

Building a better watershed based permit

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NAFSMA

San Diego Coastkeeper is...

1. largest professional environmental NGO
2. We help protect the region's waters
3. We do this by education, program implementation & advocacy

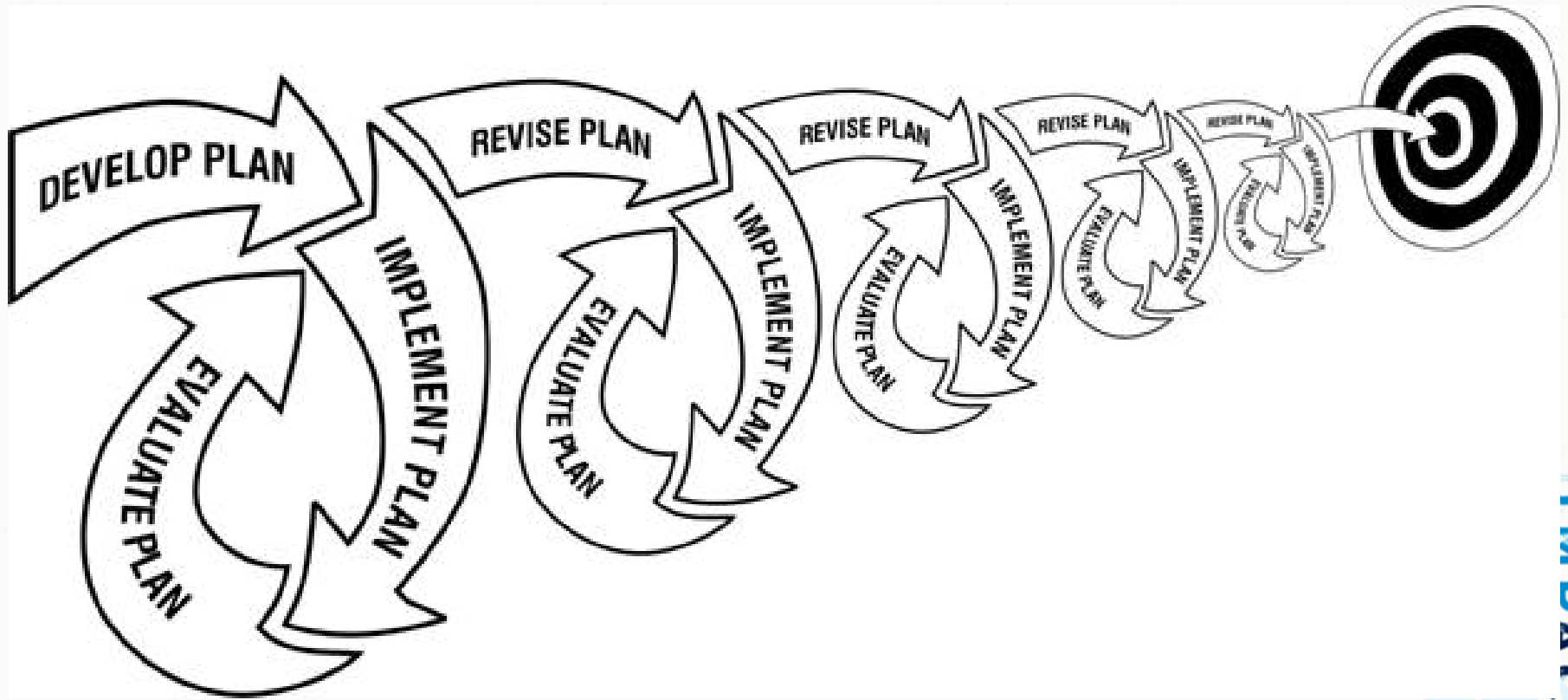


MS4 Permits—and the elusive MEP

MS4s: Permit Conditions

- Eliminate non-storm water discharges to storm sewer system
- Implementation of program to reduce runoff from industrial, commercial, and residential areas, to "maximum extent practicable" (MEP)
- No specific EPA regulations defining MEP; permit-by-permit
- Implement program to control discharges from new development and redevelopment areas

The Iterative Loop



The Orange County MS4 Permit

- **OC Permit Non-Stormwater Action Levels**
- Failure to timely implement required actions specified in this Order following an exceedance of an NAL constitutes a violation of this Order.
- However, neither compliance with NALs nor compliance with required actions following observed exceedances, excuses any non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges...

The Orange County MS4 Permit

- **OC Permit Non-Stormwater Action Levels**
- Failure to appropriately consider and react to SAL exceedances in an iterative manner creates a presumption that the Copermittee(s) have not complied with the MEP standard.

Case Study – City of San Diego

- 20-year Master Storm Water System Maintenance Program
- Annual assessment of “maintenance” activities and expedited permitting from various agencies like Regional Board, Army Corps, Coastal Commission

Goal of MSWSMP

- Recognizing the need for, and importance of, continuing the periodic inspection, cleaning, and maintenance of storm water channels and basins in the future, the City has proposed the Master Storm Water System Maintenance Program (MSWSMP). The focus of the subject Program is to evaluate each of the City's storm water facilities for maintenance needs.

City Storm Water Dept Goals

- (1) identify sources of pollution and abate them through the implementation of innovative and efficient public education, watershed management, storm water development regulations, monitoring, investigation, enforcement, and City-wide training programs;
- (2) provide the most efficient storm drain system operation and maintenance services to San Diego's residents, businesses, and visitors.

Watershed-based Policies

- The San Diego Region is regulated by one MS4 Permit based on jurisdiction – ie. The County
- Permitting is not based on watershed
- The San Diego Regional Board recognizes this, and is considering an area-wide, regional permit or watershed-based permits

A 2008 Study Revealed Watershed-based Activities are Not Working



- On April 15 - 18, 2008, PG Environmental, conducted a series of interviews of copermittees
- Section E. of the Permit, Watershed Urban Runoff Management Program, requires that each copermittee collaborate with other copermittees within its WMA(s) to implement an updated Watershed Urban Runoff Management Program for each watershed

The Purpose of the WURMP

- To “reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), and prevent urban runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.”

Findings of the Study

- **Lack of Understanding of WURMP Goals and the Ramifications and Integration of TMDLs. Recognition of Water Quality Contribution.**
- **Collective Watershed Strategy Not Well-Articulated.**
- **Lack of Cross-Jurisdictional BMPs.**
- **WURMPS Viewed as Compliance Documents.**

Findings Continued

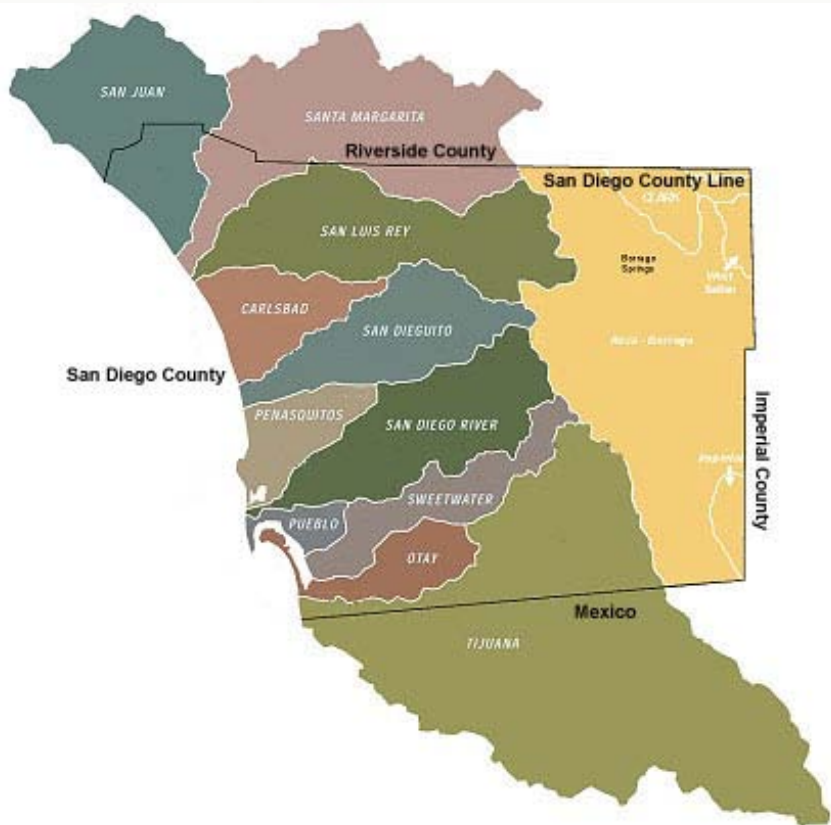
- **JURMP and WURMP Obligations Are Causing Resource Trade-offs.**
- **Limited Utility of the Five-year Strategic Plan.**
- **Limited Implementation of Watershed-based Land Use Planning.**

From Policy to Implementation

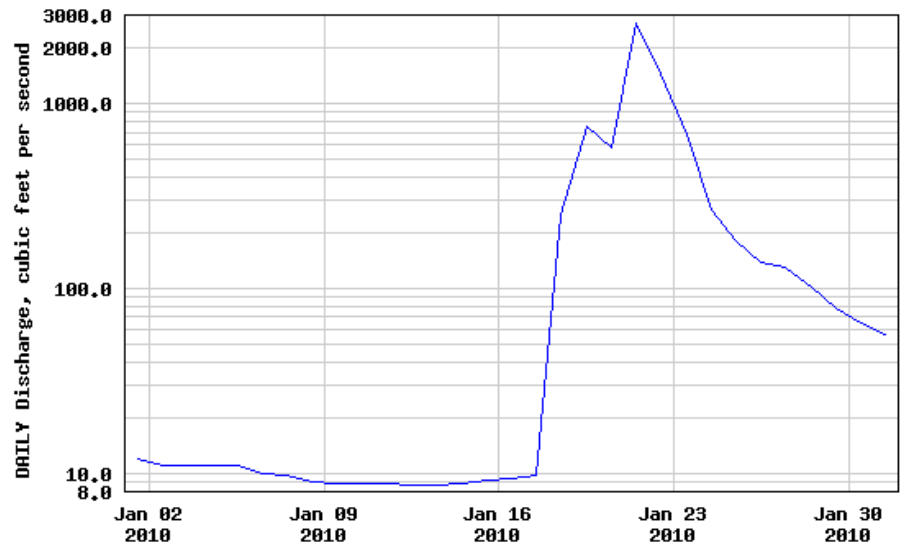
1. San Diego – the environment for implementation
2. Low Impact Development
3. Stormwater as a Resource – looking forward

Our Region's Watersheds

- Mediterranean climate
- Long dry period
- Short, wet period with back to back storms

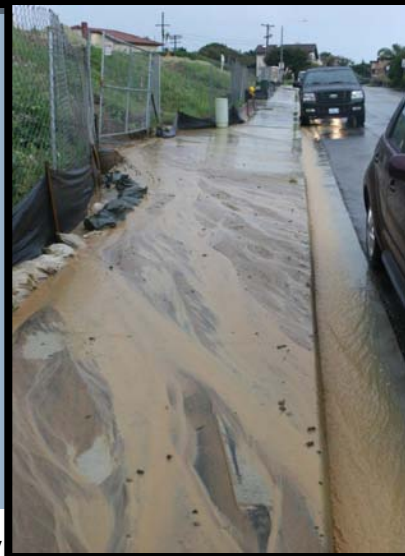


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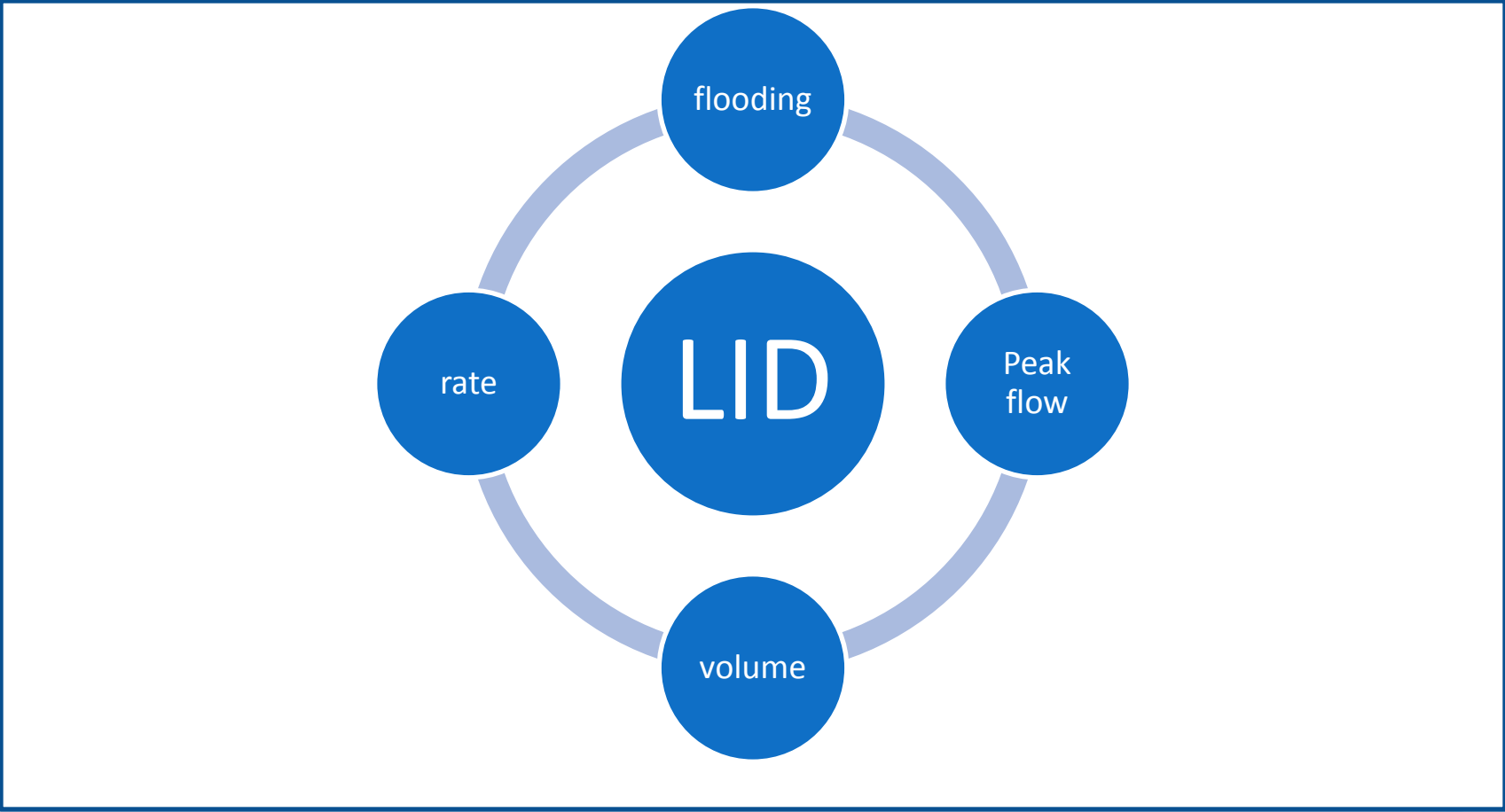
---- Provisional Data Subject to Revision ----

Why Worry About All This?



SWRCB My Water Quality Portal Map of Impaired Waters in Region 9

Evolution of Stormwater Management

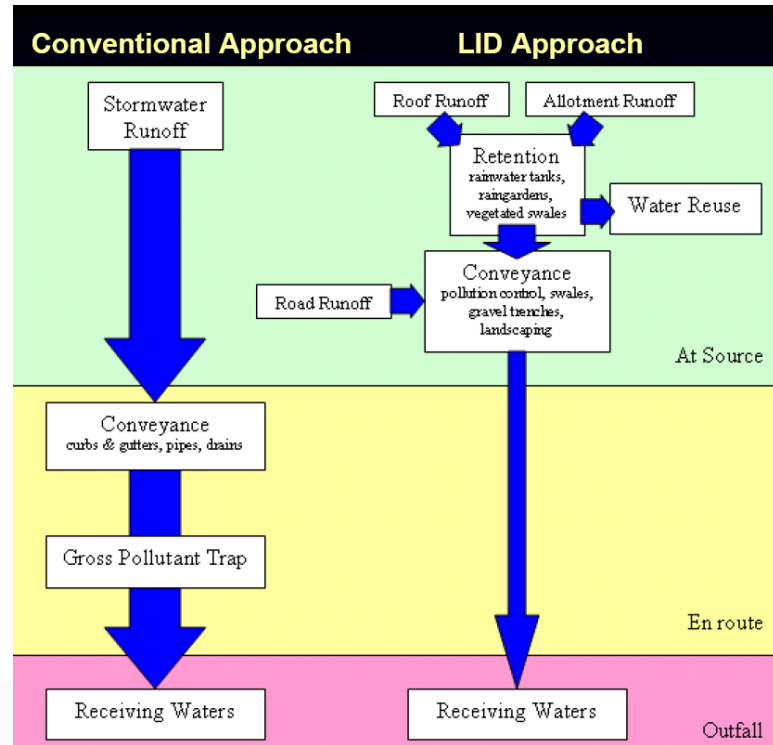


LID: The Unifying Approach

➤ Guiding principles

TO PREVENT RUNOFF FROM SITE

- Conserve
- Minimize
 - disturbances
 - impervious surfaces
 - soil compaction
- Drain from impervious to pervious



Multi-Environmental Benefits



LID in the San Diego 2007 Permit

- SUSMP must establish:
 - LID requirements
 - siting, design, & maintenance criteria
 - Where applicable & feasible
 - requirements for permeable surfaces
 - LID restrictions

(Order No. R9-2007-0001, Section D.1.d.(7) & (8), Page 21)

LID: What is Being Done to (un)Pave the Way for Implementation

- County SD LID manual
- City of SD Pilot studies/concept plans
- Larger spatial scale
 - San Francisco planning (planning for waste, storm water, and streets)
 - Ventura Surfrider (Vision for Sanjon/Prince Barranca drainage area)
 - Tree People + *et al* – Sun Valley Watershed Plan)
- Focus is still at site level!

LID: Moving Forward

- Infiltration:
 - current focus of implementation
- Possibly key:
 - Evapotranspiration
 - Least well quantified?
- Capture & reuse



Shifting the Paradigm – Stormwater as a Resource



- Treated as waste = 'urban slobber'
- Designed our spaces to get rid of it quickly
- in arid west = short sighted vision of our water

Stormwater As A Resource

Capture & Reuse

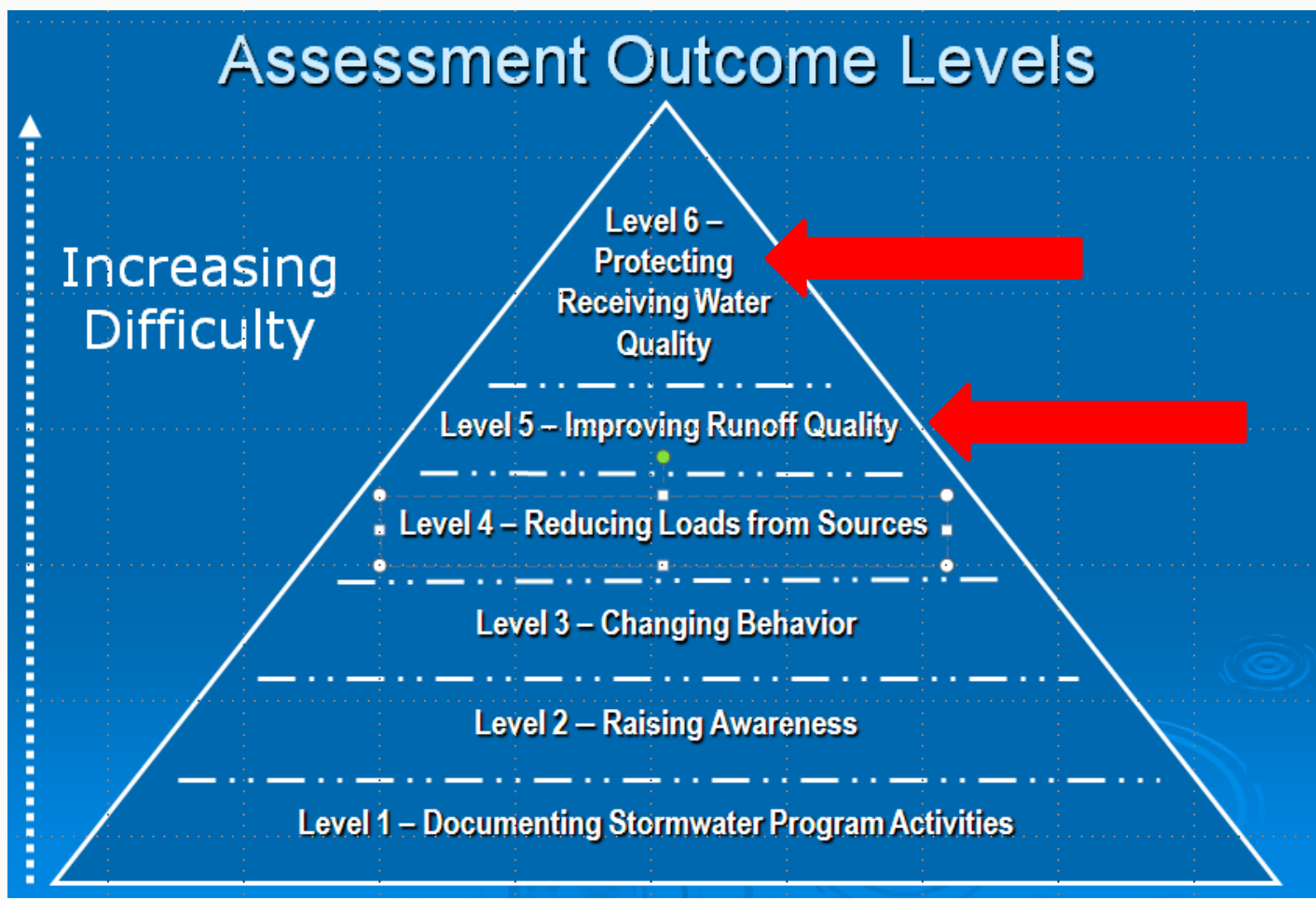
- Theoretically
 - Reduce runoff volume
 - Reduce peak flow
 - Both of which would reduce the physical degradation of habitat in receiving waters
- Water supply benefits

Some Regional Examples

- Centralized municipal: SMURRF
- City studies on capture
- County rain barrel program



Effectiveness

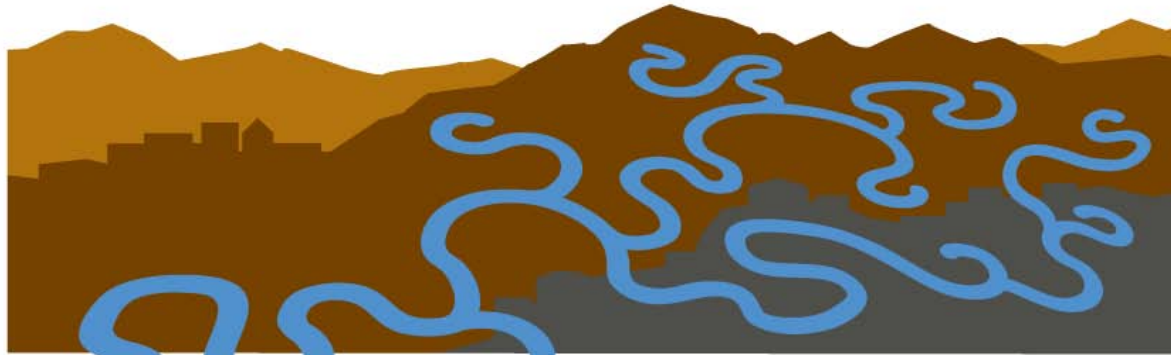


California Stormwater Quality Association

The Next Permit...

- More efficient & effective permit
- Clear, measurable objectives
- Combines our jurisdictional & watershed based efforts

Thank You!



WATERSHED/COMMUNITY

A WATERSHED IS

THAT AREA OF LAND, A BOUNDED HYDROLOGIC SYSTEM, WITHIN WHICH ALL LIVING THINGS ARE INEXTRICABLY LINKED BY THEIR COMMON WATER COURSE AND WHERE, AS HUMANS SETTLED, SIMPLE LOGIC DEMANDED THAT THEY BECOME PART OF A COMMUNITY. **JOHN WESLEY POWELL**

SAN DIEGO
COASTKEEPER

IMPACT