Integrated Planning for Stormwater Reuse in an MS4 Permit

Southern California Water Dialogue Gary Hildebrand, PE April 24, 2013

County of Los Angeles and Los Angeles County
Flood Control District





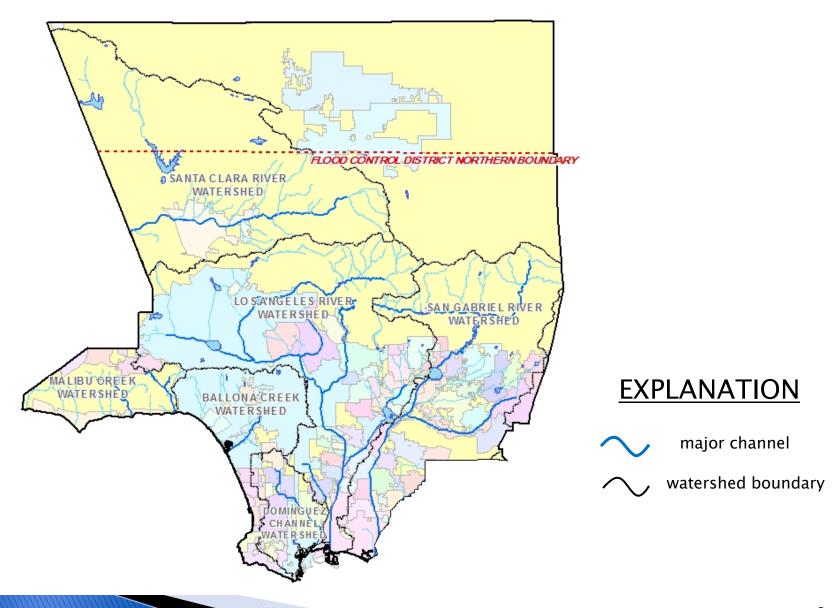
Los Angeles County Municipal Stormwater NPDES Permit

- Issued in November 2012 by the Los Angeles Regional Water Quality Control Board
- Issued to the County of LA, LACFCD, and 84 cities within the County
- Regulates urban and stormwater runoff from municipalities





County of Los Angeles Map



Stormwater as a resource

- Permit re-issuance was an opportunity to treat stormwater as a resource instead of as waste
- New provisions for Low Impact Development
- Enhanced Watershed Management Program (EWMP): incentives for integrated planning, emphasizing stormwater capture/reuse and groundwater recharge





Low Impact Development

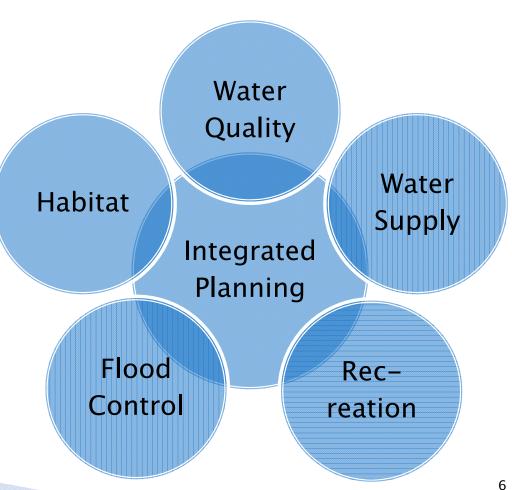
- Applicable to certain new development and redevelopment projects
- Preferred action: on-site storm runoff retention (infiltration, bioretention, rainfall harvesting)
- Alternative actions if (1) on-site retention is infeasible or (2) replenishing groundwater regionally:
 - On-site biofiltration
 - Off-site infiltration + on-site treatment
 - Retrofit of existing development + on-site treatment





EWMP integrated planning

- Retrofitting existing development
- Multiple benefits
- Diverse stakeholders
- Leverage funding
- Sustainability



EWMP process overview

JUN '13

Initial coordination

Scoping and preliminary feasibility assessment

Develop EWMP plans

EWMP Approval

JUN '14

JUN '15 APR '16

EWMP process detail

JUN '13

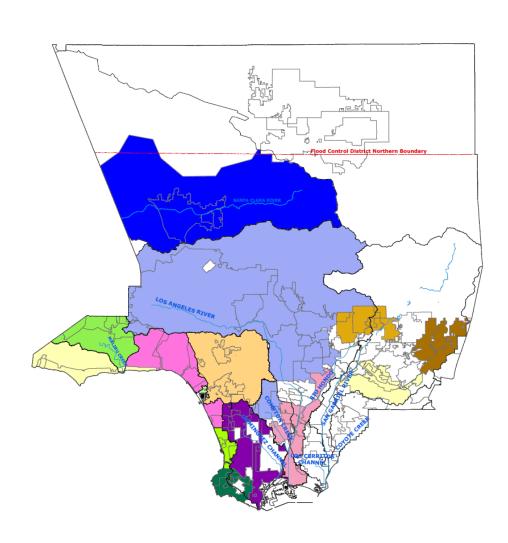
Initial Scoping **Develop EWMP** EWMP plan Coordination plans approval · Hire consultants Computer Organize into watershedmodeling Stakeholders · Regional Board based groups outreach Field testing review Prepare MOUs Research Public review Initial ·Establish costcurrent planning environmental efforts sharing impact analysis Economic Prepare Identify consultant potential analysis scopes of work opportunities Establish Submit Notice implementation Preliminary of Intent feasibility schedule analyses •Form TAC Identify funding sources JUN '14

JUN '15

APR '16

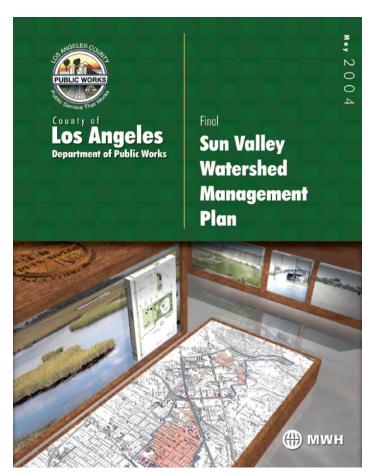
EWMP planning status

- Majority of permittees intend to pursue integrated planning
- Tentatively 15 EWMP groups throughout LA County
- Technical Advisory Committee to be formed:
 - Regional Board and USEPA
 - MS4 permittees
 - Environmental organizations
 - Water agencies
 - Others



Example: Sun Valley Watershed Management Plan

- Extensive stakeholder process
- Identified 18 projects
- 3-year plan development process









Community Involvement

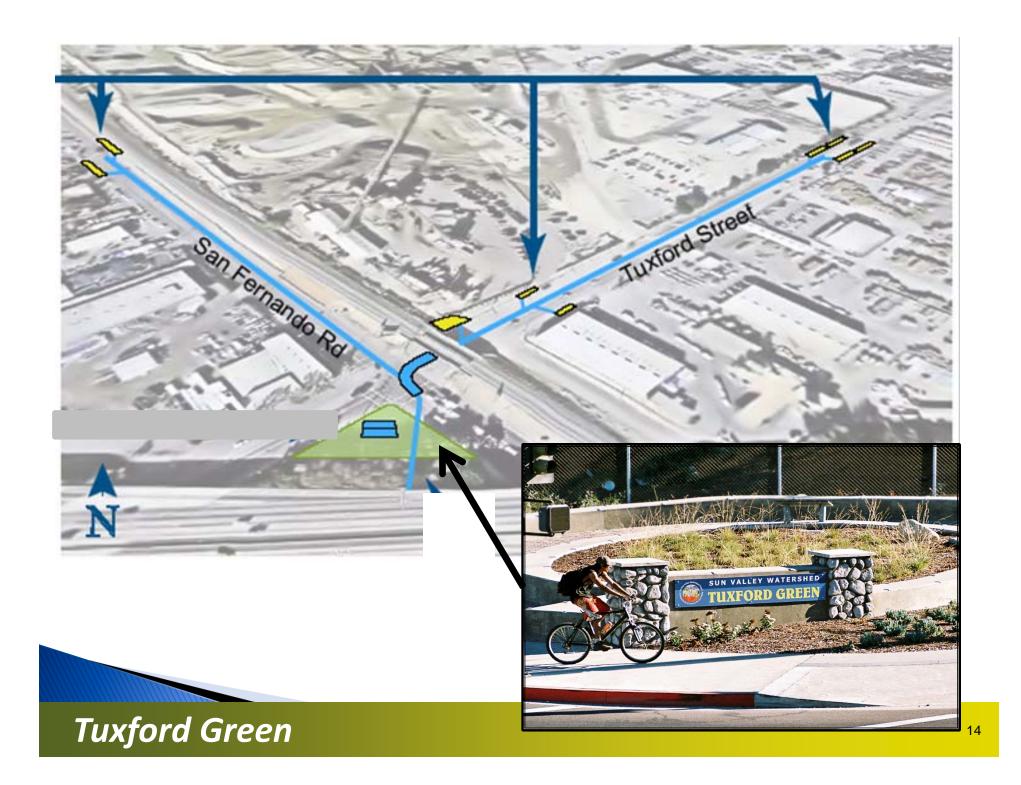






Elmer Avenue Retrofit







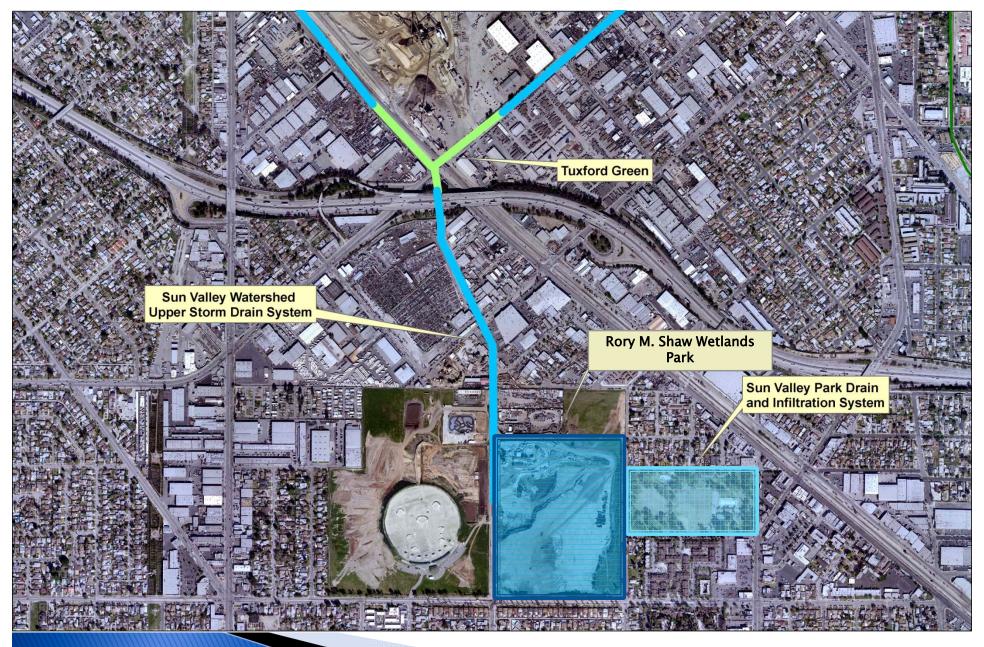
Sun Valley Park Drain and Infiltration System

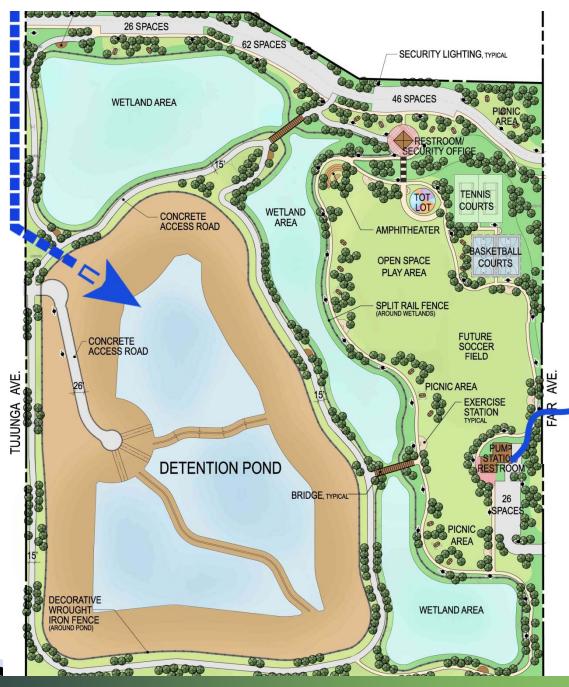












Groundwater recharge (Sun Valley Park)

Water infiltrated: 590 AF/yr.

Rory M. Shaw Wetlands Park





Dominguez Gap Wetlands



Tujunga Wash Greenway and Streambed Restoration

Final thoughts

- New MS4 Permit is an opportunity to manage stormwater as a resource
- Incentivize collaboration among permittees
- Partnerships



Thank you.

Gary Hildebrand, PE Assistant Deputy Director County of Los Angeles Department of Public Works (626) 458-4300 ghildeb@dpw.lacounty.gov



