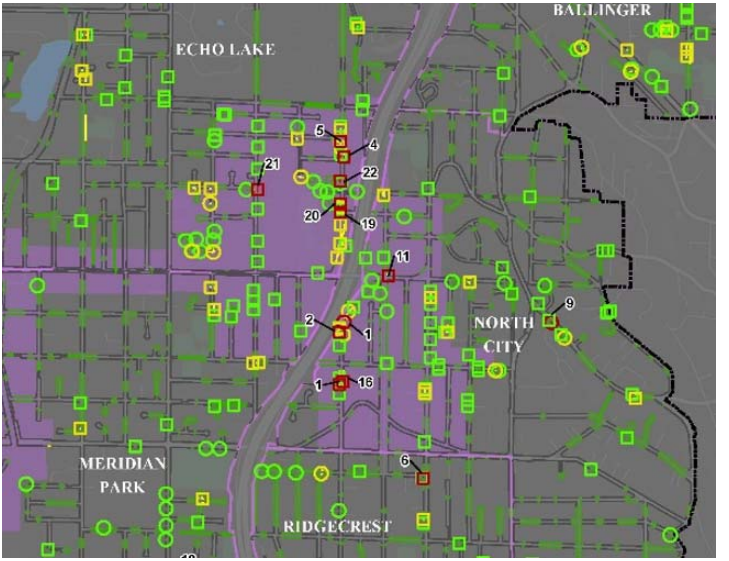
Streetlight Master Plan

Open House



CITY OF SHORELINE

Tuesday, Sept. 25, 2018
6:30p.m. – 8:00p.m.

Table of Contents

Overview of the Master Plan

Existing Street Light Inventory

Transportation Master Plan
Develop a comprehensive detailed street lighting and outdoor master lighting plan to guide ongoing public and private street lighting efforts.

Engineering Development Manual
All marked crossings shall be illuminated with at least one luminaire oriented parallel to the crossing.

Future Street Light Evaluation

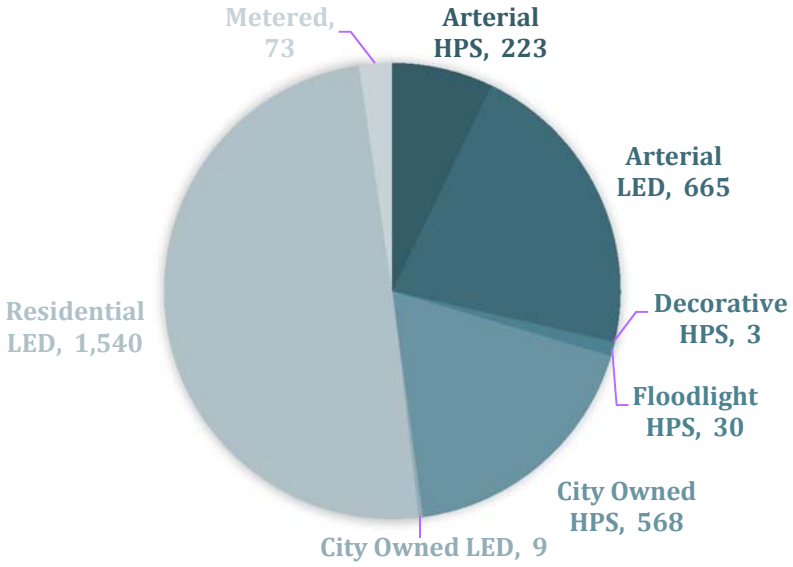
- Sidewalk
- Roadway Classification
- Distance to Existing Street Lighting
- Bike Facility
- Comp Plan Land Use
- Nearby School
- Crash History
- Intersection

Residential Street Light Request

http://www.shorelinewa.gov/streetlightrequest

Existing Street Lights

The City of Shoreline currently has 3,011 streetlights, most are owned and maintained by Seattle City Light.



Type of Light	2018 Monthly Rate
Arterial HPS	$29.41
Arterial LED	$16.32
Decorative HPS	$34.94
Floodlight HPS	$26.18
City Own HPS	$21.80
City Owned LED	$7.52
Residential LED	$11.81
Metered	0.00

Future Street Light Evaluation

Scoring Methodology

The street light prioritization plan uses a geographical information system (GIS) based methodology to identify priority locations based on criteria that is weighted by the expected improved safety impact. In this method, GIS layers (such as proximity to schools, bike facilities, and land use) are assigned values between 0 and 100 for lower to higher priority for street light needs. The scores for each criterion are attributed to the adjacent public right-of-way throughout the City. After combining the scores for all criteria, the locations with the highest scores with gaps in the existing street light inventory are ranked and considered as locations for new installations.

Scoring Criteria (Total Points: 100)

After Dark Accident History (20 Points): Locations with a history of after dark accidents in areas not illuminated by existing street lights are scored as high priority areas.

Intersection Location (20 Points): The intersection of two roadways is a high conflict area with typically the highest safety concerns on the City's street network.

Proximity to Schools (15 Points): Areas within 1000 feet of schools are prioritized because of increased levels of young and inexperienced pedestrians, cyclists, and drivers. These areas also experience periods of high volumes of traffic during dark hours in the winter month school drop off times.

Land Use (10 Points): Each land use classification is assigned a score which is applied to the adjacent length of right-of-way. Generally, areas with denser land use are an indicator of where higher volumes of pedestrians, cyclists, and vehicles will share a

Scoring Methodology

Roadway Classification (10 Points): The roadway classification is used as a measurement of vehicle volume and generally higher functional speeds. Principal Arterials are assigned the highest possible score for this criterion, while local streets are assigned the lowest scores to indicate lower priority.

Existing Bike Facilities (10 Points): The presence of these facilities typically indicates high areas of use by cyclists and therefore are all scored as high priority areas for street lights. Visibility around cyclists is very important at night for increased safety.

Existing Street Light (10 Points): The distance from an existing light is a key component of determining priority locations for new street lights. Therefore, areas that are greater than 300 feet away from an existing street light (and therefore receiving no lighting) are assigned the highest scores and prioritization while lights less than 200 feet are assigned no score in this category with the assumption that a minimal amount of lighting would already be realized from a light that is no more than 200 feet away.

Existing Pedestrian Facilities (5 Points): There is a relative balance of need for lighting on existing sidewalks or paths and areas with no pedestrian facilities. Locations with existing pedestrian facilities have higher pedestrian volumes but are relatively safe for users. Locations without existing pedestrian facilities typically have very low pedestrian volumes but are less safe. A high volume, relatively safe location and a low volume, less safe location both benefit proportionally from added street light, so all locations in this category are assigned the same base score.

Study Area: Scored areas include the full City right-of-way. The Interstate 5 (I-5) right-of-way and any City right-of-way that is within 120' of an existing street light is removed from the study area and not included for consideration in this prioritization study.

Scoring Methodology

AFTER DARK ACCIDENT HISTORY

Accident Location - Lighting Condition

- Dark-No Street Lights
- Dawn-No Street Lights
- Dusk-No Street Lights
- 300' From Mapped Accident

Score: Lighting Condition

- 0: No Night-time Accidents in areas with no lighting
- 10: Dawn or Dusk-No Street Lights
- 20: Dark-No Street Lights

INTERSECTION LOCATION

Score: Intersection

- 4: Not at Intersection
- 20: At Intersection

PROXIMITY TO SCHOOLS

- School Property

Score: Distance to School

- 0: No School within 1000'
- 15: School within 1000'

Scoring Methodology

LAND USE

Adjacent Land Use
Score: Land Use

- 2: Private Open Space
- 4: Public Open Space
- 4: Low Density Residential
- 6: Medium Density Residential
- 6: Public Facility
- 8: Medium Density Residential
- 8: Institution Campus
- 8: Mixed Use
- 10: Town Center District
- 10: High Density Residential
- 10: Station Areas 1,2 & 3

ROADWAY CLASSIFICATION

Score: Street Classification

- 0: Interstate
- 4: Local Primary/Local Secondary
- 6: Collector
- 8: Minor Arterial
- 10: Principal

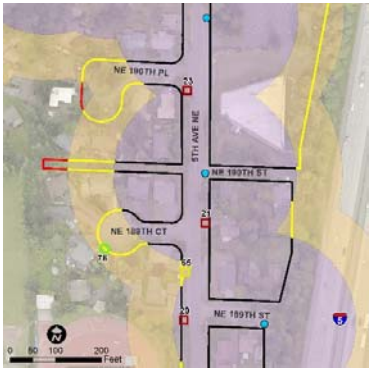
EXISTING BIKE FACILITIES

Score: Bike Facility - Existing and Planned

- 0: None/Other
- 8: Signed Route
- 10: Sharrow
- 10: Bike Lane

Scoring Methodology

EXISTING STREETLIGHT



- Existing City Street Light
- 0' - 200' from Existing Light
- 200' - 300' from Existing Light

Score: Distance to Existing Light

- 0: Existing Light within 200'
- 7.5: No Existing Light within 200'
- 10: No Existing Light within 300'

FINAL PRIORITIZED LOCATIONS AND SCORING

Ranked Potential Install Locations (At Existing Poles)

- Low Priority: 40-50 (297 Locations)
- Medium Priority: 51-63 (73 Locations)
- High Priority: 64-100 (24 Locations)

Ranked Potential Install Locations (Without Poles)

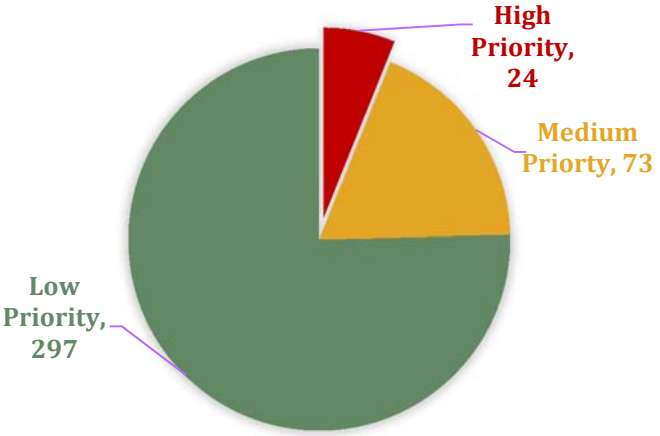
- Low Priority: 40-50 (54 Locations)
- Medium Priority: 51-63 (34 Locations)
- High Priority: 64-100 (8 Locations)

Combined Priority Score

- Low Priority: 0-50
- Medium Priority: 51-63
- High Priority: 64-100
- 0 (No Light Needed - Existing Light within 120')

New Street Lights Prioritization

A total of 394 locations were identified for potential street light installation.



NEIGHBORHOOD	POTENTIAL NEW STREET LIGHT
Ballinger	14
Briarcrest	39
Echo Lake	47
Highland Terrace	19
Hillwood	55
Meridian Park	25
North City	67
Parkwood	23
Richmond Beach	9
Richmond Highlands	49
Ridgecrest	46
Westminster Triangle	1

Recommended Light Fixtures

PRICIPAL ARTERIALS

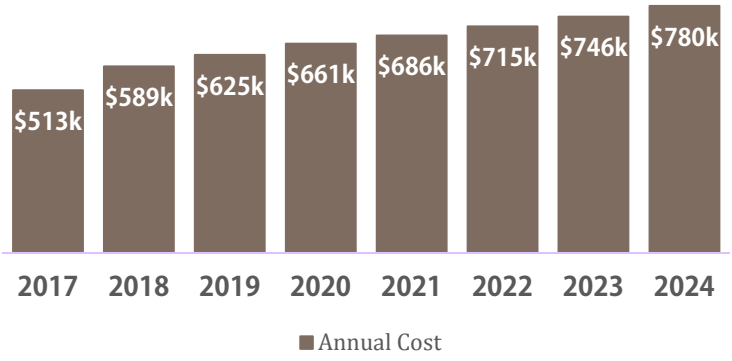
COLLECTOR ARTERIALS

RESIDENTIAL STREETS

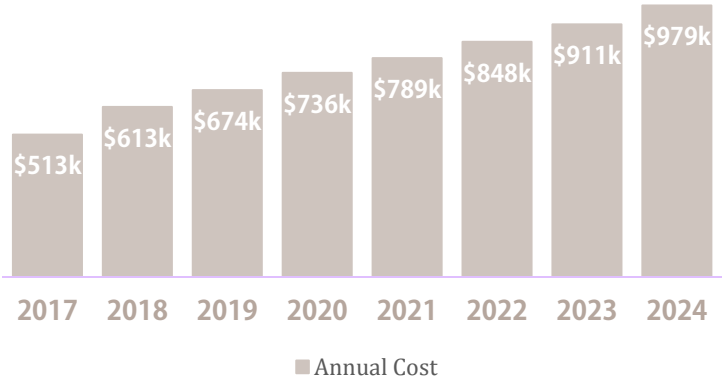
DECORATIVE
PEDESTRIAN-SCALE LIGHTS

Street Lighting Cost

Seattle City Light plans to increase electrical costs by 30% over the next 6 years. With adding only 10 additional street lights a year to the inventory, annual cost for the City will be $780,000 by year 2024.



The cost for installing all 394 identified lights in the next 6 years would be close to $1 million dollars annually by the year 2024.



Residential Street Light Request

In residential areas, if you or a group of residents desire a new street light installed on a public street, start by submitting a request form (below) to the City.

If the street light can be installed on an existing Seattle City Light (SCL) power pole, there will be no costs to residents.

All new lights in residential areas will first require the approval of the City Traffic Engineer, then approved by all residents within an approximate 100-foot radius of the proposed light location. In the instance that approval is denied by a single resident, installation of the light will be at the City Traffic Engineer's discretion. Once the light is installed, the ongoing monthly operating cost of the light is paid by the City of Shoreline.

Multiple light requests require completed Request and Petition Forms for each light requested.

http://www.shorelinewa.gov/streetlightrequest

Contact:

Quang Nguyen
Traffic Services
17500 Midvale Ave N
Shoreline, WA 98133

Email: qnguyen@shorelinewa.gov

Web: http://www.shorelinewa.gov/government/departments/public-works/traffic-services/street-lights

City of Shoreline
17500 Midvale Ave N
Shoreline, WA 98133