



# Stakeholder Workshop

## One Water LA Implementation Strategy

June 19, 2017



# Agenda

- |  |                    |
|--|--------------------|
| 1. Welcome & Introductions                         | 10:00 – 10:10 a.m. |
| 2. Recent Publications                             | 10:10 – 10:15 a.m. |
| 3. Long-Term Concepts<br>& Implementation Strategy | 10:15 – 11:00 a.m. |
| 4. Rotation & Dialogue                             | 11:00 – 12:20 p.m. |
| 5. Next Steps & Meeting Close                      | 12:20 – 12:25 p.m. |
| 6. Group Photo                                     | 12:25 – 12:40 p.m. |
| 7. Lunch   | 12:40 – 1:00 p.m.  |



# Welcome & Introductions





## Recent Publications (5 minutes)



# One Water LA Progress Summary

## Purpose

- Communication tool for community outreach

## Content

- High-level overview
- Purpose of One Water LA
- Overview of Progress to-date





# One Water LA Progress Report

## Purpose

- Report progress since 2015

## Content

- High-level overview
- Purpose of One Water LA
- Highlight Progress to-date

Available for download at  
[www.onewaterla.org](http://www.onewaterla.org)





# Long-Term Concepts & Implementation Strategy (45 minutes)





# Meeting Goals

**1**

What are the One Water LA Vision and Objectives?

**2**

What are the elements of the One Water LA 2040 Plan?

**3**

What are the Long-Term Integration Strategies to achieve the Objectives?

**4**

How are we going to develop the Implementation Strategy?



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# One Water LA Vision

“

## *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.

”

- Collaborative Approach
- Integrated framework
- Manage the cities resources
- Environmental, economic, and social benefits



# One Water LA Objectives

- 1 Integrate **management of water resources** and policies
- 2 Balance **environmental, economic, and societal** goals
- 3 Improve health of local **watersheds**
- 4 Improve local water **supply reliability**
- 5 Implement, monitor, and maintain a **reliable wastewater** system
- 6 Increase **climate resilience**
- 7 Increase **community awareness** and advocacy for sustainable water



## Examples of Sustainable City pLAn goals One Water LA supports

**Stormwater Quality:**  
Improve beach water quality  
grade-paint average (GPA) to:



3.9 (dry)  
3.2 (wet)

**2025**



4.0 (dry)  
3.5 (wet)

**2035**

**150,000**  
AFY



Capture  
150,000  
acre-feet  
per year of  
stormwater  
**2035**



**50%**

Reduce the  
purchase of  
imported water  
by 50%

**2025**



**50%**

Source 50% of  
water locally

**2035**



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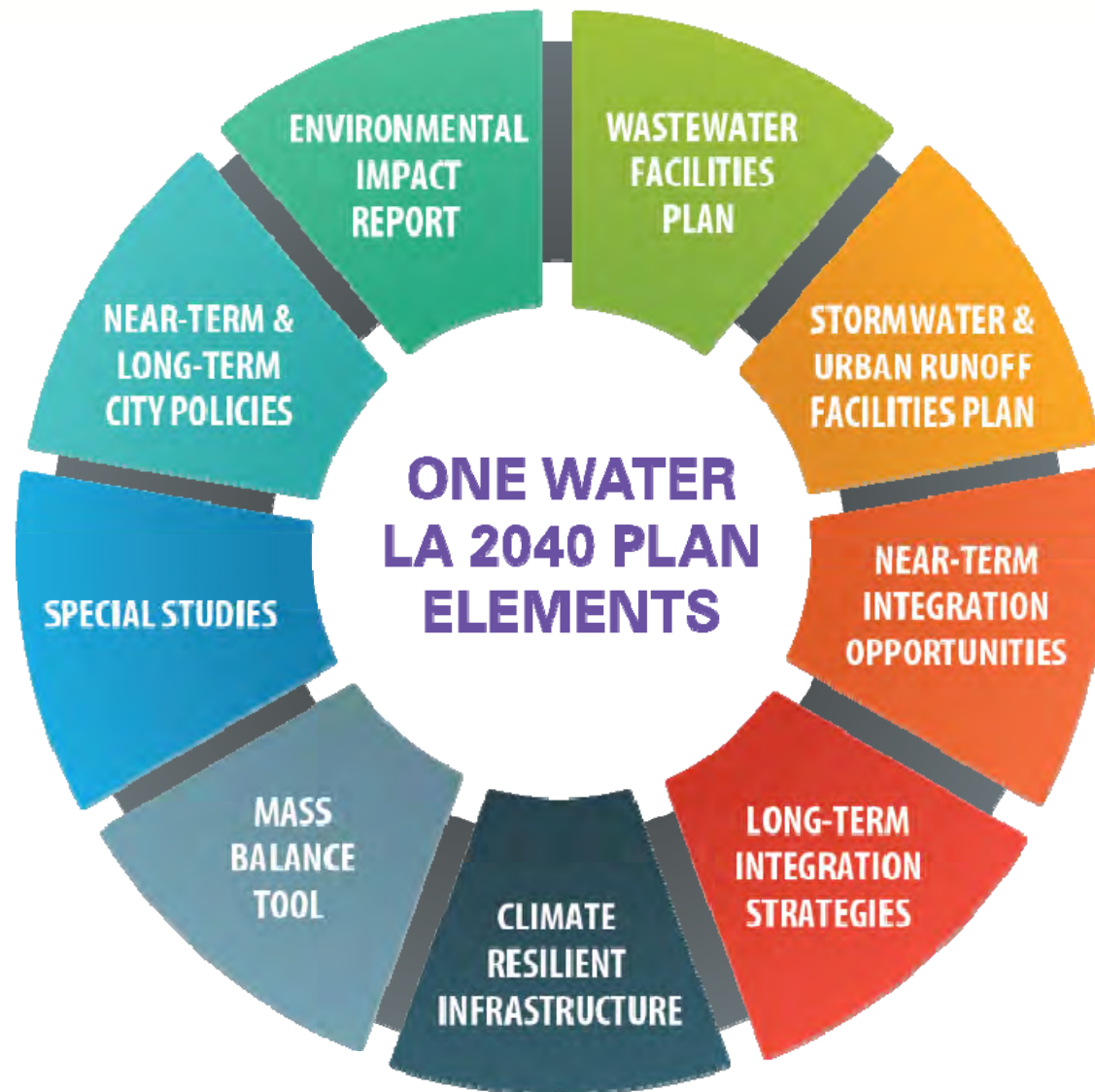
What are the Long-Term Integration Strategies to achieve the Objectives?

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# One Water LA 2040 Plan Elements





# Engagement Overview





# Meeting Goals

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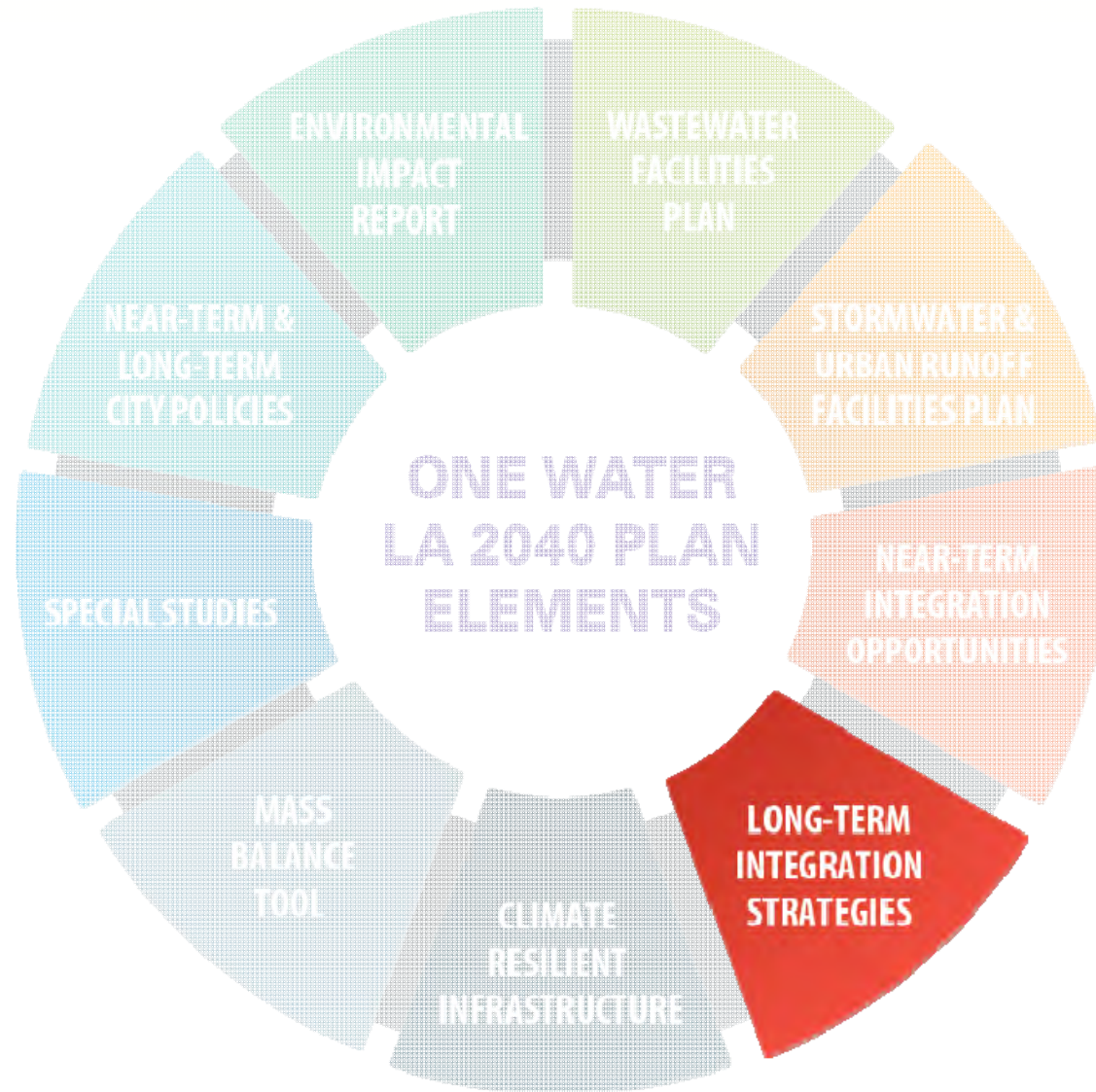
What are the Long-Term Integration Strategies to achieve the Objectives?

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# One Water LA 2040 Plan Elements



**This is the  
piece of the  
Plan that we  
are focusing on  
today**

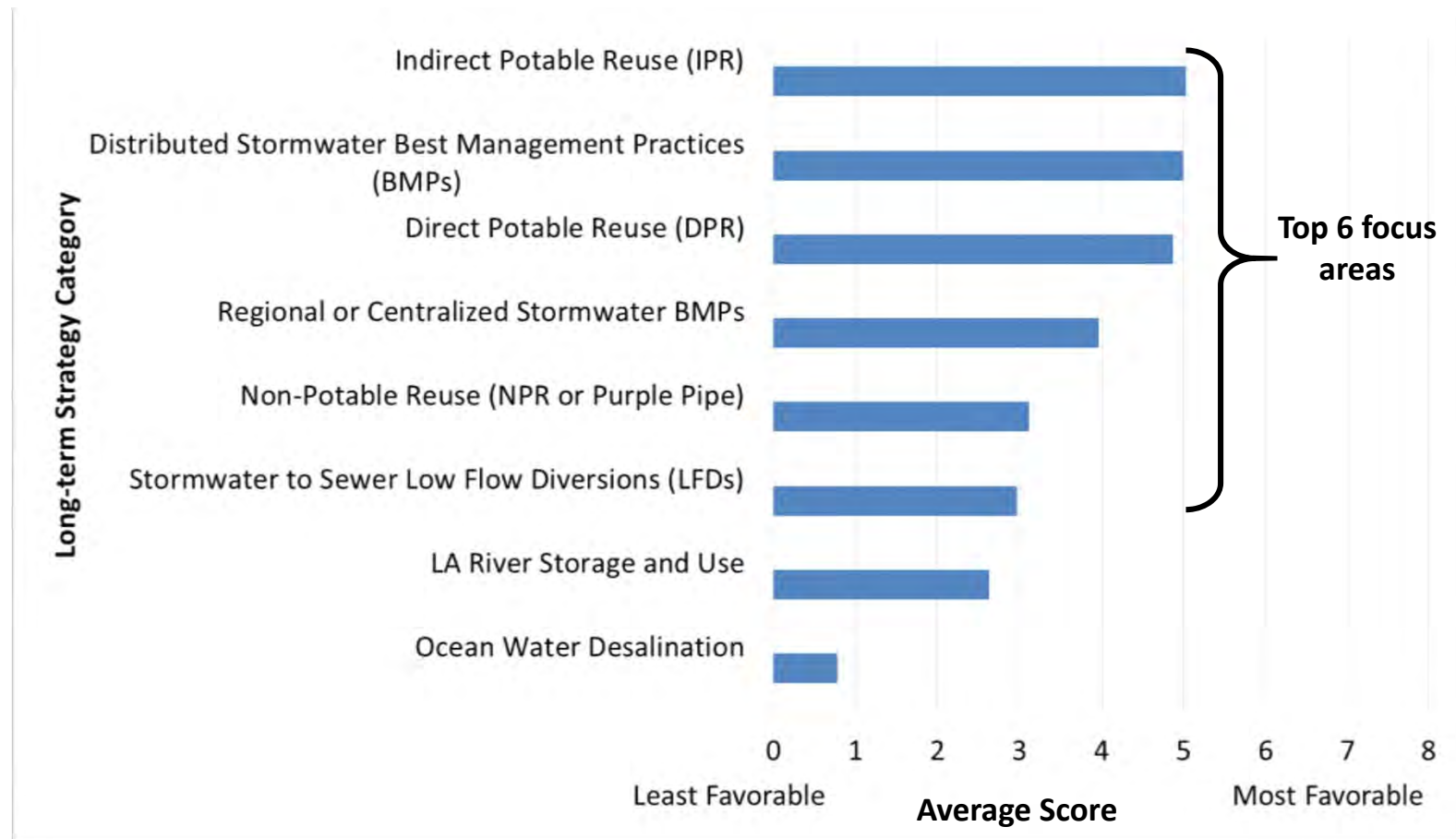


# Long-Term Integration Strategies Assessed



# Stakeholder Survey Results

Surveyed 300+ stakeholders and received 54 responses



***We will continue to focus on the topics we've collectively identified as important***

***Asked “What could  
LA’s urban water cycle  
look like in 2040?”***



# Brainstormed 25 Long-Term Concepts

| Strategy  | Concept Name  |
|---|---|
| Regional, Centralized & Distributed Stormwater BMPs (Stormwater Management) | Stormwater Facilities Plan<br>LA River Recharge into the LA Forebay   |
| Low Flow Diversions   | Dry Weather Low Flow Diversions<br>Wet Weather High Flow Diversions   |
| Indirect Potable Reuse  | Tillman Water Reclamation Plant (WRP) to San Fernando Basin<br>Hyperion WRP to West Coast Basin<br>Hyperion WRP to Central Basin w/ Injection<br>Hyperion WRP to Regional System<br>Hyperion WRP to San Fernando Basin  |
| Direct Potable Reuse  | Tillman WRP to LA Aqueduct Filtration Plant (LAAFP)<br>Tillman WRP to Distribution System<br>LA-Glendale WRP to Headworks Reservoir<br>Hyperion WRP to Distribution System<br>Hyperion WRP to Headworks Reservoir<br>Hyperion WRP to LAAFP<br>Central LA Satellite WRP to LAAFP |
| Non-Potable Reuse   | Non-Potable Reuse Demand beyond 2015 UWMP   |
| LA River Storage & Use  | Upper LA River to Tillman WRP   |
| Ocean Water Desalination  | Ocean Desalination at Scattergood   |



# Developed Criteria to Evaluate Concepts

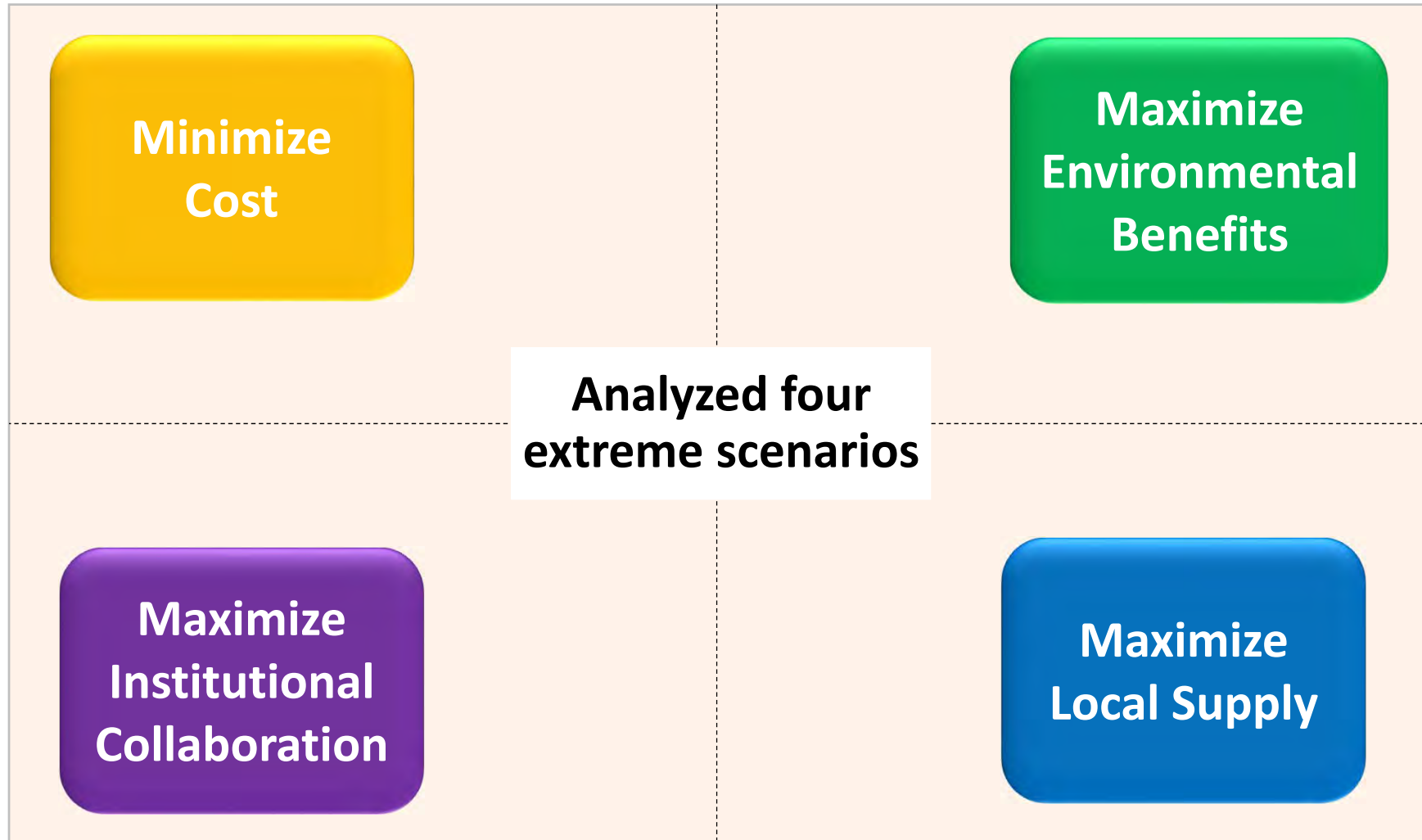
- Used to compare the 25 Long-Term Concepts
- To balance environmental, economic, and societal goals
- 4 criteria categories, totaling 18 individual criteria developed with Stakeholders and City staff over 4 months

| Economic Criteria   | Resiliency Criteria  | Implementation Criteria   | Environmental Criteria  |
|---|--|---|---|
| <ul style="list-style-type: none"><li>• Unit cost</li><li>• Financial benefits</li><li>• Funding mechanism</li><li>• Likelihood to obtain outside funding</li></ul> | <ul style="list-style-type: none"><li>• Drought resiliency</li><li>• Earthquake resiliency</li><li>• Flood risk mitigation</li><li>• Local supply benefit</li><li>• Energy Impact/<br/>Green-House Gas<br/>Emissions</li></ul> | <ul style="list-style-type: none"><li>• Constructability</li><li>• Institutional<br/>collaboration</li><li>• Regulatory approval</li><li>• Public engagement</li><li>• Public and political<br/>support</li></ul> | <ul style="list-style-type: none"><li>• Environmental<br/>justice</li><li>• Open/natural space<br/>and recreational<br/>benefit</li><li>• Stormwater quality</li><li>• Ecological benefit</li></ul> |

***The combined Stakeholders and City Staff criteria weighting was used to analyze each long-term concept***

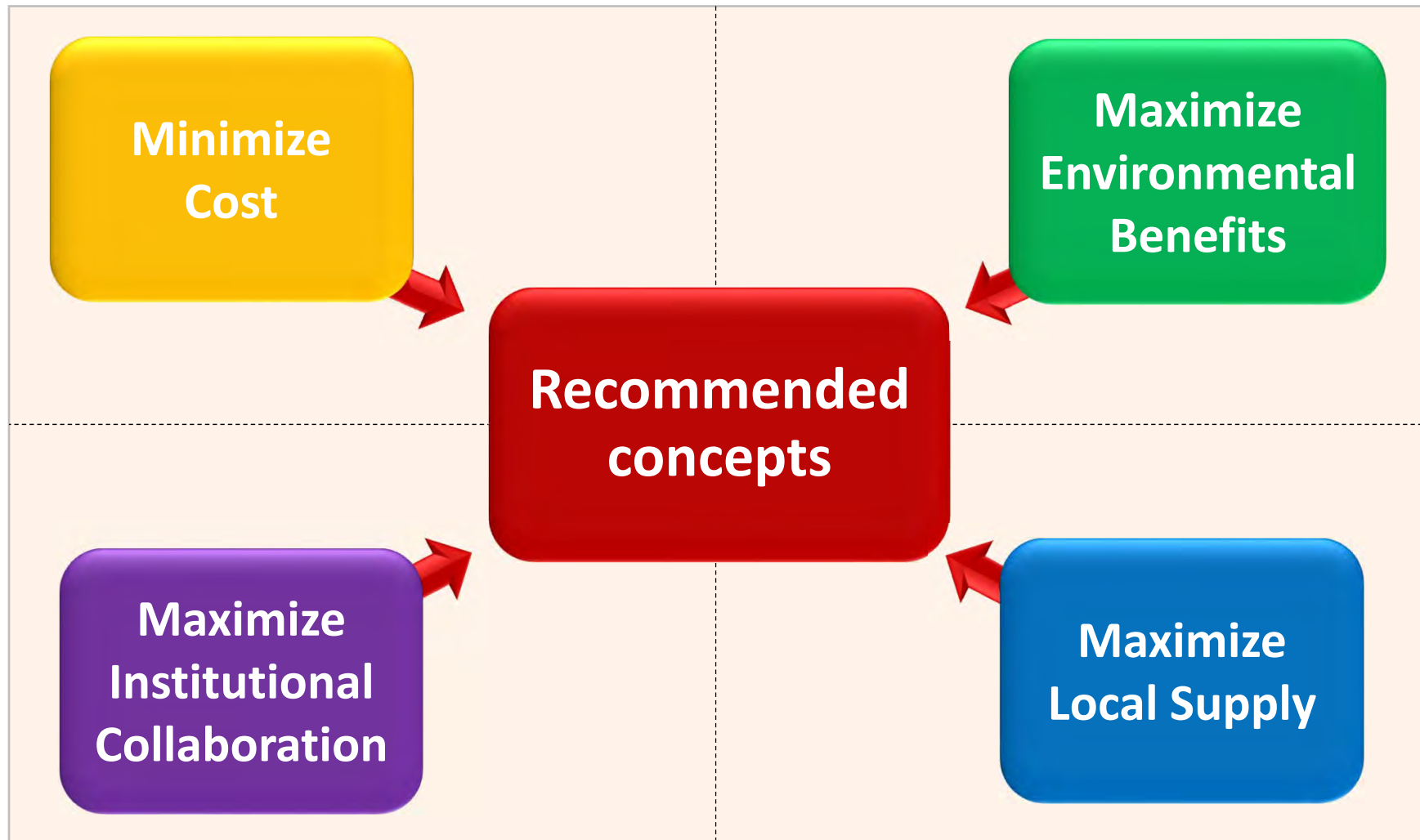


# City assessed the 25 long-term concepts



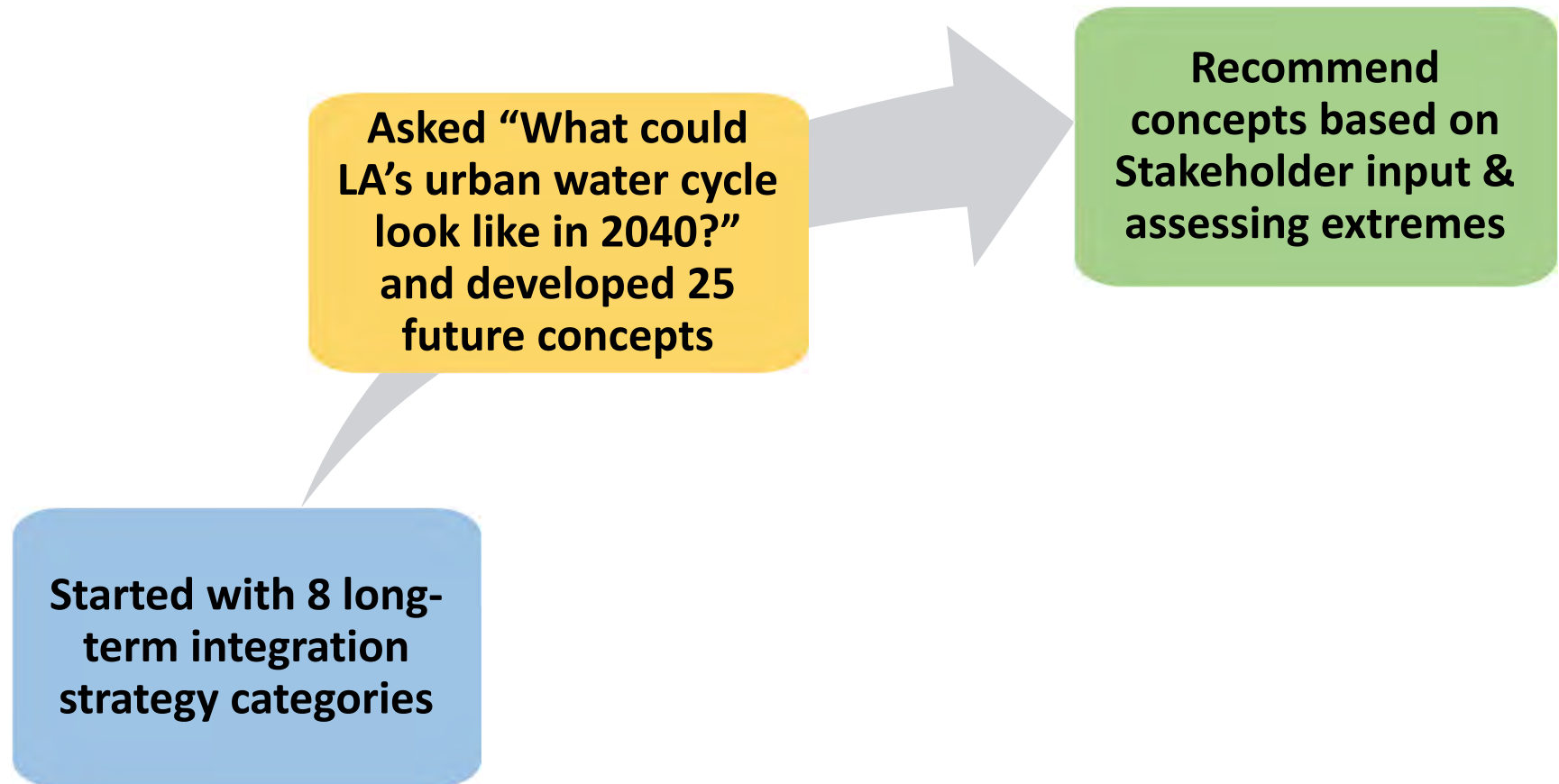


# City assessed the 25 future concepts





# Overview Strategies to Concepts



*Are there any questions about the process?*



# Recommended Long-Term Concepts

| Strategy  | Concept Name  |
|---|---|
| Regional, Centralized & Distributed Stormwater BMPs (Stormwater Management) | Stormwater Facilities Plan  |
|   | LA River Recharge into the LA Forebay                                     |
| Low Flow Diversions   | Dry Weather Low Flow Diversions   |
| Indirect Potable Reuse  | Hyperion Water Reclamation Plant to Regional System                       |
| Direct Potable Reuse  | Donald C. Tillman Water Reclamation Plant to LA Aqueduct Filtration Plant |
|   | LA-Glendale Water Reclamation Plant to Headworks Reservoir                |
| Non-Potable Reuse   | Increase Non-Potable Reuse Demand beyond 2015 UWMP                        |



# Defining Triggers

Trigger – Internal or External force that causes (an event or situation) to happen or exist.

**Example:** Direct Potable Reuse regulations are approved

- Some concepts are dependent on certain triggers occurring
- Dynamic strategy allows projects to be implemented only if and when needed



# Stormwater Management

## Recommended Long-Term Program

- Stormwater Facilities Plan includes 1,200 projects from the 5-year CIP, EWMPs, SCMP, and Prop O
- Recommend implementing projects that achieve multiple benefits using the “three-legged stool” approach



Trigger: TMDL regulations have already triggered stormwater projects



# LA River Recharge into LA Forebay

## Recommended Long-Term Concept

- LA River Recharge into LA Forebay



Trigger: A decision to submit a 1211 petition

Trigger: Agreement with the Water Replenishment District to utilize the storage space in the Central Basin



- Best opportunities exist in the San Fernando Valley
- Increase recycling from Donald C. Tillman and LA-Glendale Water Reclamation Plants
- Improves water quality to help comply with TMDLs

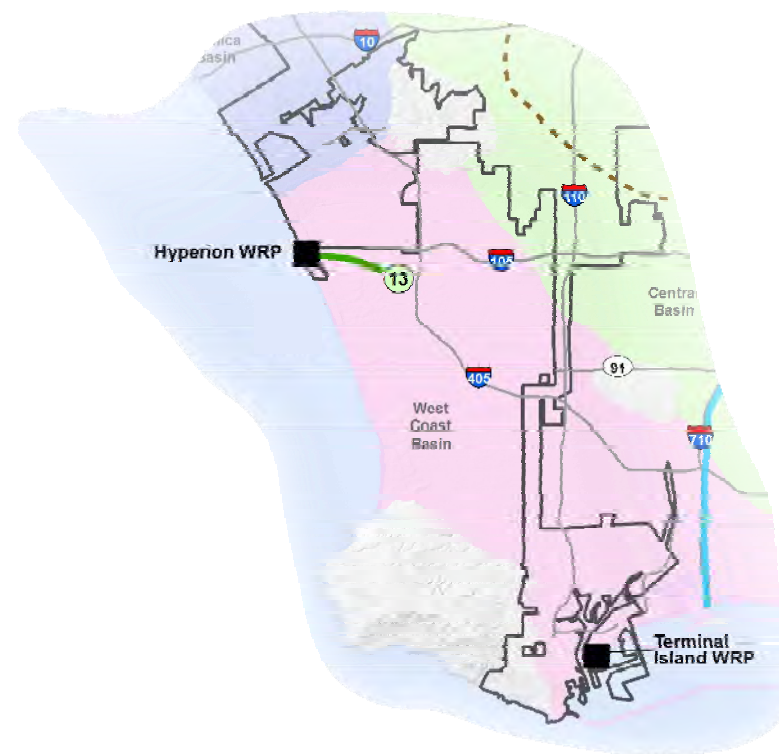




# Indirect Potable Reuse

## Recommended Long-Term Concepts

- Hyperion to Regional System



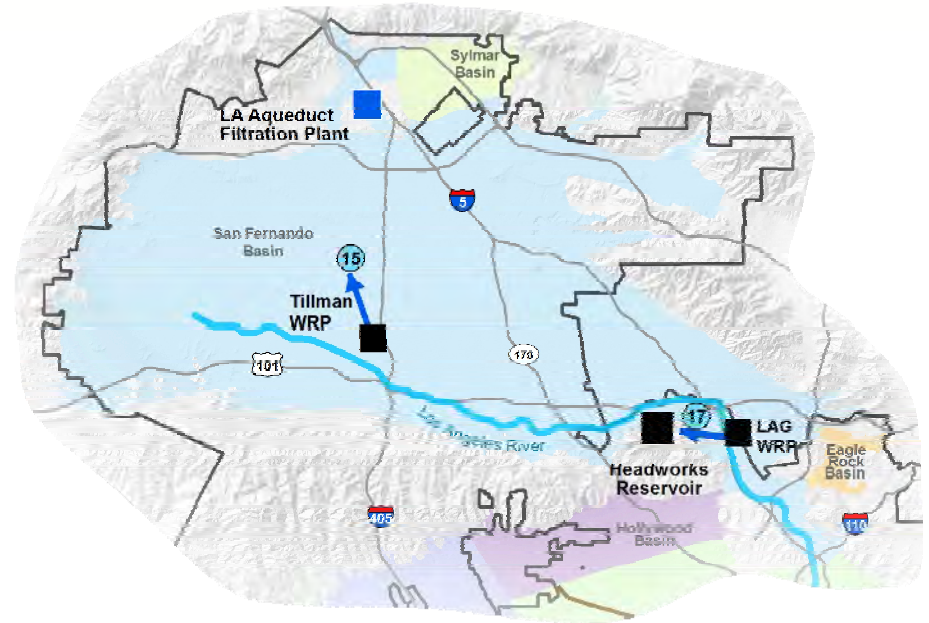
**Trigger: City and Regional partners agree to a water exchange agreement to transfer water from Hyperion Water Reclamation Plant to a regional system**



# Direct Potable Reuse

## Recommended Long-Term Concepts

- Donald C. Tillman Water Reclamation Plant to LA Aqueduct Filtration Plant
- LA-Glendale Water Reclamation Plant to Headworks Reservoir



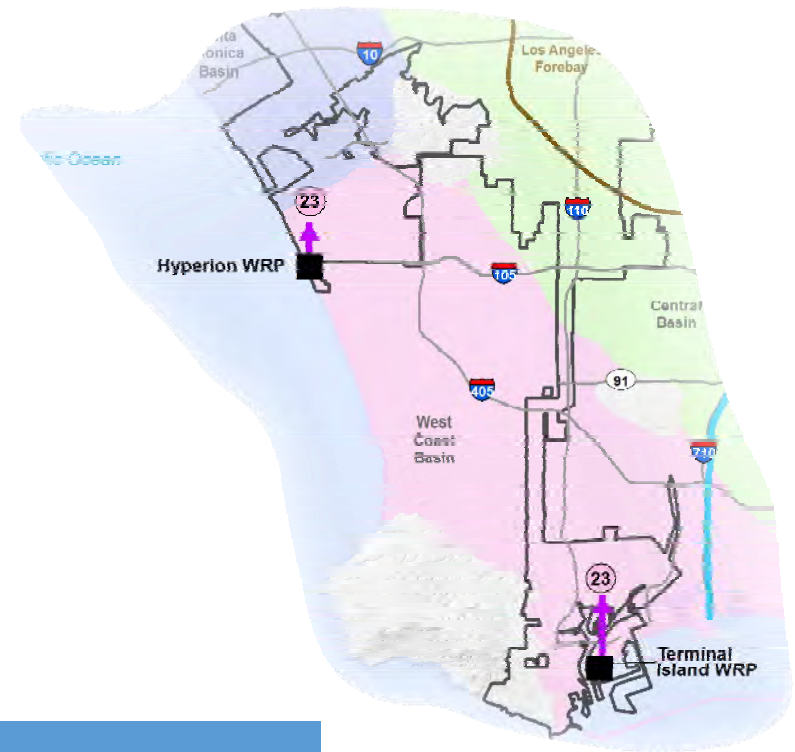
Trigger: Direct Potable Reuse regulations are approved



# Non-Potable Reuse

## Recommended Long-Term Concepts

- Increase Non-Potable Reuse Demand beyond 2015 UWMP, focusing on:
  - Terminal Island Water Reclamation Plant
  - Hyperon Water Reclamation Plant

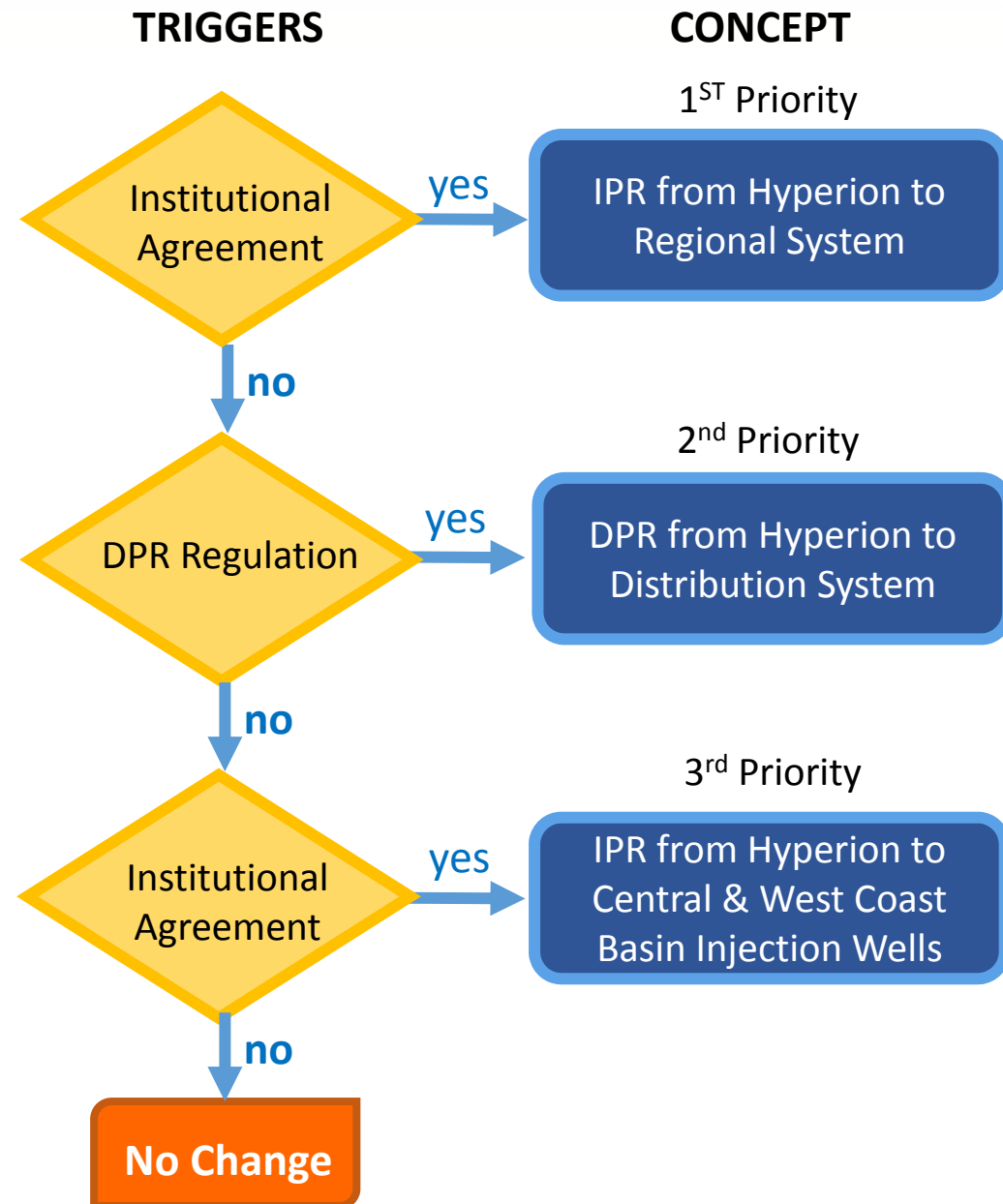


Trigger: No major triggers



# Example of Trigger-based Implementation

- Some concepts are dependent on certain triggers occurring
- Dynamic strategy allows projects to be implemented only if and when needed





# Estimated Concept Cost

| Strategy               | Concept Name   | Yield (AFY) | Capacity (mgd) | Capital Cost Range (\$M) | Unit Cost Range (\$/AF) |
|------------------------|--|-------------|----------------|--------------------------|-------------------------|
| Stormwater Management  | Distributed and Centralized Stormwater Projects (per Stormwater Facilities Plan) | TBD         | TBD            | \$5.0-\$6.6 billion*     | n/a**                   |
|                        | LA River Recharge into LA Forebay  | 25,000      | 22             | \$900-\$1,200            | \$1,900-\$2,500         |
| Low Flow Diversions    | Dry Weather Low Flow Diversions  | n/a         | 5.5            | \$100-\$130              | \$900-\$1,200           |
| Indirect Potable Reuse | IPR - Hyperion to Regional System  | 95,000      | 85             | \$1,400-\$1,800          | \$600-\$800             |
| Direct Potable Reuse   | DPR - Tillman WRP to LA Aqueduct Filtration Plant***                             | 15,000      | 14             | \$365-\$465              | \$1,660-\$2,150         |
|                        | DPR - LA/Glendale WRP to Headworks Reservoir                                     | 6,000       | 5              | \$130-\$170              | \$1,400-\$1,800         |
| Non-Potable Reuse      | Increase Recycled Water Demand beyond 2015 UWMP                                  | 16,400      | 15             | \$600-\$800              | \$1,900-\$2,500         |

\* Stormwater management cost are obtained from the DRAFT Stormwater Facilities Plan with a range of -10% to +20%.

\*\* Stormwater management includes both water quality and water supply benefits. Cost shall not be expressed in \$/AF to avoid invalid comparison.

\*\*\* Requires a flow management concept. East-West Valley Interceptor Sewer Concept included (Concept #22, 16 mgd, \$85M, \$260-\$350/AF)



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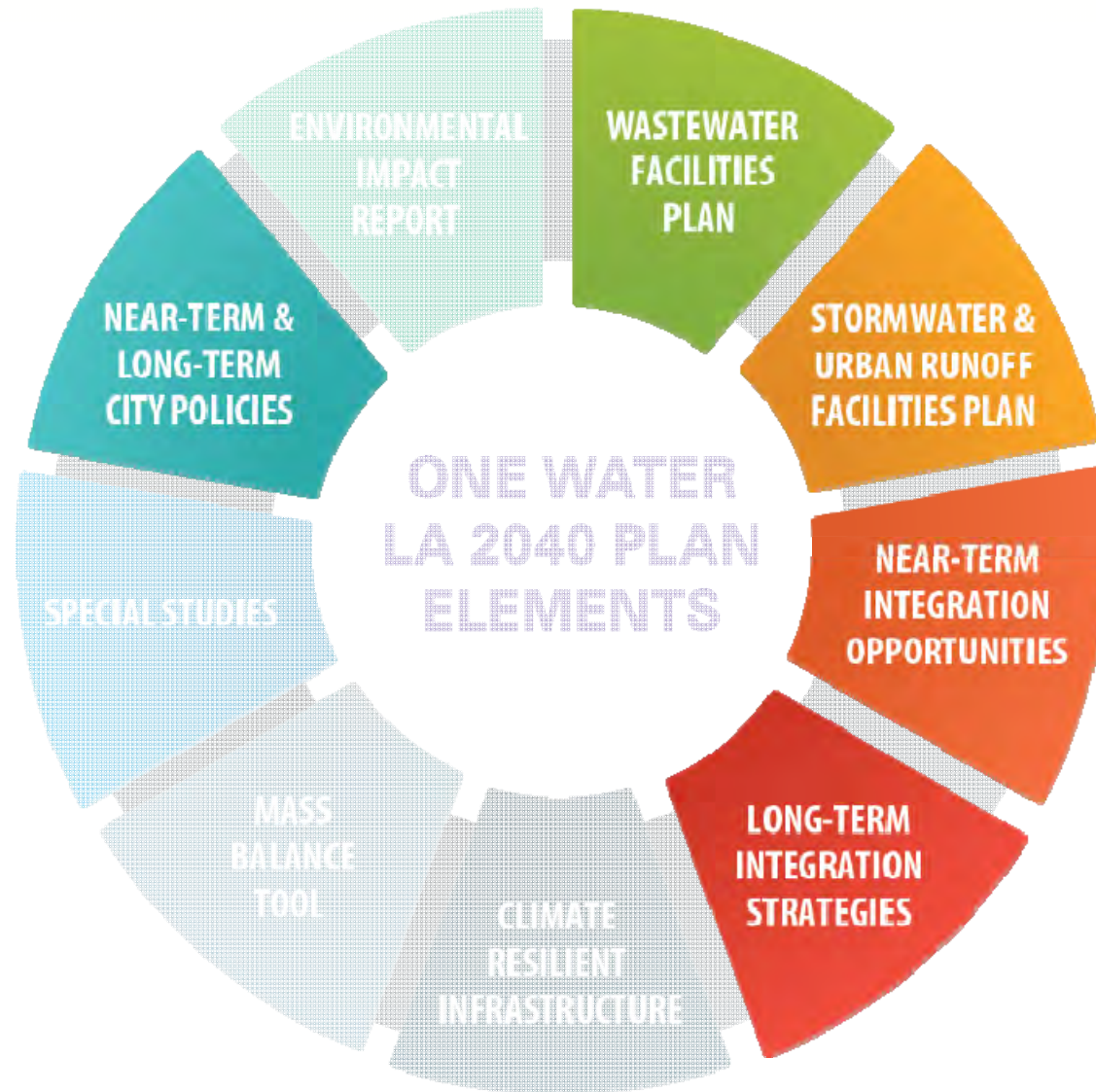
What are the Long-Term Integration Strategies to achieve the Objectives?

**4**

How are we going to develop the Implementation Strategy?



# 5 Elements of the Implementation Strategy





# Implementation Strategy Development Process

## RECOMMENDATIONS FROM:

(1) Wastewater  
Facilities Plan

(2) Stormwater &  
Urban Runoff  
Facilities Plan

(3) Near-Term  
Integration  
Opportunities

(4) Long-Term  
Integration  
Strategies

(5) Long-Term  
Policies & Programs

One Water LA  
2040 Plan  
Recommendations

- Projects
- Programs
- Policies

## IMPLEMENTATION STRATEGY THROUGH 2040



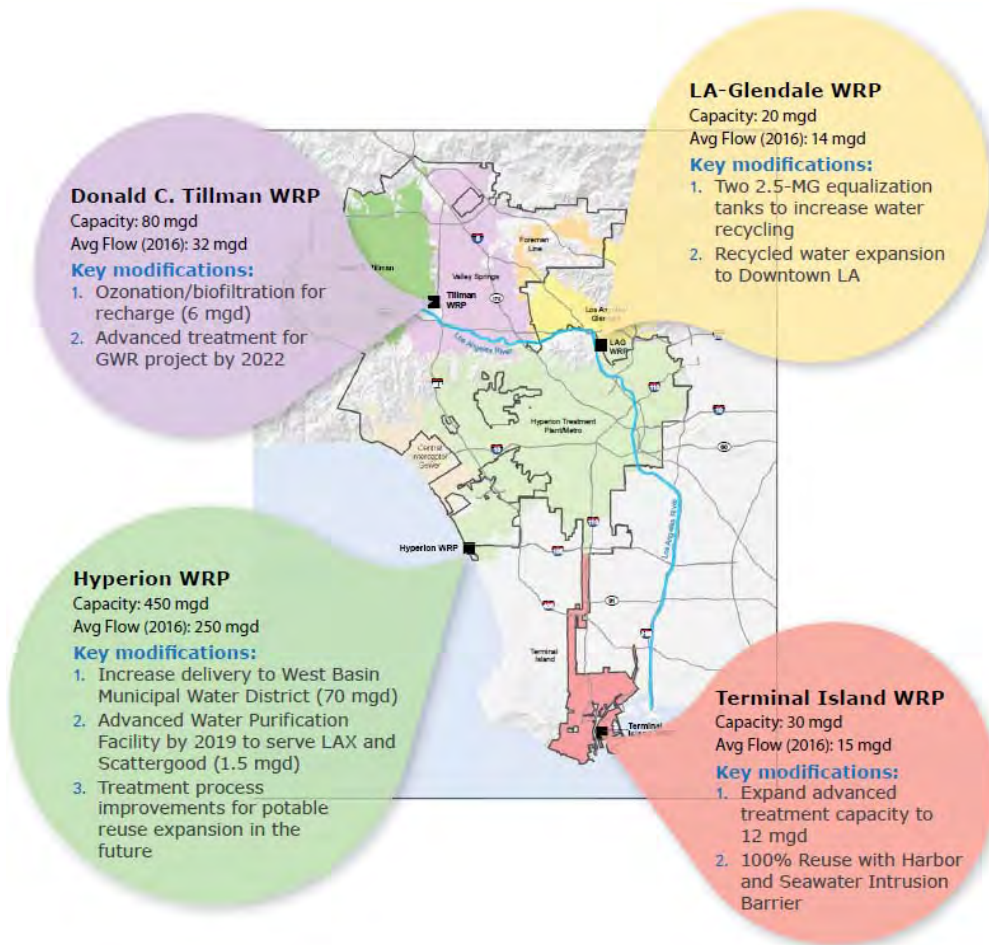
- Projects Timeline
- Trigger-based Scenarios
- Funding Opportunities



# (1) Wastewater Facilities Plan

## EXAMPLE

- Strategies for treatment options to meet future water demands.
- Climate resilient infrastructure recommendations to minimize risk and mitigate impacts.
- Phased Capital Improvement Plan including future system considerations



*Supports One Water LA Objective 5 – Implement, monitor and maintain a reliable wastewater system and Objective 6 – Increase climate resilience*



## (2) Stormwater & Urban Runoff Facilities Plan

### University Park Neighborhood Rain Garden Pilot Study

EXAMPLE



- 35 rain gardens (e.g., parkway bioswales) designed and built to capture residential and commercial roadway runoff
- Landscaping features three drought-tolerant plant palettes
- Community engaged and involved during design and construction



*Supports One Water LA Objective 3 - Improve health of local watersheds*

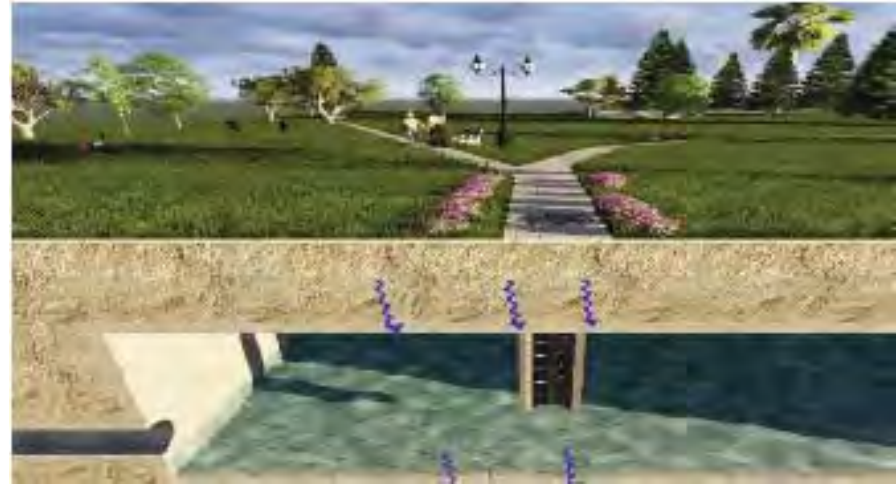


## (3) Near-Term Integration Opportunities

### EXAMPLE

#### Capture of stormwater at LAUSD schools

- Assess the feasibility of a pilot project for a LAUSD site to capture off-site stormwater.
- Potential school sites are grouped by watershed
- Focus on areas where regional stormwater facilities could optimize infiltration and on-site use meeting multiple objectives and benefits



*Supports One Water LA Objective 2 – Balance environmental, economic and societal goals and Objective 7 – Increase community awareness and advocacy for sustainable water*

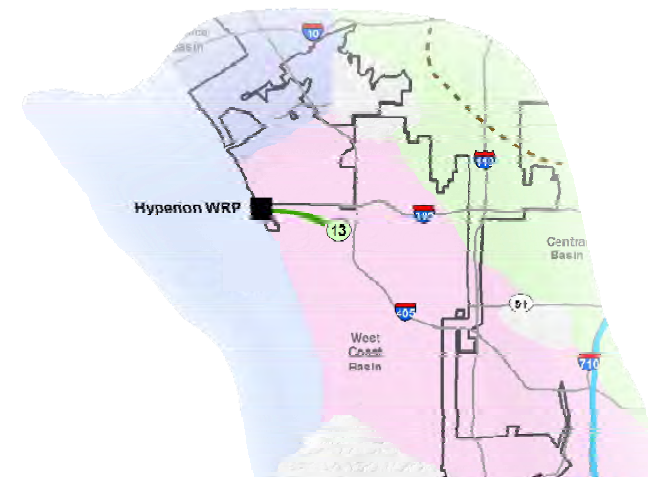


## (4) Long-Term Integration Strategies

EXAMPLE

### Recommended Long-Term Concepts

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*Supports One Water LA Objective 2 – Balance environmental, economic and societal goals and One Water LA Objective 4 – Improve local water supply reliability*



## (5) Near- & Long-Term Policies & Programs

### EXAMPLE

#### Policy Topics

- 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

#### Example Policies

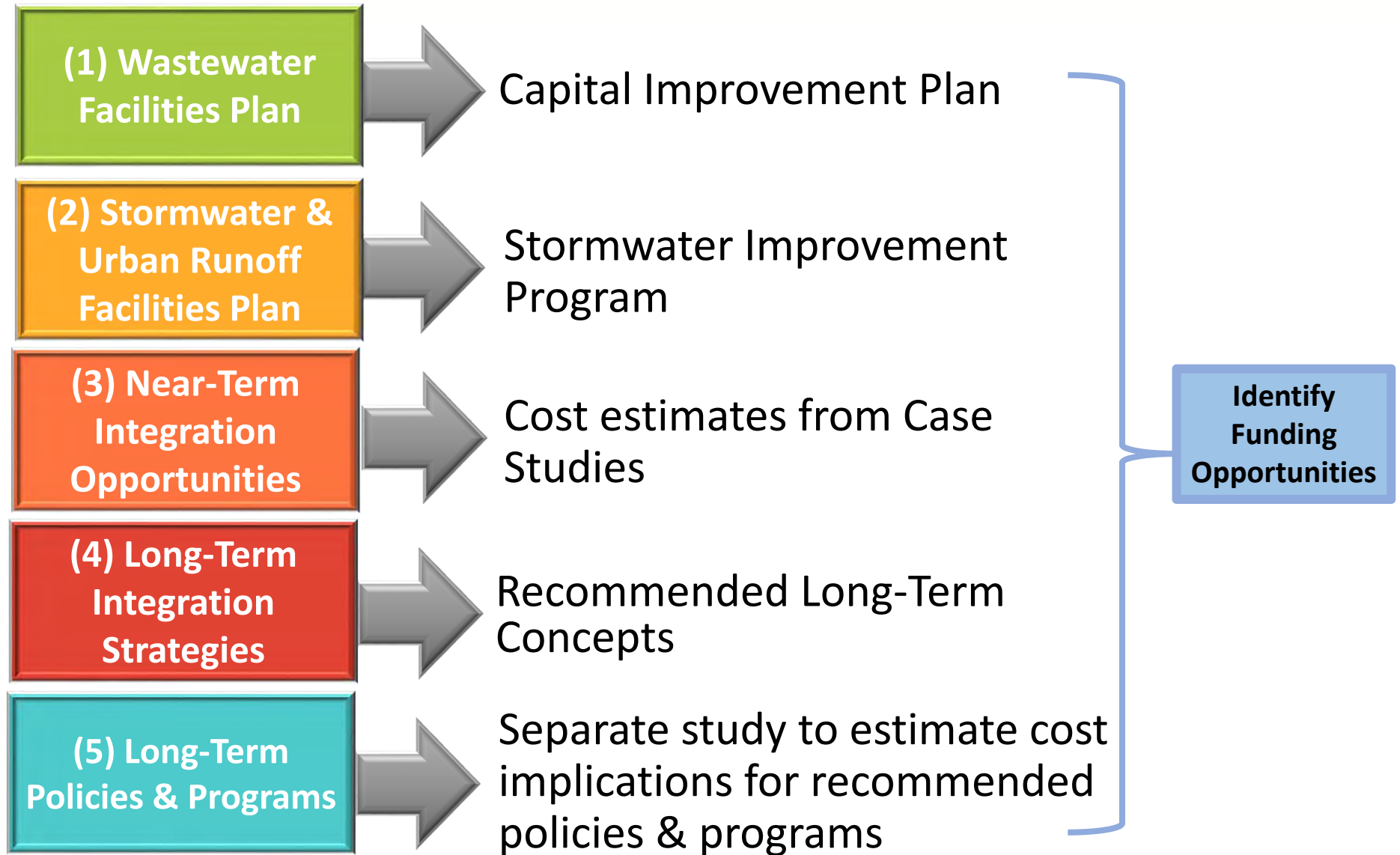
Simplify Process and remove barriers to installing parkway swales and other distributed green infrastructure BMPs in the public right-of-way.

Create a program to evaluate and facilitate public-private partnerships for water-related projects.

*Supports One Water LA Objective 1 – Integrate management of water resources and policies*



# What are the Cost Components?





# Funding Opportunities

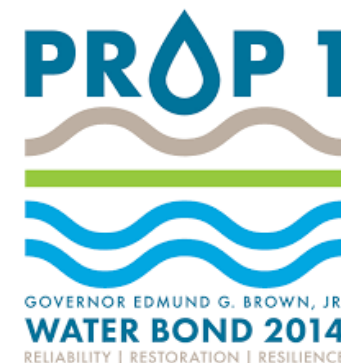
The City is working closely with the County to develop a regional revenue source for stormwater management.

Federal, State, Local, and Private funding options have been identified, such as:

- Cost-Sharing Frameworks
- Grant Funding
- Loan Programs
- Public-Private Partnerships
- State & Federal Tax Credit Programs
- Tax Measures
- Traditional Municipal Funding



FEMA





# One Water LA Collaboration





# Meeting Goals

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What are the One Water LA Vision and Objectives?

**2**

What are the elements of the One Water LA 2040 Plan?

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What are the Long-Term Integration Strategies to achieve the Objectives?

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# Rotation & Dialogue (80 minutes)





# Dialogue Topics

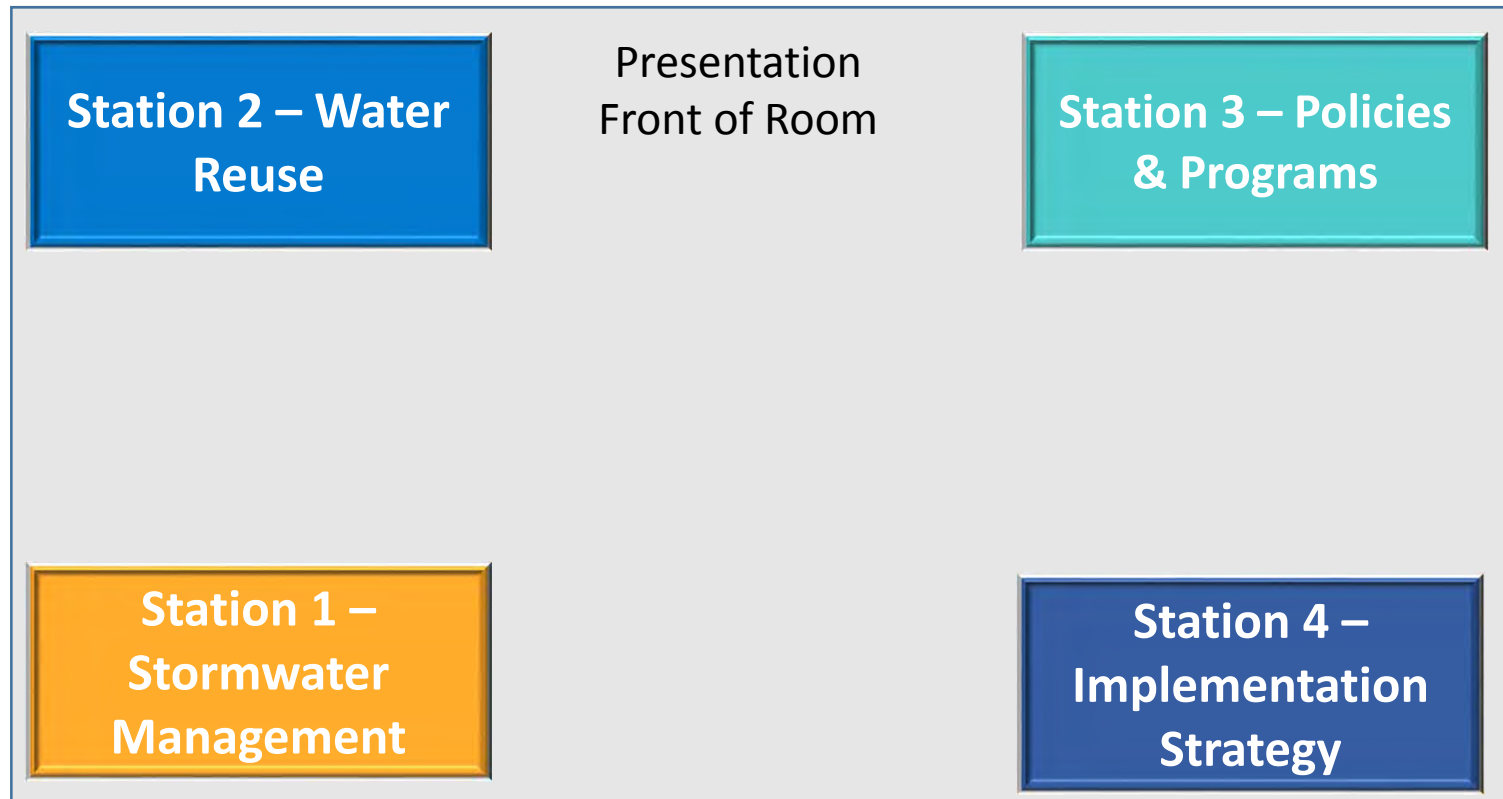
Purpose: To answer any additional questions you may have.

| Station Number | Station Topic           |
|----------------|-------------------------|
| 1              | Water Reuse             |
| 2              | Stormwater Management   |
| 3              | Policies & Programs     |
| 4              | Implementation Strategy |



# Rotation Logistics

- Approximately 20 minute rotation to each station (80 minutes total)
- Documentation of discussion at each station
- Buckets and 3x5 cards to capture detailed questions

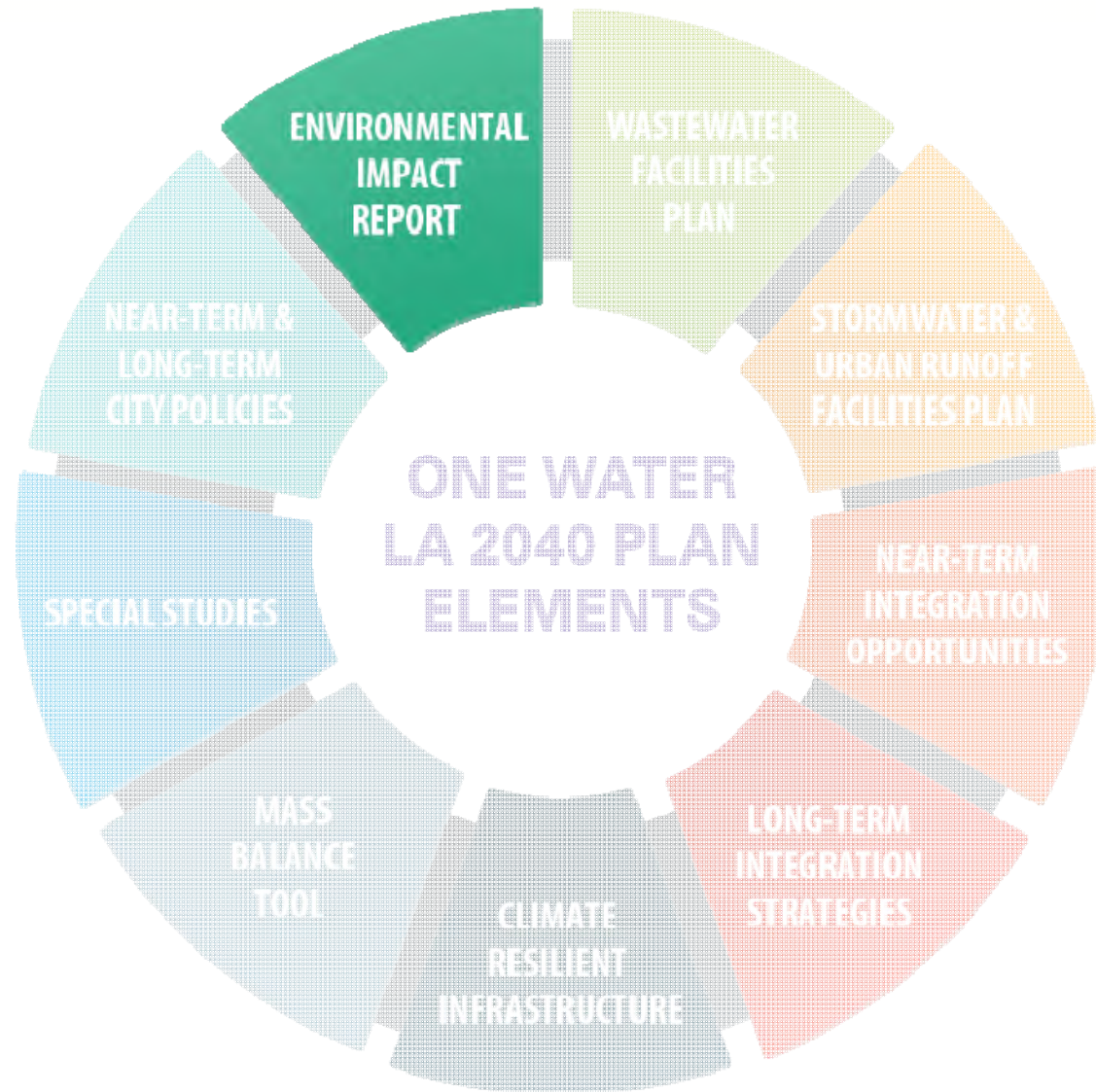




## Next Steps (5 minutes)



# Programmatic Environmental Impact Report





# Continued Stakeholder Engagement

One Water LA 2040 Plan

One Water LA Testimonials

Future Meeting Topics

- LA River Flow Study Informational Meeting
- Event to launch One Water LA 2040 Plan
- Programmatic EIR
- Future Focus Meetings
- Annual One Water LA Updates



## Meeting Close & Group Photo

*Additional Information:*

[www.onewaterla.org](http://www.onewaterla.org)

[onewaterla@lacity.org](mailto:onewaterla@lacity.org)