San Diego Copermittees Response to Regional Board Member Questions

December 12, 2012

HMP supports the use of controls to match *Pre-Project* Conditions

- San Diego HMP TAC validated the use of *pre-project* conditions
- Other regions support runoff matching to *pre-project* conditions
- Encourages redevelopment
- Appropriate nexus to project impacts
- Allows adaptability based on monitoring

Response to Hydromod Q1, Q3, Q4

Permit or Plan	Pre-Project or Naturally Occurring	Exemptions					
		Storm Drain to ocean	Engineered Channel to ocean	Tidal Zone	Major River or Aggrading Reach	Reservoir	Urban Infill
San Diego HMP	Pre-Project	Yes	Yes	Yes	Yes	Yes	Yes
Draft San Diego Permit	Naturally Occurring	Yes	No	No	No	No	No
Riverside Santa Ana WQMP	Pre-Project	Yes	Yes	n/a	Yes	Yes	No
Los Angeles County	Pre-Project	Yes	Yes	Yes	Yes	Yes	Yes
Ventura County	Pre-Project	Yes	Yes	Yes	Yes	Yes	Yes*
San Francisco Bay Area	Pre-Project	Yes	Yes	Yes	Yes	Yes	Yes
Draft Sacramento HMP	Pre-Project	Yes	Yes	n/a	Yes	Yes	Yes

*** LID Exception for < 1 acre**

Recommendations

Reference previously adopted **Resolution R9-2010-0066** into the permit (Section E.3.c.(2)(d) page 80)

- Supports HMP pre-project
- Upholds HMP exemptions
- Allows adaptability after completion of HMP monitoring

No Robust Study to Quantify Benefits of the Bacteria TMDL

- Beaches are valuable.
- Current regional spending $119 million/year.
- Over 90% of San Diego County beaches received A grades.
- Beach grades and posting stats have improved.

Current Program Costs

- **San Diego County Copermittees:** Currently ~$119 M/year.
- For Example, the City of San Diego's current costs are:

Jurisdictional Program	$46,086,836
Watershed Program	$7,313,307
Regional Program	$675,703
Total FY 12 Costs:	$54,082,449

Bacteria TMDL Increases Program Costs

Bacteria TMDL Cost for SD Region: $2.6 to $4.9 billion over 20 years.

- Costs are additive.
- Based on robust BMP modeling.
- Based on **managing loads** on a watershed-basis.
- Costs increase based on managing concentrations.

Cost Type	Annual Cost	Factor
Current Program	$119 million	---
Bacteria TMDL	$144 - 272 million	1x- 2x
Total	$263 – 391 million	2x– 3x

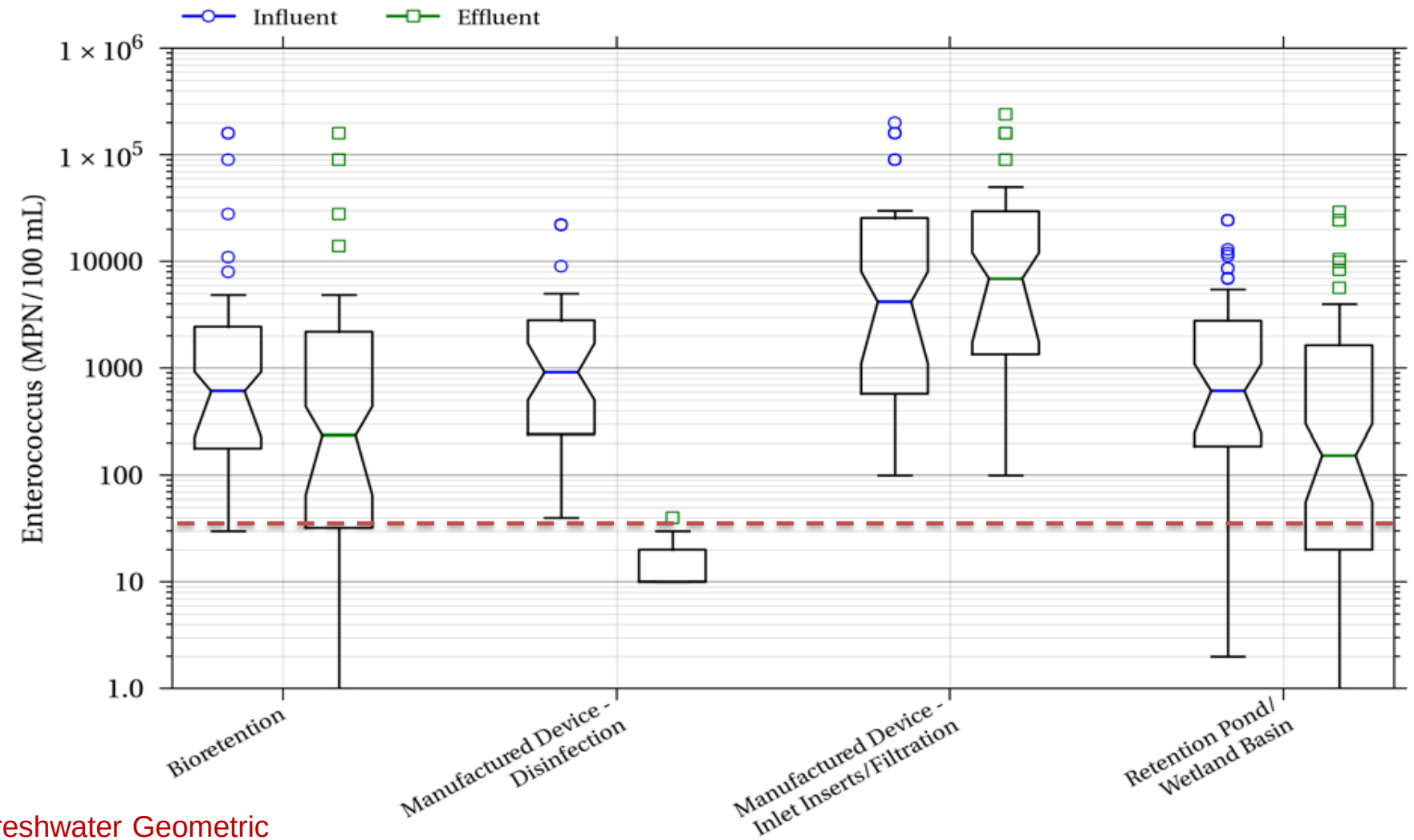
Bacteria Standards are Not Consistently Attainable

Non-Structural Source Controls

- Large uncertainties in stormwater load reductions.
  - Uncertainties in loading (wide range of potential sources)
  - Uncertainties in effectiveness (wide ranges of estimates, particularly for non-structural measures)
  - Example: Santa Barbara - effective source control, still with noncompliance
- Long term sustainability of effectiveness (maintain equally effective approach into perpetuity)
- Location of source control measures are not conducive to compliance
  - Regrowth within MS4
  - Uncontrollable non-human sources upsetting effectiveness

Structural BMP Performance

Required mitigation volumes are significant



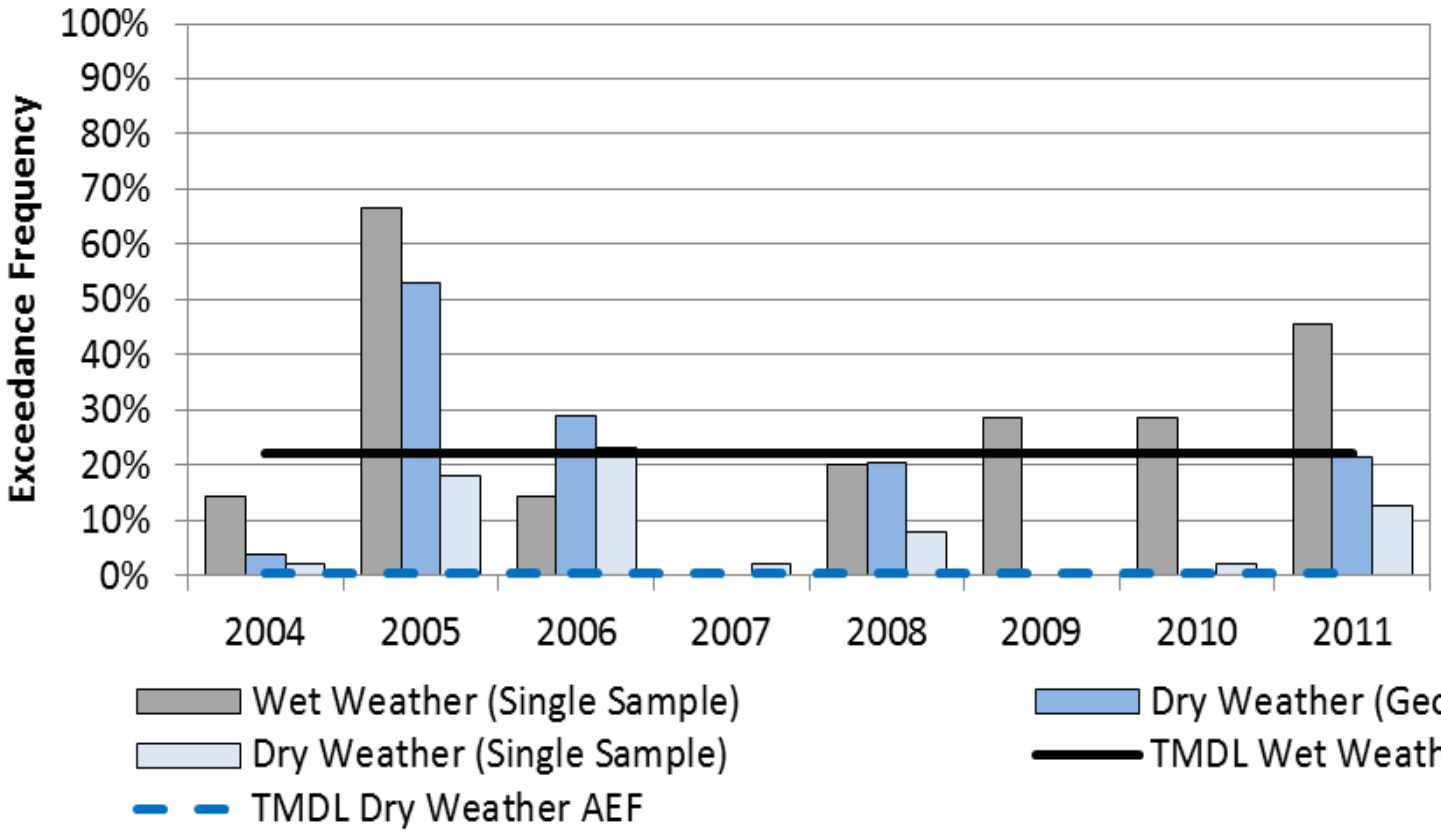
Freshwater Geometric Mean Criterion = 33/100 mL

Clary, J., B. Steets, J. Jones, E. Strecker, M. Leisenring. *Fecal Indicator Bacteria Reduction in Urban Runoff.* October 2012. <www.stormh20.com>.

Even with BMPs, Consistent and Reliable Attainment of Bacteria Standards is Not Possible

- Example of structural + non-structural BMP implementation:
  - Santa Monica Pier
    - Full dry-weather capture SMURFF
    - Bird/trash control and exclusion
    - Sewer connections and rehabilitation
    - High levels of Enterococcus remain
- Direct sources in receiving waters
  - Natural sources (kelp wrack, sediments)
  - Regrowth in enclosed systems
  - Human sources (bather shedding, etc.)
- Natural variability and loading (reference watersheds)

Reference Watershed Exceeds TMDL Standard 50% of the Time



Where bars exceed the associated AEF, even the reference beach would be out of compliance with the TMDL limits.

Notes:

1. 30-day Rolling GM - Geometric mean calculation performed every week, on the dry weather samples within the previous 30-days period, if 5 or more samples have been taken in the 30-day period.

BMP-Based WQBELs

BMP-based WQBELs have many advantages:

- Match the language in the Board-adopted TMDL
- Facilitate innovative, watershed-based approaches
- Better reflect challenges of stormwater management
- Improve ability to articulate funding needs
- Can be measured, tracked, and enforced by the Board

Incorporate Options from Bacteria TMDL

Options in TMDL	Recommendation
Reopener	Add the Bacteria TMDL's reopener to Provision H
Interim Milestone Schedules	Add the Bacteria TMDL's option to propose alternative interim milestones if a Comprehensive (multi-pollutant) Load Reduction Plan approach is taken
BMP-Based WQBELs	Add the Bacteria TMDL's option for BMP-based WQBELs as effluent limitations
Mass-Based WLAs	Add the Bacteria TMDL's option for mass-based effluent WQBELs