

San Mateo County Harbor District
Water Quality and Public Safety Committee Meeting Report

Date: Thursday, September 10, 2015

Time: Start 7:00 pm, End 8:30 pm

Commissioner Co-Chairs: Nicole David, Tom Mattusch,
Water Quality Focus

The meeting was attended by:

Tom Mattusch

Nicole David

Jay Davis

Keith Mangold

Brittani Bohlke, San Mateo County Resources Conservation District (RCD)

The following water quality management questions were discussed:

1. Which are the pollutants of highest concern at the Harbors?
2. Which are the areas within the Harbors that are of most concern to public safety?
Which are the areas where guidelines are most frequently exceeded?
3. What are the overall loads into the Harbor for pollutants of concern?
4. What are the implications of historic discharges and first flush?
5. What are the observed patterns of levels, fate, and transport of pollutants?
6. What are the contributions of pathways and point sources, e.g., outfalls, storm drains, creeks, harbor activities, atmospheric deposition, natural sources?
7. What are the manageable point sources of pollutants? What sampling design will lead us to the point sources?
8. Are sources controllable? Under what regulatory framework?
9. What are potential management actions?
10. Have implemented management actions reduced concentrations or loads?

The focus questions for determining the source of bacterial contamination were narrowed down to the following two questions:

- What are the manageable point sources of bacteria? What sampling design will lead us to the point sources?
- What are the overall loads for bacteria into the harbor at Capistrano Beach?

The Committee decided on the following sampling approach for the upcoming sampling season:

While the RCD will continue their effort regarding outreach and education of landowners and visitors in all watersheds draining into Pillar Point Harbor, the monitoring effort will focus on Capistrano Beach only to maximize the results and information gained from sample collection. Capistrano Beach is the most heavily and consistently polluted beach in the Harbor and that is the reason why we want to focus our attention there first.

All three outfalls at Capistrano Beach will be monitored with a paired sampling approach. The three outfalls include Denniston Creek, Capistrano Outfall, and St Augustine Outfall. Immediately after a sample is collected in the fresh water portion of an outfall another sample will be collected in ankle to knee deep water where fresh water and salt water is mixing.

This sampling approach will provide information on resuspension and redistribution of bacteria in the Harbor versus freshwater inputs and will help with the narrowing and identification of potential sources.

Paired samples will be collected once a week during a six week period (three high tide samples and three low tide samples) in the wet season. Additionally, paired samples will be collected once a week during a six week period (three high tide samples and three low tide samples) in the dry season. Paired samples will also be collected during three storms. These samples will all be analyzed quantitatively for *E.coli* and *Enterococcus*.

During two of the three monitored storms an additional round of six samples (paired samples at three outfalls) will be collected for microbial source tracking and analyzed qualitatively for the absence or presence of genetic markers.

The following physical parameters will be recorded with each sample:

pH, salinity, temperature, electrical conductivity, dissolved oxygen, total dissolved solids, tide cycle and height, rainfall amount, velocity measurements at outfall and vertical area covered by flow.

Pollution Sources



Storm Drains Feeding Capistrano Outfall (SMC Map)



The October meeting will be held on Thursday, October 8, 2015 at 7 pm at the RCD in Half Moon Bay. We will focus on public safety but will also include water quality issues.