A Sustainable City Plan: Building Local Water Resources

Traci Minamidize, Chief Operating Officer
LA Sanitation and Environment

2018 AAEES West Coast Annual Conference
October 18, 2018

All Water is One Water
Water Resource Goals

Mayor Garcetti – Setting our Sites:

• 2014 Executive Directive #5 – Creating a Water Wise City
  • Reduce per capita water use by 20%
  • Increase local water supplies

• 2015 Executive Directive #7 - Sustainable City Plan
  • Environment
  • Economy
  • Equity
Sustainable City Plan Goals

**Recycled Water**
- Reduce purchase of imported water by 50% by 2025
- Source 50% of water locally by 2035

**Stormwater**
- Improve Beach Water Quality: 2025 and 2035 targets
- Capture 150,000 AFY by 2035

**Groundwater**
- Clean the San Fernando GW Basin
- Secure additional funding for GW cleanup
Reducing Our Dependence on Imported Water

2015 Conditions
Total Production: 490 MGD (550,130 AFY)

- MWD 57%
- Los Angeles Aqueduct 29%
- Groundwater 12%
- Recycled Water 2%

Imported Water Total: 86%

Imported Water Reduction from 86% to 50% ± 120 MGD (135,000 AFY) additional local supplies
Terminal Island WRP

Terminal Island WRP AWPF Expansion

- 2016 treatment capacity doubled from 6 to 12 mgd – all influent flow
- Tertiary filtration followed by MFRO AOP
- Users: Dominguez Gap Barrier, refineries, other industrial
Flow Equalization

- 2.5 MG primary effluent EQ
- Two primary tanks
- Three aeration tanks
- Two secondary clarifiers (for treatment only)

Benefits

- Increase avg treatment capacity
- Increase recycled water usage
- Provide wet weather relief
Groundwater Replenishment (GWR) Project

- 25 MGD advanced treated water from Tillman WRP to replenish the San Fernando Basin.
- Pilot testing on Ozone BAC
- Ozone Demonstration Facility 7 mgd, scheduled online 2019
- 9-10 MGD ww flow to be redirected via EW Valley Interceptor Sewer
- AWPF operational 2023
Soil Aquifer Treatment (SAT) naturally occurs in the GW aquifer
Hyperion WRP

Advanced Treated Recycled Water for LAWA
- 1.5 mgd advanced water purification facility at Hyperion, expandable to 5 mgd
- Online 2021

MBR Pilot
- Online end of 2019

Full Expansion
- >100 MGD
Enhanced Watershed Management Programs

- Upper LA River
- Ballona Creek
- Santa Monica Bay
- Dominguez Channel
- Marina del Rey

Multi-benefit goals

- Water quality: MS4 Permit, TMDLs
- Water supply: 90,000 acft/year
- Community enhancements

Developed with ~30 municipalities and stakeholders
EWMPs: capture and retain stormwater

1. Rainwater capture on private parcels

2. Green streets & other distributed projects

3. Regional projects & diversions
## EWMPs: Cost and Benefits

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Capital Cost for LA</th>
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<tbody>
<tr>
<td>Marina del Rey</td>
<td>$250 million</td>
</tr>
<tr>
<td>Santa Monica Bay</td>
<td>$410 million</td>
</tr>
<tr>
<td>Dominguez Channel</td>
<td>$530 million</td>
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<tr>
<td>Ballona Creek</td>
<td>$2,280 million</td>
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<tr>
<td>Upper LA River</td>
<td>$3,820 million</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$7,300 million</strong></td>
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</tbody>
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### Water Quality Compliance
- 22 TMDLs
- MS4 Permit

### Water Supply: 90,000 acft/yr
Benefits

- Local resource reliability
- Resilience and sustainability
- Community enhancement
- Multi-benefit projects
- Opportunities to partner and leverage resources

Challenges

- Funding
- Schedules
- Implementing emerging technologies
- Development of water recycling regulations
- Public outreach and acceptance
Conclusion

• Sustainable City Plan provides foundation
  • Identifies targets
  • Specifies actionable items
  • Requires annual updates with reported outcomes

• City of Los Angeles is moving forward on multiple fronts to secure local water resources
  • Recycled water at all water reclamation plants
  • Stormwater quality coupled with increased GW supply
  • Groundwater cleanup
Thank You

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