

Watershed Working Group

November 12th, 2014 8:30-10:00am

Attendees: **NMC** – Alfredo DeTorres, **DLNR** – Laine Zarones, **NRCS** – Pam Aguon, **Forestry** – Ben Cepeda, **DPW** – James Ripple, Nono Bostre, **MINA** – Brooke Nevitt, **Zoning** – Maryann Arriola, **BECQ** – Derek Chambers, Jihan Buniag, Steven Johnson, Gus Camacho, Kaitlin Mattos, **Horsley Witten Group** – Anne Kitchell, Brian Kuchar

Dates to Remember: Watershed Working Group Meetings: 8:30-10am at BECQ

- February 11th, 2015
- May 13th, 2015
- August 12th, 2015
- November 18th, 2015

Meeting Notes:

- I. Opening and introductions
- II. Main speaker: Anne Kitchell and Brian Kuchar, Horsley Witten Group (HWG)
 - a. HWG is a stormwater and engineering firm based out of Massachusetts and Rhode Island. They have been contracted by BECQ to conduct a 4-day Pacific Islands Watershed Institute in early 2015 on Saipan, similar to the PIWI conducted in Hawaii in 2011 (agenda attached), and to do BMP designs for a stormwater management demonstration project, such as the Gapgap Rd and dive site parking lot in Laolao Bay.
 - b. HWG has previously worked in the Marianas and the Pacific on the 2006 stormwater manual, watershed planning in Guam and American Samoa, Pacific rain garden workshops, wastewater operator trainings, and erosion control trainings. They have also worked on stormwater and rainfall projects in the Caribbean. HWG has just released a low-impact development publication for stormwater management in the Pacific and Caribbean.
 - c. Discussion of subjects for PIWI sessions that the CNMI would benefit from:
 - i. Wetland management, wetland **habitat mapping**, mangrove and freshwater included – **creation, restoration, management**, design, law and delineation. Build off of 2005 wetland inventory and NRCS soils training. Training is also being sought from ACOE and NRCS. Example activity: look at American Memorial Park or Costco wetland and learn how to design constructed wetlands to make maintenance easier and provide more benefit. Go to Lower Base mangroves, American Memorial Park, Joeten Superstore (Price Costco Mitigation site), Kagman Watershed Project (Lainie, DLNR)
 - ii. Stormwater control maintenance – structural and nonstructural, erosion control. Example: get design plans for the road storage site by the CK Post Office and use them as a demonstration of how to do maintenance and make maintenance easier in future designs (DPW)

- iii. Land use and environmental impacts – e.g. how changing the designated uses and zoning for an area can result in environmental impacts (for Zoning, DPL?)
- iv. Refresher training on how to apply the CNMI Stormwater Manual
- v. Discussion session on updating the erosion control regulations (ex: what regulations exist in other areas to increase pervious surfaces in new or reconstruction projects?)
- vi. How to mobilize communities to adopt environmental best practices (MINA)
- vii. Management of secondary roads to decrease debris and manage stormwater before it flows onto highways (e.g. Dandan Shell, Sugar King, Lower Base)

III. Project updates:

- a. National Park Service (Mike Gawel via email):
 - i. NPS weather station at Micro Beach is operating and reporting remotely
 - ii. NPS has a small grant for Dr. Denton of WERI to look at toxics entering marine ecosystem invertebrate organisms in receiving waters of discharges from the National Park during the next year. This can be a baseline to judge results of future stormwater management. NPS plans to respond to results of that WERI study. This is in addition to Gary's other studies on toxics in lagoon fishes.
 - iii. Removal of invasive water hyacinths at the National Park delayed while bacterial contamination receives further monitoring in coordination with BECQ/DEQ.
 - iv. Management of sewer contamination and Garapan stormwater runoff contamination needs focused attention at Horsley Witten Group workshop.
 - v. NPS water monitoring team expects to be in Saipan Dec 3 to 5 and plans to discuss the Garapan watershed issues with CNMI partners then
- b. BECQ Drinking Water (Derek Chambers): Glenn Arriola and Derek have installed groundwater probes that provide continuous datasets of conductivity. They are looking at conductivity changes during rainfall events. Locations in Isley, Puerto Rico, Obyan, Kagman, I Akgak.
- c. DPW Federal Highways (James Ripple): Ongoing road repair projects across the island and Back Road repair and stormwater retention
- d. BECQ Marine Monitoring Team (Steven Johnson): New paper published by MMT about disturbance and recovery on CNMI reefs suggesting that fish biomass and grazing urchins are the main indicators of recovery after major disturbance events. Paper is available online for free:

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0105731>

 (Make sure to get the corrected version with fixed graphics. Original version had an error.
- e. BEH (John Tagabuel via email): BEH is continuing to update their listing of grease traps and trash collection at businesses across Saipan.

IV. Next meeting: February 11th, 2014, BECQ office, 8:30-10am