



Surfrider Foundation Rincón BWTF Progress Report June 1 – Nov 30 2018

Steve Tamar, BWTF Rincón Coordinator
#19 Calle Nueva, Rincón PR 00677
email: stevetamar@gmail.com

LONG-TERM GOALS

In addition to the core Blue Water Task Force goal of providing as much timely and useful water quality information as possible to the public, we are always encouraging further volunteer-based WQ projects in local communities, regarding public health protection and natural resource / marine life conservation practices. Towards this end we continue to expand Rincón BWTF capacities to determine the most comprehensive and affordable testing methods available, to be incorporated into the design template of other community-based WQ programs. A desired outcome would be the creation of other community labs similar to the Rincón BWTF lab, to expand WQ coverage of both marine and freshwater sites for inclusion in CariCOOS reporting and modeling.

MILESTONES / OBJECTIVES

Successful incorporation of the IDEXX Colilert DST equipment and testing into both of the Rincón BWTF labs, expanding Fecal Indicator Bacteria (FIB) detection capacity for coliform bacteria in general and E. coli in specific.
Comprehensive research and use of alternate technologies for FIB detection (including Aquagenx Compartmented Bag Testing method for the known pathogen E. coli)
Comprehensive research and use of alternative technologies for other common WQ parameter quantification (including various test strip or reagent based tests provided by La Motte Labs)

WORK COMPLETED

Weekly BWTF sampling accomplished 100% of testing dates for this report period, average of 18 sites/week.
IDEXX Colilert DST testing incorporated in both Rincón and Ramey School labs.
Results posted immediately on open platforms, including social media, and websites of CariCOOS and Surfrider Foundation BWTF.
Additional monitoring and testing conducted during the month of November to monitor various PRASA sewage line breaks in the coastal area of the Reserva Marina Tres Palmas and the town of Rincón to determine amount of marine contamination possible or probable.

MAJOR OUTCOMES

Maintaining the weekly core BWTF program (Jobos to Añasco), incorporated the IDEXX Colilert DST methodology and materials into the Rincón BWTF lab specific to testing bacterial WQ of major freshwater outflows into the coastal zone, also at the RPI-Ramey School lab specific to WQ testing of the outfall discharge of the Sardineras Waste Water Treatment Plant.

Replacement / upgrade of some BWTF Rincón lab equipment for increased IDEXX testing. New BWTF monitoring sites chosen to replace or reflect changes in coastal erosion or beach use patterns following Hurricane Maria, and monitoring the original sites to document any recovery or further damage to these areas.

Have developed, trained, and are familiar with a fairly comprehensive suite of chemical and/or reagent based testing for Fecal Indicator Bacteria and other common proxies or common WQ parameters. A new suite of field test materials for WQ incorporated into BWTF testing when needed.

National Surfrider Foundation BWTF now incorporated into the Swim Guide website and cell phone app administered by Swim, Drink, Fish Canada. Rincón BWTF currently providing the majority of Caribbean WQ reports to the Swim Guide. The potential leverage via increased promotion of the BWTF / CariCOOS partnership might be very large, due to more than 2M downloads of this app to date.

RELATED PROJECTS

Currently continuing to supply materials, advice, and other logistical support to the Quasi-Realtime Biosensor Development project. (PI Dr. Pedro Resto Irizarry) Potential funding leverage of a working model would be enormous.

WORK PLAN FOR UPCOMING PERFORMANCE PERIOD (June. 1 – Nov. 30 2018)

Complete the replacement / upgrade of IDEXX lab equipment.

Investigate the use of new, affordable field test methods or proxy detection for WQ parameters. Based on that experience, determine if any would be suitable for possible inclusion into the Quasi-Realtime Biosensor platform.

Possible sponsoring and support to a Punta Borinquen WQ project in Aguadilla, conducted by Marine Sciences Student Association (AECiMa) of UPRM, should the Equipment Loan Request to the federal EPA be accepted (project date Feb – July 2019). Subsequent outreach to local community groups to continue some degree of volunteer based WQ sampling of sites after the project period, similar to the existing RPI /Ramey School program.



PUBLICATIONS & PRODUCTS

Rincón BWTF data now also published to the Swim Guide:

<https://www.theswimguide.org/find/#18.215725244391002/-67.61293238183595/18.58644919987564/-66.67497461816407/11>

Oral presentation to NOAA SeaGrant biennial field visit and assessment regarding past and current collaborations or common projects between PR SeaGrant program and CariCOOS / Surfrider Foundation Rincón. Given at Mayaguez Holiday Inn on November 7, 11 am.