Overarching Monitoring Program Objectives

- Assess the chemical, physical and biological impacts of MS4 discharges on receiving waters
- Determine compliance with WQBELs and RAP
  - Direct comparison to WQBELs
  - Validate BMP performance / outcome expectations for "Reasonable Assurance Program"
- Help target implementation actions
Elements of the Monitoring Program

- TMDL Compliance Monitoring Programs
- MS4 outfall monitoring of stormwater discharges
- MS4 outfall monitoring of non-stormwater discharges
- Regional Monitoring Programs

Specific Objectives

- TMDL Compliance Monitoring Programs
  - Assess whether the applicable interim and final WQBELs and RWLs are being achieved
- Stormwater Outfall-Based Monitoring Program
  - Characterize the quality of stormwater discharges and their impact on receiving waters
  - Measure the effectiveness of Permittees' Stormwater Management Program (i.e. MCMs/RAP)
- Non-Stormwater Outfall-Based Monitoring Program
  - Identify outfalls with significant non-stormwater discharges
  - Characterize the quality of non-stormwater discharges to determine whether these non-stormwater discharges are a source of pollutants
- Regional Monitoring Programs
  - Assess whether receiving waters are fully supporting beneficial uses
  - Identify pollutants that are causing or contributing to an exceedance of water quality standards
Need for MS4 Outfall Monitoring

- Identified by EPA in federal regulations
- Provides data to determine impact of MS4 discharges on receiving water
- Provides data to evaluate whether authorized non-stormwater discharges are a source of pollutants
- Provides data to determine effectiveness of stormwater management programs and illicit discharge detection and elimination programs

Integration of TMDL and Outfall Monitoring Requirements

Machado Toxics TMDL Monitoring Program
- Three wet weather events each year, including first large storm
- Appropriate locations in the subwatershed

Proposed Outfall Monitoring Program
- Three storms per year, including the first storm of the season
- At least one outfall within each subwatershed
Comparison of Monitoring Requirements

Existing LA County MS4 Permit
- Mass Emissions
- Tributary
- Shoreline
- Trash Monitoring
- Bioassessment
- BMP Effectiveness
- Peak Discharge Impact Study

Proposed Requirements
- Receiving water
- TMDL/outfall monitoring
- Shoreline (TMDL driven)
- Trash (TMDL driven)
- Bioassessment
- LID Effectiveness Study
- Hydromodification Study
- Pyrethroids Special Study

Development of Monitoring Program Framework for Permit

- Outfall monitoring
  - Program objectives
  - Outfall / site selection criteria or screening process
  - Minimum frequency
  - Process for adaptive monitoring
- TMDL monitoring requirements
- Regional monitoring requirements/special studies
Timing of New Monitoring Requirements

- Within first year
  - Update inventories of MS4 outfalls
  - Develop integrated monitoring plans
  - Continue TMDL monitoring
  - Continue mass emission monitoring and other on-going regional monitoring programs
  - Begin screening of outfalls for non-stormwater discharges