



MS4 Permit Implementation in LA County

MS4:

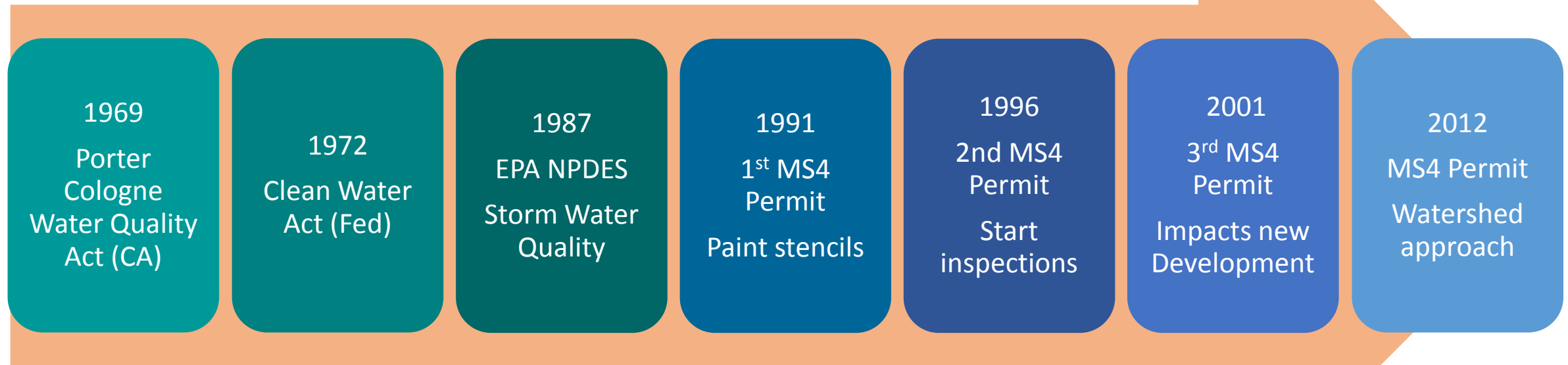
Municipal Separate Storm Sewer System

In Simple Terms, The Stormwater Permit

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How did we get here?



2001 Permit Vs. 2012 Permit

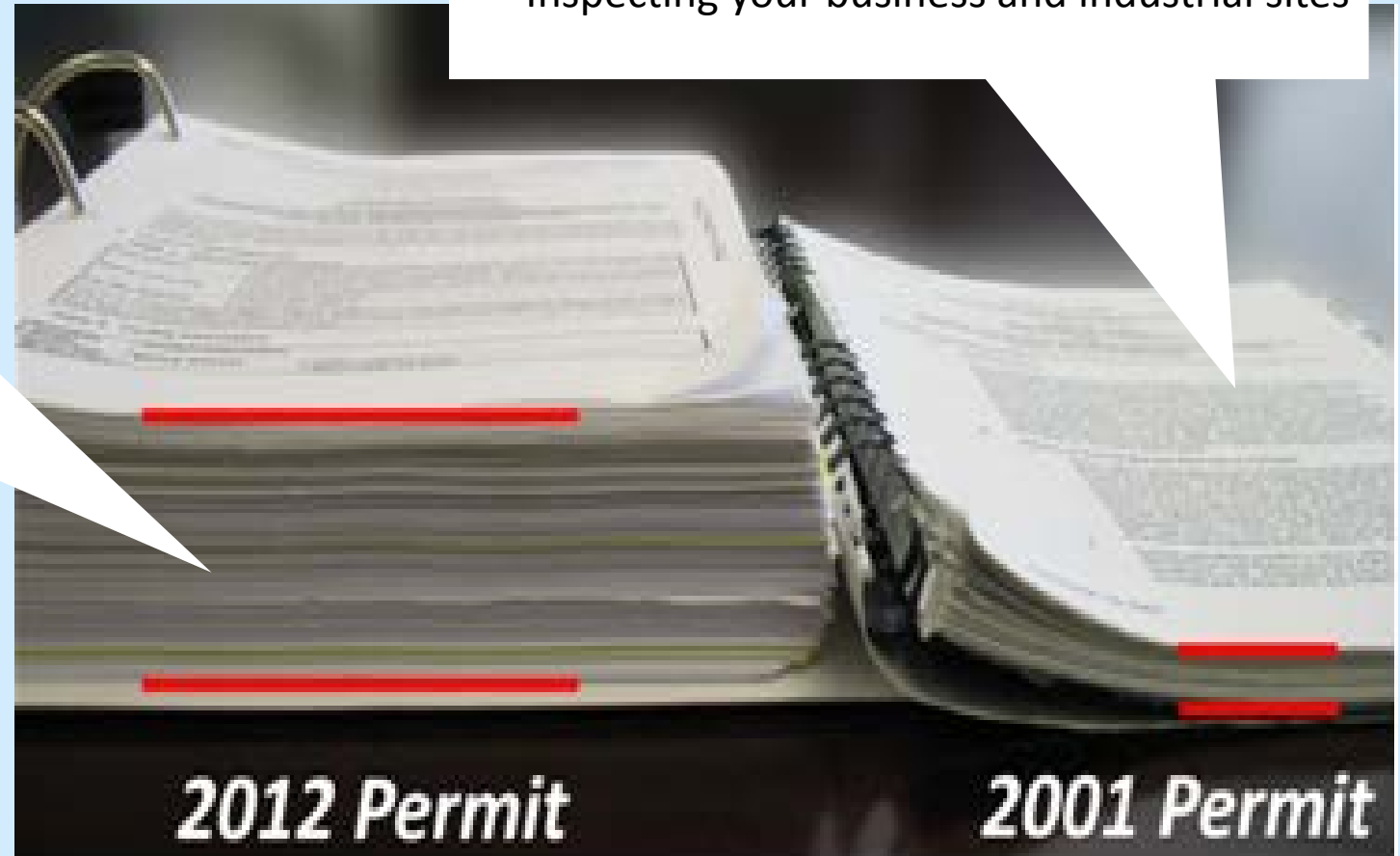
2012 Permit: More flexibility in actions, but required to meet numerical goals.

For example, in LA River must meet:
Trash reductions by 2016
Metal pollutants by 2028 and
Bacteria by 2037

And introduced the Watershed approach

2001 Permit: Assumed common sense actions would result in achieving water quality goals. Compliance is achieved by actions, such as ARE YOU:

- Sweeping your streets at least 1x/month
- Cleaning out your catch basins 4x/year
- Inspecting your business and industrial sites



Watershed Management

In the 2001 and prior permits, every city was on their own

The 2012 permit require Cities to band together for coordinated actions.

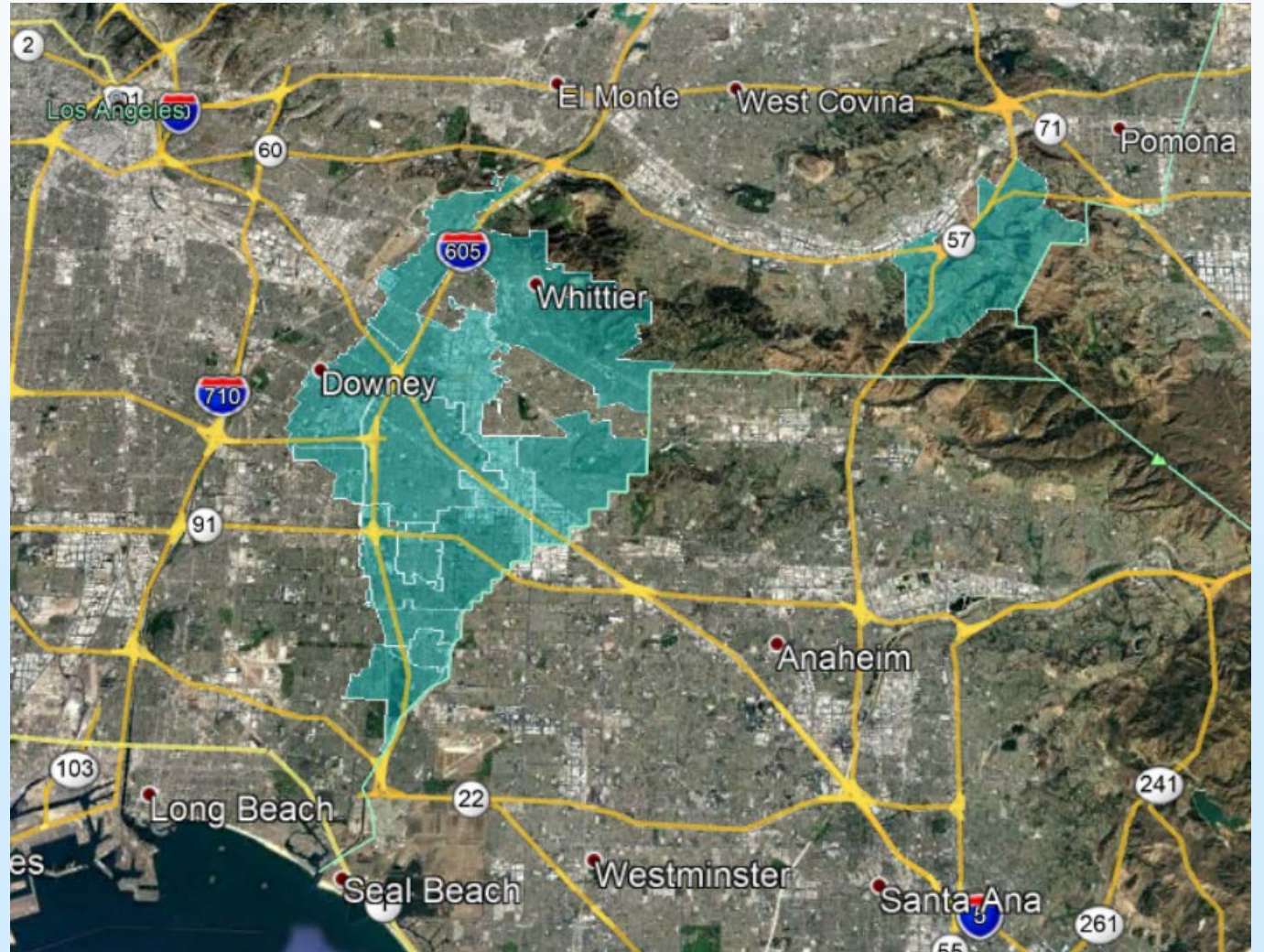
The Gateway area has 4 major Watershed Management Plans:

- Upper Reach 2
- LLAR
- LCC
- LSGR, and
- 1 individual city plan (Long Beach Nearshore)

Montebello is in the Upper LAR

What is a Watershed?

- LSGR 108.02 sq miles
- LLAR 45.35 sq miles
- LCC 27.7sq miles
- UR2 22.2 sq miles



Example: Lower San Gabriel River Watershed

The MS4 Permit gave cities two options:

1. Comply with the **Numerical Effluent Limits** **immediately**

- OR -

2. Develop a **Watershed Management Program**, in which case, the Numerical Effluent Limits are phased in.

Watershed Management Plan (WMP)

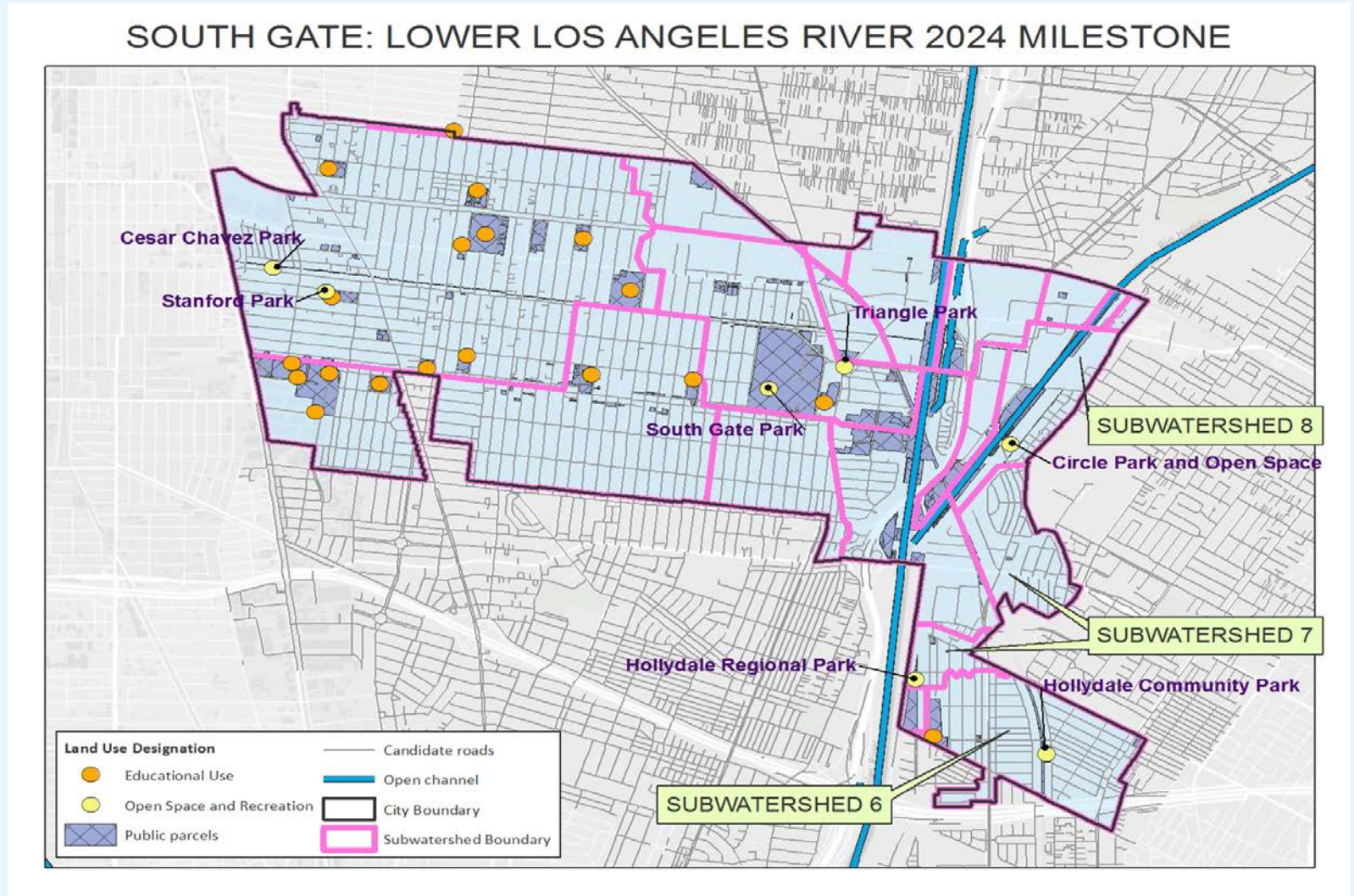
- These WMP documents rival the size of the 2012 MS4 Permit
- Each Watershed group has one WMP
- To save money, the GWMA grouped three of the watersheds (LLAR LCC and LSGR) into one effort and saved an estimated \$0.5 million

The WMPs

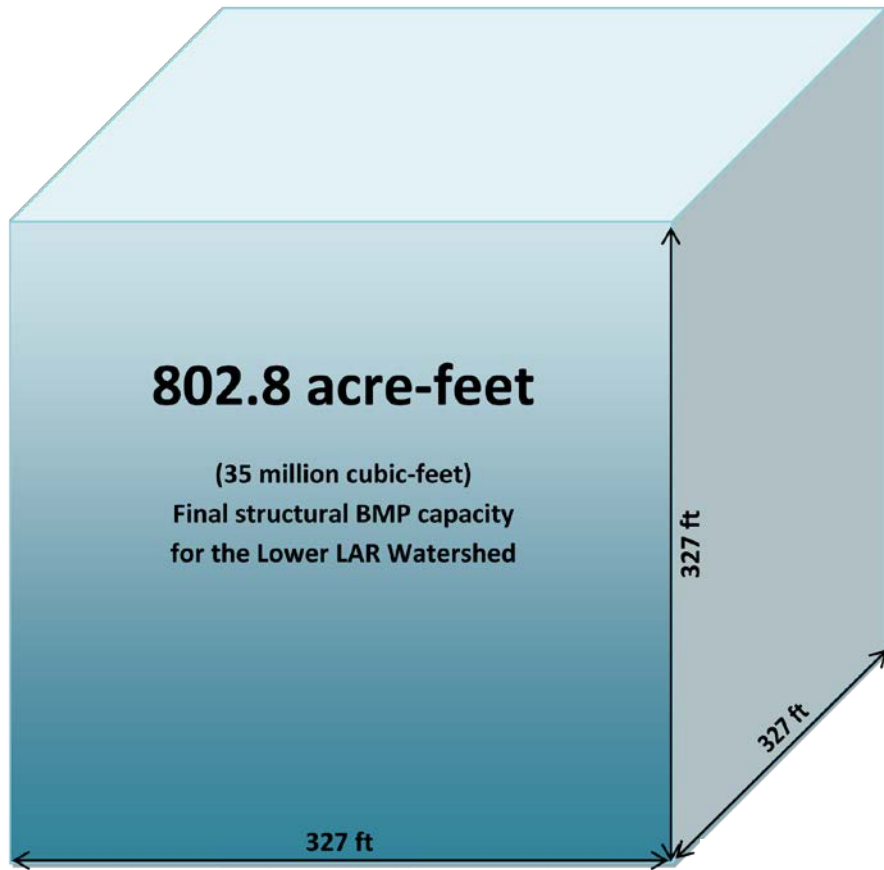
Major points

1. Up until 2015: Los Angeles County Flood Control funded two monitoring sites in the Gateway Area. After 2015: the number of stations increased dramatically, now funded by cities
2. Extensive computing modeling conducted to predict what would be needed to achieve the numerical limits
3. City must continue the routine implementation measures such as street steeping, catch basin cleaning and inspections.
4. Projects, Green streets and Low Impact Development (LID) must be factored in to new developments, both public and private).
5. Every two years, results to date must be evaluated and the WMPs revised accordingly to keep on track

The WMP divided
cities in to small
“Sub Watersheds”

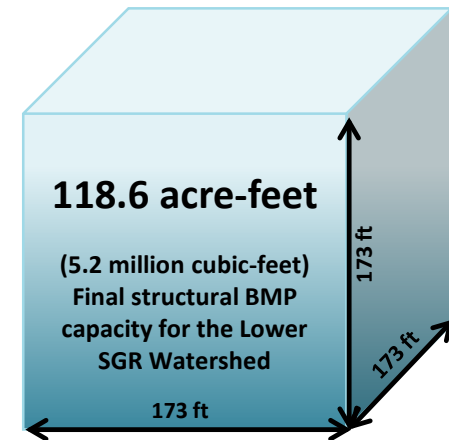
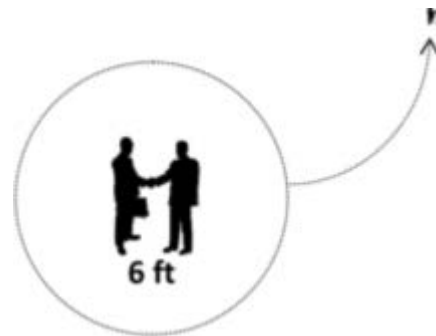


From WMP modeling, we have the Compliance Cubes:



The 8 cities of the
Lower Los Angeles River Watershed

- How much runoff must be captured and treated to achieve compliance goals?



The 14 cities of the
Lower San Gabriel River Watershed

And this is how we capture runoff

- Green streets and Low impact designs on private development will also help and may be better in some situations

- AND -

- They don't have to be concrete vaults, they can be wetlands or nature-based landscapes



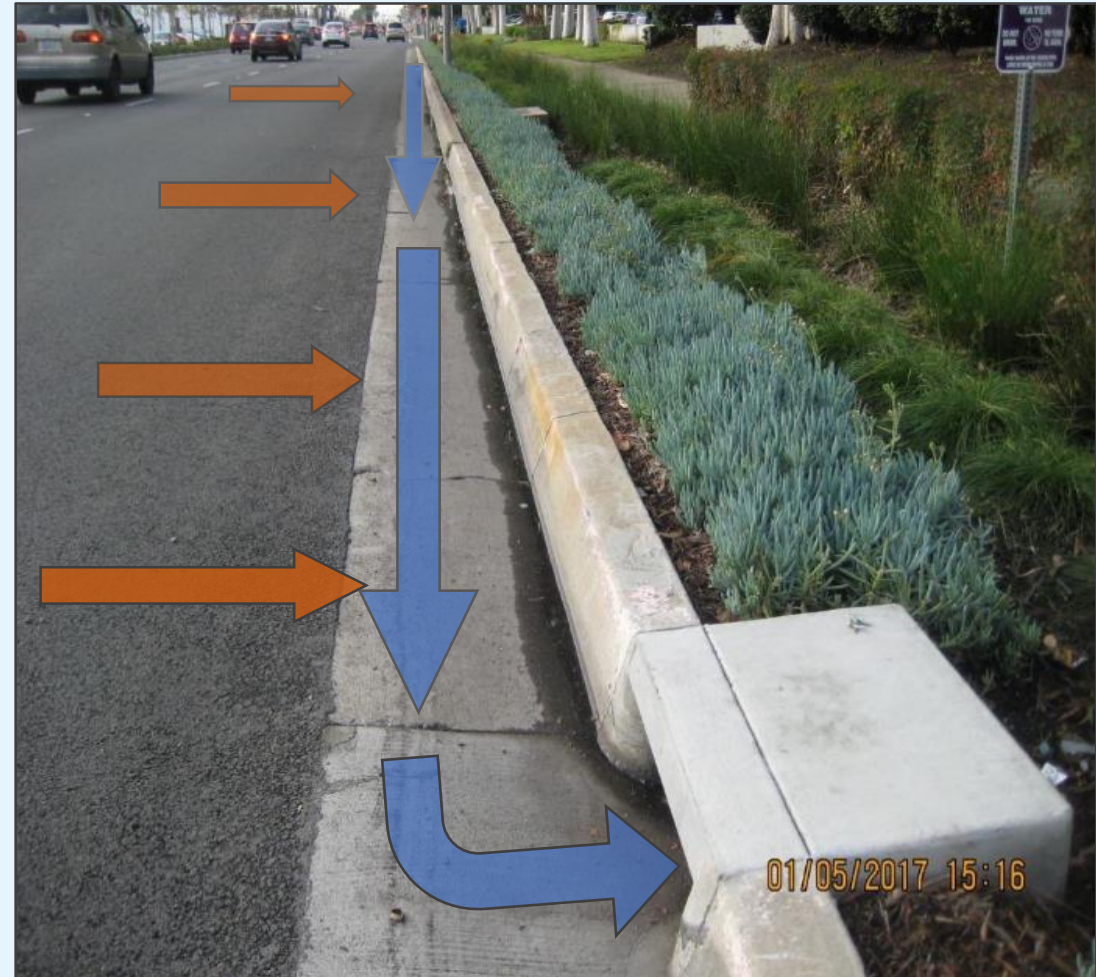
Best candidates right now are Parks, Public Lands and Streets

Operations and Maintenance

- Pump stations will need repairs
- Vaults will need to be cleaned
- Landscape around nature-based projects will need to be maintained

The issue of how to pay for this O&M will need to be addressed.

Green Streets



We've talked a lot about projects, but

- Compliance will not be determined by the **number of projects** completed. That was only an estimate based on the computer modeling
- Compliance will be determined by the **quality of the runoff** leaving the city as measured by the monitoring program.

So how are we doing?

- We are far away from meeting the goals of the “compliance cubes”,
- But in general, the monitoring results have been better than expected,
- But there are a few pollutants that will prove to be stubborn such as bacteria and legacy toxics.

**You have to build enough project capacity
to capture that last most stubborn
pollutant**

Future Steps

A new Permit is expected in 2020. Up until a few months ago, it was anticipated to be nearly identical to the 2012 permit.

Now we will have to wait and see.

Nonetheless, the path to better water quality (and drought resilience) has been laid out by the WMPs, and funded in large part by the Safe Clean Water Program (Measure W)