



# MEETING MINUTES

**Meeting/Re:** Palmer River Source Tracking, Water Quality Trends Summary and Watershed Plan, October 23, 2018

**Minutes Date:** 10/29/18

**Attendees:** Ian Dombroski, Ray Cody, Mary Jo Feuerbach, Margherita Pryor, Karen Simpson, Bryan Dore, Jack Paar, and Tim Bridges (EPA); Forrest Bell and Laura Diemer (FB); and Rich Claytor and Jennifer Relstab (HW)

## Action Items:

Action	Who	Due
1. Set up next monthly coordination meeting (following review of QAPP, due Nov. 30)	Ian	Week of 10/22 (Completed)
2. Send available contact information for key stakeholders to obtain water quality data	Ian	Week of 10/22 (Information sent 10/23 and 10/24)
3. Send available historical water quality data and reports	Ian	ASAP (Information sent 10/23)
4. Determine if there is additional GIS land use data through EPA's GIS Center	Ian	ASAP
5. Set up monthly meetings	Ian	TBD

## Discussion Topics

### Project Roles

1. Ray Cody is the EPA WA TOCOR, Karen Simpson is the EPA Alternate TOCOR. Both should be copied on communications. Tim Bridges will be reviewing the QAPP.

### Background

1. Long history of work ongoing in the Palmer River watershed since 1998 when the lower Palmer River was listed as impaired. TMDLs in RI for fecal coliform (2002) and MA for bacteria (2004). Impacts from agricultural sources, but increasingly more influence from development (impervious surfaces, construction sediment, septic systems (failing systems)).
2. Monitoring has been ongoing by different parties since the 1970s, starting with the USGS database. Fairly robust data collection for the TMDLs (through mid-2000s), then spotty data collecting until 2015. Consistent data collection from 2015 to present at the same locations. 2018 data is provisional.
3. In 2012, the National Water Quality Initiative (NWQI) provided funding for agricultural BMPs. More funding was obtained from MassDEP's 319 program, which included monitoring.

4. Due to the farm bill, EPA does not know the exact location of all the BMPs. However, Iaan Ward has gone to the farms that were determined to be the largest contributors and may be able to provide more information on what subcatchments the BMPs are in, the types of BMPs and what land is being treated. It's EPA's understanding that he has worked to address the most significant bacteria and/or nutrient sources.
5. Example agricultural BMPs: manure packs, changes to roof material, fencing for cattle, etc.
6. Margherita: Rhode Island performed an annual review (county by county) and aggregated BMPs. This may be an additional source of information.
7. Project objectives:
  - a. Provide recommendations for the use of the PhyloChip to make the best use of the technology for future projects. (Costs currently \$500/sample)
  - b. Identify trends in water quality data to help determine how BMPs and changes in land use have impacted the water quality in the Palmer River and its tributaries.

#### *Task 3 – Source Track Sampling*

1. EPA already has the samples that will be tested with the PhyloChip, taken during 2017. There are 50 samples to be tested.
2. Jack: PhyloChip can evaluate both urban and rural key indicators based on microbiome of various organisms. EPA has been testing the PhyloChip since 2015 in waters with known sources of bacteria. Current interest is conducting independent analyses in other projects.
3. Lab time for PhyloChip will likely be around 30 days. The lab should be given a heads up prior to sending the samples.
4. Laura: This task appears to have two different goals: 1) Project specific testing to determine bacteria sources and 2) Planning-level evaluations to extrapolate the analyses to other projects. Depending on the data, the spatial and temporal variability as well as the reference conditions may limit the ability to address these goals.
5. Q (Rich): Can you identify urban sources more specifically? Like racoons, squirrels or skunks?
  - a. A (Jack): Foraging is similar, so it's difficult to tell them apart.

#### *Task 4 – Water Quality Data*

6. In addition to the bacteria and nutrient data sources, there is some USGS flow data available, downstream of the Shad Factory Pond. The TMDLs also have referenced publications for the data used there.
7. The Town Health Departments may have additional water quality data. The professor from Brown University may also have data.

8. Q (Rich): Are there only agricultural BMPs or are there also stormwater BMPs?
  - a. A: There are known septic upgrades (likely Title 5 replacements) and high rotation of crops. Other BMPs are not clear.
9. Q: Would you be able to incorporate citizen monitoring data into the project, such as from a volunteer watershed group?
  - a. A (Laura): It would depend upon the type of data and the data requirements in the QAPP.
10. The professor from Brown University has identified an issue with the watershed delineation for the Palmer River watershed that may need to be rectified. Multiple sources of data in the two states.
11. Laura: There are several data sources identified and many unknowns about the type of data, the condition of the data, and whether the data can be applied in the various analyses needed to meet the project objectives.

#### *Task 5 – Stakeholder Workshop*

1. The stakeholder workshop will be open to the public. The stakeholders to be invited to the meeting will be determined at a later date.

#### *Task 6 – Land Use and Regulatory Analysis and Recommendations*

1. The initial work on this task will happen within the next few months to gather all land use data for other tasks.
2. Most of the GIS data should be publicly available. EPA might have some data through their GIS Center and will check. Other sources for land use data: Mass Audubon (Losing Ground Report) or the Town of Rehoboth’s water quality committee (currently working on updating regulations).

#### *Other Data Needs*

1. NPDES data – should be readily available.

#### *Schedule, meetings and communication preferences*

1. The QAPP is due approximately 1 month after the kickoff meeting. Due to the Thanksgiving holiday, EPA has agreed that the due date for the QAPP is November 30.
2. The Stakeholder Workshop (Task 5) is currently scheduled for the spring of 2019. Rich suggested that the project team might want to move this up in the schedule to gather necessary information from the stakeholders and public before we complete our analyses. EPA would like to have some analyses completed prior to the meeting to receive some input on

recommendations. The project team will revisit the data of the Stakeholder's meeting at a monthly coordination meeting to be determined.

3. Emails are the best way to communicate with EPA. Ray, Ian and Karen should be included on all emails.
4. The first monthly meeting will follow the completion of the QAPP. Dates for other monthly meetings will be determined following the first monthly meeting.

**Next Meeting:**

Monthly Meeting - Tuesday, 1 PM December 4th.