

Utah Monitoring Council Presentation
Annual Water Quality/Watershed Coordinators Meeting
February 25, 2010
Richfield, UT

Jim Harris, DWQ

- Coordinators group has been meeting and working together for over 20 years. The Utah Monitoring Council will build on the Coordinators' pre-existing partnership and foundation, but will focus on water monitoring data.
- Utah Monitoring Council will have dedicated staff support within DWQ.
 - o Rob Bird will serve as the main point of contact for all Coordinators and for the Utah Monitoring Council
 - o Kate Tipple will assist Rob and maintain the Utah Monitoring Council Web page

Strategic Monitoring Plan

- Will be published on the Web soon.
- Fact sheets summarizing main points will be issued
- 3 main parts
 - o Probabilistic
 - Randomly selected subpopulation used to make inferences about the entire watershed.
 - Used for 305(b) reporting
 - Will start in Spring this year and carry on through Fall
 - o Targeted
 - Efforts to ID impairments that are expected
 - Completed after the probabilistic study's data is returned
 - Used to build initial TMDL dataset, informs 303(d)
 - Design Monitoring Plan in advance
 - o Programmatic
 - Sampling that doesn't fit otherwise
 - Intend to address them as we're in that particular basin
 - Receive regular reports from facilities instead of regularly sampling them
 - Intensive waste load/nutrient study this summer
 - Development of QUAL2K model
 - Temperature loggers used instream in targeted basins
 - WET monitoring in impounded wetlands to prepare for 2011 National wetland survey with EPA
 - QA/QC audit

Question – How will the plan stratify locations for statistical purposes?

Answer – DWQ is working with Tony Nelson (EPA) to generate random sites that will be statistically representative.

Q – How will this effect monitoring programs of the Forest Service?

A – There will be ongoing monitoring needs that aren't covered in the SMP. We need to communicate and identify these now to help each other out.

Q – What the FS does now is tries to find the nearest STORET site, identify impairments with additional field data and historical data for this site, then use the data in NEPA reports. How will the FS get data if these sites are going off-line? FS will have to carry heavier data collection responsibilities when DWQ is in different basin.

A – We need to strike a balance. DWQ needs to know of collection needs now. Neither DWQ nor State Lab could sustain routine ambient monitoring.

Q – Does DWQ favor sites they can access easily? How will this be representative?

A – No, DWQ does everything possible to access all kinds of sites. This year we may have up to 4 sites accessible only via helicopter. We do not select sites for accessibility primarily.

Q – Are the sites you are visiting for Probabilistic study available to us now?

A – Yes – DWQ will post these online. State will plan to share these sites and the SMP for the year in the Spring for cooperators to give feedback prior to sampling. Cooperators should plan to share their monitoring plans with the state in the Spring as well.

Q – FS forest plan requires a set amount of sites to be sampled per year. Will we be able to coordinate with DWQ about getting these sites sampled?

A – Yes. DWQ is not locked to historic site allocations. The Council will try to include everyone who is out there and make sure that data needs are met one way or another. We all need to work and coordinate together. Keep in mind that Special Studies can also meet sampling needs if the Probabilistic and Targeted plans do not.

Q – Is DWQ considering long-term sites? How much long-term data is needed to stipulate a trend? Will this be prevented if DWQ stops sampling certain sites?

A – That's a good point. Long-term probe deployment can help. Strawberry Res. Watershed is an example of using probes to see trend and effects of restoration. We will be looking for long-term key sites before we stop sampling at a location in favor of the SMP.

Utah Monitoring Council

Rob Bird, DWQ

- Jeff Ostermiller is a member of the National Monitoring Council – a forum for sharing monitoring ideas
- Utah Monitoring Council will be similar the NMC, and won't affect activities of existing Cooperators' group
- Goal to bring in additional people
- Workplan is currently supported by funded staff for a year
- Hope to enhance ability to share data, leverage funding and training opportunities
- Citizen monitoring is more of a long-term idea and will take time to develop
- For now, would like to work on comparability and standardization of data collection and SOPs

- Identify funding, at least for equipment. Maybe establish a regular pool of available funding the Council can use. Maybe loan equipment to each other?
- Rob Bird will be permanent coordinator and lead support staff
- Many examples of how other state monitoring councils work
 - o MiCorps – citizen monitoring example in Michigan. Data used as screening tool
 - o Wisconsin – volunteer monitoring example
 - o Most successful programs include an up-to-date Web site full of resources

Question – Will the Utah Monitoring Council, or do other councils, include training?

Answer – Yes. Wisconsin includes online videos for volunteers to view.

- The Council will be able to expand monitoring efforts of every coordinating member and might be able to offer lab support.
- Monitoring efforts of E. coli is an example of how the Council can work
 - o Use IDEXX in-house
 - o Have available funds to help others start monitoring E. coli
 - o DOC, SOP already available for validity, standardization of data
 - o Westminster, E. coli workgroup are current efforts to collaborate
- Next steps for Council will be to update Web site, collect thoughts, interest and ideas

Utah E. coli Monitoring Update

Jim Harris, DWQ

- Developing a Tier 1 and Tier 2 sampling methodology
- Will use 30-day geometric exceedences for 303 (d) listings
- Thinking about expanding geometric to include entire recreational period because of limited monitoring resources (5 samples across recreation period)
- Microbial Source Tracking could help target sources
- This summer DWQ will help target high-use lakes
- Web page will post closure information or advisories
 - o If 1 lake sample exceeds 126 mpn, an advisory will be issued between local health department and DWQ. Advisory will be removed after 2 samples under 126 mpn limit.
- High level of coordination between health departments, State, and other members of E. coli work group. Looking to expand membership and coverage of the State.

Question – Why is 126 mpn the limit?

Answer – That is the number that, statistically, means there will be 8 illnesses per 1000 swimmers exposed to that amount of E. coli in the water. This is universally adopted as an expectable risk level by the EPA and other states. Also, this is already the limit used by the local health departments as a geothermal pool standard.

Q – Will there be different protocol for sampling lakes and rivers?

A – Rivers are sampled with a grab sample taken from the main flow. For lakes, the sampler needs to wade out from a public beach and take a sample from 12” to a full meter

below the surface. DWQ uses a vertigrator to get into the water column and has developed protocol for lake sampling. DWQ will also offer training.

Q – What if the source is a herd of cattle that are present only once during a month and that coincides with your sampling. Will DWQ go to the trouble of listing the water way because of that one spike?

A – No. DWQ will investigate further first, no matter what. Using the recreational period, rather than 30 days, for the geomean would help negate one-time situations like this. Keep in mind that this is all a trial period and nothing is set in stone yet, and that the State will always investigate hits first.

WQX and Web Tools

Jim Harris, DWQ

- DWQ will be shifting to a new database soon to better meet data serving needs.
- Accessibility will increase through a Web page interface
- EPA has ceased support of STORET at the state-level, so states must now provide their own local database that meets an XML standard.
 - o Utah developed Ambient Water Quality Management System
- DWQ would like feedback from Cooperators in terms of what the Web site should look like/include.
- What would the Utah Monitoring Council Web page need?
 - o Should we post SOPs, QAPPs, Training?
 - o Should we include a forum?

Question – Will the database have the ability to search for parameters over a certain period of time?

Answer – Yes, And you can then download the data found into an Excel file.

Q – Will Cooperators be able to login and run exceedence reports?

A – Yes. DWQ will provide a restricted login to allow Cooperators to access data.

Q – Will this replace STORET? How does this relate to the NHD? Or other centralized databases?

A – Yes. DWQ's data is currently migrated from STORET into the new AQWMS database and we will no longer use the old STORET database at the state level. Hopefully it will be ready by Spring. We want to integrate it with NHD and make the reporting tools flexible enough to be used in conjunction with other centralized data.

Q – Will this make the availability of data from the lab any faster? Is the lag at EPAs level?

A – No, the data won't be available faster. The State lab has its own issues and limitations. Monitoring is making every effort to use PDAs and barcodes – go to a paperless system – and that would reduce check-in time at the lab. But it normally takes several months to QA/QC the data manually by the State then send it on to the EPA for validation. We can automate the QA/QC process a little to speed things up as well.

Q – NPS uses a similar database now and has found it very efficient and helpful.

Q – Will it show locations for everyone? Or just DWQ sites?

A – The database will probably just show DWQ sites, not, for example, USGS-specific sites. But you can search for these other sites, still, in the EPA main database.

Q – Does DWQ have a date the database will be available?

A – Not to long now. It's currently stuck in IT.

Open Discussion – Next Steps

- Evaluate long-term sites before pulling regular monitoring in favor of the SMP
 - o Identify which sites have long-term data that is useful to Cooperators
- Share Annual Plans with DWQ by May
 - o Plans will be consolidated and published on the Web site
- Reuse Cooperative Agreements – Can we make this more efficient with the drafting of the Annual Plan?
- Next meeting for Utah Monitoring Council – May 5th at 9:00 in SLC
 - o Identify training needs (who needs to update their DOC?)
 - o Bring Annual Plans
 - o Do we need a Mission? Vision?
 - o Should we have defined workgroups?
 - o Will walk through database again – come with ideas about what functionality you want
 - o Training will follow meeting