

Minutes of the Regular Meeting of the Board of Directors
March 15, 2012
Location: RCD Office

Directors present: Rich Allen, Neal Kramer, TJ Glauthier, Jim Reynolds

Staff present: RCD – Kellyx Nelson, Karissa Anderson, Chelsea Moller, Shannon Thomas
NRCS – Jim Howard

Guests: Ron Kucera, Suzie Bennett, Lisa Ketcham

1 Call to Order

- Allen called the meeting to order at 6:37 pm.

2 Introduction of Guests and Staff

- Everyone present introduced themselves.

3 Public Comment

- Nelson stated that item 5.1 February 16, 2012 Draft Regular Meeting Minutes is removed from the agenda and will be added to the agenda for the April Regular Meeting.

4 Approval of Agenda

- Reynolds motioned to approve the agenda, Kramer seconded. Agenda passed unanimously.

5 Consent Agenda

- Reynolds motioned to approve the agenda, Kramer seconded. Consent agenda passed unanimously.

6 Discussion Items

6.1 Report on first year of results from Pillar Point Harbor monitoring project – Karissa Anderson & Kellyx Nelson

- The Pillar Point Harbor monitoring project assesses and identifies sources of fecal pollution in Pillar Point Harbor and recommends a plan for remediation. The project is funded by the State Water Resources Control Board Clean Beaches Initiative.
- Anderson gave the attached presentation (Attachment A) of the results of monitoring from a partial year in 2008 and a full year spanning 2011 and 2012.
- Anderson focused mainly on the microbial source tracking (MST) data.
- We have ceased sampling at sites that have not consistently had high counts of bacteria to allocate more resources to the sites that had inconclusive results or that were clearly part of

the problem. We also want to make sure that we have enough resources to address the issues at Capistrano Beach, since impairment on that beach was the impetus for the project.

- When live-aboard boat areas were sampled in 2011, Dock C exceeded threshold levels for fecal indicator bacteria. Docks A-C also had high concentrations of human markers, meaning that the source of the fecal bacteria exceedance was likely human. Repeated sampling in 2012 did not show exceedances of bacteria level thresholds and no human markers were detected.
- While this may be locally significant at the docks, it is not causing the problem at Capistrano Beach.
- 2008 data do not show a consistent input from dog or human, but did have input from the bovine marker (which can pick up cow, horse, and deer).
- First Flush sampling showed consistent, dominant input from bovine at Deer Creek.
- There was discussion about the relationship between the host specific markers and the universal marker. There was confusion about why the total host specific markers did not add up to equal the universal marker. , At many sites the host markers add up to be greater than the total universal marker that was detected.
- There was discussion about potential alternative technologies or tests that would tell us all of the contributing host species.
- Glauthier serves on an advisory board to the Lawrence Berkeley Lab and may be able to help us get some of their analysis for free so that we can see if it is something we want to do on a larger scale in this project.
- November 2011 and February 2012 live-aboard boat FIB testing showed close to non-detect results for all sites.
- RCD staff is working with the Harbor District to help them develop a sampling plan so they can continue sampling near the live-aboard boats on their own.
- All of these conclusions are preliminary because we still have 8 months of sampling to do, and the data needs to be tested against the new markers. So far, pipes and creeks are the main sources of high bacteria levels, suggesting that the contamination is not coming from within the harbor itself.
- **ACTION ITEM** – Staff will consult with the advisory committee to better understand the relationship between the universal and host specific markers. They will report on their findings at the next meeting.
- **ACTION ITEM** – Staff will report back on the routing of Deer Creek to answer questions regarding the various culverts at site 8.
- **ACTION ITEM** – Nelson and/or Anderson will follow up with Glauthier about the Lawrence Berkeley Lab.
- Anderson reported on results of sediment and biofilm sampling done in 2011-2012. Biofilm samples showed the same markers at inflow sites to the Harbor as water samples, and sediment samples also showed the same markers in comparable concentrations to water samples. Rain event sampling also showed signatures of suspended sediment from increased flows reaching a beach site and increasing the bacteria counts at that beach.

6.2 Executive Director Report – Kellyx Nelson

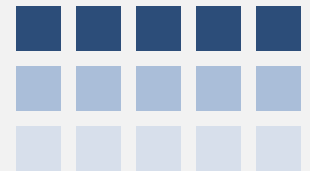
- Nelson read the attached letter from Supervisor Don Horsley that was sent in response to the letter regarding issues in the Pescadero Marsh that was presented at the February RCD Board Meeting (Attachment B). She noted his request for the RCD to continue with the grant as planned for long-term planning.
- Nelson updated the Board about the visit to a private property in Pescadero that she organized with the landowner and representatives from resource agencies. Those in attendance were generally in favor of long term solutions and opposed to spending significant public resources on shorter term solutions.
- **ACTION ITEM** – Moller will add a discussion of the grant to address issues in the Pescadero Marsh to the agenda for the April Board Meeting.
- We are currently applying for 4 grant proposals that are due in the next few weeks.
 - Environmental Protection Agency (EPA) grant to fund the Livestock & Land Program’s expansion to equestrian facilities on the Bayside, including Portola Valley and Woodside.
 - EPA grant to fund the Bonde Weir Fish Passage project on the San Francisquito Creek, which will improve access to 40 miles of steelhead habitat
 - Fisheries Restoration Grant Program (FRGP) grant for implementation of designs created under the Rural Roads Program in high priority watersheds (Gazos Creek and San Gregorio Creek). This is challenging because FRGP is so focused on instream work that we lose points for having an upslope project, despite the fact that roads work is listed in the species Recovery Plans.
 - **ACTION ITEM** – Moller will send the Directors a map of the proposed project sites.
 - FRGP grant for the Memorial Park Fish Passage Project. This project is also challenging because this project received an FRGP grant years ago, and had the funding taken away. Since then DFG asked us to take on this project, we have reworked the design and taken measures to ensure that we have a good chance of getting funded.
 - The RCD has hired two new staff people – Irina Kogan and Joe Issel
 - Kogan is a geologist that came to us from the NOAA National Marine Sanctuary Program. We are trying to negotiate a federal detail to let her stay here for two years, but keep her job/benefits so she can go back to her NOAA job when her position here is done. She has a lot of experience with permitting, geology, coastal process, interagency coordination, and stakeholder outreach. With Irina on board we expect to be able to do more of the technical work in house for which we usually contract out. She will be working about 20 hours per week.
 - Issel was formerly an employee of the Santa Cruz RCD, and is now a Masters degree student at San Francisco State University Geography Department in GIS. He will be working part time and sporadically, as needed around his work schedule. Among other tasks, he will also help us establish formal relationships with SFSU to assist with the implementation of the Pilarcitos watershed plan since it is difficult to find funding for this watershed.

- Nelson also introduced Shannon Thomas, who has been a part time temporary employee for the past 9 months, but has never met the Board. Shannon helps with administrative assistance and water quality monitoring. She will be helping to continue sampling while Anderson is on maternity leave.
- We are going to contract with the private consultant (Holly Van Houten) that has been assisting with the L&L program to manage the program while Anderson is on maternity leave.
- Cloverdale Ranch Ponds Enhancement Project –We anticipate going to construction on 7 ponds this summer. Right now we are in the permitting phase.
- ***ACTION ITEM*** – Reynolds asked Nelson to make a presentation about the RCD at the next Pescadero Municipal Advisory Council meeting about what the RCD is doing in the greater Pescadero area.
- Allen congratulated RCD staff on all our progress and hard work. He also requested that as we add more people on to the staff we should be sure to train new employees on noticing procedures, as well as to give the Board a chance to review the list of people our notices get sent to so we make sure we are reaching all the people we need to be.
 - ***ACTION ITEM*** – Moller will add Board review of the Board Meeting distribution list to the April Meeting agenda, and will send out the list to the Directors in advance of the meeting.
- Howard reported back regarding the NRCS Emergency Watershed Protection Program for Pescadero. It is not currently not be eligible for the NRCS Emergency Watershed Protection Program because that project is designed to repair structures that are damaged in a natural disaster.

7 **Adjourn**

- Allen adjourned the meeting at 8:52 pm.

Project Status Update: Identifying Sources of Fecal Contamination at Pillar Point Harbor



Karissa Anderson

San Mateo County Resource Conservation District

Board of Directors Meeting, March 15th, 2012

Pillar Point Harbor Project

▣ Need for project

- Chronic poor water quality at Capistrano Beach
- Elevated levels of fecal indicator bacteria (FIB)

▣ Objectives

- Assess **sources of fecal pollution**
- Recommend **opportunities for remediation**

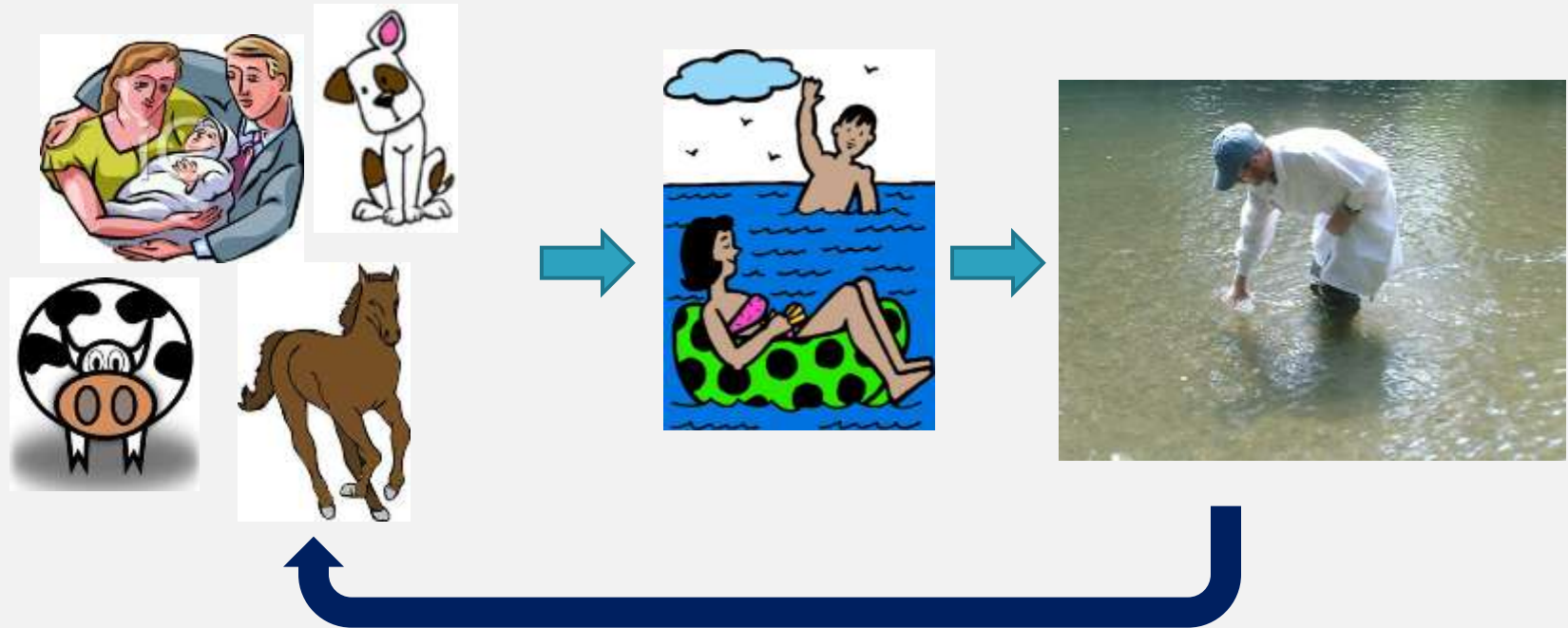
Project components

Attachment A

- ▣ Circulation Study
- ▣ Hydrology
- ▣ Monitoring
 - Fecal Indicator Bacteria
 - **Microbial Source Tracking**



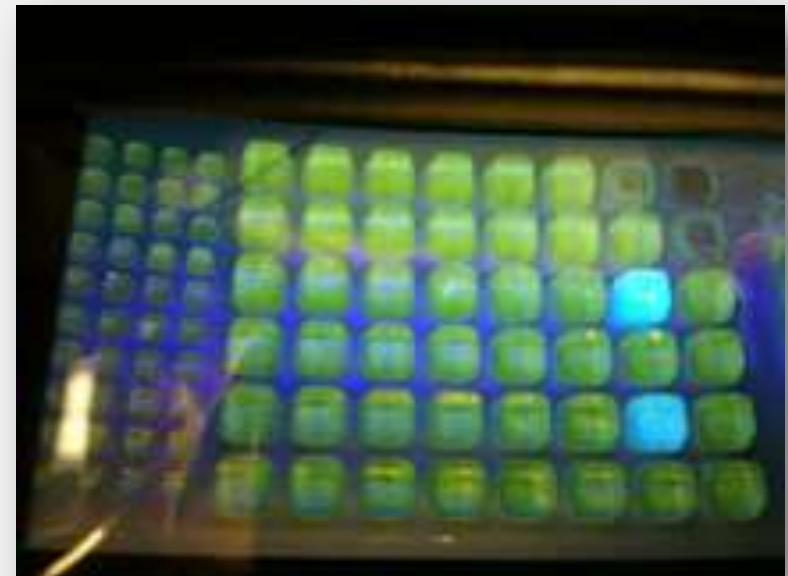
Microbial Source Tracking (MST)



Identify fecal sources by *Bacteroidales*:
universal, human, dog, cow, bird

Attachment A

-
- Enterococcus faecalis* sur gelose Ståhl
Photographie M Couture Lycée J.Rostand Strasbourg



Sampling plan

▣ Routine monitoring

- Beaches
- Creeks & storm drains
- Sediment
- Biofilm

▣ Special monitoring

- Rain events
- Sanitary surveys (upstream)
- Harbor near live-aboards



Sampling in various conditions

■ 2008

- Wet and dry weather events
- First Flush event

■ 2011

- Wet weather events
- Dry weather event
- First Flush event
- Live-aboard boats

■ 2012

- Wet weather event
- Live-aboard boats



Sampling locations

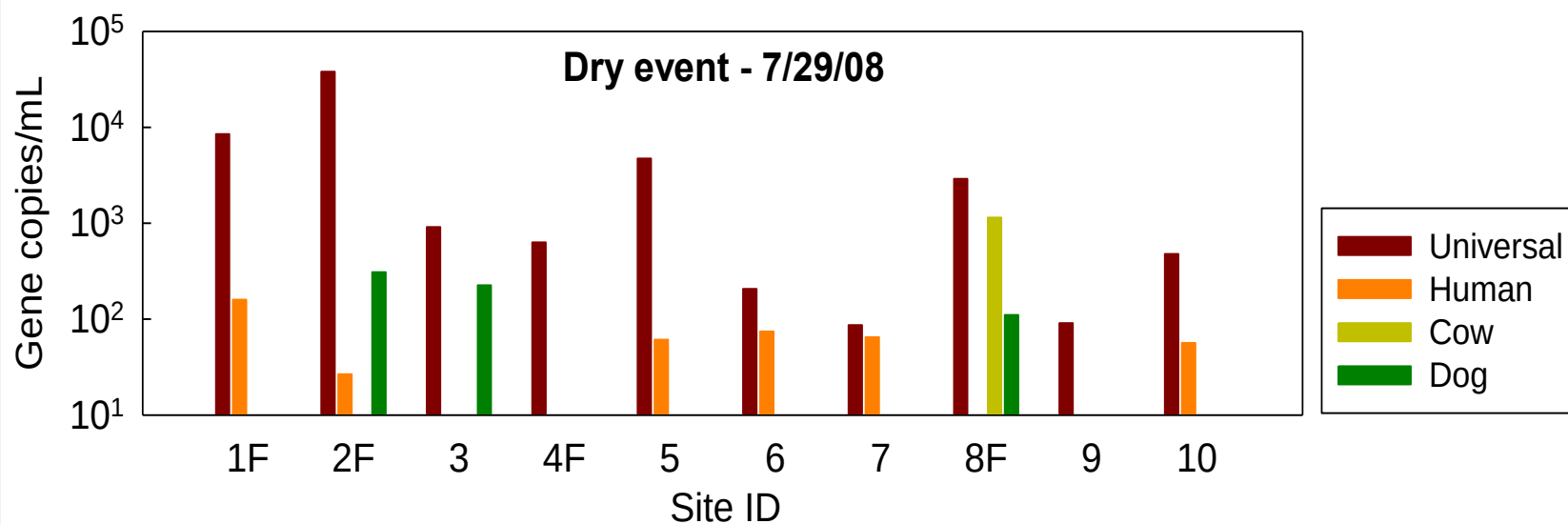
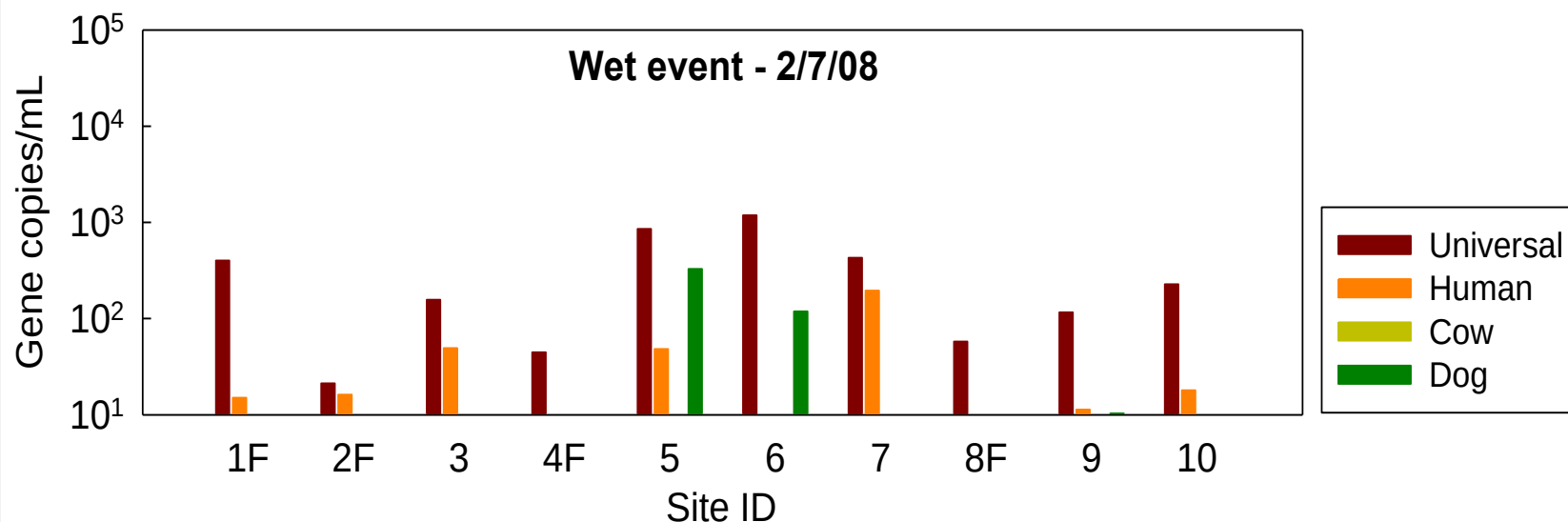
Attachment A



Locations (Yellow):

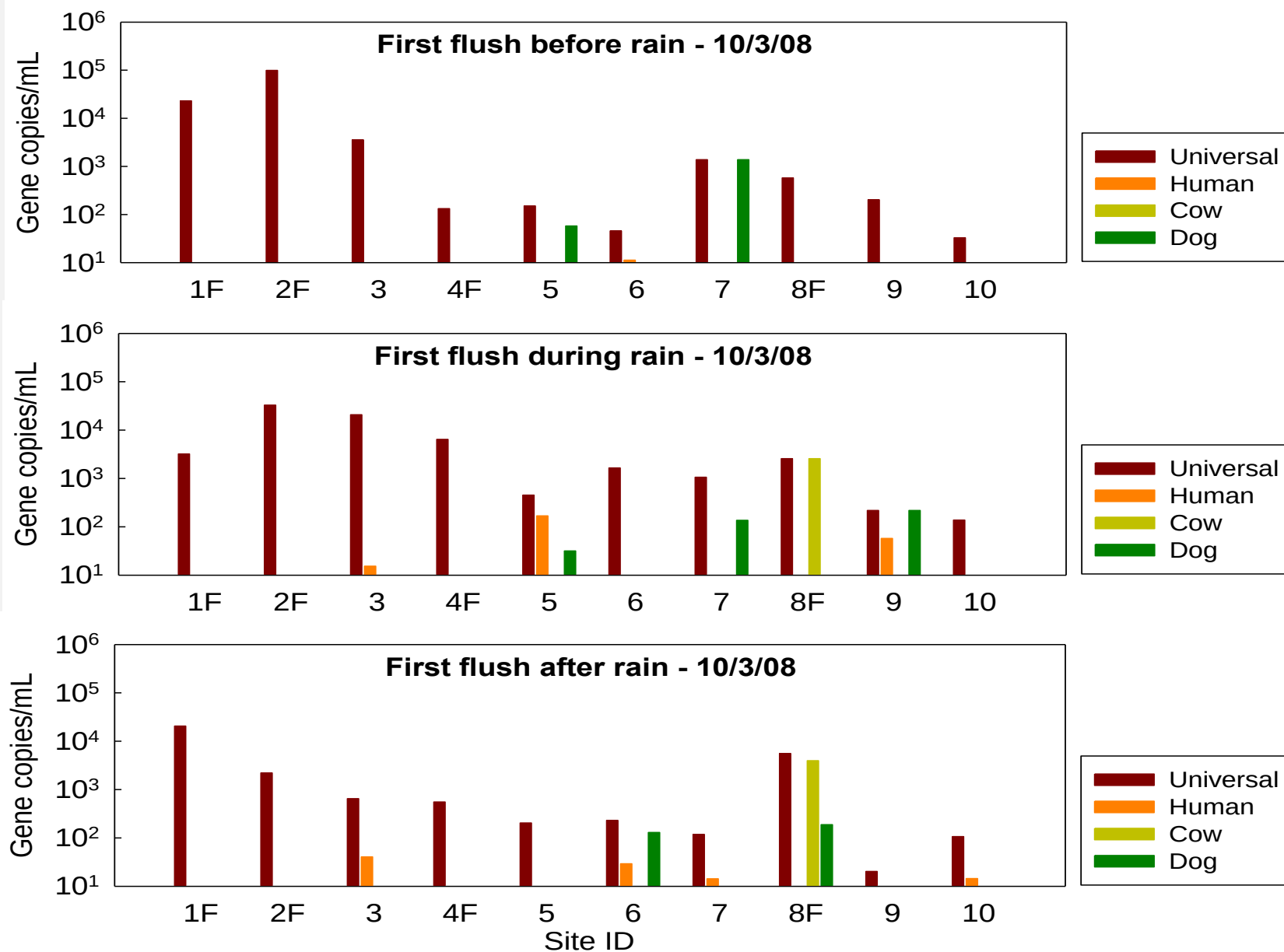
- | | | |
|----------------------------|-----------------------------|-----------------------|
| 1. Capistrano Outfall Pipe | 5. Pillar Point Marsh Beach | 9. Inner Harbor Beach |
| 2. Bathhouse Outfall Pipe | 6. Mavericks Beach | 10. Yacht Club Beach |
| 3. Capistrano Beach | 7. Beach House Beach | |
| 4. Denniston Creek | 8. Deer Creek Outlet | |

MST results: 2008

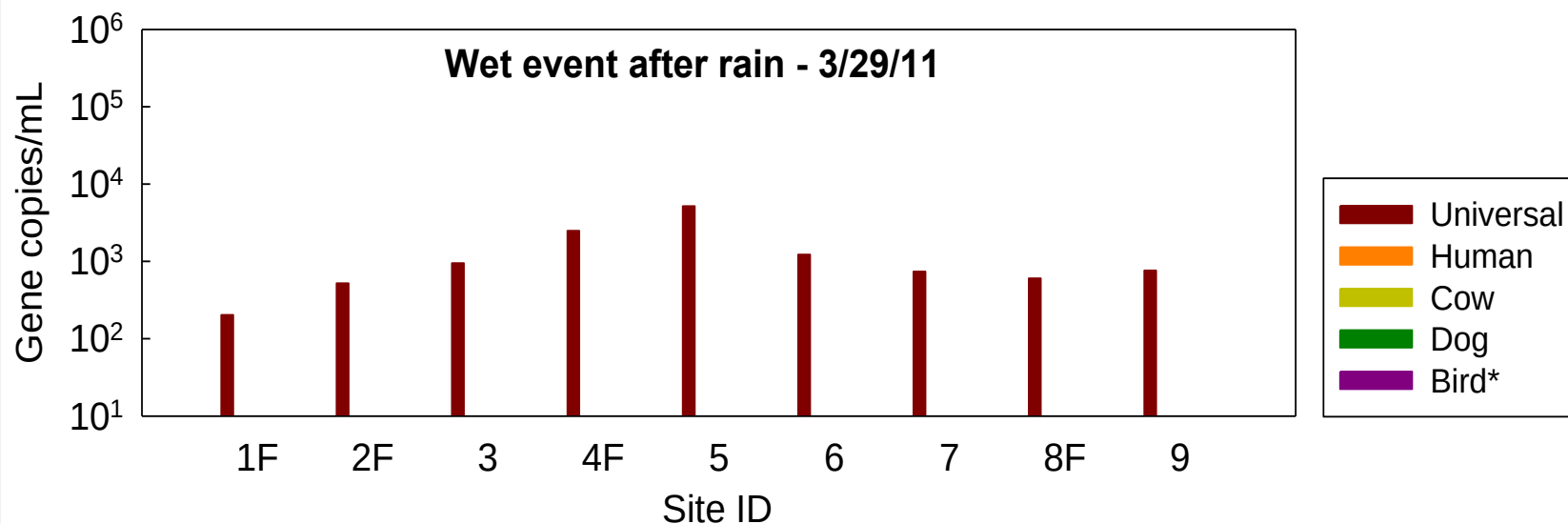
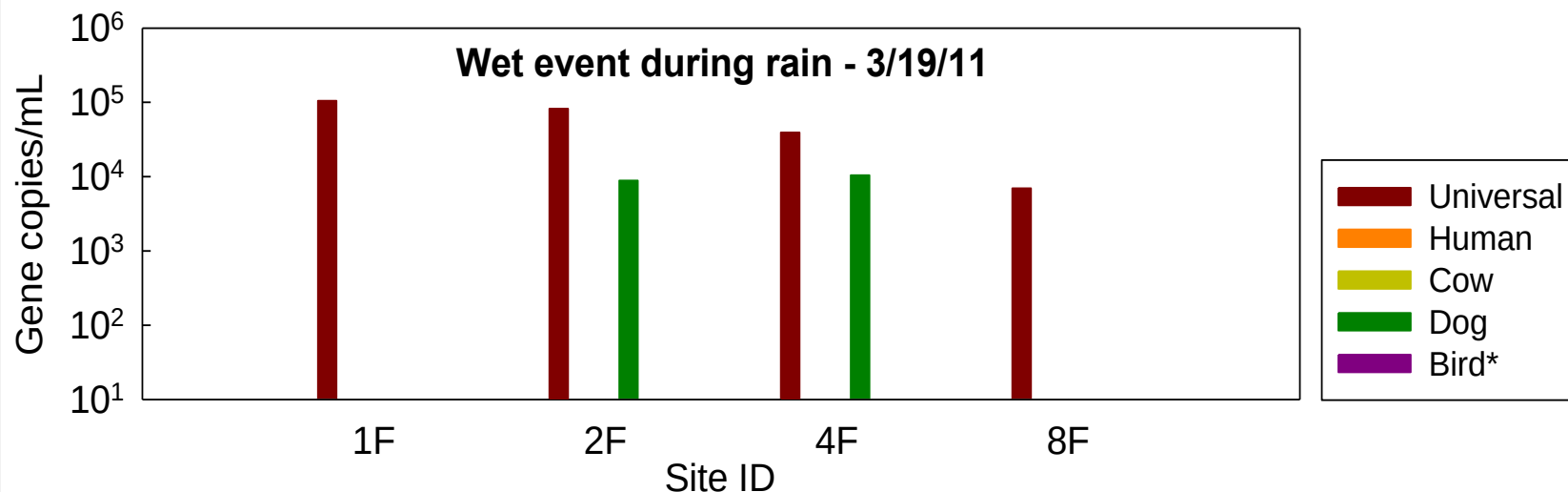


MST results: First Flush, 2008

Attachment A

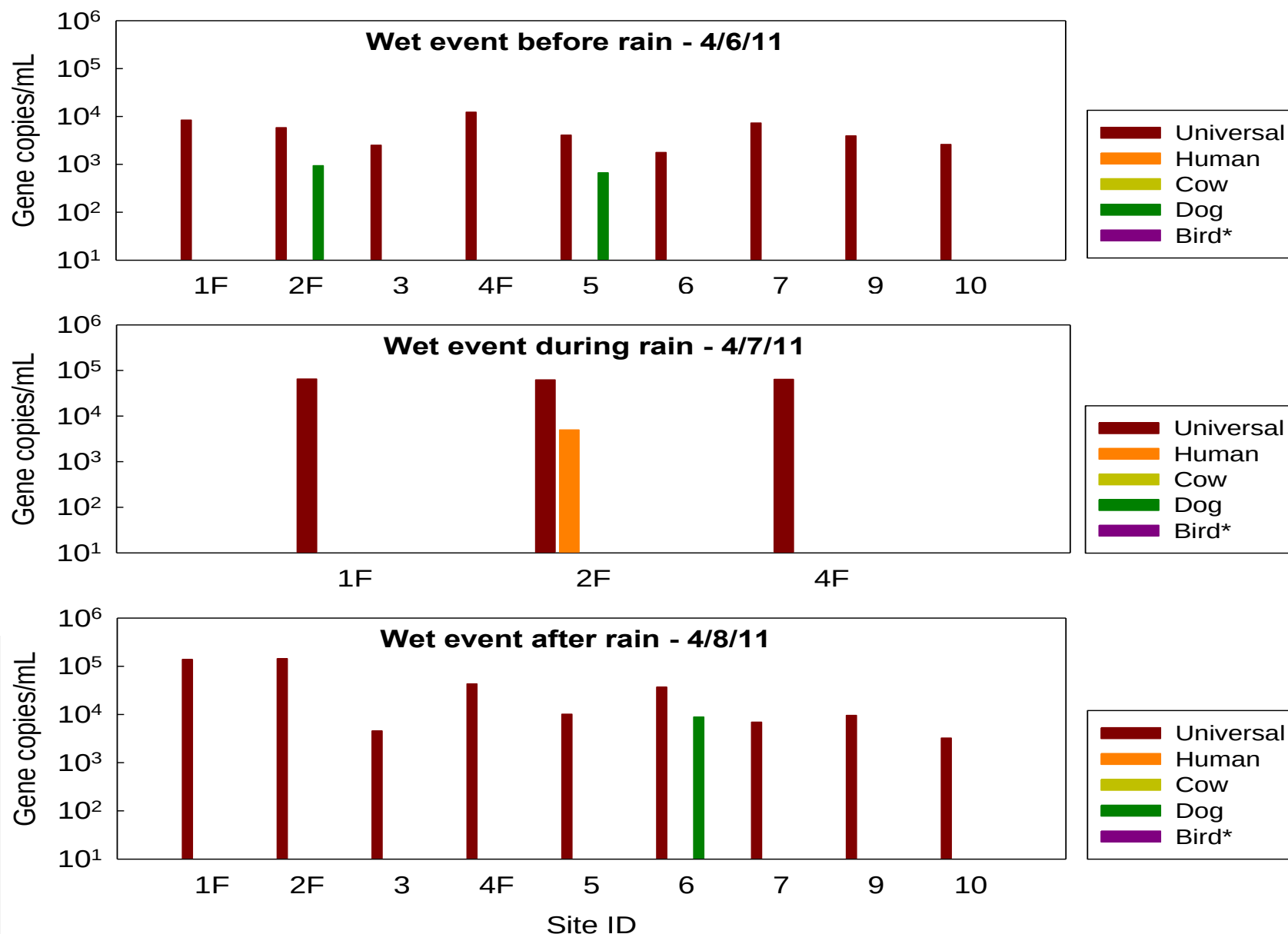


MST results: March 2011

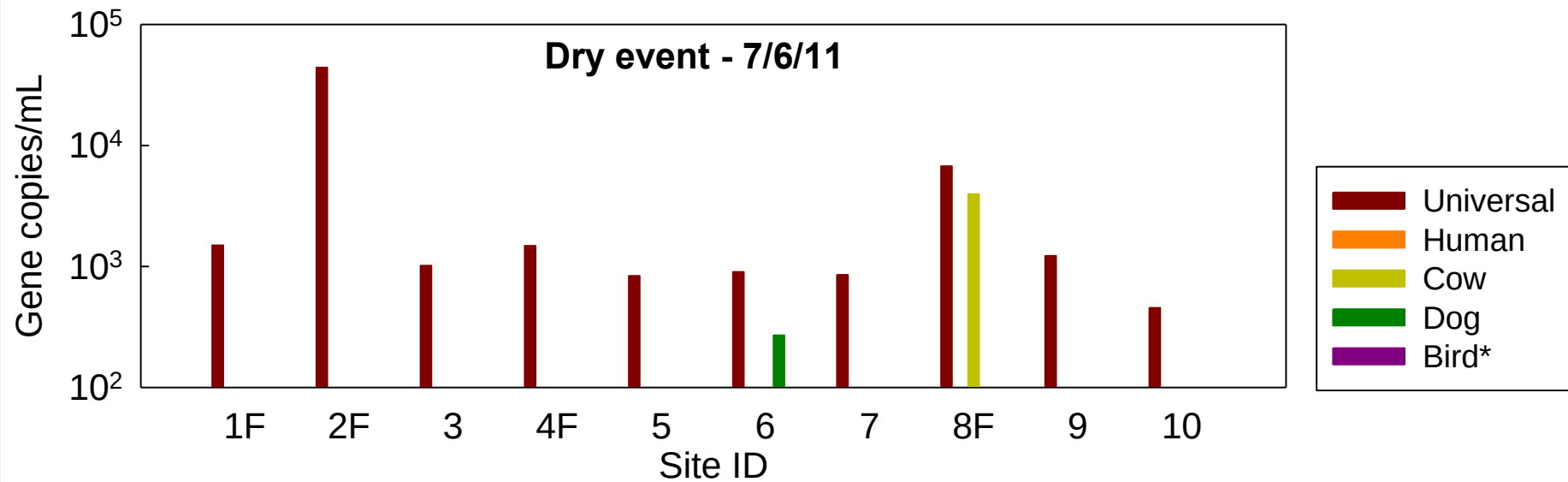


MST results: April 2011

Attachment A

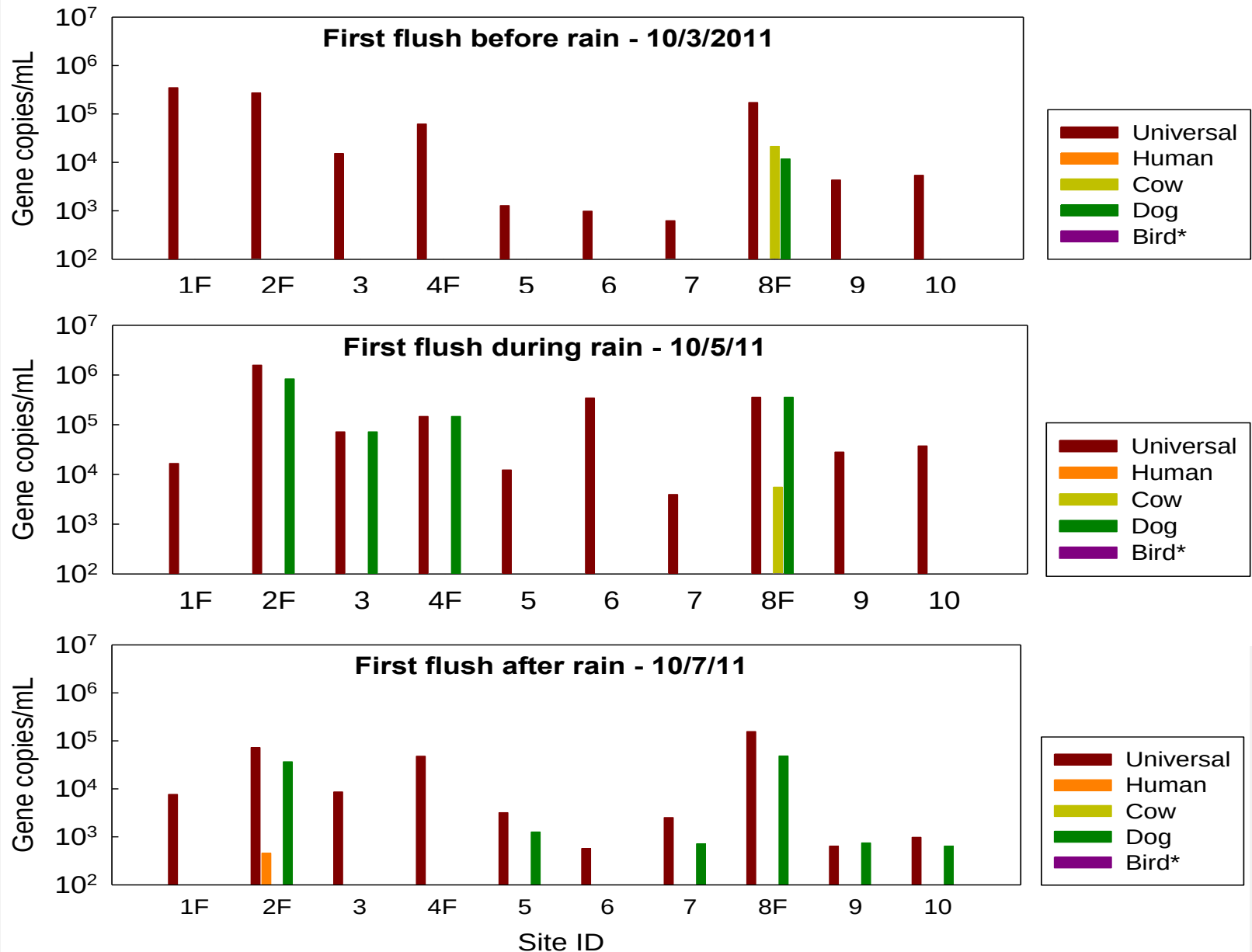


MST results: July 2011



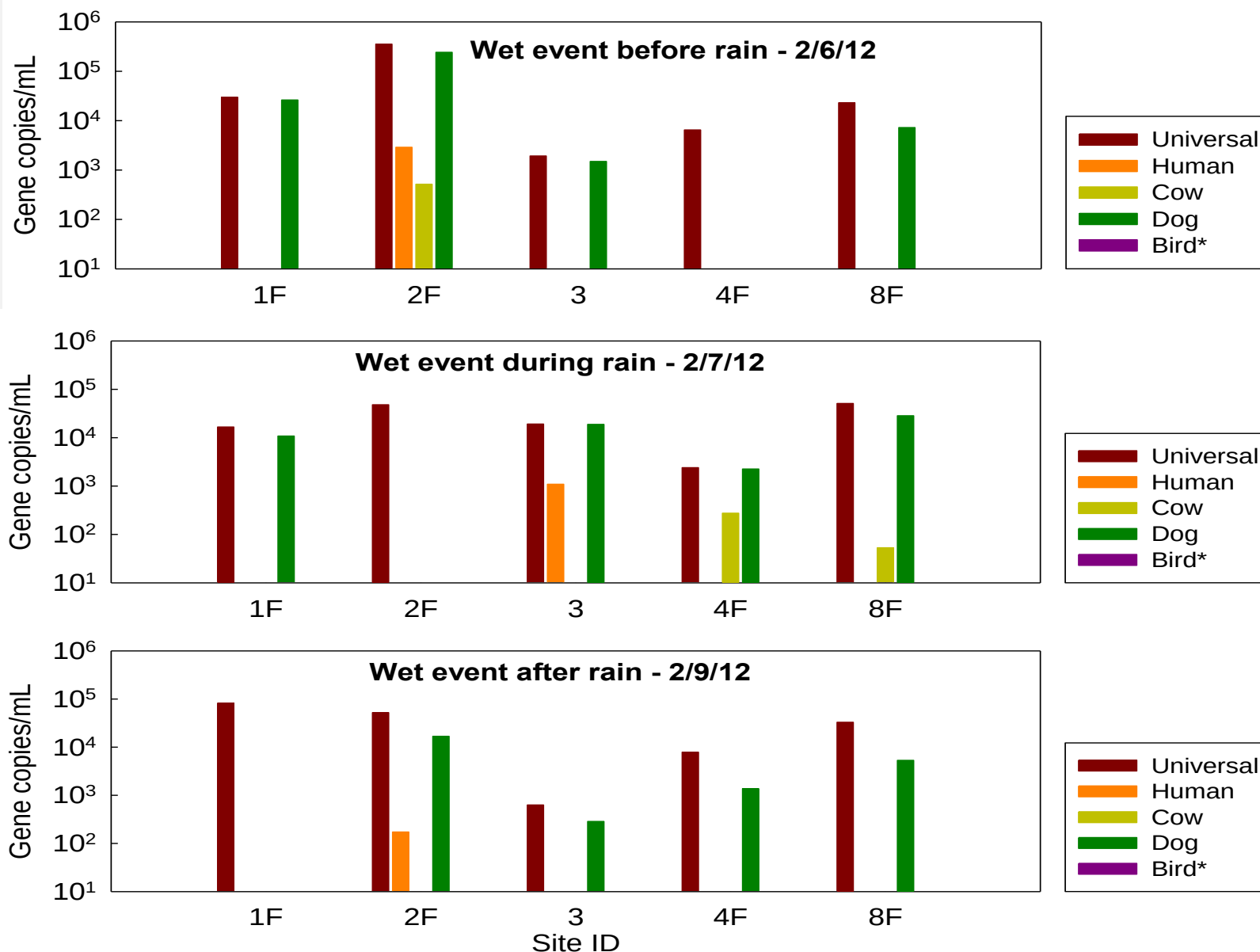
MST results: First Flush 2011

Attachment A



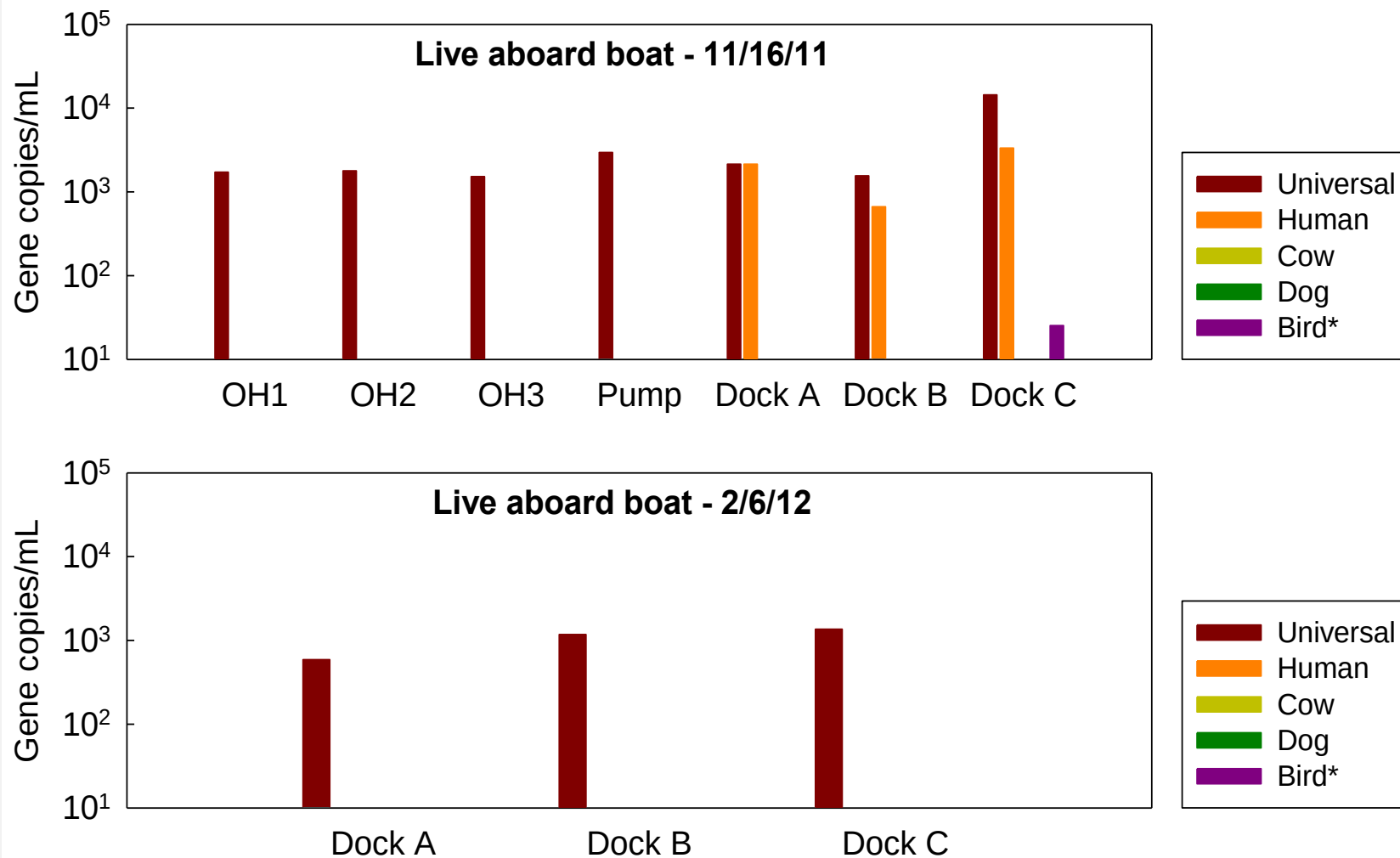
MST results: February 2012

Attachment A



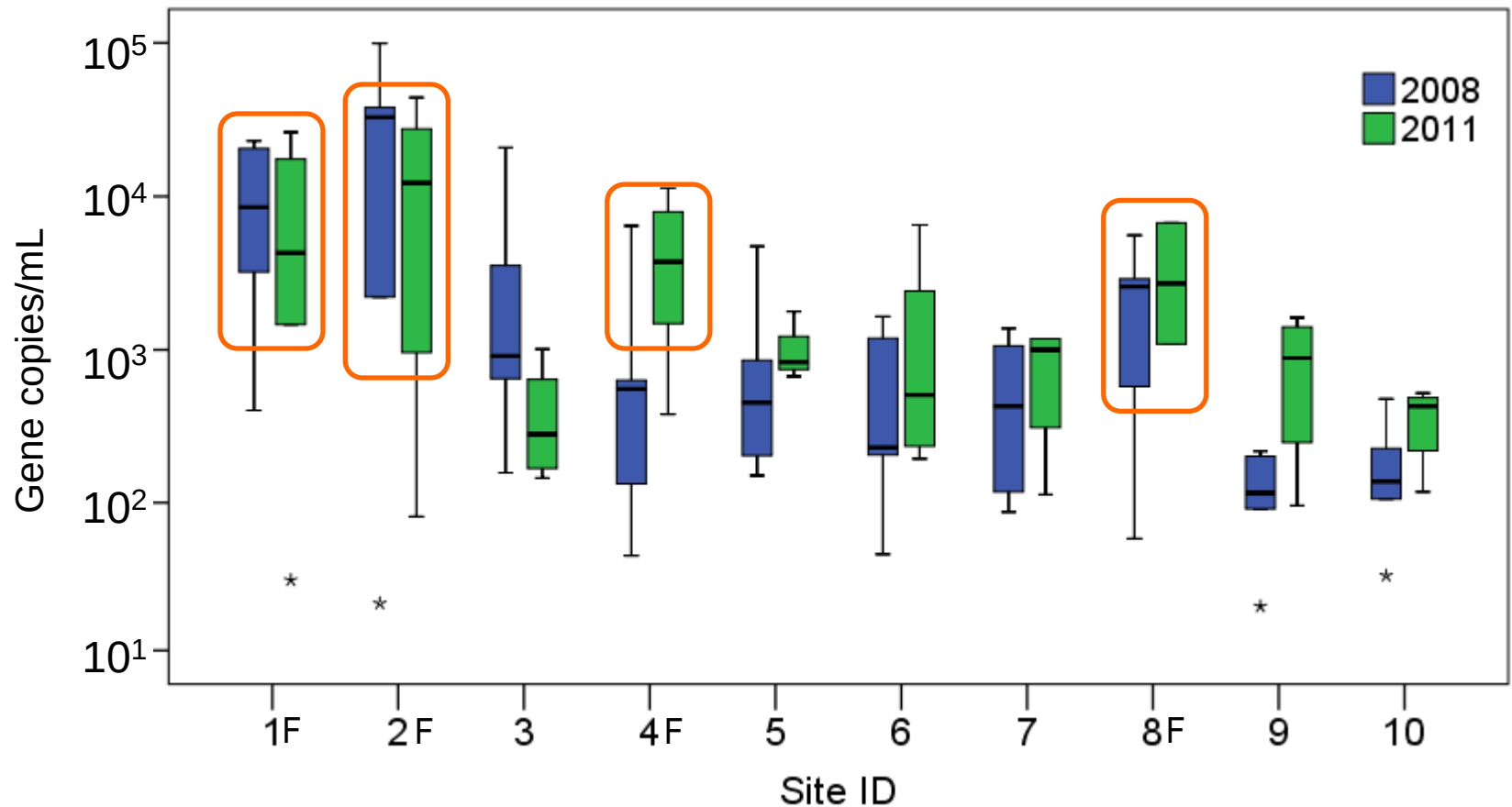
MST results: live- aboard boats 2011 and 2012

Attachment A



Discharges of fecal matter in the inner harbor are unlikely to significantly affect bacterial counts at Capistrano Beach.

MST results: Universal *Bacteroidales* 2008-2011



Inflows to the Harbor show highest concentrations of universal *Bacteroidales* overall. Median concentrations were highest at Site 2.

MST in water: results summary

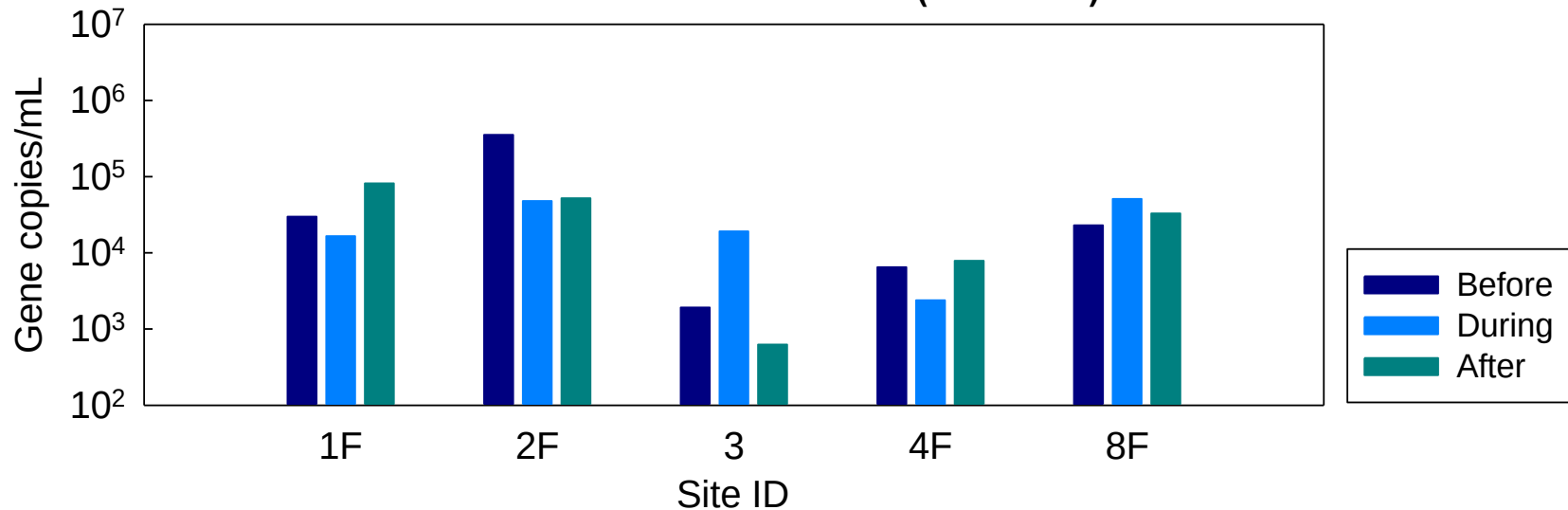
- ❑ **Universal** *Bacteroidales* concentrations highest in inflows
- ❑ **Dog**-associated *Bacteroidales* high at **several sites** but not consistently
- ❑ **Human**-associated *Bacteroidales* infrequently detected
- ❑ **Cow**-associated *Bacteroidales* **predominant** at **site 8**
- ❑ **Bird**-associated *C. marimammalium* **hardly detected**

MST in biofilm and sediment: results summary

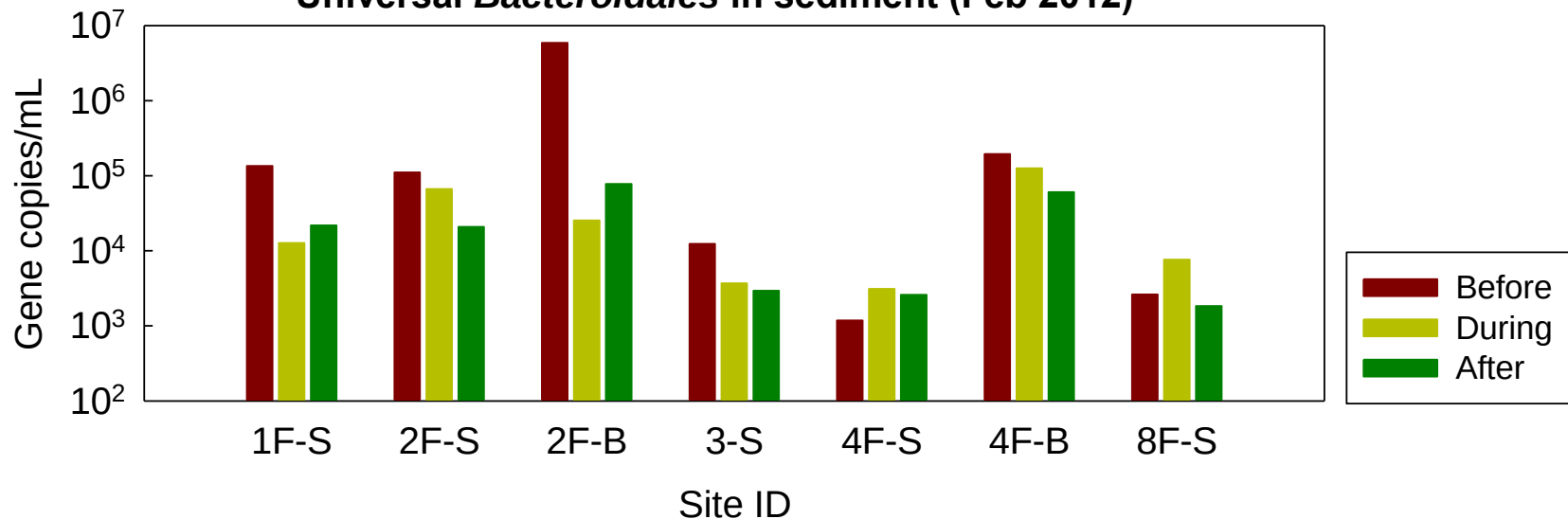
- ❑ **Biofilm** contained universal *Bacteroidales* at **high levels**
- ❑ **Sediment** carry universal *Bacteroidales* at **comparable levels** to water
- ❑ ***Bacteroidales*** in sediment and vegetation were **released into water column** during rain event

MST Results: water, sediment, and biofilm, Feb 2012

Universal *Bacteroidales* in water (Feb 2012)



Universal *Bacteroidales* in sediment (Feb 2012)

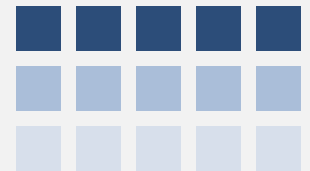


Conclusions and next steps

- ▣ Results are preliminary – 8 months of sampling remain.
- ▣ Pipes and creeks are the main source of high bacteria levels.
- ▣ Adding other human, bird and horse markers to MST analysis.



Questions?



**Funding provided by the Clean Beaches Initiative of the
State Water Resources Control Board**

**Data analyzed and prepared by:
Minji Kim and Stefan Wuertz**

Dept. of Civil & Environmental Engineering
University of California, Davis

DON HORSLEY

Board of Supervisors
County of San Mateo

March 14, 2012

Kellyx Nelson
Executive Director
San Mateo County Resource Conservation District
625 Miramontes Street, Suite 103
Half Moon Bay, CA 94019

Dear Ms. Nelson,

Thank you for your letter of February 22, 2012, requesting immediate action to avoid a fish die-off and flooding of Pescadero Creek Road next fall. You asked in that letter for agencies to work together to resolve bottlenecks that impede progress toward resource management solutions.

I want to first acknowledge the importance I place on addressing both the flooding and the fish kills that exist in Pescadero. These public safety and resource challenges are significant; I have made addressing them, both in the short and long terms, one of my main priorities. The fact that this issue has continued unaddressed frustrates me. The County is in the process of vetting projects related to Pescadero Creek Road in our right-of-way to determine how we can be part of the solution.

At my request, both Senator Joe Simitian and Assembly Member Jerry Hill have stepped in to help facilitate action. Within the last month, they have raised this issue to a state level, holding meetings with Resources Secretary John Laird and the Directors of both the California Department of Fish and Game and California State Parks. The seriousness of the issue, the unacceptable length of time that has passed with no solution, and the inability of the agencies to work together on a solution have been emphasized. I understand the state and federal resource agencies are committed to an action plan, and will include an assessment of immediate action that may be addressed this year.

I also want to strongly communicate my support for the work the RCD has been funded for. I request that the RCD execute the Pescadero project to develop design solutions for the flooding problem. I understand that there is some concern that working on a long term solution may shift focus from projects that could provide immediate, albeit limited relief. I will commit to working to ensure that this does not happen. While immediate action may begin to mitigate public safety and resource issues, these are short term, interim solutions. There must also be work on a holistic multi-jurisdictional, long term solution. In this difficult funding environment, it is particularly important to use funding in hand to move toward a viable solution.



County Government Center
400 County Center
Redwood City, CA 94063

Direct (650) 363-4569
Coastside (650) 573-2222
Fax (650) 363-1856

Attachment B

Thank you for your good work in the County, both in the Pescadero area and beyond. I look forward to a long and rewarding collaboration with the RCD.

Sincerely,

A handwritten signature in dark ink, appearing to read "Don Horsley", with a stylized, flowing script.

Don Horsley
Supervisor, District 3

cc: Senator S. Joseph Simitian
Assembly Member Jerry Hill
John Laird, Secretary, Natural Resources Agency
Rodney McInnis, National Marine Fisheries Services
Ruth Coleman, California State Parks
Chuck Bonham, Department of Fish and Game
San Mateo County Board of Supervisors
Pescadero Municipal Advisory Council