# Bin Placement Pilot Program

April Gullacher, Kenny Heinz, Nancy Pham, Carlos Vasquez

ENVS 2100 - CityStudio

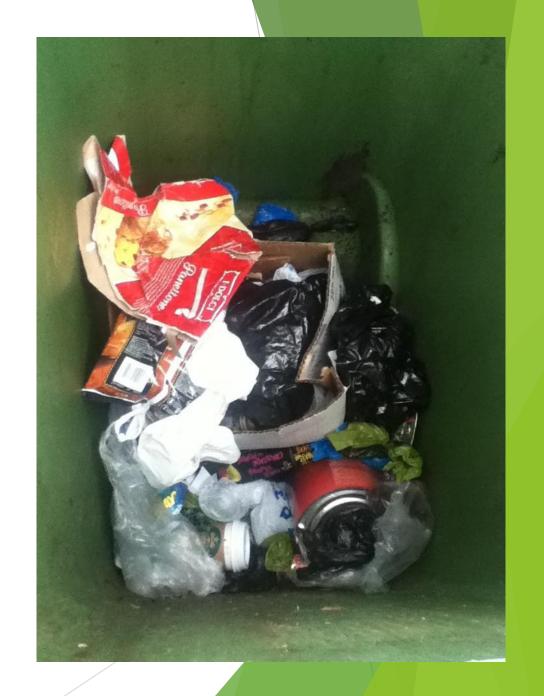
November 2015

# **Project Description**

- Objective: To reduce the amount of waste in public spaces
- A better system needs to be employed to dispose and collect trash in an appropriate manner

# **Project Tasks**

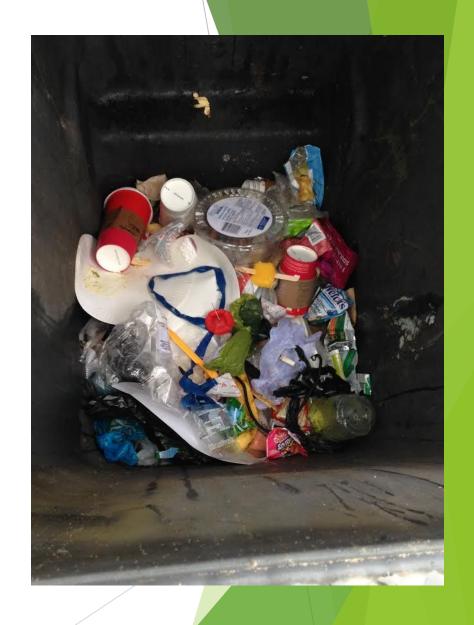
- Observational research on the placement of bins at 4 local Vancouver parks
- GPS location of all the waste bins
- Observing areas of high foot traffic, and litter



#### The Problem

#### Preliminary Data shows:

- Redundant garbage cans and recycling bins
- Recyclables and Organic waste
- Litter
- Overflowing bins
- High traffic areas with no form of garbage disposal
- Domestic waste



## Queen Elizabeth Park

- Improper disposal of waste. organics, recyclables and waste mix in the same bins
- Many of them of empty, placed in areas with low traffic.
- Different amount of bins from week to week



#### Hillcrest Park

- Decrease in bins from week to week
- Varying location of bins
- High amount of organic waste
- Redundant garbage cans
- Moderate amount of recyclables



## Memorial South Park

- Mixed waste in almost all of the bins
- Animal waste and domestic waste were a problem along the main paths
- Large areas without disposal methods
- Litter along high traffic paths





# John Hendry Park (Trout Lake)

- Bins concentrated near south-end fieldhouse, community centre and parking lots.
- Approx. 52 bins, 1 recycling bin
- Large gaps in bin placement along western and eastern sides of lake.



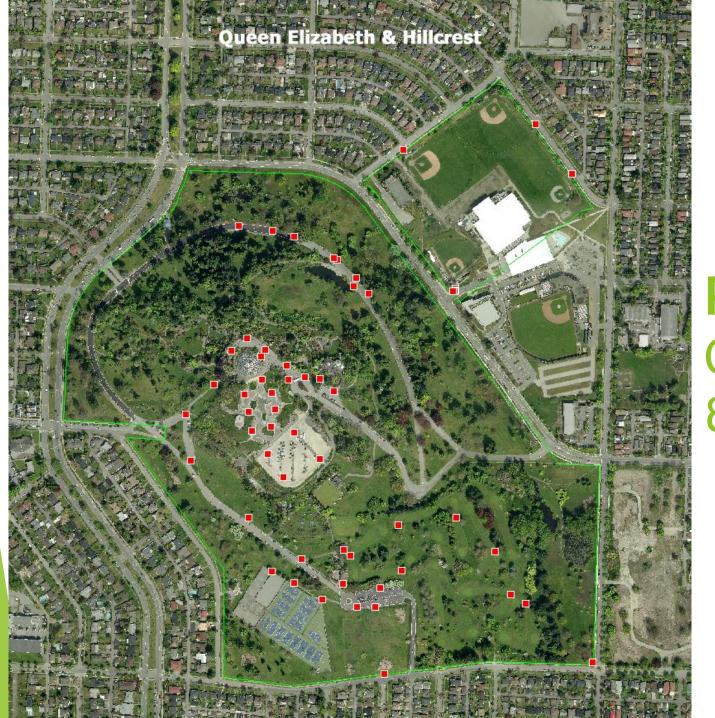
#### Our Solution

- Removal of inefficient bins
- Redistribute existing bins
- Implementation of additional garbage, recyclable, and organic bins
- Maximize pickup by having bins in convenient and permanent positions

#### Our Solution

#### Criteria for efficient bin placement:

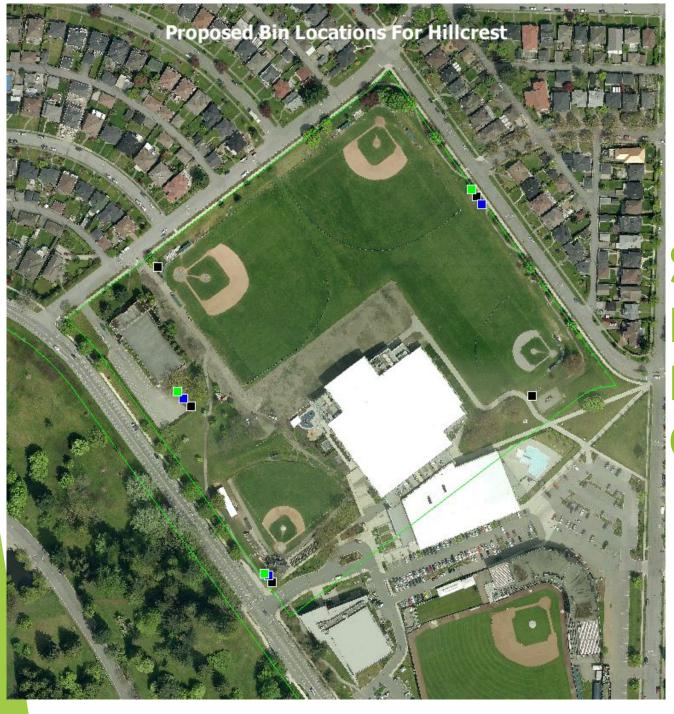
- near entrances and exits
- near points of consumption
  - benches & tables
- high traffic walkways
- toilets and utilities
- parking lots
- sports facilities
- playgrounds



Problem
Queen Elizabeth
& Hillcrest



Solution
Queen Elizabeth
Proposed bins: 51
Current: 56 (-5)

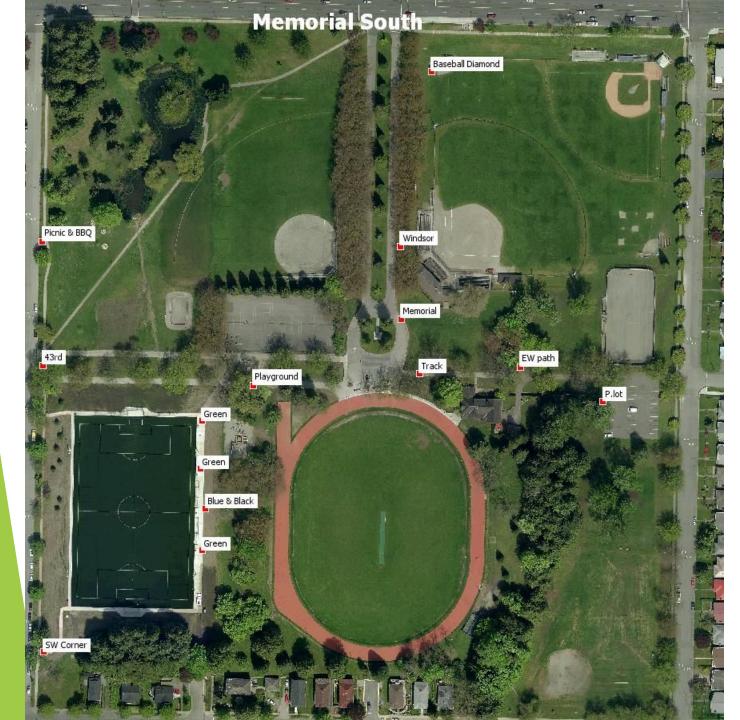


Solution

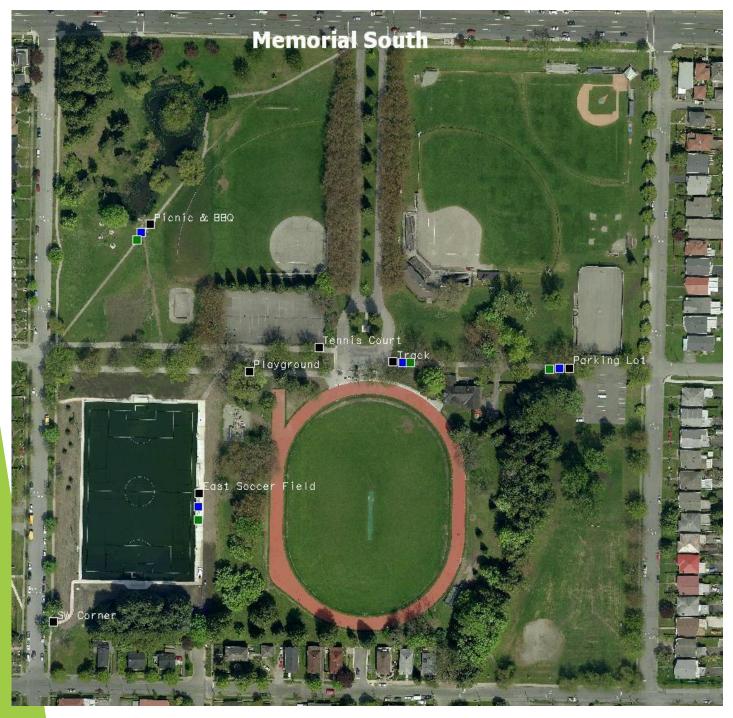
Hillcrest

Proposed bins: 11

Current: 7.33 (+3.67)



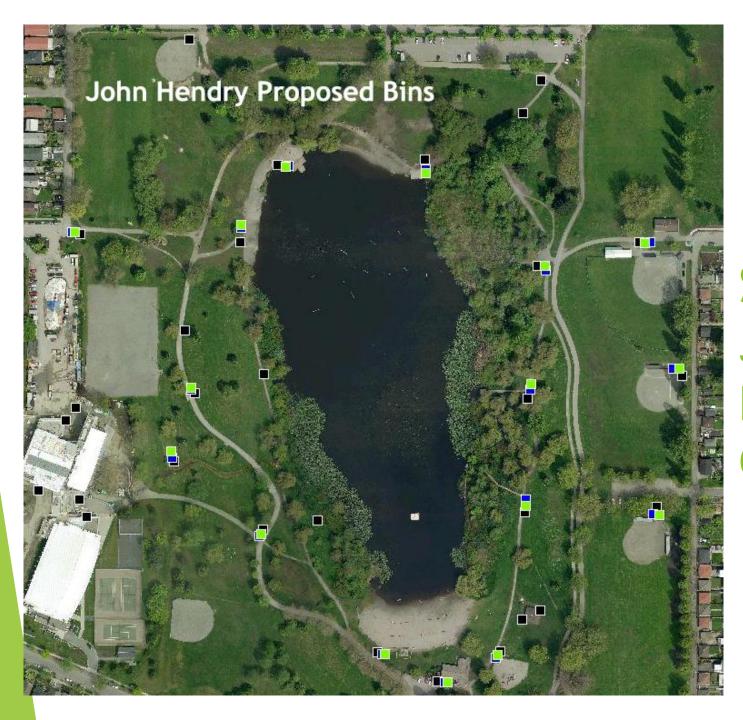
Problem
Memorial South



Solution
Memorial South
Proposed bins: 15
Current: 17.67
(-2.67)



Problem
John Hendry



Solution
John Hendry
Proposed bins: 61
Current: 51.33
(+9.67)

## Conclusion

- Improvements need to be made to the current system
  - reinventing current system minimizes costs
    - \$60 / bin
- Can easily be expanded into other parks
- Streamlines waste collection