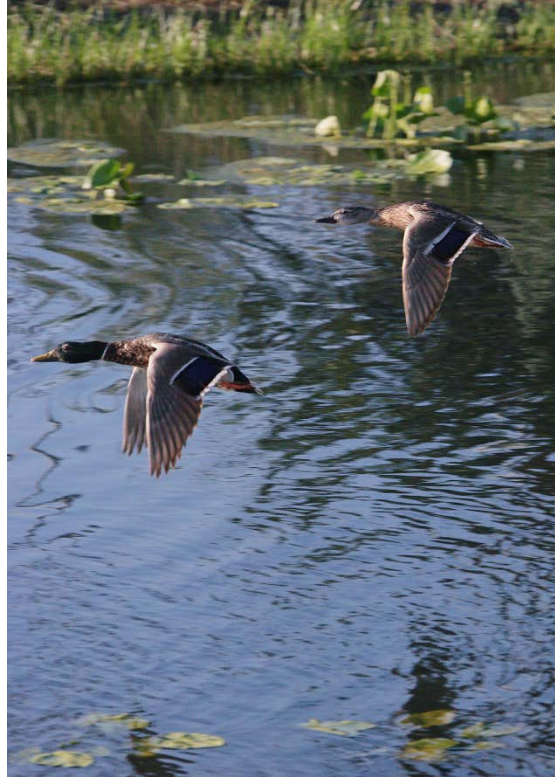




**PSOMAS**



## **South Los Angeles Wetland Park**

**American Academy of Environmental Engineers and Scientists  
Excellence in Environmental Engineering and Science™ Conference**

**Superior Achievement Award**

**April 24, 2014 - National Press Club – Washington D.C.**



**Sean P. Vargas, P.E., ENV SP, LEED AP**

**Vice President / Principal**

**Director of Sustainability**

**Psomas**

- Multi-benefit stormwater treatment wetland and public nature park
- Proposition O Clean Stormwater Bond Program
- Conceived to Celebrate the Three Pillars of Sustainability



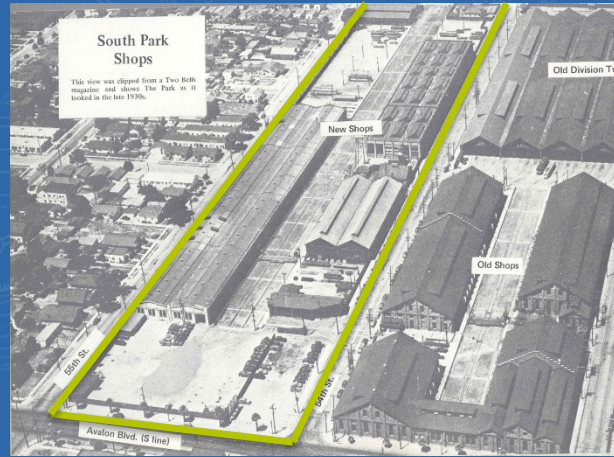
# South Los Angeles Wetland Park Site Context



- Former Los Angeles County METRO 10-acre vehicle maintenance yard
- Historically underserved area
- Former Brownfield site



Rail Car Maintenance Facility (1930)



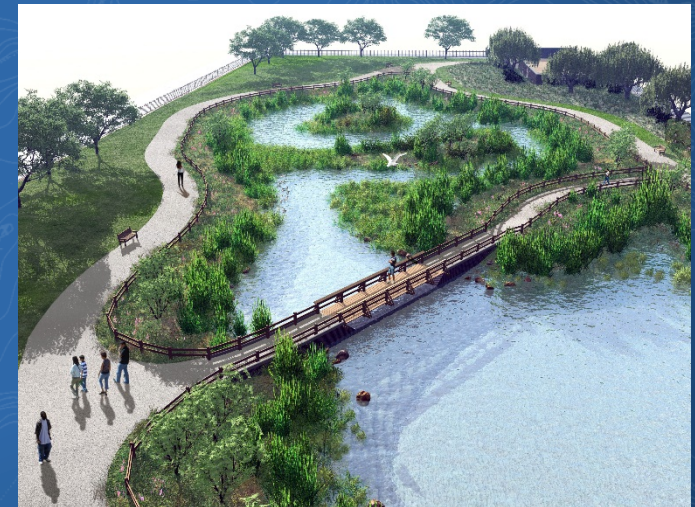
Bus Maintenance Facility (2008)

### Goal:

- Transform blighted transit-maintenance facility into a shared infrastructure resource and neighborhood-serving amenity

### Challenges:

- Funding/Site control
- Community engagement
- Brownfield cleanup
- Sustainably engineered solution
- Maintenance and operation



## Balanced Approach - Leadership



### Robust *pre-design* process

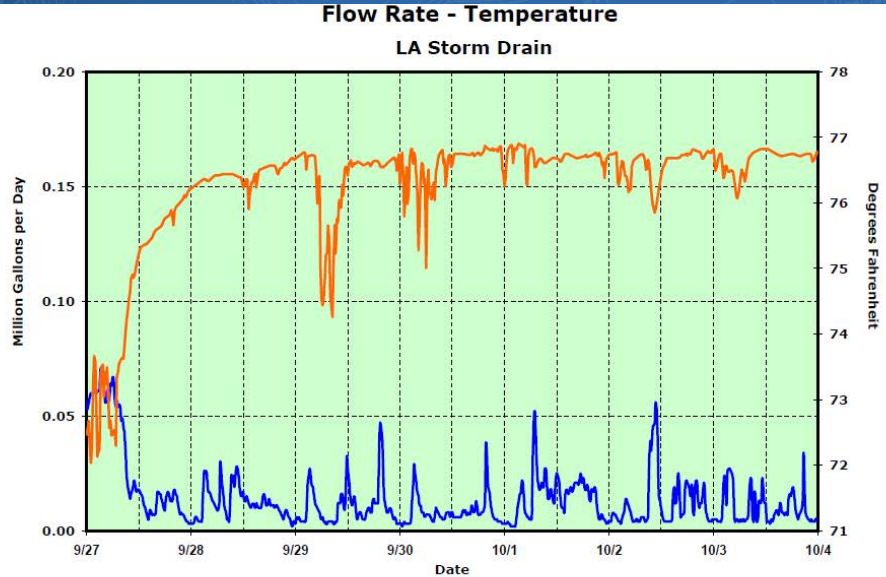
- Coalition of partners
- Community outreach
- Site investigations and studies
- Long term maintenance and operation

# South Los Angeles Wetland Park



## Balanced Approach – Sustainably-engineered Solution

- 525 acre watershed
- Mediterranean/High Desert Climate
- Two treatment regimes
- Source/treatment water budget

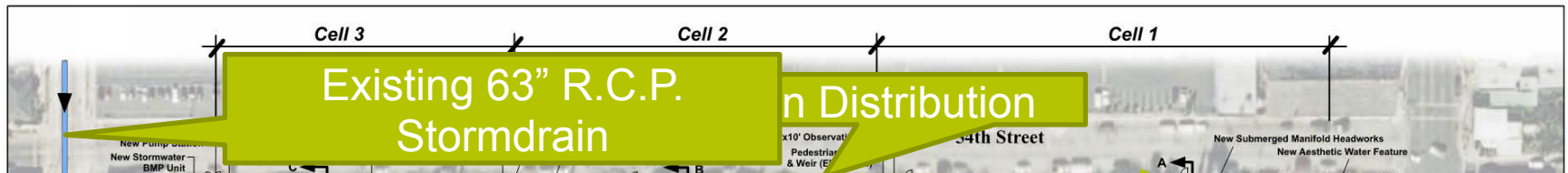


# South Los Angeles Wetland Park



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## Site Plan Overview – Stormwater/Hydraulics



Weir And (



Structural Pretreatment and Pump Station



# South Los Angeles Wetland Park

## Site Plan Overview – Environmental/Habitat



Native and Emergent Vegetation



Native Upland Vegetation



Geosynthetic Clay and LLDPE Liner System

# South Los Angeles Wetland Park

## Site Plan Overview – Social and Educational



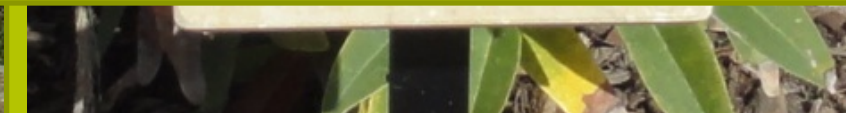
Walking/Exercise Path



Signage



Educational Signage



Educational Signage

# South Los Angeles Wetland Park

Before & After



*Design-phase schematic depicting water flow through the new 3-cell stormwater treatment wetland*



*Aerial photograph of the wetland park post construction*

## Purpose, Community, Wellbeing

- Improved (created) site accessibility, safety and way-finding
- Created a new amenity for a community in need



## Collaboration, Management, Planning

- Extensive pre-design
- Partnership with City “family”
- Established long-term maintenance protocols *early*



## Materials, Energy, Water

- Reduced energy consumption throughout project life-cycle via use of SCADA controlled/multi-stage pump system and solar lighting
- Developed water budgeting approach to reduce potable water consumption



## Siting, Land & Water, Biodiversity

- Selected a Brownfield site and remediated it
- Created natural habitat in an area that previously had none
- Used urban runoff as a resource



## Resilience

- Built in flexible features so that the wetland may be operated differently in the future
- Designed to work in extreme flood and drought scenarios





# The Triple Bottom Line



The Park satisfied the mandate to improve stormwater quality, and:

- Helped reinvigorate a community
- Created new habitat
- Protected historic resources
- Created a new public park in a neighborhood that was sorely deficient



# Discussion

