

This Presentation will illustrate BOS' vision for IMPLEMENTING INNOVATIVE POLICIES FOR SMARTER CITIES, ...based on the opportunities presented through the BOS Missions of SERVICE

(See Introduction sent by Jeff)

# BUREAU

## Missions:

- **WASTE WATER**

Treatment & Recycled Water Resources

- **SOLID WASTE**

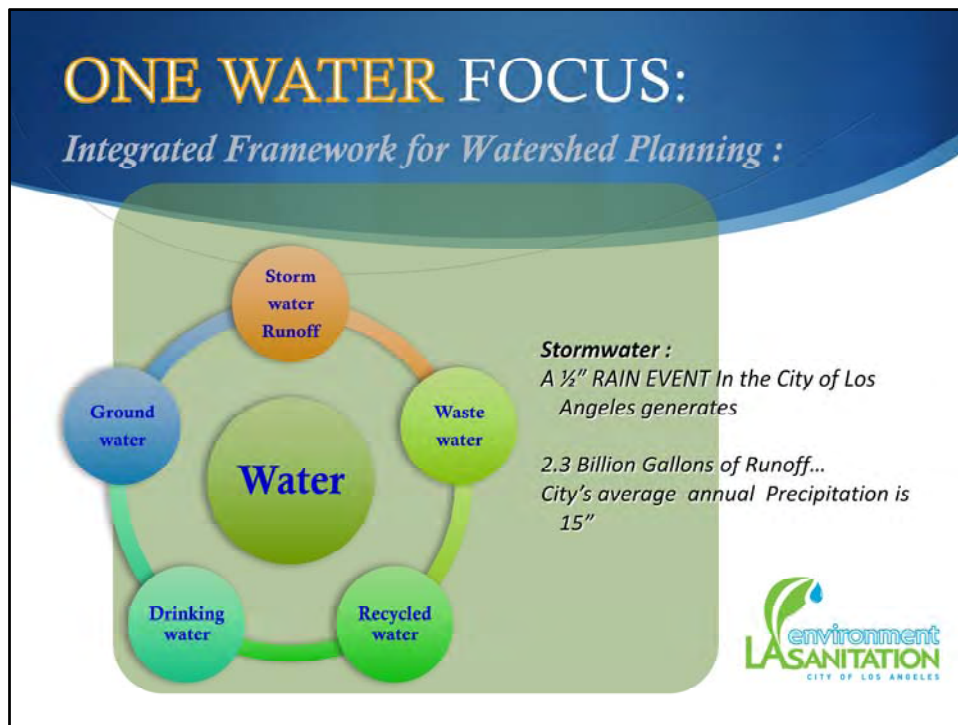
Solids and Green Waste Recycling

- **STORM WATER**

Pollutant reduction, Infiltration & Reuse



- BOS Full staff is approx 3500 employees
- Hold diverse positions from trash collection truck drivers, to biologists sampling the Santa Monica Bay---
- Largest staffed Bureau in the city.
- HTP, DCT, LAG, TIWRP



- City is taking a "One Water APPROACH" to managing our water resources
  - Although there are tremendous opportunities presented in the conversion of wastewater to a more valuable Recycled water resource,
  - For energy and water conservation, we seek opportunities for capturing and reusing **Stormwater** as close as possible to where it falls,
- and with PLANNING, Stormwater capture is targeted for infiltrative soils where it can recharge our groundwater resources and reduce the demand on imported water resources for irrigation.

SUMMARY: CAPTURING BOTH Storm water and recycled water for reuse, and to replace costly and energy intensive IMPORTED WATER RESOURCES IS A PRIORITY for BOS....

AND HOW are we doing THIS?????

NOTES:

Corroboration of 15 INCHES: <http://www.laalmanac.com/weather/we13.htm>

**Corroboration of volume:**

[DEPTH] x [AREA] = VOLUME

[.5"/12" per foot = .0416 Feet deep] x [ Area= 470 Square miles x 640 Acres/ Sq. Mi. x 43560 Sq Feet per Acre x 7.48 Gallons/ Cubic foot ] = 4 BILLION GALLONS-----

So we can EITHER use 57.5 % AS THE Watershed IMPERVIOUSNESS TO GET the 2.3 BILLION GALLONS of runoff

Or //

Use a different figure for the city area--  
(but I'd argue that we should use 470 Sq miles like BSS, as it appears to be a rounded area, and an average of others posted online...)



## IRP APPROACH

- Regional inclusiveness of goals and priorities
- Enhance existing Regulatory requirements
- Municipal Separate Storm Sewer Systems (MS4) Permit**
- Ongoing Collaborations**
- Opportunities**

## REGIONAL Projects:



### ◆ Proposition O

- ◆ South Los Angeles Wetlands
- ◆ Echo Park Lake
- ◆ Machado Lake
- ◆ Strathern Pit



Making the most of our existing open spaces for storm water improvement benefits our SOCIETY, ECONOMY, ENVIRONMENT, is key to generating public awareness, and meaningful greenways destinations in the watershed wide planning.

Note: Strathern Pit Illustrates a WATERSHED WIDE approach in partnership with the County

# L.I.D. Projects:

*Low Impact Development*

CITY OF LOS ANGELES



**SANITATION**  
DEPARTMENT OF  
PUBLIC WORKS





- ◆ Rainbarrels & Cisterns
- ◆ Rain gardens
- ◆ Downspout disconnects
- ◆ Permeable or Porous Paving
- ◆ Planter Boxes



<http://www.lastormwater.org/green-la/low-impact-development/>

•The Low Impact Development (LID) Ordinance Proposed By our Bureau and Adopted by our City Council, applies to all development and redevelopment in the City of Los Angeles that require building permits.

•LID Educates and Empowers the Individual with Options, and generates informed citizens and voters who can support Ballot measures, and projects in their communities.

(FOR YOUR BACKGROUND INFO ONLY) Which developments are not required to follow the LID ordinance?

- Any development and redevelopment that creates, adds, or replaces less than 500 square feet of impervious area.
- Any development or redevelopment not requiring a building permit.
- Any building alteration or addition that does not expand the building footprint.
- Use of Land Permits that require no addition to or alteration of existing impervious surfaces.
- Re-striping of permitted parking lots.
- Any development and redevelopment involving emergency construction activities required to immediately protect public health and safety.
- Infrastructure projects within the public right-of-way, and utilities on private property (gas, water, cable, telephone, electric, etc.).
- Exterior movie and television production sets and/or facades on existing developed sites.
- Any development or redevelopment for which plans and complete application are accepted by the Department of Building and Safety for plan check and the appropriate fee is paid prior to the effective date of the stormwater LID ordinance.
- Any entitlement application for a Development or Redevelopment filed with the Department of City Planning and deemed complete with the exception of California Environmental Quality Act (CEQA) review prior to the effective date of this Stormwater LID ordinance.



# GREENWAY Projects:

*“COMPLETE STREETS” Distributed Measures*

- Elmer Avenue (Photo)
- Riverdale Avenue
- Vermont Avenue



- Community Support is important for Implementing Sustainable and Distributed projects
- Elmer and Riverdale have been constructed on Local Streets in the Public Rights of Way, and Vermont is the first Major Highway Pilot that BOS is pursuing with MTA, and Federal funding.
- All scales of street cross sections (from Local streets to Major Highways or Collectors) are being addressed through our watershed wide Greenway Planning— And Stormwater Greenways are being considered by our Department of City Planning for integration within the City’s General Plan (Mobility Element).
- Application of these distributed measures to a regional planning effort will demonstrate the implementation of a regional “One Water” approach in our watersheds.
- Perhaps our greatest challenge is making all efforts more sustainable--- and intensive outreach and education of communities embraces the public as partners. Our bureau has consistently demonstrated their commitment to this public education effort...

(Would you like to Include an ELC Slide?)

ECZ NOTES:

Elmer was most extensive version—at \$3M it’s cross section spans from curb to curb under the street and asphalt, and has beautified parkways and private frontages.

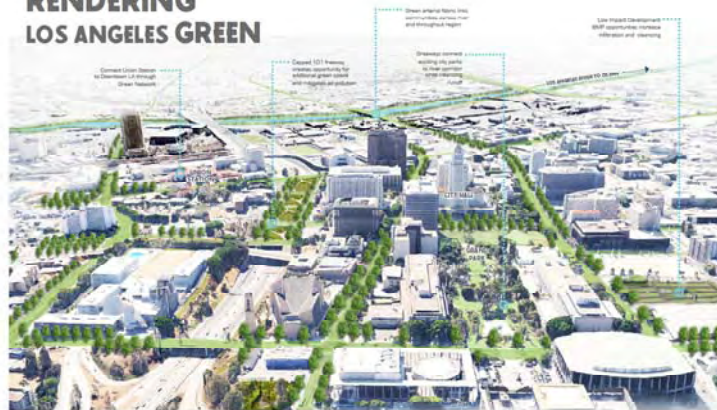
Riverdale, was very efficient in terms of costs and capture volumes, which occurred under the parkways and sidewalks only—\$350K for this project construction.

Both were built, and have been successful in meeting the targeted Stormwater Objectives,

An upcoming project on Vermont Avenue (between Gage and Florence) was awarded federal funding this summer by MTA as the first MAJOR HIGHWAY and multi-benefit Transportation and Stormwater Project that will be constructed by city forces. A goal of this Pilot project is to provide more information (volumes and costs) that are realistic for a major highway, so that our Citywide extended estimates are validated.

# Mayor Garcetti's GREAT STREETS Initiative:

## RENDERING LOS ANGELES GREEN



Our Mayors FIRST Directive is to form an Executive Committee composed of Representatives Of all City Departments, that focuses on COMPLETE STREET PROJECTS that SPAN the OBJECTIVES OF All AGENCIES





**BROADSCALE VISION = OF WHERE WE ARE GOING = PLANNING**

- When we implement and CONNECT stormwater greening opportunities - starting with LID on an individual PARCEL, along our residential streets, and on to our Schools— which are the geographic and social “hubs” of a community--- We create numerous SOCIAL, ECONOMIC and ENVIRONMENTAL opportunities

- And as we begin to recognize our streets are functional URBAN RIVERS that convey runoff, they can include trails to our open spaces and destination sites such as parks, beaches, mountains, and rivers— And they can become a more NAVAGABLE and meaningful interconnected system that presents new opportunities.

- So seizing these relevant opportunities as we increase pervious areas for stormwater quality, whether At the scale of LID, or REGIONAL, or DISTRIBUTED PROJECTS---- not only generates better cost efficiency and multi-benefit funding opportunities, But can result in opportunities such as employment, recycling, water conservation, and environmental enhancements –

- As a “GREEN BUREAU” we are also looking for ways we can integrate the benefits of our other BOS MISSIONS--- such as GREENWASTE distribution, solids recycling, recycled water and and (wastewater) low flow treatment of runoff with our planning.

**Greenways to Rivers Arterial Stormwater System (GRASS)=>**

GRASS IS a prototype that illustrates this discussion, and that was developed working with 2 Southern California accredited Universities of Landscape Architecture (Cal Poly Pomona, and UCLA/University Extension)--- it is the start of A city wide VISION THAT also connects communities along the STORMWATER GREENWAYS that will function in capturing, filtering, reusing, and/or infiltrating storm water runoff in our Streets, or “URBAN RIVERS”



NOTES:

UPPER LEFT ILLUSTRATION: WAS constructed at RIVERDALE

LOWER RIGHT ILLUSTRATION: AS Proposed By Collaborative Greenways effort

OUR BUREAU is invested in PLANNING and IMPLEMENTATING better stormwater management practices at ALL Scales  
 From GREENWAYS to the STANDARDS that are THE BUILDING BLOCKS of GREENWAY SYSTEMS

Greenway development requires modularity and cost effective applications over 470 Square miles in the City of Los Angeles.

Through adopted City STANDARDS and PROPOSED details,  
 We are investing into new and INNOVATIVE ways to  
 For both private development and in the public scale in the right of way.

# Opportunities

*Environmental – Social - Economic*

- **Expand on existing opportunities to meet multiple Regulatory and Regional Objectives**
- **Leverage funding resources to more cost effectively integrate stakeholder goals as “multiple benefits”**
- **Integrate Landscape Architecture with Engineered BMP’s to secure more sustainable solutions**
- **Support our Mayors vision for “COMPLETE STREETS” and our Planning Department MOBILITY ELEMENT in creating regionally significant Greenway connections**
- **Focus on Individuals as the cornerstones of compliance and sustainability; through public education, and outreach**

**GOAL : TO SEEK CHALLENGES AND CONVERT THEM TO OPPORTUNITIES**

**Additional Information:**

[www.lacity.org](http://www.lacity.org) or [www.lastormwater.org](http://www.lastormwater.org)



[www.facebook.com/lastormwaterprogram](http://www.facebook.com/lastormwaterprogram)



[www.youtube.com/user/lastormwaterprogram](http://www.youtube.com/user/lastormwaterprogram)



[www.lastormwater.org/blog/](http://www.lastormwater.org/blog/)

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QUESTIONS?

