

State of the Drought and Conservation for City Operations

City Council, September 7, 2021



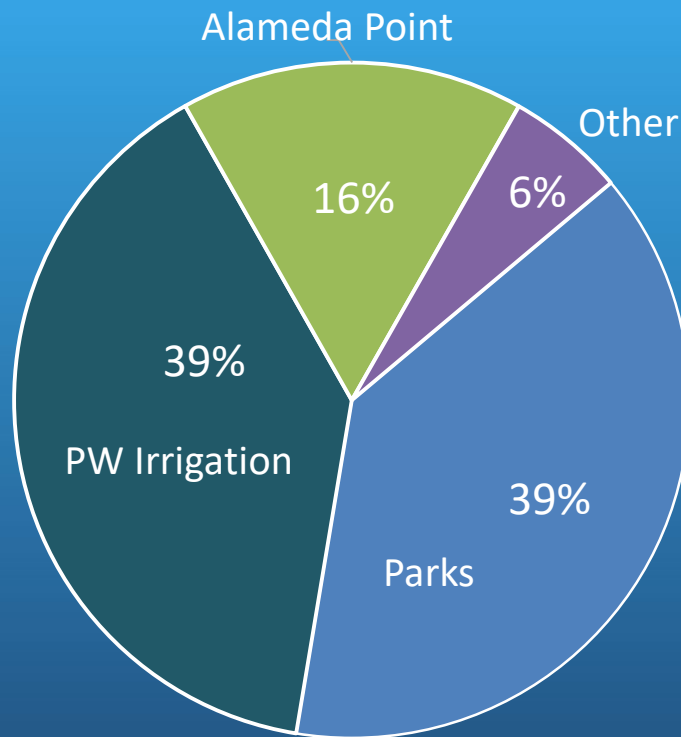
Background/Drought History

- January 2014: Governor Jerry Brown calls for voluntary 20% reduction across all California water uses; Alameda opts to make reductions of City water use mandatory
- March-December 2014: City departments reduce overall water use by 29% as compared to 2013, saving 120,564,277 gallons of water (**many actions were permanent)
- April 2015: Governor Jerry Brown issued mandatory 25% Reduction; EBMUD declares Stage 4 Critical Drought and restrictions on water use

Current Timeline (2021)



Current Municipal Water Use



Average Annual Water Use, 2018-2020
139M Gallons

15% Voluntary
Reduction



139M Gallons

Staff Recommended Conservation Measures - Effective Immediately No cost or funds previously appropriated

- City vehicle washing no more than twice per month
- Turn off any decorative fountains
- Fire Department doing dry drills, whenever possible
- Increase compost/wood chips around park trees to increase water retention;
- Reduce Mall Lawn irrigation at Alameda Point by 25% and discontinue manual irrigation at approximately 2.4 acres of landscape. Anticipate aesthetic impact; however water savings estimated at 5 million gallons/year or 3.6% of total annual City water use;
- ARPD to turn off Encinal Boat Launch Facility's four water spigots. Estimated to conserve 180,000 gallons/year or 0.1% of total annual City water use.
- Complete Marina Village Park Improvement project. Includes conversion of 63,000 square feet of lawn to landscape requiring less irrigation 1.8 million gallons/year or 1.3% of total annual City water use.
- Continue to identify strategic locations for water reductions. This includes heightened detection and repair of leaks and irrigation reductions, where possible. Staff estimates an additional 5% of reductions will be obtained through this effort.

Conservation Measures With Upfront Funding

Rain sensitive “smart” irrigation: 15% - 20% estimated water reduction. New equipment estimated to cost **\$100,000** for 13 sites.



Weather-Based (WBIC)

- Use local weather data to estimate landscape conditions and determine if an irrigation cycle should be allowed or skipped.
- One WBIC can store information for multiple irrigation zones.

Park	Estimated Annual Reductions (gallons)	Annual Utility Savings
Krusi Park	577,366	\$4,801
Woodstock Park	273,904	\$2,278
Rittler Park	489,407	\$4,070
Shoreline Park	477,000	\$3,966
Washington Park	327,526	\$2,724
Lower Washington Park	278,665	\$2,317
Littlejohn Park	447,633	\$3,722
Godfrey Park	470,640	\$3,914
Leydecker Park	354,324	\$2,946
Tilman Park	392,324	\$3,262
Harrington Field	252,264	\$2,098
Marina Cove Park	182,745	\$1,520
Chochenyo Park	375,380	\$3,121
Total:	4,899,179 (3.6% of annual City usage)	\$40,739 (2.5 years, upfront cost recovered)

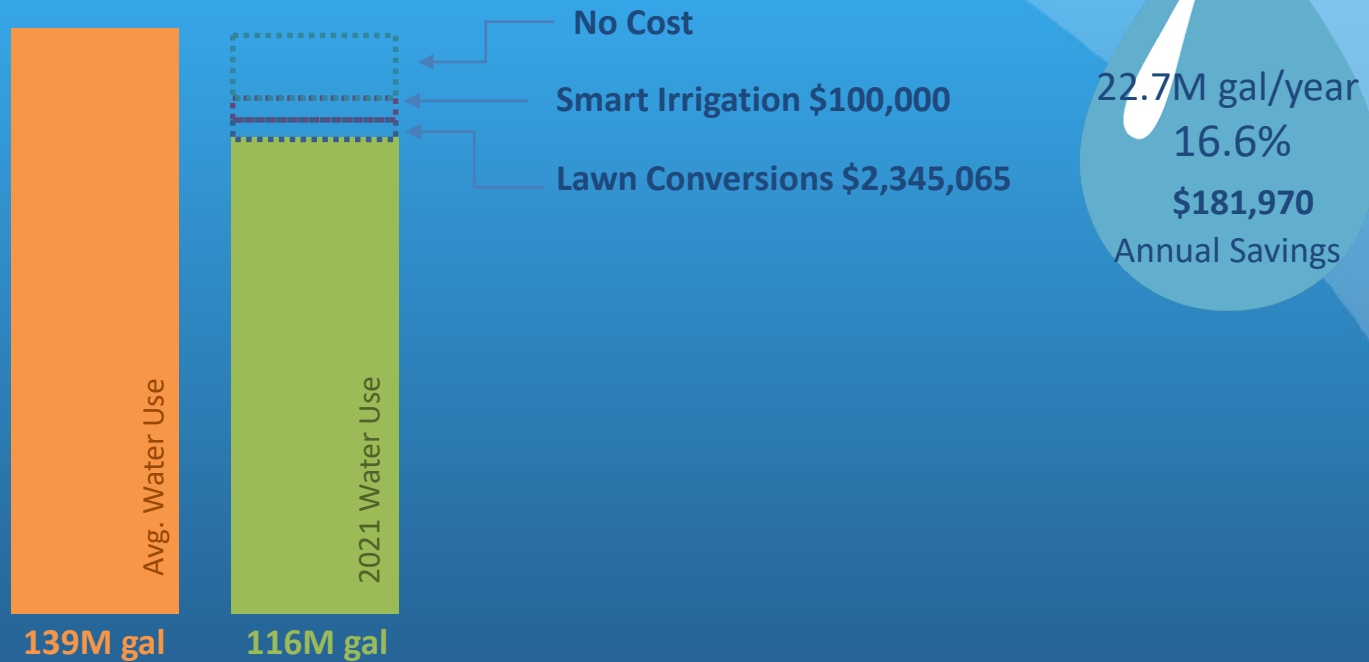
Conservation Measures With Upfront Funding

Lawn Conversions at City Facilities. EBMUD offering up to \$15K landscape rebate to convert lawn to drought tolerant landscape. City buildings listed below currently have irrigated lawn.



City Facility	Lawn, Sq Ft	Conversion Cost	Estimated Annual Reductions (gallons)	Annual Utility Savings
City Hall	6,400	\$108,800	192,000	\$1,597
City Hall West	29,000	\$493,000	870,000	\$7,234
Fire Station #2	1,045	\$17,765	31,350	\$261
Fire Station #4	1,900	\$32,300	57,000	\$474
Mastick Senior Center	2,300	\$39,100	69,000	\$574
Officer's Club	13,000	\$221,000	390,000	\$3,243
Recreation and Park Admin Building	1,500	\$25,500	45,000	\$374
Veteran's Building	5,800	\$98,600	174,000	\$1,447
Little John Park	29,000	\$493,000	870,000	\$7,234
Leydecker Park	12,000	\$204,000	360,000	\$8,981
Washington Park	36,000	\$612,000	1,008,000	\$2,994
Total All Facilities:		\$2,345,065	4,138,350 (3% of annual City usage)	\$34,412 (68 years, upfront cost recovered)

Projected Outcomes, Costs and Savings



Staff recommended measures and those requiring upfront cost total 16.6% of total City water usage.

Staff will continue to monitor the state of the drought and voluntary or required usage reductions.

Discussion

- Does Council agree with staff recommended actions, effective immediately?
- What measures with upfront cost should we move forward with and when (when reductions voluntary, mandatory etc..)?