

CASE STUDY

**CITY OF LOS ANGELES, DEPARTMENT OF RECREATION AND PARKS
KEN MALLOY HARBOR REGIONAL PARK**

RESULTS

50% REDUCTION IN WATER USAGE FOR TURF IRRIGATION

TECHNOLOGY

Rain Systems developed their patented technology, the Precision Injection Machine (PIM), to inject cross-link polymer, known as hydrogel, into turf at root level without damaging the grass. Once installed the hydrogel reduces water consumption by decreasing the frequency of irrigation necessary to maintain green healthy turf.



WATER SAVINGS RESULTS	
Pilot Area	3978
Gallons/Pilot Area/Month	3901
Savings/Acre/Month	42,689
Gallons/Acre/Year	512,268
Savings/Acre/Year	\$5,123

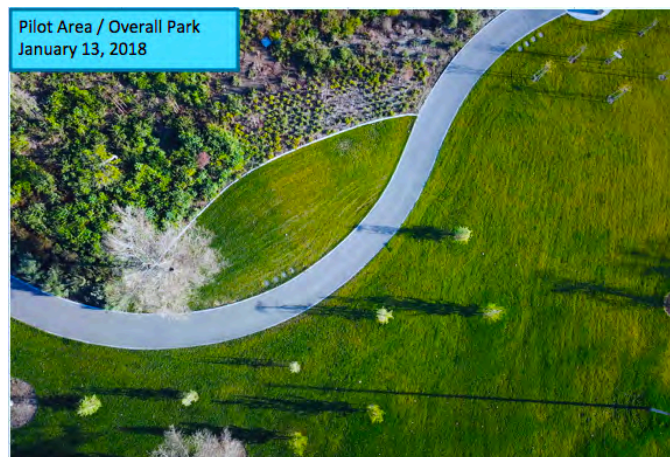
Hydrogel were developed decades ago as an environmentally friendly, relatively low-cost product to increase the water retention capacity of soil. These soil amendments store water and hold nutrients within the ground that are typically lost in drainage and evaporation. Hyrdrogel keeps the soil and turf hydrated between watering, leading to a 50% reduction in water consumption.



PROJECT METHODOLY

As part of a pilot project, Rain Systems used their PIM to inject 20 lbs of hydrogel* into the soil of a 3,978 sqft section at the Ken Malloy Harbor Regional Park for the City of Los Angeles, Department of Recreation and Parks on October 16, 2017. Irrigation was maintained at 4 times per week, 8 minutes per cycle for a month to establish the baseline. Once the pilot area had been irrigated regularly to establish the baseline, City of LA, Department of Recreation and Parks personnel reduced the irrigation schedule to 2 days per week, 8 minutes per cycle. As of May 2018, the pilot area is still green, healthy grass and comparable with the rest of the park that is receiving twice as much water.

* The manufacturer of the cross-link polymer, Soil Moist, recommends installation of 218 lbs per acre.



RESULTS

START DATE: **OCTOBER 16, 2017.**

COMPLETION: **ONGOING**

WEATHER DATA	AVG	TEMP	MAX TEMP	MIN TEMP	PRECIPITATION	SOIL TEMP	AVG ET
		61		89	37	0	62.2

Sources

Daily Data

<https://www.timeanddate.com/weather/@5362754/historic?month=12&year=2017>

ET Rates

http://www.cimis.water.ca.gov/App_Themes/images/etozonemap.jpg

Daily Data

<https://www.wunderground.com/weather/us/ca/lomita/90717>