Burton Way Median Construction & Demo Garden Education

Presented by:

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Project Manager

Debby Figoni
Water Conservation Administrator
Federal Government - USEPA

- Clean Water Act (1948, 1972)
- Protect **water quality** in waterbodies of the U.S.

California – Cal EPA – SWRCB - RWQCB

- MS4 Permit (Municipal Separate Storm Sewer System)
  - Phase I – 1990 adoption of NPDES
  - Phase II – 2003 General Permit for **MS4**

**MS4 Permit:**

- Limit pollutants (oil, pesticides, herbicides, sediment, trash, bacteria & metals)
- Degrade WQ, negatively impact aquatic and riparian habitat
Ballona Creek Watershed Management Group (BCWMG)

1. City of Los Angeles
2. LA County and Flood Control District
3. Beverly Hills
4. Culver City
5. Inglewood
6. Santa Monica
7. West Hollywood
EWMP approved 4/20/16
Recipes for MS4 Compliance
TMDLs - Trash, bacterial, metals. etc.
Compliance by 2021
• 2,081 ac-ft., $2.7B
• 87 ac-ft. (BH), $72M

Compliance Strategies
• LIDs – 11 ac-ft., $4M
• Green Streets – 39 ac-ft., $27M
• Regional Projects – 37 ac-ft., $41M
1. Low Impact Developments (LIDs)
   - Policy Amended 5-18-2015
   - New Development/Re-Development
     - Plan Check
     - Site Designs & BMPs

2. Green Streets (Policy adopted 6-6-2015)
   - NSMB Reconstruction - Bioswales
   - Burton Way Median (In Construction)

3. Regional Projects (Public & Private)
   - La Cienega Park (On Hold – Pending Funding)
   - SW Compliance - Master Plan (Completed)
October 2017
- City hired Black & Veatch

Goals
- Identify Project Opportunities
- Develop CIP Program
- Roadmap to MS4 Compliance

La Cienega Park
- Assess feasibility of project
- Develop Prelim Design Report
# CIP Master Plan - Results

## Table ES-1. EWMP Compliance Strategies for City of Beverly Hills

<table>
<thead>
<tr>
<th>STRUCTURAL BMP STRATEGY</th>
<th>BMP CAPACITY (AF)</th>
<th>PHASE</th>
<th>TOTAL CAPITAL COST (2019)</th>
<th>ANNUAL O&amp;M COST (2019)</th>
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<tbody>
<tr>
<td><strong>EXISTING PROJECTS</strong></td>
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<tr>
<td>Streets: Culver City Median</td>
<td>4.4</td>
<td>Under Design</td>
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<td>Streets: Burton Way</td>
<td>7.6</td>
<td>Under Design</td>
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<tr>
<td>Streets: North Santa Monica Boulevard</td>
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<td>Completed</td>
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<td><strong>PLANNED PROJECTS</strong></td>
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<td>**Regional Project: La Cienega Park/ Frank Fenton Field</td>
<td>21</td>
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<td>Street and On-site Stormwater BMPs</td>
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<td>$110,099,470</td>
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*BMP capacities are based on EWMP projections. Ballona Creek EWMP includes institutional measures and assumes that 1% of homeowners implement residential LID practices. No specific funding identified for these categories. **Estimated cost documented in La Cienega Park and Frank Fenton Field Feasibility Study.*
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<td><strong>TOTAL</strong></td>
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<td>$19,369,294</td>
<td>$90,730,176</td>
<td>$141,955,600</td>
<td>$2,658,200</td>
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* Includes construction costs, contingency, engineering, and construction management.
* Escalated at 3% per year
** Total Residential LID Program costs, assuming $194,100 annual expense escalated at 3% per year over 8-year implementation schedule.
Updated Costs

**Total Capital Cost (2016): $71.95M**

**Total Existing Project Cost: $14M**

**Total Planned Capital Cost (2019): $110M**

*Assumes LID Compliance per EWMP projections.*
CA DROUGHT

• Governor Brown Executive Orders (H₂O Conservation & H₂O Use Efficiency)
• Candidate Site in EWMP
• Completed Feasibility Assessment
Project Location
211 Acres – Tributary Area

N. Santa Monica Blvd.

(152 ac.)
School, Residential & Commercial Area

Industrial
(20 ac.)

Multi-family Units
(39 ac.)

Burton Way Median (3.7 ac.)
(70-ft W x 2,300-ft. L)
24-Hour Capacity: 7.3 acre-feet
Annual Capture: 60.3 acre-feet
**Water Quality**

- Metals, Bacteria and Trash TMDLs
  - Capacity: 7.3 acre-ft. (2.4MG)
  - 3.9 ac-ft. – Infiltration swales (1.3MG)
  - 3.4 ac-ft. – Subsurface Storage (1.1MG)

**Water Supply**

- Annual Capture (60.3 acre-feet/year) (19.6MG)
  - Irrigation Reuse (4.3 ac-ft.) (Drought Tolerant Plants)
  - Groundwater Recharge (56 ac-ft.) (Hollywood GW Basin)
Nature-Based Solutions
3.7 Acres of Native & Drought Tolerant Plants
15-ft. Swale x 3,800-ft. (3.9 ac-ft.)
Community Beautification

Community Outreach
City Council, PW & AC Commissions
8 Public Meetings with Residents, Businesses and Stakeholders

Pedestrian Safety
Improved Crosswalks
ADA Ramps
Traffic Signal Modifications
LED Street Lights

Public Education
H₂O Efficient Landscape
H₂O Conservation Watershed Protection
# Project Schedule

## Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Completion Date</th>
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<tr>
<td>Design</td>
<td>Jan 2020</td>
</tr>
<tr>
<td>Bidding &amp; Advertising</td>
<td>May 2021</td>
</tr>
<tr>
<td>Contract Award</td>
<td>Jun 2021</td>
</tr>
<tr>
<td>Notice-to-Proceed</td>
<td>Sep 2021</td>
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<tr>
<td>Construction</td>
<td>Sep 2021 – Fall 2022</td>
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</table>

## Project Cost

- Project Cost: $10.2M
- Grant Award: $6.8M
**Promote the Plant Palette**

### Burton Way Median Planting Design - Plant List

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<thead>
<tr>
<th>Botanical Name</th>
<th>Common Name</th>
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<tbody>
<tr>
<td>Aloe barbadensis*</td>
<td>Aloe Vera</td>
</tr>
<tr>
<td>Bulbine latifolia 'Hallmark'*</td>
<td>Rooiwortel</td>
</tr>
<tr>
<td>Chondropetalum tectorum*</td>
<td>Cape Rush</td>
</tr>
<tr>
<td>Dietes 'Orange Drop'*</td>
<td>Orange Drop Fortnight Lily</td>
</tr>
<tr>
<td>Dymondia margaretae</td>
<td>Silver Carpet</td>
</tr>
<tr>
<td>Encelia farinosa*</td>
<td>Brittlebush</td>
</tr>
<tr>
<td>Gazania 'Yellow'</td>
<td>Yellow Gazania</td>
</tr>
<tr>
<td>Hesperaloe parviflora 'Yellow'*</td>
<td>Yellow Yucca</td>
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<tr>
<td>Juncus patens</td>
<td>California Grey Rush</td>
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<tr>
<td>Lippia nodiflora*</td>
<td>Kurapia</td>
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<tr>
<td>Lantana x 'New Gold'*</td>
<td>New Gold Lantana</td>
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<td>Lomandra longifolia 'Breeze'*</td>
<td>Dwarf Mat Rush</td>
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<td>Lomandra longifolia 'Roma13'*</td>
<td>Platinum Beauty Lomandra</td>
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<td>Senecio palmeri 'Silver and Gold'*</td>
<td>Guadalupe Island Senecio</td>
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<tr>
<td>Westringia fruticosa 'Morning Light'</td>
<td>Coast Rosemary</td>
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<tr>
<td>Yucca flaccida 'Golden Sword'</td>
<td>Golden Sword Yucca</td>
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Promote Drip Irrigation

Benefits
• No overspray or runoff
• Reduced water use
• Reduces weeds

Challenges
• Can’t see if line is broken
• Needs to be installed properly
• Gallons/hour = longer run time
Benefits of Water Wise Landscapes

• Less water
• Less maintenance
• Less chemicals
• Invite wildlife
• Etc...

Watering Tips for Your Trees

TREE WATERING FACTS

• Beverly Hills’ Urban Forest is a proud member of Tree City USA!
• Young trees, even drought tolerant ones, need water. Some mature drought tolerant
trees can survive on rainwater plus infrequent, deep irrigation watering.
• Young trees are particularly susceptible to competition from turf grass. Remove all grass
from the trunk out to a foot beyond the drip line (the outer canopy of the leaves).
• Deep watering is much better than shallow watering which encourages shallow roots
that can be dangerous and cause the tree to be more prone to drought stress.
• Trees increase home property value, clean our air, reduce city noise, provide habitats
for birds and other wildlife, and mental well-being.
• During the drought, trees should be given a higher priority than lawns. Lawns can be
replaced in a matter of weeks whereas a 20-year-old tree will take 30 years to replace.

TREE WATERING TIPS

• How much water your tree should receive depends upon the tree size. A general rule
of thumb is to use approximately 10 gallons of water per inch of trunk diameter for each
watering.
• Depending on the tree type and size, water every three to six weeks.
• Make sure the water gets into the soil at least two feet deep.
• All size trees should be watered about once a month from April through September.
• Treats should also receive adequate water during the winter months if rainfall is scarce.
• One to two deep waterings per month (depending on the tree and time of year) are
much better than many shallow waterings.
• Place 2” to 3” of mulch around the tree (away from trunk). The tree’s leaves are great
mulch!

WAYS TO WATER

• Hand Watering: Directly apply water with a hose to the drip line of the tree. Create a
meat at the root zone (do not disturb the roots) to hold the water and reduce runoff.
• Soaker Hose: Place a soaker hose around a tree’s outer canopy (just out as tree grows) to
water effectively. For deep watering, keep the hose on for an extended period of
time.
• Tree Watering Stakes: These plastic, PVC-looking stakes, are dug into the soil (they range
from 6” to 36”). Place a hose or drip line into the stake and allow the water to get deep in
the soil.
• Overhead Sprinklers: This is not very efficient. But, you can convert your overhead
sprinklers to drip with a conservation kit to effectively water your tree.

Fun Fact: One billing unit of water is 748 gallons – enough to water 3 large trees for a year!
Water Wise Workshops

- Water Wise Plants
- Efficient Irrigation
- Prep & Design
- Maintenance
Backbone Articles
Focusing on:

• Plants
• Maintenance
• Efficient Irrigation
• Tips
• Etc...