

Greetings:

We've put together the following status report to keep you all abreast of where we're at with the Microbial Source Tracking Project. We invite comments and/or suggestions any of you may have regarding all aspects of the project. (For those of you who would like more background info please let me know so I can provide it for you.) And since we realize that all of you are probably quite busy and may not have the time to closely read this report, **please pay particular attention to the emboldened red sections of text**. These are issues for which we'd appreciate some more immediate feedback or that may be of particular interest.

### **Steering Committee Formation and Roles / Responsibilities**

The steering committee currently consists of the following members.

- Stephen Jones ([shj@christa.unh.edu](mailto:shj@christa.unh.edu)): UNH's Jackson Environmental Lab
- Michele Dionne ([dionne@wellsnerrcec.lib.me.us](mailto:dionne@wellsnerrcec.lib.me.us)): Wells National Estuarine Research Reserve
- Laura Livingston ([laura.livingston@state.me.us](mailto:laura.livingston@state.me.us)): Maine Department of Marine Resources
- Kristen Whiting-Grant ([kristen.whiting-grant@mail.maine.edu](mailto:kristen.whiting-grant@mail.maine.edu)): Maine Sea Grant / UMaine Cooperative Extension Service
- JT Lockman ([jlockman@server.eddmaine.org](mailto:jlockman@server.eddmaine.org)): Southern Maine Regional Planning Commission
- Gerry Mylorie ([gmylorie@wellstown.org](mailto:gmylorie@wellstown.org)): Wells Town Planner
- Geoff Coombs ([gcoombs@me.nacdnet.org](mailto:gcoombs@me.nacdnet.org)): York County Natural Resource Conservation Service
- Esperanza Stancioff ([esp@umext.maine.edu](mailto:esp@umext.maine.edu)): UMaine Cooperative Extension Service
- Don Kale ([donald.kale@state.me.us](mailto:donald.kale@state.me.us)): Maine Department of Environmental Protection
- Cayce Dalton ([christophercayce@yahoo.com](mailto:christophercayce@yahoo.com)): Maine Conservation Corps / Americorps
- Caitlin Mullan ([caitlin\\_mullan@brown.edu](mailto:caitlin_mullan@brown.edu)): PhD candidate at Brown U. and former researcher on Webhannett
- Fred Dillon ([fdillon@wellsnerrcec.lib.me.us](mailto:fdillon@wellsnerrcec.lib.me.us)): WNERR grad assistant

We'd still like to have 1 community representative for the Town of Wells and hope to get Doug Knox, the Shellfish Warden to serve in this capacity.

Since the sampling sites / locations have already been established through Caitlin Mullan's previous research efforts, **we see the primary role of the committee during the sampling and analytical phase as helping us make any subtle adjustments to optimize this portion of the project**. We'll be providing ongoing updates of sampling results and soliciting your feedback. We also hope to have a map of the project area w/ GPS'ed site locations completed within the next 2 weeks, which we'll be sending to each of you.

**After we've completed the sampling and testing and compiled all the data we'll then need your assistance in determining the implications of the analytical results. That's to say, we'll need your help to focus on identifying the sources of bacterial contamination in the watershed and develop mitigation strategies to address them. Finally, we'd like the steering committee to assist us in implementing these strategies through public outreach efforts with local, regional and state agencies.**

### **Bacterial Test Method: E. coli or fecal coliform? (Decision deadline 11/5/01)**

After numerous discussions with a variety of people regarding the best bacterial test method to use for our research efforts, our approach will most likely be to use E. coli instead of fecal coliform. Earlier research used fecal coliform since it was the method of choice for all bacterial testing done at WNERR and is used as the basis for shellfish harvesting standards by the Maine Dept. of Marine Resources. However, the ribotyping technique used by the Jackson Lab requires isolates for E. coli and the Maine DEP specifies fresh water quality standards on this basis. Since most of the sites in our study area are fresh water and the E. coli isolate procedure is apparently more straightforward with this method than with fecal coliform, we believe that it will be better to use the E. coli test method.

**There is still some question (in my mind at least) about the need for comparability between E. coli results from freshwater samples and fecal coliform results from estuarine samples. I'm not sure if this should even be a concern, but it's apparently quite difficult to compare these results. In any event, we'll be going with E. coli unless we hear otherwise. If any of you have suggestions please contact me as soon as possible since we are preparing to order lab supplies.**

**Animal Scat Sample Collection (Ongoing through early winter of 2002)**

Cayce and I have discovered that there's a whole world of poop happening out there and we've been making some serious efforts to get some of it. As you may recall, a critical part of our research depends on the development of a scat sample library which can be used as the basis for comparison with water quality samples. To date, Cayce and I have collected samples for red and gray fox; gray squirrel; raccoon; coyote; and deer. We've had the assistance of animal tracker Dana Johnson (aka the "Creature Catcher") and have begun closely studying the finer points of scat identification. There are still several wild species samples we need to collect as well as samples for several domesticated species.

**Volunteer Recruitment (Ongoing through mid-November)**

Cayce has been focusing on volunteer recruitment for the past couple weeks. We'll need them to collect water samples at one scheduled time per month, December through May, and at certain times after precipitation events (which means we will need a certain number of "on-call" volunteers). There are about 20 sites, and at two sites per volunteer, we will need about ten volunteers per sample date. Cayce has called past volunteers, posted notices to community bulletin boards at churches and libraries, and contacted newspapers (both a press release and community announcements). His other recruitment ideas are direct mail to landowners adjacent to rivers, schools (especially parent-child collaboration), radio and public access TV. So far, he's recruited four volunteers. We will begin training in mid-November. Any suggestions or assistance in recruiting volunteers are certainly welcome.

**Laboratory Set-Up (Ongoing through mid-November)**

We're in the process of developing a lab procedures manual based on E. coli analysis (assuming this is the best method to use). This document will hopefully meet the requirements specified by EPA for Quality Assurance Project Plans (QAPP), which provide quality assurance / quality control procedures to ensure the generation of accurate data. EPA encourages all volunteer water quality monitoring projects to use QAPPs to strengthen the legitimacy of their data.

Thanks again for your involvement – we literally won't be able to do this without your help! And please contact either Cayce or me if you have questions or suggestions concerning any of the above.