



# Stormwater STG Workshop #1 Summary



## Overview of One Water LA 2040 Plan



### 1. Stormwater and Runoff Management Facility Plan



- Other policies, plans, studies to consider
  - City sidewalks policy: prioritize street – parkway – private space
  - Upcoming reports
  - Local joint efforts
  - Apply sound research before setting policy
- Engagement of local and regional entities
  - Planning’s Re:Code LA
  - Metro’s environmental and sustainable policy related to measure R2
  - LAUSD and private schools for retrofits
  - LAWA’s offsite planning
  - City Green Street Committee



# Stormwater STG Workshop #1 Summary



## 2. (continued) Private Property and Non-City Role in meeting ED5 and EWMP Goals



### Voluntary Methods



- Provide multiple avenues – no single track solution
- Large private property distributed opportunities
  - Non-porous properties
- Landscape alteration
  - Appropriate planting and maintenance
  - micro-grading
- General public education and outreach campaign
  - Stormwater/watershed literacy
  - Job training for installers
  - Engaging business groups
- Full community participation
  - Too much for city to do on it’s own



# Stormwater STG Workshop #1 Summary



## 2. Private Property and Non-City Role in Meeting ED5 and EWMP Goals



### Incentives



- Residential rainwater capture and education
  - Rebate
  - Low-interest loan program
  - Increase existing incentives
- Commercial/industrial stormwater capture
  - Reduced water rates: Tier-priced water bills
- Private property parking lots
- Fund NGOs to do demonstration projects
- Cost sharing
- Revisit existing incentives: Rain Garden, Turf Removal



# Stormwater STG Workshop #1 Summary



## 2. (continued) Private Property and Non-City Role in meeting ED5 and EWMP Goals



### Issues Mandatory Implementation



- public curb and parkway basins
- Code/ordinance/regulatory revisions
- Public private partnerships
- Combining mandates with incentives
- Increased oversight of commercial/industrial facilities
- Standardized simplified plans
- Unify water rights into one agency for distribution
- De-centralized on private
  - Lower costs on O&M
  - Track performance vs. expected WQ
- Distributed residential projects





## Stormwater STG Workshop #1 Summary



### 3. Integrated Project and Partnership Examples

- Extremely effective DWP toilet replacement program effort with nonprofits
- Small grants for NGOs are effective to set/revise standards or larger scale efforts
- Expansion of pilots to standard practice for code evolution
- Create an online platform for more engagement in community research efforts
- Partnering with colleges/institutions
  - Law schools for ordinance/regulation roadblocks
- Involve LA County more
- LASAN and NGOs curriculum with LAUSD for messaging and education
- Hold NGOs and private entities in equal regard



## Suggested Incentives from the SCMP



- Stormwater Fee Discount
- Development Incentives
- Grants/Ratepayer Incentives
- Rebates, Tax Credits, and/or Installation Financing
- Awards & Recognition Programs



# Incentives



## Suggested Incentives from Meeting #1



- Incentive and rebate for rain garden installation instead of simple turf removal
- Incentives for commercial/industrial distributed storm water capture
- Identify and incentivize private property parking lots for storm water recapture/infiltration
- Incentivize private property owners to put water use back into system
  - Reduced water rates
  - i.e. solar back into the grid
- Fund NGOs on projects (rain barrel, rain garden, etc.) which are more effective than being done directly by city
- Increased incentives for homeowners and private businesses
- Tier-priced water bills
- Explore incentive program for residential cisterns





## Incentives from the Portland Example



- Reward System – Project Spotlight
- Public Private Development – Buffers
- Development Bonus (FAR) and Grant Programs
- Ecoroof
- “Treebate!”
- “X”% for Green / Green Connectors for Schools / Zero Interest Loans



## Incentives



### Public/Private Development



### Development Bonus (FAR)



## Incentives



### Reward System - Water Heroes

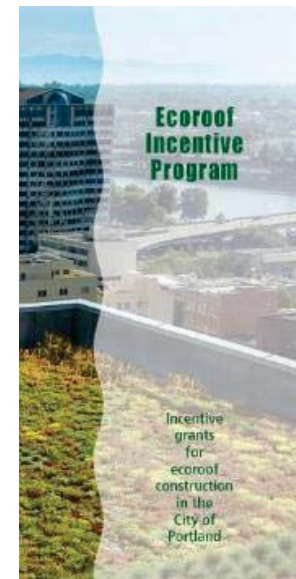


## Incentives



### Ecoroof Incentive Program (Grey to Green)

- up to \$"X" / sf towards ecoroof





## Incentives & Partnerships



### Treebate!

- Plant a yard tree for clean rivers
- Earn a rebate up to \$50 per tree!



Adapted from Dean Marriott December 2015



## Incentives

### Discussion

- What new incentive ideas from outside the region (or older ideas whose time has come) can be developed?
- What current incentives in LA are working and why?
- Which current incentives are not working, and why?
- Can some be combined? Look to other industries



## Incentives & Partnerships



**1% for Green**  
**Safe Routes to School**  
**Zero Interest Loans**

Adapted from Dean Marriott December 2015



## Partnership Ideas

### Partnerships



## Partnership Discussions from STG #1



- LADWP Toilet Replacement Program – Success!
- Small grants to NGOs
- Online platform for information transfer (Blog, LMU database...)
- Education and Outreach
- Standardized Agreements
- Schools and Parks
- LA County



## Improving Partnership Opportunities with the City of Los Angeles

### Discussion

- How can we better collaborate to improve the effectiveness and delivery of stormwater projects and programs through partnerships?
- What integration and partnership opportunities have been missed, or less effective, than they could have been? What are some of our frustrations?
- How can we overcome some of the challenges with grant projects including payment delay and retention requirements?
- What forms of agreements exist and work well, do not, are needed?



## Partnerships



### Partnerships with Schools



## Stormwater and Runoff Management

### Meeting Recap

*Anything else we should be considering?  
Is there anything we can do to improve the process?*

# Stormwater and Runoff Management

## Next Steps

- *Next Meeting*
- *Final Outcome*

## **Stormwater & Runoff Management STG Meeting #3 (06/23/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Stormwater and Runoff Management Meeting #3, held on June 23, 2016.

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# STORMWATER & RUNOFF MANAGEMENT

## Special Topic Group #3



DATE	TIME	LOCATION
June 23, 2016	10AM to 12-Noon	2714 Media Center Drive, Room TBD Los Angeles, CA 90065

Staff:

<b>Facilitator</b>	Rebecca Drayse	LASAN
<b>Facilitator 2</b>	Stephen Groner	SGA
<b>Technical Lead</b>	Mark Hanna	Geosyntec
<b>One Water LA Team</b>	Wing Tam, Steven Nikaido, Kosta Kaporis (Alt.)	LASAN
<b>One Water LA Team</b>	Azya Jackson	LASAN
<b>One Water LA Team</b>	Rafael Villegas	LADWP
<b>One Water LA Team</b>	Art Castro	LADWP

### AGENDA

- I. Welcome and Participant Recognition
- II. Special Topic Groups
  - a. Purpose of the STGs
- III. Stormwater Special Topic Group
  - a. Our purpose
  - b. Our potential outcomes
- IV. Recap and Discussion of input received in Meetings One and Two
- V. Results of Incentives Prioritization Poll
- VI. Group Agreement on Report-Out to City
  - Active Discussion to determine Topic and Subtopic Priorities
    - i. Incentives
    - ii. Policies
    - iii. Programs
    - iv. Partnerships
    - v. Research
- VII. Stormwater STG Close-Out
  - a. Next Steps
  - b. Feedback

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**One Water Los Angeles**  
**Stormwater and Runoff Management Special Topic Group – Meeting #3**  
**Thursday, June 23, 2016 10:00AM–12:00PM**  
**2714 Media Center Drive, Los Angeles, CA 90065 (Board Room)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees:**

*Participants*

Becky Hayat	NRDC
Kevin Fellows	Parsons Brinkerhoff
Guangyu Wang	SMBRC
Daniel Berger	TreePeople
Katie Mika	UCLA
Rita Kampalath	Heal the Bay
Natalia Gaerlan	The Trust for Public Land
Ghina Yamons	Alta Environmental

*Meeting Team*

<b>Facilitator</b>	Rebecca Drayse	LASAN
<b>Scribe</b>	Stephen Groner	SGA
<b>Technical Lead</b>	Mark Hanna	Geosyntec
<b>One Water LA Team</b>	Doug Walters	LASAN
<b>One Water LA Team</b>	Kosta Kaporis	LASAN
<b>One Water LA Team</b>	Azya Jackson	LASAN
<b>One Water LA Team</b>	Virginia Wei	LADWP
<b>One Water LA Team</b>	Art Castro	LADWP
<b>Note Taker</b>	Inge Wiersema	Carollo

**Welcome and Participant Recognition**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Special Topic Groups**

The various special topics were summarized and outlined. There have been a minimum of three meetings for each special topic. They have built off of the original IRP in order to connect them with the One Water LA project. Stormwater is a particularly popular issue, there have been multiple parties involved in the special topic groups ranging from NGOs, agencies, and private

companies. The Stormwater STG will finalize with a report out to the stakeholders at the next stakeholder meeting.

### **Purpose of the Special Topic Group Meetings**

The purpose of the STG meetings was restated.

- To build relationships with and solicit input from the diversity of stakeholders that will be involved in implementing programs prescribed in the One Water LA Plan.
- To use input and discussion outcomes to:
  - Shape the One Water LA Plan
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation.

### **Purpose of this Stormwater Special Topic Group**

The purpose of the Stormwater STG meetings was restated.

- Discuss stormwater projects and programs involving non-City entities as well as within and between City departments
- Help meet EWMP goals from contributions from land not under City jurisdiction
- Identify opportunities to partner with the City to implement stormwater projects and/or programs

### **Potential Outcomes of Stormwater Special Topic Group**

- Recommendations summarized and drafted for the One Water LA 2040 Plan
- Presentations to stakeholders and stormwater managers
- Present recommendations for discussions with key City leaders, the Mayor's Water Cabinet, and the Mayor's office
- Incorporation of elements into the One Water LA 2040 Plan sections on policies and ordinances, funding and public engagement

### **Recap and Discussion of input received in Meetings One and Two**

A summary took place of the first and second Stormwater STG meetings. The first meeting included an overview of the One Water LA 2040 Plan. There were discussions on how Stormwater and Runoff management fits in One Water LA's Stormwater Facilities Plan. Private property and Non-city role in meeting ED5 and EWMP goals were also discussed. There were no comments received from group regarding the meeting notes.

- The team reviewed and discussed incentives
- A poll was distributed in order for the group to vote and rank
- A summary of recommendations from the meetings will be included in the One Water LA final report.
- Meeting 1:
  - Stormwater and Runoff Management Facility Plan
    - Programs, Policies, and Research to Consider: City sidewalk policies, upcoming reports, local joint efforts
    - Engagement Of Local and Regional Entities such as re:code LA, Metro and Measure R2, LAUSD, LAWA offsite planning
  - Private Property and Non-City Role in Meeting ED5 and EWMP Goals
    - Incentives

- Issues Impacting Voluntary Methods
    - Issues Impacting Mandatory Implementation
  - Integrated Project and Partnership Examples
    - DWP toilet replacement, grants for NGOs, partner with colleges
- Meeting 2:
  - Stormwater Special Topics Group
    - Purpose, objectives, and goals
    - Expected outcomes of stakeholder input
  - Incentive Ideas – Review and Discussion
    - Reward systems
    - Public/private development
    - Eco-roof and tree-bate incentive programs
    - 1% for green infrastructure
    - Practical metrics to communicate stormwater goals w/ public
  - Partnership Ideas – Review and Discussion
    - Industrial community and Industrial General Permit
    - LA Chamber of Commerce
    - Trust of Public Land
- Key Action Items from Meetings 1 & 2:
  - Pertinent One Water GIS Layers will be made available on City's GeoHub.
    - Specific GIS layers to reviewed and considered before shared
    - It is difficult to make available/share GIS layers that are from other agencies, since the City does not own those rights
    - Vision Zero Initiative is being worked on with other agencies
    - Street Programs
  - Practical Metrics for Stormwater Goal Setting
    - Also raised in Communication STG
    - Examples of quantification methods that can be used to measure progress and communicate results:
      - Area of pavement removed (square footage)
      - Number of rain gardens
      - Number of cisterns
      - Amount of park space (acres)
      - Gallons of water saved; Linking it to households served per year
      - Water usage

**Results of Incentives Prioritization Poll (see attachment)**

- Rewards:
  - Highest ranked financial incentive was "Stormwater Fee Discount"
  - Lowest ranked financial incentive was the "Eco-roof Incentive"
  - Other high ranked incentives included: Turf Removal Rebate Program; Private Property Stormwater Reuse Capture/Recharge/Reuse; Commercial/Industrial Capture/Recharge/Reuse

Discussion:

- Compliance check for measuring the amount of water captured on private properties does not exist.

- Enforcement compliance is low due to lack of enforcement. Idea: Need to invest and need to track efforts better in database.
- Funding for Partner Assistance:
  - Highest ranked was minimum X percent for Green
  - Lowest ranked option included Adopt a Highway
  - However, most strategies ranked were very close.
  - A suggestion included Combining NGO Funding and NGO Partnerships because both are often needed at the same time. After discussion, it was decided to keep them separate.
- New Development:
  - Highest ranked option was the Impervious Buy-back program
  - Lowest ranked option was Upgrade schools
  - Suggestion: Combine options in a package
- Promotional Strategies:
  - Highest ranked option: Quantitative Goals for City
  - Lowest ranked option was Education Component to Rebate

Discussion/Comments

- Decrease in crime level, lower stress level, less obesity, improvement of quality of life when green space increases
  - Target communities based on green needs
  - Need to be mindful that programs don't just benefit the areas where residents have the means to improve their property.
- Awards & Recognition:
  - Highest ranked option was Yard Signage
  - Lowest ranked option was Water Heroes Program & Grand Prize for Innovation

Discussion/Comments:

- When public action is disclosed, it changes behaviors. For example, water bills include comparison with water usage in the neighborhood.
  - Yard Signs have an educational component too
  - Yard Signs can include information on where to find help or obtain rebates
  - Possible HGTV partnership could promote onsite stormwater capture and reuse practices
- Grants and Opportunities:
  - Highest ranked option was Conservation and Green City Programs
  - Lowest ranked option was Research Grant Opportunities
- Local Ordinances and Pricing Changes:
  - Highest ranked option was Increase City Requirements for SW Capture (City is working with recode LA to incorporate changes. incl. LID)
  - Second best option: Remove Regulatory Barriers to Adoption
  - Lowest ranked option was City's watershed motion
- Overall Priority Ranking of each Strategy Category in order of highest to lowest:
  1. Local Ordinance and Water Billing
  2. New Development/Redevelopment
  3. Funding for Partnerships
  4. Public/Private Partnerships

- 5.Promotional Strategies
- 6.Awards & Recognition
- 7.Rewards

#### Discussion and group recommendations

- It was noted to be aware that some of the lower ranked strategies have elements can be implemented much quicker. For example, Yard Signage is the highest ranked awards & recognition program.
  - Regulatory methods are very important
- Incentives Poll - Additional Comments submitted
  - Rewards: Owner to mitigate/retain stormwater at time of purchase
  - Combine NGO funding and NGO partnerships on partnership assistance question
  - Combine promotional strategies
  - Stop promotion of 55-gallon rain barrels. Response: The minimum size cistern (200 gallons) with a tiered rebate structure based on size (1000, 2000 gallons) is currently being reviewed. Identify partnerships to create/maintain watering programs for existing street trees. Require maintenance/watering system or plan for new trees.
  - Grant to research alternative to ‘rational method’ of quantifying infiltration rates for nature based green infrastructure
  - Work with re:code to identify “Resource Lands” to establish re-development and un-development criteria and incentives. For example, efforts are ongoing to identify land.
  - CIP folks need standards and specs to incorporate "extra cost" green infrastructure. City or County CIPs need to consider options like tree wells.
    - i. San Diego has implemented green streets standards and uses to manage their CIP list.
  - Job training and funding are both critical to create and maintain these systems.

#### Report Out to City

- There will be a report out to the City on the following topics (see PowerPoint slides attachment)
  - Incentives
  - Policies
  - Partnerships, grants, rebates
  - Research
- STG will report back to Stakeholder Group at the following next week's Stakeholder Workshop in August or September
  - Volunteers for report out: Natalia, Katie, Rita, and Ghina (not in August)
- Action Items:
  - Organize research studies by completed, in progress, recommended or alike.
  - Add development of Metrics as a separate slide and discussion point in presentation.
  - Organize poll results in descending order with highest ranked result on top

- In report: Add discussion question "Did we miss anything?"

### **Next Steps**

- Prepare report out for next Stakeholder Workshop
- Joint meeting with funding group to talk about the stormwater fee
- Outcomes:
  - A presentation at the third One Water LA Stakeholder Workshop
  - Integration of summary recommendations into the One Water LA 2040 Plan
  - Report out to Water Cabinet and/or other forums
  - Maintain documentation of STG discussions in an appendix of the Plan



# One Water LA

## STORMWATER Special Topic Group Meeting #3 FINAL



Innovation • Integration • Inclusion



# One Water LA

## Meeting Team for Stormwater

Facilitator	Rebecca Drayse	LASAN
Facilitator	Stephen Groner	SGA
Technical Lead	Mark Hanna	Geosyntec
One Water LA Team	Wing Tam, Steven Nikaido, Kosta Kaporis (Alt.)	LASAN
One Water LA Team	Azya Jackson	LASAN
One Water LA Team	Rafael Villegas	LADWP
One Water LA Team	Art Castro	LADWP
One Water LA Team	Liz Crosson	LA Mayor's Office of Sustainability
Meeting Review	Inge Wiersema	Carollo



## Stormwater STG Participants To Date

Arthur Pugsley	LA Waterkeeper	
Shawn Warren	FOLAR	
Jack Humphreville	GWNC	
Kevin Fellows	Parsons Brinkerhoff	
Guangyu Wang	SMBRC	
Daniel Berger	TreePeople	
Katie Mika	UCLA	
Steve Johnson	Heal the Bay	
Melanie Winter	The River Project	
Rita Kampalath	Heal the Bay	
Natalia Gaerlan	The Trust for Public Land	
Johanna Dyer	NRDC	
Daniel Berger	TreePeople	
Lee Alexanderson	LA County FCD	
Claire Latane	Mia Lehrer & Ass.	
China Yamons	Alta Environmental	
Bruce Resnik	LA Water Keeper	
Becky Hayat	NRDC	





## Agenda



- Special Topic Groups Purposes
- Recap and Discussion of input received in Meetings One and Two
- Results of Incentives Prioritization Poll
- Group Agreement on Report-Out to City
- Topic and Subtopic Priorities
- Stormwater STG Close-Out



## Purpose of the Special Topic Groups



- To build relationships with and solicit input from the diversity of stakeholders that will be involved in implementing programs prescribed in the One Water LA Plan.
- To use input and discussion outcomes to:
  - Shape the One Water LA Plan
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation.



## Purpose of this Special Topic Group



- Discuss stormwater projects and programs involving non-City entities
- Help meet EWMP goals from contributions from land not under City jurisdiction
- Identify opportunities to partner with the City to implement stormwater projects and programs





## Expected Outcomes from Your Input



- Recommendations summarized and drafted for the One Water LA 2040 Plan
- Presentations to stakeholders and stormwater managers
- Present recommendations for discussions with key City leaders, the Mayor’s Water Cabinet, and the Mayor’s office
- Incorporation of elements into the One Water LA 2040 Plan sections on policies and ordinances, funding and public engagement



## Brief Summary of Meeting 1



### Overview of One Water LA 2040 Plan



#### 1. Stormwater and Runoff Management Facility Plan

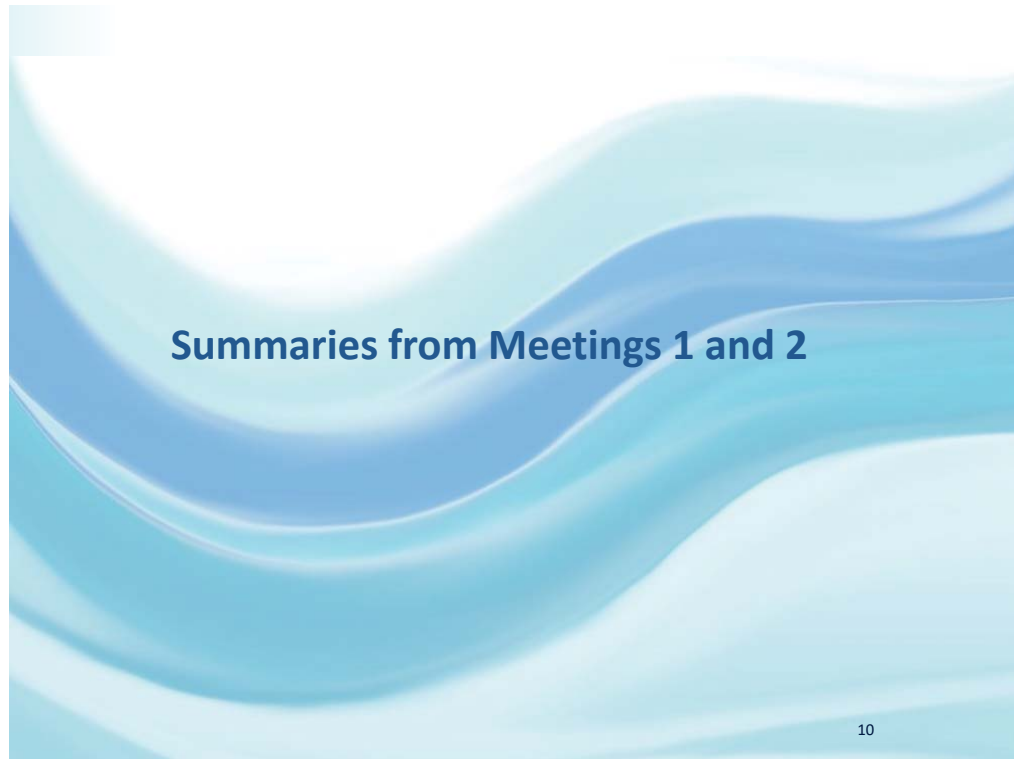
- Programs, Policies, and Research to Consider
  - City sidewalk policies, upcoming reports, local joint efforts
- Engagement Of Local and Regional Entities
  - Re:Code LA, Metro and Measure R2, LAUSD, LAWA offsite planning

#### 2. Private Property and Non-City Role in Meeting ED5 and EWMP Goals

- Incentives
- Issues Impacting Voluntary Methods
- Issues Impacting Mandatory Implementation

#### 3. Integrated Project and Partnership Examples

- DWP toilet replacement, grants for NGOs, partner with colleges



## Summaries from Meetings 1 and 2



## Brief Summary of Meeting 2



#### 1. Stormwater Special Topics Group

- Purpose, objectives, and goals
- Expected outcomes of stakeholder input

#### 2. Incentive Ideas – Review and Discussion

- Reward systems
- Public/private development
- Eco-roof and tree-bate incentive programs
- 1% for green infrastructure
- Practical metrics to communicate stormwater goals w/ public

#### 3. Partnership Ideas – Review and Discussion

- Industrial community and Industrial General Permit
- LA Chamber of Commerce
- Trust of Public Land





## REPORT OUT OF ACTION ITEMS



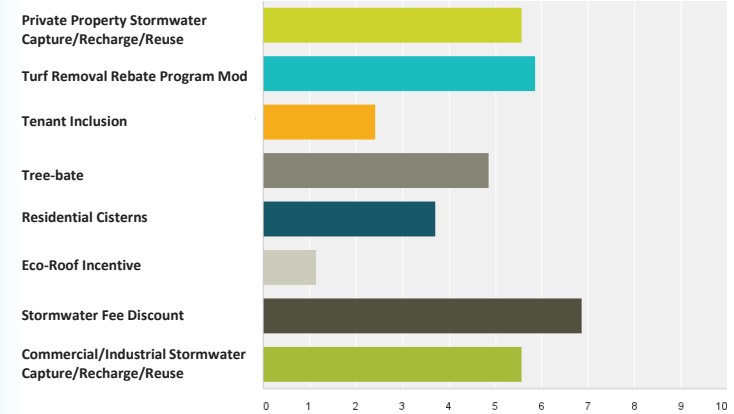
- One Water GIS Layers To Be Made Available
- Specific GIS Layers To Be Considered
  - Vision Zero Initiative
  - Street Programs
- Practical Metrics for Stormwater Goal Setting
  - Also raised in Communication STG
  - Examples to consider
    - Square feet of concrete/asphalt removed
    - Number of rain gardens, cisterns, etc. installed
    - Other ideas?



## Results from Incentives Poll



**Rewards: Which of these financial incentives and rewards would be most implementable and effective to increase private implementation of stormwater projects in Los Angeles?**



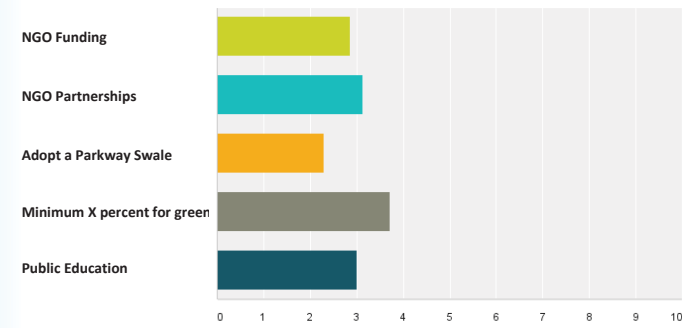
## Results from Incentives Poll



## Results from Incentives Poll



**Funding for Partner Assistance: Which of these incentive strategies would have the most impact on fostering partnerships to increase private implementation of stormwater projects?**





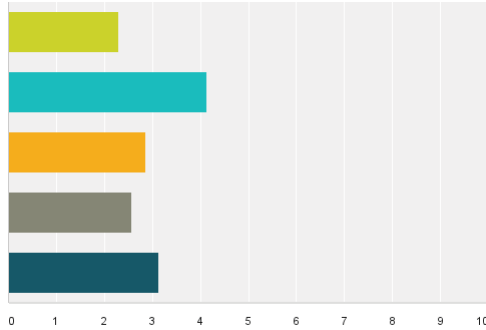
## Results from Incentives Poll



**New Development, Re-Development and Public/Private Development: Which of these incentive strategies have the greatest opportunity to increase stormwater capture in development and redevelopment projects?**



Pervious Pavement Rebate



Improved Floor Area Ratio Bonus



Upgrade Schools

Stormwater Trading Credit System



## Results from Incentives Poll



**Awards & Recognition: Which of these recognition programs may be readily implemented in Los Angeles to best reach the public and increase participation in stormwater programs?**



Yard Signage



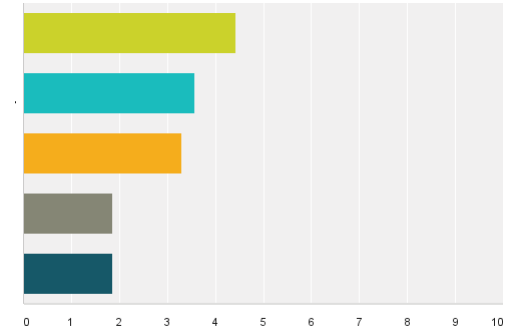
Business Acknowledgement



Property Owner Recognition

Grand Prize for Innovation

Water Heroes Program



## Results from Incentives Poll



**Promotional Strategies: Which of these promotional strategies would be most effective at reaching the public and increasing participation in stormwater programs?**



Store Promotion of Water Conservation

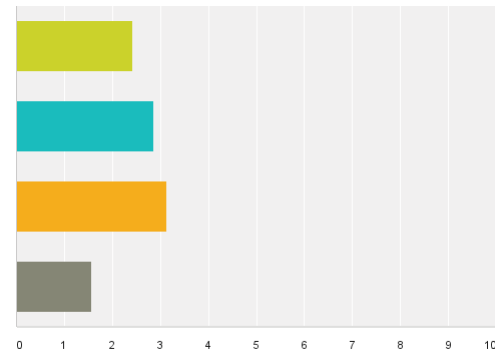


Property Value Increases with Green Development



Quantitative Goals for City

Educational Component to Rebate



## Results from Incentives Poll



**Grants & Partnerships: Which of these opportunities do you think will best improve the effectiveness and delivery of stormwater projects?**



Research Grant Opportunities

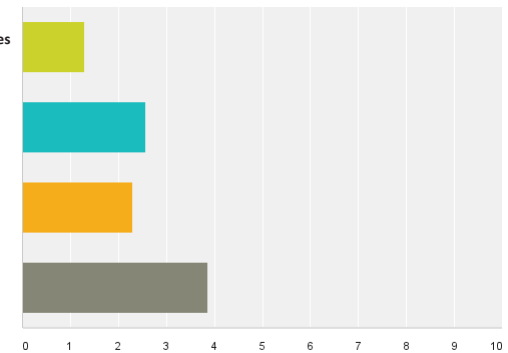


Metro Grant Program



Air Quality Management District and Air Resources Board

Conservation and Green City Programs





## Results from Incentives Poll



**Compliance: Which of these local ordinance and pricing changes do you think would be most effective at overcoming the challenges of implementing stormwater projects in Los Angeles?**



Public/Private Development



Regulatory Barriers to Adoption



Increase City Requirements for Stormwater Capture



City's Watershed Motion



Water Pricing



0 1 2 3 4 5 6 7 8 9 10



## Results from Incentives Poll – Summary of Additional Comments Submitted



- Rewards: Owner to mitigate/retain stormwater at time of purchase



- Combine NGO funding and NGO partnerships on partnership assistance question



- Employ a combination of promotional strategies



- Stop promotion of 55 gallon rain barrels. Increase minimum size



- Identify partnerships to create/maintain watering programs for existing street trees. Require maintenance/watering system or plan

- Grant to research alternative to 'rational method' of quantifying infiltration rates for nature based green infrastructure

- Work with Re:code to identify "Resource Lands" to establish re-development & un-development criteria and incentives.



## Results from Incentives Poll



**What is the highest priority incentive type overall among all the categories?**



Rewards



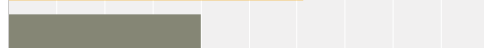
Funding for Partnerships



New Development/ Re-Development



Public/Private Development



Promotional Strategies



Awards & Recognition



Grants & Rebate Program



Local Ordinance & Water Billing



0 1 2 3 4 5 6 7 8 9 10



Report Out to City



## Agreement on Report Out to City



- Incentives
- Policies
- Partnerships, Grants, Rebates
- Research
- Others?



## Outreach & Recognition Incentives – Report Out



Promotional Strategies	Awards
1. Home Improvement Store Promotion of Rain Barrels	1. Yard Signage
2. Promotion of Property Value Benefits from Green Infrastructure to Private Property Owners	2. Business Acknowledgement for Sustainable Practices
3. Practical/Measurable Metrics to Communicate City SW Capture Goals	3. Property Owner Recognition
4. Property Owner Recognition – “Water Heroes”	4. Grand Prize for Innovation
5. LA Chamber of Commerce and BizFed to Promote One Water LA	5. Water Heroes Program
6. Online Platform/Database for Information Sharing on Ongoing Projects/Research	
7. Public education on health concerns about standing water.	



## Financial Incentives & Rewards – Report Out



Rewards	Fund 3 <sup>rd</sup> Party Assistance
1. Water Credits, Grants, Rebates, Financing, And Loans For SW Capture and Recharge on Private, Commercial, or Industrial Property	1. NGO Funding for SW Projects
2. Turf Removal Rebate	2. NGO Partnerships with City (DWP Toilet Swap Program)
3. Tenant Inclusion SW Capture Incentives	3. “Adopt a Parkway Swale or Tree” Program
4. Tree-Bate	4. Minimum Percent for Community Grant Green Projects
5. Residential Cistern Incentives	5. Public Education by City/NGOs
6. Eco-Roof Rebates	
7. Stormwater Fee Discount	
Development & Re-Development	Public/Private Development
1. Pervious Pavement Rebate	1. School Upgrade Incentives
2. Impervious Buy-Back Program	2. Stormwater Trading Credit System
3. Bonus for Improved Floor to Area Ratio (FAR)	3. O&M Cost Share Between Public/Private Organizations



## Regulatory Policies – Report Out



Regulatory Policies
1. Public/Private Development Buffer Requirements – Environmental Buffers
2. Remove Regulatory Barriers to Aid Adoption; Standardize Project Forms to Streamline Planning and Approval Process
3. Increase City Requirements for SW Capture with RE:Code LA
4. Use City’s Watershed Motion for SW Capture
5. Tiered Water Pricing System
6. More Interaction with and Oversight of Industrial Community to Implement Industrial General Permit
7. Common Water Rights Managed Under One Agency





# Partnerships, Grants, and Rebate Suggestions – Report Out



Partnerships, Grants, and Rebate Programs
1. Metro Grant Program to Include SW Capture and Green Infrastructure Rebate
2. Air Quality Agencies and Regulatory Bodies to Consider Rebates for Tree Installation
3. Conservation and Green City Programs - Integrate Complete Streets, Green Streets, Pedestrian Streets, Safe Routes to School, and Vision Zero Programs
4. Other Agencies (LA County) to Share Match Requirements for SW Grants
5. Standardize Agreements to Streamline Project Development
6. Universities/Research Institutions for Research Grant Funds
7. NGOs to Pursue/Increase Funding Opportunities



# Stormwater and Runoff Management

## Next Steps

- Stakeholder Workshop Volunteers
- Content for Workshop
- Joint STG with “Funding Group” on Stormwater Fee
- Outcomes

Thank you!



# Research – Report Out



Research Topics	
SW Capture Opportunities in SCMP, EWMPs, South LA Green Alley Master Plan, City of Sidewalks Policy, Re:Code LA, LA Basin SW Conservation Study	Potential Opportunities for Runoff Capture and Reuse Throughout Watershed to Determine Best Use
Sustainable LA Water – UCLA	Financing Framework from other sectors (i.e. the Electricity Sector)
Historical Hydrology Patterns of LA River and Other Streams and Liquefaction Zones from NRCS Soil Study Before Finalizing Plans	Benefit of Different Trees on SW Capture to Develop Sustainable Tree Guidelines
Track and Monitor BMP Costs (Installation and O&M) and Effectiveness	Ecosystems in a Green Economy; Nature Based Solutions from the EU
Perceptions of SW Between Different Agencies	Resiliency in Flood Protection; Adaptation; Breaking the Disaster Cycle
Policies and Programs from City That Make SW Capture Economic for Property Owner	Water LA, The River Project Recommendations for ED5 (pLAn)





## **FUNDING AND COST BENEFIT ANALYSIS SPECIAL TOPIC GROUP**

The Funding and Cost-Benefit Analysis Special Topic Group met with the purpose of

- Identifying funding opportunities for One Water LA,
- Reviewing our program's cost-benefit methodology, and
- Providing input on grants and funding opportunities.

The following pages present the meeting materials from the Funding and Cost-Benefit Analysis Special Topic Group meetings.

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## **Funding & Cost Benefit Analysis STG Meeting #1 (03/29/16)**

The following pages present the agenda, summary of the meeting discussion, and the presentation given at the Funding and Cost-Benefit Analysis Meeting #1, held on March 29, 2016.

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# FUNDING & COST-BENEFIT ANALYSIS

## Special Topic Group



DATE	TIME	LOCATION
March 29, 2016	9am-11am	Media Center (Board Room)

Staff:

<b>Facilitator</b>	Jack Baylis	The Baylis Group
<b>Technical Lead</b>	Robb Grantham	Carollo
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Kim O'Hara	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP

- I. Welcome and Introductions
- II. Brief Overview of One Water LA Plan Phase 2
- III. Purpose of Special Topic Groups Process, Objectives, and Relationship to Phase 2
- IV. Road Map for the Funding & Cost-Benefit Analysis Special Topic Group
  - a. Objectives for group meetings:
    - i. Meeting #1: Share information and resources, and begin to discuss opportunities, priorities and solutions
    - ii. Meeting #2: Continue discussion of opportunities and solutions, and identify action steps
    - iii. Meeting #3: Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop
- V. Funding Matrix
- VI. Discussion and engagement opportunities
  - a. Identifying funding opportunities for One Water LA
  - b. Providing input on grants and funding strategies
  - c. Role / purpose of cost-benefit analysis
- VII. Next Steps
  - a. Timing of meetings
  - b. Outcomes Documentation

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**One Water Los Angeles  
Funding & Cost-Benefit Special Topic Group – Meeting #1  
Tuesday, March 29<sup>th</sup> 2016- 9:00AM –11:00AM  
2714 Media Center Drive, Los Angeles, CA 90065 (Board Room)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants:*

Carolyn Casavan	Casavan Consulting
Johanna Dyer	National Resources Defense Council
Jack Humphreville	Greater Wilshire Neighborhood Council
Rita Kampalath	Heal the Bay
Andy Lipkis	Tree People
Denny Schneider	Westchester Neighborhood Council
Guang-yu Wang	Santa Monica Bay Restoration Commission

*Meeting Team:*

Facilitator	Jack Baylis	Baylis Group
Technical Lead	Robb Grantham	Carollo
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Flor Burrola	LASAN
One Water LA Team	Doug Walters	LASAN
One Water LA Team	Andre Goodridge	LASAN
One Water LA Team	Kim O'Hara	LADWP
One Water LA Team	Bob Sun	LADWP
Note Taker	Janet Ouch	K&A

**Welcome & Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Overview of the One Water LA Plan 2040**

An overview of the One Water LA Plan was provided. One Water LA’s second phase of the planning process is underway and the goal of this process is to:

- Broaden the number of people who are aware of One Water LA.
- Develop Funding Strategies and Partnership ideas with input from members of this Special Topic Group (STG).
- Incorporate the Special Topic Group input into the plan wherever feasible.



OWLA reflects Mayor Garcetti's goal of achieving 50 percent local water supply by 2035 and will include an examination of water sources including storm water and recycled water, new technologies and creative ideas, and identification of new city policies and water-related integration opportunities between City departments and regional agencies.

Stakeholders have provided valuable input in the development of One Water LA. For this phase of the planning effort, five special topic areas have been identified that would benefit most from additional targeted input – the Funding and Cost/Benefit STG is one of those. Three meetings will be held where the planning team will be tapping into group members creative ideas to develop new Partnerships and Funding Strategies, and Cost & Benefit Considerations.

### **Road Map for the Funding & Cost/Benefit Special Topic Group**

Jack Baylis, the facilitator, discussed more specific goals for this STG and described the proposed content for the three planned meetings.

- Meeting #1 (Today):
  - Share information and resources, and begin to discuss opportunities, priorities and solutions
- Meeting #2:
  - Continue discussion of opportunities and solutions, and identify action steps
- Meeting #3:
  - Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop

The purpose of the first meeting is for stakeholders to present their initial (raw) ideas for funding opportunities, new partnerships, and Cost/Benefit Analysis.

Robb Grantham, the technical lead, discussed the common funding sources, which include; rates, taxes, partnerships, and Grants and Low Interest Loans. He also discussed the limitations for each source type.

### **Funding Consideration Discussion**

- State Revolving Funds provide low interest loans for both water and wastewater projects. Programs and qualifications are different for water and wastewater. Loan forgiveness is sometimes available for low income/disadvantaged communities. The City might qualify for certain areas within the City.
- Interest in underserved neighborhoods. Are there opportunities to assist these neighborhoods in a manner consistent with Prop 218 and beneficial to the broader system?
- Look into funding for operations and management, new funding models, NGOs, public/private partnerships.
- Evaluate how costs could be shared with other divisions based on impacts to stormwater. Examples were provided regarding solid waste and transportation. Look at trash and sources of plastics, fertilizers and other pollutants.
- Governance is a key issue. Need more involvement from LA County, because the benefits of many of the programs extend beyond the geographic City limits.
- Program costs should be made available to the public. What is the cost of stormwater management? What amount is going to pollutants?
- Environmental justice vs. cost-benefit issues
- Outreach should be conducted to neighborhood councils





## **Activity**

Special Topic Group members were asked to write their ideas on a post-it and place them into three categories. The categories included funding opportunities, partnerships and cost-benefit considerations. The members will vote online on the best ideas using a nominal group technique. Below summarizes the recommendations given by the stakeholders for each category.

## **Partnerships**

1. Utilize NGOs, neighborhood councils to assist with implementation and solutions.
2. Follow the trail to the source.
  - a. Trash- what are the sources of trash in our stormwater.
  - b. Other pollutants- Consider solving the problem at the source and taxing at the source
3. Look at other public agencies and their part of the cost, such as; stormwater runoff from States, Federal, and Local Roads.
4. Reach out to LAUSD and RAP, and other large land holders.
5. Facilitate collaboration between multiple agencies to plan, fund, and build multi-purpose infrastructure.
6. Create more public-private partnerships
7. Assist Disadvantaged Communities /small cities in applying for funding
8. Involve agencies not typically at the table (i.e LAUSD, street services, Metro, Parks and Rec, etc.)
9. Partner with commercial and industrial property owners
10. Work with the County in identifying governance issues
11. Ownership of the water? When/where? Determine when and where to consider the ownership of water.
12. Increase Community Outreach and Neighborhood Association Outreach . Model after LADWP's MOU with Neighborhood Councils.
13. Determine where California is on this topic.

## **Funding Opportunities**

1. Seek County Stormwater Fee
2. Utilize funding from ADA/Willets Sidewalk Replacement Project
3. Apply for LAUSD Prop K
4. Consider other taxing sources:
  - a. Trash-takeout
  - b. Plastic
  - c. Fertilizer
  - d. Pharmaceuticals
  - e. Auto-road runoff
5. Consider non-traditional grant opportunities such as CalRecycle
6. Greater use of State Revolving Funds for multi-benefits projects
7. Identify all the capital improvement plans and budgets over the next 10-20 years for all related infrastructure agencies including:
  - a. Roads



- b. Schools
  - c. Parks
  - d. Major Developments (commercial, residential, and industrial)
  - e. MWD
  - f. Flood Control
  - g. DWP
  - h. City Sewer
8. Consider the entire State Bonds- not just Prop 1 water bond, but also money for parks, open space, habitat and climate change.
  9. Look at competitive cost of distributed solutions and centralized solution.
  10. Look into new funding models. Understand benefits. Identify sources of funding. Come up with mix and match.
  11. Leverage private funding through incentives that encourage public investment.
  12. Compare Capital Cost vs. Operational Cost Sources.
  13. Identify Operation and Maintenance Funding Sources.

### **Cost and Benefit Considerations**

1. DWP and the Sewer department are not ATMs for water and the City.
2. Consider a new policy on placing new taxes on the ballot.
3. Identify financing and operational plans
4. Quantify multi-benefit / benefit based funding
5. Identify a better linkage of stormwater to groundwater
6. Allocate cost according to benefits
7. Need for more metering to develop a better understanding of where the water is going.
8. Understand how multiple agencies can and should contribute in identifying costs and benefits of water projects.
9. Highlight proportional funding to enable multi-benefit projects to be built and maintained
10. Consider value of open space, natural habitat, and biodiversity
11. Compare Environmental justice issues vs. Cost Effectiveness
12. Determine how to measure results and the value of benefits
13. There is a lack of open space to decompress. Relate water to water as opportunity/benefit.
14. Find a resolution to separation of cost between source funds
15. Water report as resource? Water Value? Change in cost for projects vs. value change
16. Relate all goals to water. Assumption that water is available?

### **Follow-Up Action Items**

- Next Special Topic Group Meeting will occur in two to three weeks
- Vote on the top ideas through email using the nominal group technique
- Come up with any additional ideas for funding

# One Water LA

## FUNDING AND COST/BENEFIT Special Topic Group Meeting #1



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## Meeting Team for FUNDING AND COST/BENEFIT



Consultant Team

City Team



**Facilitator**  
Jack Baylis

**LA Sanitation**  
Eliza Jane Whitman  
Flor Burrola



**Technical Lead**  
Robb Grantham



**Note Taker**  
Janet Ouch

**LA Department of Water and Power**  
Bob Sun  
Kim O'Hara



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5



# Welcome!



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## Agenda



- Welcome and Introductions, Agenda Overview



- Brief Overview of One Water LA Plan Phase 2



- Purpose of Special Topic Groups Process, Objectives, and Relationship to Phase 2



- Road Map for the Funding and Cost/Benefit Special Topic Group

- Group Discussion and engagement opportunities

- Next Steps



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# One Water LA

## One Water LA Plan Overview



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## Key One Water LA Plan Deliverables



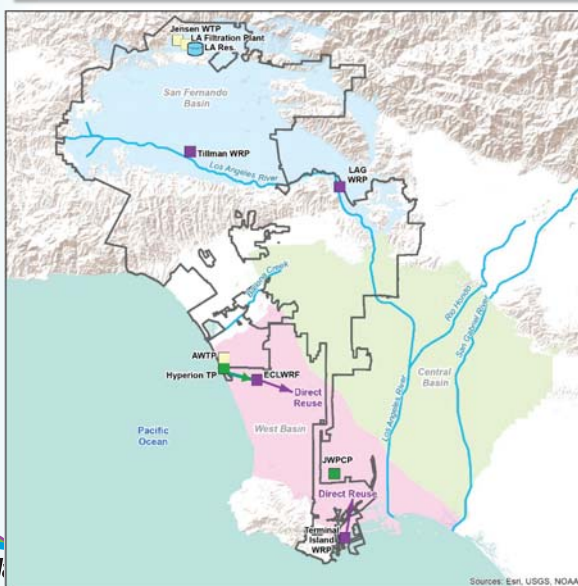
- Wastewater facility plans
  - Stormwater facility plan
  - Climate Change report on water infrastructure
  - New city policies and recommendations to enhance water management and integration
  - Funding, Partnerships, and New Strategies
  - Special Studies- LA River, on-site treatment plants, new technologies
  - Strategic outreach approaches
- Plan completion scheduled for January 2017*  
*EIR completion scheduled for 2018*



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## The Plan will provide a roadmap through 2040 and needs to answer big questions and achieve ambitious water supply goals



### The Plan will consider:

- Potable reuse
- Non-potable reuse
- Climate change
- Wastewater & stormwater and infrastructure
- Stormwater capture & treatment
- Los Angeles River
- Water conservation
- Decentralized/on-site reuse
- City department collaboration & regional partnerships
- City policies



## Why Special Topic Groups



- Obtain input from a diverse set of stakeholders on specific issues in the One Water LA Plan.
- City went through an intense effort to define areas where stakeholders could influence the direction the City takes in shaping the One Water LA Plan (i.e. non-regulatory)
- Tap in to the brain-power and creative thinking of those interested in advancing how the City does business related to water integration



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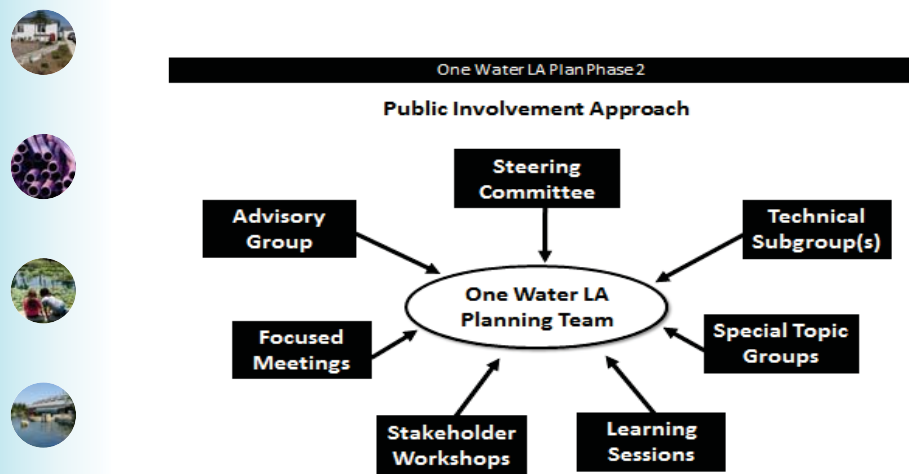
# One Water LA

## Special Topic Groups



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## Public Outreach Plan



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## Purpose of the Special Topic Groups

- To build relationships with and solicit input from the diversity of stakeholders that will be involved in implementing programs prescribed in the One Water LA Plan.
- To use input and discussion outcomes to:
  - Shape the One Water LA Plan
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation.

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## Special Topic Groups

The 5 groups cover topics where stakeholder input can have the greatest influence.



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## Objectives for Our Meetings



- Meeting #1 (Today):
  - Share information and resources, and begin to discuss opportunities, priorities and solutions
- Meeting #2:
  - Continue discussion of opportunities and solutions, and identify action steps
- Meeting #3:
  - Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop



## Funding Considerations

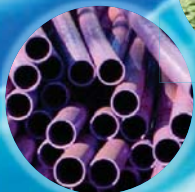


- How would you fund One Water LA programs?
- What funding alternatives should be considered?
  - Grants?
  - Partnerships?
  - Others?
- How will the funding alternatives differ by type of program by enterprise fund?



# One Water LA

## FUNDING AND COST/BENEFIT Special Topic Overview



## Funding Matrix



Funding Source	Overview
Rates	<ul style="list-style-type: none"> <li>• Monthly payment for service</li> <li>• Available for Water, Recycled Water, and Wastewater</li> <li>• Stormwater rates subject to voter approval</li> </ul>
Taxes	<ul style="list-style-type: none"> <li>• Voter approved funding mechanism</li> <li>• Most applicable to stormwater</li> </ul>
Partnerships	<ul style="list-style-type: none"> <li>• Could provide innovative way to develop projects and spur community engagement</li> </ul>
Grants & Low Interest Loans	<ul style="list-style-type: none"> <li>• Provides cost effective funding mechanism</li> <li>• Can be limited and require matching local funds</li> </ul>





## Grant Funding – Discussion Topics

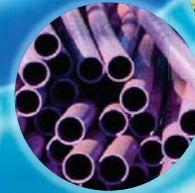


- Why grants? What's their role?
- What opportunities should be explored?
- What's being done now?
- What's working; what's not working; and why?
- What more can stakeholders be doing to help?
- What more can the City be doing?



# One Water LA

## FUNDING AND COST/BENEFIT



## Next Steps

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## **Funding & Cost Benefit Analysis STG Meeting #2 (04/29/16)**

The following pages present the agenda, summary of the meeting discussion, and the presentation given at the Funding and Cost-Benefit Analysis Meeting #2, held on April 29, 2016.

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**One Water LA Plan Phase 2**  
**Project/Program Concept Ideas Brainstorm Meeting**  
***Agenda***

Friday, November 18<sup>th</sup>, 2016, 10:00 am-12:00 pm

Location: Media Center, 2714 Media Center Drive, Los Angeles, 90065 (Training Rooms A & B)

**Objectives:**

1. Explain Level of Detail for Project/Programs
2. Gather your ideas verbally
3. Gather additional ideas with written template

**Agenda**

- |                                                                      |                         |
|----------------------------------------------------------------------|-------------------------|
| <b>1. Introductions – Name &amp; Organization (10 minutes)</b>       | <b>10:00 - 10:10 am</b> |
| <b>2. Meeting Objectives &amp; Discussion Guidelines (5 minutes)</b> | <b>10:10 - 10:15 am</b> |
| <b>3. Stormwater Definitions and Current Planning Efforts</b>        | <b>10:15 - 10:20 am</b> |
| <b>4. Present List of Current Project/Program Ideas (5 minutes)</b>  | <b>10:20 - 10:25 am</b> |
| <b>5. Review Project/Program Description Example (10 minutes)</b>    | <b>10:25 - 10:30 am</b> |
| <b>6. Brainstorm of New Ideas (85 minutes)</b>                       | <b>10:30 - 11:55 am</b> |
| <b>7. Next Steps (5 minutes)</b>                                     | <b>11:55 - 12:00 pm</b> |
| <b>8. Meeting Close</b>                                              | <b>12:00 pm</b>         |

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**One Water Los Angeles  
Funding and Cost-Benefit Special Topic Group – Meeting #2  
Tuesday, April 26, 2016 10:00AM–12:00PM  
2714 Media Center Drive, Los Angeles, CA 90065 (Conference Rm 2A & 2B)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants:*

Carolyn Casavan	Casavan Consulting
Jack Humphreville	Greater Wilshire Neighborhood Council
Rita Kampalath	Heal the Bay
Andy Lipkis	Tree People
David Nahai	DNCS
Alex Paxton	Resources Legacy Fund
Denny Schneider	Westchester Neighborhood Council
Guang-yu Wang	Santa Monica Bay Restoration Commission
Tom Williams	Citizens Coalition for a Safe Community

*Meeting Team*

Facilitator	Jack Baylis	Baylis Group
Technical Lead	Robb Grantham	Carollo
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Flor Burrola	LASAN
One Water LA Team	Lenise Marrero	LASAN
One Water LA Team	Dale Burgoyne	LASAN
One Water LA Team	Kim O'Hara	LADWP
One Water LA Team	Bob Sun	LADWP
One Water LA Team	Christine Tran	LADWP
Rate Payer Advocate	Grant Hoag	City of Los Angeles
Note taker	Tom West	Carollo

**Welcome, Introductions, and Overview**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

Outcomes to Workshop #1 were briefly introduced and the results of the survey were also discussed.



## Survey Results

The One Water LA team presented the results of the pre-meeting surveys that were sent to the STG members. The intention of the survey was to prioritize discussion topics during the second workshop. There were a few topics that were of broad interest to the stakeholder group, but there was some confusion regarding the ranking process. As a result, the One Water LA team will re-process all of the survey results, combine results from those recommendations that were similar, and present the results at the next meeting.

For the Partnerships category, the top ranked issue was to "Facilitate collaboration between multiple agencies to plan, fund, and build multi-purpose infrastructure"

Comments:

- Concern that top ranked projects all say that someone else should pay.
- Should we address the governance structure first, then focus on allocation of cost?
- Look at the allocation of costs/benefits and then use that to inform governance discussions.

## **Process Goals of STG and Discussion**

Objectives and outcomes for the funding and cost/benefit STG were presented to the group. The expected process of Stakeholder input from our meetings is to help draft policies and principles related to cost sharing and approaches for defining costs and benefits. The City is currently at the planning phase and will implement the recommendations from the stakeholders wherever feasible. Members requested that the City send presentation materials out preferably 3 days before the meeting.

Discussion on fundable projects by City departments and regional entities

- Response to question about County involvement: The County is involved through the steering committee, but the team acknowledged that participation needs to be better communicated.
- LID ordinance was passed by the City a few years ago. The City needs to consider cost and how it can be a barrier to implementation.
- Minor changes in County policy can have significant impacts on funding. This is important when considering a countywide funding measure. For example, in 2014 there was a recreation and parks revision of funding. Policy on assessment for park development changed from \$/square feet of parcel to \$/parcel. This created a significant benefit to developers in the Antelope Valley, but significantly hurt park funding.
- Priority list of funding opportunities:
  1. Federal - Significant funding not available.
  2. State - Acknowledged Prop. 1 but also that grant funds are not enough and often requires local matching funds.
  3. Regional - Opportunity for further exploration through entities like Metropolitan Water District (MWD).



4. County - Most energy should be placed in order to demonstrate efficient sharing of resources and coordinated messaging.
5. City - Point of last resort once acknowledging all had been done at prior level.

#### Allocation of Benefits and Costs Discussion:

- One Water LA plan needs to share categories of cost components including treatment. For example, solids, trash, pharmaceuticals, etc. Consequently, examine who is responsible for the costs and then proportionally allocate those costs to the beneficiaries/party causing the costs to be incurred.
  - Cost of treatment could decrease if the amount of pollutants is decreased at the source.
  - Discussion about applying this to direct potable reuse (DPR). For example, what are the pollutants that need to be removed from that process and who is responsible?
  - Same consideration for stormwater pollutants.
- Concern about delegating responsibilities between parties. Ex: cities vs. private industry responsible for birds, cigarette butts, etc. It will be a challenge to search for each responsible party of each pollutant. Instead, the way the current MS-4 permit is applied (and purposefully developed to avoid this challenge), each city has a responsibility to keep contaminants out of storm drains. There was a desire expressed to avoid re-opening the MS-4 permit.
- There was discussion regarding homeowners' runoff on their property. Should they pay a stormwater fee if they are capturing all the stormwater for on-site use? It was acknowledged that they still would (at minimum least pay a portion of the fee) because they are part of a larger unit (the City), just like fire, police, etc., and benefit from the collection, conveyance, and treatment of stormwater within the general system. It was generally agreed that the City is the most common unit and is probably best suited to address needs.
- High value of stormwater suggests that it is best managed on site and reused. Once it goes into storm drain, the cost goes up significantly to capture and treat.

Question: Do all of the pots of money represent public funds? Does this not take into account private funding? Since at the end of the day we are all paying, isn't it best to maximize leverage by consolidating funding?

- It was noted that existing pots of money have constraints. Additionally, Prop. 218 says that payment has to be based on costs and proportional benefits, unless approved through a voter approved tax. There are barriers to achieving collaboration and cost sharing, as well as proper allocation of responsibility. For example, LAUSD could be considered as not paying its share because it has large impervious surface but doesn't pay any current runoff/pollution charge.



## Funding Sources

The One Water LA team presented a table highlighting the different funding sources. It was recommended that O&M considerations should be a new column added to the table.

1. Utility rates
  - Water
  - Sewer
  - Recycled water
2. Tax-funded; voter-approved funding measures
  - Would be needed for stormwater.
  - Ask voters to pay for programs that they say they want.
  - Prop. O was a capital program; meanwhile previous County funding measure could pay for both capital and O&M.
3. Federal grants and low interest loans
  - State Revolving Fund (SRF) loans still requires revenue source to pay back and also has administrative issues.
  - Grants, programs are available but funding is limited largely to just capital and amounts are only a fraction of overall amount of funding needed.
4. Inter-agency or local funding from other agencies.
  - e.g., collaborative Countywide effort
5. Market-based or private development
  - e.g., incentivize customers to retain stormwater

With regard to costs and funding models, the following topics were discussed:

- Every project should present both the capital and full O&M/lifecycle cost (including energy). This would be helpful to ensure that all costs can be recovered and that we avoid having major deferred maintenance on new projects built (like we have now on prior projects reaching the end of their useful lives).
- What about a cap and trade approach? Discussion noted that this is complicated to do with fragmentation of water agencies across the State. Noted that it does work in select places when focused on individual contaminant and clearly identified sources.
- EPRI is exploring a cap and trade approach on water in the northeast.
- Private sector vs Government - Returns that private investors would want aren't there and there are other concerns about private involvement (e.g., ownership of water) in general. Acknowledged that the current government/agency owned models don't embrace innovation that could improve costs, performance, and efficiency.
- It was noted that agencies want to keep rates too low; which results in extensive deferred maintenance. Current LADWP replacement rate is 200 years.
- Once implementing stormwater projects, need to account for capital replacement cost as we look at new fees.
- There was discussion about the sensitivity of LADWP's water pipeline replacement rate increases to pay for deferred maintenance, which would require increased funding and staff capacity to accomplish higher replacement rates.





- Voter-Approved Funding Measures:
  - LASAN and LADWP are now looking at a number of other funding measures/assessment totaling over \$1.7 billion from Prop 1. They are also considering alternative funding opportunities from other non-traditional water sources, such as; transportation grants. LASAN and LADWP will only pursue funding options that are applicable and meet their specific funding needs and objectives.
  - In order to successfully promote a funding measure, the City needs someone to be the face of stormwater. Ex: Marci Edwards was on LADWP rate increase.
  - Also, any funding measure is going to need provide some better oversight. Ex: LADWP rate payer advocate.

#### Questions:

1. What are other models of funding from around the country?
2. What are the values of benefits and how do we quantify these?
  - Living Streets study has attempted to quantify the value of benefits
  - The County LA Basin Study did look at benefits. Suggested that we look at that and consider incorporating into One Water.

#### Funding Matrix Tool Exercise

Question: Is the cost-benefit tool the same as benefit based funding?

- We are developing principles to provide the basis for broad cost-benefit analysis and benefit-based funding. Benefit-based funding is established on a per project basis. Cost-benefit will determine the attributes necessary to help prioritize projects. It will build upon the principles established to ultimately determine what portion of the shared project will be funded by each individual department or entity. However, every project is different and needs to have room for special considerations.
- Special topic group is an influence body to help develop policy and plan. The Steering Committee (City departments and regional agencies) is the body that implements the projects.

The One Water LA team explained the concept and purpose of the two handouts:

- The handout was intended to illustrate a structure for considering benefits. The example was not intended to cover all projects. Just start a conversation.
- City Departments and Regional Entities and types of fundable projects (Tables and 4).
  - Described that some funds are restricted.
  - Recommended expanding the funding source column (Funding Source table) to identify and describe primary, secondary and other funding sources.
- Hypothetical stormwater project that suggests benefit and cost allocation (Table 1).
  - What stakeholders had requested in Phase 1.



- Use chart to identify imbalances.
- Example may be a stormwater detention basin located in a park.
- Concern about misallocation.
  - Water supply allocation
  - Rec and Parks shouldn't be billed for public health benefits.
  - Suggest using Sun Valley project as an example of cost-sharing.
  - On O&M, lacking the skilled staff to maintain green infrastructure
- Concern about discrepancy between cost and benefit in the table being a Prop. 218 problem.
- Suggest using this also for Countywide LID.
  - Consider using a ranking system rather than comment.

Noted that department lists between the two tables needed to match. Also, need to be consistent between County Public Works and City Public Works. Need to clarify why some are included in the funding discussion (e.g., why include Department of Neighborhood Empowerment (DONE) when they have no funding). DONE is included on the list due to their influence on marketing and outreach. Suggest including State agencies/regulators, such as the Regional Water Quality Control Board (RWQCB), even though they don't have financial responsibility.

### **Next Steps**

The meeting concluded with agreement on the need for two additional meetings. Both will be scheduled shortly with the STG members, and the meeting notes, tables, and action items will be sent out to STG members.

# One Water LA

## FUNDING AND COST/BENEFIT Special Topic Group Meeting #2



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### Meeting Team for FUNDING AND COST/BENEFIT

Staff		Stakeholders	
Jack Baylis	The Baylis Group	Casavan, Carolyn	Casavan Consulting
		Humphreville, Jack	Greater Wilshire Neighborhood Council
Robb Grantham	Carollo	Kampalath, Rita	Heal the Bay
Eliza Jane Whitman	LASAN	Lipkis, Andy	TreePeople
Flor Burrola	LASAN	Meador, Mike	California Greenworks Inc.
Kim O'Hara	LADWP	Milar, Rusty	Siver Lake Neighborhood Council Government Affairs Committee
Bob Sun	LADWP	Nahai, David	David Nahai Companies
Tom West	Carollo	Paxton, Alex	Water Foundation
Liz Crosson	City of Los Angeles	Schneider, Denny	Neighborhood Council Representative
Dale Burgoyne	LASAN	Wang, Guangyu	Santa Monica Bay Restoration
Grant Hoag	City of Los Angeles	Williams, Tom	Citizens Coalition for a Safe Community

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5



# Welcome!

## Agenda

- Overview of Workshop #1
- Meeting #2- Purpose, Objectives, and Goals of STG
- Survey Results
  - Funding Opportunities
  - Partnerships
  - Cost and Benefit Considerations
- Funding Matrix Tool Exercises
- Next Steps





## Expected Process of Stakeholder Input From Our Meetings



- Policies and recommendations drafted related to cost sharing and approaches for defining costs and benefits
- Meetings with City managers and financial decision makers
- Discussions with key City leaders and the Mayor's office on cost-sharing
- Presentations at the City's Water Cabinet, led by the Mayor's office
- Incorporation in the One Water LA 2040 Plan section on Funding and Cost-Benefits



## FUNDING AND COST/BENEFIT

### Next Steps



## Purpose, Objectives & Goals From Today's Meeting



- Clarify 'fundable' projects and efforts by City department and regional entity
- Define current limitations, funding silos, and requirements by department and entity
- Identify, in a measured fashion, next steps for creating a cost sharing approach
- Define a cost-sharing approach
- Develop a cost-benefit tool



### **Funding & Cost Benefit Analysis STG Meeting #3 (06/03/16)**

The following pages present the summary of the meeting discussion, and the presentation given at the Funding and Cost-Benefit Analysis Meeting #3, held on June 03, 2016.

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**One Water Los Angeles  
Funding and Cost/Benefit Special Topic Group – Meeting #3  
Friday, June 3, 2016 10:00AM–12:00PM  
2714 Media Center Drive, Los Angeles, CA 90065 - Board Room**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Carolyn Casavan	Casavan Consulting
Jack Humphreville	Greater Wilshire Neighborhood Council
Tom Williams	Citizens Coalition for a Safe Community
Denny Schneider	Westchester Neighborhood Council
Daniel Berger	TreePeople

*Meeting Team*

Facilitator	Jack Baylis	Baylis Group
Technical Lead	Robb Grantham	Carollo
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Flor Burrola	LASAN
One Water LA Team	Lenise Marrero	LASAN
One Water LA Team	Azya Jackson	LASAN
One Water LA Team	Dale Burgoyne	LASAN
One Water LA Team	Kim O'Hara	LADWP
One Water LA Team	Bob Sun	LADWP
One Water LA Team	Rafael Villegas	LADWP
Rate Payer Advocate	Grant Hoag	City of Los Angeles
Note taker	Tom West	Carollo

**Welcome & Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Survey Results Discussion**

The results from the stormwater special topic group were circulated for reference to their prioritization and organization. The group discussed the results.



The funding and cost- benefit consideration should cover water, wastewater, and stormwater. Stormwater is one of the best examples to work with since cost-sharing is a key topic going forward.

The recommendations on Partnerships, Funding Opportunities, Cost and Benefit Considerations were presented. Below is a summary of the discussion that took place under each of these topics.

#### A. Partnerships

During the discussion about Partnership recommendations, the following comments were made:

- There shouldn't be an expectation that a majority of the work will be funded by Neighborhood Councils. Their funding is on a downward trend. While it may not be reasonable to look to them to partner financially on project in their communities, they will still need to have input in order to provide local non-financial support for projects.
- Regarding public-private partnerships, a question was asked about examples of successful public-private financial partnerships. Members of the group responded:
  - On-site treatment systems for commercial properties.
  - Need to do more to incentivize behavior to create financial partnerships. Example: It would be better if the City had more than just "sticks" at its disposal, like the LID ordinance.
    - Specifically large corporations. For example, Gelsen's developed a new parking lot but didn't put in any additional stormwater capture.
    - Would be good to have a stormwater credit program
  - Example: Forest Lawn installed own pipeline for recycled water and, in return, are seeking a discount on their recycled water rates.
  - Incentives need to be cost effective. The tradeoffs and costs must be made aware.
- It was noted that the LID example related to a countywide funding measure only applies to single family homes and commercial property. It would be beneficial if homes with zero runoff would receive waiver or reduction in potential fees.
- Needs to demonstrate partnership between public agencies. Ways to promote coordination were discussed:
  - Similar to what is done for an EIR approval process, public works projects should have to report their findings and also evaluate and report if there are opportunities for other infrastructure to be installed at same time. Would be helpful to see a sign off on federal projects and County projects in the City and have them set aside money to help pay for City projects in the same location.
    - It was noted that this seems similar to the "sustainable streets" ordinance.
    - It was noted that the City has the "Green Streets" committee but there is still an unclear process in terms of coordination and approvals. Any ordinance will require a stormwater sign off.





- San Francisco developed an optimization program for asset management with water, wastewater and streets together.
- Another idea shared was to have a three-year moratorium on tearing up streets again. This could be a way for agencies to coordinate.
- Gas companies and other private utilities need to also be in this process.

## B. Funding Opportunities

Under funding opportunities, the following ideas were discussed:

- Stormwater County fee – It will act as a tax. The City already has \$25 per parcel tax. County flood control district has a tax too.
  - Need to discuss what is a fair Countywide stormwater tax. In order to develop and evaluate, we need to know what is going to be done with the money. What are the projects that will be funded?
- Need to look at additional information, rather than the three top items.
  - Design funding sources to modify behavior and create incentives on reducing impacts.
    - This could reduce the cost of the County's program over time. However, if this were to happen, would the public want to give more money for a County tax?
    - The group discussed an additional meeting on how to craft the principles/criteria for new stormwater tax/program.
      - One of the problems with the last effort was that there were too many issues not resolved/not clear.
    - One example, would a tax be by parcel or square foot?
    - Would like to see 25-year life cycle-cost for stormwater program, including upfront cost, O&M and replacement cost.
    - There is a need for better cost transparency on stormwater.
    - Any funding measure should include a re-evaluation process so that so additional funds aren't needed.
    - Needs to be oversight on these things.
      - Example: Metro has a three-person oversight board of judges. However, it was questioned if this level of oversight is really sufficient.
    - Concern was also expressed about overbuilding the infrastructure - - the public shouldn't have to pay for something that, in the future, may not be needed any more (e.g. dry weather capital projects).
    - In any cost analysis, an analysis period of 25 years was discussed - - whatever is used should be stated clearly.
    - Need to coordinate with the County on their internal purpose regarding stormwater and how that internal purpose aligns with the City's purpose.
- Consider the Entirety of State Bonds
  - Concern was expressed about funds from climate change mitigation being over-counted. If overpromised, there was concern that taxpayers would



have to contribute more funds. That said, on climate change, the effects are of more concern than the funding.

- There was agreement that State Revolving Fund loans and grants won't solve the problem of funding needs.
- There was also agreement that funding through parks, roads, and open space funding sources should be added.
- In discussing grant funding for habitat and other similar projects, there was a comment that City projects and the City in general wouldn't qualify. State agencies are getting more restrictive on funds. To be competitive, the City should consider creating a partnership opportunity where NGO's take on those aspects of the project.
- Identifying CIPs for related agency projects
  - Look at their plans and identify what we can associate with.
  - Look at leveraging programs and creating incentives to do so.
    - For example, sustainable streets ordinance may create opportunity for cross funding. Either install a stormwater project or pay a fee if not feasible.
- Concerned about using LADWP as main source of funding.
  - The way that the discussion is evolving, it seems as if the City and County may capture the water and then sell the water back to the City.
    - This may seem confusing if LADWP already owns the water.
    - If LASAN pays to provide that water back to LADWP, LADWP should pay that cost.
    - According to LADWP, they can pay for recycled water or stormwater if it produces water for consumption by the residents. LADWP policy is to not pay more for water than marginal cost from Metropolitan.
    - The more stormwater that can be captured and returned to water supply, the more that LADWP can contribute.
    - There was a comment made that stormwater should be adjudicated as One Water. There is a need to discuss the terminology of the water.
    - That said, while all water may all be the same, the funding constraints require treating it separately.
      - For example, the wastewater program may be able to loan funding to the stormwater program. However, stormwater currently has no way to pay that money back.

### C. Cost Benefit Considerations

It was agreed that many items under this topic had been discussed already under prior agenda topics. The group agreed to move on to the next agenda item.

### **Break Out Exercise**

The group broke into two separate groups for the breakout exercise. They were asked to walk through a few different project examples in which they explored how different agencies can get into and joint fund projects.



There were two projects that were evaluated by the groups.

A. Stormwater Project at LAX.

- Described as the Northside LAX project.
- Property purchased with FAA funds 40 years ago.
- Used noise mitigation funds.
- LASAN is the lead.
- LADWP has some benefits.
- Acting as barrier between ocean and the airport.
- Fed by Argo Ditch and stormwater.
- Water quality and flood control benefits a possibility.
- Costs are indirect benefits.
- Part not covered is what is going to be done with land on top.

The group learned the following from the exercise:

- Water quality should be in resiliency and aesthetics/health design so that LADWP can use water
- Other benefits need to be developed and considered include:
  - community benefit
  - local industrial reuse benefit.
  - extend recycled water lines.

B. Canterbury Project

- Described as land along power line corridor.
- Discussed mutual benefits.
  - How to quantify benefits (extra trees, park area for rec and parks).
  - How much are you going to pay for resiliency
- Used tool as more of a checklist
- Not all criteria are equal
- Capital asset pricing model.
- Need a tool to develop value.

### **Agenda for Final Special Topic Group Meeting**

The following items were discussed for inclusion in the final meeting of the funding and cost-benefit special topic group:

A. Present outlines of:

- Stormwater facilities plan
- Wastewater/recycled water facilities plan
- One Water plan

B. Develop draft outlines for implementation plans.



What would you want to see in an implementation program?

- For stormwater
- For wastewater/recycled water

C. Look at programs not necessarily owned by LASAN or LADWP.

Outline for stormwater program (Implementation Plan)

- Guiding principles
- Transparency
  - Benefit-based financing
- Capital investment
- O&M
- Incentive programs
  - LASAN
  - LADWP
  - Private
- Partnership
  - How to develop, manage?

Outline for recycled water program (Implementation Plan)

- Guiding principles
- Transparency
  - Benefit-based financing
- Capital Investment
- O&M
- Incentive programs
  - LASAN
  - LADWP
- Partnership
  - How to develop, manage?



### Copies of Scribe Notes

①

- Add to STC recommendation:
  - ↳ Incentivizing private investment and solutions (ex. shales)
- Ex Stormwater credit
- Incentives are ok, but depends on the cost and trade-offs.
- require a requirement that tells the community what they are digging up
  - ↳ to implement: send letter to Sacramento.
  - ↳ ex: Sustainable street ordinance.
  - ↳ Set up a list of projects that are not immediate, but necessary.
- Other Utility companies, oil company
  - ↳ Partner with
- Funding
  - ↳ tax: stormwater fee. → seek surtax.
  - ↳ develop, improve stormwater fee to operational plan

②

- ↳ design so that <sup>negative</sup> impacts are decreased to decrease/future cost.
  - ↳ plan
  - ↳ funding options
  - ↳ tax and credit incentives.
- More than 3 Funding opportunities
  - ↳ criteria, concepts, design,
- include a proper capital plan.
- re-evaluate purpose and how we plan to accomplish it.
- explore to build in a modular fashion vs full capacity upfront
- LA County flood control: is doing something similar
- AP 32 - Leverage for water

③

- Careful when phrasing ex: Climate Change.
- Measure R2 - active transportation
- couple funding opportunities ex: Prop 4 / Partnerships.
- Funding opp: has to match with core purpose. if it doesn't you will not qualify
- look at the full list of recommendation for funding for next meeting.
- Source of money - DWP pay processing & cost allocation of the water.
- DWP to pay for water that can be reuse
  - ↳ pay for cost of treatment beyond need to discharge in harbor
- ↳ capture stormwater to recharge aquifer

④

- Stormwater → flood control
  - ↳ resource
  - ↳ possible funding source
- All water is One Water
  - ↳ but it's not the same when it comes to funding sources.
- Exercise:
  - ↳ Benefit → include neighboring industries as a row?
  - ↳ leading agency - NGO
    - ↳ too much \$\$\$ for the deal
  - ↳ not all criteria is equal.
  - ↳ add wa to letter section.
  - ↳ quantify the benefits
    - ↳ ex. urban park
    - ↳ ~~recreation~~

① Benefits were non-derived → ② COST

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# One Water LA

## FUNDING AND COST/BENEFIT Special Topic Group Meeting #3



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## Agenda



**Introductions** 10:00-10:05am

**Survey Results Summary** 10:05-10:20am

-Funding Opportunities

-Partnerships

-Cost and Benefit Considerations



**LADWP's Pilot Financial Tool** 10:20-10:30am

**Review of Funding Handouts** 10:30-10:45am

-Breakout Session? 10:45-11:30am

-Debrief 11:30-11:45am



**Next Steps : Stakeholder Meeting Presentation** 11:45-12:00pm



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# Introductions



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5



## STG Recommendations

### Partnerships

1. Utilize NGOs, neighborhood councils to assist with implementation and solutions.
2. Create more public-private partnerships
3. Look at other public agencies and their part of the cost, such as; stormwater runoff from States, Federal, and Local Roads.



### Funding Opportunities (equally ranked)

1. Seek County Stormwater Fee
1. Greater use of State Revolving Funds for multi-benefits projects
1. Consider the entire State Bonds- not just Prop 1 water bond, but also money for parks, open space, habitat and climate change.



### Cost and Benefit Considerations

1. Determine how to measure results and the value of benefits
2. Highlight proportional funding to enable multi-benefit projects to be built and maintained.
3. Understand how multiple agencies can and should contribute in identifying costs and benefits of water projects.



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4





## Discussion Points



- What types of projects will be identified by OneWater LA?
- What are the funding sources, and limitations and requirements?
- How can cost and benefits be defined?
- How should costs be shared across departments and agencies?



# BREAKOUT SESSION



## LADWP's Pilot Financial Tool



- Module purchased from AutoCAD for engineering projects
- Module provides benefits and associated value of BMPs by project
- LADWP is using it for internal maintenance yards to determine both validity and usefulness of the module.
- Complimentary to One Water LA's Integrated Funding Tool



# FUNDING AND COST/BENEFIT

## Next Steps



## **Funding & Cost Benefit Analysis STG Meeting #4 (08/18/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Funding and Cost-Benefit Analysis Meeting #4, held on August 18, 2016.

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# FUNDING & COST/BENEFIT ANALYSIS

## Special Topic Group



DATE	TIME	LOCATION
August 18, 2016	10:00 AM-12:00 PM	2714 Media Center Drive Los Angeles, CA 90065 Board Room

Staff:

<b>Facilitator</b>	Jack Baylis	Baylis Group
<b>Technical Lead</b>	Robert Grantham	Carollo
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Kim Ohara	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Christine Tran	LADWP
<b>Note Taker</b>	Tom West	Carollo

- I. **Introductions and Agenda Overview**
  
- II. **Cost-Benefit Analysis Framework Update**
  - a. Cost-Benefit Discussion
  - b. Cost-Benefit Summary: LA Basin Study, Sun Valley, Living Streets, & Other (National)
  - c. One Water LA Cost-Benefit Options
  
- III. **Meetings 1-3 Recommendation Overview**
  - a. Key Topics Exercise
  
- IV. **Stakeholder Workshop: Tuesday, September 13<sup>th</sup> (9am-1:30pm)**
  - a. Report Out Presentation
  - b. Presenter Determined

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**One Water Los Angeles  
Funding and Cost/Benefit Special Topic Group – Meeting #4  
Thursday, August 18, 2016 10:00AM–12:00PM  
2714 Media Center Drive, Los Angeles, CA 90065 - Board Room**

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Carolyn Casavan	Casavan Consulting
Jack Humphreville	Greater Wilshire Neighborhood Council
Tom Williams	Citizens Coalition for a Safe Community
Andy Lipkis	TreePeople
Guangyu Wang	Santa Monica Bay Restoration
Alex Paxton	Water Foundation

*Meeting Team*

Facilitator	Jack Baylis	Baylis Group
Technical Lead	Robb Grantham	Carollo
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Flor Burrola	LASAN
One Water LA Team	Ali Poosti	LASAN
One Water LA Team	Lenise Marrero	LASAN
One Water LA Team	Dale Burgoyne	LASAN
One Water LA Team	Kim O'Hara	LADWP
One Water LA Team	Bob Sun	LADWP
One Water LA Team	Rafael Villegas	LADWP
One Water LA Team	Darline Truong	LADWP
Rate Payer Advocate	Grant Hoag	City of Los Angeles
LA County	Daniel Bradbury	LACFCD
Note taker	Tom West	Carollo

**Welcome & Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. The participants introduced themselves and were asked to give a brief recap on their takeaway from the Funding Special Topic Group.

*Special Topic Group Recap Discussion*

- The proper cost- benefit tool can allow for an appropriate proportional investment of agencies for multi-benefit projects (climate resilience, urban heat, flood protection, water quality compliance, etc.)
- Lessons learned from the last Integrated Resource Plan (IRP) include: no vehicle to continue the work and long-term finance plan was only for LASAN.
- Integration between the County and the City needs to be communicated.



- Information on the Gardenia ruling/lawsuit (July 2015) (on stormwater being integrated with sewer), and the Hertzberg legislation/Prop 218 (label stormwater as a sewer) was requested.
  - Proposition 218 states that when water is treated it becomes a water resource. Stormwater conveyance is excluded. However, if the water is treated at the end of the pipe, it can be considered wastewater.
- Status of Elmer Street was requested.
  - Elmer Avenue was a demonstration project. The project helps capture stormwater and as a result of the project, the home property value in the area has increased. The project did not include a maintenance budget beyond establishment. For optimal function of future projects, the maintenance needs to be done by qualified professionals and not homeowners.
- 25 year life-cycle cost and affordability needs to be considered.
- There needs to be an evaluation of life cycle cost of current and future facilities.
- One Water LA is a start. Needs to be a real cost-benefit analysis that takes into account life-cycle and reflects real/true costs.
- The implementation plan for One Water LA needs to be communicated.
- One Water LA helps integrate interest and objectives of the County and the City through a method of analysis that will help define a project that is not working against the best interest of an affected party.

### **Cost-Benefit Analysis Framework Update**

The team presented the cost-benefit analysis framework that was developed based on the group's input. Framework includes:

- Process- develop a repeatable process to evaluate programs and large projects identified through OneWater LA
- Plan - develop a roadmap for prioritizing project/portfolio alternatives, allocating costs & benefits, and defining funding sources and approaches
- Allocation- identify benefits and beneficiaries; allocate costs to participating agencies
- Communication- achieve public buy-in through transparency by presenting benefits and funding sources (communication is done throughout the process)

Key presentation and discussion topics include:

- The conversation of benefits began with the matrix (integrated funding tool) presented at the previous meeting. The quantifiable and unquantifiable (qualitative) effects of municipal projects can be categorized differently.
- Effective project or program alternatives evaluation will build upon previous community efforts.
- Economic, Financial, Environmental, and Social Effects are being considered. Similar to the "triple-bottom line" type of analysis.



- The team reviewed and discussed the draft cost-benefit flow process. The cost component of the process includes the capital, operation and maintenance of the primary and secondary affected parties. Secondary parties can also be transportation agencies. The benefit component includes qualitative and quantitative benefits.
- There needs to be caution regarding hierarchy when it comes to primary, secondary, and tertiary parties. It is ok to have a lead agency, but the lead may or may not be the primary funder.
- Cost includes the replacement cost.
- "Replacement" is a different kind of "maintenance". Major maintenance or capital replacement is not regular maintenance.
- Question was raised on whether it is possible for capital replacement to be paid by bonds. Bonds cannot pay for the day to day operations, but they can pay for the capital.
- The system infrastructure you choose is important. The type of infrastructure can either have low capital cost and high labor cost or high capital and high replacement cost, with lower O&M cost. The key is community and economic development.
- Maintenance cost needs to be included in the project (lesson learned: Elmer Avenue).
- Funds for depreciation also need to be considered.
- One Water LA is opportunity to create a green-infrastructure industry and jobs, which is different than how City has traditionally invested into gray infrastructure.
- There is a cost to applying for grants.

#### *Cost-Benefit Approaches for One Water LA*

The One Water LA cost-benefit approach will build upon the following efforts:

- LA Basin Conservation Study
- Sun Valley Project
- Living Streets
- The history and background of the Sun Valley Watershed Management Plan was discussed.
  - Long process and long conversation.
  - Alternative selected was \$200 million cost, but \$300 million benefit.
  - Original cost was \$50 million for a 9 mile box culvert.
  - Tracked benefits by census block
  - Took into account reduced hauling of green waste that was used as mulch on park site. Reduced truck traffic and improved air quality (AQMD provided \$\$ to the project).
- Living Streets comment- the "incremental" cost that needs to be considered, not the total cost of the project.



- The Stormwater Capture Master Plan should also be considered as part of the approach.

### **Quantitative vs. Qualitative Exercise**

The team was asked to evaluate the benefits listed on the integrated funding tool, and to give feedback on which they thought were qualitative and which were quantitative. Key discussion points are listed below.

- Everything has to be quantitative, otherwise you cannot evaluate it.
- Concern about only having quantitative; really need to find a way to incorporate and acknowledge qualitative.
- Qualitative can become quantitative down the line and can also help projects become fundable.
- Benefits that are qualitative now (like community benefit) can result in a quantitative benefit later (such as increase in property values). Societal cost and benefits: creating more jobs reduces crime and cost of criminal justice system. There is a linkage between presence of green infrastructure and reduced crime.
- Public health can be quantifiable in terms of reduction in illness.
- How do we cover costs for those items that are qualitative? City should cover the cost (not from LADWP or LASAN).
- Melbourne is now using urban forestry program as its primary strategy to respond to climate change, heat reduction, and water resources. Commented that City of LA is heading that direction by that Melbourne is 10 years ahead.
- Partnering with Recreation and Parks (RAP) for joint water projects and funding would be beneficial to both parties.
- RAP had \$125 million in QUIMBY funds and wasn't using it because they didn't want to create new parks because didn't have the maintenance budget.

### **Meetings 1-3 Recommendation Overview**

A summary took place of the first three Funding and Cost-Benefit STG meetings. The first meeting included an overview of the One Water LA 2040 Plan and the purpose of the STG. There were no comments received from group regarding the meeting notes.

- The team reviewed the meeting summary for the first 3 meetings.
- The team agreed on presenting the top 9 recommendations results (listed below) at the Stakeholder Workshop Funding STG Report Out:

#### **1. Funding Opportunities**

- Explore Stormwater Tax/Fee Options
- Greater use of State Revolving Funds for multi-benefits projects
- Consider the entire State Bonds- not just Prop 1 water bond, but also money for parks, open space, habitat and climate change.

#### **2. Partnerships**

- Utilize NGOs, neighborhood councils to assist with implementation and solutions.





- Create more public-private partnerships
- Look at other public agencies and their part of the cost, such as; stormwater runoff from States, Federal, and Local Roads

### **3. Cost and Benefit Considerations**

- Determine how to measure results and the value of benefits
- Highlight proportional funding to enable multi-benefit projects to be built and maintained
- Understand how multiple agencies can and should contribute in identifying costs and benefits of water projects

Additional Comments include:

- Need to look at incentives as a part of funding. Include #2 under partnerships.
- County Stormwater Fee -- needs to be developed in more detail. A need to be subject to a vote.
- Want to see City and County seek an integrated plan; condition of support/moving forward with a County stormwater fee.
- Councils of Governments are now playing a significant role in transportation. They should be leveraged as part of the water/funding questions.
- Job creation needs to be included. Sustainable job creation means programs.

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# One Water LA

August 18, 2016

## Funding & Cost-Benefit Analysis STG

Meeting #4

### One Water LA –Integrated Funding Tool

**Table 1: One Water LA Integrated Stormwater Funding Tool (Example)**

CITY DEPARTMENT	Benefits													Costs		Allocation			
	Economic	Resiliency	Aesthetics/Health	Water Supply	Flood Control	Year-round tree plant irrigation	Shade/Heat Island	Irrigated Ball Fields	Community Beautification	Labor	O&M	Treatment	Design	Capital/Construction	Costs	Benefits			
City of Los Angeles Dept. of Public Works																			
LA Sanitation (LASAN)																			
Bureau of Engineering (BE2)																			
Bureau of Street Operations (BSO)																			
Recollection and Parks (RAP)																			
Department of City Planning (DCP)																			
Department of Transportation (DOT)																			
Los Angeles Department of Water and Power (LADWP)																			
Port of Los Angeles (POLA)																			
Los Angeles World Airports (LAWA)																			
Los Angeles Department of Building and Safety (DSB)																			
Los Angeles Department of Transportation (LADOT)																			
General Services Administration (GSA)																			
Los Angeles Zoo (LA ZOO)																			
Mayor's LA River Office																			
U.S. Army Corps of Engineers																			
California																			
High-Speed Rail																			
Metropolitan Water District of Southern California																			
Southern California Association of Governments																			
Los Angeles Unified School District																			
Metropolitan Transportation Authority																			
San Gabriel Department of Public Works																			
LA County Department of Public Works																			
LA County Flood Control District																			
LA County Sanitation District																			
San Gabriel Regional Agency																			

### Agenda

- 1 Introductions**
- 2 Cost-Benefit Analysis Framework Update**
  - a. Cost-Benefit Review and Discussion
  - b. One Water LA Cost-Benefit Exercise
- 2 Meetings 1-3 Recommendations Overview**
  - a. Key Topics Selection
- 3 Cost-Benefit Summary: LA Basin Study, Sun Valley, Living Streets, & Other (National)**
- 4 a. Stakeholder Workshop: Tuesday, September 13th**
  - b. Presenter Determined

### One Water LA –Integrated Funding Tool (categories)

#### Benefits

- Category 1: Economic**
- Decrease in Utility Bills
  - Decrease in Imported Water Purchases
  - Decrease WQ expenses/ off-set regulatory requirements
  - Public Perception/ Willingness to support bonds, etc.
  - Local Industrial Reuse

#### Category 2: Resiliency

- Water Supply
- Flood Control
- Water Quality

#### Category 3: Aesthetics/Health

- Year-round tree plant irrigation
- Shade/Heat Island
- Irrigated ball fields
- Community Benefit -Beautification

#### Cost

- Labor
- Operation and Maintenance
- Treatment
- Design
- Capital/Construction

#### Allocation

- City Departments
- Regional Agencies

The determination of percent of cost vs. benefits. Percent based on all noted and identified benefits and determined cost. Cost based on actual capital and O&M cost and who pays for what.

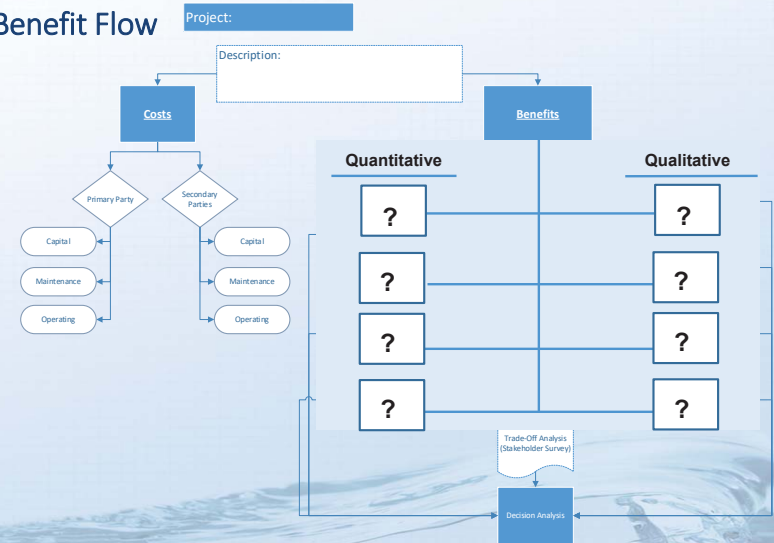
- Consider: Regulatory Agencies (RWQCB, etc.)

## Recommendations by Stakeholders: Come with a plan for each project/program



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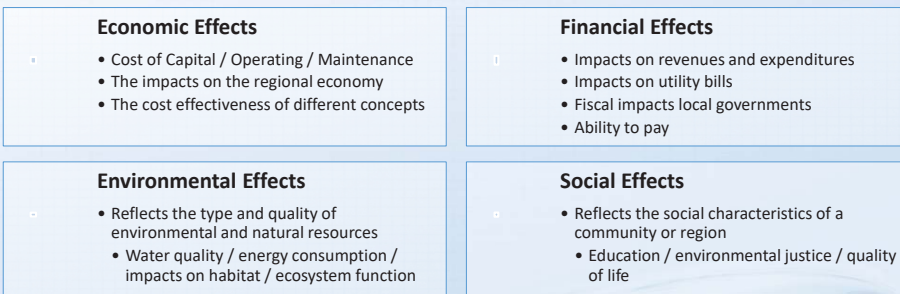
## Draft Cost-Benefit Flow Process



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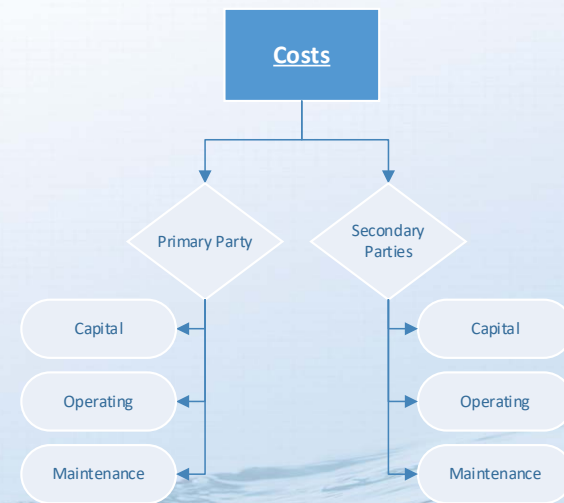
## Effects of Project Alternatives

The quantifiable and unquantifiable (qualitative) effects of municipal projects can be categorized differently



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## Costs



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## Benefits

Quantitative

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?

?

Qualitative

?

?

?

?

## Discussion of Cost-Benefit Approaches for One Water LA

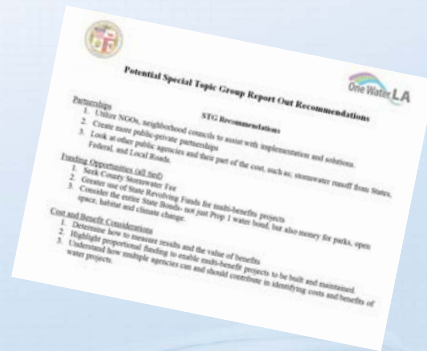
### Example:

- Sun Valley Plan: TM 5
- LA Basin Study
- Living Streets

## Meetings 1-3 Recommendations

### Topics discussed at each STG meeting:

1. Funding Opportunities and Considerations
2. Partnerships
3. Cost-Benefit Considerations
4. Funding Tool Matrix Exercise



## Sun Valley Watershed Management Plan

- Based on LA County specific projects
- LADPW extrapolated the benefits provided by similar projects to quantify externalities (benefits)
- Utilized Tree People's cost benefit tool as a foundation
- County led with City of LA, non-profit, and community engagement

## Sun Valley Watershed Management Plan

The SVWMP Cost/Benefit analysis quantifies the benefits of:

- Flood Control
- Improved Water Quality
- Water Conservation
- Energy Reduction
- Improved Water Quality
- Greenwaste
- Ecosystem Restoration
- Recreation
- Impacts on Property Values

### Example: Improved Water Quality

- LADPW estimated the benefit provided by storage and diversion facilities that would allow Reach 4 of the LA River in Sun Valley to comply with TMDL requirements
- Storage and diversion facilities intended to meet the same TMDL requirement within Santa Monica had an estimated unit cost \$4/gallon/day
- Any project diverting runoff to meet the required TMDL level in Reach 4, is assumed to provide this same benefit

## Los Angeles Basin Study: Task 6 – Trade-Off Analysis & Opportunities

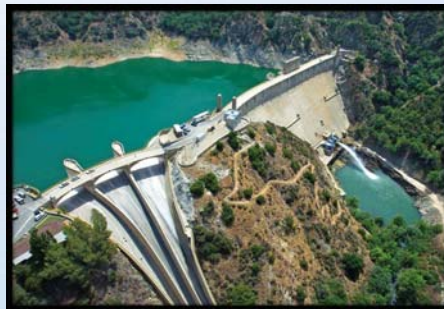
Potential Water Supply Reliability Benefits

Potential Recreation Benefits

Potential Habitat Benefits

## Los Angeles Basin Study: Task 6 – Trade-Off Analysis & Opportunities

- Based on stormwater specific project
- Benefit transfer methodology used to apply econometric factors from prior studies
- Stakeholder involvement in determining the relative importance of each of the quantitative and qualitative effects through 3 year process
- Funded by Bureau of Reclamation



## Living Streets Economic Feasibility Project



- Non-profit led effort with review by City of LA
- Compilation of previous econometric studies to quantify the benefits of street designs related to mobility, water preservation, and cooling in the City of LA
- Economic comparison of the costs and benefits of various street reconstruction scenarios in order to determine which types of street designs would provide a net benefit

## Living Streets Economic Feasibility Project

### -Two examples of potential benefits:

#### Benefit and costs of supplying and distributing groundwater vs imported water<sup>1</sup>

- The energy required to supply and distribute groundwater is estimated at 726 kWh/AF
- An AF of imported water requires 1,566 kWh/AF
- The difference in energy intensity costs LADWP 0.3232 metric tons of CO<sub>2</sub>/AF
- This amounts to a social cost of carbon of about \$21/AF

#### Reduction in social cost due to fuel savings and less congestion<sup>2</sup>

- Nearly 220 million gallons of fuel are lost due to congested streets in LA per year, equating to \$808 million dollars per year
- Additionally, each gallon of gasoline emits 0.00881 metric tons of CO<sub>2</sub> while diesel emits 0.0103 metric tons of CO<sub>2</sub>
- This amounts to a social cost of \$0.50 per gallon of gasoline and \$0.59 per gallon of diesel

## Funding & Cost Benefit STG

### *Next Steps*

- **Stakeholder Workshop:**
  - September 13<sup>th</sup> (9am-1:30am)
  - Location: Los Angeles River Center
- Stakeholder Workshop Volunteer
- Content for Workshop

**Thank you!**

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## **OUTREACH AND COMMUNICATION SPECIAL TOPIC GROUP**

The Outreach and Communication Special Topic Group met with the purpose of

- Providing input on ways to improve One Water LA outreach and communication,
- Help improve pathways for information to flow to and from the One Water LA team, and Help leverage new communication channels to promote One Water LA.

The following pages present the meeting materials from the Outreach and Communication Special Topic Group meetings.

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## **Outreach & Communication STG Meeting #1 (03/18/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Outreach and Communication Meeting #1, held on March 03, 2016.

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# OUTREACH & COMMUNICATION

## Special Topic Group



DATE	TIME	LOCATION
March 18, 2016	1:00pm - 3:00pm	2714 Media Center Drive Los Angeles, CA 90065

Staff:

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Bob Sun	LADWP

- I. Welcome and Introductions
- II. Agenda Overview and Meeting Logistics
- III. Overview of One Water LA Plan
- IV. Purpose of Special Topic Groups
  - a. Provide input for the One Water LA message plan
  - b. Provide input for the Public Outreach and Marketing Strategies plans
  - c. Assist with developing special topic messages
  - d. Help expand our stakeholder database
  - e. Help develop website and informational materials
- V. Road Map for the Outreach & Communications Special Topic Group
  - a. Overall focus and objectives of this special topic group
  - b. Discussion topics
  - c. Objectives for group meetings:
    - i. **Meeting #1: Share information and resources, begin to discuss opportunities, priorities and solutions, and confirm Special Topic Group deliverables**
    - ii. Meeting #2: Continue discussion of opportunities and solutions, and identify action steps
    - iii. Meeting #3: Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop
  - d. Outcomes documentation
- VI. Background Presentation - Outreach Plan & Marketing Strategies Plans
- VII. Discussion and Engagement Opportunities
- VIII. Follow-Up Action Items

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**One Water LA  
 Outreach and Communication  
 Special Topic Group - Meeting #1**  
 2714 Media Center Drive, Los Angeles, 90065 (Training Room)  
 Friday, March 18, 2016  
 1:00pm - 3:00pm

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

Meeting Summary

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Matthew King	Heal the Bay
Anthea Raymond	Los Angeles County Beach Commission
Tom Williams	Sierra Club/Citizens Coal Safe Community
Tony Wilkinson	Neighborhood Council, DWP MOU Oversight Committee
Ken Murray	

*Meeting Team*

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Doug Walters	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Kim O'Hara	LADWP
<b>One Water LA Team</b>	Dawn Cotterell	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>Note Taker</b>	Julia Kingsley	CORO / Carollo

**Welcome & Introductions**

Patricia Tennyson, meeting facilitator, opened the meeting at 1:05 p.m. and welcomed the participants. This was followed by self-introductions of participants, LASAN/LADWP staff and consulting team members.

**Agenda Overview and Meeting Logistics**



A general overview of the Special Topic Group (STG) role and meeting objectives was provided, along with a review of meeting process issues and discussion guidelines. The agenda was reviewed and participants had no questions.

### **Overview of the One Water LA Plan**

An overview of the One Water LA Plan was provided by Eliza Jane Whitman. She explained that the second phase of the planning process is underway and the goal of this process is to:

- Broaden the number of people who are aware of OWLA.
- Develop communication tools with input from members of this STG.
- Identify additional contacts to whom information about OWLA can be provided.
- Incorporate the STG input into the plan.

OWLA reflects Mayor Garcetti's goal of achieving 50 percent local water supply by 2035 and will include an examination of water sources including storm water and recycled water, new technologies and creative ideas, and identification of new city policies and water-related integration opportunities between City departments and regional agencies.

Stakeholders have provided valuable input in the development of OWLA. For this phase of the planning effort, five special topic areas have been identified that would benefit most from additional targeted input – the Outreach and Communication STG is one of those. Three meetings will be held where the planning team will be tapping into group members' creative ideas to shape OWLA messaging and improve ways to broaden its reach and raise awareness about OWLA.

A diagram of the OWLA public involvement approach was included to illustrate the existing and new approaches to gaining input from stakeholders and others.

### **Road Map for the Outreach & Communications Special Topic Group**

Karen Snyder, a member of the consulting team, discussed more specific goals for this STG and described the proposed content for the three planned meetings.

Objectives for the first meeting of the Outreach and Communications STG included:

- Providing input for the OWLA message plan and the associated outreach plan and marketing strategies plan.
- Assisting with developing special topic messages.
- Helping expand the stakeholder database
- Helping to develop website content and informational materials.





Subsequent meetings will include continued discussion of these topics, as well as discussion of opportunities and solutions and action steps, a review of outcomes, and development of a presentation to the stakeholders' workshop.

### **Initial Participant Requests/Feedback**

Participants observed that the public involvement diagram should emphasize two-way communication between all of the groups shown.

The group also requested feedback on what other STGs are discussing and concluding so that it can inform the message plan.

Members also recommended that the STG meeting location and meeting day of week/time of day stay the same.

Group members asked questions and provided initial input that stressed the importance of:

- Coordination among agencies related to stormwater.
- Funding for communication strategies.
- The need to ensure, through a OWLA narrative, that messages convey why OWLA is important and explain what the city is doing are concise, easy-to-understand, free of jargon, and emphasize that drought is recurrent in California.

### **Background Presentation - Outreach Plan & Marketing Strategies Plan**

There are two types of communication plans under development:

- Outreach plan, which describes the public involvement process being followed and is reflected in the public involvement approach diagram.
- Marketing strategies plan focused on maximizing awareness and understanding of the One Water LA program among stakeholders and the general public. The marketing strategies plan is under development and an outline of what it will include was provided as part of the presentation.

Among elements of the marketing strategies plan will be:

- Information that will be given to stakeholders.
- Methods of collecting input and data from them.
- Methods to identify opportunities for collaboration.
- Internal communication to ensure City staff are equipped to provide a consistent and concise information about One Water LA.
- Communication with business and industry groups, NGOs and other interest groups.
- Community outreach to the general public.



- Media and social media outreach.
- Strategies for gaining visibility and recognition of the OWLA plan.

## **Group Discussion**

### **Messages:**

The group was asked to participate in post-it note brainstorming exercise to address one of the early key elements in the marketing strategies plan: “What are the most important things people need to know about OWLA?” Input will inform message development for OWLA. Areas identified by STG members included:

- OWLA is long-term plan to address a long-term problem (permanent drought, there is no new water as seen in the water cycle, it is inescapable that all water is source water from rain to potable reuse, and the city has a long-term plan for water).
- We are making progress on developing solutions.
- Water supply issues are interrelated and complex (we all contribute to water supply problems and solutions, we need to coordinate efforts of all city departments, but also coordinate the city’s actions with work being done by other cities, agencies and the state, all while fighting information overload and drought burnout).
- Communication must be simple and easy-to-understand (have no more than an eight-word mission statement, display information on issues and groups in a matrix, and put everything online including the scope of OWLA and its schedule, resources and funding costs).
- Address the quality of recycled water and its various uses including aquifer clean-up and recharge; talk about the fact it is high quality and safe to use; and address the “what’s in it for me” question that most people will have.
- Show all costs and how they are allocated among departments so people see what they are paying for; do not hide this, and include return on investment.

### **Engagement Opportunities:**

The group had a lengthy discussion of the next post-it brainstorming topic: “How can we communicate most effectively with community members and stakeholders?” Acknowledging that there is no “one best way to communicate” and no one voice or communication channel that will reach all audiences, many ideas were suggested including:

- Look at unexpected ways to communicate as well as unexpected message carriers (for example, LA Kings, George Clooney’s Facebook/Twitter, etc.).
- Use social media platforms such as Facebook, YouTube and Twitter.



- Ensure information is graphically appealing, especially for those concepts that are hard to explain in words.
- Use video.
- Include multi-lingual communication – translate documents and electronic pieces.
- Do not hide the fact that there is an obligation for the city and county to manage stormwater runoff and address the pollution issue – and that this will cost money.
- Emphasize that all water is recycled.
- Develop public event partnerships, such as with the Metro line opening.
- Partner with universities.
- React to current water news and look for opportunities to leverage interest in water (even such stories as Flint, MI) and tie OWLA together with news items and other things happening in the area, such as the new Rams stadium.
- Consider use of digital communication channels, BuzzFeed-style communication and “Listicle”; “goofy” YouTube videos; SnapChat contests.
- Consider a Silicon Beach idea content hackathon.
- Have a social media contest that is not on the city website.
- Consider Heal the Bay’s “rule of thirds” for messaging: 1/3 “fun stuff” about water, 1/3 about what the city is doing to recapture water, and 1/3 specific information about this program. This should be simple messages that can be picked up and shared by others to improve the reach of OWLA information.
- Tie information to other happenings, even holidays (10 Things I Love About One Water on Valentine’s Day; 10 Scariest Things on Halloween, for example).
- Seek to place feature stories that Angelenos should be proud of, such as articles about the good things being done by city department employees.
- Respond to crises when they occur because people are paying attention.
- Meet with community papers and provide facility tours for reporters and editors. Show as well as tell, but make it a “road show” and provide information in unusual locations, such as a brewery.
- Provide facility tours more broadly (i.e. Hyperion).
- Monitor online participation and communication. Read about what people are saying about water on the Internet (i.e. Blogs, Water Maven, etc.) and provide good information in response.
- Make communication personal and relatable (such as \$1 billion cost of project, or cost per customer) and provide value with it.



- Educate a group of community influencers about OWLA, including influencers in neighborhood councils (they are an important audience to engage).
- Empower other people and organizations outside the city to help carry your message.
- Work with groups outside the water industry, including art and drama groups (such as USC's play about water, or Clock Shop's art-based programs about water).
- Reach out to a range of audiences, such as:
  - Influencers
  - Neighborhood Councils
  - Lower income communities
  - Social media groups, such as Nextdoor
  - Chambers of Commerce
  - Businesses/Ratepayers
  - Incubators (i.e. Clean Tech Incubator)
  - LAX/Local and regional airports
  - Foundations
  - Libraries
  - Seniors
  - Universities
  - LAUSD's and chart school water curriculum and charter schools
  - Other school groups (especially as a way to reach parents)
  - Sports and entertainment organizations
  - Smaller environmental organizations
  - Specific organizations:
    - GreenLA
    - Neighborhood Council Sustainability Alliance
  - Food groups:
    - Local and sustainable food groups
    - Gardening groups
    - LA Kitchen
    - Food Policy Council

### **Follow-Up Action Items**

Follow up action items include:

- Develop a roster of STG members and staff.
- Work with OWLA team to update stakeholder participant diagram.
- Establish a Doodle poll for the next meeting date.
- Send out meeting notes and materials for the next meeting at least three days ahead of time so members can review it prior to the meeting.
- Share notes from other STG meetings.



- Provide information about LAUSD's curriculum.
- Provide a written outline of topical areas to be included in the marketing strategies plan.

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# One Water LA

## Outreach and Communication Special Topic Group Meeting #1



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# Welcome!

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## Meeting Team for Outreach and Communication Special Topic Group



### Consultant Team

#### Katz & Associates

Patricia Tennyson, Facilitator  
Karen Snyder, Technical Lead



#### Carollo

Julia Kingsley, Coro Fellow



### City Team

#### LA Sanitation

Pamela Perez  
Eliza Jane Whitman  
Rebecca Drayse

#### LA Department of Water and Power

Bob Sun, LADWP

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## Agenda



- Welcome and Introductions
- Agenda Overview and Meeting Logistics
- Brief Overview of One Water LA Plan
- Purpose of Special Topic Groups
- Road Map for the Outreach & Communication Special Topic Group
- Background Presentation - Outreach Plan & Marketing Strategies Plans
- Discussion and Engagement Opportunities
- Follow-Up Action Items



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## Discussion Guidelines



- Everyone gets equal time to contribute and participate
- Listen for understanding
- Be open to considering new ideas
- Keep statements concise so that we can maximize the meeting time
- Focus more on new ideas and solutions, and less on problems and issues



# One Water LA

## One Water LA Plan Overview



## A Roadmap through 2040



### The Plan will consider:

- Potable reuse
- Non-potable reuse
- Climate change
- Wastewater & stormwater and infrastructure
- Stormwater capture & treatment
- Los Angeles River
- Water conservation
- Decentralized/on-site reuse
- City department collaboration & regional partnerships
- City policies



## One Water LA Plan Efforts Focus on:



1. Reducing imported water purchases by 50% by 2024
2. Achieving 50% local water supply by 2035
3. Improving wastewater facilities to meet growth, regulatory and recycled water needs
4. Managing runoff to meet water quality requirements, flooding AND increase water supply
5. Identifying water-related integration opportunities between City Departments and Regional Agencies
6. Evaluating new technologies and being creative and innovative in management approaches







## Key One Water LA Plan Deliverables



- Wastewater facility plans
- Stormwater facility plan
- Climate Change report on water infrastructure
- New city policies and recommendations to enhance water management and integration
- Funding, Partnerships, and New Strategies
- Special Studies- LA River, on-site treatment plants, new technologies
- Strategic outreach approaches



*Plan completion scheduled for January 2017*

*EIR completion scheduled for 2018*



## Why Special Topic Groups



- Obtain input from a diverse set of stakeholders on specific issues in the One Water LA Plan.
- City went through an intense effort to define areas where stakeholders could influence the direction the City takes in shaping the One Water LA Plan (i.e. non-regulatory)
- Tap in to the brain-power and creative thinking of those interested in advancing how the City does business related to water integration



## Purpose of Special Topic Groups



## Purpose of the Special Topic Groups

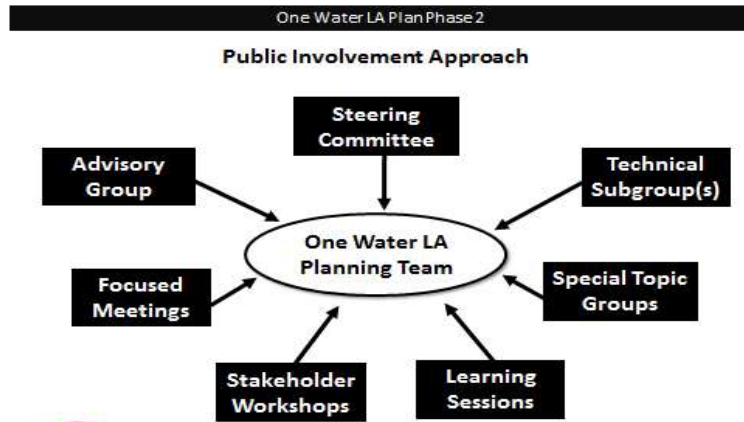


- Build relationships with and solicit input from the diversity of stakeholders that will be involved in implementing programs prescribed in the One Water LA Plan
- Use input and discussion outcomes to:
  - Shape the One Water LA Plan
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation





## Public Outreach Plan



## Special Topic Groups



The five groups cover topics where stakeholder input can have the greatest influence



## Objectives for Our Meetings



- Meeting #1 (Today):
  - Provide input for One Water LA message plan
  - Provide input for communication plans
  - Assist with developing special topic messages
  - Help expand stakeholder database
  - Help develop website and informational materials
- Meeting #2:
  - Continue discussion of opportunities and solutions, and identify action steps
- Meeting #3:
  - Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop



## Logistics First



- Meeting Location
- Meeting Day
- Meeting Time



# One Water LA

## Outreach and Communication

### Special Topic Overview



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## Public Outreach and Communication



- Stakeholder involvement in Phases 1 and 2
- Phase 1



- 8-member Advisory Group
- 29-member Steering Committee
- 350+ Stakeholders



- One Water LA website, social media, and informational materials



- Draft city water policies
- Vision Statement and Objectives
- Guiding Principles



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## Public Outreach and Communication



- Phase 2

- Expanded Advisory Group
- Learning Sessions
- Expanded Stakeholder Database
- Partnerships
- 12-Week Charter School Program
- Special Topic Groups
- Public Outreach Plan
- Marketing Strategies Plan



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## Public Outreach Plan



Purpose:



Establish the stakeholder involvement process to be conducted as part of Phase 2 of the One Water LA Plan.



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## Public Outreach Plan

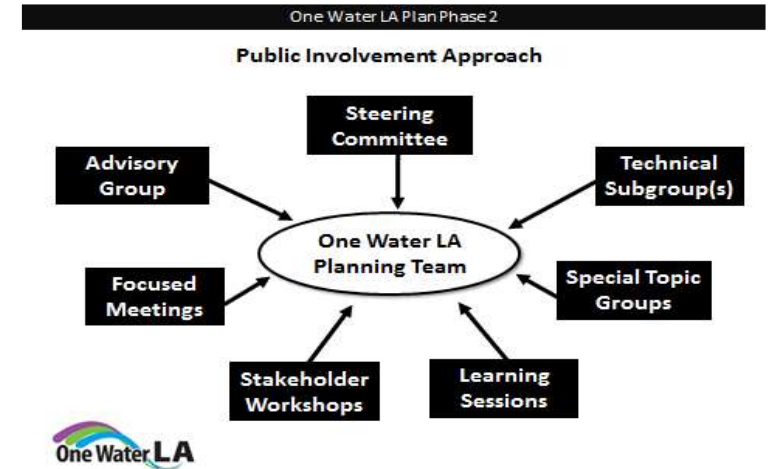


### Draft Objectives:

- Connect the One Water LA Plan Phase 2 recommendations
- Continue to involve stakeholders in identifying ideas, asking questions, and providing feedback
- Maximize the benefit of stakeholder input by aligning expertise and experience to focused subject matter discussions
- Create partnerships and awareness to accelerate implementation of the One Water LA Plan
- Increase the number and diversity of participants in Phase 2



## Public Outreach Plan



## Marketing Strategies Plan



### Purpose:

Maximize awareness and understanding of the One Water LA program among stakeholders and the general public.



## Marketing Strategies Plan



### Draft Objectives:

- Provide clear, consistent and synchronized information about One Water LA and its components
- Create program recognition
- Ensure processes that provide sustained communication efforts beyond Phase 2
- Identify and pursue opportunities for partnerships
- Employ multifaceted communication strategies and tactics that address varied communication needs
- Continually evaluate and adjust public involvement activities





## Marketing Strategies Plan

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### Approach/Activity Areas:

- Data Collection/Research
- Informational Materials
- Internal Communication
- Business and Industry Outreach
- NGO and Interest Groups
- Community and Public Outreach
- Media and Social Media Outreach
- One Water LA Visibility and Recognition



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## Discussion

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### • What people should know:

- One Water LA messages
- Special topic messages



### • Best communication methods:

- Recommendations for Public Outreach and Marketing Strategies Plans



### • Audiences

### • Opportunities to expand stakeholder database



### • Effective engagement methods



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## Wrap Up and Next Steps

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### • Today's Discussion

### • Meeting #2

- Continue discussion of opportunities and solutions, and identify action steps



### • Follow-Up Action Items

- Help populate the plan:



- Audiences

- Key information



- Key vehicles

- Partners and resources



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Thank You!

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## **Outreach & Communication STG Meeting #2 (05/03/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Outreach and Communication Meeting #2, held on May 03, 2016.

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# OUTREACH & COMMUNICATION

## Special Topic Group



DATE	TIME	LOCATION
May 3, 2016 - Meeting Two	1:30pm - 3:30pm	2714 Media Center Drive Los Angeles, CA 90065

Staff:

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Bob Sun	LADWP

### DRAFT AGENDA

- I. Welcome and Introductions
- II. Agenda Overview, Meeting Logistics, Meeting One Summary, Feedback on Doodle Poll and Receipt of Material for Meeting Two
- III. Review Purpose of Outreach & Communication Special Topic Group
  - a. Provide input for the One Water LA message plan
  - b. Provide input for the Public Outreach and Marketing Strategies plans
  - c. Assist with developing special topic messages
  - d. Help expand our stakeholder database
  - e. Help develop website and informational materials
  - f. Outcomes documentation
- IV. Review Draft Messages: Are they clear? Are they easy to understand? Are they free of jargon? How compelling are they? Suggestions?
- V. Help Build Audience/Stakeholder List
  - a. Review and refine audience categories
  - b. Identify specific groups or individuals within each category that should be included
- VI. Outreach Purpose/ Associated Tactics or Activities Matrix: Review/ Add New Ideas
- VII. Discussion and Engagement Opportunities
- VIII. Follow-Up Action Items

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**One Water Los Angeles  
Outreach and Communication Special Topic Group – Meeting #2  
Tuesday, May 3, 2016 1:30 - 3:30 pm  
2714 Media Center Drive (Training Room A)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Matthew King	Heal the Bay
Dr. Tom Williams	Sierra Club/Citizens Coal Safe Community

*Meeting Team*

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Anthony Tew	LADWP
<b>One Water LA Team</b>	Dawn Cotterell	LADWP
<b>Note Taker</b>	Tom West	Carollo Engineers

**Welcome and Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Agenda Overview and Feedback**

The overview of agenda was briefly discussed. The group discussed the small number of attendees at the meeting. The team concluded that a new system was needed to send out calendar invite and RSVPs.

It was also recommended that One Water LA team members call to confirm invitees' participation for each specific special topic group. Another suggestion included additional follow up to confirm materials were received.

**Purpose of Special Topic Group**

Outcomes for the Outreach and Communication Special Topic Group were discussed.

- Revised messages incorporating input
- Assistance with special topic message development



- More specific audience categories list
- Expanded stakeholder database
- Revised outreach activities matrix
- Updated draft informational materials

The group discussed the need and criteria for a stakeholder database. The group also discussed that the LADWP rate increase process has likely motivated some groups (i.e. neighborhood councils) to actively monitor water. They may be sensitive to the potential of additional costs. It is important that these specific groups are included in the database and outreach.

### **Review Draft Messages**

The Message Review document was presented to the group. The group provided feedback.

- Messages about economics need to come across as one of the key messages. The message that “plan implementation will cost money, but that it is a worthwhile investment that will pay future dividends” should be clearer. It was recommended to include a separate message point to highlight the cost and need for investment.
- There should be a focus on conservation messaging. For example, with the State Water Project consumers have become accustomed to receiving water on demand and we need to do more to change that culture. Conservation is the cheapest supply. City residents are currently using 200,000 acre feet per year (AFY) that does not reach the treatment plants, which means that it is being used for outdoor irrigation. The use of that water for green lawns does not seem appropriate.
- Message point #3 is too long. We need to find a way to simplify the language into a sound bite. For example, reduce, reuse, and recycle.
- Question: Are we looking at messages that are going out before the plan or as part of the plan? The plan needs defined objectives, means, and methods.
- Answer: We are seeking to put out general messages to broaden understanding of the general stakeholder base.
- The messages need to be specific to each targeted audience.
- It was suggested that we consider using the simple message of reduce, reuse, and recycle that has been used in solid waste education campaigns. LADWP is currently using the similar "capture, conserve and reuse" in their programs with Los Angeles Unified School District (LAUSD).
- LADWP’s primary communication strategy is their speakers’ bureau.
- Not many people are eager to visit a government website for information. The City needs to leverage all of the available tools to distribute information. That includes Twitter, cross promotion with other organizations, and links to One Water LA from other websites. Promotion through an LADWP bill insert is not enough.
- The City needs to have a person or company of influence representing One Water LA. Discussion included showcasing a celebrity with lawn improvements or involving a prominent organization such as the LA Kings discussing water. Starbucks recently made a statement that they have reduced the amount of ice in their drinks. One Water LA should do something similar.



- It is important to have translated informational materials.
- Comments were focused on shortening the language in the message points.  
Specifically:
  - Ex: "No on 710". Instead use positive language to convey action or an aspiration. Ex: "get on rail" or "Beyond coal."
  - Short mission statement or tag line. Instead of One Water LA, use "LA's Water Future".
  - Need to establish who is behind the effort and all of the organizations involved in One Water LA. Need to say that we are all in this together. For message #2 insert "all of" before "LA"
  - Avoid using the term "stakeholder" if possible. In message #3 replace with "public participation."
  - In general, there is too much repetition in the messages in the document.
  - When referring to "reliance", it is important to have an end date.
  - At the end of any material, there needs to have an action item. What are you asking the person to do? For example, come up with five specific things people can do (talk to your neighbor, attend a workshop, go to our website, etc.).
  - Drive people to the website. The need to include cross-promotion was brought up several times.

There was discussion about the possible need to focus on big industry. Discussed how messages could be tailored: here is what utility is doing on stormwater. What can you do (public message and a separate business message)?

We need to ask the question: "What's in it for me"? What are the five specific things the average person would benefit from through the One Water LA program in their daily life?

### **Help Build Audience/Stakeholder List**

In reviewing the Audience Categories handout, the group commented on adding the following to the list:

- Army Corps of Engineers, LA County, LADPW, MWD, LAUSD, etc.
- Public agencies that have direct contact with people (e.g. METRO, Dash)
- Homeowners
- Landlords and renters
- Different communities, languages, and leaders
- Possibly agriculture. It was noted that this could be beneficial to have leaders in the agricultural sector speak about water use in the Central Valley. However, there was concern that One Water LA should focus on what we can do locally to influence water reliability.
- Discussed bringing in regulators to discuss how they are balancing competing interests
- Business improvement districts
- Chambers of commerce (30 in Los Angeles that are pretty active)



- Religious groups
- Urban Land Institute
- Media (e.g. editorial boards)
- Civic organizations
  - League of Women Voters
  - League of Conservation Voters
- Senior citizen clubs/organizations
- Recreation and parks
- Public libraries (both City and County)
- Neighborhood and community gardens
- Suggest contacting Meredith McCarthy at Heal the Bay for her recommendations
- Garden tours (LA Magazine and Curbed LA might be interested in picking that up)
- Lakers, Kings, Dodgers, etc. Come up with a "water day" to promote. Present a "water warrior" award at halftime.
- Autry Museum
- Natural History Museum
- Griffith Park
- Construction unions and other labor organizations
- Taxpayer groups including Howard Jarvis Taxpayer's Association. It was noted that LA Watchdog is a blog on the issue, but not necessarily an organization or group.

On the issue of taxpayer groups, there was discussion regarding life cycle costs. For example, Measure R2 includes deferred maintenance as well as future replacement costs. If/when a stormwater funding measures goes out for a vote, all these costs need to be included and communicated to tax/ratepayers.

Outreach and communication efforts need to recognize that people aren't familiar with the history of water in Los Angeles or the specifics of water infrastructure.

### **Outreach Strategies and Tools Matrix**

The table of outreach purpose and tools was presented. Comment/input provided included the following:

- Need to promote actions. How are those integrated in the "outreach tools"?
- Under "collaborate", the only tool listed is "Ongoing advisory groups". We need to have more than activities. Some examples could include:
  - Contest
  - Hackathon
  - Involving universities, like Pepperdine, to collaborate on messaging
  - Collaboration with big construction firms
    - Present to executives, like at Turner Construction
    - Get their feedback on policies
  - City Council and Board of Supervisors
  - Regional Water Quality Control Board (RWQCB)



- Elected and appointed boards
- Need to use other tools like YouTube and interviews.
  - Need to be in real-time in order to be effective.
  - Where is the content going to come from?
  - Contests, quizzes, people posting on Instagram – Heal the Bay gets a lot of interest through these things.
- The City could use a taste test that includes samples from LA City water, purified water, and bottled water. BuzzFeed could videotape these efforts.
- There can be a competition between companies on beach cleanups or competition between neighborhoods or council districts on water conservation.
- There was discussion about the recommendations from the Pepperdine MBA students. It was agreed to share their report with other members of the STG and have them comment as well.
  - Develop a badge for websites that can display participation in One Water LA program.
  - Develop #StartsWithOne hashtag if it doesn't already exist
  - Event sponsorships – Focus on One Water/LASAN specific sponsorship
- Another example was a greywater training workshop being sponsored by City of Pasadena.

### **Discussion and Engagement Opportunities**

- How is One Water LA going to coordinate with Mayor's office on Save the Drop? Meanwhile need to do the same with LADWP's message of capture, conserve and reuse. Need to find a way for these to be folded in with One Water LA.
- What about creating the next evolution of Save the Drop? For example, what about morphing into "Capture the Drop, Reuse the Drop" and others.

### **Follow Up Actions**

- a) Revise the materials per comments
- b) Circulate Pepperdine material for review and comment
- c) Prepare graphics that can help illustrate the messages more effectively
- d) Schedule additional outreach STG meeting, to take place in the next 3 weeks
- e) Send out informational materials for review
- f) Develop report on department coordination and outreach to Department of Neighborhood Empowerment (DONE)

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# One Water LA

## Outreach and Communication Special Topic Group Meeting #2



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## Agenda



- Welcome and Introductions-1:30 PM
- Agenda Overview, Meeting Logistics, Meeting One Summary, Feedback on Doodle Poll and Receipt of Material for Meeting Two-1:40 PM
- Review Purpose of Outreach & Communication Special Topic Group-1:50 PM
- Review Draft Messages-2:00 PM
- Help Build Audience/Stakeholder List- 2:30 PM
- Outreach Purpose/Associated Tactics or Activities Matrix-2:55 PM
- Discussion and Engagement Opportunities- 3:10 PM
- Follow-Up Action Items- 3:25 PM



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## Outcomes for Outreach & Communication STG



- Revised messages incorporating input
- Assistance with special topic message development
- More specific audience categories list
- Expanded stakeholder database
- Revised outreach activities matrix
- Updated draft informational materials



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## Agenda



- Welcome and Introductions-1:30 PM
- Agenda Overview, Meeting Logistics, Meeting One Summary, Feedback on Doodle Poll and Receipt of Material for Meeting Two-1:40 PM
- Review Purpose of Outreach & Communication Special Topic Group-1:50 PM
- Review Draft Messages-2:00 PM
- Help Build Audience/Stakeholder List- 2:30 PM
- Outreach Purpose/Associated Tactics or Activities Matrix-2:55 PM
- Discussion and Engagement Opportunities- 3:10 PM
- Follow-Up Action Items- 3:25 PM



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## **Outreach & Communication STG Meeting #3 (06/15/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Outreach and Communication Meeting #3, held on June 15, 2016.

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# OUTREACH & COMMUNICATION Special Topic Group



DATE	TIME	LOCATION
June 15, 2016	10:00 - 12:00pm	2714 Media Center Drive Los Angeles, CA 90065

Staff:

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Tony Tew	LADWP
<b>One Water LA Team</b>	Dawn Cotterell	LADWP

**Purpose of Outreach and Communication Special Topic Group:** 1) Provide input for the One Water LA message plan; 2) Provide input for the Public Outreach and Marketing Strategies plans; 3) Assist with developing special topic messages; 4) Help expand our stakeholder database; 5) Help develop website and informational materials.

## AGENDA

- I. Welcome and Introductions, Review Purpose of Special Topic Group
- II. Agenda Overview, Meeting Logistics, Meeting Two Summary
- III. Review Revised Draft Messages (with feedback incorporated from Meeting Two)
- IV. Discuss Draft Special Topic Message Categories
- V. Review Draft Informational Materials
  - a. Are they easy to understand?
  - b. Do they clearly describe OWLA? Suggestions?
- VI. Discuss Presentation of Final Products
- VII. Discuss Specific Group/Organizations to Add to Draft Audience/Stakeholder List
- VIII. Review Marketing Strategies Plan outline
- IX. Committee Wrap up and any Next Steps

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**One Water Los Angeles  
Outreach and Communication Special Topic Group – Meeting #3  
Wednesday, June 15 2016 10:00 - 12:00 pm  
2714 Media Center Drive (Board Room)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Matthew King	Heal the Bay
Dr. Tom Williams	Sierra Club/Citizens Coal Safe Community
Ken Murray	Wilderness Corp
Veronica Padilla	Pacoima Beautiful
Tony Wilkinson	Neighborhood Council MOU Oversight Committee
Anthea Raymond	LA Kayak Club/County Beach Commission

*Meeting Team*

<b>Facilitator</b>	Patsy Tennyson	Katz & Associates
<b>Technical Lead</b>	Karen Snyder	Katz & Associates
<b>One Water LA Team</b>	Rebecca Drayse	LASAN
<b>One Water LA Team</b>	Pamela Perez	LASAN
<b>One Water LA Team</b>	Anthony Tew	LADWP
<b>One Water LA Team</b>	Dawn Cotterell	LADWP
<b>Note Taker</b>	Tom West	Carollo Engineers

**Welcome and Introductions, Review Purpose of Special Topic Group**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Agenda Overview, Meeting Logistics, Meeting Two Summary**

The overview of agenda was briefly discussed. The meeting notes from the last meeting were circulated. No comments were provided.

**Review Revised Draft Messages (with feedback incorporated from Meeting Two)**

The revised Message Plan document was presented to the group. The draft messages incorporated feedback from meeting #2. The goal was to streamline the message points.



#### Comments included:

- Need to include the idea that stakeholders including government, non-profits and businesses are collaboratively working together.
- The word “city” has a much broader definition. It should refer to like-minded people.
- Cost and affordability should be mentioned in the messages.
  - Messages need to address potential rate increases.
  - It was noted that LADWP is making great efforts to make the suite of projects in the plan most cost effective.
  - This plan should be marketed as a “survival plan”; not as an optional cost.
  - Purple pipe is a sunk cost.
  - Mayor's executive directive did not mention cost.
  - Need to take affordability into account.
  - Need to clearly state that costs will be increasing -"cost is going to go up" or "minimize the impact of costs".
    - With the cost of imported water increasing it is fiscally responsible to invest in local water supply.
  - While costs are important, the bill is not the only thing people care about. They are also interested in the environment.
- Need simple messages, avoid spreadsheets, and fiscal emphasis is missing.
- Should mention desalination, this can relate back to fiscal responsibility.
  - Others countries are using desalination. Ex: Israel and Singapore
- Emphasize that the battle for secure water supply is “winnable” and “doable” with good planning.
- Include “save, capture, reuse and recycle water” as a subtopic under message #5.
- Try to discuss in context of "urban" water cycle.
- On message #4, instead of 'One Water LA is an investment,' it needs to state that people will need to pay for this investment.
- With the five messages, there is no overarching message.

#### **Review Draft Informational Materials**

The One Water LA fact sheet and pocket card were presented to the group. The group provided feedback and reviewed the outreach documents.

#### Suggestions for One Water diagram:

- Change orange color on wastewater with dripping faucet
- Graywater - use pink color instead of purple
- Put green on the faucet
- Use drain image instead of a faucet

#### Suggestions for fact sheet:

- Switch placement of challenges with benefits section. The benefits should be on the first page; the pages should be numbered.
- Why is there no reference to graywater in the fact sheet?
- There are too many messages on one sheet.
- The first page needs to stand on its own.





- There should be one page for each message.
- The fact sheet needs to be more attention grabbing.
- There is a little too much focus on the problem rather than solutions.
- There needs to be a section describing why this program is necessary.
- Choose consistent color palettes and stick with them.
- The team should look into creating a One Water LA pocket guide or an app.
- Consider creating bookmarks with big point on the front and details on the back.
- Consider using Word readability index and make sure no higher than 8<sup>th</sup> grade level.
- Include context that many cities are in trouble due to California's statewide drought coupled with climate change. Los Angeles is not due to its visionary planning.

### **Discuss Specific Group/Organizations to Add to Draft Audience/Stakeholder List**

The group reviewed the revised Audience Categories handout. The team asked for any additional suggestions. The project team can distribute a more complete list. There are already some extensive stakeholder lists available.

Comments included:

- Include neighborhood councils
  - The group discussed whether or not Neighborhood Councils should be listed under "Internal and Government Agencies"
- Add parent centers
- Add schools and home-school organizations
- Add senior groups

### **Review Marketing Strategies Plan Outline**

The group reviewed the Marketing Strategies Plan Outline.

Comments included:

- The list of items under Section 9 seems long.
- We need to understand the outreach budget and where money should be spent.
- We need to make sure we have stakeholder involvement in the implementation of the Marketing Strategies Plan.

### **Discuss Stakeholder Workshop Reporting**

The group discussed upcoming Stakeholder Workshops where representatives of the five Special Topic Groups will provide a report out during the meeting. The Outreach and Communication Special Topic Group report out will likely occur at the August workshop. Like other groups, the Outreach and Communication Special Topic Group will need to designate a spokesperson.

- We need to understand the format being used by other groups
- We suggest a combination of three individuals representing the City, the Special Topic Group, and the consultant team



- LASAN team member Pam Perez, reached out to different groups to get representatives to attend the stakeholder meeting with her and encouraged others to do the same.
- There was a request for work product from the Stormwater and Funding Special Topic Groups in order to complete the message development.

### **Committee Wrap up and Next Steps**

- Determine representative and presentation for Stakeholder Workshop.
- Distribute existing stakeholder list.
- Schedule a follow up webinar/call to discuss comments on materials.
- Email information to group for comments. Looking at additional meeting in mid-July.
- Provide information from funding and stormwater STGs to the outreach group by mid-July.
- Attend upcoming stakeholder workshops. They will be in June, August and September.

# One Water LA

## Outreach and Communication Special Topic Group Meeting #3



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## Agenda



- Welcome and Introductions, Review Purpose of Special Topic Group -10:00 AM

- Agenda Overview, Meeting Logistics, Meeting Two Summary- 10:10 AM



- Review Revised Draft Messages (with feedback incorporated from Meeting Two -10:20 AM

- Discuss Draft Special Topic Message Categories -10:30 AM



- Review Draft Informational Materials- 10:50 AM

- Discuss Presentation of Final Products -11:10 AM



- Discuss Specific Group/Organizations to Add to Draft Audience/Stakeholder List - 11:25 AM

- Review Marketing Strategies Plan outline - 11:40 AM



- Committee Wrap up and any Next Steps- 11:55 AM

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## Purpose of Outreach and Communication Special Topic



- Provide input for the One Water LA message plan
- Provide input for the Public Outreach and Marketing Strategies plans



- Assist with developing special topic messages
- Help expand our stakeholder database
- Help develop website and informational materials



One Water LA Innovation • Integration • Inclusion



Thank You!

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## **PARTNERSHIP, COLLABORATION, & INNOVATION SPECIAL TOPIC GROUP**

The Partnerships, Collaboration and Innovation Special Topic Group met with the purpose of

- Creating a forum to coordinate and enhance water-management partnerships between the City, regional agencies, private organizations, and non-profits.
- Identifying, soliciting, and evaluating potential innovations (technological or other) that the City of Los Angeles may want to consider to further promote the One Water LA vision.

The following pages present the meeting materials from the Partnership, Collaboration, and Innovation Special Topic Group meetings.

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## **Partnerships, Collaboration, Innovation STG Meeting #1 (03/16/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Partnerships, Collaboration, and Innovation Meeting #1, held on March 16, 2016.

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# PARTNERSHIPS, COLLABORATION & INNOVATION Special Topic Group



DATE	TIME	LOCATION
<b>Wednesday, March 16, 2016</b>	<b>2:00pm - 4:00pm</b>	<b>2714 Media Center Drive Los Angeles, CA 90065 Board Room</b>

Staff:

<b>Facilitator</b>	Miguel A. Luna	DakeLuna Consultants
<b>Technical Lead</b>	Glen Dake	DakeLuna Consultants
<b>Team Support</b>	Julia Kingsley	Carollo, Coro Fellow
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Troy Ezeh	LASAN
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Tony Tew	LADWP

- I. Welcome and Introductions, Agenda Overview *(15 Minutes)*
- II. Brief Overview of One Water LA Plan Phase 2 *(10 Minutes)*
- III. Purpose of Special Topic Groups Process, Objectives, and Relationship to Phase 2 *(10 Minutes)*
- IV. Road Map for the Partnerships, Collaboration, & Innovation Special Topic Group *(10 Minutes)*
  - a. Objectives for group meetings:
    - i. Meeting #1: Share information and resources, and begin to discuss opportunities, priorities and solutions
    - ii. Meeting #2: Continue discussion of opportunities and solutions, and identify action steps
    - iii. Meeting #3: Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop
- V. Group Discussion and engagement opportunities *(60 Minutes)*
  - a. Examples of partnerships
  - b. Identify partnership opportunities/needs from the non-City side.
  - c. Develop broad range of innovations for further discussion (both technical and non-technical).
- VI. Homework Assignment *(10 Minutes)*

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**One Water LA**  
**Partnerships, Collaboration, & Innovation**  
**Special Topic Group - Meeting #1**  
 2714 Media Center Drive, Los Angeles, 90065 (Board Room)  
 Wednesday, March 16<sup>th</sup> 2016  
 2:00-4:00pm

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

Meeting Summary

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees:**

*Participants*

Clint Granath	Forest Lawn
David Nahai	OWCS
Deborah Weinstein-Bloome	Tree People
Ghina Yamout	Alta Environmental
Nurit Katz	UCLA
Bonny Bentzin	UCLA
Guangyu Wang	SMBRC
Grant Jean	The River Project
Melanie Winter	The River Project
Anthea Raymond	LA County Beach Commission
Meridith McCarthy	Heal the Bay

*Meeting Team*

<b>Facilitator</b>	<b>Miguel Luna</b>	<b>DakeLuna Consultants</b>
<b>Technical Lead</b>	Glen Dake	DakeLuna Consultants
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Ali Poosti	LASAN
<b>One Water LA Team</b>	Troy Ezeh	LASAN
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Tony Tew	LADWP
<b>Note Taker</b>	Julia Kingsley	Carollo / CORO

April 5, 2016



## **Welcome & Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

## **Agenda Overview and Meeting Logistics**

The agenda was discussed and feedback regarding time and location was requested.

## **Overview of the One Water LA Plan**

The facilitator provided an overview of the One Water LA Plan, which included the following:

- An overview of the One Water LA Plan 2040 was provided. Timelines and deliverables were discussed.
- Special topic groups (STGs) were created to get input from diverse set of stakeholders and to tap into the expertise of stakeholders regarding the special topics chosen.
- Feedback from STGs will be included and used to develop aspects of the One Water LA Plan that will most benefit from stakeholder input.

## **Road Map for the Partnerships, Collaboration, and Innovation Special Topic Group**

- The facilitator then gave described the three-meeting process for the special topic group:
- Meeting #1: Begin the dialogue regarding partnerships, collaborations, innovations, share information, resources, and discuss opportunities, priorities and solutions
- Meeting #2: Continue discussion of opportunities and solidify what will be reported back to the One Water LA Team.
- Meeting #3: Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop

## **Background Presentation - Partnerships currently operating in the Southern California**

- The lead team provided examples of partnerships and collaborations already taking place in Southern California.
  - Broadway-Greenway Project
  - CA Wellness Foundation
  - First 5 LA
  - MWD Local Resources Program
  - Professional Associations
  - San Jacinto River Watershed Council

April 5, 2016



- Santa Ana Sucker Conservation Team
- Greater LA Water Collaborative
- Through innovation we wish to bring non-traditional partners together and develop recommendations regarding new platforms of communication.

**Group Discussion and Engagement Opportunities** Participants identified several ideas of partnership and collaboration opportunities/needs from the non-City side. A broad range of innovations (both technical and non-technical) were also discussed. Some of these ideas from participants are summarized below:

- Brief and inform the industrial world (e.g. California Metalworking Coalition) on what One Water LA has been doing for the City to bridge the knowledge gap. Contacting metalworkers is an action item
- Look at what Orange County is doing in terms of forming partnerships and getting buy-in for indirect potable reuse.
- Use the Watershed Council approach for developing collaborations and partnerships.
- Have an honest therapy session amongst Chief entities leading and participating in One Water LA so that priorities and objectives are agreed upon.
- Look at the Greater LA Collaborative (partnership between LA County Flood Control District, LADWP and LASAN) as a guide for overcoming barriers for collaboration. Outcomes of the Greater LA Collaborative can feed into One Water LA.
- Engage large, private end users regarding infrastructure benefits of recycled water. Ex: Forest Lawn currently works with the City of Cerritos and pays for infrastructure upgrades in exchange for a discounted rate.
- On the innovation side, have an online platform to function as a matchmaker for Agencies, Non-Profits, Universities, etc looking to pilot or implement projects in a specific geographic area. The online platform will post needs of entities and One Water LA could facilitate the matchmaking.
- Have a website that displays how much excess recycled water is produced to develop potential partnerships with Agencies and end users (e.g. cemeteries, coliseums, paper mills).
  - Partner with ESRI and Universities to develop an online platform or map that shows where there is a high volume of wasted water potential and where there is a high need of water for major users.
- On the innovation side, there is new technology such as monitoring stations that can be used at the sub-regional scale. As projects are

April 5, 2016



installed, there can be monitoring to know if new projects are making a difference.

- Use the innovation of Universities and STEM education to lure in LAUSD into One Water LA. . Conversations need to start with the State Architect to figure out the liability of major projects.
- Engage Bizfed by developing partnerships with Real Estate and Chamber of Commerce to help businesses reorganize themselves in a way that is efficient.
- Develop partnership with the County of Public Health to talk about impacts climate change on health. Climate is the organizing framework to be driven to think about water management challenges in an integrated way.
  - California Wellness Foundation has been a good place to address the public health community by neighborhood community development work. Look at Health Foundations to fund water-related projects.
- Partner with Consulting Firms to compare all the plans (EWMPs, Stormwater Capture Master Plan, Basin Plan, Climate Change Plans, etc.) with each problem category One Water LA is looking to address to figure out who are the missing sectors to help get projects in the plans implemented.
- Partner with local universities to conduct studies on the health impacts of schools that now have green space so that there is a case study to show that similar projects should be implemented at all schools from an integrated water and health perspective.
- Develop closer relationship with the County looking at their Basin Study for conservation in addition to what they did for their facilities to address climate change. Their results are not consistent with the City's vision of the LA River.
  - Develop an innovative partnership between the Bureau of Reclamation, LA County and One Water LA on anything proposed regarding the LA River.

**Actions Items:**

- **Follow up with CA Metalworking Coalition**
- **Collect additional partnership and innovation from participants through survey tool.**
- **Develop recommendation that One Water LA find ways to work with research institutions to develop innovative pilot programs.**

April 5, 2016



# PARTNERSHIPS, COLLABORATION & INNOVATION Special Study Group Meeting #1



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# Welcome!

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## Meeting Team for FILL IN YOUR STG NAME HERE



Consultant Team

City Team



### DakeLuna Consultants

Miguel A. Luna, Facilitator  
Glen Duke, Technical Lead

### LA Sanitation

Eliza Jane Whitman  
Troy Ezeh



### Carollo

Julia Kingsley, Coro Fellow

### LA Department of Water and Power

Serge Haddad  
Bob Sun  
Tony Tew



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## Agenda



• Welcome and Introductions, Agenda Overview

• Brief Overview of One Water LA Plan Phase 2



• Purpose of Special Topic Groups Process, Objectives, and Relationship to Phase 2



• Road Map for the Partnerships, Collaboration, & Innovation Special Topic Group

• Group Discussion and engagement opportunities



• Homework Assignment

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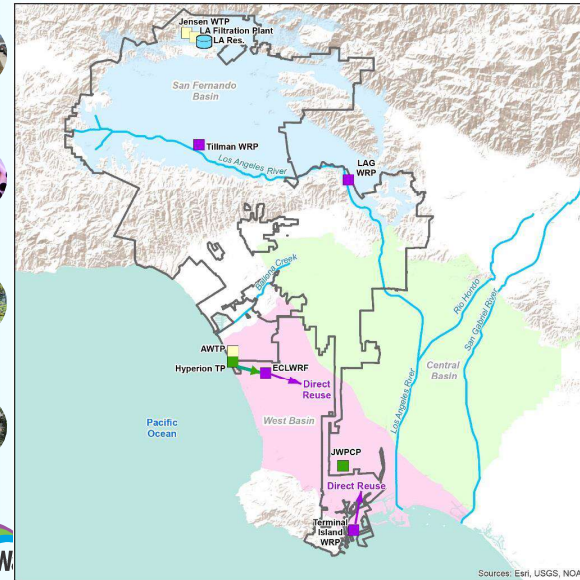
# One Water LA

## One Water LA Plan Overview



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The Plan will provide a roadmap through 2040 and needs to answer big questions and achieve ambitious water supply goals



The Plan will consider:

- Potable reuse
- Non-potable reuse
- Climate change
- Wastewater & stormwater and infrastructure
- Stormwater capture & treatment
- Los Angeles River
- Water conservation
- Decentralized/on-site reuse
- City department collaboration & regional partnerships
- City policies



## Key One Water LA Plan Deliverables



- Wastewater facility plans
- Stormwater facility plan
- Climate Change report on water infrastructure
- New city policies and recommendations to enhance water management and integration
- Funding, Partnerships, and New Strategies
- Special Studies- LA River, on-site treatment plants, new technologies
- Strategic outreach approaches

*Plan completion scheduled for January 2017*  
*EIR completion scheduled for 2018*



## Why Special Topic Groups



- Obtain input from a diverse set of stakeholders on specific issues in the One Water LA Plan.
- City went through an intense effort to define areas where stakeholders could influence the direction the City takes in shaping the One Water LA Plan (i.e. non-regulatory)
- Tap in to the brain-power and creative thinking of those interested in advancing how the City does business related to water integration





# One Water LA

## Special Topic Groups



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## Purpose of the Special Topic Groups



- To build relationships with and solicit input from the diversity of stakeholders that will be involved in implementing programs prescribed in the One Water LA Plan.
- To use input and discussion outcomes to:
  - Shape the One Water LA Plan
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation.



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## Public Outreach Plan



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7



## Special Topic Groups



The 5 groups cover topics where stakeholder input can have the greatest influence.



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9





## Objectives for Our Meetings



- Meeting #1 (Today):
  - Share information and resources, and begin to discuss opportunities, priorities and solutions
- Meeting #2:
  - Continue discussion of opportunities and solutions, and identify action steps
- Meeting #3:
  - Review draft summary of outcomes, and fine-tune in preparation for presentation at the stakeholders workshop



# One Water LA

## PARTNERSHIPS, COLLABORATION & INNOVATION Special Topic Overview



## Examples of Partnerships



- **Broadway Neighborhood Gateway**  
Church made site available, Residents build rain gardens, provide maintenance commitments, City finances and builds
- **Promote Healthy & Safe Neighborhoods**  
CA Wellness Foundation grant to LA Neighborhood Land Trust for community organizing and policy work to achieve health outcomes among residents.  
First 5 LA grants to LA Conservation Corps to build gardens run by residents, to achieve health outcomes in a place-based strategy.
- **MWD Local Resources Program**  
MWD pays an operating subsidy of up to \$340/AF for a period from the first drop of water to 15 or 25 years. Water agency builds and operates, can issue bonds backed by the LRP subsidy.
- **Professional Associations**  
CA Landscape Contractors, Pest Control Advisors: train and certify



## Examples of Uber-partnerships: Santa Ana Watershed Protection Association



- **San Jacinto River Watershed Council:**  
NGO, tribes, farmers, water agencies collaborating on technical assistance to enhance San Jacinto River Basin.
- **Santa Ana Sucker Conservation Team:**  
public agencies collaborating to determine the causes of decline and devise recovery strategies
- **San Francisco**





## Examples of Innovation promotion



- LA County Internal Services Office of Sustainability  
PACE on-bill financing, solar access map, Contractor training-certification.

- California – Israel water summit



promoting technology – financial collaboration

- MWD Innovative Conservation Program

bundles funding from USBR, EPA, SNWA, CAP for research that will document water savings and develop water saving devices.



- City of LA's CleanTech

Promotes both water and energy technology (lets research this a bit...)

- Collaboration with local universities

Need to look in to programs and professors that are non- traditional



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5



## PARTNERSHIPS, COLLABORATION & INNOVATION



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# Group Discussion



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# Next Meeting & Between



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5



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## **Partnerships, Collaboration, Innovation STG Meeting #2 (05/05/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Partnerships, Collaboration, and Innovation Meeting #, held on May 05, 2016.

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# PARTNERSHIPS, COLLABORATION & INNOVATION

## Special Topic Group Meeting #2



DATE	TIME	LOCATION
Thursday, May 5 <sup>th</sup> 2016	1:30 p.m. – 3:30 p.m.	2714 Media Center Drive Los Angeles, CA 90065 (Training Room A)

Staff:

<b>Facilitator</b>	Miguel A. Luna	DakeLuna Consultants
<b>Technical Lead</b>	Glen Dake	DakeLuna Consultants
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Troy Ezeh	LASAN
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Tony Tew	LADWP

- I. Welcome and Agenda Overview *(10 Minutes)*
- II. Overview of Notes from Meeting #1 *(10 Minutes)*
- III. Review of Survey Ideas and Results *(15 Minutes)*
- IV. Expansion of Innovation Ideas *(15 Minutes)*
  - a. Succinct Presentation on Innovation Partnerships
  - b. Recommendations on how the City could potentially implement partnerships
- V. Continued Group Discussion on Partnership, Collaboration, and Innovation *(60 Minutes)*
  - a. Ideas with recommendations on how the City could potentially implement partnerships
  - b. Prioritization of recommendations
- VI. Planning for Meeting #3 *(15 Minutes)*

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**One Water Los Angeles**  
**Partnership, Collaboration and Innovation Special Topic Group – Meeting #2**  
**Thursday, May 5, 2016 1:30PM- 3:30PM**  
**2714 Media Center Drive (Training Room A)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Dr. Tom Williams	Citizens Coalition for a Safe Community
Nurit Katz	UCLA
Deborah Bloome	TreePeople
David Nahai	DNC
Guangyu Wang	Santa Monica Bay Restoration Comm.
Clint Granath	Forest Lawn
Anthea Raymond	LA County Beach Commission

*Meeting Team*

Facilitator	Miguel Luna	DakeLuna Consultants
Technical Lead	Glen Dake	DakeLuna Consultants
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Lenise Marrero	LASAN
One Water LA Team	Troy Ezeh	LASAN
One Water LA Team	Anthony Tew	LADWP
One Water LA Team	Bob Sun	LADWP
Note Taker	Tom West	Carollo Engineers

**Welcome and Agenda Overview**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

The agenda and objectives were presented to the group.

- Further develop ideas of partnerships and/or collaborations to move and pursue based on survey results.
- Prioritize ideas and recommendations for partnerships and/or collaborations.
- Identify barriers for partnerships.



- Determine the steps needed to implement ideas for partnerships.

### **Special Topic Group (STG) Introductory Discussion**

A power point was presented which listed the expected way the feedback and information from the STG would be used in the One Water LA Plan. These are listed below:

- Consider recommendations, identify cross-cutting themes, quick victories, and most important features in the set of recommendations.
- Discussions with key City leaders and the Mayor's office
- Presentations at the City's Water Cabinet, led by the Mayor's office
- Incorporation of recommendations in the One Water LA 2040 Plan.

In order to provide recommendations for partnerships and/or collaborations, several group members needed clarification on what level of partnerships the One Water LA team is looking to achieve. The City reiterated that they wanted to hear from the stakeholders if they thought any modifications or changes should be made related to partnerships and collaboration activities and approaches. The City is not sure if stakeholders think that how the City is currently proceeding is sufficient or could be tweaked to be better. The One Water LA team wanted to make sure that it was up to the stakeholders to let the City know the who, what, when, where and how of partnerships and collaborations should be pursued and maintained.

The group resolved to handle the discussion in two parts:

- Improve the processes for partnerships
- Expand the universe of partners

### **Part 1: Improve the process for partnerships.**

The group discussed how to improve the process of creating new and fostering existing partnerships.

- Develop a more streamlined process for projects where departments and agencies could take on O&M, if it fits within in their plans, for a partner-developed project.
- Develop a template to allow partnerships to be done more easily. The template will assist in creating a more streamlined process for non-agencies to partner with agencies for water-related projects.
- Improve the partnerships between agencies so that things are not decided serially (e.g. telescope decision making process for approving and implementing projects).
- It was mentioned that LASAN, LADWP and other City departments cannot be a testing ground for new innovations because it is often recommended that they be conservative and cautious since they are dealing with ratepayer's money. The City can partner with organizations (e.g. Incubators) to test new innovations.
- Consider having LA CleanTech Incubator and other incubators conduct the research and testing on new technology.



- Incubators would help companies develop their products to get the funding.
- Example is the waterless urinal. This was a privately-funded effort that became an accepted standard.
- Spend time forming cooperative relationships with incubators.
- It was mentioned that for some organizations who are also incubators, it is much more cumbersome to get translation of ideas to agencies unlike the LA Cleantech Incubator who has streamlined agreements with LADWP.
- Follow the Orange County playbook regarding the process used for developing partnerships for wastewater recycling. The City should review the Orange County approach and determine how to modify for One Water LA.
- Have all interested parties/City departments preliminarily comment on a project in one meeting at the same time. Use the LA River Revitalization Corporation as a model. Reps from different City departments meet on a regular basis and hear about projects in the LA River. There is a committee that reviews the viability and function of the projects and that is how they are able to move forward in the approval process in an expedited manner. This is done now for the several permitting agencies in land use approvals processes.
- For One Water LA projects, this could be developed as a two-phase process where input is needed.
  - Phase 1 Project development phase - needs to be streamlined.
  - Phase 2 Project implementation phase - Building and Safety already has forms/processes in place, so there may be an opportunity to bring all interested parties/departments in one room.
- Create a centralized office to achieve coordination from all of the City departments. It would be a similar response to the LA Riots in order to speed re-investment and re-building. They originally brought representatives from different city departments into a single place, which allowed approvals to be done much faster.
- The group discussed the water cabinet, and would want to see something similar to focus on partnerships for water projects, especially if funding and cost sharing discussions are needed.

## **Part 2: Expanding the Universe of Partners**

The group discussed potential partners

- Labor
- Non-Governmental Organizations (NGOs)
- Incubators
- Business community
  - Recycled water: Customer builds pipeline then gets discount on water bill. Ex: project in Orange County with City of Cerritos. Private company provided the money up front to be reimbursed by grant.



- Groundwater recharge and SUSMP: Bank can be created to generate credits (banking for mitigations, like Nature Conservancy). What about a similar approach for water conservation?
- LADWP should expend even more effort to identify their large domestic water customers. This may identify a pattern of potential recycled water customers that they can take advantage of. LADWP responded that LADWP developed a Recycled Water Master Planning document in 2012 to identify “anchor” customers and potential purple pipe projects to reach these customers. LADWP is continuously evaluating the feasibility of potential purple pipe projects.
- Communicate more about what is currently going on because business is constantly changing.
- Financial community
  - Would like big returns, but cannot even get moderate returns
  - Structure is against them, water is cheap, debt is cheap.
  - Performance based contracting:
    - Certain stormwater capture projects
    - Less focus on big projects like San Fernando groundwater cleanup
    - Leak detection, repair and savings
- Academia
  - Develop an online portal that allows any entity to suggest a partnership relationship with another or look for opportunities for collaboration (e.g. match.dot.com for water related projects).
  - Research opportunities with university departments

There was further discussion regarding school districts and grants

- LAUSD
  - Received approximately \$27 million out of Prop. 39 for school-based improvements. The City should partner with school districts to capture stormwater since LAUSD is a huge land owner.
  - Organize a coalition to create more political support for various school districts statewide to implement stormwater capture projects, as education sector Stormwater Permit is being renewed shortly.
  - Identify opportunity to revisit a pilot program for one LAUSD school
- Grants
  - Difficult to identify all of the grants that are available, and rate them for usefulness if won, and application competitiveness. There should be a full time position created to track grants. The City should invest or get a grant in order to set up this database.
  - A portal could be developed to track grants the agencies and their partners are eligible for
  - Improve the amount of tree maintenance funding coming from State of California ARB for GHG reduction.



Ideas for partnerships and collaborations to address climate change

- Discussed tradeoffs of urban forestry where beneficial to absorb heat and greenhouse gasses, but also requires water.
- SB1294: encouraging the use of non-potable recycled water to irrigate trees
- Look for partnerships outside of the City (e.g. MC-4 housed at Loyola Marymount University). Have a conference to invite other Cities that share LA's climate profile to see what type of resilience measures they are taking. Other cities would include Santiago, Athens, Rome and others within the Mediterranean climate. Another MC-4 conference would hopefully be in 2017.
- LA Regional Collaborative – public agencies and universities building a framework for climate resilience.

For the next meeting, the group recommended that One Water LA:

- Send out complete list of ideas for partnerships received from group members and have group members vote and prioritize.

### **Meeting Wrap Up**

- Document ideas (for partnerships) received from group members and create categories for where each idea would fit.
- Send list/table of ideas to group members.
- Work with group members to prioritize ideas for partnerships and collaborations.

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# One Water LA

## PARTNERSHIPS, COLLABORATION & INNOVATION Special Study Group Meeting #2



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## Agenda



- Welcome and Introductions, Agenda Overview
- Overview of Notes from Meeting #1 and Review of Survey Ideas and Results
- Expansion of Innovation Ideas
  - Succinct Presentation on Innovation Partnerships
- Continued Group Discussion on Partnership, Collaboration, and Innovation
  - Ideas with Recommendations on how the City could potentially implement partnerships
  - Prioritization of recommendations
- Planning for STG Meeting #3



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3



## Meeting Team for FILL IN YOUR STG NAME HERE



Consultant Team

City Team



**DakeLuna Consultants**  
Miguel A. Luna, Facilitator  
Glen Duke, Technical Lead

**LA Sanitation**  
Eliza Jane Whitman  
Troy Ezeh



**Carollo**  
Tom West

**LA Department of Water and Power**  
Serge Haddad  
Bob Sun  
Tony Tew



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2



## Purpose, Objectives & Goals From Today's Meeting



- Hear from all members recommendations on partnerships and innovation.
- Discuss and document ideas with step-by-step recommendations for the City to consider
- Prioritize ideas
- Identify barriers to partnerships and collaboration and how these could be addressed



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4





## Expected Process of Stakeholder Input From Our Meetings



- Consider recommendations, identify cross-cutting themes, quick victories, and most important features in the set of recommendations.
- Discussions with key City leaders and the Mayor's office
- Presentations at the City's Water Cabinet, led by the Mayor's office
- Incorporation of recommendations in the One Water LA 2040 Plan.



## Survey Feedback and Ideas



Topic:	Survey Response
1 <b>Potable and Non-Potable Reuse:</b>	1. Map City's largest water users vs. proximity to treatment plants and investigate suitability of their use of recycled water, then explore PP3s to construct efficient distribution.
2 <b>Climate Change:</b>	1. Partnering with urban forestry organizations to help plant and MAINTAIN tree canopies—which sequester carbon - to find ways that stormwater or other local water supply sources can irrigate these trees.
3 <b>Wastewater &amp; Stormwater Infrastructure:</b>	1. Department of Beaches and Harbors – County beaches have a direct interest in cleaner stormwater, as the agency most often called upon to clean up stormwater disasters. Working with DBH to both educate the public and ensure that LASAN and other agencies maintain current systems at optimal levels is probably already going on, but should continue. 2. Schools - not just LAUSD but private schools too—to capture on-site water and take off-site (as mentioned above.) Ensuring that the City Green Streets representatives are focusing on the opportunities for capture in green streets (and perhaps parkways) is essential in developing next steps. 3. Map open landscaping (parks, golf courses) near storm drains and investigate diverting storm water and grading areas to create sumps for stormwater infiltration
4 <b>Stormwater Capture &amp; Treatment:</b>	1. LA River Expeditions – River guides reach hundreds of water-conscious individuals every year on their trips. Educate guides about stormwater capture and treatment and they are likely to share this info. Experts could also serve as "educators" on trips and deliver this message themselves. 2. The American Rainwater Catchment System? Association (ARCSA) helps train on how to install systems to catch rainwater. Professional groups such as ARCSA need to be brought online with quality training to meet the need set out in various plans for rainwater capture 3. Map significant parking lots near stormwater facilities and investigate installation of pervious pavement with subdrain connection to stormwater facilities



## Meeting #1 Overview



Engage Large Private Users/Businesses

Online platforms

Decentralized monitoring

Partnerships with Schools/Academia

Partnerships with Public Health

Climate change as an opportunity



## Survey Feedback and Ideas



Topic:	Survey Response
5 <b>Los Angeles River:</b>	1. River LA - The mayor's go-to agency on the LA River Revitalization, they are currently about to complete raising funds to hire Frank Gehry's team to come up with a stormwater capture plan, among other things. Try to secure a seat on their advisory panel to ensure all LA River redevelopment projects include a storm water capture component when possible and relevant. 2. Map undeveloped land along the LA River and contact owners to obtain rights to use such land for stormwater capture and habitat creation
6 <b>Water Conservation:</b>	1. CA Urban Water Conservation Council 2. Be an active member of WasteReuse
7 <b>Any other Partnership and/or Collaboration Opportunity that may not fit into any of the categories above.</b>	1. Los Angeles Kayak Club – This is just one example of a community group that is impacted by stormwater issues. Kayakers would love to see water in the LA River become more of a year-round, predictable recreational resource. They could be advocates for programs to retain stormwater for possible recreational use. Ocean kayakers are also directly impacted by stormwater when they cannot go into the ocean because of health risks after storm events. This too makes them great potential advocates. I'm sure surfers, SUPers, sailers, paddleboarders and other direct contact athletes would have a similar affinity.







PARTNERSHIPS, COLLABORATION & INNOVATION



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# Final Meeting & Between

One Water LA *Innovation • Integration • Inclusion*



PARTNERSHIPS, COLLABORATION & INNOVATION  
GROUP DISCUSSION



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PARTNERSHIPS, COLLABORATION & INNOVATION



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### **Partnerships, Collaboration, Innovation STG Meeting #3 (06/16/16)**

The following pages present the meeting agenda, summary of the discussion, and the presentation given at the Partnerships, Collaboration, and Innovation Meeting #3, held on June 16, 2016.

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# PARTNERSHIPS, COLLABORATION & INNOVATION Special Topic Group Meeting #3



DATE	TIME	LOCATION
Monday, June 13 <sup>th</sup> 2016	1:30 p.m. – 3:30 p.m.	2714 Media Center Drive Los Angeles, CA 90065 (Training Room A)

Staff:

<b>Facilitator</b>	Glen Dake	DakeLuna Consultants
<b>Technical Lead</b>	Miguel A. Luna	DakeLuna Consultants
<b>One Water LA Team</b>	Eliza Jane Whitman	LASAN
<b>One Water LA Team</b>	Troy Ezeh	LASAN
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Tony Tew	LADWP

- I. Welcome and Introductions
- II. Overview of Notes from Meeting #2
- III. Review of Partnerships, Collaboration and Innovation Ideas Table
- IV. Prioritization of Ideas for partnerships and collaboration
- V. Presentation Discussion
  - a. Stakeholder Workshop: Wednesday, June 29<sup>th</sup> (1:00 p.m. – 3:30 p.m.)

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**One Water LA  
Partnership, Collaboration and Innovation Special Topic Group – Meeting #3  
Monday, June 13, 2016 1:30PM- 3:30PM  
2714 Media Center Drive (IWMD Conference Rooms 2A & 2B)**

***"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."***

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Dr. Tom Williams	Citizens Coalition for a Safe Community
Nurit Katz	UCLA
Grant Jean	The River Project
Clint Granath	Forest Lawn
Anthea Raymond	LA County Beach Commission

*Meeting Team*

Facilitator	Glen Dake	DakeLuna Consultants
Technical Lead	Miguel Luna	DakeLuna Consultants
One Water LA Team	Eliza Jane Whitman	LASAN
One Water LA Team	Lenise Marrero	LASAN
One Water LA Team	Anthony Tew	LADWP
One Water LA Team	Ali Poosti	LASAN
Note Taker	Troy Ezeh	LASAN

**Welcome and Introductions**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

The agenda and objectives were presented to the group.

- Review table containing ideas for partnerships, collaboration and innovation.  
*Note: The table (provided as a handout during the meeting) contained input received from the first two STG meetings in addition to the survey.*
- Categorize ideas and recommendations for partnerships and/or collaborations on the table by: 1). Priority ideas, 2). Quick Victory ideas.



### **Review & Prioritization of Partnerships, Collaboration and Innovation Table**

Group members reviewed the table of ideas for partnerships to identify areas where one idea was described in two citations for the purpose of consolidating the table.

Additionally, group members selected priority and quick victory ideas for each topic on the table to present at the stakeholder workshop. The following bullets below briefly summarize comments made during the table review:

Topic: Potable & Non-Potable Reuse

- **Priority #1:** Take the next step to contact the largest water users, Industry & Manufacturing Organizations to seek out partnerships for infrastructure implementation since mapping of the City's largest water users has already been done by LADWP. There needs to be real policy direction behind non-potable reuse and robust programs to motivate large water users to reduce their use.
  - A group member agreed to share a Colorado article regarding Public Private Partnership that could be used as a model for the recycled water industry.
- **Priority #2:** Lay the groundwork for Direct Potable Reuse. The City should work with outside groups (e.g. Sierra Club) to advance support and develop a framework for Direct Potable Reuse.

Topic: Streamlining the Process for Partnerships

- **Priority # 3:** Reform the approval process for people (e.g. NGOs) to have easier understanding of the diverse City and County agencies they need to work with when they need to obtain a permit for a project.
- **Priority #4:** Develop an online resource (web portal) to connect recycled water with large water users and host a web portal to connect and match entrepreneurs/innovators with the finance community (e.g. investors) to facilitate water-related startups for new technologies (similar to energy sage). The City would not endorse any company.
  - The group agreed to combine the different ideas (regarding a web portal) into one recommendation for reporting out at the workshop.

Topic: Water Conservation

- Partner with the Urban Conservation Council (Quick Victory).
- Expand partnerships with residents on understanding locations for mulch and compost distribution (Quick Victory).

Topic: Measure & Map

- **Priority #5:** The group agreed to combine the different ideas listed under (Measure + Map section) into one recommendation for reporting out at the workshop.





- Map permeability over a useful piece of water supply for areas in the City.
  - City/University partnership for mapping.
- Map underdeveloped land along the LA River and contact owners to obtain rights to use land for stormwater capture & habitat creation.
- Map locations for mulch and compost distribution.

Topic: Climate Change

- Participate in the MC4 Climate Conference (Quick Victory).

Topic: Other Opportunities

- Work harder to find ways to get the finance community involved in One Water LA efforts. Engage the finance community to invest in modern technologies.
  - Policies should be put in place for incentives to have the financial community engaged.
- La Kretz Innovation Campus – engage entrepreneurs and innovators on how to deal with water issues (e.g. developing systems for leak detection).
- **Priority:** Work with an incubator to deal with risk factor
- Engage LA Business Council, BizFed and Chamber of Commerce (Quick Victory).

**Presentation Discussion**

- Presentation will consist of a couple of slides to report out to the larger stakeholder group on quick fixes and priority recommendations for Partnerships, Collaboration and Innovation.
- Clint Granath (Forest Lawn) volunteered to present for the group.

**Meeting Wrap Up & Next Steps**

- One Water LA team will draft summary of priorities and quick victories for Partnerships, Collaboration and Innovation on PowerPoint slides and send out to the group.
- Once finalized by group members, slides containing top recommendations will be presented at One Water LA Stakeholder Workshop #2 on Wednesday, June 29 (1:00 p.m. - 3:30 p.m.)

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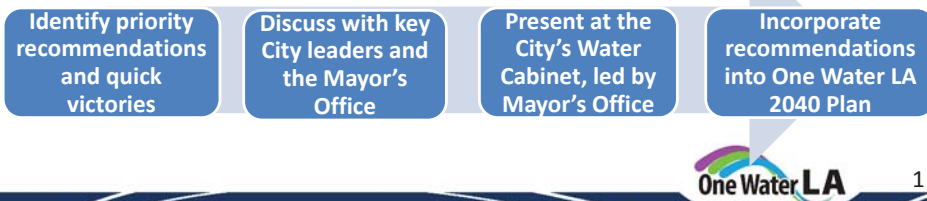
# Partnerships, Collaboration & Innovation Special Topic Group

Draft

## Purpose of Group:

- ID and enhance water-management partnerships between the City, regional agencies, private organizations and non-profits
  - Provide input to City on whether changes are needed or should stay status quo related to Partnerships, Collaboration and Innovation
- Identify, solicit and evaluate potential innovations (technological or other) that the City may want to consider to further promote the One Water LA vision.

## Expected process of input received from Special Topic Group Meetings:



# Priorities

Topic	Priority Recommendation
<b>Potable and Non-Potable Reuse</b>	<ul style="list-style-type: none"> <li>• Recruit the largest water users and work with Industry &amp; Manufacturing Associations to build programs that finance infrastructure implementation and other partnerships</li> <li>• Work with outside groups to advance lobbying for Direct Potable Reuse</li> </ul>
<b>Process Streamlining</b>	<ul style="list-style-type: none"> <li>• Reform City Department (e.g. LADBS, DCP, etc.) decision making processes so that several processes occur in series, rather than in succession</li> <li>• Develop web portal to connect large users to recycled water and match innovators with the finance community to facilitate water-related startups</li> <li>• Develop web portal for connecting willing partners with researchers or companies who need a site to pilot new technologies</li> <li>• Develop portal to track grants that agencies (and partners) are eligible for</li> <li>• Determine potential opportunities to work with incubators/private companies on technologies related to water</li> </ul>
<b>Mapping</b>	<ul style="list-style-type: none"> <li>• Map underdeveloped land along the LA River and contact owners to obtain rights to use of land for stormwater capture &amp; habitat restoration</li> <li>• Map permeability over useful piece of water supply for areas in the City</li> <li>• Map locations for mulch and compost distribution</li> </ul>

# Partnerships, Collaboration & Innovation Special Topic Group (cont'd)

## The Process:

- Three Special Topic Group Meetings
- Survey sent to group members for feedback
- Categories Identified by Group included:
  - Potable & Non-Potable Reuse
  - Process Streamlining
  - Mapping
  - Water Conservation
  - Climate Change
  - Other
- Priority Recommendations & Quick Victories were selected by the group for Report Out



# Quick Victories

Topic	Quick Victory
<b>Water Conservation</b>	<ul style="list-style-type: none"> <li>• Partner with California Urban Water Conservation Council</li> <li>• Expand partnerships with residents to increase public awareness on locations for mulch and compost distribution</li> </ul>
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>• Participate in the MC4 Climate Conference and highlight One Water LA's proactive efforts</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Engage the Los Angeles Business Council, BizFed and Chamber of Commerce</li> <li>• Engage finance community to invest in modern technologies</li> </ul>

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## **DECENTRALIZED USE AND ONSITE TREATMENT SPECIAL TOPIC GROUP**

The Decentralized Treatment/Reuse Special Topic Group met with the purpose of

- Establishing a common understanding and appreciation of the pros, cons and institutional issues of such systems.
- Determining the appropriate level and mechanisms of support for on-site water reclamation projects for both residential and industrial/commercial uses through One Water LA.

The following pages present the meeting materials from the Decentralized Use and On-Site Treatment Special Topic Group meetings.

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## **Decentralized Use & On-Site Treatment STG Meeting #1 (03/24/16)**

The following pages present the meeting agenda, summary of the discussion, and presentation from the Decentralized Use and On-site Treatment Meeting #1, held on March 24, 2016.

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# DECENTRALIZED/ONSITE TREATMENT Special Topic Group



DATE	TIME	LOCATION
March 24, 2016	2:00pm - 4:00pm	2714 Media Center Drive Los Angeles, CA 90065 IWMD Conference Room 2A & 2B

Staff:

<b>Facilitator</b>	Hampik Dekermenjian	CDM Smith
<b>Technical Lead</b>	Robin Nezhad	CDM Smith
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Denise Chow	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Penny Falcon	LADWP
<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>Note Taker</b>	Leneyde Chavez	Carollo

- I. Welcome and Introductions, Agenda Overview (10 Minutes)
- II. Overview of One Water LA (10 Minutes)
- III. Purpose of Special Topic Groups (5 Minutes)
  - a. Road Map for the Decentralized/Onsite Treatment Special Topic Group
    - i. Objectives for group meetings:
      1. Meeting #1: Expected Outcome - Onsite Treatment – gain input for the development of Guiding Principles
      2. Meeting #2: Expected Outcome –Greywater – gain input for the development of Guiding Principles
      3. Meeting #3: Expected Outcome – Summary of outcomes resulting from previous meetings
- IV. Background Presentation on Onsite Treatment (5 Minutes)
- V. Group Discussion and Engagement Opportunities (80 Minutes)
- VI. Next Steps (10 Minutes)

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**One Water Los Angeles  
Decentralized / Onsite Treatment  
Special Topic Group - Meeting #1**

2714 Media Center Drive, Los Angeles, 90065 (IWMD Conference Rooms)

Thursday, March 24th, 2016

2:00-4:00pm

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

Meeting Summary

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Craig Kessler	Southern California Golf Association
Jim Stahl	MWH
Sarah Munger	MWH
Cris Sarabia	Greywater Action
Steven Johnson	Heal the Bay
Ruth Dooxee	RWAG / LBNC
Margot Jacob	MLA
Robin Bentzin	UCLA
Katie Mika	UCLA
Guangyu Wang	SMBRC

*Meeting Team*

<b>Facilitator</b>	Hampik Dekermenjian	CDM
<b>Technical Lead</b>	Robin Nezhad	CDM
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Denise Chow	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Andre Goodrich	LASAN
<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>Note Taker</b>	Leneyde Chavez	Carollo



## **Welcome & Introductions**

The facilitator began the meeting with introductions of the One Water LA Team and the lead team. Self introductions of all participants followed.

## **Overview of the One Water LA Plan**

An overview of the One Water LA Plan 2040 (One Water LA) was provided emphasizing the following:

- Attempting to find opportunities to collaborate.
- Mentioned the many topics that One Water LA will cover.
- Discussed the deliverables that the Plan will provide.
- Decentralized/Onsite Treatment is part of our special studies.
- Plan scheduled to be completed by January 2017. The EIR will be completed by 2018.

Other topics discussed include:

- Progress since the Water Integrated Resources Plan (IRP)
- IRP projected wastewater flows (increase) did not occur.
- Climate Change did not play a role in the IRP, but will be included into One Water LA plan.
- One Water LA aligns plans around the City - Integration with other City Dept. and Regional entities.
- One Water LA has already implemented a few quick fixes on City policies.

## **Road Map for the Outreach & Communications Special Topic Group**

Background was provided regarding special topic groups (STGs). Public involvement approach is a significant part of this effort.

The purpose of the STGs is to gather input that will be considered during the development of One Water LA. Decentralized use is of particular importance to the City.

## **Objectives for group meetings:**

- Meeting #1: Expected Outcome - Onsite Treatment
  - Gain input for the development of Guiding Principles
- Meeting #2: Expected Outcome - Graywater
  - Gain input for development of principles or approach for next steps
- Meeting #3: Expected Outcome - Summary of outcomes
  - Consolidate results from previous meetings



## **Background Presentation - Decentralized / Onsite Treatment**

The technical lead provided background information and mentioned the following:

- Definition: Privately or City owned wastewater treatment plants that may discharge waste streams to the City systems and that are located near recycled water users.
- Examples discussed: Universities, local industry, golf courses, private developers, and the City.
- Discussed benefits and challenges
- Requested everyone's input to develop guiding principles that will help the City work with private and public entities wishing to treat their wastewater onsite.

## **Discussion and Engagement Opportunities**

The facilitator opened the topic for discussion with the goal of developing a set of guidelines that will help the City. Some of the comments mentioned by participants are listed below. Please note that the comments below capture the general idea of stakeholder comments. Comments made by LADWP or LASAN staff are clearly identified.

- The group would like to see guidelines regarding public health.
- The City could require developers and facility managers to communicate with adjacent communities about onsite recycled water use.
- New developments should provide information regarding potential uses of water treated onsite. Since many efforts seem to be focused on outdoor irrigation, more public education is required to expand potential uses.
- Any non-potable use should have guidelines that would provide the user with information on how to use the effluent.
- Education campaign to ensure that onsite treated water is accepted by the public who might have concerns over water quality. This would help gain public support. A unified message is important.
- The City could require proper signage for landscape projects regarding onsite treated water.

Questions to consider: Who operates and monitors water quality of onsite treated water? Should anyone be allowed to do onsite treatment?

- Any developer should be able to propose an onsite treatment project but local agencies should act as a regulator and provide oversight to the process.
- Some things to consider through an application process:
  - Scope linked to displacing potable use / Offset of potable demand
  - Sign off on the engineering firm performing work
  - Containment systems and maintenance plan with public oversight



- Over-ride plan in case of emergency
- Private systems should pay for taking away recycled water from City groundwater replenishment projects
- Onsite treatment should not be installed where purple pipe is accessible.
- Since onsite treatment can expand capacity, water should be made available to other users within an appropriate radius.
- LADWP stated that there are liability issues related to the previous suggestion – in reference to O&M and the safety of recycled water injected into the groundwater by private systems.
- LASAN should operate onsite treatment plants and LADWP should sell the water.
- LASAN indicated that there are no capacity issues at the City’s treatment plants and that in fact, flows are low.
- LADWP stated that they will continue to promote conservation.
- Smaller onsite systems may find it difficult to transition into a future with direct potable reuse. All projects should consider how these smaller plants may become defunct in 20-30 years.
- Consider a fee related to the quality of effluent being disposed into the City’s sewer system.
- Brine may increase the salinity of Recycled Water. High salinity water is not good for irrigation.
- Satellite systems should be part of the City’s network. For smaller, on-site treatment facilities, cost needs to be considered. The development of goals for the industry which put a value on being environmentally sound is necessary.
- The City could require developers to address financial impact that these systems have on water quality and supply.

Questions to consider: How do you protect public health with multiple systems? Mitigation plan? Back-up plan if system fails?

- In order to sustain the economy and business life, the City should relax guidelines on public safety since these guidelines may be overly stringent.
- Social/environmental justice component to safety and water quality should be considered since affluent neighborhoods would be better able to keep up with funding necessary for onsite treatment.
- Examine risk vs. reward in terms of a water quality perspective.
- The groundwater basin is the best buffer to protect public health so long as plumes are not disturbed.
- There are concerns about cross connections: will need back flows on all meters and an agency charged with proper regulation and oversight. This effort might prove too cumbersome to the City. This will cause problems that local government may have to deal with in the future.



- Consider the possibility that eventually all water systems be integrated.

**Follow-Up Action Items**

Graywater will be discussed next time.

Next meeting will take place in three weeks.

**Note:** One last round of self-introductions took place in order to formally meet many stakeholders who arrived after the start of the meeting.

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# One Water LA

Decentralized/Onsite Treatment  
Special Study Group  
Meeting #1 – March 24, 2016



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# Welcome!

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2



## Agenda



- Welcome and Introductions
- Overview of One Water LA
- Purpose of Special Topic Groups
- Road Map for the Special Topic Group
- Background Presentation
- Discussion and engagement opportunities
- Next Steps



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## Meeting Team for Decentralized/Onsite Treatment



### Facilitator:

- Hampik Dekermenjian



### Technical Lead:

- Robin Nezhad



### Note Taker:

- Leneyde Chavez



### City Reps:

- Mario Acevedo
- Flor Burrola
- Denise Chow
- Penny Falcon
- Serge Haddad
- Lenise Marerro
- Bob Sun

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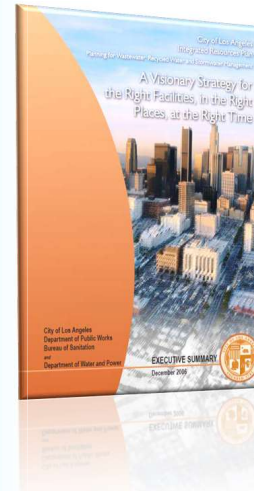
# One Water LA

## One Water LA Plan Overview



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## Simply put, the One Water LA 2040 Plan is the update of the 2006 IRP



### New World

Declining wastewater flows  
New Regulations  
Climate Change  
Integration of New Plans

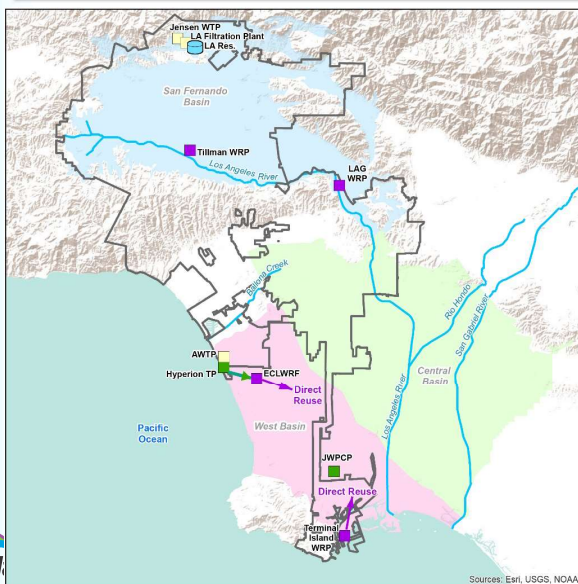


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6



## One Water LA will provide a roadmap through 2040 and needs to answer big questions and achieve ambitious water supply goals



### The Plan will consider:

- Potable reuse
- Non-potable reuse
- Climate change
- Wastewater & stormwater and infrastructure
- Stormwater capture & treatment
- Los Angeles River
- Water conservation
- Decentralized/on-site reuse
- City department collaboration & regional partnerships
- City policies



## Practically, One Water LA will help . . .



1. Reduce imported water purchases by 50% by 2024.
2. Achieve 50% local water supply by 2035.
3. Improve wastewater facilities to meet regulatory and recycled water needs.
4. Manage runoff to meet water quality requirements AND increase water supply.
5. Identify water-related integration opportunities between City Departments and Regional Agencies.

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8





## Key One Water LA Plan Deliverables



- Wastewater/recycled water facility plans
- Stormwater facility plan
- New city policies to enhance water management and integration
- Funding Strategies
- Special Studies
- Enhanced communication and outreach



*Plan completion scheduled for January 2017  
EIR completion scheduled for 2018*



# One Water LA

## Purpose of Special Topic Groups



### One Water LA Plan Phase 2

#### Public Involvement Approach



## Purpose of the Special Topic Groups



- To build relationships with and solicit input from stakeholders that will be involved in implementing programs prescribed in One Water LA.
- To use input and discussion outcomes to:
  - Shape One Water LA
  - Formulate implementation programs and priorities
  - Strengthen the needed public/private/NGO relationships for implementation.





## Objectives for Our Meetings



- Meeting #1:
  - Expected Outcomes: Onsite Treatment – gain input for the development of Guiding Principles
- Meeting #2:
  - Expected Outcomes: Greywater - gain input for the development of Guiding Principles
- Meeting #3:
  - Expected Outcomes: Summary of outcomes resulting from previous meetings



# One Water LA

## Decentralized/Onsite Treatment Special Topic Overview



## Onsite Treatment Overview



**Definition** – Privately or City owned wastewater treatment plants that may discharge waste streams to the City systems that are located near recycled water demand.



### Examples –

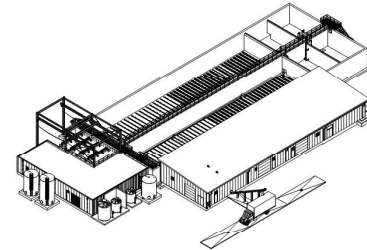
- A University may want to treat on-site, wastewater generated on-campus for cooling towers or irrigation.
- Local industry may want to treat and reuse their process water.
- A new residential development may want to have their own treatment facility to reuse water for irrigation, toilets, or other beneficial uses.
- City may want to recycle water on-site for use at a local golf course.



## Example Decentralized/Onsite Treatment Facilities



Potato processing facility (industrial)



Golf course facility (irrigation)



Source: nationalgeographic.com

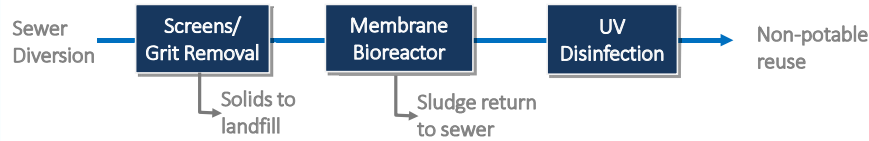




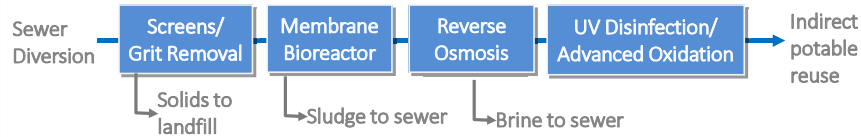
## Example Process Flow Diagrams



- Title 22 recycled water for irrigation/industrial non-potable customers



- Purified recycled water for indirect potable reuse



## Decentralized/Onsite Treatment Benefits



- Expand recycled water program in areas not near centralized facilities
- Decrease demand on potable water for non-potable end uses
- Beneficial reuse of wastewater near the location at which it was generated



## Decentralized/Onsite Treatment Challenges



- Impacts
  - Collections and Treatment
  - Financial
  - Public Health



## Decentralized/Onsite Treatment Special Topic Group Meeting #1 Outcome



Will take input from this group to develop guiding principles



## Discussion

21

## Wrap Up and Next Steps

*Wrap up/summary of today's discussion, ensure that objectives for the day were met, get agreement on next steps, meeting date/time and location. Recognize any outstanding issues/questions that weren't resolved or discussed during the meeting.*

22



## Special Topic Groups



**The 5 groups cover topics where stakeholder input can have the greatest influence.**



Decentralized  
Use &  
On-site  
Treatment



Funding &  
Cost-Benefit  
Analysis



Outreach &  
Communication

Partnerships,  
Collaboration &  
Innovation

Stormwater &  
Runoff  
Management

23



## Discussion Guide



- Everyone's input is of equal value.
- Respect Everyone's input.
- Be open to considering new ideas.
- Keep statements concise so that we can maximize the meeting time.
- Focus on the topic of the meeting.



24



## **Decentralized Use & On-Site Treatment STG Meeting #2 (05/09/16)**

The following pages present the meeting agenda, summary of the discussion, and presentation from the Decentralized Use and On-site Treatment Meeting #2, held on May 09, 2016.

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# DECENTRALIZED/ONSITE TREATMENT Special Topic Group



DATE	TIME	LOCATION
May 9, 2016	1:30 PM-3:30 PM	2714 Media Center Drive Los Angeles, CA 90065 Board Room

Staff:

<b>Facilitator</b>	Hampik Dekermenjian	CDM Smith
<b>Technical Lead</b>	Robin Nezhad	CDM Smith
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Denise Chow	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Penny Falcon	LADWP
<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Inge Wiersema	Carollo
<b>Note Taker</b>	Leneyde Chavez	Carollo

- I. Introductions and Agenda Overview (5 Minutes)
- II. Definition and Overview on Graywater (5 Minutes)
- III. Results of City Research Initiatives on Graywater (10 Minutes)
  - a. Research and Findings to-date
  - b. Outstanding Research Needs
- IV. Group Discussion of Potential Risks, Cost Considerations, and Benefits (90 Minutes)
  - a. Health Risks and Water Quality
  - b. Consideration of Costs and Benefits
  - c. Policy and Regulatory Issues
  - d. System Monitoring, Operations, and Tracking
- V. Next Steps (10 Minutes)

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**One Water Los Angeles**  
**Decentralized / Onsite Treatment Special Topic Group – Meeting #2**  
**Thursday, May 9th, 2016 1:30PM-3:30PM**  
**2714 Media Center Drive, Los Angeles, 90065 (Training Room)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

**Meeting Summary**

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Craig Kessler	Southern California Golf Association
Cris Sarabia	Greywater Action
Katie Mika	UCLA
Dr. Tom Williams	Citizen Coalition for Safe Communities
Bonny Bentzin	UCLA
Hyginus Mmeje	LASAN/WESD

*Meeting Team*

<b>Facilitator</b>	Hampik Dekermenjian	CDM Smith
<b>Technical Lead</b>	Robin Nezhad	CDM Smith
<b>One Water LA Team</b>	Lenise Marrero	LASAN
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<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>Note Taker</b>	Inge Wiersema	Carollo

**Introductions and Agenda Overview**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group.

**Definition and Overview on Graywater**

- A power point was presented which listed the definition of Graywater (GW):
  - Wastewater from domestic applications such as bathroom sinks, showers, bathtubs, clothes washers, and laundry sinks (excludes toilet and kitchen sink).
  - GW can be collected from residential/commercial buildings and treated for non-potable uses such as landscape irrigation and toilet flushing.
- The CA Plumbing Code allows "laundry to landscape (L2L)" systems without a permit and more complex systems with a permit.

- GW systems can be implemented at single family residential (SFR) and multi-family residential (MFR) sites. GW systems for MFR sites require more components.
- Water Quality considerations include:
  - Pathogens and organic matter in GW require treatment for uses with risk of human contact (e.g., spray irrigation, toilet flushing)
    - There is no national guideline
- GW regulatory challenges included:
  - Simple single household laundry-to-landscape system (for subsurface irrigation) does not require permit because it is covered under the California Plumbing Code.
  - O&M of graywater systems is not tracked or monitored nationwide.
  - Graywater for expanded uses beyond subsurface irrigation is prohibited in the City.
  - LADWP is monitoring and collaborating with other agencies regarding expanded graywater use in the City, but there are issues with tracking these systems.
- Comments:
  - GW is prohibited for anything except irrigation
  - There are a lot of houses with systems that are unknown by building and safety
  - Enforcement is needed because only Notices of Violation are tracked
- A summary of what LA has done to-date regarding GW was presented
  - GW quality varies depending on household size, etc.
  - GW volume is proportional to reduction in sewer flows, impacts to infrastructure due to concentration
  - GW impacts on groundwater contamination requires more research
  - GW impacts on water use are controversial
  - GW impacts on public health depend on water quality
- Graywater Research
  - More research is needed
  - Signage would be helpful for areas irrigated with GW
  - Graywater guidelines would be needed/helpful

### **Open Discussion on Graywater**

- The open discussion is summarized by topic below.
- **Health Risks, Water Quality, and Monitoring**
  - Health Concerns:
    - Runoff from irrigation
    - Diapers (bacteria)
    - Odor Issues and Complaints
    - Ponding/mosquitos with stagnant water
- Septic systems were historically introduced as a health benefit, but are now associated with water quality issues
  - Water Quality
    - A concern was raised regarding monitoring laundry products that are used by customers with GW systems.
    - Other water quality concerns included diapers, stagnation, and leaching.

- Monitoring & Inspection
  - Monitoring would be important because some homeowners may not be familiar with all the complexities.
  - GW with laundry water is a concern for the City because these systems don't require a permit and are difficult to track.
  - Laundry-to-Landscape systems do not have/require inspectors.
  - Is an inspector for a GW system necessary? Should this be voluntary?
  - There is minimal error with GW systems, but education is very important. There are only 12 guidelines in the plumbing code that need to be followed to control contact, maintenance, etc. Voluntary inspection/reporting would be useful, but may not be necessary.
  - There is a need for proper signage and inspection. However, the City's role for (self) reporting and inspection still needs to be defined.
  - It was concluded that self-reporting system on shrinking number of septic systems is sufficient.
  - There should be consistency between the LID and GW system inspection requirements.
  - Inspection of septic systems was discussed. It was noted that there may be concerns about government intrusion as well as increased cost to homeowners.

#### **Consideration of Costs and Benefits**

- Sewer Charge Adjustments
  - Sewerage rate is being based on water usages, so customers may be concerned when diverting water to their GW system

#### **Policy and Regulatory Issues**

- Education & Signage
  - The public can be educated on the use of graywater quickly
  - Example: The City of Pasadena is doing a pilot education program with approximately 30 people per month using three hour classes. This program is limited to capturing laundry water only, which is the easiest to do (no permit needed)
  - Information materials needed to be translated to accommodate diverse group of interests
  - Homeowners need to be educated on impact of soaps to avoid salt build up
  - Proper GW signage would be beneficial, similar to purple pipes
  - Education needs to be continued upon a home ownership transaction
  - More information is needed and GW systems need to go with a system manual. How can the City ensure that this information is provided and transferred?
  - Education on GW systems takes time as it requires a behavioral shift. For example, the City has changed its solid waste recycling practice during the past 15 years, making recycling second nature for most customers. Concern was raised on that many people still make mistakes on waste recycling. It was noted that a certain error rate should be acceptable.

## Operations and Tracking

- Graywater Application
  - Many GW systems are taking place throughout the county with very diverse demographics
- Impact on Water Recycling
  - Graywater causes a concern due to the flow reduction for recycled water
  - Flow issue needs to be calculated and addressed
  - What is the flow impact of GW? Is it limited to laundry only? What is the flow impact if all households would do GW for laundry?
  - Research is needed to see if GW results in an increase/decrease of water, and to understand impact on water conservation behaviors
- Impact on Water Conservation
  - Impact of GW systems on water conservation is unknown.
  - Would customers use GW systems if it doesn't reduce bills? Customers with strong environmental awareness would be interested regardless of the financial benefit.
  - Would GW system be worthwhile if it does not result in conservation?
  - GW systems would not result in a lot of conservation during a drought due to the stress on resources in a severe drought.
  - Many people do not care about their water bill, until it triggers rate increases and penalties, including cutting of the water use.
- Impacts on the Sewer System
  - Is a backup connection to the sewer needed? In order to avoid accumulation of settlement?
  - Water fountain could be added on top of the sewer to maintain flow in the sewers
- LID Systems
  - Graywater can be used to supplement/fill LID system using the blue, black, and green barrels.
  - The level of inspection for LID systems varies greatly and it will be important to be consistent and apply the same regulations to LID and GW systems.
- Stormwater/Graywater Combined System
  - How will GW and SW systems be combined in a building? It was concluded that it requires a certain threshold.

## Ideas for Guidelines

- Inspection: Suggestions to minimize cost to the City
  - Implement a threshold
  - Consider the property locations
  - Consider the type of GW use on the property, such as lawn, on-site use, or centralized systems.
  - Implement an inspection program
- Cost-Recovery: GW costs that need to be recovered include cost for installation, inspection, and monitoring. Cost recovery could be achieved through some type of a permit. Items to be considered include:
  - A counter Permit is preferred over a building permit

- Participation in permit process is a mixed bag, some people will go under the radar.
- To avoid cost of on-site inspectors, most items could be handled with forms and pictures
- Developing a GW system inventory is important. Challenges include:
  - There is no existing registration system for "simple systems".
  - The first step could be to initiate a self-reporting system.
  - Require a notification/recording of presence of a GW system at the time of home ownership transfer (with/without a physical inspection)
  - The City needs to improve the data gathering process and be more sophisticated handling and managing the data.
- Incentives:
  - The overall focus should be on local source, and GW should have incentives to reduce imported water needs.
  - Make implementation as easy as possible. The easiest GW systems are systems that reuse water from clothes washing machines because they have pumps
  - Money (rebates) is an important incentive. The following comments were made:
    - LADWP first needs to show through a (benchmark) study that GW systems would result in water savings, before any incentive/rebate would be approached.
    - Laura Allen just completed a study that demonstrates the water savings of a GW system.
    - It was thought that LADWP implemented the turf replacement rebate without any data/study. LADWP to verify.
    - Money is not always the motivation, as some demographics want to be self-sufficient.
- Education and Information Sharing:
  - A decent computer model is needed for the entire water system needed to show impact of solutions like GW on other element of the water balance/system
  - Explain impact of cost in terms of water bill increase (e.g. 5% increase vs absolute cost in millions (hard to relate to)
  - Explain benefit of reducing water import from Northern California
  - Explain the impact on the reduction of water and energy cost
  - Share information of existing system like the Ecovillage, which contains 16 homes on graywater that demonstrate that there are easy to operate

### **Final points**

- Summary of Considerations that would need to be incorporated in potential regulations are:
  - Water Quality
  - Threshold Water Conservation
  - Potential Incentives
  - Health Impacts
  - Systems reporting to make these known
  - Regulatory Cost

**Next meeting:**

- The last (3rd) Special Topic Group meeting on this topic will be scheduled in approximately three weeks (at the same location and time).
- The next meeting will clearly summarize the brainstorm discussion, which will be brought for the entire Stakeholder Group.
- It was requested that the meeting agenda and content (presentation) be provided 3 days in advance.



# One Water LA

## Decentralized/Onsite Treatment Special Topic Group Meeting #2



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# Welcome!

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## Agenda



- Introductions and Agenda Overview
- Overview on Graywater
- Results of City Research Initiatives on Graywater
- Group Discussion of Potential Risks, Cost Considerations, and Benefits
- Next Steps



One Water LA Innovation • Integration • Inclusion

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## Meeting Team for Decentralized/Onsite Treatment



### Facilitator:

- Hampik Dekermenjian



### Technical Lead:

- Robin Nezhad



### Note Taker:

- Inge Wiersema



### City Reps:

- Mario Acevedo
- Flor Burrola
- Denise Chow
- Penny Falcon
- Serge Haddad
- Lenise Marrero
- Bob Sun

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## Objectives for Our Meetings



- Meeting #1:
  - Expected Outcomes: Onsite Treatment – gain input for the development of Guiding Principles
- Meeting #2:
  - Expected Outcomes: Graywater - gain input for the development of Guiding Principles
- Meeting #3:
  - Expected Outcomes: Summary of outcomes resulting from previous meetings



# One Water LA

## Graywater Overview



## Graywater Definition



- Wastewater from domestic applications such as bathroom sinks, showers, bathtubs, clothes washers, and laundry sinks (excludes toilet and kitchen sink).
- Graywater can be collected from residential/commercial buildings and treated for non-potable uses such as landscape irrigation and toilet flushing.



## Graywater System Examples



- Clothes washer 'laundry-to-landscape' system

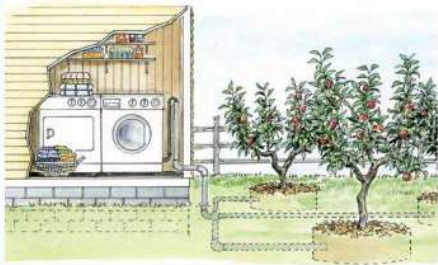




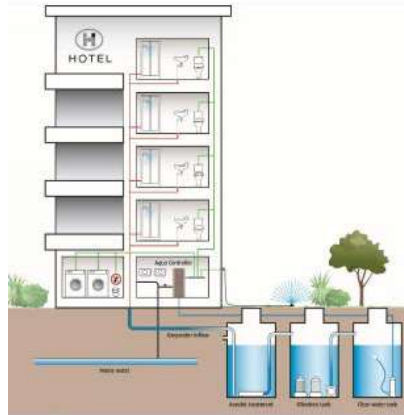
## Graywater System Examples



- Single Household



- Multi-Residential Buildings



## Treated Graywater Water Quality



- Pathogens and organic matter in graywater require treatment for uses with risk of human contact (e.g., spray irrigation, toilet flushing)
- No national guidelines on standard water quality requirements



## Graywater Policy and Regulatory Issues



- Simple single household laundry-to-landscape system does not require permit because it is covered under the California Plumbing Code.
- O&M of graywater systems is not tracked or monitored nationwide.
- Graywater for expanded uses beyond subsurface irrigation is prohibited in the City.
- LADWP is monitoring and collaborating with other agencies regarding expanded graywater use in the City.



# One Water LA

## One Water LA Graywater Research



## Research Conducted

### Findings

#### Water Quality

- (Certain) Plant species showed no negatives effects as a result of graywater irrigation.
- Graywater quality and performance is inconsistent: depends on housetype, no. of occupants, presence of children and pets, laundry products used, graywater system and landscape characteristics

### Paper/Article(s)

1. Allen, Laura; Bryan, Sherry; Woelfle-Erskine, Cleo. "An Evaluation of Soil and Water Quality." 2013.
2. Alfiya, Y, et al. "Potential Impacts of on-site greywater reuse in landscape irrigation." IWA Publishing, 2012.
3. Mohamed, Radin Maya, et al. "A monitoring of environmental effects from household greywater reuse for garden irrigation." Murdoch, Western Australia, Australia: PubMed, 2012.

#### Impacts on Treatment and Collection System

- Graywater generated = Reduced sewer flows
- Reduced recycled water
- Sewer impacts: sewer blockages, corrosion, City odor issues
- More concentrated wastewater

1. Marleni, N, et al. "Impact of Water Source Management Practices in Residential Areas on Sewer Networks-A Review." Elsevier. Melbourne, Australia. 2010.
2. Centre, Light House Sustainable Building. Greywater Recycling. Research Paper. Vancouver, BC: Light House Sustainable Building Centre, 2007.
3. Stanley, Jenn. "California Cities Smell the Consequences of Saving Water." Next City, Web. 2015.
4. Lambe, J. S., Chougule, R. S. "Greywater - Treatment and Reuse". Maharashtra, India. 2011.
5. Eran Friedler, Roni Penn "Study of the effects of on-site greywater reuse on municipal sewer systems ". Haifa, Israel. 2011.
6. Bahman Sheikh "White Paper on Graywater." WaterReuse consultant. San Francisco, CA. 2010.

13

## Research Conducted

### Findings

#### Groundwater Contamination

- Fecal coliforms detected in raw and treated graywater; leaching could occur.
- Found potential for salts, Nitrogen, and Boron leaching.
- Further research recommended to determine if leaching would increase overtime

#### Water Use

- Data shows some reduced water savings, some using more water, fairly even 50/50 split
- Challenge is to justify incentives
- Focus is not on attaining sustainable future: short term reaction to water resource problem

#### Public Health

- Requirements of graywater systems would include protecting public health but may be cost prohibitive

### Paper/Article(s)

1. Mohamed, Radin Maya, et al. "A monitoring of environmental effects from household greywater reuse for garden irrigation." Murdoch, Western Australia: PubMed, 2012.
2. Water Environmental Research Foundation. "Long-Term Study on Landscape Irrigation." Chapter 4. 2012.
1. James Cook "Techical Memorandum on Graywater". February 2009.
2. Henstridge, John, et al. Waterwise Rebate Scheme Review 2007. Project: Water/62. Australia: Strategic Information Consultants, 2008.
3. City of Long Beach Office of Sustainability. "Laundry to Landscape" Graywater Pilot Program Report. Long Beach: City of Long Beach Office of Sustainability, 2013.
4. Butler, David; Fewkes, Alan, "Water saving potential of domestic water reuse system using graywater and rain water combination." Water science and technology. January 1999.
1. Center for the Study of the Build Environment. "Greywater Reuse in Other Countries and its Applicability to Jordan." Research Study. Jordan: Ministry of Planning Enhanced Productivity Program, 2003.

14



## Research Needs



### 1. Health Risk and Water Quality

- Pathogens in Graywater
- Graywater Runoff
- Treatment technologies
- O&M



### 3. Regulatory and Policy Issues

- Long-term performance and Reliability Data
- Monitoring and Compliance Responsibility
- Signage
- Guidelines?



### 2. Water Savings in Los Angeles

- Tracking Systems
- Behavioral Impacts



15



## Discussion

16

## Wrap Up and Next Steps

Wrap up/summary of today's discussion, ensure that objectives for the day were met, get agreement on next steps, meeting date/time and location. Recognize any outstanding issues/questions that weren't resolved or discussed during the meeting.

17



## Special Topic Groups



The 5 groups cover topics where stakeholder input can have the greatest influence.



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## Discussion Guide



- Everyone's input is of equal value.
- Respect Everyone's input.
- Be open to considering new ideas.
- Keep statements concise so that we can maximize the meeting time.
- Focus on the topic of the meeting.



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## Tracking Mechanism



- Who should track graywater systems?
  - Installers
  - Homeowners
  - Non-profits
- How should graywater systems be tracked?
  - Web-based
    - [www.opendatakit.org](http://www.opendatakit.org)
    - other online feature



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20



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### **Decentralized Use & On-Site Treatment STG Meeting #3 (06/14/16)**

The following pages present the meeting agenda, summary of the discussion, and presentation from the Decentralized Use and On-site Treatment Meeting #3, held on June 14, 2016.

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# DECENTRALIZED/ONSITE TREATMENT Special Topic Group



DATE	TIME	LOCATION
<b>June 14, 2016</b>	1:30 PM-3:30 PM	2714 Media Center Drive Los Angeles, CA 90065 Training Room A

Staff:

<b>Facilitator</b>	Hampik Dekermenjian	CDM Smith
<b>Technical Lead</b>	Robin Nezhad	CDM Smith
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Denise Chow	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Penny Falcon	LADWP
<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>One Water LA Team</b>	Bob Sun	LADWP
<b>One Water LA Team</b>	Serge Haddad	LADWP
<b>One Water LA Team</b>	Inge Wiersema	Carollo
<b>Note Taker</b>	Leneyde Chavez	Carollo

- I. Introductions and Agenda Overview (5 Minutes)
- II. On-Site Treatment Guiding Principles Summary (5 minutes)
- III. Graywater Status Update (5 minutes)
- IV. Group Discussion (95 Minutes)
- V. Next Steps (10 Minutes)

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**One Water Los Angeles**  
**Decentralized / Onsite Treatment Special Topic Group – Meeting #3**  
**Tuesday, June 14th, 2016 1:30PM-3:30PM**  
**2714 Media Center Drive, Los Angeles, 90065 (Training Room)**

*"This summary reflects the opinions of stakeholders and may not necessarily be those of the City of Los Angeles."*

Meeting Summary

*The purpose of this summary is to provide an overview of the discussion topics, including ideas, solutions and issues. It is not intended as a transcript or as minutes.*

**Meeting Attendees**

*Participants*

Craig Kessler	Southern California Golf Association
Ruth Doxsee	Lake Balboa Neighborhood Council
Nurit Katz	UCLA
Dr. Tom Williams	Citizen Coalition for Safe Communities
Margot Jacobs	Mia Lehrer + Associates

*Meeting Team*

<b>Facilitator</b>	Hampik Dekermenjian	CDM Smith
<b>Technical Lead</b>	Robin Nezhad	CDM Smith
<b>One Water LA Team</b>	Lenise Marrero	LASAN
<b>One Water LA Team</b>	Denise Chow	LASAN
<b>One Water LA Team</b>	Flor Burrola	LASAN
<b>One Water LA Team</b>	Mario Acevedo	LADWP
<b>Note Taker</b>	Leneyde Chavez	Carollo

**Introductions and Agenda Overview**

Introduction of LASAN and LADWP staff, consultant staff, and lead team took place. Participants also introduced themselves to the group. The last two meeting were summarized.

**On-Site Treatment Guiding Principles Summary**

- Guiding principles are preferable to an overly prescriptive policy
  - The City should be aware of new systems that are available online. A draft application process has been developed to review applications on a case-by-case basis:
    - Existing customers should not bear the cost or subsidize On-Site Treatment Facilities (OSTF)
    - Wastewater should not be removed from existing sewers if it impairs the operation of LASAN’s system, impairs the recycled water program, or was not generated by the entity who wished to remove said wastewater.

- The City should not be responsible for operations and maintenance of privately owned OSTFs.
  - Owners/Operators will be required to indemnify the City.
  - Applicants will be subject to a fee to pay for the back-up system provided by LASAN.
- Draft Guiding Principles:
    - Where purple pipe will never reach should be considered and captured as one guiding principle.
    - Protection of public health shall be first and foremost. OSTFs will be required to develop a failure plan that demonstrates that 100 percent of the flows can be disposed in the event of a system failure.
    - OSTFs that are implemented should be solutions that are for the greater good of all City customers.
    - Education and outreach are needed for OSTFs. New OSTFs should communicate with neighbors and provide information regarding potential uses of water treated onsite; which may include irrigation, groundwater recharge, and industrial applications.
    - An entity should have an operations and maintenance plan. The design, operation, and maintenance are performed by qualified individuals, and monitored by the City.
    - City will evaluate impacts of proposed OSTFs and will specify requirements. LASAN may limit materials that can be returned to the existing sewer, or may assess additional fees.
  - Potential additions and modifications to the Draft Guiding Principles
    - The city may consider strategic locations for on-site treatment where recycled water is not available.
    - Remove the term “Groundwater recharge” from the guiding principles since the aquifer water belongs to the City (in San Fernando basin) and private parties that would own an OSTF would not likely intend to do groundwater recharge. Since water coming from decentralized use is privately owned, when the water becomes part of the aquifer, issues related to water quality become potential liabilities for the City. Special cases may occur where an OSTF owner may intend to recharge the groundwater but, those special cases would be considered a groundwater recharge project and would have to comply with permitting and regulation requirements at the local or state level.
      - Need a guiding principle that addresses groundwater basin impact. Address the question of liabilities for onsite facility that perform groundwater recharge and impacts of groundwater recharge. Indirect Potable Reuse (IPR) projects are unique and need to be considered. Legal issues regarding water disposal, water quality, and the purchase of water touch upon onsite treatment and off-site disposal.
      - A revision of this guiding principle needs to be made and circulated to the special topic group through email.
    - Draft Guiding Principles are tailored to private entities.
    - Uses of onsite treatment water is an important point to include.

### Graywater Status Update

- The City does not plan to incentivize the use of graywater systems at this current time.
- Data gap exist to quantify the amount of water conserved by implementation of graywater systems.
- Graywater will be considered as part of the City's water supply and recycled water strategy. The goal is to look at solutions that are for the greater good.
  - Should better define the term "greater good" and intent of the 3<sup>rd</sup> bullet. As more data is collected, a revised policy should become available. New greywater systems will be considered as part of the overall City's water supply without prohibition or incentives, and as long as there is no conflict with what is the greater good of the City's water supply portfolio. The greater good is a moving target dependent on the development of new data. It should be mentioned that the open language incentivizes the City to look for solutions.
- The current policies do not prohibit graywater and/or the use of graywater systems.
- Suggest Sanitation and Building & Safety brand "pink pipe" for graywater.

### Next Steps

- Stakeholder workshop assignment:
  - The Decentralized/Onsite Treatment STG will be reporting at the stakeholder workshop on June 29, 2016. Tasks include selecting a representative to present to the larger stakeholder group on the outcome of the special topic group.
  - Dr. Williams volunteered to cover one topic and Mr. Kessler volunteered to cover the second topic upon confirming his availability.
  - The guiding principles will be modified and circulated by email for a final review by next week.
    - Reminders:
      - There will a fill station at the LA Zoo. The limit is 300 gallons, and class attendance is required.
      - There is a Public Meeting for the Groundwater Replenishment Project at the Sepulveda Garden Center on 6/14.

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# One Water LA

## Decentralized/Onsite Treatment Special Topic Group Meeting #3



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# Welcome!

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## Agenda



- Introductions and Agenda Overview
- On-site Treatment Guiding Principles Summary
- Graywater Status Update
- Group Discussion
- Next Steps



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3



## Meeting Team for Decentralized/Onsite Treatment



### Facilitator:

- Hampik Dekermenjian



### Technical Lead:

- Robin Nezhad



### Note Taker:

- Leny Chavez



### City Reps:

- Mario Acevedo
- Flor Burrola
- Denise Chow
- Penny Falcon
- Serge Haddad
- Lenise Marrero
- Bob Sun

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4





## Objectives for Our Meetings



- Meeting #1:
  - Expected Outcomes: Onsite Treatment – gain input for the development of Guiding Principles
- Meeting #2:
  - Expected Outcomes: Graywater - gain input for the development of Guiding Principles
- Meeting #3:
  - Expected Outcomes: Summary of outcomes resulting from previous meetings



# One Water LA

## On-Site Treatment Guiding Principles Summary



## Guiding Principles



- Guiding Principles are more appropriate than an overly prescriptive policy.
- Application process will be developed to review applications and issue permits on a case-by-case basis.



## Draft Criteria for Reviewing Applications



- Existing customers should not have to pay or subsidize the capital cost or operations of the OSTF.
- Wastewater cannot be taken from existing sewers if such removal impairs the operation of LASAN's system, impairs the City's recycled water program, or was not generated by the entity who wishes to remove said wastewater.
- City will not be responsible for the operation or maintenance of privately owned OSTFs.
- Owners/Operators of OSTFs will be required to indemnify City.
- Owners/Operators of OSTFs will be subject to fees that will be paid to City.







## Draft Guiding Principles



- Protection of public health shall be first and foremost. OSTFs will be required to develop a failure plan that demonstrates that 100 percent of the flows can be disposed in the event of a system failure.
- OSTFs that are implemented should be solutions that are for the greater good of all City customers.
- Education and outreach are needed for OSTFs. New OSTFs should communicate with neighbors and provide information regarding potential uses of water treated onsite, which may include irrigation, groundwater recharge, and industrial applications.
- An entity should have an operations and maintenance plan. The design, operation, and maintenance are performed by qualified individuals, and monitored by the City.
- City will evaluate impacts of proposed OSTFs and will specify requirements. LASAN may limit materials that can be returned to the existing sewer, or may assess additional fees.



# One Water LA

## Graywater Status Update



## Graywater Status Update



- The City has no plans to pursue or incentivize residential graywater systems currently.
- Data gap exists to quantify the amount of water conserved by implementation of graywater systems.
- Graywater will be considered as part of the City's overall water supply and recycled water strategy. Goal is to look at solutions that are for the greater good of all.



## Discussion

## Wrap Up and Next Steps

Wrap up/summary of today's discussion, ensure that objectives for the day were met, get agreement on next steps, meeting date/time and location. Recognize any outstanding issues/questions that weren't resolved or discussed during the meeting.

13



## Special Topic Groups



The 5 groups cover topics where stakeholder input can have the greatest influence.



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## Discussion Guide



- Everyone's input is of equal value.
- Respect Everyone's input.
- Be open to considering new ideas.
- Keep statements concise so that we can maximize the meeting time.
- Focus on the topic of the meeting.



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## Tracking Mechanism



- Who should track graywater systems?
  - Installers
  - Homeowners
  - Non-profits
- How should graywater systems be tracked?
  - Web-based
    - [www.opendatakit.org](http://www.opendatakit.org)
    - other online feature



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## INTER-DEPARTMENTAL FOCUS MEETINGS

The following table presents meetings held with each city department listed below to collaborate and discuss water management strategies in increasing levels of water sustainability.

<b>Table 6 Inter-Departmental Focus Meetings Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Bureau of Engineering (BOE)	11/10/2014	<ul style="list-style-type: none"> <li>▪ BOE incorporates low flow fixtures and waterless urinals in their designs for new buildings.</li> <li>▪ Recycled water at fire stations was discussed, but BOE indicated that there is almost no landscaping at fire stations.</li> <li>▪ The Federal Emergency Management Agency (FEMA) is responsible for revising BOE floodplain maps and approximately 2,000 parcels were added to their now current floodplain map.</li> </ul>
	8/6/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ Project Integration Opportunities (Such as Stormwater Capture)</li> <li>▪ Use of Recycled Water in Concrete</li> <li>▪ Sidewalk Repair Program</li> </ul>
	9/14/2016	<ul style="list-style-type: none"> <li>▪ The purpose of the meeting was to review initial screening of vulnerabilities at the pumping plants and potential adaptation measures to reduce risks.</li> </ul>
	11/8/2016	<ul style="list-style-type: none"> <li>▪ Finalize potential adaptation measures to reduce risk</li> </ul>
	5/3/2017	<ul style="list-style-type: none"> <li>▪ Presentation on Climate Risk and Resilience Assessment</li> </ul>
Bureau of Engineering (BOE) - LA RiverWorks	8/20/2014	<ul style="list-style-type: none"> <li>▪ One Water LA will look to provide support for LA Greenway 2020 and the US Army Corps Arbor Study</li> <li>▪ There is a need to identify funds for LA Greenway by 2015</li> <li>▪ A goal for the LA River Office is to create world class designs (e.g. stormwater capture, infiltration, Wi-Fi hot spots) to connect missing LA Greenway path segments</li> <li>▪ Priority LA River projects are focused in the Valley</li> <li>▪ The City will look to respond to all future Council Motions in a collaborative, succinct manner</li> </ul>
	10/21/2016	<ul style="list-style-type: none"> <li>▪ One Water LA Plan Update</li> <li>▪ Purpose: Project Integration Opportunities with LA River Works</li> </ul>

<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Bureau of Street Services (BSS)	3/12/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ BSS is working with BOE on parkway guidelines and developing standards for artificial turf. ▪ One Water LA will assist BSS incorporate credits for stormwater BMPs into the MTA grant application.</li> </ul>
	11/10/2016	<ul style="list-style-type: none"> <li>▪ Purpose: BSS's tree selection guide</li> <li>▪ The One Water LA list of top 20 climate change resistant trees</li> </ul>
Department of Building and Safety (LADBS)	10/6/2014	<ul style="list-style-type: none"> <li>▪ The City's Plumbing Code is aligned with State Code.</li> <li>▪ Graywater Systems</li> <li>▪ Blackwater Systems Complexity (e.g. solids disposal, permitting, and health issues).</li> </ul>
Department of City Planning (DCP)	9/24/2014	<ul style="list-style-type: none"> <li>▪ Re: Code LA</li> <li>▪ As a result of the meeting, One Water LA is currently reviewing standard mitigation measures in CEQA that would apply to One Water projects</li> <li>▪ One Water LA will look to provide policy directions on water mitigation measures, parking lots, open space, etc. to include in the rewrite of the Zoning Code</li> <li>▪ Graywater tracking</li> <li>▪ Discussion on determining the most cost-effective way to drop water use that had to do with less lawn irrigation.</li> </ul>
	11/16/2015	<ul style="list-style-type: none"> <li>▪ Provide updates on LA Sanitation's (LASAN) One Water LA Plan and Department of City Planning's (DCP) current efforts and to help identify opportunities for integration</li> <li>▪ Status of the Mobility Plan</li> <li>▪ The Quimby Ordinance</li> <li>▪ Re: Code LA- DCP will continue to invite LASAN team to future re:code meetings</li> <li>▪ Clean Up Green Up- LASAN provided comments to CUGU's requirements.</li> </ul>
	12/9/2015	<ul style="list-style-type: none"> <li>▪ Introduction to Re:Code LA: Role of General Development Standards</li> <li>▪ Current Stormwater Regulatory Interface: LID, Green Streets (parkways), and Landscape Ordinance</li> </ul>
	6/27/2016	<ul style="list-style-type: none"> <li>▪ One Water LA's recommendations for the general standards of Re:code LA</li> <li>▪ Potential updates to the Landscape Ordinance</li> </ul>
	10/6/2016	<ul style="list-style-type: none"> <li>▪ Draft Landscape Ordinance (Draft outdoor amenity space requirements and Draft streetscape standards for areas without adopted streetscape plans)</li> </ul>
	10/6/2016	<ul style="list-style-type: none"> <li>▪ Planning Day Tour. One Water LA provided a tour of the Humboldt Greenway Stormwater Project</li> </ul>
	12/12/2016 05/01/2017	<ul style="list-style-type: none"> <li>▪ City of LA's General Plan and Community Plan Update</li> </ul>
	6/12/2017 11/16/17	<ul style="list-style-type: none"> <li>▪ Re:Code LA status update</li> </ul>

<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Department of Neighborhood Empowerment (DONE)	2/4/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ Empower LA provided input on several tools and strategies that can be used by the One Water LA Core Team to spread the message of the One Water LA Plan to a vast amount of City residents.</li> </ul>
Department of Recreation and Parks (RAP)	10/2/2014	<ul style="list-style-type: none"> <li>▪ RAP strives for 20-30% reduction of turf in new &amp; retro parks. Since 2007 development has saved approximately 2.4 billion gallons of water.</li> <li>▪ Recycled water use and stormwater capture potential discussed. Newly constructed and renovated facilities will now have water efficient devices.</li> <li>▪ O&amp;M for Prop O Projects is a concern.</li> </ul>
General Services Department (GSD)	10/1/2014	<ul style="list-style-type: none"> <li>▪ Collaboration with Rec &amp; Parks - Turf Replacement Project and irrigation system maintenance.</li> <li>▪ GSD's long-term plan to implement "smart irrigation" at a significant number of City-owned buildings.</li> <li>▪ Recycled water use potential for City-owned buildings.</li> <li>▪ There was a consensus that construction projects should prioritize LEED points for water efficiency and energy savings.</li> <li>▪ GSD's Customer Aware Program to inform customers of their water use.</li> </ul>
Los Angeles Zoo (LA Zoo)	12/2/2014	<ul style="list-style-type: none"> <li>▪ LA Zoo would like to have a computer-based irrigation system similar to Rec &amp; Parks.</li> <li>▪ LA Zoo is considering having a future garden with more drought tolerant plants.</li> <li>▪ LA Zoo Master Plan Update will incorporate opportunities to save potable water.</li> <li>▪ LA Zoo is willing to capture rainwater runoff from barns and roofs within the Zoo.</li> <li>▪ One Water LA marketing and informing LA Zoo visitors on the importance of water conservation.</li> </ul>
	10/8/2015	<ul style="list-style-type: none"> <li>▪ LA Zoo's current water use, LA Zoo's Master Plan</li> <li>▪ Opportunities for RW in the LA Zoo</li> <li>▪ LA Zoo will consider incorporating RW use and SW capture components into their Master Plan Scope</li> </ul>
	2/29/2016	<ul style="list-style-type: none"> <li>▪ LA Zoo's new Event Center</li> <li>▪ RW use for Wash-down and Life Support Systems</li> <li>▪ The LA ZOO and LASAN will determine the amount of water used for wash-down at the LA Zoo</li> <li>▪ The LA Zoo will coordinate and include LASAN in the design stage process of their new event space, as needed</li> </ul>

<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Los Angeles Zoo (LA Zoo)	5/23/2016	<ul style="list-style-type: none"> <li>▪ One Water LA field visits to the zoo</li> <li>▪ Data verification</li> <li>▪ RW connection options</li> <li>▪ The LA Zoo is open to evaluating the feasibility of using RW for their exhibit's life support systems</li> </ul>
	8/1/2016	<ul style="list-style-type: none"> <li>▪ USDA Requirements</li> <li>▪ LASAN will continue to provide support and guidance for Stormwater Capture implementation and RW use components in the Master Plan and new event center</li> </ul>
	12/1/17	<ul style="list-style-type: none"> <li>▪ LA Zoo Master Plan Presentation and Next Steps</li> </ul>
Mayor's Office	11/22/2016	<ul style="list-style-type: none"> <li>▪ Continue alignment of messaging and coordination between Save the Drop and One Water LA</li> </ul>
	5/18/16, 11/22/16	<ul style="list-style-type: none"> <li>▪ Alignment of messaging and coordination between Save the Drop and One Water LA</li> </ul>
	5/3/2017	<ul style="list-style-type: none"> <li>▪ Presentation on Climate Risk and Resilience Assessment</li> </ul>
Water Cabinet	7/12/2016	<ul style="list-style-type: none"> <li>▪ Presented and discussed One Water LA potential Case Studies.</li> </ul>
	5/2/2016	<ul style="list-style-type: none"> <li>▪ Presented Water Balance Tool</li> </ul>
	12/7/2015	<ul style="list-style-type: none"> <li>▪ Intro to One Water LA 2040 Plan</li> </ul>
	8/7/2017 10/2/2017	<ul style="list-style-type: none"> <li>▪ One Water LA Policies</li> </ul>
	9/11/2017	<ul style="list-style-type: none"> <li>▪ Rancho Park Study</li> </ul>
	12/4/2017 3/1/2018	<ul style="list-style-type: none"> <li>▪ One Water LA 2040 Final Draft Plan – Final Recommendations</li> </ul>
	4/5/2018	<ul style="list-style-type: none"> <li>▪ Climate Change Resiliency Study</li> </ul>

<b>Table 6 (a) Inter-Departmental Focus Meetings   Regional Agencies Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
California Department of Transportation (Caltrans)	1/21/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ Caltrans is currently under the Governor’s Proclamation which is to reduce water consumption by 20%</li> <li>▪ Caltrans has the following requirements for their roadways: (1) Irrigation mandated to decrease by 50%, and (2) NPDES state permit (stormwater).</li> <li>▪ District 7 is working on a Stormwater Study (Corridor Study) to evaluate stormwater capture opportunities by looking at impervious/pervious pavements</li> <li>▪ Caltrans parking lots will be owned and managed by MTA</li> </ul>
High Speed Rail	11/4/2014	<ul style="list-style-type: none"> <li>▪ HSR wishes to establish a Water Policy that other Agencies could follow.</li> <li>▪ One Water LA will look for opportunities to assist HSR that could include: (1) providing water for dust mitigation during construction projects and (2) capturing stormwater for irrigation at HSR Station locations (e.g. Palmdale &amp; Burbank).</li> <li>▪ HSR is open to the idea of using recycled water for their construction projects if there is a reasonable source.</li> </ul>
High Speed Rail	7/15/2016	<ul style="list-style-type: none"> <li>▪ One Water LA Update</li> <li>▪ Funding strategy and alternative recommendations for One Water</li> <li>▪ HSR's Outreach Plan</li> <li>▪ LA Union Station Master Plan Project</li> <li>▪ Potential Stormwater Capture Opportunities</li> </ul>
	5/19/2016	<ul style="list-style-type: none"> <li>▪ Funding: Criteria for Cap &amp; Trade (AB 32) Funding, Ecosystem Incubator Grant</li> <li>▪ Rory Shaw Wetlands Project Update</li> <li>▪ Top 3-5 High-Speed Rail Projects/Planning Efforts</li> <li>▪ One Water LA Drought Tree Effort</li> </ul>
	8/9/2017	<ul style="list-style-type: none"> <li>▪ One Water LA Team Update Planned Activities</li> <li>▪ High-Speed Rail Team Update Planned Activities</li> <li>▪ Stormwater Capture Collaboration Opportunities</li> </ul>
LA County Department of Public Works (LACDPW)	11/2/2015	<ul style="list-style-type: none"> <li>▪ Present One Water LA goals and objectives. Identify opportunities for collaboration</li> </ul>
	9/21/2015	<ul style="list-style-type: none"> <li>▪ Discuss Stormwater &amp; Urban Runoff Facility Plan Outline</li> <li>▪ Stormwater CIPs</li> </ul>
	1/19/2016	<ul style="list-style-type: none"> <li>▪ Discuss Stormwater &amp; Urban Runoff Facility Plan Progress</li> </ul>
	4/30/2016	<ul style="list-style-type: none"> <li>▪ One Water LA Stormwater Special Topic Group participation</li> </ul>
	Multiple Meetings (4)	<ul style="list-style-type: none"> <li>▪ Discuss all stormwater flows assumptions in Stormwater &amp; Urban Runoff Facility Draft Plan with City Staff and LACFCD staff</li> </ul>
	TBD	<ul style="list-style-type: none"> <li>▪ Discuss joint model for consistency in primary projects.</li> </ul>

<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Los Angeles Regional Water Quality Control Board	2/14/2017	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ Regional Board Participation in One Water LA program</li> <li>▪ Discussion for future LA River options</li> </ul>
Los Angeles Unified School District (LAUSD)	1/14/2015	<ul style="list-style-type: none"> <li>▪ LAUSD Drought Outreach Programs</li> <li>▪ LAUSD student education programs: Climate Change Curriculum, Outreach to reduce water consumption to students and staff.</li> <li>▪ LAUSD's water efficient measures.</li> <li>▪ Potential Integration opportunities such as the EWMP efforts.</li> </ul>
	9/2/2015	<ul style="list-style-type: none"> <li>▪ Review and discuss ideas related to stormwater capture from offsite sources on LAUSD sites</li> <li>▪ Discuss LAUSD concerns and potential issues</li> </ul>
	4/5/2016	<ul style="list-style-type: none"> <li>▪ Operations &amp; Maintenance activities for stormwater projects</li> <li>▪ Present existing Stormwater projects already constructed and operational in the City</li> <li>▪ Review regulatory and management requirements of LAUSD, including DSA and Department of Toxic Substances and Control Discussion</li> </ul>
Los Angeles Unified School District (LAUSD)	7/21/2016	<ul style="list-style-type: none"> <li>▪ Discuss potential Stormwater pilot requirements.</li> </ul>
	8/1/2016	<ul style="list-style-type: none"> <li>▪ Meeting with LAUSD legal team</li> </ul>
	8/25/2016	<ul style="list-style-type: none"> <li>▪ Discussion on opportunities between LAUSD and LASAN for an offsite Stormwater Pilot project.</li> <li>▪ New MS4 permit (upcoming requirements).</li> </ul>
	9/30/2016	<ul style="list-style-type: none"> <li>▪ SW Project Tour (Mayor's Office)</li> </ul>
	1/14/2015	<ul style="list-style-type: none"> <li>▪ LAUSD Drought Outreach Programs</li> <li>▪ LAUSD student education programs: Climate Change Curriculum, Outreach to reduce water consumption to students and staff.</li> <li>▪ LAUSD's water efficient measures.</li> <li>▪ Potential Integration opportunities such as the EWMP efforts.</li> </ul>
Los Angeles World Airports	11/12/2014	<ul style="list-style-type: none"> <li>▪ LAWA) has an interest in obtaining a recycled water hydrant for a concrete plant off of Sepulveda Boulevard.</li> <li>▪ Other Recycled Water opportunity includes runway wash downs.</li> <li>▪ LAWA is willing to review recycled water opportunities throughout the site, increase drought tolerant landscape, incorporate stormwater capture BMPs, one site in particular they mentioned is one of their large parking lots to the South East of LAX.</li> </ul>
	3/17/2016	<ul style="list-style-type: none"> <li>▪ One Water LA Program Overview. City of LA's strategy for water, stormwater, wastewater, and recycled water.</li> <li>▪ LAWA projects- LAX stormwater Master Plan and LAMP</li> <li>▪ Identify opportunities for collaboration</li> </ul>
	10/13/2016	<ul style="list-style-type: none"> <li>▪ LAWA's technical presentation on the Landside Access Modernization Program</li> </ul>



<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Metropolitan Transportation Authority (Metro)	9/17/2014	<ul style="list-style-type: none"> <li>▪ Discussed Metro's "Water Action Plan."</li> <li>▪ Discussed Metro's Recycling Water Opportunities (such as bus and railroad wash locations)</li> <li>▪ Metro discussed a concern for dealing with O&amp;M costs for landscapes and greenways (e.g. 2-mile greenway adjacent to the Orange Line)</li> </ul>
	5/4/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Update</li> <li>▪ Recycled Water (bus wash stations, landscape, Union station, etc.)</li> <li>▪ Stormwater Capture Opportunities</li> <li>▪ Review of Metro's Sites</li> </ul>
	2/1/2016	<ul style="list-style-type: none"> <li>▪ Joint project opportunities discussion.</li> </ul>
	4/7/2016	<ul style="list-style-type: none"> <li>▪ One Water LA overview to Metro's Sustainability Group and Bike Path Group</li> <li>▪ Metro discussed the Urban Greening Plan (Metro Green Places), a tool kit on a community level to develop urban green project</li> <li>▪ Comments to Measure R2</li> <li>▪ Urban Greening Implementation Action Plan program</li> </ul>
Metropolitan Water District (MWD)	2/17/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Overview</li> <li>▪ MWD is updating its Integrated Resources Plan and would like One Water LA to be incorporated and coordinated with</li> <li>▪ Possibility of MWD increasing its local resources program funding to accommodate strategies from One Water LA</li> <li>▪ MWD representative for One Water LA Steering Committee</li> </ul>
Port of Los Angeles (POLA)	10/16/2014	<ul style="list-style-type: none"> <li>▪ Working with LADWP on the San Pedro Water Front Project to install a recycled water pipeline.</li> <li>▪ POLA is open to leading a citywide department Climate Change Committee, which would be an ADHOC Committee to One Water LA.</li> <li>▪ POLA continually conducts sea-level rise analysis to determine potential impacts to their facilities.</li> <li>▪ One Water LA will look to touch base with the Emergency Management Department to determine what steps can be taken to help plan for climate change.</li> </ul>
Southern California Association of Governments (SCAG)	12/10/2014	<ul style="list-style-type: none"> <li>▪ Southern California Association of Governments (SCAG) conducts population projections for six Counties in Southern California (approximately 191 cities in the Region).</li> <li>▪ Potential integration opportunities</li> <li>▪ SCAG's Active Transportation &amp; Special Programs intends to increase the amount of transits which would result in:               <ol style="list-style-type: none"> <li>1) fewer cars on streets, 2) less street paving, and 3) increased stormwater capture opportunities.</li> </ol> </li> </ul>
U.S. Army Corps of Engineers (U.S ACE)	8/18/2015	One Water LA Overview

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## **ACADEMIC PARTNERSHIPS AND SCHOOL EDUCATION**

The following pages present partnership meetings with academic institutions, and school programs where students developed and presented projects aimed to provide solutions to One Water LA water design challenges.

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## ACADEMIC PARTNERS

<b>Table 7 Meetings with Academic Partners Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
CSUN	8/25/2017	<ul style="list-style-type: none"> <li>▪ One Water LA presentation – research ideas</li> <li>▪ Follow-up presentation to CSUN</li> </ul>
Pepperdine	Various	<ul style="list-style-type: none"> <li>▪ Partnership with Pepperdine University MBA students to develop Marketing Plan for One Water LA</li> </ul>
UCLA	11/18/2015	<ul style="list-style-type: none"> <li>▪ One Water LA Plan Overview and Status</li> <li>▪ Discussion Current UCLA Research Efforts: Integrated Water Management Study, Additional UCLA efforts and departments that should be invited to participate with One Water LA effort</li> </ul>
	4/26/2016	<ul style="list-style-type: none"> <li>▪ Current UCLA graduate student's efforts and One Water LA tasks such as the case studies, Wastewater Facilities Plan, Stormwater Facilities Plan, LA River, and Climate Change impacts on infrastructure. Recycled Water Presentation</li> </ul>
	6/20/2016	Recycled Water Presentation <ul style="list-style-type: none"> <li>▪ Ballona Creek and Dominguez Channel</li> <li>▪ Sepulveda Basin Modeling</li> <li>▪ LA River Watershed Study</li> </ul> 2) Share Updates and Information: One Water LA <ul style="list-style-type: none"> <li>▪ Concept studies, Facility Plans, Climate Change Impacts on Infrastructure, LA River, Discuss potential advisors</li> </ul>
	8/9/2016	<ul style="list-style-type: none"> <li>▪ UCLA's Sustainable LA Grand Challenge Team gave a demo on their Water Balance Model. One Water LA Presentation</li> </ul>
	9/19/2016	<ul style="list-style-type: none"> <li>▪ UCLA Rancho Park Outreach Plan - Brainstorm Session. One Water LA Presentation</li> </ul>
	11/17/2016	<ul style="list-style-type: none"> <li>▪ One Water LA task updates</li> <li>▪ UCLA recommended studies/references; National Academy of Sciences Graywater/Stormwater Study, Los Angeles County Guidelines for Alternative Water Resources, The UCLA/Now Institute/ Morphos is Future of Sustainable LA. Once Water LA Presentation</li> </ul>
	12/5/2016	<ul style="list-style-type: none"> <li>▪ UCLA's recommendations to One Water LA's list of policy ideas from stakeholders</li> </ul>
	12/20/2016	<ul style="list-style-type: none"> <li>▪ Continued discussion on UCLA's recommendations to One Water LA's list of policy ideas from stakeholders</li> </ul>
	1/9/2017	<ul style="list-style-type: none"> <li>▪ UCLA Presentation: Sustainable Water Management Results. One Water LA Presentation</li> </ul>

<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
USC	12/8/2015	▪ Discussion on sewer availability underneath campus. Stormwater Credits
	6/14/2016	▪ Discussion on sewer availability underneath campus. Stormwater Credits
	8/11/2016	▪ Integration Opportunities for Stormwater Capture and Reuse projects

## YOUTH AND SCHOOL PROGRAMS

<b>Youth and Schools Meetings Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Group</b>	<b>Date</b>	<b>Meeting Topics</b>
Girls Academic Leadership Academy	2/15/17	▪ Provided a One Water LA Overview to students. School provided a site tour to identify water saving and stormwater capture opportunities
	2/22/17	▪ Challenged students in creating new ideas and solutions to capture, conserve and reuse water at their local school
	4/26/17	▪ Discuss improvements and project ideas
	5/17/17	▪ GALA Student Presentations
	3/10/16	▪ Stormwater Capture and Water Conservation Presentation. Introduce the challenge: students are to create new ideas and solutions to capture, conserve and reuse water at their local schools and community
Young Citizen's Artist Program	4/25/16	▪ Feedback Session
	6/3/16	▪ Los Feliz Charter School Tour. Students presented their water challenge project
	10/26/16	▪ Brainstorm on 2017 Young Citizens Artist Program Challenge. Discuss project timeline. 2016 Challenge debrief: lessons learned
	1/24/17	▪ Set timeline for 2017 YCAP. Discuss potential resources
	2/28/17, 3/1/17, 3/2/17, 3/16/17	▪ Stormwater Capture and Water Conservation Presentation. Introduce the challenge: students are to create new ideas and solutions to capture, conserve and reuse water at their local schools and community
	4/18/17	▪ Mid-term Meetings with the teachers
	5/1/17, 5/3/17, 5/22/17	▪ Mid-term project check-in with the students. Engineers provided feedback on each of the student's project concept.
	6/1/2017	▪ Final student presentations at City Hall
	11/6/2017	▪ Brainstorm on 2018 Young Citizens Artist Program Challenge. Discuss Project timeline. 2017 Challenge debrief: lessons learned
	1/9/18, 1/12/18, 1/17/18,	▪ Stormwater Capture and Water Conservation Presentation. Introduce the challenge: students are to create new ideas to improve an outdoor community space by making it more sustainable and inclusive
	2/26/18, 3/7/18, 3/8/18, 3/24/18	▪ Mid-term project check-in with the students. Engineers provided feedback on each of the student's project concept
	4/12/2018	▪ Final student presentations at City Hall for the four participating schools

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## **PROGRESS REPORT (JUNE 2017)**

A progress report was developed in June 2017 to provide an update on the efforts made to-date to executive management, the advisory group, and stakeholders. Hence, this report reflected a "snapshot" of the One Water LA findings and activities before the Plan was finalized. This report is inserted on the following pages and can also be downloaded from the One Water LA website at [www.onewaterla.org](http://www.onewaterla.org).

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# ONE WATER LA PROGRESS REPORT

A Collaborative Approach to  
Integrated Water Management



JUNE 2017



**Eric Garcetti**  
*Mayor of Los Angeles*

*"I issued Executive Directive #5 because conserving water is the new normal, not something we think about only during a drought. The One Water LA 2040 Plan puts those values into action — by helping us integrate our water resources, and work together to manage them more efficiently. I'm proud to see so many of our public agencies collaborating across the region to create a more sustainable, resilient future for every community."*

## One Water LA Partners

The One Water LA Plan is being developed by dedicated representatives from both LASAN and LADWP and shaped by input from other City departments, regional agencies, the advisory group, and a large stakeholder group, representing a wide variety of interests.

### Steering Committee Members



### Advisory Group Members

- ▶ Carolyn Casavan (Sherman Oaks Neighborhood Council)
- ▶ Brad Cox (Los Angeles Business Council)
- ▶ Jack Humphreville (Greater Wilshire Neighborhood Council)
- ▶ Louise McCarthy (Community Clinic Association of Los Angeles County)
- ▶ Ken Murray, MD (Wilderness Corps)
- ▶ David Nahai (David Nahai Companies)
- ▶ Mike O’Gara (Sun Valley Area Neighborhood Council)
- ▶ Veronica Padilla (Pacoima Beautiful)
- ▶ Kelly Sanders (University of Southern California)
- ▶ Melanie Winter (The River Project)

# CONTENTS

## SECTION 1: ONE WATER LA VISION 2

What is One Water LA?	4
Water Management Challenges	6
About One Water LA	8
Value of One Water LA	10

## SECTION 2: LA'S EXISTING WATER MANAGEMENT STRATEGIES 12

LA's Current Water Supplies	14
Water Conservation	16
Water Recycling	18
Stormwater and Urban Runoff	20

## SECTION 3: ONE WATER LA PROGRESS UPDATE 22

One Water LA Objectives	24
Integrate Management of Water Resources and Policies	26
Balance Environmental, Economic and Societal Goals	28
Improve Health of Local Watersheds	30
Improve Local Water Supply Reliability	32
Implement, Monitor and Maintain a Reliable Wastewater System	34
Increase Climate Resilience	36
Increase Community Awareness and Advocacy for Sustainable Water	38

## SECTION 4: ONE WATER LA ROADMAP 40

Creating a Smart Urban Water Cycle	42
Near-Term Integration Opportunities	44
Long-Term Strategies	45
Long-Term Policies	46
Funding Strategies	47
Implementation Strategy	48

## LIST OF ABBREVIATIONS 50

## GLOSSARY 51

## SECTION 1

# One Water Vision

One Water LA is a collaborative approach to develop an integrated framework for managing the City's water resources, watersheds, and water facilities in an environmentally, economically and socially beneficial manner.

MacArthur Park, Westlake  
Neighborhood Los Angeles, CA



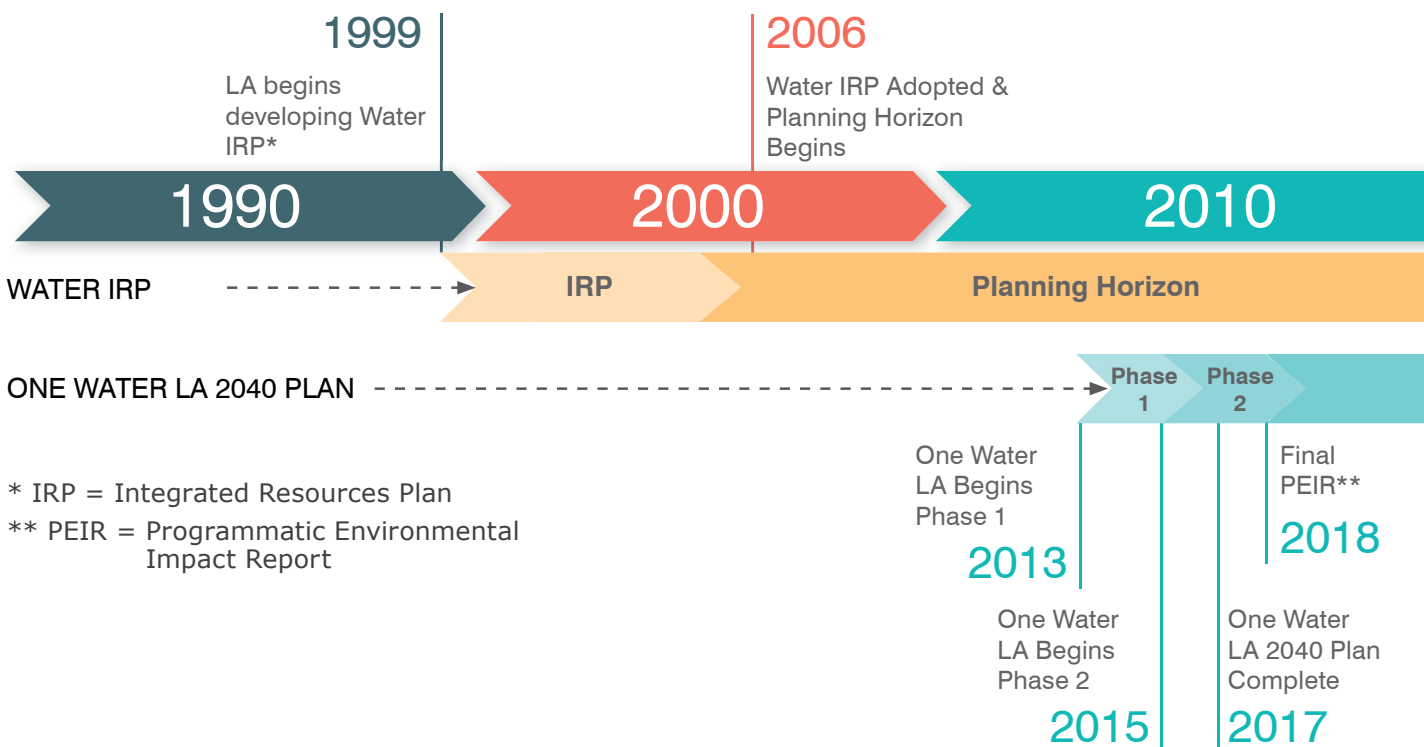


# What is One Water LA?

The One Water LA 2040 Plan (One Water LA) is a comprehensive planning process designed to increase sustainable water management for the City of Los Angeles (City). The City launched One Water LA with two primary goals:

- 1 Develop a vision and implementation strategy to manage water in a more efficient, cost effective, and sustainable manner.
- 2 Identify ways for City departments and regional agencies to integrate their water management strategies.

One Water LA will provide a comprehensive strategy consisting of new project, program and policy opportunities to manage water in a more integrated, collaborative, and sustainable manner. The Plan will consist of multiple deliverables that will form the foundation of the Implementation Strategy, which provides a roadmap to make the One Water LA Vision a reality. One Water LA is a collaborative approach to integrated water management and aims to further the many opportunities that exist to integrate efforts and programs. For specific water projects, programs, or policies that are the sole responsibility of one agency, such as LADWP’s aqueduct or groundwater remediation project, refer to that agency’s appropriate plans.





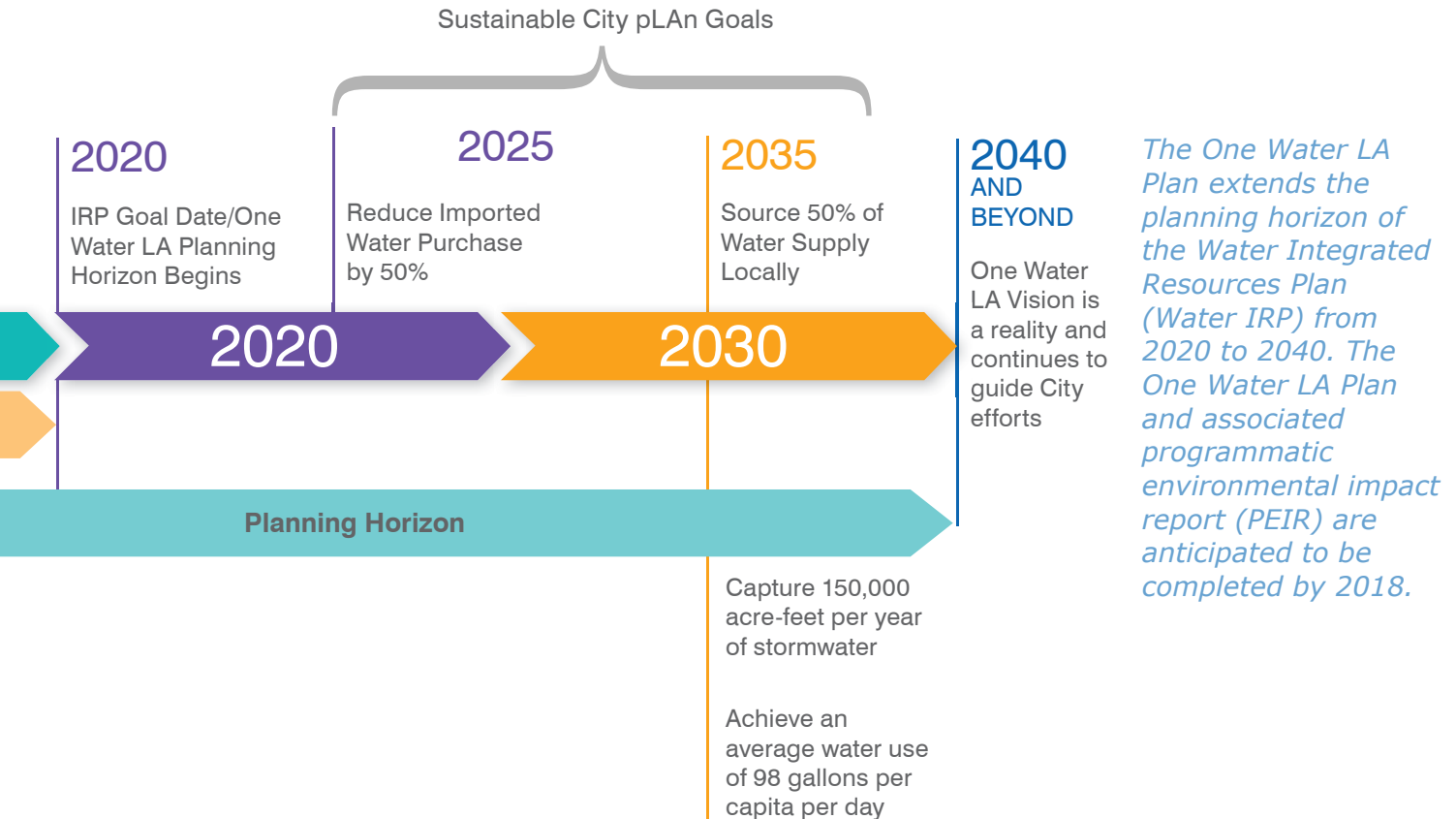
One Water LA promotes new thinking to respond to evolving water management challenges and helps achieve the Sustainable City pLAn goals. One Water LA depends on close collaboration between City departments to break down the traditional institutional barriers between the management of drinking water, wastewater, recycled water, runoff, and stormwater. By integrating projects, programs, and adjusting policies, the City can help improve water quality, support supply reliability, improve system efficiency, and continue to protect public health and our environment.

Beyond City departments and regional agencies, One Water LA also takes care to represent the City’s diverse geography, demographics, and interests, helping make sure One Water LA benefits everyone who calls the City of Los Angeles home.

**Progress Report Purpose**

The purpose of this report is to share the City’s One Water LA accomplishments and progress to date.

The information presented in this report represents a snapshot in time. The One Water LA 2040 Plan will further refine some of the goals and strategies discussed in this report.



# Water Management Challenges

One Water LA is looking at a wide variety of water-related issues and challenges that will require new integrated water management strategies in the future. These include:

## More Stringent Stormwater Quality Regulations

To protect beaches and marine life, regulators establish total maximum daily loads (TMDLs) for various pollutants found in runoff. The City has a certain amount of time to comply with these TMDL requirements to avoid fines. These deadlines are approaching rapidly.

## Reducing Reliance on Purchased Imported Water

The City's current supply mix is heavily dependent on imported water from Northern California, the Eastern Sierras, and the Colorado River Watershed. Chronic and more severe droughts reduce the reliability of imported water supplies.

## Replacing Aging Infrastructure

The City owns thousands of miles of water, sewer, and stormwater pipelines and associated facilities. The vast majority of these systems are old and getting older. Replacing all aging infrastructure in Los Angeles at once is not affordable. The challenge is to prioritize replacements and repairs despite limited information, funds, and resources.

## Limited Funding

The City has limited funds and resources to address all of these water management challenges. Integrated planning between City departments will help prioritize needs, develop multi-benefit solutions, and identify funding sources, and cost-sharing opportunities.

*The Machado Lake Ecosystem Restoration Project is an example of a stormwater quality improvement project in LA that protects aquatic life and enhances recreation.*

*The City is aggressively focusing on aging pipes and other deteriorating infrastructure to prevent unexpected ruptures.*



### Increasing Climate Change Resiliency

The City must become more climate resilient. This means not just preparing for droughts, but for increasing temperatures, more intense precipitation events and associated flooding risks, sea level rise, risk of wildfires, and damage from high winds.

### Recurring Droughts

Severe statewide droughts have reduced surface and underground water levels throughout California. The droughts have reduced LA’s access to imported water supplies, resulting in new water conservation requirements. Despite the heavy rains in the beginning of 2017, the City must be ready for prolonged dry conditions in the future.

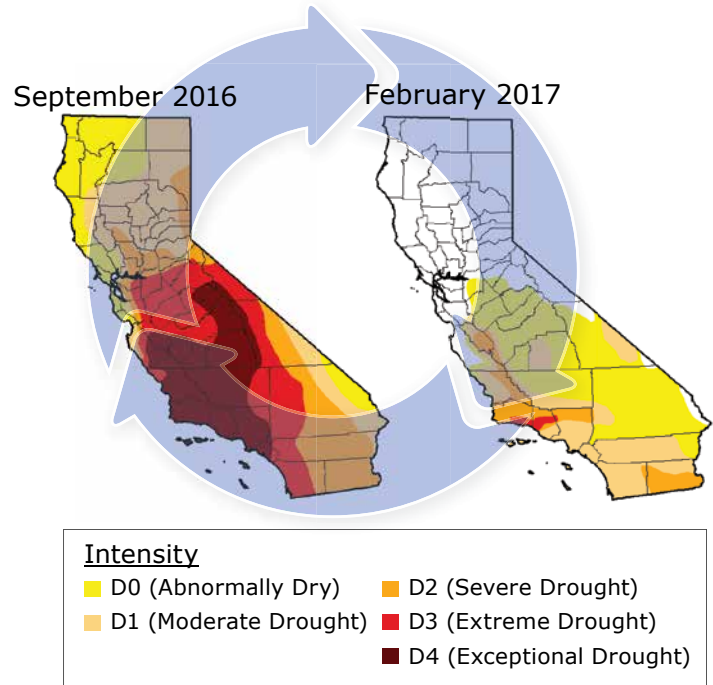
### Adapting to Changing Flood Protection Needs

More frequent intense storm events could result in flooding. Increased stormwater capture and recharge is a key strategy to achieve flood protection and water quality goals.

*Flooding in Los Angeles during the multiple day storm event in February 2017.*



### The Cyclical Nature of California’s Droughts



*Source: California Drought Monitor*

### Preparing for an Increasingly Unpredictable Climate

From 2011 to 2016, California experienced the most severe drought conditions in the State’s history. However, the rain events between December 2016 and February 2017, brought new problems: flooding, evacuations, and landslides. While current snowpack and surface water levels are encouraging, the extreme weather fluctuations demonstrate the importance of becoming more resilient to climate change. Simply put, the City must adopt proactive strategies to handle an increasingly unpredictable climate.

# About One Water LA

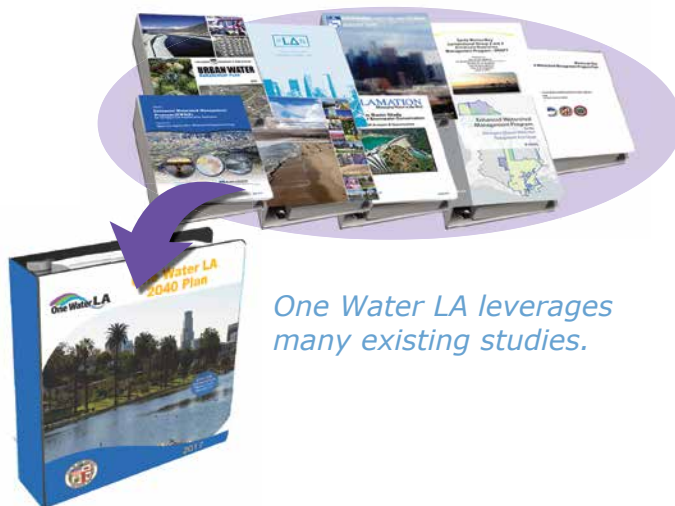
One Water LA connects plans, ideas, and people to arrive at more integrated and fiscally-responsible water management solutions. By looking at the total water picture, the City with its partners can create more efficient projects that maximize resources and minimize cost. The City is committed to pursuing multi-beneficial projects, combining financial resources, and identifying funding opportunities to make One Water LA a reality.

One Water LA builds on information developed for a large number of existing planning studies, including the following:

- ◆ 2006 Water Integrated Resources Plan (IRP)
- ◆ 2015 Urban Water Management Plan (UWMP)
- ◆ 2015 Stormwater Capture Master Plan (SCMP)
- ◆ 2015 Enhanced Watershed Management Plans (EWMP) representing each of LA's five watersheds
- ◆ Los Angeles County's 2015 LA Basin Stormwater Conservation Study

One Water LA also supports the Sustainable City pLAN released in 2015, which calls for a multi-faceted approach to achieving stormwater quality, a locally sustainable water supply, reducing per capita potable water use, scaling back dependence on

purchased imported water, maximizing water recycling, and increasing stormwater capture. One Water LA's success relies on everyone, including government, businesses, academia, community members, and interest groups working together to achieve the One Water LA vision.



*One Water LA leverages many existing studies.*

## A few examples of the Sustainable City pLAN goals One Water LA supports

### Stormwater Quality:

Improve beach water quality grade-point average (GPA) to:



3.9 (dry)  
3.2 (wet)

**2025**



4.0 (dry)  
3.5 (wet)

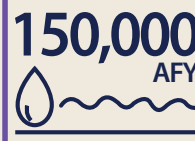
**2035**



Reduce the purchase of imported water by 50%

**50%**

**2025**



**150,000**

Capture 150,000 acre-feet per year of stormwater

**2035**



**50%**

Source 50% of water locally

**2035**

## The Two Phases of One Water LA

The level of complexity, scope, and large number of stakeholders involved makes One Water LA more extensive than most other studies or master plans. The Plan consists of two phases:

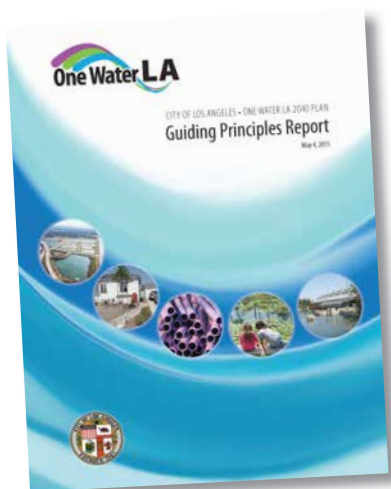
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**Phase 1** defined the Vision, Objectives, and Guiding Principles of One Water LA. More than 350 stakeholders were actively engaged in Phase 1.

The Guiding Principles Report, completed in May 2015, listed the following One Water LA Objectives:

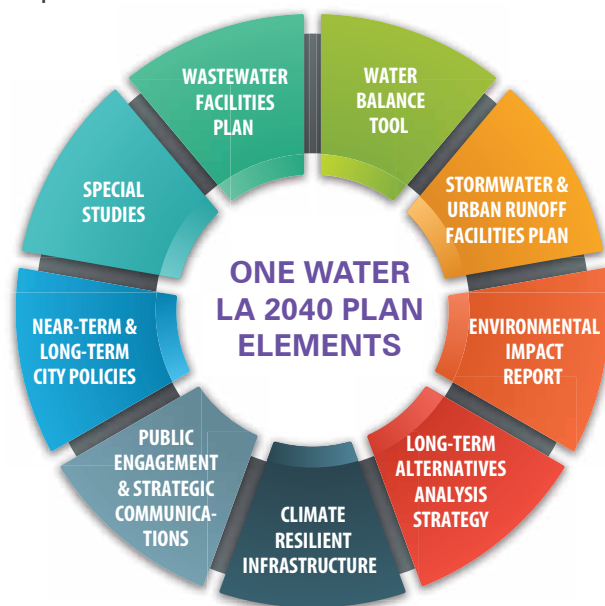
- ◆ **Integrate management of water resources** and policies
- ◆ Balance **environmental, economic and societal** goals
- ◆ Improve health of local **watersheds**
- ◆ Improve local water **supply reliability**
- ◆ Implement, monitor and maintain a **reliable wastewater** system
- ◆ Increase **climate resilience**
- ◆ Increase **community awareness** and advocacy

Section 3 in this report contains a summary of the progress made towards the seven Objectives.



2

**Phase 2** involves detailed, integrated planning and policy analysis that will result in an implementation strategy to meet the One Water LA vision, objectives, and guiding principles. The One Water LA 2040 Plan is being developed by dedicated representatives from both LASAN and LADWP and shaped by input from other City departments and regional agencies. A steering committee, advisory group, and a large number of stakeholders are also providing input. This phase will include updated wastewater and stormwater facility plans, as well as recommended policies to increase coordination, integration, and management of water between all City departments.



*The One Water LA 2040 Plan consists of many plan elements and deliverables that will form the foundation of the One Water LA Implementation Strategy.*

# Value of One Water LA

## Benefits

By identifying the multiple benefits (environmental, economic, and social) of projects and programs, the City can implement more sustainable and cost-effective solutions. Ultimately, One Water LA will lead to smarter land use practices, healthier watersheds, greater integration of the City's various water systems, increased utility efficiency, stronger communities, climate change resiliency, and protection of public health.

The key outcomes of One Water LA include:

- ◆ A framework for integration opportunities between City departments, regional agencies, and other stakeholders.
- ◆ A strategy to maximize potable reuse opportunities.
- ◆ A strategy to maximize stormwater capture that considers water quality, flood mitigation, and water supply benefits.
- ◆ A variety of long-term policy recommendations.
- ◆ A roadmap for integrating projects and programs to achieve the One Water LA objectives and support the Sustainable City pLAN goals, including project triggers, cost estimates, and funding considerations.



*To make our community a better place to live and work, we have to keep our water clean, increase local water supplies, and continue greening our City. This can be done better through planning and managing all water as One Water.*

## Collaboration is Critical to Success

One of the unique elements of One Water LA is cooperation and collaboration at many different levels within the City family. LADWP and LASAN are the two leading departments, working in partnership with other City departments, regional agencies including LA County Department of Public Works, the business community, and stakeholders. Making sure everyone's voice and perspective is heard is an important key to success.

Collaboration extends beyond the One Water LA 2040 Plan development. The City is identifying ways for departments to work together on water management matters for decades to come. Bringing together all these parties in the planning stage helps foster new relationships between departments, regional agencies, and stakeholders.

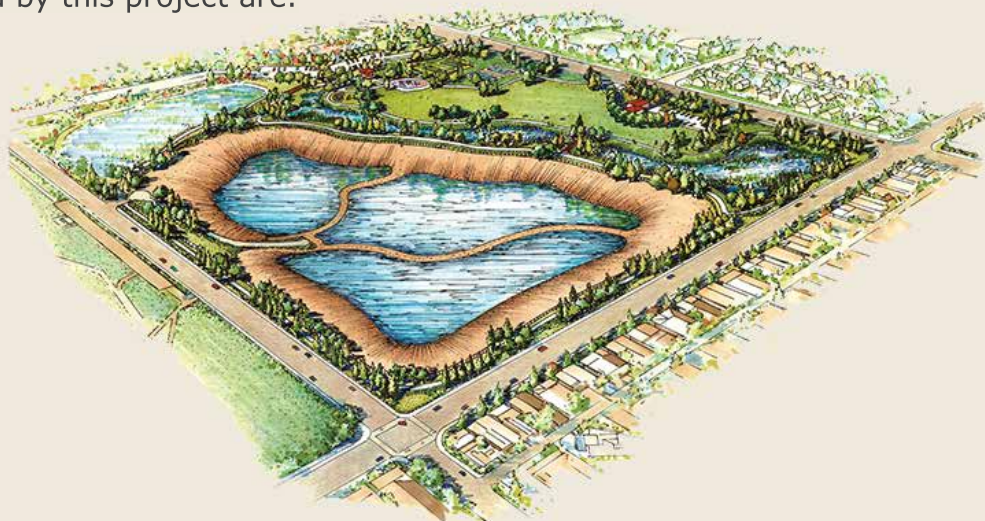


*One Water LA is more than a Plan – it is a group of people throughout the City working to change the way we think about managing water.*

## Multi-Benefit Project Implementation

The One Water vision promotes implementation of multi-benefit projects. An example of an ongoing multi-benefit project made possible by a partnership with Los Angeles County Flood Control District and the City is the Rory M. Shaw Wetlands Park in Sun Valley. The multiple benefits provided by this project are:

- ◆ Flood Protection
- ◆ Stormwater Quality
- ◆ Water Supply
- ◆ Ecosystem Restoration
- ◆ Recreation
- ◆ Education
- ◆ Mobility
- ◆ Environmental Justice



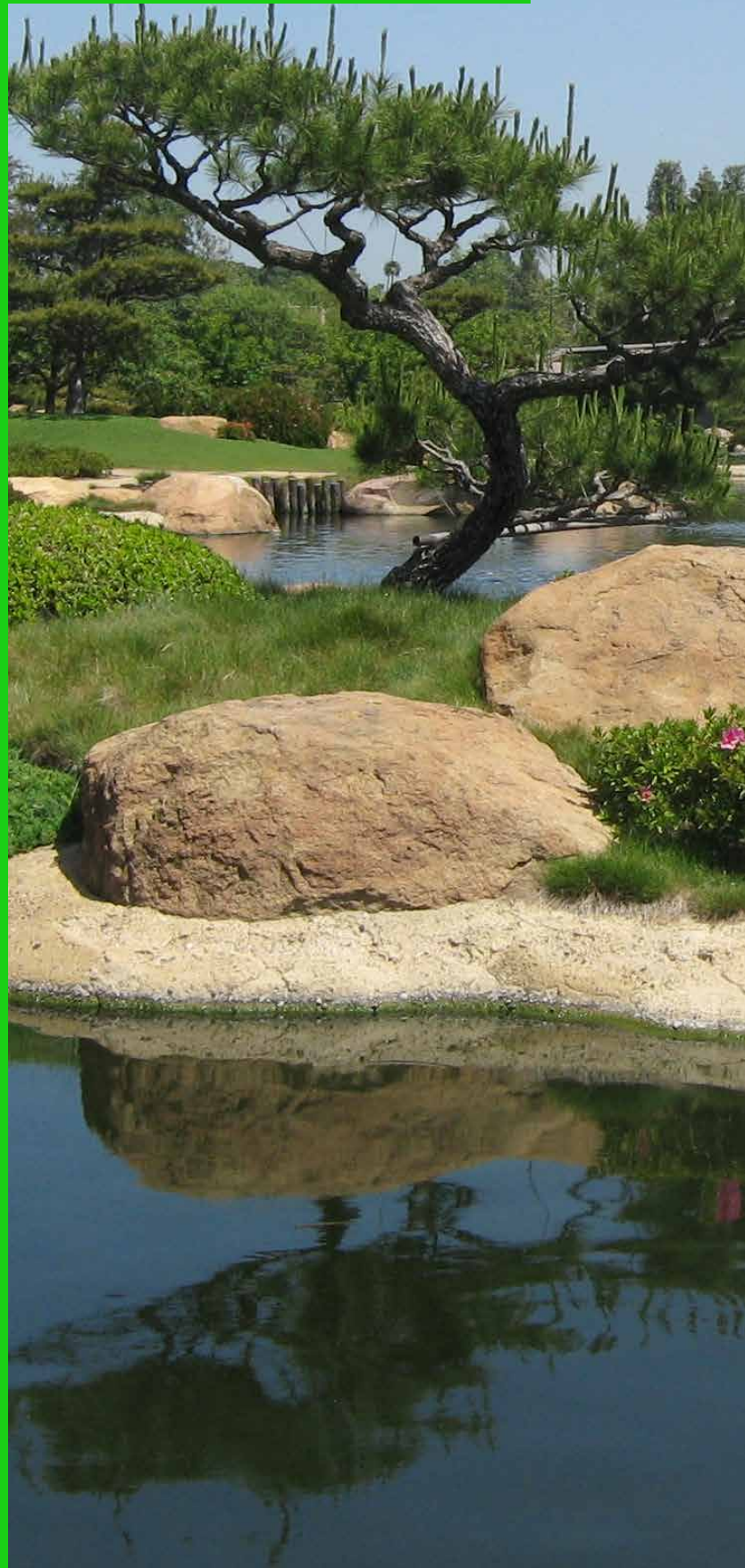
*The Rory M. Shaw Wetlands Park project is an example of successful inter-agency collaboration. One Water LA is looking at similar opportunities to implement multi-benefit projects in the City of LA.*

## SECTION 2

# LA's Existing Water Management Strategies

Do you know where LA's water comes from and how it is used? Read a little further to learn about how the City manages its Urban Water Cycle. This section includes a brief history of LA's water management and describes strategies currently being implemented by City departments related to water conservation, water recycling, stormwater and urban runoff.

Japanese Garden at Donald C. Tillman Water Reclamation Plant, Van Nuys, CA







# LA's Current Water Supplies

The City uses multiple water supply sources, programs, and practices to meet the City's water demands, drinking water quality standards, wastewater discharge limits, and environmental water quality requirements. In recent years, the City of LA has imported approximately 84 percent of its entire water supply from hundreds of miles away.

As shown on the map below, the City utilizes three different aqueducts that bring water to LA from the Delta, Owens Valley, and the Colorado River. The remaining 16 percent of the City's water supply comes from local groundwater, stormwater, and recycled water. The City's current supply mix results in heavy dependence on snowfall and sufficient storage in Northern California, Eastern Sierras and the Colorado River watershed.

As we have seen in recent years, drought conditions and climate change severely impact snowfall in the Eastern Sierras and the Colorado River watershed. As those water supplies fluctuate, so does our ability to import water from these sources.

Moreover, all three aqueducts cross the San Andreas Fault and are subject to prolonged interruptions in case of a major seismic event. The One Water LA Plan recognizes that developing our own local supplies—sources that we can rely upon under any circumstances—is a top priority of the City.



*Approximately 84 percent of the water the city of LA uses comes from hundreds of miles away.*

## Foundation of Existing Water Management Strategies

The two key documents that define the City's existing water management strategies are the 2006 Water Integrated Resources Plan (IRP) and the 2015 Urban Water Management Plan (UWMP).

### Water Integrated Resources Plan

The Water IRP, adopted in 2006, covers a planning horizon from 2000 to 2020. The Water IRP represents the first time that wastewater facilities planning was integrated with stormwater, recycled water, and water conservation. It was also ground-breaking in its engagement with public stakeholders during the planning process. Public engagement through the Water IRP helped pass Proposition O, which pays for the construction of stormwater management projects. The Water IRP also led to development of the Groundwater Replenishment (GWR) Project and creation of the Recycled Water Advisory Group.

### Urban Water Management Plan

The main goal of the 2015 UWMP is to plan for meeting all future water demands with water supplies under average and dry year conditions.

*The 2006 Water IRP resulted in public support and passage of Proposition O in 2000, which has funded 19 stormwater and water quality projects, including, the Echo Park Lake Revitalization shown below.*



Further steps involve identifying future water supply projects to meet these demands, updating water conservation goals, and developing a single and multi-dry year management strategy. The UWMP, updated every five years, is the City's master plan for water supply and resources management and guides LADWP's decision-making process to secure a reliable and sustainable water supply for the City.

LADWP's 2015 UWMP update provides a strategy for the City to meet the Sustainable City pLAN goals for 50% reduction of purchased imported water by 2025, 50% local water supply by 2035, and up to a 25% reduction in potable water use. In addition, it incorporates the beneficial role of LADWP's San Fernando Basin Groundwater Remediation project in allowing LADWP to further utilize the City's investments around groundwater replenishment with recycled water and stormwater projects.

*The 2006 Water IRP also led to the GWR Project, which will recharge up to 30,000 acre-feet of recycled water per year into the San Fernando groundwater basin. This project is expected to be operational by 2022.*





California Friendly Landscaping Demonstration Garden at the LADWP John Ferraro Building in Downtown Los Angeles, CA.

# Water Conservation

The City of LA, long-recognized as an early pioneer of water conservation programs, continues to be a national leader in water use efficiency and has one of the lowest per capita water uses of all large cities in the United States. Since the 1970s, water conservation has been a permanent part of the City’s water supply planning.

The recent multi-year drought resulted in diminished supplies from the Los Angeles Aqueduct (LAA) and heavy reliance on purchased water from the Metropolitan Water District of Southern California (MWD). When Governor Brown declared the drought emergency in January 2014 Angelenos responded quickly by reducing water use by 22 percent.

In October 2014, Mayor Eric Garcetti issued Executive Directive No. 5, which set goals to reduce per capita water use and reduce purchase of imported water supplies. The Sustainable City pLAN, which builds on this directive, includes goals to reduce per capita water use 25 percent by 2035. To achieve this goal, the City has a multi-faceted water conservation approach that targets both indoor and outdoor uses and reaches across all customer sectors. The next page highlights a few of the on-going conservation programs.



Mayor Garcetti signs Executive Directive No. 5 alongside City management and stakeholders on October 14, 2014.

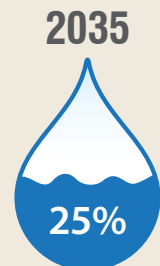
## Results of Existing Strategies:

- Reduction of average water use to 104 gallons per capita per day, already achieving the 2017 target of the Sustainable City pLAN.
- Replacing 47.8 million square feet of turf, reducing use of 1.9 billion gallons of water per year.
- More than 120,000 acre-feet of water saved through LADWP’s conservation incentive programs.



## Future Targets:

- Achieve an average water use of 98 gallons per capita per day by 2035.
- The Sustainable City pLAN water conservation targets are:



## Examples of Recent & Ongoing Water Conservation Strategies

### Water Loss Reduction Program

In 2013, LADWP completed its Water Loss Audit and Component Analysis. Based on the findings, LADWP created a Water Loss Task Force to reduce water loss through new initiatives such as improved pressure management and increased active leak detection.

### Save-the-Drop Campaign

In April 2015, the City launched its Save-the-Drop water conservation outreach campaign--a partnership between LADWP and the Mayor's Office. Outreach materials include public service announcements, radio spots, event handouts, and public signage. The campaign also partnered with celebrities such as Steve Carrell, Jaime Camil, and Moby for public service announcements airing on TV, in movie theaters, and on the radio.

#### DID YOU KNOW?

One acre-foot equals about 326,000 gallons. That is enough water to cover 1 acre of land, about the size of a football field, 1 foot deep.

*Save-the-Drop water conservation outreach campaign.*



### Outreach & Education

LADWP has developed extensive public information and school education programs. These programs include: Los Angeles Times in Education, "Thirsty City" Live Play Performances, and the Los Angeles Outdoor Landscape Academy – offering training classes that assist customers in making the switch from turf to sustainable landscapes.

### Cash in your Lawn

The Cash in Your Lawn program provides homeowners with rebates to remove thirsty grass and replace it with California-friendly landscaping. Despite having only 10 percent of the State's population, the City has already contributed to more than 95 percent of the State's goal. To date, City of LA residents have replaced nearly 50 million square feet of grass with low water using, sustainable landscaping—saving more than 1.9 billion gallons of water each year!

*Example of a homeowners' California friendly landscaping.*





Terminal Island Advanced Water Purification Facility, Los Angeles, CA

# Water Recycling

The City built its first water recycling infrastructure in the 1960s. Today, the City serves more than 50 large-scale customers with recycled water for irrigation, industrial, and environmentally beneficial uses. The 2015 UWMP set a goal to supply 75,400 AFY of recycled water by 2040, which is projected to be approximately 12 percent of the total City supply mix, compared to just 2 percent today. To achieve this goal, the City continues to expand its recycled water program through the growth of its purple pipe network and implementation of the Groundwater Replenishment Project in the San Fernando Basin.

## Results of Existing Strategies:

- ◆ Sixty-two miles of recycled water purple pipelines deliver up to 10,000 AFY to non-potable customers and approximately 25,000 AFY to environmental uses.
- ◆ Fourteen recycled water fill stations for commercial users.
- ◆ Pilot Testing and completion of the Environmental Impact Report for the Groundwater Replenishment Project.
- ◆ Expansion of Terminal Island Advanced Water Treatment Facilities to 12 million gallons per day (mgd).



## Future Targets:

- ◆ Implement the GWR Project to recharge up to 30,000 AFY of recycled water in the San Fernando Basin by 2022.
- ◆ Implement near-term projects to increase non-potable reuse to 29,000 AFY by 2025.
- ◆ Explore partnership efforts with other utilities to develop long-term alternatives to maximize recycled water use to 75,400 AFY by 2040.



*Water is forced through reverse osmosis membranes to remove salt, dissolved chemicals, viruses and pharmaceuticals.*

## Examples of Recent & Ongoing Water Recycling Strategies

### Groundwater Replenishment Project

The Groundwater Replenishment Project will provide up to 30,000 AFY of recycled water from Donald C. Tillman Water Reclamation Plant (WRP) to replenish the San Fernando Basin. To date, the City has conducted extensive pilot testing of various treatment processes to comply with state regulations for groundwater replenishment. This project is planned to be operational in 2022.

### Terminal Island Water Reclamation Plant Expansion

Since 2006, the Terminal Island WRP has supplied nearly 4 mgd of recycled water to the Dominguez Gap Barrier, which prevents seawater intrusion into the West Coast Groundwater Basin. In 2016, LASAN completed the plant expansion, doubling its treatment capacity from 6 to 12 mgd. This will allow the City to deliver the Dominguez Gap Barrier with its total needs, eliminating the need for potable water as a supplement. The facility will now also supply various harbor-area industrial users with recycled water and send water to Machado Lake to replenish water lost from evaporation.

### Non-Potable Reuse Expansions

The City has completed nearly 62 miles of recycled water system extensions from the Donald C. Tillman WRP, LA-Glendale WRP, Terminal Island WRP, and Hyperion WRP. The total non-potable reuse demand nearly doubled from 5,151 AFY in 2006 to 9,913 AFY in 2016.

### Regional Partnerships

In addition to partnering with Burbank, Glendale, and others, the City is exploring a regional partnership with the Las Virgenes Municipal Water District to serve Woodland Hills Country Club with recycled water. The City also reached an agreement in early 2017 to increase the delivery of up to 70 mgd to West Basin Municipal Water District for their recycled water system.

### Recycled Water Fill Stations

Recycled water fill stations are locations where recycled water can be accessed to fill water trucks or other containers. Currently, the City has 14 recycled water fill stations used by commercial users for dust control, street sweeping, and irrigation. In 2016, the City temporarily operated a residential recycled water fill station that provided free recycled water to LADWP customers.

*The City continues to expand its non-potable water system in the Harbor, which is supplied from this pump station at the Terminal Island WRP*

*The Mayor and LASAN management celebrate completion of the Terminal Island WRP expansion.*





Ed P. Reyes Greenway,  
Los Angeles, CA

# Stormwater and Urban Runoff

The City’s stormwater mission is to protect receiving water bodies while complying with all flood protection and pollution regulations. The 2006 Water IRP brought a new spotlight on stormwater as an important resource, which resulted in the approval of Proposition O and the completion of roughly \$500 million worth of stormwater projects. Today, approximately 64,000 AFY of stormwater is captured, recharged, or used from active centralized capture and natural infiltration. However, the vast majority of stormwater runoff cannot be contained and flows to the Pacific Ocean.

Several earlier planning efforts are being integrated in One Water LA, such as the 2015 SCMP, the 2015 EWMPs and the 2016 Los Angeles Basin Stormwater Conservation Study. The purpose of these plans is to increase stormwater as a local water supply source, manage flooding, and enhance downstream water quality.

## Results of Existing Strategies:

- The City currently captures nearly 10 billion gallons (29,000 acre-feet) of stormwater per year at centralized spreading and infiltration facilities.



## Future Targets:

- Capture 150,000 AFY of stormwater by 2035.
- Identify funding mechanisms and performance metrics to implement stormwater capture as identified in the SCMP and the EWMPs.



*The Avalon Green Alley North is a collaborative effort to green a network of alley segments within residential neighborhoods of Los Angeles.*



*The LA Zoo parking lot improvement project removes trash and other pollutants in urban runoff using bioretention cells, permeable pavement, and drought tolerant plants.*





## Examples of Recent & Ongoing Stormwater and Urban Runoff Strategies

### City of Los Angeles Proposition O Projects

Proposition O authorized \$500 million of general obligation bonds for projects that clean up polluted stormwater in the City's rivers, lakes, beaches, and ocean. This bond measure allowed the City to complete the planning, design, and construction of numerous stormwater projects. Examples include signature projects such as Echo Park Revitalization Project, South LA Wetlands Park, Hansen Dam Wetland Restoration, Machado Lake Ecosystem Rehabilitation, Penmar Park Subsurface Stormwater Storage and Infiltration, and the LA Zoo Green Parking Lot Stormwater Infiltration.

### Stormwater Capture Master Plan

The LADWP's 2015 SCMP is intended to help reduce the City's dependence on purchased imported water. The SCMP outlines strategies to develop projects, programs, and policies to advance centralized and distributed stormwater capture initiatives over the next 20 years. The plan will serve as a guiding document for policymakers.

### Enhanced Groundwater Recharge

Groundwater recharge with stormwater and recycled water is essential to maintaining groundwater supplies and providing for long-term water supply reliability. The SCMP has identified both centralized and distributed stormwater projects that will increase groundwater recharge from the current baseline of 64,000 AFY to 132,000 AFY (conservative scenario) to 178,000 AFY (aggressive scenario).

### Enhanced Watershed Management Plans

Total maximum daily loads (TMDLs) set pollutant load limits for receiving water bodies. The City collaborated with nearly 30 other government agencies to prepare an EWMP for each of the five watersheds within LA County. The City has moved forward with several of the recommended projects, but is challenged by the lack of funding needed to meet permit requirements by the rapidly approaching compliance deadlines.

### Green Streets/Green Alleys

This program integrates distributed and regional projects with multi-purpose green solutions designed to improve water quality, augment water supply, manage floods, enhance habitat, and provide for open space. The program includes rainwater harvesting and greenways systems to maximize stormwater capture and infiltration on public and private land.

### Low Impact Development for Private Developments

The main purpose of the Low Impact Development (LID) ordinance is to ensure parcel-based development and redevelopment projects on private properties mitigate the impacts of runoff and stormwater pollution. LID comprises site design approaches and best management practices (BMPs) that are designed to effectively remove nutrients, bacteria, and metals while reducing the volume and intensity and capturing of stormwater flows.

## SECTION 3

# One Water LA Progress Update

In Phase 1 of One Water LA, the City and its stakeholders established seven objectives to help achieve the One Water LA vision. This section presents a progress update for each of the objectives. Since many activities will take years to implement, this update is merely a “snapshot” in time. The One Water LA 2040 Plan will provide a more complete strategy to achieve the City’s goal of collaborative, beneficial management of its water resources, watersheds, and water facilities.

South Los Angeles Wetlands Park,  
Los Angeles, CA

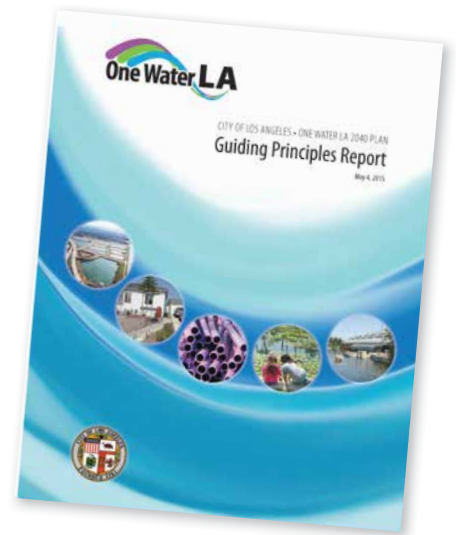






# One Water LA Objectives

The City, in collaboration with the Steering Committee, Advisory Group, and stakeholder groups, developed the One Water LA vision, 7 objectives and 38 guiding principles. The vision statement defines the overall purpose of One Water LA and it describes what the City aspires to accomplish in the broadest terms. The One Water LA vision statement is stated below.



*A complete list of guiding principles and stakeholder groups can be found at [www.onewaterla.org](http://www.onewaterla.org)*

## ONE WATER LA VISION

*One Water LA is a collaborative approach to develop an integrated framework for managing the City's water resources, watersheds, and water facilities in an environmentally, economically and socially beneficial manner.*

*One Water LA will lead to smarter land use practices, healthier watersheds, greater reliability of our water and wastewater systems, increased efficiency and operation of our utilities, enhanced livable communities, resilience against climate change, and protection of public health and our environment.*



*Development of the One Water LA 2040 Plan involves extensive cooperation and engagement from a variety of groups and committees.*

## The Seven Objectives of One Water LA are:



1

**Integrate management of water resources and policies** by increasing coordination and cooperation between all City departments, partners and stakeholders.



2

**Balance environmental, economic and societal goals** by implementing affordable and equitable projects and programs that provide multiple benefits to all communities.



3

**Improve health of local watersheds** by reducing impervious cover, restoring ecosystems, decreasing pollutants in our waterways and mitigating local flood impacts.



4

**Improve local water supply reliability** by increasing capture of stormwater, conserving potable water and expanding water reuse.



5

**Implement, monitor and maintain a reliable wastewater system** that safely conveys, treats and reuses wastewater while also reducing sewer overflows and odors.



6

**Increase climate resilience** by planning for climate change mitigation and adaptation strategies in all City actions.



7

**Increase community awareness and advocacy for sustainable water** by active engagement, public outreach and education.

The next several pages describe the progress made towards achieving these seven objectives and supporting guiding principles since the One Water LA planning effort began.

# 1

## Integrate management of water resources and policies by increasing coordination and cooperation between all City departments, partners and stakeholders

### Progress to Date

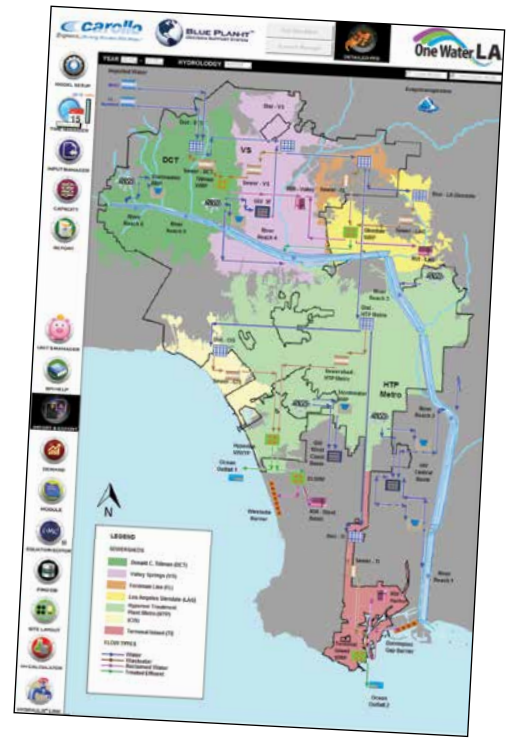
- ◆ **Established the One Water LA Steering Committee**, representing 14 City departments and 6 regional agencies, who collaborated to:
  - Develop the Vision Statement, Objectives and Guiding Principles with stakeholders,
  - Identify water-related project integration opportunities, and
  - Develop policies to streamline integrated water resources management and collaboration.
- ◆ **Held more than 40 inter-departmental/agency focus meetings**, where LASAN and LADWP staff met with individual City departments and regional agencies.
- ◆ **Initiated the One Water LA Stakeholder Group**, which includes more than 350 stakeholders representing more than 200 organizations, including neighborhood councils, non-profits, business and homeowner associations, academia and others.
- ◆ **Formed the Stakeholder Advisory Group**, to allow for more frequent interaction with stakeholders. The Advisory Group provides a good representation in terms of interests, geography within the City, and past participation in other water-related stakeholder processes.
- ◆ **Created five Special Topic Groups** for key components and held multiple meetings with each group to allow for in-depth discussion.



## The Water Balance Tool

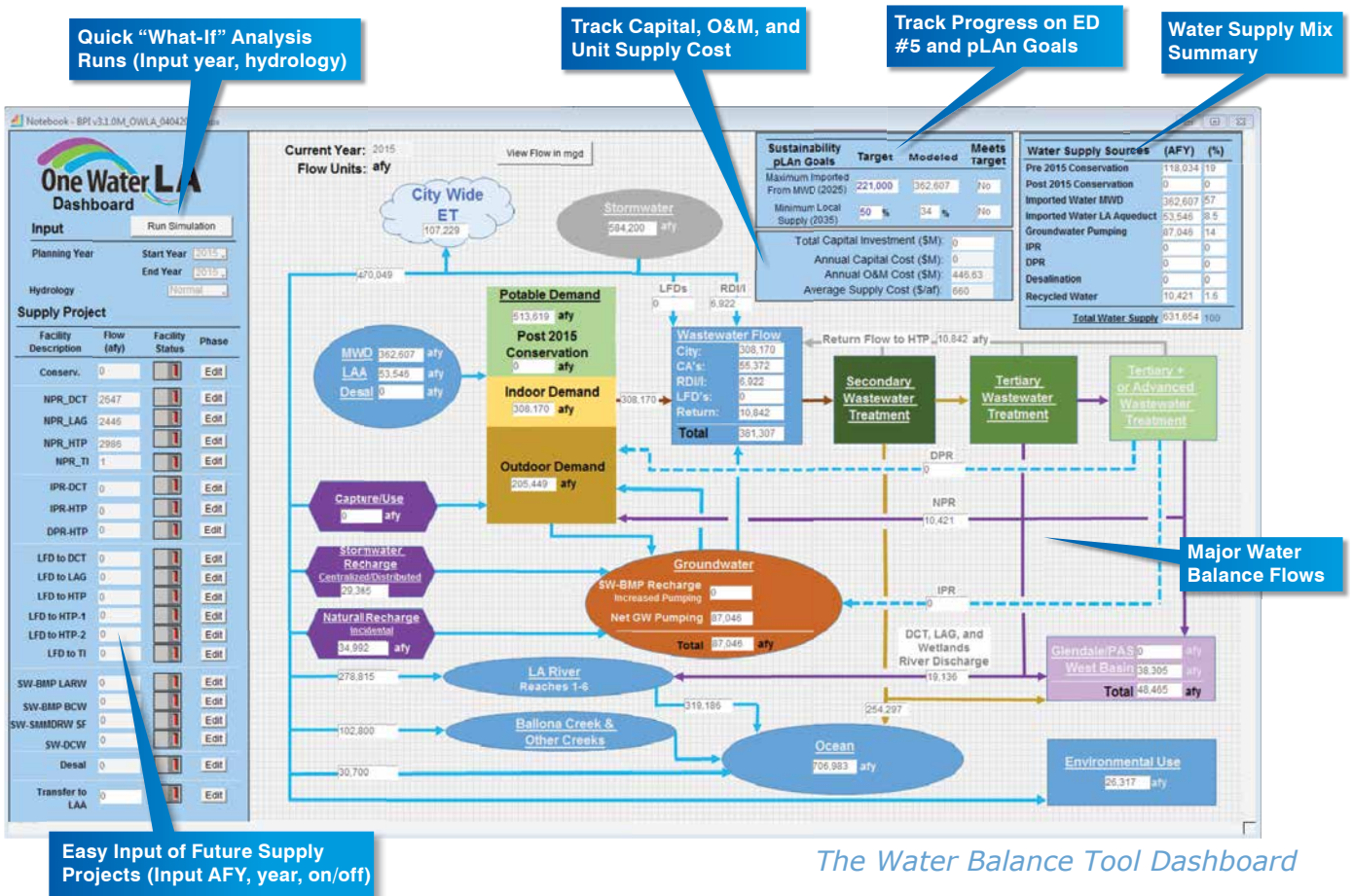
One of the early accomplishments of One Water LA was the development of a Water Balance Tool, which encompasses all the major flow components of the City’s urban water cycle. The development of this tool is 1 of the 38 guiding principles under this objective.

The Water Balance Tool helps LASAN and LADWP better understand the complexities of the City’s water cycle from a One Water perspective. The Water Balance Tool summarizes annual rainfall, runoff, water demands, wastewater flows, stormwater flows, and ocean discharges for various planning years and hydrologic conditions. The tool is intended to help identify opportunities to make the City’s urban water cycle “smarter” by maximizing water recycling and stormwater capture.



The Water Balance Tool Map View

The Water Balance Tool will be used by City staff to evaluate long-term water management scenarios. This tool estimates the water balance of the City’s major flows for combinations of future projects under various demand conditions, hydrology scenarios, and planning years. The tool also tracks progress towards complying with the goals set forth in the Sustainable City pLAN.



The Water Balance Tool Dashboard

# 2

**Balance environmental, economic and societal goals** by implementing affordable and equitable projects and programs that provide multiple benefits to all communities.

## Progress to Date

- Developed comprehensive evaluation criteria to identify the benefits of potential future water projects.
- Actively engaged multiple City departments, advisory group members, and stakeholders in developing the alternatives evaluation criteria and metrics.
- Solicited input from City staff and stakeholders on the relative importance of the evaluation criteria that will be used to score benefits of future water management strategies.
- Developed initial project triggers that will consider water demands, supply availability, regulatory requirements, climate vulnerability, and environmental goals.

The comprehensive evaluation criteria will be used to compare the benefits of the long-term concepts described on page 45, leading to a better understanding of how each concept balances environmental, economic, and societal goals. By assessing which concepts may have multi-beneficial elements, the City can prioritize future water investments. In addition, the multi-benefit approach was used in evaluation of near-term integration opportunities (see examples on page 29 and 44).

### Economic Criteria

- Unit cost
- Financial benefits
- Funding mechanism
- Likelihood to obtain outside funding

### Resiliency Criteria

- Drought resiliency
- Earthquake resiliency
- Flood risk mitigation
- Local supply benefit
- Energy Impact/  
Green-House Gas  
Emissions

### Implementation Criteria

- Constructability
- Institutional collaboration
- Regulatory approval
- Public engagement
- Public and political support

### Environmental Criteria

- Environmental justice
- Open/natural space and recreational benefit
- Stormwater quality
- Ecological benefit

*The City defined a total of 18 evaluation criteria with corresponding metrics to consider and balance environmental, economic, and societal goals.*



## Examples of Near-Term Integration Opportunities

### Rancho Park Water Treatment Facility

This potential concept involves collaboration and coordination between LASAN, LADWP, Department of Recreation & Parks (RAP), and the University of California Los Angeles (UCLA).

The Rancho Park Water Treatment Facility concept consists of a potential new satellite water reclamation facility that would produce recycled water to meet substantial non-potable demands in the Westside area including irrigation for the UCLA campus, the City's largest municipal golf course, and several other users. The concept also includes stormwater capture to retain, treat and remove pollutants such as trash, metals, and bacteria.

### Capture of stormwater at LAUSD schools

The City is pursuing a case study that assesses the feasibility of developing a pilot project for a LAUSD site to capture off-site stormwater. Conversations initiated through One Water LA Focus Meetings, have occurred with LAUSD engineering, operations, and health and safety staff.

*The Rancho Park Water Treatment Facility concept looks at using both recycled water and stormwater to irrigate the City's largest municipal golf course and offset potable water demands for Westside area customers including UCLA and others.*



The goal is to identify a potential pilot project that would consist of a pre-treatment system (off school site), concrete tank, monitoring system, valves, and potential irrigation systems. Trash and solids could be removed from stormwater diverted from a local storm drain. Diverted stormwater could then be conveyed onto the selected school site and used for either infiltration or irrigation. Potential school sites are grouped by watershed with focus on areas where regional stormwater facilities could optimize infiltration and on-site use meeting multiple objectives and benefits.

### Water Related Opportunities for the LA Zoo's Master Plan

The LA Zoo, in collaboration with One Water LA, is advancing the incorporation of water management strategies for both stormwater and recycled water into their Master Plan. The goal is to decrease the LA Zoo's potable water use. Work in progress includes identification of information gaps, water quality requirements for use of recycled water in animal exhibits, funding opportunities, and other steps necessary to evaluate recycled water and stormwater capture uses. Information collected from this effort can potentially be applied to other zoos and animal shelters in the region and country.

*The LA Zoo has opportunities to capture and use stormwater as well as utilize recycled water for irrigation and animal exhibits.*



# 3

**Improve health of local watersheds** by reducing impervious cover, restoring ecosystems, decreasing pollutants in our waterways and mitigating local flood impacts.

## Progress to Date

- ◆ **Preparing a Stormwater and Runoff Facilities Plan** based on a “three-legged stool approach” that considers flood protection, water supply, and water quality objectives.
- ◆ **Preparing a LA River Flow Study** that describes existing flow conditions and discusses strategies to balance water needs.
- ◆ **Held Stormwater Special Topic Group meetings** to address the need for both grey and green projects at the regional, distributed, and parcel level, which the City and community groups could achieve cooperatively.
- ◆ **Held Special Project Ideas workshop and hosted a Stormwater Fee Dialogue** to exchange ideas on additional project, program, and funding considerations.
- ◆ **Analyzed low flow diversion (LFD) opportunities** to increase recycled water supplies by routing stormwater into the sewer system.



*Green Streets projects are an important element of the City’s future stormwater management strategy. These natural systems provide multi-benefits beyond stormwater management, such as pedestrian safety and traffic calming, street tree canopy for heat island effect mitigation, increased property values, and reduced crime rates.*

## Examples of New Stormwater Approaches

### What is a “Three-Legged-Stool” Approach to Stormwater Management?

Historically, stormwater projects target flood risk mitigation, or water quality improvement, or water supply augmentation. Instead, the One Water LA Stormwater & Urban Runoff Facilities Plan prioritizes “Optimal Stormwater Projects” as achieving all three benefits of the “three-legged stool,” which are flood risk mitigation, water quality improvement, and water supply augmentation. These multi-benefit opportunities can be accomplished collaboratively by the City, regional partners, and stakeholders.

The City has identified more than 1,200 centralized and distributed stormwater project opportunities in its stormwater database. These will be refined and implemented as the City continues with project implementation through 2040.

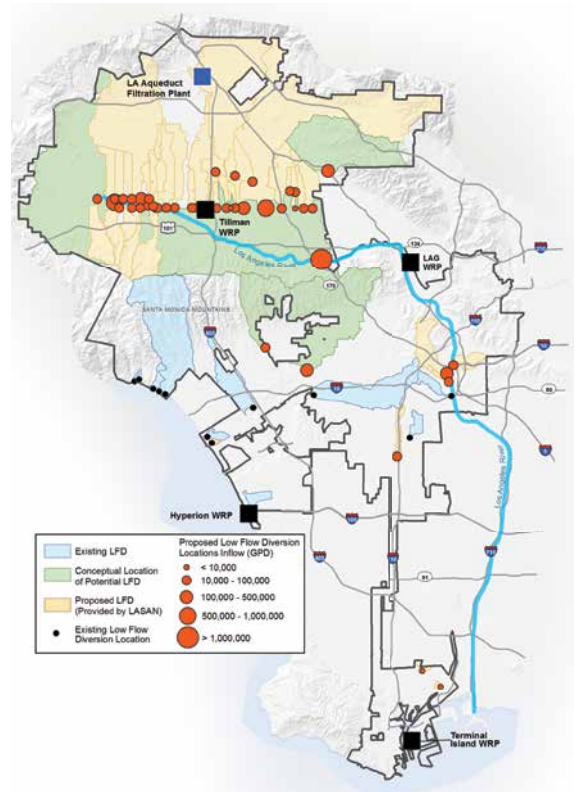
*The “three-legged stool” approach promotes implementation of projects that achieve multiple benefits*



### Low Flow Diversions

Water conservation has substantially reduced wastewater flows, leaving excess sewer system capacity in parts of the City. Low Flow Diversions (LFDs) are specifically designed to capture runoff and convert it into a water resource. By diverting runoff (specifically dry-weather runoff) into the sewer system for eventual treatment, LFDs can reduce potentially polluted water from entering our waterways and increase recycled water availability. The City conducted an analysis that identified 45 potential LFD locations where there is sufficient capacity in the sewer system to accommodate diversions from the storm drain system. The City estimates that LFDs can divert approximately 4,000-6,000 acre feet per year of stormwater into the sewer system, which helps maximize recycled water supplies and minimize losses to the ocean. Where feasible, wet weather flow diversions are also considered.

*The best LFD opportunities exist in the San Fernando Valley, which could potentially increase recycling output from the DCT and LAG WRPs*



# 4

**Improve local water supply reliability** by increasing capture of stormwater, conserving potable water and expanding water reuse.

## Progress to Date

One Water LA considers all water: surface water, groundwater, potable water, wastewater, recycled water, dry-weather runoff, and stormwater, as “One Water.” The key strategies that One Water LA evaluates are stormwater and recycled water.

**Stormwater:** The Stormwater & Urban Runoff Facilities Plan that is being developed builds upon the efforts of the SCMP and five EWMPs. In addition to the 3-legged stool approach (see page 31), ideas from stakeholders and other agencies gathered during the stormwater special topic group meetings and various focused meetings are incorporated in this Facilities Plan.

**Recycled Water:** The City is conducting a long-term alternatives analysis to understand the costs and benefits of maximizing recycled water production. One Water LA is evaluating opportunities to maximize non-potable and potable reuse at each of LASAN’s four water reclamation plants and possible satellite water reclamation plant locations.

Our local groundwater aquifers are seen as “water banks” allowing recycled water and stormwater to be captured and stored. These water banks can be relied upon during drier periods when surface water is scarce.

*The Harbor City Greenway project restored half a mile of the Wilmington Drain storm channel to its natural state, providing local residents access to 27 acres of green space and clean water flows into the Machado Lake ecosystem.*



## City Planning and Partnership Spotlights

**Clean Up Green Up** is a policy initiative led by the Department of City Planning that aims to address environmental justice issues in communities disproportionately affected by industrial land uses and polluting sources. One Water LA provided input on stormwater measures related to this ordinance.

**OurLA2040** is an update of the City's General Plan and the One Water LA team is working with the Department of City Planning to help draft the water element. The General Plan is the heart and foundation of the City's long range planning endeavors and serves as the basis for physical, economic, social, cultural, and environmental decision making.

**Re:Code LA** is preparing a new zoning code for the first time since 1946 that will enable the City to apply more tailored zoning that responds to the needs of the community. The One Water LA team is taking advantage of this unique opportunity by guiding the City's Planning Department on water-related code updates. The new code will be available for the upcoming Community Plans to use in their update efforts and to help implement the vision of the General Plan.

# OurLA2040

Our City. Our Future. Our Plan.

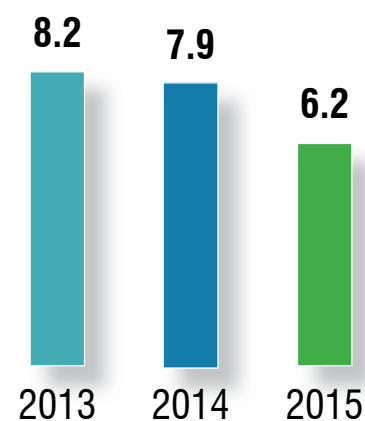
PLAN  
re:code



**Los Angeles World Airports (LAWA)** is doing its part to reduce potable water use. LAWA's water conservation initiatives address landscapes, construction-related dust control, as well as public outreach. Highlights include:

- ◆ Conversion of 63 percent (51 acres) of all LAX landscapes to recycled water irrigation.
- ◆ Discontinuation of irrigation in non-public areas.
- ◆ Conversion of turf to bark/stone.
- ◆ Reduction of potable water irrigation from 5 to 2 days per week.
- ◆ Nearly 95 percent of terminal faucets, toilets, and urinals are replaced with low-flow or ultra-low flow (saving about 50 to 80 million gallons per year).
- ◆ Use of recycled water and water conservation signage throughout LAWA facilities.

### Gallons Per Passenger



*LAWA's efforts at LAX have resulted in a 33% reduction in potable water use despite a 14% increase in the number of passengers during the same 3-year period.*

# 5

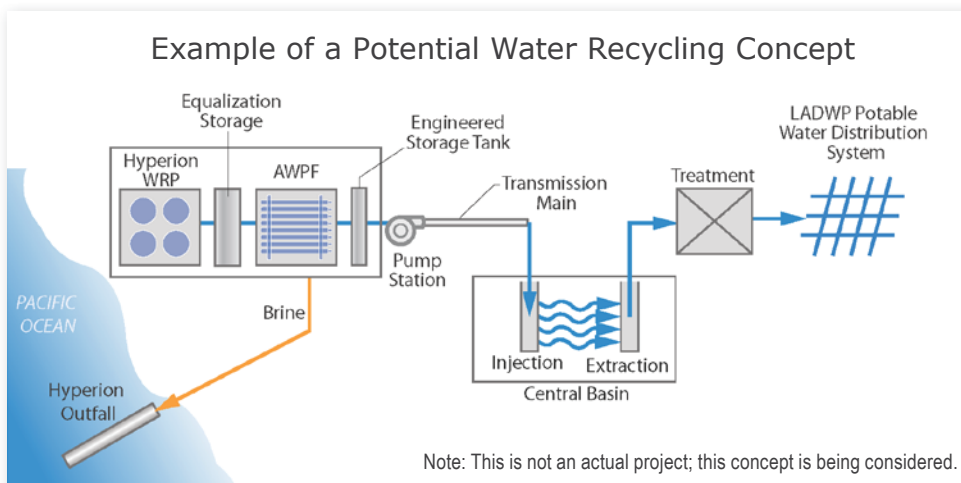
**Implement, monitor and maintain a reliable wastewater system** that safely conveys, treats and reuses wastewater while also reducing sewer overflows and odors.

## Progress to Date

- ◆ **Analyzing various options to maximize and optimize potable reuse** from the City's water reclamation plants (WRPs).
- ◆ **Analyzed opportunities for new satellite WRPs** to create a distributed system of recycled water production and delivery throughout the city.
- ◆ **Preparing a Wastewater Facilities Plan** to assess existing and future capacity, process, and operations & maintenance needs for each of the City's four WRPs. Recommendations consider future flow projections, viability of future technologies, and regulatory requirements.
- ◆ **Assessing future solids handling options** to optimize recovery and use of nutrients from wastewater and biosolids based on expected regulatory and compliance issues.



*As part of the Wastewater Facilities Plan for Hyperion, the City's largest Water Reclamation Plant, the City is assessing a wide variety of options to maximize recycling through regional collaboration and partnerships.*



*Each potential water recycling concept considered in the long-term alternatives analysis includes future system needs, a process flow schematic, and potential layout modifications.*

## Examples of Wastewater Facilities Plan Elements

The City is developing a comprehensive Wastewater Facilities Plan for its four WRPs: Hyperion, Terminal Island, Donald C. Tillman, and Los Angeles-Glendale. The purpose of this Facilities Plan is to optimize City assets and identify treatment plant improvements needed to increase water recycling and meet customer needs through 2040. The facilities plan documents the following for each WRP:

- ◆ Existing facilities, current treatment processes, and currently planned projects.
- ◆ Current issues, studies, evaluations, recommendations, and decisions for each process.
- ◆ Strategies for treatment options to meet future water demands.
- ◆ Climate resilient infrastructure recommendations to minimize risk and mitigate impacts.
- ◆ Phased Capital Improvement Plan needs including currently planned projects, improvements for existing deficiencies, and future system considerations.

### Donald C. Tillman WRP

Capacity: 80 mgd  
Avg Flow (2016): 32 mgd

#### Key modifications:

1. Ozonation/biofiltration for recharge (6 mgd)
2. Advanced treatment for GWR project by 2022

### LA-Glendale WRP

Capacity: 20 mgd  
Avg Flow (2016): 14 mgd

#### Key modifications:

1. Expand equalization tank storage capacity by 5 MG to increase water recycling
2. Recycled water expansion to Downtown LA

### Hyperion WRP

Capacity: 450 mgd  
Avg Flow (2016): 250 mgd

#### Key modifications:

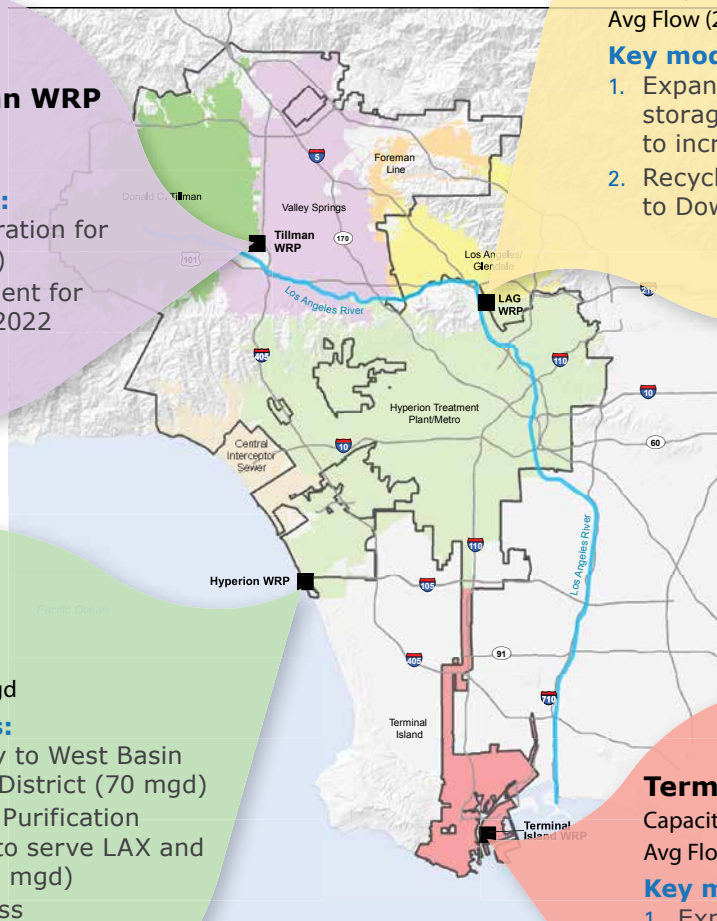
1. Increase delivery to West Basin Municipal Water District (70 mgd)
2. Advanced Water Purification Facility by 2019 to serve LAX and Scattergood (1.5 mgd)
3. Treatment process improvements for potable reuse expansion in the future

### Terminal Island WRP

Capacity: 30 mgd  
Avg Flow (2016): 15 mgd

#### Key modifications:

1. Expand advanced treatment capacity to 12 mgd
2. 100% Reuse with Harbor and Seawater Intrusion Barrier



# 6

**Increase climate resilience** by planning for climate change mitigation and adaptation strategies in all City actions.

## Progress to Date

- ◆ **Used EPA’s Climate Resilience Evaluation and Awareness Tool (CREAT)** to prioritize at-risk assets and develop planning level cost estimates to protect those assets.
- ◆ **Identified flood and tsunami impact zones** for the City’s pumping plants and coastal wastewater treatment plants.
- ◆ **Conducted field evaluations of critical and vulnerable facilities**, such as sewer lift stations and stormwater pump stations.
- ◆ **Developed practical solutions to mitigate risk**, such as relocating vulnerable electrical equipment and building barriers to protect against extreme flooding.



*Site visits helped to assess vulnerable facilities and identify practical, cost-effective measures for climate threats.*

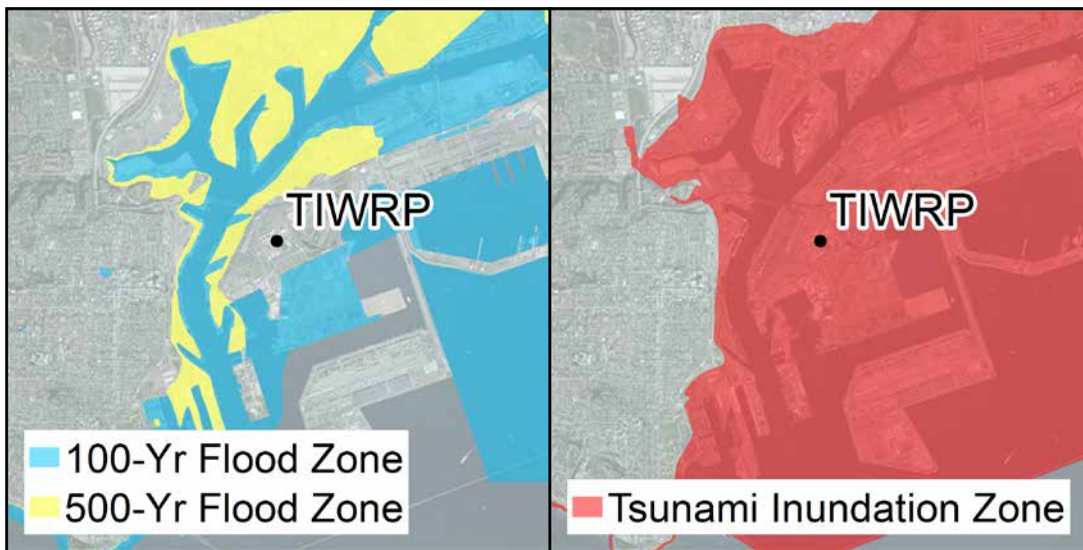
*Climate change impacts require modifications to planning, design, and construction approaches such as relocation of below ground pump stations vulnerable to flooding and construction of protective shoring.*





One Water LA addresses climate change impacts to wastewater and stormwater infrastructure. The City reviewed a variety of scenarios and solutions and adopted some of the best practices from areas and agencies who face similar climate threats. From the initial climate threat evaluation, the most likely and impactful scenarios include:

Climate Threat	Impact to Water Infrastructure	Possible Adaptive Measure
Increased temperatures	Diminished snowfall and earlier snowmelt in the Sierras	Develop more local water supplies to reduce dependence on purchased imported water
Increased number of hot days	Higher peak water demand	Increase distribution pumping capacity
Increased storm intensity	Higher flood risk to coastal infrastructure (e.g., pump stations)	Raising infrastructure and installing submarine doors
	Higher flows and infiltration entering pipelines/facilities	Increasing conveyance and pump station capacity
Increased prolonged drought	Declining surface water storage and groundwater levels	Increase water conservation, stormwater capture and expand recycled water production for groundwater replenishment
Sea level rise	Damage potential from storm surges and tsunamis	Reinforce perimeter walls and build waterproof structures



*The Port of Los Angeles has seen a 3-inch rise in sea level from 1932 to 2006. EPA’s CREAT tool evaluated climate change threats to the greater LA area , such as extreme precipitation, changes in sea level, flooding, and tsunami impact zones. Terminal Island WRP, one of the City’s four water reclamation plants, is located in both flood and tsunami zones.*

# 7

## Increase community awareness and advocacy for sustainable water by active engagement, public outreach and education.

### Progress to Date

- ◆ **Developed a comprehensive engagement strategy** that promotes integration, collaboration, and communication between various City departments, regional agencies, stakeholders, academia, and the general public.
- ◆ **Conducted numerous stakeholder workshops**, to involve representatives from neighborhood councils, community groups, non-profits, business interests, academia, and citizens in the Plan's development.

*One Water LA seeks to include perspectives from diverse interests. Presentations on One Water LA to Business interests include: LA Business Council, the LA Area Chamber of Commerce (shown below), the Water Cluster of LA's Clean Tech Incubator, and the Valley Industry and Commerce Association.*

- ◆ **Coordinated with "Save the Drop"** campaign and other City water education efforts to make sure clear and consistent information is shared with the public.
- ◆ **Conducted educational presentations** and hosted information booths at local conferences and public events, such as the Annual Congress of Neighborhood Councils, Mayor's Health Expo, and Earth Day.
- ◆ **Promoted the City's recycled water fill station pilot program** and held certification training at select One Water stakeholder workshops.
- ◆ **Partnered with schools and universities** to expand water-related education and community engagement programs.

*Stakeholders participated in round-table discussions on future project opportunities and evaluation criteria at a World Café style stakeholder workshop.*



## Examples of Public Engagement Activities



*LASAN hosted its first annual Earth Day LA on April 23, 2016 to share the importance of water and zero waste. (Photo: left and above). City staff operated recycled water fill stations to give free recycled water to residential LADWP customers. (Photo: far left).*

### Young Citizen Artists Project

One Water LA partners with charter schools and the Los Angeles Unified School District on the Young Citizen Artists Project to challenge students in creating new ideas and solutions to capture, conserve, and reuse water at their local schools and in their community. Last year, students from four schools participated in the project. Engineers from the City made presentations to the students, led tours of the Hyperion Water Reclamation Plant, and provided mentorship. The students gained a deeper understanding of LA's water management challenges.

*Students from the Young Citizen Artist Project present their final projects at Los Angeles City Hall to a panel of City officials.*



### Pepperdine University Education to Business Program

One Water LA partnered with Pepperdine University's Education to Business Program (E2B) to gather their ideas on One Water's public engagement strategy. A dedicated class of MBA students spent 13 weeks researching, analyzing, and developing recommendations to increase awareness of the One Water LA Plan and foster advocacy for sustainable water projects and programs.

*Pepperdine's E2B program's MBA students present a certificate to LASAN celebrating the culmination of the partnership.*



## SECTION 4

# One Water LA Roadmap

The One Water LA 2040 Plan provides the roadmap for City departments and regional agencies to find new ways to integrate their respective practices and services. Through ongoing collaboration, City departments and regional agencies are finding new ways to implement projects such that the City's taxpayer and ratepayer dollars are used cost-effectively by leveraging resources and maximizing benefits.

This section describes how One Water LA's collaborative approach is shifting focus to a smarter urban water cycle. The One Water LA Implementation Strategy includes projects, policies and programs.



SECTION 4



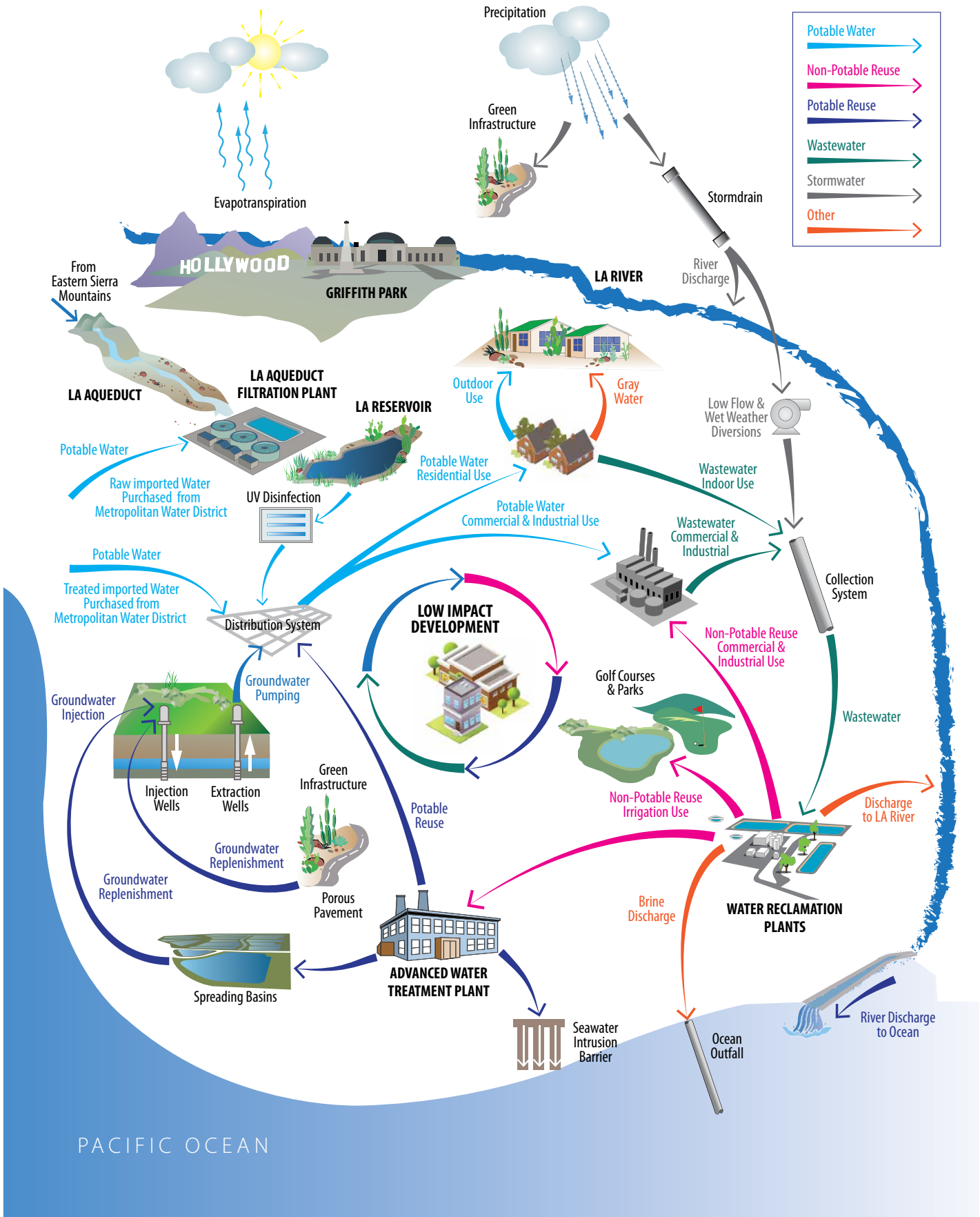
# Creating a Smart Urban Water Cycle

The City of Los Angeles has embraced a new way of thinking about its water resources. Within the One Water paradigm, all of the City’s water is linked throughout the urban water cycle. The Plan identifies projects, policies, and programs to make LA’s urban water cycle smarter by creating “short-cuts” that increase recycling opportunities and minimize losses to the ocean. Below are a list of key integration opportunities explored by One Water LA that help reduce reliance on purchased imported water, develop more local water supply sources and improve water quality.

- ◆ Increase stormwater capture and recharge through Low Impact Development (LID) and green infrastructure projects and programs.
- ◆ Increase stormwater capture, treatment, and reuse at neighborhood, sub-watershed, and regional levels.
- ◆ Increase use of the groundwater basin for storage through new recharge projects.
- ◆ Optimize and maximize recycled water for irrigation, commercial, industrial, and groundwater recharge uses.
- ◆ Understand water needs for the Los Angeles River.
- ◆ Explore the potential potable reuse options for advanced treated wastewater at each of the City’s four WRPs.
- ◆ Explore the potential of potable reuse opportunities outside the San Fernando Groundwater Basin through inter-agency partnerships.
- ◆ Continue water conservation by residential, commercial, and industrial users.



To illustrate the opportunities that will contribute to a sustainable One Water future for all Angelenos, the City has developed a smarter version of LA's urban water cycle.



Disclaimer: This schematic is intended to provide an illustrative example of the urban water cycle aspects in the City of LA, and many urban water cycle aspects are not incorporated.

# Near-Term Integration Opportunities

Near-term integration opportunities were identified to demonstrate the advantages of collaboration between various departments and agencies and establish an institutional framework to facilitate that collaboration.

Near-term integration opportunities are not new projects; they are projects that are currently moving forward that may benefit from support through the One Water LA planning effort. In workshop settings, the Steering Committee came up with more than 40 near-term project integration opportunities. These opportunities were screened and selected. The top four opportunities are currently further developed as “Case Studies”.

The purpose of the Case Studies is to function as role models for future projects by establishing the necessary relationships, policies, agreements, and/

or collaborative arrangements required to implement multi-departmental/agency integrated projects.

The top four case studies are:

- ◆ Delivery of advanced treated recycled water to LAX and Scattergood Generating Station
- ◆ Rancho Park Water Treatment Facility
- ◆ Water Management Strategies for the LA Zoo’s Master Plan
- ◆ Capture of stormwater at LAUSD schools

See below and reference page 29 for a brief overview of the case studies.

## Delivery of Advanced Treated Recycled Water to LAX and Scattergood Generating Station

This project involves collaboration and coordination between LASAN, LADWP, and Los Angeles World Airports. The City is planning to build a 1.5 mgd advanced water purification facility at Hyperion WRP, which could be expanded to deliver up to 5 mgd of high quality water. This project will deliver advanced treated water to LAX and the Scattergood Generating Station for commercial and industrial use.

*With nearly 90 million annual passengers, LAX provides an excellent opportunity to increase education about recycled water and the City’s sustainability and climate change resiliency goals.*





# Long-Term Strategies

One Water LA’s long-term strategies consist of a mix of projects and programs that support the One Water LA objectives, the Sustainable City pLAN goals and the supply strategy defined in the 2015 UWMP. Presently, there are 25 concepts grouped into eight categories:

- ◆ Distributed Stormwater Best Management Practices
- ◆ Regional or Centralized Stormwater Best Management Practices
- ◆ Indirect Potable Reuse
- ◆ Direct Potable Reuse
- ◆ Non-Potable Reuse (NPR or Purple Pipe)

- ◆ Stormwater to Sewer Low Flow Diversions
- ◆ LA River Storage and Use
- ◆ Ocean Water Desalination

As part of the long-term strategy development, 25 ideas were developed, evaluated, scored and ranked. The most promising ideas will be combined as recommended long-term strategies to maximize recycled water use, contribute to supply resiliency and provide multiple water quality benefits. The combination of selected ideas will ultimately be integrated in the One Water LA Implementation Strategy.

*The concepts include a wide variety of stormwater, groundwater, potable reuse, and other local water management strategies. These local supply options will be evaluated and selected concepts may become the cornerstone of LA’s future water supplies.*



# Long-Term Policies

The City is currently looking at a select group of short-term and long-term policies, ordinances, and programs to help implement the One Water LA vision and objectives. The One Water LA team will work closely with the Mayor's Water Cabinet, City departments, regional agencies, and stakeholders to advance the policies and programs.

Through a comprehensive effort, the City and their partners developed an initial list of approximately 200 policy ideas. The list came from reviewing policy recommendations from past planning efforts and discussions with the Steering Committee, Advisory Group, Special Topic Groups, and stakeholders. These 200 policy ideas covered a variety of topics, including:

- ◆ Integrated Planning and Design
- ◆ Stormwater and Urban Runoff
- ◆ Training and Education
- ◆ Improve Collaboration and Streamline Implementation
- ◆ Funding and Partnerships
- ◆ Sustainability and Climate Change Resiliency
- ◆ Conservation
- ◆ Recycled Water
- ◆ LA River Revitalization

The policy ideas are being further refined and aligned with One Water LA's objectives to make sure that the recommended policies advance the One Water LA vision. The City will present select policies, ordinances, and programs to the Mayor's Water Cabinet to consider for adoption.

**The One Water LA 2040 Plan will include a list of practical policy recommendations that will help achieve the One Water LA vision and objectives.**

*In December 2016, the City held an interactive policy discussion with more than 50 stakeholders to gain input on the initial policy ideas list and gather additional ideas for consideration.*



# Funding Strategies

The projects recommended by the One Water LA 2040 Plan may need to be funded differently than traditional projects. For example, water, wastewater, and recycled water projects are primarily funded through utility rates. Projects affecting stormwater, habitat restoration, water conservation, or similar efforts typically don't have established "user paid" funding structures.

The City has been working closely with LA County Department of Public Works to develop a regional revenue source for stormwater management and identify other funding options, such as:

**Cost-sharing Frameworks:** The cost of multi-benefit projects can be shared between beneficiary departments and agencies through partnerships.

**Grant Funding:** Guide the City departments to make decisions on local, state, and federal grant funding options for collaborative projects.

**Loan Programs:** Present a list of both existing and anticipated future (low interest) loan programs.

**Public-Private Partnerships (P3):** Identify various projects that could attract P3 financing.

**Tax Measures:** Look at implementing special taxes at the regional, municipal, or state level.

**Traditional Municipal Funding:** This would involve bond issues similar to Proposition O.

**State and Federal Tax Credit Programs:** These are available to agencies that implement projects that achieve specific results, such as environmental or water quality improvements.

## Other Potential Funding Sources:

- ◆ Water Infrastructure Improvements for the Nation Act (2016)
- ◆ State Revolving Funds
- ◆ State of California's Proposition 1
- ◆ Measure A for LA County's parks
- ◆ City of LA's sidewalk repair program

The Special Topics Group presented their top recommendations for funding strategies, which included:

- ◆ Explore stormwater tax or fee options.
- ◆ Develop an integrated planning approach with the County and other cities.
- ◆ Increase use of State Revolving Funds (SRF) for multi-benefits projects.
- ◆ Determine how to prioritize projects by measuring results and the value of benefits.



*Stakeholders participating in the Funding Special Topic Group gathered and compared funding ideas that are incorporated in the One Water Plan.*

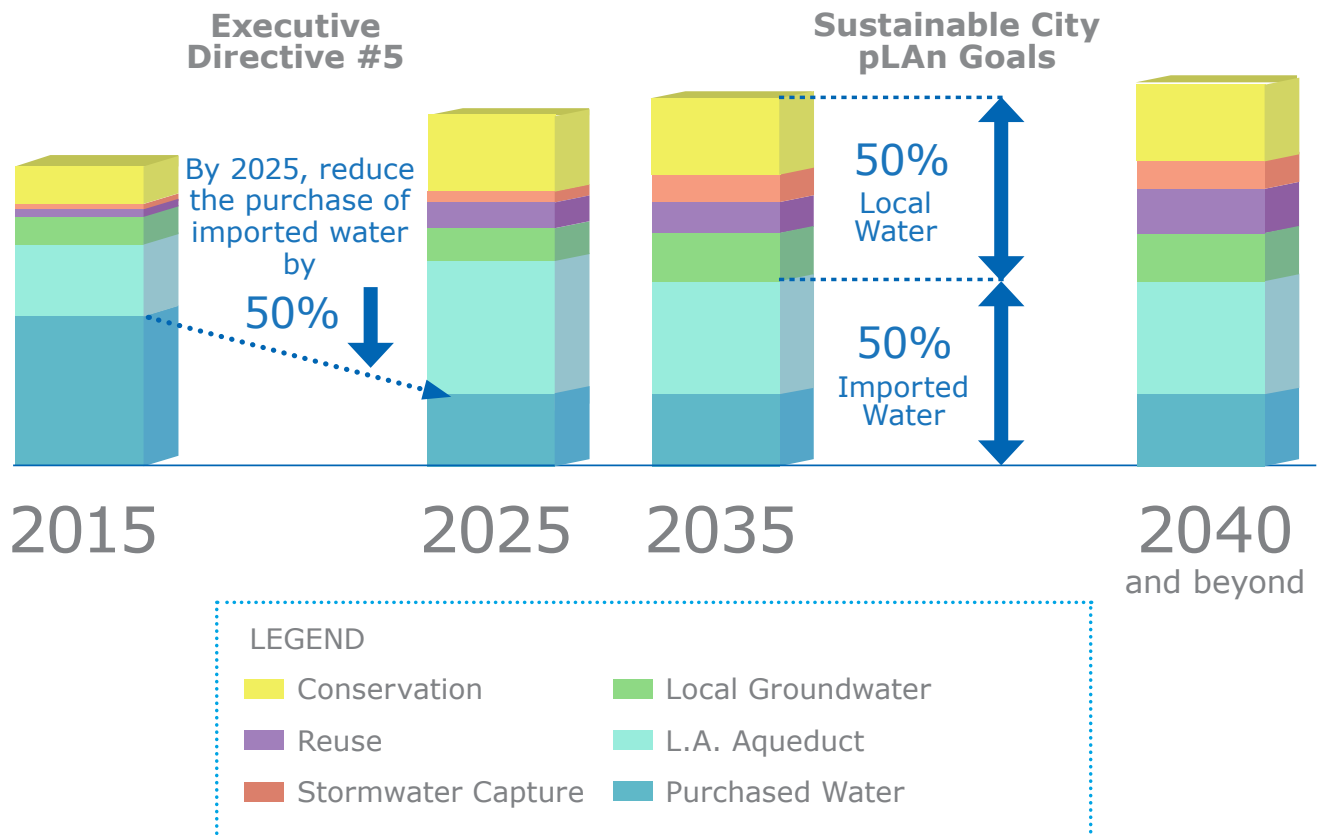


# Implementation Strategy

The City is already engaged in many activities, projects, and programs that support the One Water LA objectives and guiding principles. However, there is a long road ahead to realize the ultimate vision of One Water LA. The One Water LA 2040 Plan will include an Implementation Strategy that will serve as a roadmap to guide the City’s decision-making to transform the One Water LA vision into reality. This Implementation Strategy will consist of projects, programs, and policies that collectively achieve the One Water LA 2040 objectives and support the Sustainable City pLAN goals.

A special focus on integration opportunities will enhance collaboration among City departments, regional agencies, and partners including businesses, non-profits, neighborhood organizations, and schools. The Implementation Strategy will include timelines based on known and anticipated triggers and goals, such as, completion of key projects; future flows and demands due to growth; stormwater compliance deadlines; and potable reuse regulations. The purpose of the One Water LA Implementation Strategy is to help manage the City’s water resources, watersheds, and water facilities in an environmentally, economically, and socially beneficial manner.

*To achieve the Sustainable City pLAN water supply reliability goals, the City has already started with the implementation of specific projects. The One Water LA 2040 Plan will include an evaluation of a large number of new project ideas that will result in the recommendations presented in the One Water LA roadmap to 2040 and beyond.*



# The City's Executive Management is committed to making One Water LA a Success.



Adel Hagekhalil, LASAN Assistant Director, and Marty Adams, LADWP Chief Operating Officer, led the Regional Collaboration at a VerdeXchange charrette. This conference demonstrates the on-going regional collaboration with agencies such as LA County Department of Public Works, Water Replenishment District and Metropolitan Water District of Southern California. The discussion progressed long-term strategies presented in One Water LA such as potable reuse and stormwater management.

*"One Water LA has given us greater opportunities to continue our collaboration with LADWP and other City departments and regional agencies. Our top priority is no longer just water. It's improving the quality of life. We want to have the communities and our stakeholders involved in the creation of our infrastructure and water planning, not wait until the projects are done. Our goal is to have this be a plan by the community, for the community. We are connecting the dots, drops, and hearts of those we serve."*

*- Adel H. Hagekhalil, Assistant Director, LASAN*

*"The One Water LA effort has created real solidarity in addressing the City's varied water challenges. By better understanding the connectivity of our operations, jointly targeting multiple goals in stormwater management and collection, and aggressively creating new recycled water resources, we are approaching the issue of water in Los Angeles with a common mindset. Along with the entire City family, we are doing our collective best to consider every opportunity to further develop local water resources, improve drainage and flood protection, and protect downstream environments from pollution off our streets."*

*- Marty Adams, Chief Operating Officer, LADWP*

## List of Abbreviations

Abbreviation	Description	Abbreviation	Description
AFY	acre-feet per year	LAX	Los Angeles International Airport
BMPs	best management practices	LFD	low flow diversion
City	City of Los Angeles	LID	low impact development
CREAT	Climate Resilience Evaluation and Awareness Tool	MG	million gallons
DPR	Direct Potable Reuse	mgd	million gallons per day
E2B	Education to Business	MWD	Metropolitan Water District of Southern California
EPA	Environmental Protection Agency	NPR	non-potable reuse
EWMP	Enhanced Watershed Management Program	PEIR	Programmatic Environmental Impact Report
IPR	Indirect Potable Reuse	RAP	Los Angeles Department of Recreation and Parks
IRP	Integrated Resources Plan	SCMP	Stormwater Capture Master Plan
LAA	Los Angeles Aqueduct	TMDL	total maximum daily load
LADWP	Los Angeles Department of Water and Power	UCLA	University of California Los Angeles
LASAN	Los Angeles Sanitation	UWMP	Urban Water Management Plan
LAWA	Los Angeles World Airports	WRP	water reclamation plant

## Glossary

Glossary	Definition
Best Management Practices (BMP)	Any program, technology, process, siting criteria, operating method, measure, or device that controls, prevents, removes, or reduces pollution.
Conservation	Act of using the resources only when needed for the purpose of protecting from waste or loss of resources.
Direct potable reuse	The addition of advanced treated recycled water (purified water) directly to a potable water distribution system.
Discharge	The volume of water that passes a given point within a given period of time. It is an all-inclusive outflow term, describing a variety of flows such as from a pipe to a stream, or from a stream to a lake or ocean.
Downstream	In the direction of a stream's current. For example, in the City of Los Angeles Hyperion Wastewater Treatment Plant is downstream to Donald C. Tillman Plant and the Los Angeles-Glendale Water Reclamation Plant; these plants are able to provide critical hydraulic relief to the City's major sewers downstream
Drought	A long period of below-average precipitation.
Effluent	Municipal sewage or industrial liquid waste (untreated, partially treated, or completely treated) that flows out of a treatment plant, septic system, pipe, etc.
Graywater	Graywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers.
Green Infrastructure	An adaptable term used to describe an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff.
Groundwater	(1) Water that flows or seeps downward and saturates soil or rock, supplying springs and wells. The upper surface of the saturated zone is called the water table. (2) Water stored underground in rock crevices and in the pores of geologic materials that make up the Earth's crust.

## Glossary

Glossary	Definition
Groundwater Recharge	Inflow of water to a groundwater reservoir from the surface. Infiltration of precipitation and its movement to the water table is one form of natural recharge.
Imported Water	Water brought into the City of Los Angeles from a non-tributary source either from the Los Angeles Aqueduct, through purchase directly from the Metropolitan Water District of Southern California or by direct purchase from a member agency.
Indirect Potable Reuse (IPR)	The blending of advanced treated recycled water into a natural water source (groundwater basin or reservoir) that could be used for drinking (potable) water after further treatment.
Integrated Resource Planning (IRP)	A method for looking ahead using environmental, engineering, social, financial, and economic considerations; includes using the same criteria to evaluate both supply and demand options while involving customers and other stakeholders in the process.
Low Flow	Minimum instantaneous stream flow during periods of low water runoff.
Low Impact Development (LID)	A sustainable landscaping approach that can be used to replicate or restore natural watershed functions and/or address targeted watershed goals and objectives.
Non-Potable	Water that may contain objectionable pollution, contamination, minerals, or infective agents and is considered unsafe and/or unpalatable for drinking.
Potable Water	Water that is satisfactory for drinking and cooking.
Potable Reuse	A general term for the use of recycled water to augment drinking water supplies. Potable reuse, which covers both indirect and direct potable reuse, involves various forms of treatment options.
Rain Garden	A rain garden is a depressed area of the ground planted with vegetation, allowing runoff from impervious surfaces such as parking lots and roofs the opportunity to be collected and infiltrated into the groundwater supply or returned to the atmosphere through evaporation and evapotranspiration.
Receiving Waters	Creeks, streams, rivers, lakes, estuaries, groundwater formations, or other bodies of water into which surface water and/or treated or untreated wastewater are discharged, either naturally or in man-made.
Recycled Water	Reclaimed water that meets appropriate water quality requirements and is reused for a specific purpose.
Runoff	The excess portion of precipitation that does not infiltrate into the ground, but "runs off" and reaches a stream, water body or storm drain.
Sewer	A system of underground pipes that collect and deliver wastewater to treatment facilities or streams.
Stakeholders	Individuals and organizations that are involved in or may be affected by a proposed action, such as construction and operation of a water recycling project.
Total Maximum Daily Load (TMDL)	The sum of the individual waste load allocations and load allocations. A margin of safety is included with the two types of allocations so that any additional loading, regardless of source, would not produce a violation of water quality standards.
Urban Water Cycle	The Water Cycle in an urban environment; includes the consequences of increased development. More development and more concrete means less infiltration of rainwater into the soil, and more runoff.
Wastewater	Usually refers to effluent from an industrial or municipal sewage treatment plant. See also domestic wastewater.
Wastewater Treatment	Wastewater treatment process that includes combinations of physical and chemical operation units designed to remove nutrients, toxic substances, or other pollutants. Advanced, or tertiary, treatment processes treat effluent from secondary treatment facilities using processes such as nutrient removal (nitrification, denitrification), filtration, or carbon adsorption. Tertiary treatment plants typically achieve about 95% removal of solids and BOD in addition to removal of nutrients or other materials.
Water Cycle	The circuit of water movement from the oceans to the atmosphere and to the Earth and return to the atmosphere through various stages or processes such as precipitation, interception, runoff, infiltration, percolation, storage, evaporation, and transportation.
Water quality	A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.
Water Reclamation	(1) The treatment of water of impaired quality, including brackish water and seawater, to produce a water of suitable quality for the intended use. (2) A term synonymous with water recycling.
Water Recycling	The process of treating wastewater for beneficial use, storing and distributing recycled water, and the actual use of recycled water.
Watershed	The area or region of land draining into a common outlet such as a river or body of water. Synonymous with river basin or drainage basin.

# A COLLABORATIVE APPROACH TO INTEGRATED WATER MANAGEMENT



Progress Report prepared by LASAN and  
LADWP with additional support from:





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## ONE WATER LA BROCHURES

The following pages include a variety of brochures that were developed during the One Water LA Plan development to communicate the purpose, highlights, and achievements made with stakeholders and the general public. The titles of the brochures presented sequentially in this section are:

- One Water LA Brochure
- One Water LA Fact Sheet
- One Water LA Briefing Document
- One Water LA Progress Summary

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MARCH 2016

### STAKEHOLDERS DRIVING LA'S WATER FUTURE DIRECTION

Stay up to date on the City of Los Angeles' collaborative approach to manage the City's watersheds, water resources, and water facilities in an environmentally, economically and socially beneficial manner.

### ABOUT ONE WATER LA

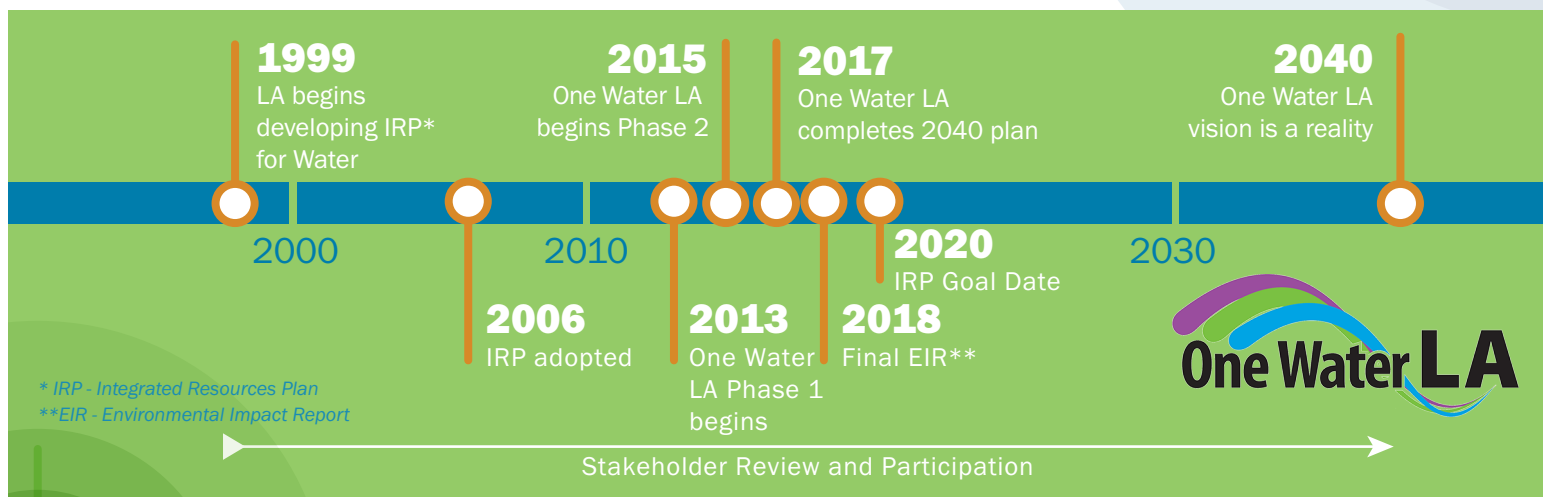
One Water LA is a long-term commitment to ensure LA's water future through collaboration, integration and public involvement, and it includes the One Water LA 2040 **Plan** that will be completed in 2017 and will provide the direction to achieve the program's vision.

One Water LA pulls together the multitude of agencies and stakeholders working on LA's water issues and addresses challenges associated with:

- ▶ Increased water demand
- ▶ Aging infrastructure
- ▶ More stringent regulations
- ▶ Dependence on imported water



- 1 About One Water LA  
One Water LA 2040 Plan
- 2 Sustainability pLAn  
Building One Water LA Phase 1 and Phase 2
- 3 Measurable Progress Underway
- 4 Water Heroes  
Get Involved



\* IRP - Integrated Resources Plan  
\*\*EIR - Environmental Impact Report



### ONE WATER LA 2040 PLAN

The City of Los Angeles is well underway in preparing the One Water LA 2040 Plan, an integrated approach for water supply, wastewater treatment, and stormwater management. The new plan builds upon the success of the City's Water Integrated Resource Plan (2000-2020) and will set the bar for a more sustainable and resilient way to manage the City's future water needs. One Water LA identifies collaborative approaches that will yield sustainable, long-term water supplies for Los Angeles and will provide greater resiliency to drought conditions and climate change.



**One Water LA is a critical component of the City of Los Angeles Sustainability pLAN to strengthen and transform the City and focuses on ensuring a sustainable water future for Los Angeles. Central themes include:**

- ▶ **Reducing per capita potable water use by 25% by 2035**
- ▶ **Reducing purchased imported water by 50% by 2024**
- ▶ **Creating Integrated Local Water Strategy**

## BUILDING ONE WATER LA

### *What Happened in Phase 1?*

Preparation of the One Water LA 2040 Plan is occurring in two phases (managed by LA Sanitation and the Department of Water and Power). In Phase 1, the City created a highly effective and meaningful stakeholder engagement process, resulting in the primary building blocks for the One Water LA 2040 Plan:

**One Water LA website, social media, and informational materials**

**Vision Statement and Objectives**

**Draft City water policies**

**Guiding Principles**

**8-member Advisory Group**

**29-member Steering Committee**

**350+ Stakeholders**



### *What's Next for Phase 2?*

Phase 2 is now underway, focusing on technical aspects that range in complexity and objectives. The biggest task includes coordinated capital improvement plans for wastewater/recycled water, stormwater, and urban runoff. Additional components include policies, ordinances, funding strategies, and special studies to support implementation. While Phase 2 pulls together prior studies, it also includes new analysis to direct integration strategies and priorities.

### *Stakeholder Participation Central to Phase 2 Planning*

Expanding the stakeholder involvement process continues to be an essential part of One Water LA. In addition to continuation of Phase 1 stakeholder processes, Phase 2 includes expanding the Stakeholder Advisory Group to diversify representation, holding learning sessions for focused topic reviews and discussions, and inviting stakeholders to join Special Topic Groups where opportunities for in-depth discussion and input on the plan's direction are provided. Groups include:

- ▶ Decentralized/Onsite Treatment
- ▶ Stormwater and Runoff Management
- ▶ Partnerships, Collaboration and Innovation
- ▶ Funding and Cost-Benefit Analysis
- ▶ Outreach and Communication

Each group has three meetings to develop ideas and recommendations, which are incorporated where feasible and will be summarized at a future stakeholder workshop.

## MEASUREABLE PROGRESS UNDERWAY

One Water LA has achieved unmatched success in providing the framework for City departments, regional entities and stakeholders to work together on the big water picture – water supply, water uses, environmental needs, and long-term challenges and solutions. Accomplishments and activities underway include:

- ▶ **Modified City engineering specifications to allow recycled water in concrete**
- ▶ **Discussion of potential expansion of recycled water uses at the LA Zoo**
- ▶ **Stormwater projects reviewed from the City's Green Streets Committee**
- ▶ **Recommendations to the Living Streets Advisory Committee**
- ▶ **Modifications and changes to the Planning Department's codes related to water (re:Code LA)**
- ▶ **Mobility plan review and recommendations**
- ▶ **Final review of the Green Alleys Report, a State of CA Department of Water Resources grant-funded project**
- ▶ **Review and recommendations to LA County and Bureau of Reclamation's Los Angeles Basin Stormwater Conservation Study**
- ▶ **Identification of climate-change resilient trees with local nurseries**
- ▶ **Meetings with Los Angeles Unified School District (LAUSD) management to determine potential for off-site stormwater storage and treatment options**
- ▶ **Discussions with UCLA on regional water planning**
- ▶ **Creation of the One Water LA curriculum for the LAUSD**
- ▶ **Partnership with Pepperdine University MBA students to develop marketing plan for One Water LA**
- ▶ **Development of the Water Balance Tool to measure and evaluate water management options**
- ▶ **Partnership with Charter Schools for their "Young Citizens Artist Project" challenging students to create new ideas to meet the City's current water challenges and protection of public health.**

### *Phase 2: Path Forward for Sustainable Water Supply*

#### **The One Water LA Plan will consider:**

- ▶ Potable reuse
- ▶ Non-potable reuse
- ▶ Climate change
- ▶ Wastewater & Stormwater Infrastructure
- ▶ Stormwater capture & treatment
- ▶ Los Angeles River
- ▶ Water conservation
- ▶ Decentralized/on-site reuse
- ▶ City department collaboration & regional partnerships
- ▶ City policies



**One Water LA Phase 2 will identify coordinated solutions to meet the City's local supply goals by maximizing recycled water, City assets and partnerships.**

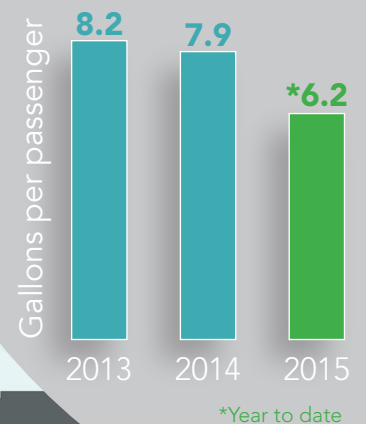
# WATER HEROES

## LOS ANGELES WORLD AIRPORTS

Los Angeles World Airports (LAWA) is doing its part to reduce potable water use in the City. LAWA's water conservation initiatives address landscapes, construction-related dust control, as well as public outreach. Highlights include:

- ▶ Conversion of 63% (51 acres) of all LAX landscapes to recycled water irrigation
- ▶ Discontinuation of irrigation in non-public areas
- ▶ Conversion of 2.39 acres of turf to bark/stone
- ▶ Reduction of potable water irrigation from five days per week to two days per week
- ▶ 95% terminal faucets, toilets, and urinals are low-flow or ultra-low flow (saving about 50 to 80 million gallons per year)
- ▶ Use of recycled water and water conservation signage throughout LAWA facilities

LAWA's efforts at LAX have resulted in **33% reduction in potable water use (comparing gallons per passenger used from 2011-2014) despite a 14% increase in the number of passengers during the same time period.**



## GET INVOLVED

**Essential stakeholder understanding and participation will help design the future of One Water LA and ensuring a sustainable water future for Los Angeles. The success of One Water LA requires the recruitment of community stakeholders and each individual to take action.**

Please visit [www.OneWaterLA.org](http://www.OneWaterLA.org)

**Stakeholder Sign-Up Link**

[www.lacitysan.org/2040signup](http://www.lacitysan.org/2040signup)



**WWW.ONEWATERLA.ORG**  
**All water is One Water**



## VISION

**One Water LA is the City of Los Angeles' collaborative approach to manage the City's watersheds, water resources, and water facilities in an environmentally, economically and socially beneficial manner.**

## SOLVING LA'S WATER CHALLENGES

One Water LA pulls together the multitude of agencies and stakeholders working on LA's water issues and addresses challenges associated with:

- ▶ Increased water demand
- ▶ Aging infrastructure
- ▶ More stringent regulations
- ▶ Dependence on imported water

This initiative provides the framework for City Departments, regional entities and stakeholders to work together on the big water picture – water supply, water uses, environmental needs, and long-term challenges and solutions.

## MANAGE ALL WATER AS ONE WATER



## ONE WATER LA OBJECTIVES

- ▶ **Integrate management of water resources and policies** by increasing coordination and cooperation between all City departments, partners and stakeholders.
- ▶ **Balance environmental, economic and societal goals** by implementing affordable and equitable projects and programs that provide multiple benefits to all communities.
- ▶ **Improve health of local watersheds** by reducing impervious cover, restoring ecosystems, decreasing pollutants in our waterways and mitigating local flood impacts.
- ▶ **Improve local water supply reliability** by increasing capture of stormwater, conserving potable water and expanding water reuse.
- ▶ **Implement, monitor and maintain a reliable wastewater system** that safely conveys, treats and reuses wastewater while also reducing sewer overflows and odors.
- ▶ **Increase climate resilience** by planning for climate change mitigation and adaptation strategies in all City actions.
- ▶ **Increase community awareness and advocacy** for sustainable water by active engagement, public outreach and education

## BENEFITS

One Water LA will lead to smarter land use practices, healthier watersheds, greater reliability of our water and wastewater systems, increased efficiency and operation of our utilities, enhanced livable communities, resilience against climate change and protection of public health.

## LIVABLE COMMUNITIES



- ▶ Green Streets
- ▶ Parks & Open Space

## ENVIRONMENT



- ▶ Ecosystem Restoration
- ▶ Reduced Carbon Emissions

## ECONOMIC BENEFITS



- ▶ Local Job Creation
- ▶ Utility Efficiencies

## ENERGY MANAGEMENT



- ▶ Lower Energy Needs
- ▶ Greener Energy

## WAYS TO BECOME INVOLVED

Essential stakeholder understanding and participation will help design the future of One Water LA and ensure a sustainable water future for Los Angeles. The success of One Water LA requires the recruitment of community stakeholders and each individual to take action.

Find out all the ways you can join the One Water team and make a difference!

Please visit: [www.OneWaterLA.org](http://www.OneWaterLA.org)

Stakeholder Sign-Up Link:

[www.lacitysan.org/onewater/2040SignUp.cfm](http://www.lacitysan.org/onewater/2040SignUp.cfm)

**One Water LA** is a critical component of the City of Los Angeles Sustainability pLAN to strengthen and transform the City and focuses on ensuring a sustainable water future for Los Angeles. Central themes include:

- ▶ Reducing per capita potable water use by 25% by 2035
- ▶ Reducing purchased imported water by 50% by 2025
- ▶ Creating Integrated Local Water Strategy



[WWW.ONEWATERLA.ORG](http://WWW.ONEWATERLA.ORG)

All water is One Water

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ALL WATER IS ONE WATER



2016

## WHAT IS ONE WATER LA?

One Water LA is a collaborative approach to develop an integrated framework for managing the City's water resources, watersheds, and water facilities in an environmentally, economically and socially beneficial manner.

## LA'S WATER CHALLENGES

Los Angeles imports nearly 90 percent of its water which is increasingly costly and reduces local control.

### Our water future is challenged by:

- ▶ Drought
- ▶ Increasing Demand
- ▶ Aging Infrastructure
- ▶ More Stringent Regulations
- ▶ Limited Funding
- ▶ Dependence on Imported Water
- ▶ Climate Change

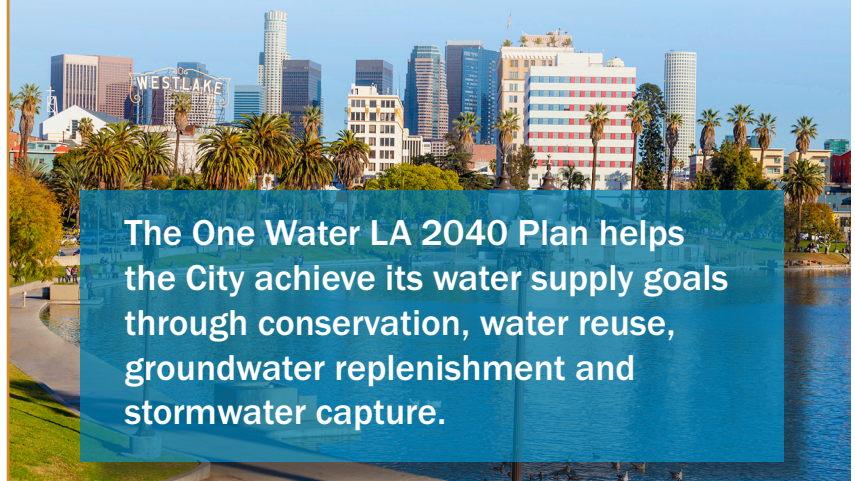


To make our community a better place to live and work, we have to keep our water clean, increase local water supplies, and continue greening our City. This can be done through planning and managing *all* water as One Water.

## THE PLAN TO ENSURE LA'S WATER FUTURE

### ONE WATER LA OBJECTIVES

- ▶ Integrate management of water resources and policies
- ▶ Balance environmental, economic and societal goals
- ▶ Improve health of local watersheds
- ▶ Improve local water supply reliability
- ▶ Implement, monitor and maintain a reliable wastewater system
- ▶ Increase climate resilience
- ▶ Increase community awareness and advocacy



The One Water LA 2040 Plan helps the City achieve its water supply goals through conservation, water reuse, groundwater replenishment and stormwater capture.

### Sustainability pLAN

One Water LA is a central part of LA's efforts to reduce reliance on purchased imported water by increasing local water supply.



Reduce purchased imported water by 50%  
**2025**



Source 50% water locally  
**2035**

## HOW ONE WATER LA WORKS

One Water LA is a roadmap, connecting plans, ideas, and people to arrive at better and fiscally-responsible water planning solutions. One Water LA seeks to improve the health of local watersheds, increase climate change resilience, and safely convey, treat and reuse wastewater. By analyzing the total water picture, the City is creating more efficient projects that maximize resources and minimize cost. The City will pursue multi-beneficial projects, pool financial resources, and identify funding opportunities.



**Rain/Stormwater**  
**Groundwater**  
**Wastewater**  
**Recycled Water**  
**Drinking Water**

## ONE WATER LA 2040 PLAN

Los Angeles is well underway in preparing the One Water LA 2040 Plan which builds upon the success of the 2006 Water Integrated Resources Plan (2000-2020).



## COLLABORATION IS KEY TO SUCCESS

**We All Have a Role in Ensuring LA's Water Future.** All of us can take action to help save, capture and reuse water. Success relies on community members, government, business, academics, and interest groups working together to find cooperative ways to increase our local water supply.

## HOW CAN YOU HELP?

Participation by informed Angelenos will help shape the future of One Water LA and ensure a sustainable water future for Los Angeles.

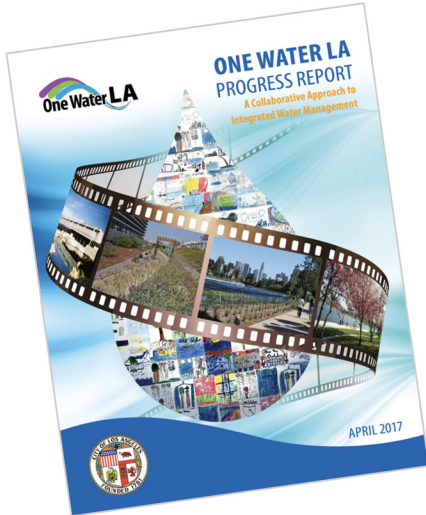
- ▶ **Get involved**
- ▶ **Request a presentation**
- ▶ **Take tours**
- ▶ **Share information with colleagues**
- ▶ **Share your ideas**



Join a multitude of agencies, groups and individuals working together to evaluate the whole picture, address challenges, find solutions, and develop the vision and technical plans necessary to secure LA's water future.

**FOR MORE INFORMATION, PLEASE VISIT [WWW.ONEWATERLA.ORG](http://WWW.ONEWATERLA.ORG)**  
**All Water is One Water**

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Progress Report as of April 2017. Further details on the One Water LA 2040 Plan can be found here: [www.onewaterla.org](http://www.onewaterla.org).

# Progress Summary

## A Collaborative Approach to Integrated Water Management

The City of Los Angeles launched the One Water LA 2040 Plan development with two primary goals:

- 1 Develop a vision and implementation strategy to manage water in a more efficient, cost effective, and sustainable manner, and
- 2 Identify ways for City departments and regional agencies to integrate their current water management strategies.

One Water LA is a collaborative plan that changes the way the City of Los Angeles thinks about water. The Plan helps the City achieve its water management supply goals through conservation, water recycling, groundwater replenishment, and stormwater capture. By finding better ways to manage water, we can be smarter about how we use it. In turn, we can also help improve water supply reliability, improve system efficiency, and continue to protect public health and our environment.

The Plan’s success relies on integration of diverse perspectives. This is achieved through collaboration and cooperation from City departments, regional agencies, neighborhood councils, businesses, non-profits, and academia. Together we can achieve the One Water LA vision!

## What is One Water LA?

Reduce the purchase of imported water by 50%  
**50%** 2025

Source 50% of water locally  
**50%** 2035

Capture 150,000 acre-feet per year of stormwater  
**150,000** AFY 2035

The One Water LA Plan supports the Sustainable City pLAn, which sets specific goals to reducing reliance on purchased imported water, increasing local water supplies, and making stormwater an important part of the water supply picture.

# The Two Phases of One Water LA

**Phase 1** defined the vision, objectives, and guiding principles of the One Water LA 2040 Plan. More than 350 stakeholders were involved in this phase, representing the City's diverse geography, demographics, and interests.

**Phase 2** involves detailed, integrated planning and policy analysis that will result in an implementation strategy to meet the One Water LA vision, objectives, and guiding principles. Some highlights of how the City is putting the pieces together toward achieving the seven objectives is summarized to the right.

The Plan is being developed by dedicated representatives from both LASAN and LADWP and shaped by input from other City departments, regional agencies, and stakeholders. This phase includes the preparation of the One Water LA 2040 Plan, which consists of many elements and deliverables that will form the foundation of the One Water LA Implementation Strategy.



# Putting The Pieces Together

## 1 INTEGRATE MANAGEMENT OF WATER RESOURCES AND POLICY

- Established the One Water LA Steering Committee to streamline decision-making
- Initiated the One Water LA Stakeholder Group representing diverse interests
- Collaborated with Stakeholders to identify policy and program opportunities
- Developed near-term integrated project opportunities to serve the community
- Developed a Water Balance Tool for city managers to evaluate water management ideas

## 2 BALANCE ENVIRONMENTAL, ECONOMIC, AND SOCIETAL GOALS

- Developed project evaluation criteria based on environmental, economic, and societal goals
- Engaged City departments and stakeholders to identify project opportunities
- Collaborated on how to evaluate future water management strategies
- Identified funding strategies and cost-sharing opportunities to leverage existing dollars and maximize public investments

## 3 IMPROVE HEALTH OF LOCAL WATERSHEDS

- Identifying partnerships and strategies to implement neighborhood-scale green infrastructure projects and programs
- Preparing stormwater and runoff facilities plan that incorporates water supply, water quality, and flood protection
- Preparing an LA River Flow Study
- Analyzing dry and wet weather flow diversion opportunities to improve waterway quality and increase recycled water availability

## 4 IMPROVE LOCAL WATER SUPPLY RELIABILITY

- Incorporating existing plans and programs to increase stormwater diversion and capture
- Conducting analyses of potable reuse and other opportunities to increase water recycling

The One Water LA 2040 Plan builds upon the success of the Water Integrated Resources Plan (Water IRP) and extends the planning horizon from 2020 to 2040.



# Together

## CHALLENGES

Online collaboration  
 Diverse interests  
 In recommendations  
 Serve as role models  
 Access to new water

## ISSUES

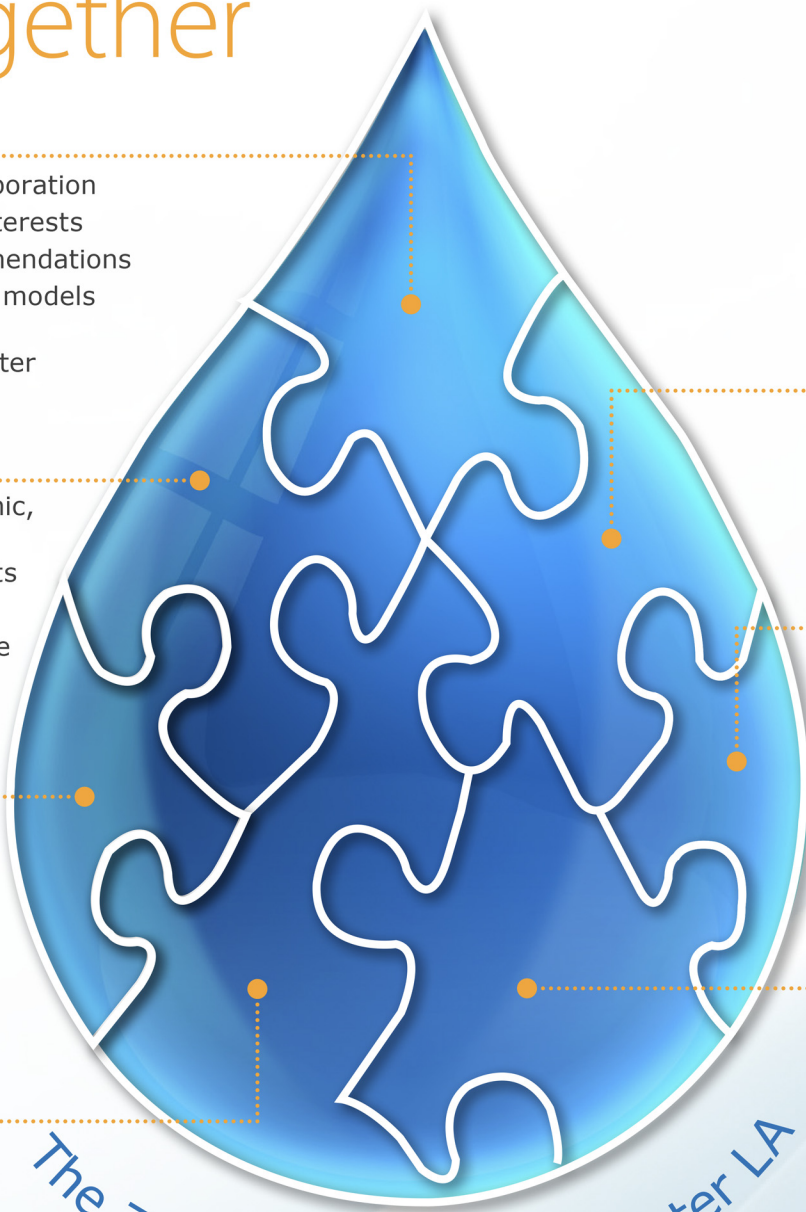
Political, economic,  
 Environmental  
 Social benefits  
 Strategies  
 To leverage

Systems  
 Assets

Availability

Water

Services



The 7 Objectives of One Water LA

### 5 IMPLEMENT, MONITOR, AND MAINTAIN A RELIABLE WASTEWATER SYSTEM

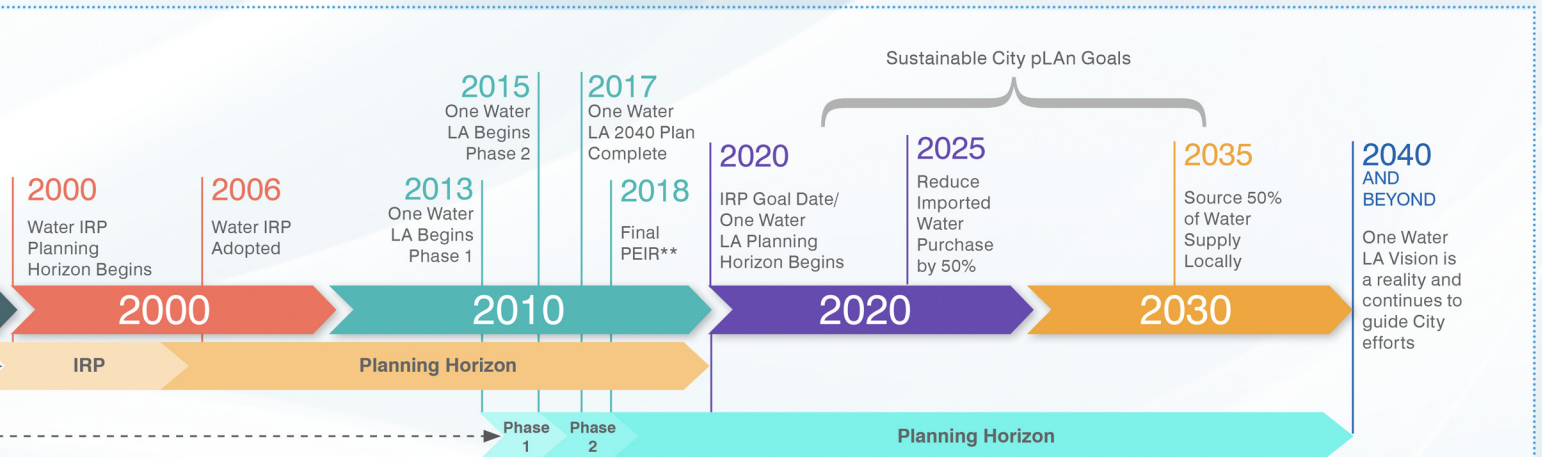
- Analyzing options to maximize and optimize potable reuse
- Preparing a wastewater facilities plan for the City's four Water Reclamation Plants

### 6 INCREASE CLIMATE CHANGE RESILIENCE

- Prioritized at-risk assets and developed asset protection costs and plans
- Identified flood and tsunami impact zones
- Conducted field evaluations of critical and vulnerable facilities
- Developed risk mitigation solutions for wastewater and stormwater facilities

### 7 INCREASE COMMUNITY AWARENESS AND ADVOCACY

- Conducting numerous workshops and informational meetings to involve stakeholders in the Plan's development
- Convened Special Topic Groups to provide a venue for in-depth discussions on key Plan components
- Partnered with schools and universities to expand water-related education



\* IRP = Integrated Resources Plan \*\* PEIR = Programmatic Environmental Impact Report

# Working together toward the One Water vision

## COLLABORATION IS KEY TO SUCCESS

We all have a role in ensuring LA's water future. All of us can take action to help conserve, capture, and reuse water. Success relies on community members, government, business, academics, and interest groups working together to find cooperative ways to increase our local water supply.

## HOW CAN YOU HELP?

Participation by informed Angelenos will help shape the future of One Water LA and ensure a sustainable water future for Los Angeles.

- ◆ Get involved
- ◆ Request a presentation
- ◆ Take tours
- ◆ Share information with colleagues
- ◆ Share your ideas

**FOR MORE INFORMATION,  
PLEASE VISIT**

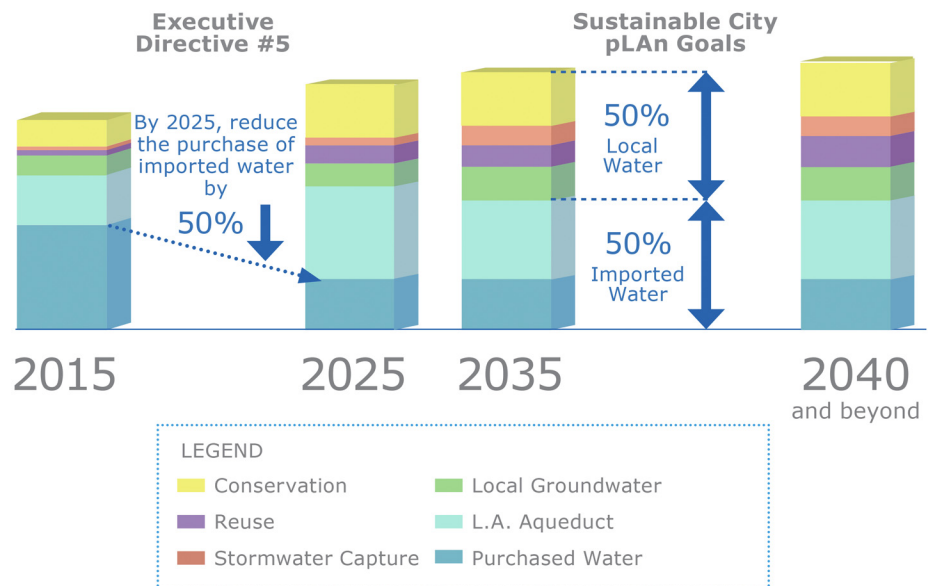
**[WWW.ONEWATERLA.ORG](http://WWW.ONEWATERLA.ORG)**

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# Implementation Strategy to 2040

The One Water LA 2040 Plan will include an Implementation Strategy that will serve as a roadmap to guide the City's decision making to transform the One Water LA vision into reality. The Implementation Strategy consists of projects, programs, and policies that collectively achieve the One Water LA 2040 objectives and support the Sustainable City pLAN goals.

The road is a long one and will not be easy. Yet the spirit of collaboration, cooperation, and communication fostered thus far by the Plan's innovative approach will go a long way towards making sure that the City of Los Angeles can achieve its vision. The Implementation Strategy will provide an integrated framework for managing the City's watersheds, water resources, and water facilities in an environmentally, economically, and socially beneficial manner.



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## OTHER ENGAGEMENT ACTIVITIES

The following tables present meeting dates and discussion topics for outreach and engagement activities including: Community Dialogues and presentations at Neighborhood Council Meetings, Businesses, Academic/Educational Institutions, Professional Associations, State, National, and International meetings and conferences, and Recurring Outreach Activities.

### Community Dialogues

One Water LA co-sponsored a series of five Community Dialogues, led by the Council for Watershed Health and local partners. The Dialogues were designed to engage a broader audience of community-based stakeholders beyond traditional non-profits and agency participants. The Dialogues were focused on the importance of green infrastructure and multi-benefit projects and were intended to:

- Help community-based organizations understand their role in the implementation and maintenance of multi-benefit projects.
- Identify local opportunities for green infrastructure investment and demonstrate how social benefits can be achieved.
- Assess community feedback to give water agencies and policymakers a better understanding of the needs of local residents and organizations when developing and scaling projects.
- Provide a platform for community voices and hear recommendations for how to sustain and grow community participation.
- Empower nontraditional community-based partners and parent leaders to become the environmental stewards and informed water ambassadors.

<b>Table 9      Community Dialogue Meeting Details Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Location</b>	<b>Date(s)</b>	<b>Local Host</b>
Downtown Los Angeles	1/22/17	Korean Youth Community Center
San Fernando Valley	3/29/17	Pacoima Beautiful
South Los Angeles	6/16/17, 7/8/17	Trust South LA
Boyle Heights	10/18/17	From Lot to Spot
East Los Angeles	11/13/17	Proyecto Pastoral

<b>Table 10 Neighborhood Council Meetings Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Title</b>	<b>Date(s)</b>	<b>Purpose and Discussion Topic(s)</b>
Greater Toluca Lake Neighborhood Council	1/21/2014 & 3/6/2014	Recycled Water Program Presentation
Mid-Town North Hollywood Neighborhood Council	02/12/14	Recycled Water Program Presentation
Los Angeles Neighborhood Council Coalition (LANCC)	3/1/2014 & 8/2/2014	Recycled Water Program Presentation
Valley Village Neighborhood Council presentation	03/26/14	Recycled Water and GWR Project Presentation
Lake Balboa Neighborhood Council	04/02/14	RW and One Water LA 2040 Presentation
Mar Vista Community Council	04/08/14	Presentation regarding RWAG Consensus Statement
MOU Neighborhood Council Oversight Committee Meeting	08/02/14	One Water LA Presentation
Valley Alliance of Neighborhood Councils (VANC)	08/02/14	Recycled Water Program Presentation
East Hollywood Neighborhood Council	09/15/14	Recycled Water Program Presentation
Annual Congress of Neighborhood Councils 2014	09/20/14	One Water LA Booth
Annual Congress of Neighborhood Councils 2013	09/28/13	One Water LA Booth
Valley Neighborhood Council Stakeholders	09/30/14	Briefing on Spreading Ground related Projects
Greater Toluca Lake Neighborhood Council Environmental Affairs Committee Meeting	10/02/14	One Water LA Presentation
Westside Regional Alliance of Councils (WRAC) Land Use Planning Committee presentation	10/05/14	
Greater Wilshire Neighborhood Council	10/08/14	Recycled Water Program Presentation
South Central Neighborhood Council Presentation-EPD WRP	10/21/14	
North Hollywood West Neighborhood Council - Executive Meeting	11/10/14	Recycled Water Program Presentation

OTHER ENGAGEMENT ACTIVITIES



<b>Title</b>	<b>Date(s)</b>	<b>Purpose and Discussion Topic(s)</b>
North Hollywood West Neighborhood Council - General Board Meeting	11/19/14	Recycled Water Program Presentation
Mid-City Neighborhood Council Presentation	12/08/14	Recycled Water Program Presentation
Pacific Palisades Community Council	01/08/15	Recycled Water Program Presentation
Sun Valley Area Neighborhood Council	02/10/15	Recycled Water Program Presentation
Valley Advisory Council	03/06/15	Presentation on Recycled Water and SCMP Fran Pavley
Neighborhood Council Sustainability Alliance	05/16/15	One Water LA Presentation
Venice Neighborhood Council Annual BBQ	08/08/15	One Water LA Booth
NCSA Water Committee Meeting	08/29/15	One Water LA attended and provided information
Neighborhood Council LASAN Informational Session	02/20/16	One Water LA Booth
Mission Hills NC and Lake Balboa NC	4/4/16 &4/6/16	LADWP GWR Outreach for EIR
Town Hall for Council District 10	01/28/17	
Mid-City West NC and Theodore Payne GreenFest	05/21/17	One Water LA Booth

<b>Table 11 Professional Associations Meetings Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Title</b>	<b>Date</b>	<b>Purpose and Discussion Topic(s)</b>
LA WaterReuse - DPR Draft Report Meeting	09/22/16	One Water LA Attended
APWA Winter Retreat at ELC	1/27/17	One Water LA Presentation
2016 VerdExchange Charrette	1/31/17	One Water LA Charrette - Future Alternative Solutions
LA Chapter WaterReuse Meetings	2/14/17	Recycled Water in Concrete Presentation
Water Technology Alliance	04/06/17	Information exchange with Danish Technology Alliance
11 <sup>th</sup> Annual IWA Conference	07/24/17	One Water LA attended

OTHER ENGAGEMENT ACTIVITIES

<b>Table 12</b>		
<b>Businesses Meetings Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Title</b>	<b>Date</b>	<b>Purpose and Discussion Topic(s)</b>
Anheuser Busch	11/5/15	▪ Site tour for the Anheuser-Busch pilot test
LA Kretz Innovation Campus	7/20/2016	▪ LA Kretz Innovation Campus Tour and discussion on exhibit collaboration opportunities
	1/19/2017	▪ Finalize One Water LA exhibit concepts at LA Kretz
LA Business Council	12/1/2016	▪ Presentation at LABC Energy and Environment Committee Meeting on One Water LA focused on relevance to businesses
LA Area Chamber of Commerce	8/19/2016	▪ Presentation at Energy, Water & Environmental Sustainability Council Meeting on One Water LA followed by Q&A from participants
	7/6/2016	▪ Initial discussion about collaboration opportunities
LA Cleantech Incubator - Water Cluster	9/28/2016	▪ Presentation at regular Water Cluster Meeting on One Water LA (focused on tech innovation as well as topics for future studies) followed by discussion of potential collaboration
Valley Industry and Commerce Association (VICA)	2/9/2017	▪ One Water LA Presentation
Building Industry Association	11/3/16	▪ Met to discuss One Water LA and hear Building Industry perspective and issues
	4/27/17	▪ One Water LA presentation at BIA's Connecting the dots event.
Edison	TBD	▪ On-site Treatment Facilities
		▪ UWIN is a nationwide network of academic institutions conducting research on a variety of topics including integrated water management.
Urban Water Innovation Network (UWIN)	1/18/2017	▪ Initial information-sharing meeting between One Water LA and UWIN.
	3/13/2017	▪ Follow-up meeting to discuss collaborative research opportunities. Next meeting is 6/5/17.
LA River Staff Focus Group Meeting	4/24/2017	▪ One Water LA Overview Presentation on the One Water LA Flow Study ▪ Attendees: LASAN, LADWP, Army Corp, RAP, LA Riverworks, LACFCD, and Mayor's Office.
	July 2017	▪ One Water LA Flow Study Details
The Nature Conservancy	2/27/2017	▪ Discuss TNC Los Angeles River Enhancement Study and One Water LA Flow Study and collaboration opportunities
Utilities of the Future Meeting		▪ One Water LA overview presentation.

OTHER ENGAGEMENT ACTIVITIES

<b>Table 13 Academic/ Educational Meetings Stakeholder Engagement Materials One Water La 2040 Plan</b>		
<b>Title</b>	<b>Date</b>	<b>Purpose and Discussion Topic(s)</b>
Sierra Club - Angeles Chapter: Water Committee	02/12/14	
Grayburn Avenue Block Club Presentation	04/19/14	
LA Cedars Rotary Club	05/27/14	Recycled Water Presentation
Studio City Residents Association	07/08/14	Recycled Water Presentation
Westchester Rotary Club Lunchtime Presentation	12/10/14	One Water LA Presentation
LAUSD Curriculum Writing Kick Off	06/15/15	One Water LA Presentation at the ELC
Hire LA Youth Program	07/28/15	One Water LA Presentation
Graywater webinar series	02/17/16	One Water LA attended
Mayor's Health Expo	03/12/16	One Water LA Booth
LA River Cooperation Committee (LA-RCC) Public Meeting	4/4/2016, 5/30/2016	One Water LA Presentation
A Clean Community and Environmental Service Fair	04/16/16	One Water LA Booth
Environmental Justice Summit	04/16/16	One Water LA Participation; engage students in environmental issues
Baldwin Hills Homeowners Association	04/23/16	One Water LA Presentation
Betty Ley Neighborhood Watch Group - GWR Presentation	04/26/16	GWR Presentation
LA Industry- Sustainable Business and Manufacturing Symposium	09/29/16	One Water LA Booth and presentation
Avalon Green Alley Network Resource Fair	10/22/16	One Water LA Booth
LA Industry- Contract Cities	11/07/16	One Water LA Booth
LA Industry- Textiles	1/19/17	Recycled Water Presentation, One Water LA Booth
LA Industry- Car wash and Sustainable Business Symposium	2/1/17	Recycled Water Presentation
Foundational Actions Funding Program Technical Conference	2/23/17	Reducing barriers to future production of Groundwater, Recycled Water, Seawater Desalination, and Stormwater. One Water LA attended.
ASCE's High School Day at MWD	2/24/17	One Water LA Booth
Machado Lake Grand Opening	6/17/17	One Water LA Booth
Hire LA Youth Program	7/6/17	One Water LA Presentation
South LA Community Festival - TrustLA	7/8/17	One Water LA Booth

OTHER ENGAGEMENT ACTIVITIES

<b>Title</b>	<b>Date</b>	<b>Purpose and Discussion Topic(s)</b>
National Night Out/ Touch-a-Truck Event	8/1/2017	One Water LA Booth
Family Resource Fair - Panorama City	9/23/17	One Water LA Booth
Lunch with an Engineer - Sun Valley Middle School	2/22/18	One Water LA Booth
Career Week- Florence Griffith Joyner Elementary	4/19/18	One Water LA Representation

<b>Table 14 Recurring Outreach Activities Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Title</b>	<b>Date</b>	<b>Purpose and Discussion Topic(s)</b>
Silver Lake Improvement Association	As-needed	One Water LA Participation
Upper LA River Integrated Regional Water Management Program Meetings	As-needed	One Water LA Participation
Green LA Coalition Water Committee Meeting	As-needed	One Water LA Participation and Presentation
Green Streets Meetings	Monthly	One Water LA Participation
Enhanced Watershed Management Program Meetings	Completed	One Water LA Participation
Los Angeles Basin Section of California Water Environment Association	As-needed	One Water LA Participation
Professional Architect & Landscape Architect Practitioners Assembly Events	As-needed	One Water LA Participation
LA Chapter WaterReuse Meetings	Monthly	One Water LA Participation
Living Streets Meeting	Completed	One Water LA Participation

<b>Table 15 Past and Future Conferences Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Year</b>	<b>Event Name</b>	<b>Location</b>
2016	National WaterReuse Conference	Tampa, FL
2016		
2016	International Water Association, Leading Edge Technology Conference	Jerez, Spain
2016	Annual AZ Water Conference and Exhibition	Glendale, AZ
2017	California Stormwater Quality Association (CASQA)	San Diego, CA

OTHER ENGAGEMENT ACTIVITIES

<b>Year</b>	<b>Event Name</b>	<b>Location</b>
2017	AWWA's Annual Conference Exposition (ACE)	Philadelphia, VA
2018	Resilient Utility Coalition	Miami, FL
2018	Sustainability Conference	Seattle, WA
2018	WaterReuse Conference California	Monterey, CA
2018	AWWA/ WEF's Utility Management Conference	San Antonio, TX

<b>Table 16 International Outreach Stakeholder Engagement Materials One Water LA 2040 Plan</b>		
<b>Title</b>	<b>Date</b>	<b>Purpose</b>
Singapore Delegation Presentation (at DCTWRP)	03/17/14	One Water LA presentation
International Visitor Leadership Program Presentation (at DCTWRP)	06/26/14	One Water LA presentation
Brazilian Delegation Presentation (at City Hall)	02/13/15	One Water LA presentation
Brazilian Senator Visit (at LADWP and TIWRP)	04/22/15	One Water LA presentation
Chinese Delegation Presentation (at ELC)	04/24/15	One Water LA presentation
European Delegation Visit - Presentation	06/29/15	One Water LA presentation
Brazilian Delegation Presentation (at DCTWRP)	07/28/15	One Water LA presentation
City of London, Ontario, Canada Conference Call	02/29/16	Provide an overview of One Water LA
Innovation Centre Denmark	04/06/17	Provide an overview of One Water LA
Singapore Delegation Presentation (at DCTWRP)	03/17/14	One Water LA presentation
International Visitor Leadership Program Presentation (at DCTWRP)	06/26/14	One Water LA presentation
Brazilian Delegation Presentation (at City Hall)	02/13/15	One Water LA presentation
Brazilian Senator Visit (at LADWP and TIWRP)	04/22/15	One Water LA presentation
Chinese Delegation Presentation (at ELC)	04/24/15	One Water LA presentation
European Delegation Visit - Presentation	06/29/15	One Water LA presentation
Brazilian Delegation Presentation (at DCTWRP)	07/28/15	One Water LA presentation

Title	Date	Purpose
City of London, Ontario, Canada Conference Call	02/29/16	Provide an overview of One Water LA
Innovation Centre Denmark	04/06/17	Provide an overview of One Water LA

<b>Table 17</b>		<b>National Outreach Stakeholder Engagement Materials One Water LA 2040 Plan</b>
Title	Purpose	
Dean Marriott's Visit- Portland Presentation	Portland State's Urban Sustainability Accelerator Program and One Water LA presentation.	
Austin, Texas- Conference Call	Graphics, Lessons Learned in One Water LA approach	
Conference Calls - Collaboration with NYC DEP and WRF on Integrated Planning	Lessons-learned in One Water LA approach, each City discussed their program and how they were continuing in the future	

<b>Table 18</b>		<b>Annual Events and Conferences Stakeholder Engagement Materials One Water LA 2040 Plan</b>
Title	Purpose	
LA Green Festival	One Water LA Booth	
VerdeXchange Conference	One Water LA Booth and Presentation	
One Water Leadership Summit	One Water LA Booth	
WaterReuse Annual National Conference	One Water LA Booth	
WaterReuse California Conference	One Water LA Booth and Presentation	
Water Wise Expo	One Water LA Booth	
Metropolitan Water District Green Expo	One Water LA Booth	
Annual Southwest Membrane Operator Association Symposium	One Water LA Booth	
Dept. Water and Power Earth Day Event	One Water LA Booth	
Mid-City West Green Fest	One Water LA Booth	
Annual Water Issues Briefing (at LA Valley College)	One Water LA Participation	
Santa Monica Bay Restoration Commission (SMBRC) State of the Bay Conference	One Water LA Booth	
Annual Neighborhood Council Congress Meeting (at City Hall)	One Water LA Booth	

<b>Title</b>	<b>Purpose</b>
LA Water Keeper Event "Stand up for Clean Water"	One Water LA Booth
Los Angeles Lotus Festival	One Water LA Booth
One Water Summit	One Water LA Participation
LA River Day	One Water LA Booth
LA Sanitation Earth Day	One Water LA Booth

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