SMC REGIONAL STORMWATER MONITORING COMPARISON AND EVALUATION

SUMMARY OF MONITORING PROGRAMS
SAN DIEGO COUNTY COPERMITTEES

May 15, 2012

MS4 Permit

- San Diego RWQCB
- Term: 2007 – 2012 (basis for discussion of current requirements)
  - Administrative Draft Permit Released 4/6/2012
- Most monitoring plan details prescribed in permit

Description	# sites	# storm events	# dry events
Mass Emission+TWAS[1])	16/yr[2]	2	2
MS4 Outfall (random/targeted)	54/3/ 200(dry)	6/1	1

[1]Temporary Watershed Assessment Stations

[2]Rotating every two years between north and south county based on ROWD recommendations

Site selection

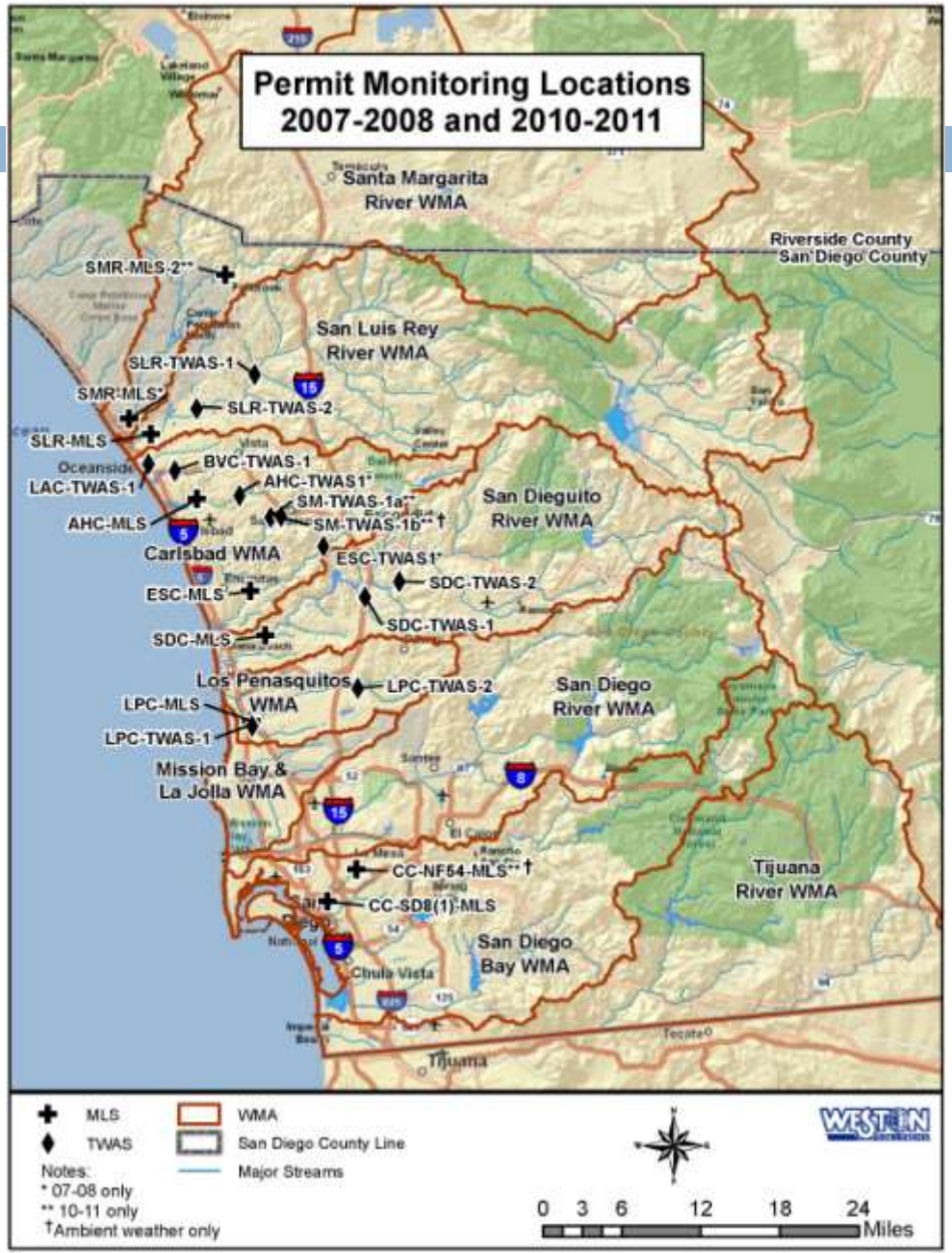
- Mass emission stations
  - Prescribed in permit (TWAS can be moved as defined by Watershed Groups)
  - Assessment of Core SMC Questions and trends
- Urban outfalls (comprehensive MS4 Program)
  - Random Program used to characterize loads and assess trends (grabs)
  - Targeted Program used to assess specific sites and trends (grabs for dry weather, pollutographs for wet)
  - ≥36" Pipe Diameter

Core Monitoring Questions

1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
2. What is the extent and magnitude of the current or potential receiving water problems?
3. What is the relative urban runoff contribution to the receiving water problem(s)?
4. What are the sources of urban runoff that contribute to receiving water problem(s)?
5. Are conditions in receiving waters getting better or worse?

Monitoring sites

San Diego County Copermittees



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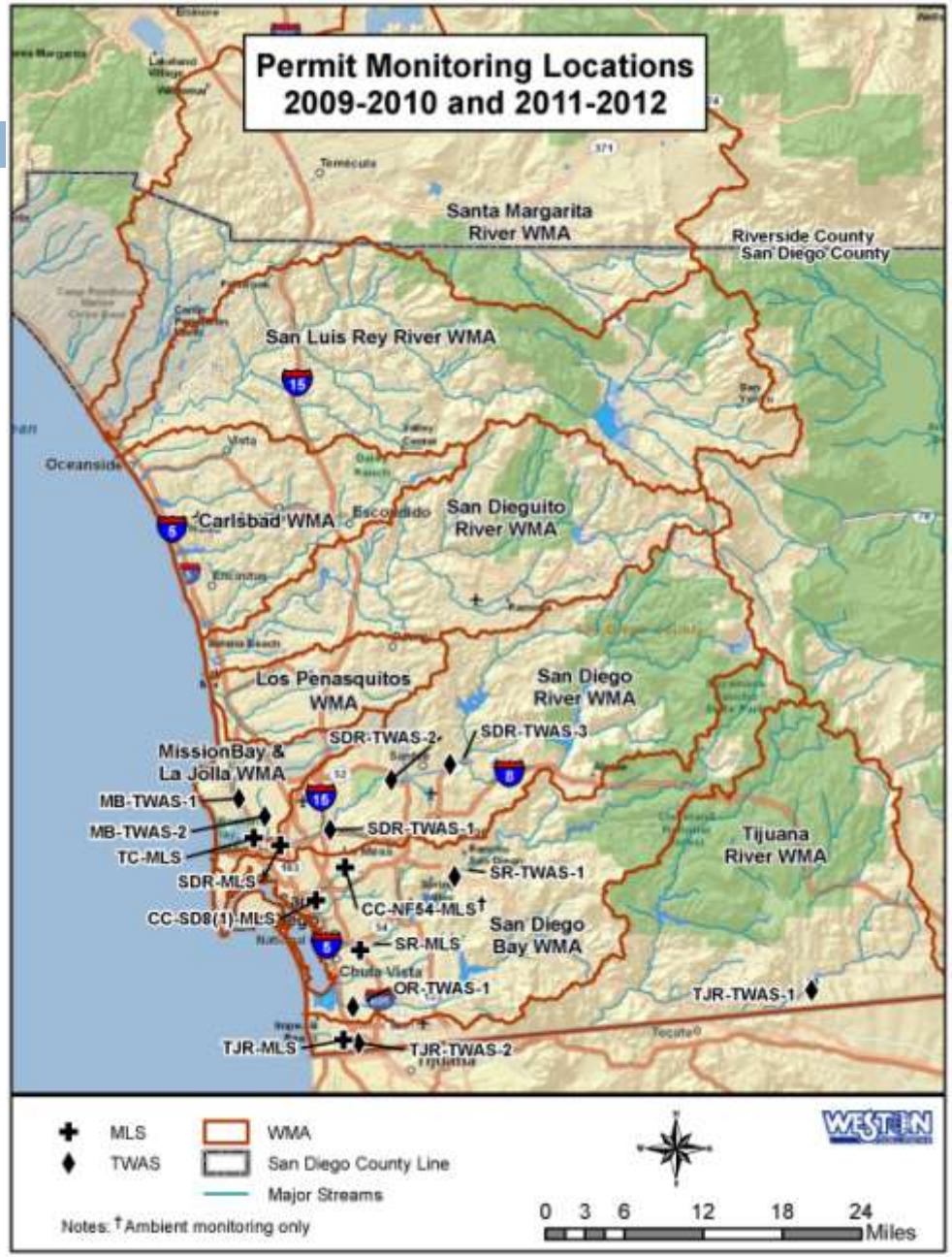

MLS Sampling

- Flow weighted composites
- Sample representative of hydrograph (through duration of flow event)
- Sigma 900SD autosamplers for composites
- 1x 19L glass composite bottle per event (sometimes need more based on toxicity test requirements)
- Single grab samples at peak flow for bacteria, O&G, BOD
- pH, Conductivity, Temperature done in situ during grabs.

Event summary

- Go / no-go decision based on > 0.1" NWS San Diego QPF and BPJ
- 8 field teams of 2 persons (2-3 sites each), 1-2 person storm control, 2 runners.
- Pacing set by event controller based on QPF and BPJ for each watershed.
- Pre-event site visit (>24 hrs before event): remote programming, bottle installation, equipment checks.
- Teams mobilized prior to rain reaching the coast (1-hour prior to expected rainfall), no night-time restrictions.
- At site throughout duration of event: grabs, check autosamplers, adjust pacing if needed.
- Deliver bacteria samples to runner or directly to lab (within 3 hrs of sampling).
- Composites returned to central processing facility for lab processing if multiple bottles were collected per site.
- Arrange pick-up with courier for composites and chemical grabs.

Remote data access, programming

- Stations are monitored throughout event by event manager.
- Hydrographs and sample pacing reviewed throughout duration.
- Field teams used to coordinate and troubleshoot as needed.

Unique features-Pollutographs

- Targeted wet weather MS4 Outfall sampling uses a modified flow-weighted pollutograph.
- Small sample aliquots are taken over the rise, peak, and fall of the event.

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