



LONG BEACH MUNICIPAL URBAN STORMWATER TREATMENT PROJECT (LB-MUST)

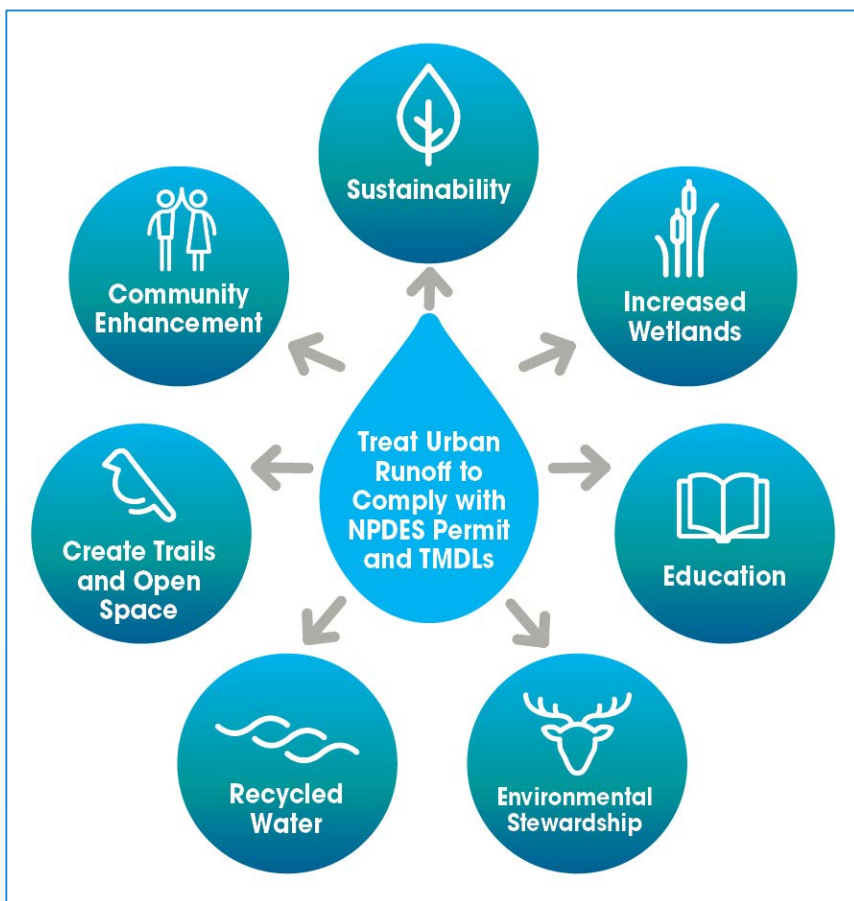
October 22, 2020 – Project Overview for Sustainable City Commission



Overview

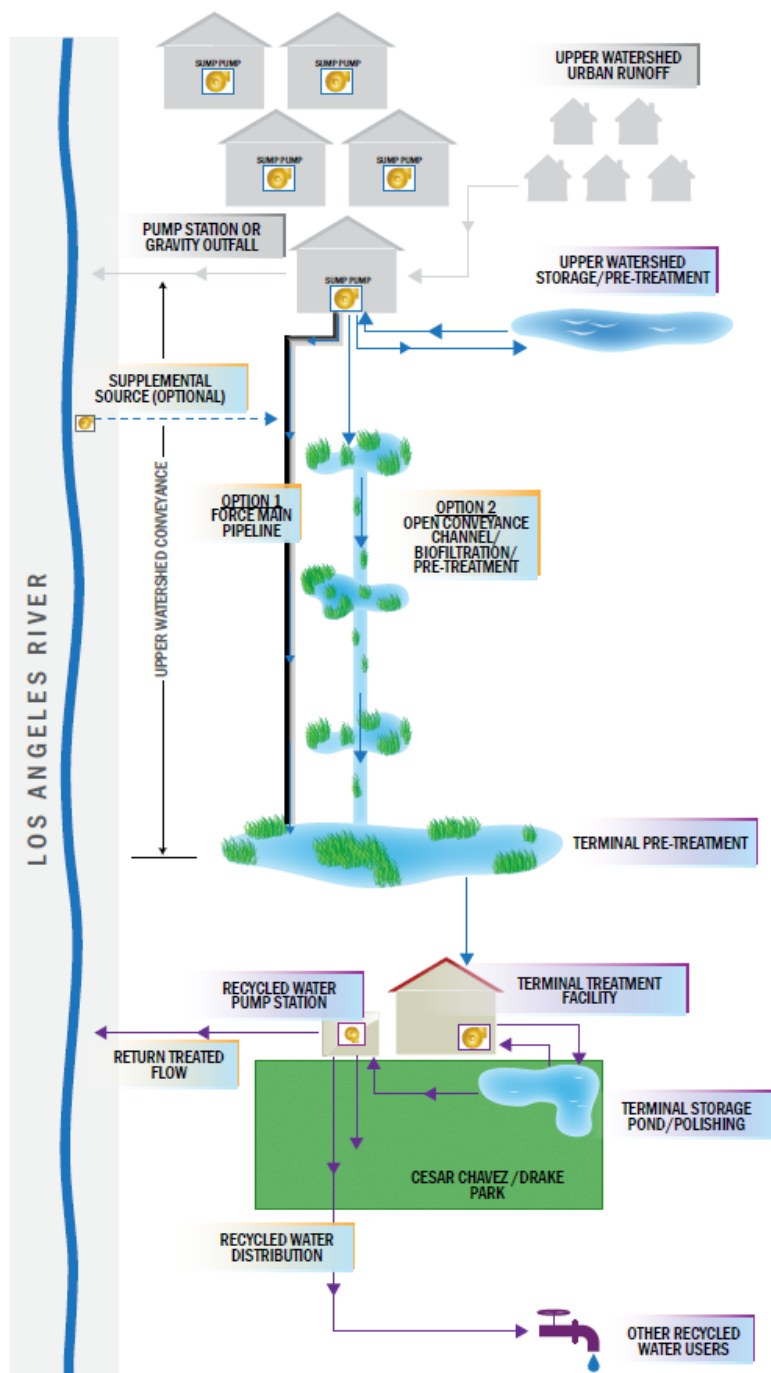
- Project Lead: City of Long Beach Public Works
 - The Long Beach Municipal Urban Stormwater Treatment (LB-MUST) Facility program is envisioned to **capture** stormwater from 12,300 acres by diverting flows from 22 pump stations and **treat** the stormwater prior to discharge or alternate water re-use.
 - The project will be the start of development of eight (8) mile area of nature-based conveyance systems consisting of interconnected pipes, wetlands, and bio-swales.
 - The project is currently sized to treat 2 million gallons per day (MGD) and is designed for future expansion up to 4 MGD.
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Vision



Vision





Program Concept

- **Three main components**
 - Conveyance and storage
 - Stormwater Treatment
 - Water Re-use
- **Concept**
 - Divert stormwater from existing pump stations
 - Redirect discharge to the stormwater treatment facility
 - Convey using existing pipes, bioswales, and linear wetlands



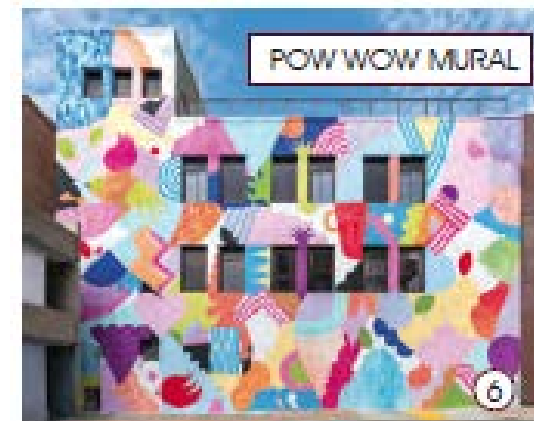
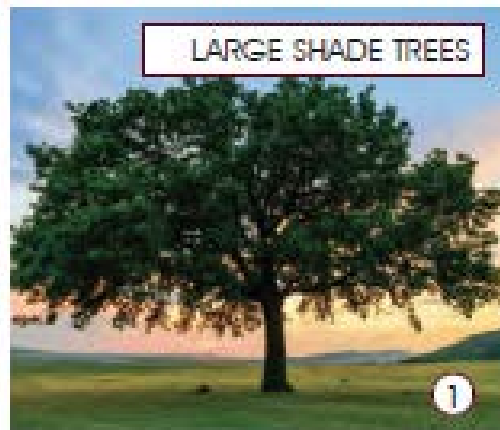






Project Element Concepts

- **Water Quality and Supply**
 - Stormwater treatment
 - Potable water offset
- **Nature Based Solutions**
 - Large shade trees
 - Native vegetation
 - Rain garden / bio-swales
 - Low impact development (LID) demonstration
- **Other Benefits**
 - Planting signage/education
 - Permeable pavers
 - Shared bike/walking path
 - Pow-wow murals











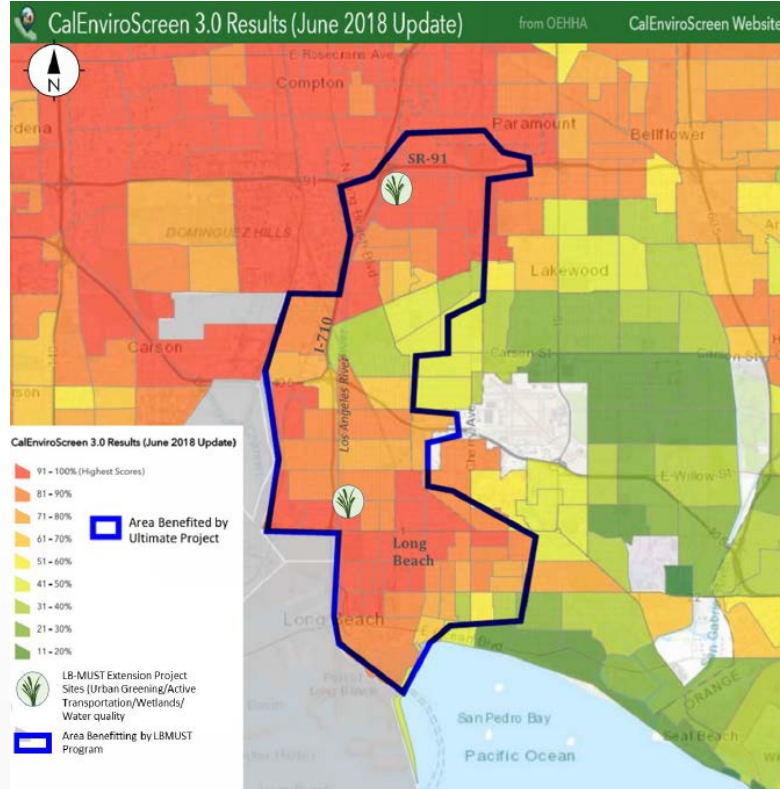








Multiple Benefits



- Water Quality (MS4 compliance)
- Nature Based Solutions / Urban Greening
- Water Supply / Resilience
- Improved flood risk mitigation/management
- Improved access to waterways and increased recreational opportunities
- Improved public health
- New/enhanced wildlife habitat and wetland space
- Reduced heat island effect
- Located in and serves a disadvantaged community area (DAC)
- High priority area per CalEnviroScreen
- Pilot / framework for other public agencies



Budget and Schedule

- **Current Budget = \$32 million**
 - \$28 million Caltrans
 - \$2 million Prop 1 – RMC Round 1
 - \$1 million Port of Long Beach
 - \$500,000 CA Coastal Conservancy
 - \$428,000 City of Long Beach
- **Current Estimate = \$43 million**
- **Measure W Safe, Clean Water Grant (pending) = \$10.8 million**
- **2020**
 - Roadway realignment, ground improvements, and building construction
- **2021**
 - Begin equipment installation, ceramic facility demolition, and wetland construction
- **2022 - 2023**
 - Construction completion
 - Commission, startup, and acceptance





Sustainability

- Alternate water source for habitat and community enhancements.
 - Innovative use of brackish stormwater.
 - Potential alternate water source for irrigation.
 - Lower chemical use and operator demands compared to other water treatment methods.
 - LEED – striving for Silver
 - Envision – striving for Platinum
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Thank You!

CITY OF
LONG BEACH

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