



# Solar-powered trash cans

Lodi City Council

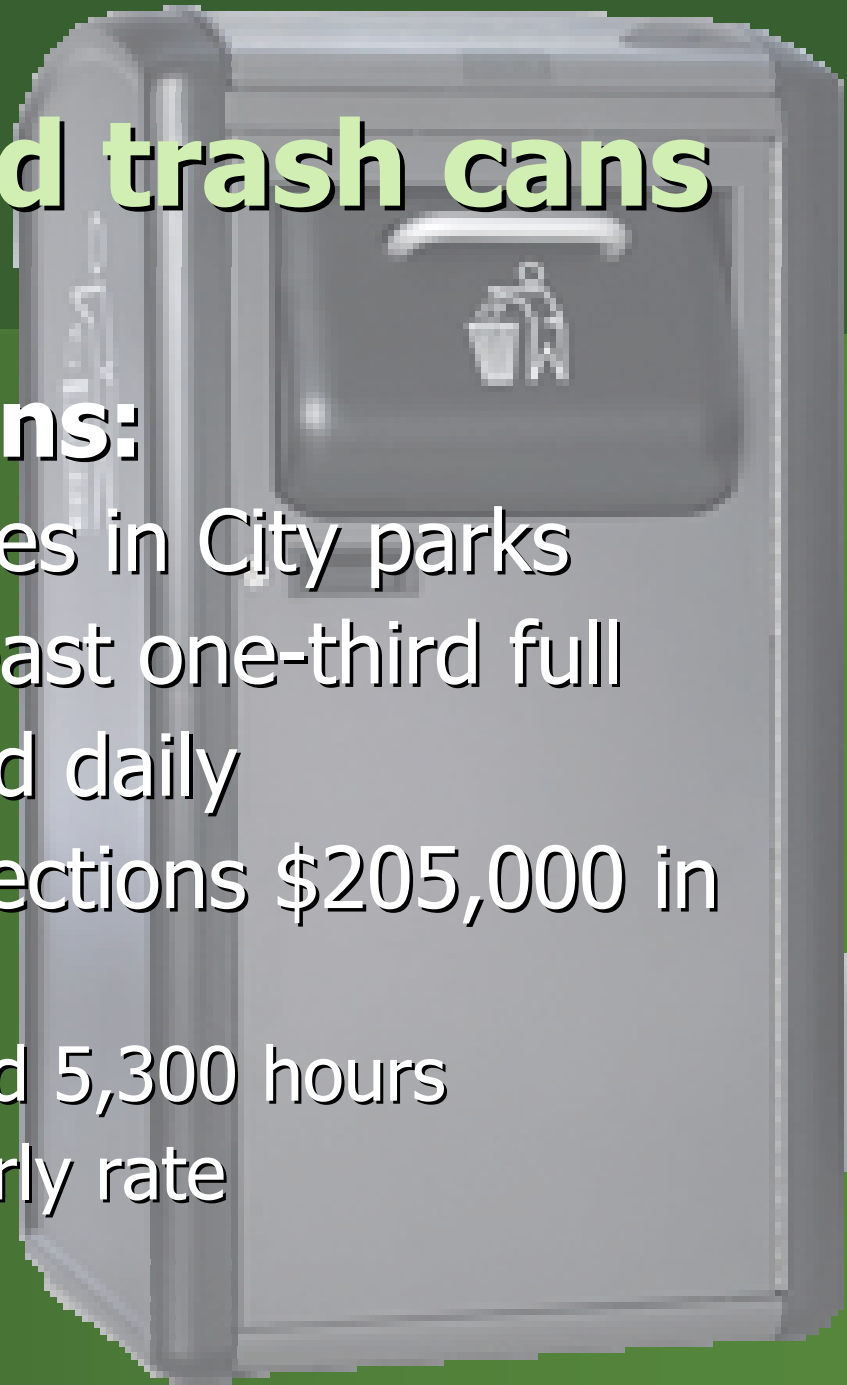
Sept. 16, 2009



# Solar-powered trash cans

## Current operations:

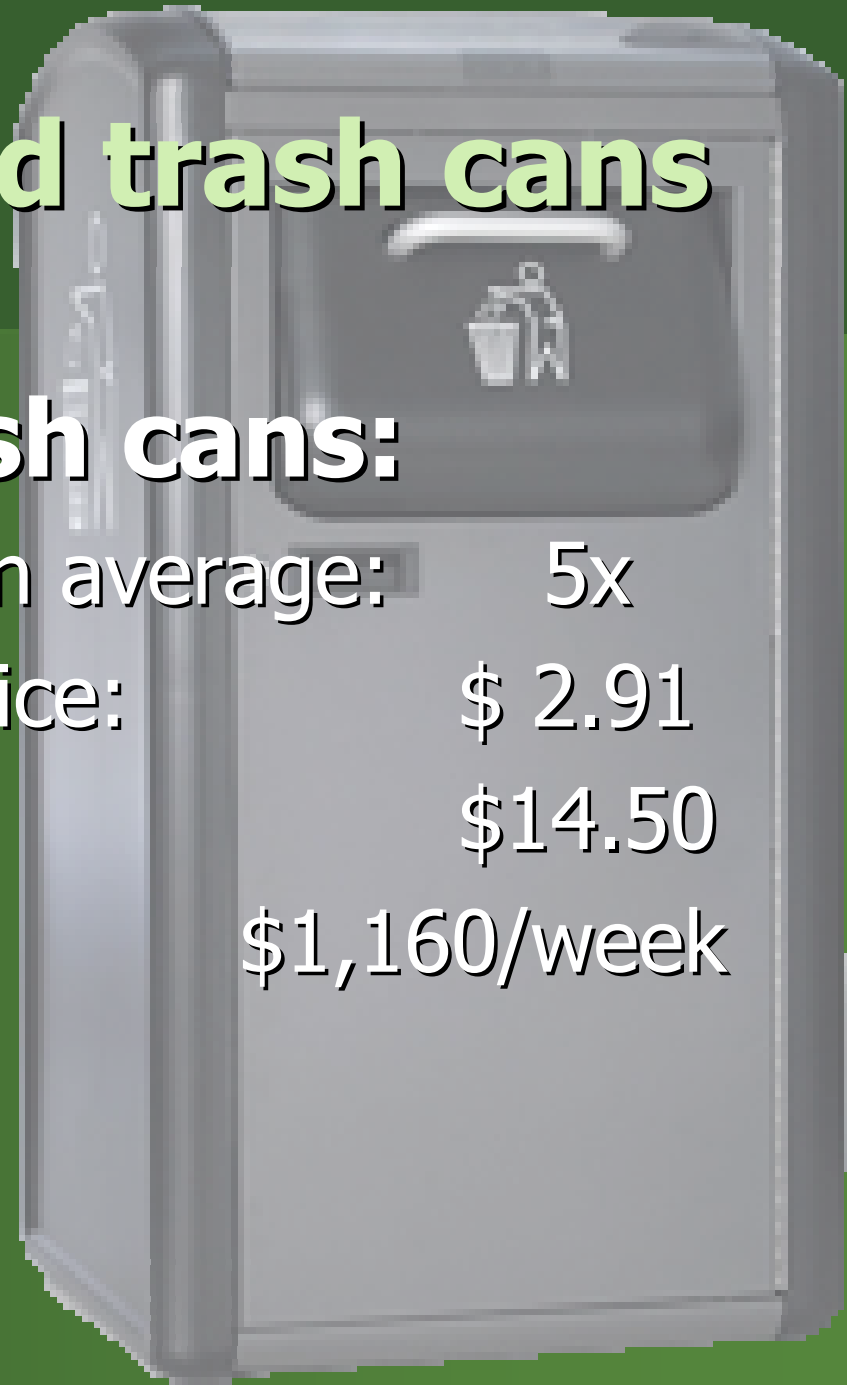
- 315 trash receptacles in City parks
- Emptied when at least one-third full
- All cans are checked daily
- Labor costs for collections \$205,000 in FY08/09
  - 13 field staff expend 5,300 hours
  - Fully burdened hourly rate



# Solar-powered trash cans

## Traditional trash cans:

- Service per week on average: 5x
- Labor cost per service: \$ 2.91
- Total cost/week: \$14.50
- Cost of 80 cans \$1,160/week



# Solar-powered trash cans

## Plan for solar-powered cans

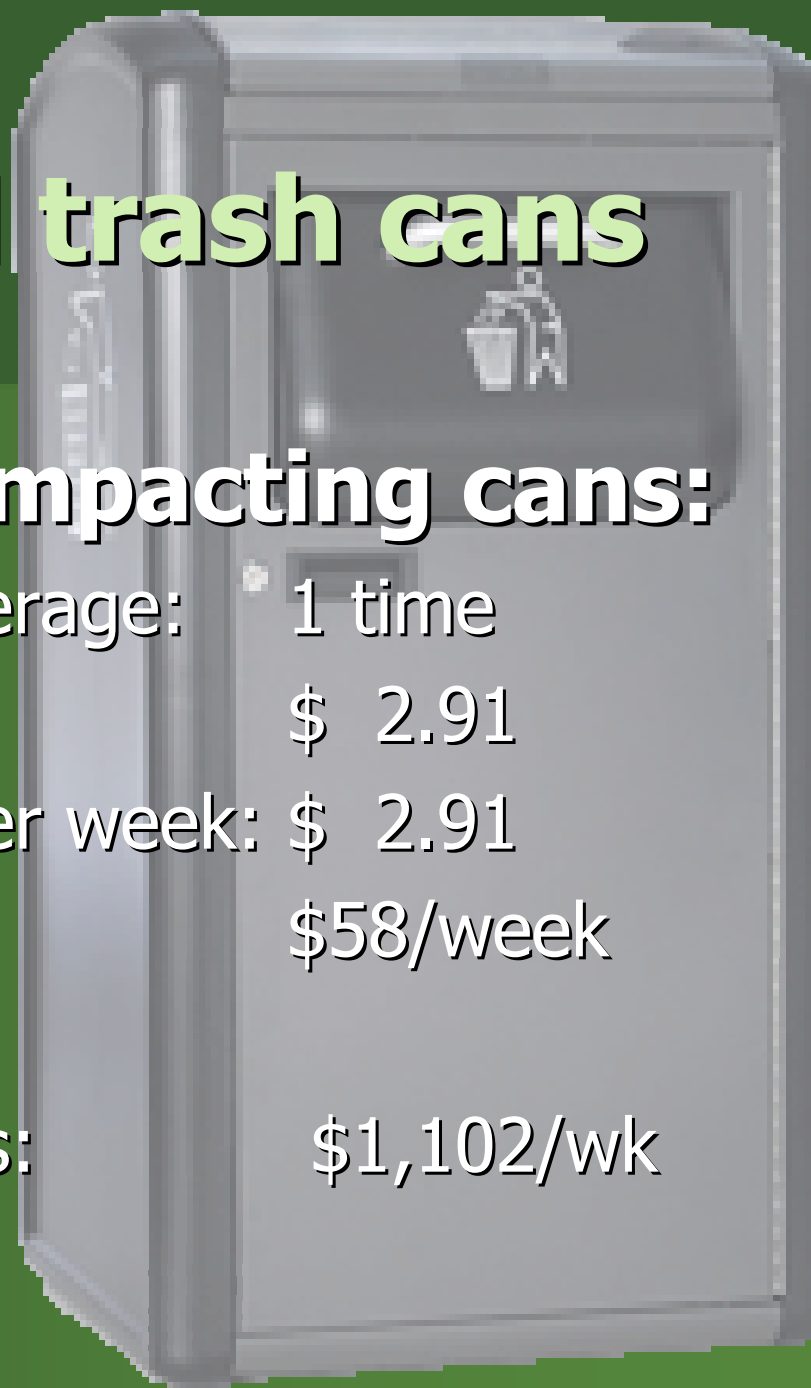
- Use 20 to replace 80 traditional cans in City parks
  - Research shows visitors seek out compactors to dispose of trash
  - No overflowing cans



# Solar-powered trash cans

## Solar-powered compacting cans:

- Service per week on average: 1 time
- Labor cost per service: \$ 2.91
- Total cost per service per week: \$ 2.91
- 20 cans' costs \$58/week
- Cost savings vs. 80 cans: \$1,102/wk



# Solar-powered trash cans

## Estimated labor savings:

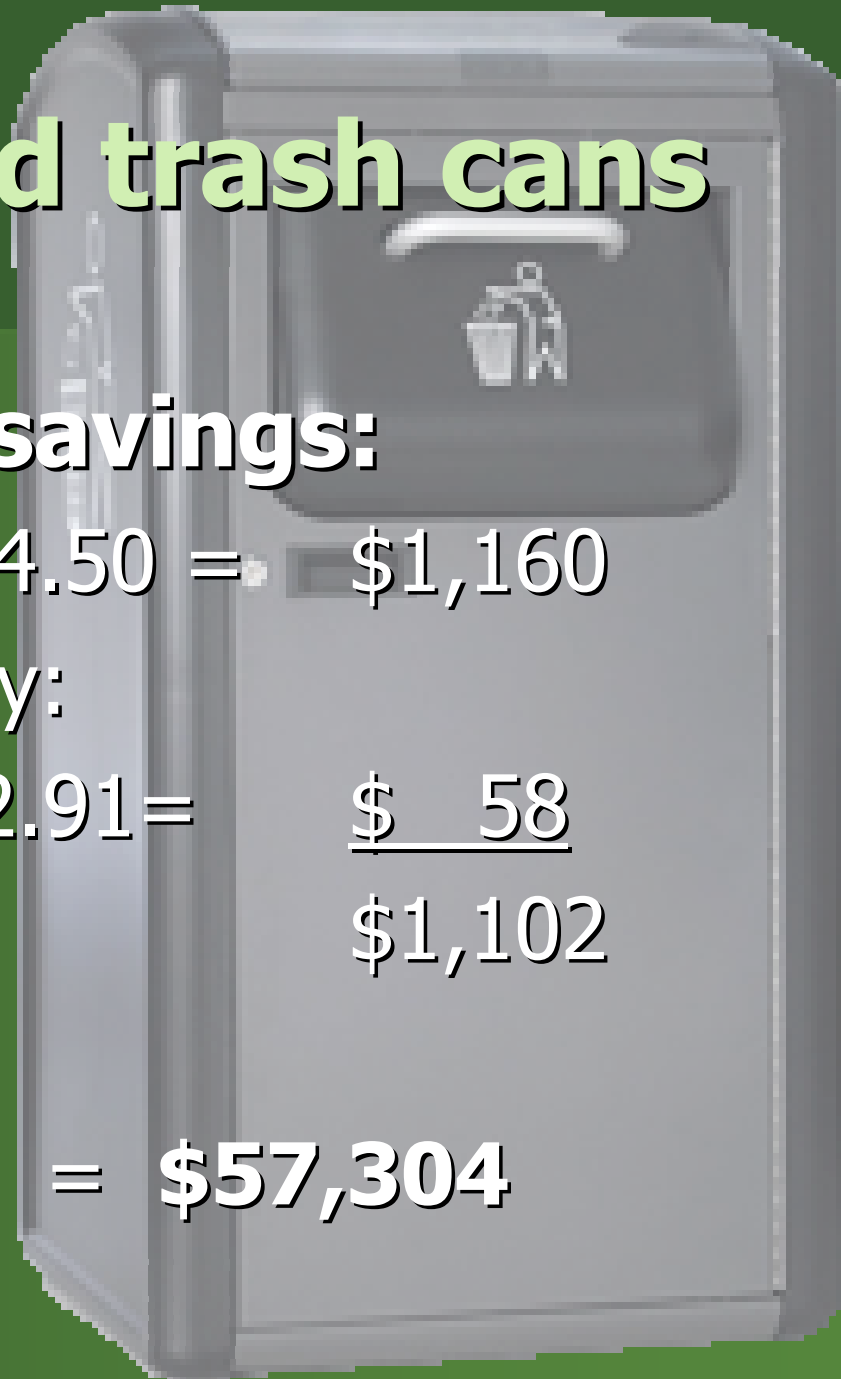
■ 80 trash cans x \$14.50 = \$1,160

Replaced by:

■ 20 trash cans x \$ 2.91 = \$ 58

Weekly savings: \$1,102

\$1,102 x 52 Weeks = **\$57,304**

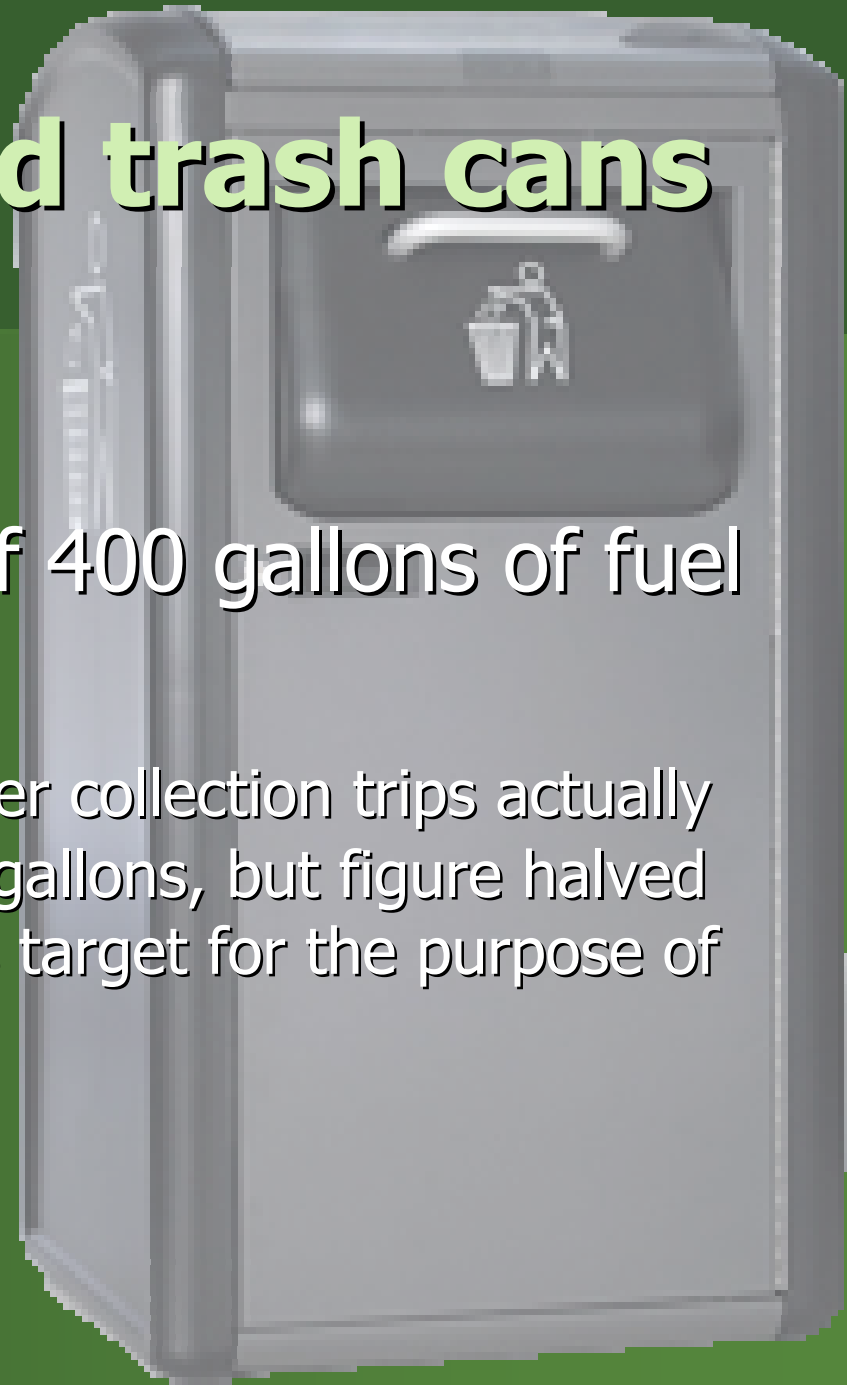


# Solar-powered trash cans

## Other savings

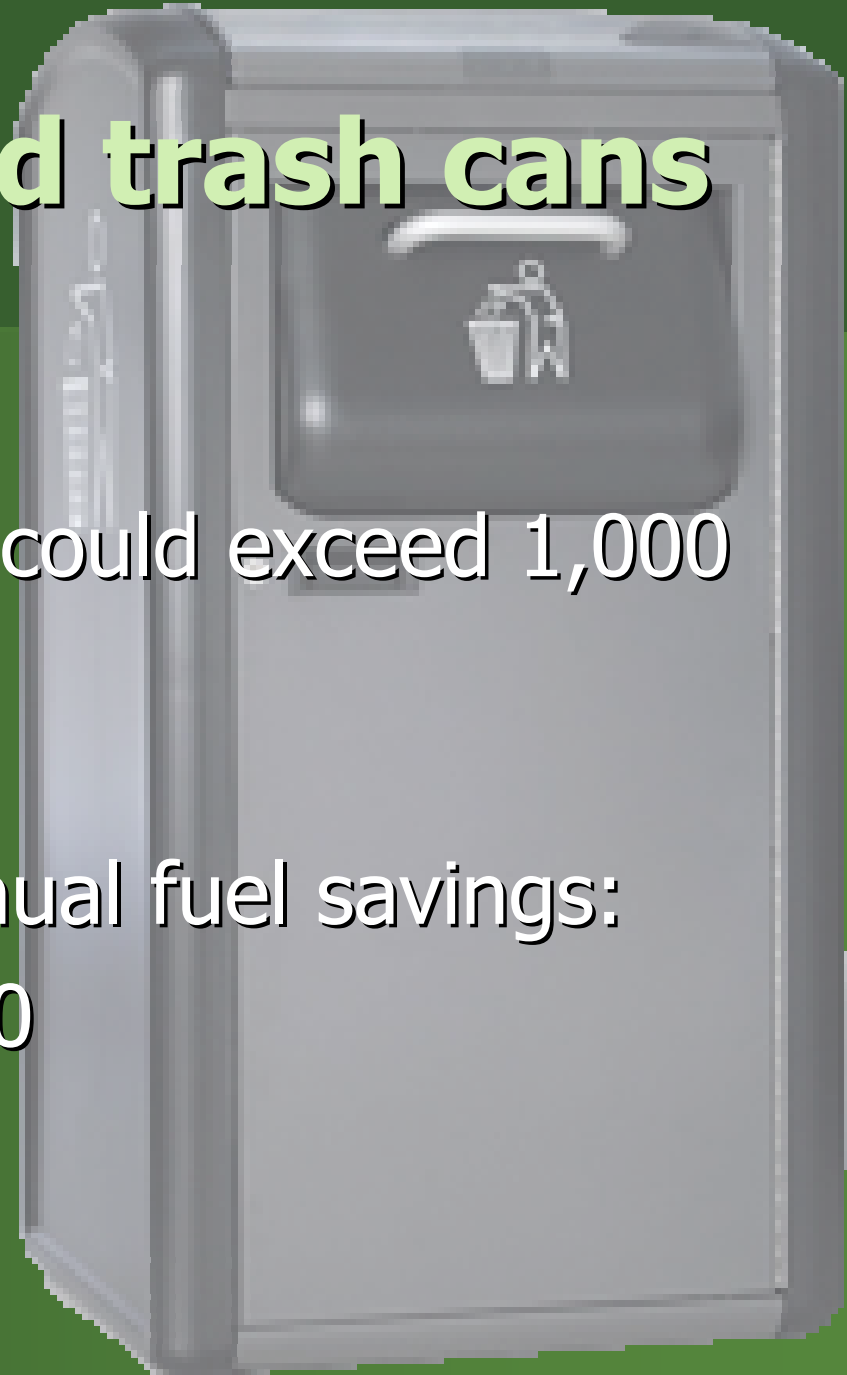
- Minimum savings of 400 gallons of fuel each year.

Note: 25-percent fewer collection trips actually saves approximately 800 gallons, but figure halved for attainable fuel savings target for the purpose of the grant.



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- Actual fuel savings could exceed 1,000 gallons/year
- Base estimated annual fuel savings:  
\$1,200





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## Summary

- Labor cost savings:
- Fuel savings:

**Total savings**

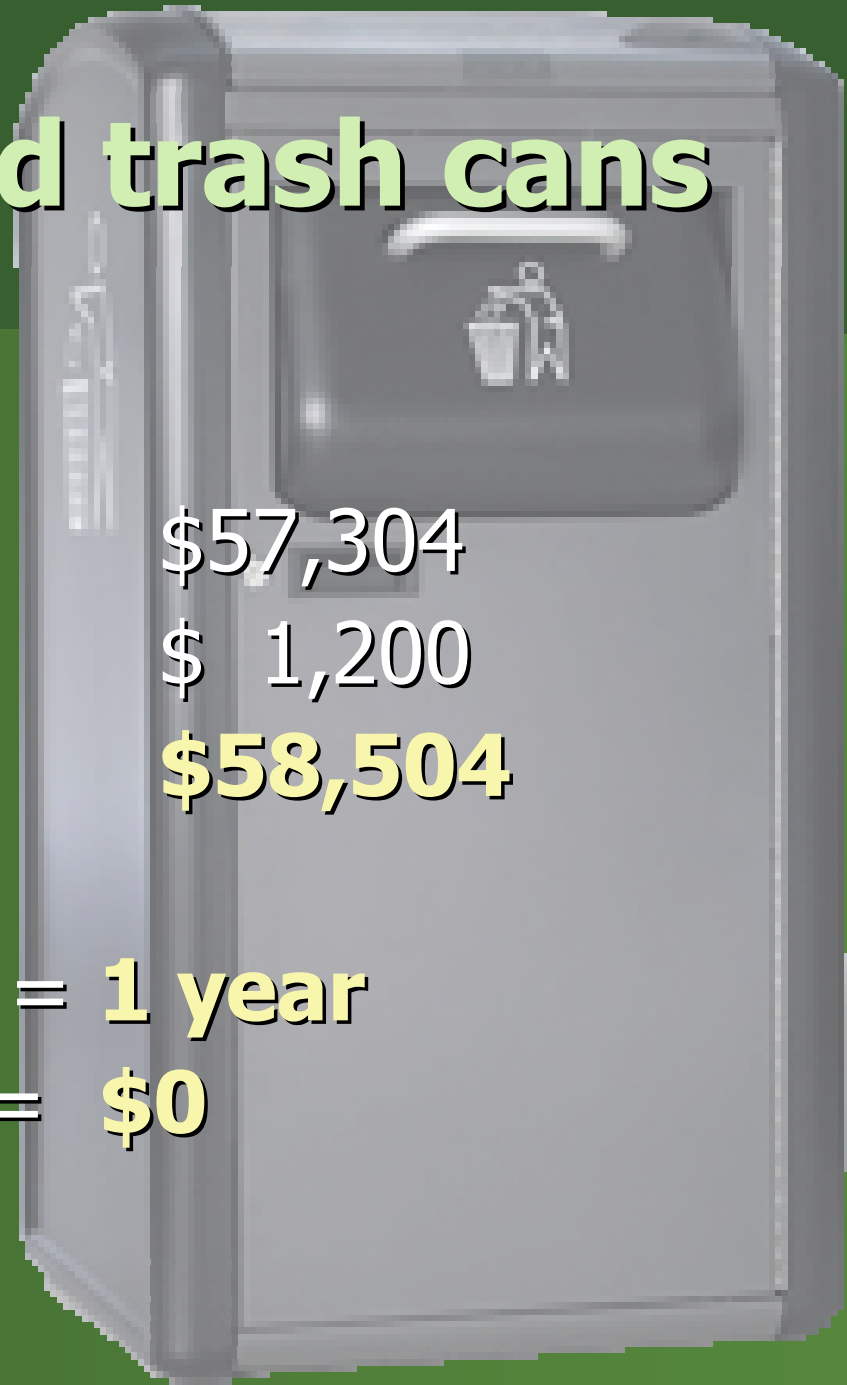
\$57,304

\$ 1,200

**\$58,504**

Capital cost recovery = **1 year**

Actual capital outlay = **\$0**



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