



The Rhode Island Rivers Council

c/o RI Water Resources Board
235 Promenade Street, Suite 394
Providence, RI 02908

ANNUAL GRANT REPORTING FORM **Rhode Island Rivers Council FY 2014 Grant Program**

Please fill out the form below. Attach your updated workplan, three photos, and an accounting of project expenditures to date.

Date:

June 26, 2014

Grantee name:

Salt Ponds Coalition

Project:

Water Quality Monitoring of Southern Rhode Island Coastal Lagoons

Grantee address:

Salt Ponds Coalition, P.O. Box 875, Charlestown, RI 02813

Grantee contact information:

401-322-3068

Amount of grant:

\$1,900

Amount expended:

\$1,900 (see below)

Summarize project accomplishments and challenges:

This project has proceeded according to the submitted work plan. Salt Ponds Coalition (SPC) was awarded a \$1,900 grant to pay for laboratory analysis of water samples for nutrients (nitrate, ammonia, total nitrogen, dissolved phosphorus, and total phosphorus) at 11 sites in four of the southern RI coastal lagoons (salt ponds). Additional samples were to be collected in sterile bottles and analyzed for fecal coliform and enterococci bacteria. These samples would be collected at each site once per month in May and June, and then transported to the University of Rhode Island (URI) Watershed Watch laboratory to be analyzed. In addition, twice per month for each site, measured volumes of water were to be filtered to measure chlorophyll-a concentrations in surface water. The filters would be transported frozen to the URI Watershed Watch laboratory for analysis. Each time chlorophyll samples were collected, our Pondwatcher volunteers would also determine the concentration of dissolved oxygen in the water at each sampling site and make additional observations including water temperature and clarity (Secchi depth—at deeper sites only).

Sample collection began on schedule May 14th, 2014. To date, four sampling days, including two water chemistry collection days, have been successfully completed at 21 sites in total. These include the

ten sampling sites funded by the grant from the Rivers Council. All laboratory analyses will be performed at the Watershed Watch laboratory at the University of Rhode Island (URI WW).

Laboratory results are generally quality assured and delivered by URI WW to SPC in late winter of the next calendar year (anticipated to be around February 2015). Once available, lab data will be processed by SPC staff and posted to the SPC website as both detailed and summarized reports. The data will be used to compute the Aquatic Health Index (AHI) for each pond site during the growing season (June – October). The AHI uses four water quality parameters as a measure of the aquatic health of a water body: Dissolved Inorganic Nitrogen (DIN), Total Organic Nitrogen (TON), Chlorophyll-a, and Dissolved Oxygen. The DIN parameter includes the concentrations of nitrate and ammonium, and TON is total nitrogen minus DIN (an indicator of the organic matter in a water body). At deeper sites, Secchi depth (a field measurement of water clarity) is also incorporated into the AHI. Currently, all data up to and including 2013 have been processed and are available on SPC's website.

Every three to five years, AHIs for each site will be examined to determine whether there is an improving or declining trend in water quality. The results of this analysis will be published as a Status and Trends report, available electronically on the SPC web site and as a hard copy. A Status and Trends analysis of 2008 through 2012 water quality data was published in early 2014.

Linda Green, Project Director of the Watershed Watch Program, bills Salt Ponds Coalition \$600 per site for lab analyses in late October and early November. The \$1,900 grant from the Rivers Council will pay the fees for lab analyses of samples from nine sites for the months of May and June, and an additional site for the month of May. The SPC treasurer will pay this bill upon request.

Provide three photographs of project:

If you would like full-size files for these images write to saltpondscoalition@gmail.com



Dr. Ted Callender collects deep water Quality samples.



A pondwatcher collects a surface water sample for chlorophyll-a analysis.



A pondwatcher volunteer performs a dissolved oxygen analysis.