

CEEn-2018CPST-004

Spanish Fork Irrigation-Water Conservation Study

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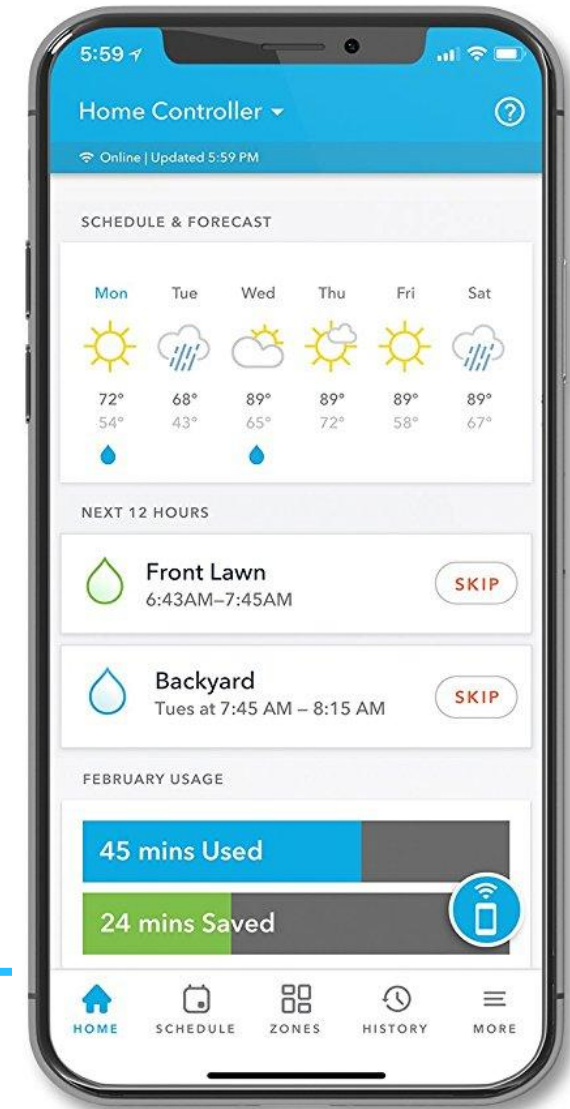
Meet the smart sprinkler controllers

Implementation for summer 2018:

- Over 1,300 requested free controller
- Installed 953 Rachio controllers

Benefits to analyze:

- Water conserved
- Reduced peak demands to increase pressure citywide



Design, Analysis & Results

Procedure:

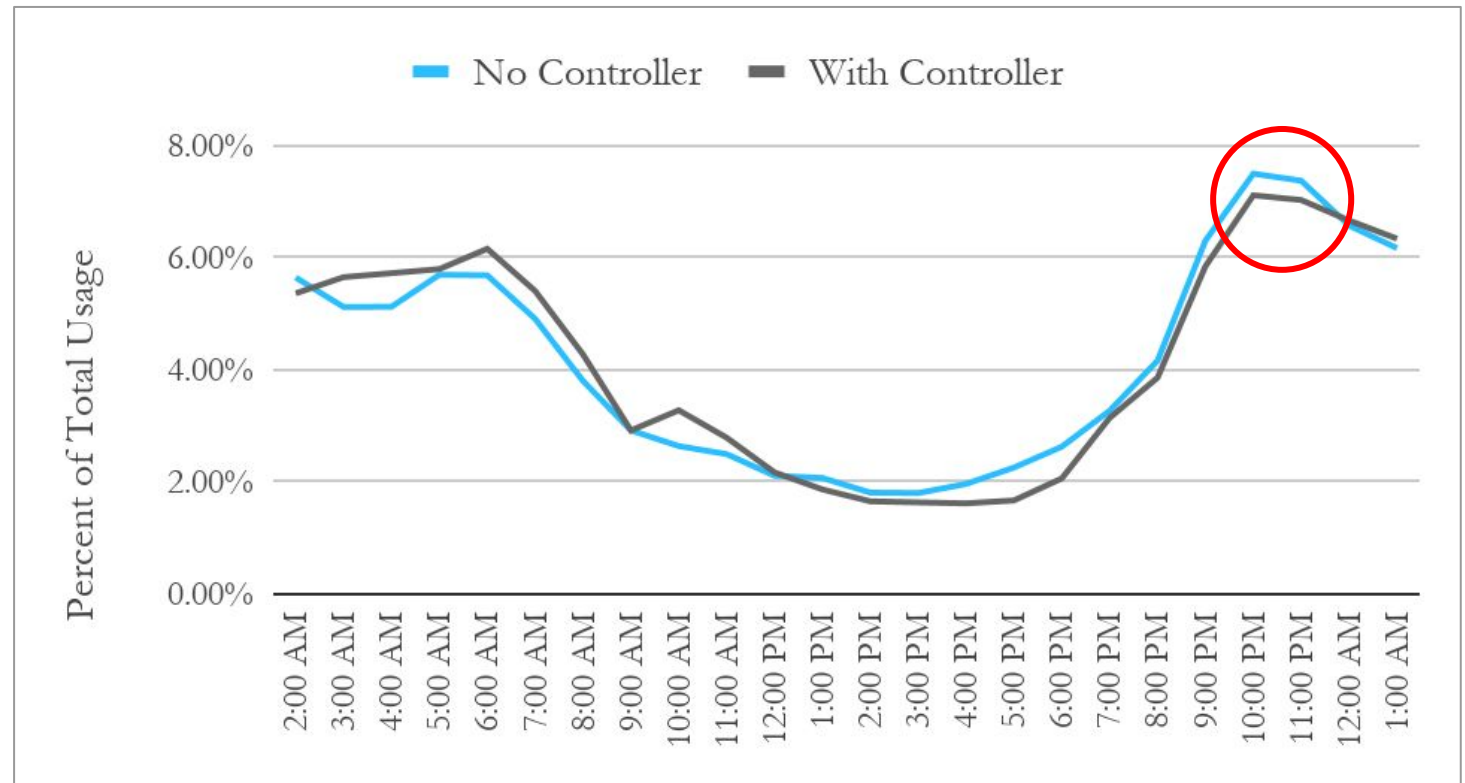
- Average city hourly demand (gpm) before and after installations
 - percent comparison

Peak demand reduced 0.5%

- Larger reductions with improved schedule and more controllers



Citywide Demand 0.5% Peak Reduction



Design, Analysis & Results

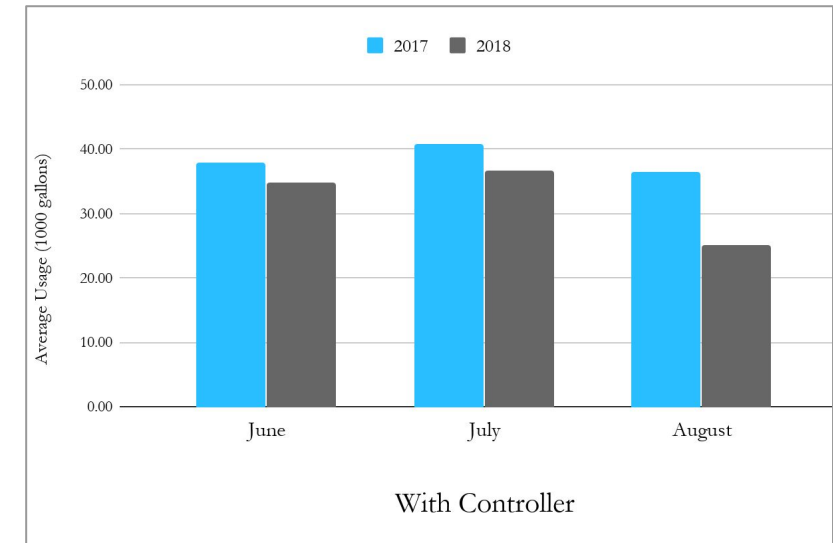
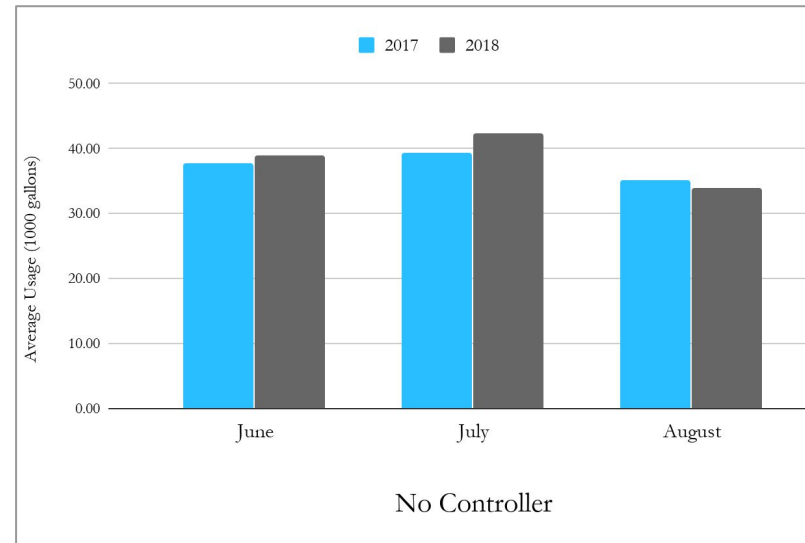
Procedure:

- Monthly water usage for ~2,000 homes
 - 1,452 no controller & 542 with controller

Analysis:

- 17% reduction in usage

Sample of 2,000 Homes
17% Reduction in Usage



Design, Analysis & Results

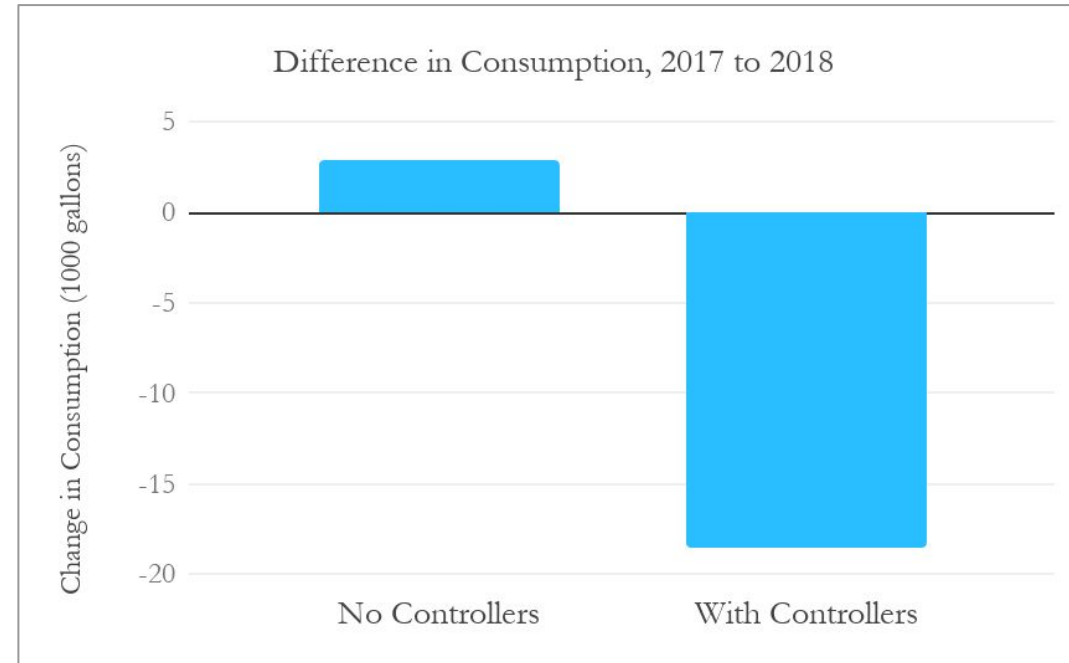
Residential Benefits:

- Average savings 4,500 gallons/month/home

City Benefits:

- Postpones date of system reaching capacity
- For every 6 households with controller, 1 household can be added

4,500 gallons/home/month



Conclusions & Recommendations



Rachio controllers lowered daily peak demands.

Current reservoir capacity will be sufficient for a longer time.

Recommend informative letter to residents.

Suggested further research with more data.

The End