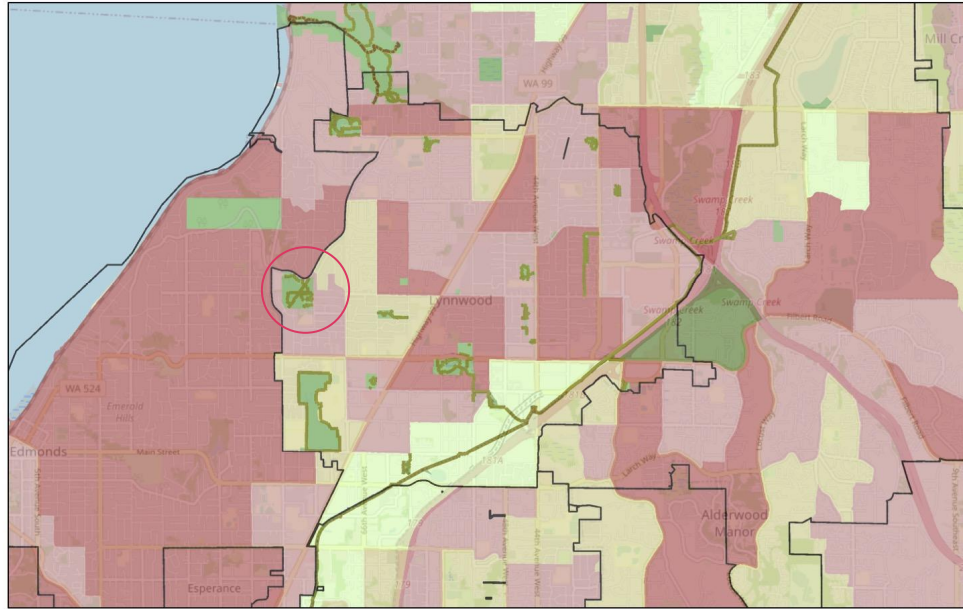
Increase Ease of Model Replicability →  
internal survey

Criterion	Data used to represent criterion
Health	<ul style="list-style-type: none"><li>● Obesity %</li><li>● CDC Social Vulnerability Index</li></ul>
Socio-economic	<ul style="list-style-type: none"><li>● Low income rate</li><li>● Percentage of people of color</li></ul>
Environment	<ul style="list-style-type: none"><li>● Urban heat island effect</li><li>● Air quality</li></ul>
Demand / Growth	<ul style="list-style-type: none"><li>● Parks usage from UWT</li></ul>

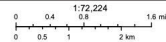


# Sourcing the Data

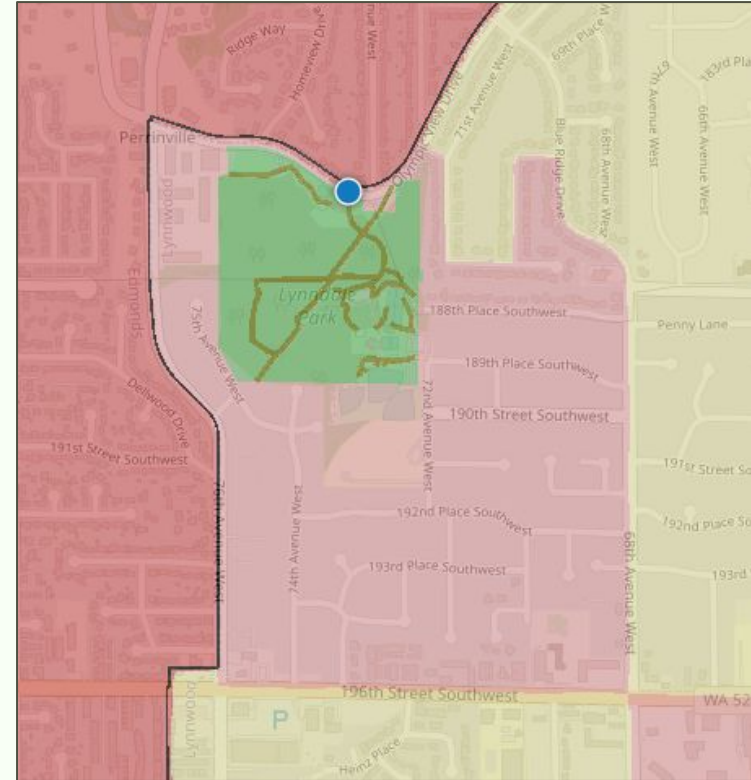
Lynnwood - Air Quality



April 15, 2021



The Trust for Public Land  
Copyright 2018



## 3.3 Sourcing the Data

# Policy Analysis - Big Picture

**Goal of policy analysis: are there any correlations between each LOS and the criteria?**

**What that tells us: could the LOS represent the needs of the city and help identify gaps in equity and service?**

# 04



## Results & Analysis

# Current Lynnwood Park System

City-level summary for overall park system in Lynnwood, based on proposed LOS measurements

## Park Acreage per Resident

2016 this overall LOS in Lynnwood is:  
**3.5 acres per 1000**

## Park Access (1/2 Mile Walk to a Park)

According to The Trust for Public Land project, **79.4%** of Lynnwood's population is within a 10-minute walk of a park or trail.

## Capital Value per Person

In 2018, this LOS for Lynnwood is:  
**\$3,783**

## Trail Connectivity

Overall, the City of Lynnwood has **14 miles of trails**, which is approximately **0.37 miles of trail / 1000 residents**.

# Policy Analysis

## Data

	Criterion						Other Variables from link: <a href="https://parkserve.tpl.org/mapping/index.html?CityID=5340840#reportTop">https://parkserve.tpl.org/mapping/index.html?CityID=5340840#reportTop</a>		
Variables	Average bike usage from 2018-2020	Park Usage Data	CDC - Social Vulnerability Index	GIS - CDC Obesity %	GIS - Enviro data: Air Quality	GIS - Enviro data: Urban Heat	Low income	Middle income	High income
NOTES		The sum of average ped usage and average bike usage	I coded them as 4 highest, 3 = 3rd quartile, 2 = second, and 1 = 1st. Higher is more vulnerable, see doc.	Higher = negative / We coded them as 0,1,2,3,4 for 0-7, 7-9, 9-11, 11-14, 14-33	Higher # = better quality	Higher = worse / we coded them as 0,1,2 for zero, moderate, high	Income variables --- could be used for representing the Social Situation of Lynnwood in future regression analysis		
Lynndale Park	5942	174237	4	9-11	2	zero	372	435	677

# Policy Analysis

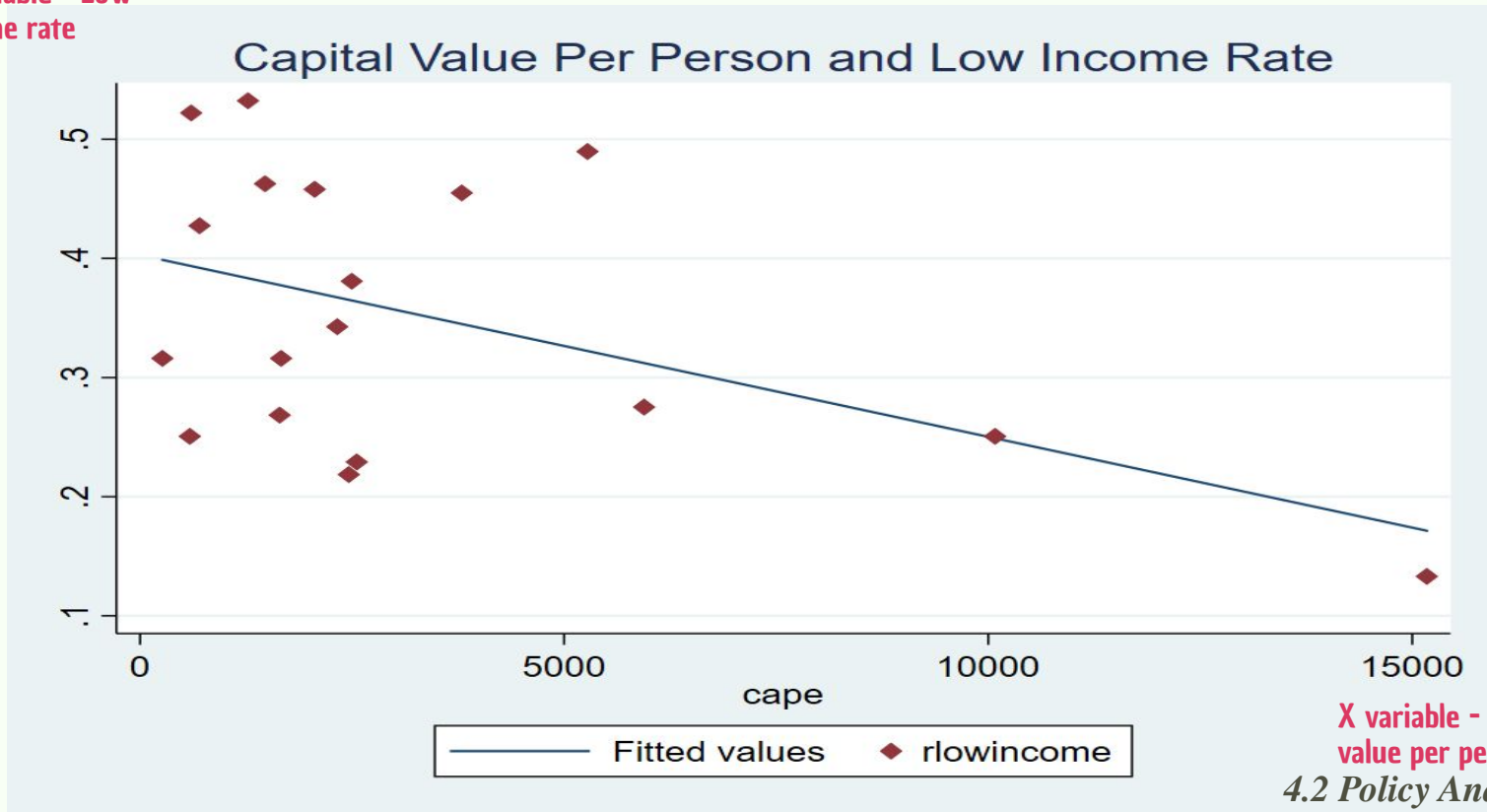
## Data

	Policy options					
Variables	10 minute walk	minute walk---GIS	acreage	trails	capital value_aurora	capital value_emma
NOTES		This is also 10 minute walk data, from the GIS website: <a href="https://parkserve.tpl.org/mappi">https://parkserve.tpl.org/mappi</a>		Park with trail coded as 1, without coded as 0	Based on <i>Natural Capital Accounts for Public Green Space in London</i> , for details see the word document and <i>Park: Capital Value</i> table in this spreadsheet.	Based on the <i>Park Impact Fee Ordinance of Lynnwood</i> . Calculating as adding all facilities in each park together.
Lynndale Park	3,903	3904	40.57	1	\$39,570,554.56	39356306.85



# Policy Analysis

Y variable - Low  
income rate



X variable - Capital  
value per person

4.2 Policy Analysis

# Policy Analysis

- **LOW:** no correlation and no statistical significance
- **MEDIUM:** weak statistically significant correlation with the criterion
- **HIGH:** strong statistically significant correlation with the criterion

Criteria	Increase Social Health Equity	Increase Economic Equity	Increase Environmental Equity	Increase Ability to Meet Demand for Future Growth
LOS Policy Option				
1. Status Quo (Park Acreage)	LOW	MEDIUM	LOW-MEDIUM	HIGH
2. Park Access (1/2 Mile Walk )	MEDIUM	LOW	LOW	LOW
3. Capital Value Per Person	MEDIUM	HIGH	LOW-MEDIUM	HIGH
4. Trail Connectivity (Trail Presence)	LOW	LOW	MEDIUM	LOW

# Final Scorecard

Example scorecard for community parks:

Community Parks	Park Access		Capital Value Per Person		Total Score
	Value (# residents within 1/2 mile)	Score	Value	Score	
Lynndale Park	3,904	1	\$10,081.02	1	2
Meadowdale Playfields	1,650	-1	\$15,170.00	1	0
Scriber Lake Park	4,025	1	\$5,275.50	-1	0
Wilcox Park	2,251	-1	\$3,793.37	-1	-2

05



## **Recommendation & Implementation**

# Policy Option Trade-Offs

## Status Quo

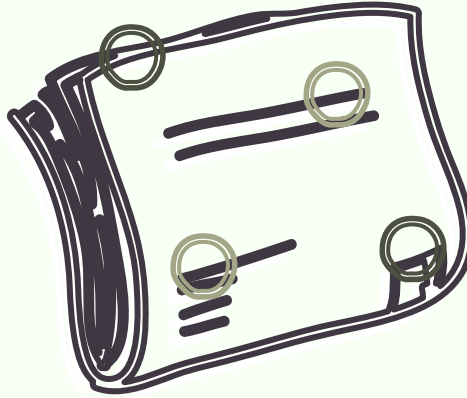
- Strong connection: city's future population growth.
- Slight correlation: environmental benefits, economic equity.
- Unable to represent: social health equity.

## Park Access

- Relatively ineffective measure.
- Slight correlation: social vulnerability index.
- Unable to represent: community's economic, environmental, and growth data.

## Capital Value Per Person

- Appropriately represent most of our criteria.
- Strong correlation: community's economic, and growth data.
- Slight correlation: environmental and health equity.



## Trail Connectivity

- Relatively weak in representing the criteria.
- Slight correlation: environmental measures.
- Unable to represent: community's economic, health, and growth data.

## **A two-tiered approach:**

- 1. In the short-term, we recommend using the number of residents served within a half-mile walk to a park or trail LOS.**
- 2. In the long-term, Lynnwood should transition to a capital value per person LOS.**



**Conclusion &  
Overall  
Recommendation**

## **Additional consideration for Trails:**

**Lynnwood has approximately 0.37 miles of trail / 1,000 residents, which is higher than the current national standard of 0.25.**

**Proposed new trails LOS benchmark: between 0.3 and 0.4 miles / 1,000 residents.**

## Limitation & Future Work

Limitation	Future Work
Literature review	Improve local participation and engagement in the process of establishing LOS
Statistical analysis	Add individual-level data instead of only using park-level data
Project scope	Help the city to prioritize future budget planning
Assessment of potential annexation in urban growth area	Analyze more on annexed areas
Force majeure impact	Study on risk analysis, corresponding prevention and solutions to better respond the public emergencies

## Acknowledgements

*Thank you...*

- *Our client, Deputy Director Sarah Olson*
- *The UW Tacoma research team*
- *Our capstone advisor Steve Kosack and our Evans peers*

*Our team worked across multiple time zones and through a pandemic, and we are proud of our contribution in evaluating Lynnwood's parks level of service standard.*



# Thank You !

Any Question?