Minutes of the Water Quality and Quantity SAB

Meeting – February 29, 2012
Rutgers University – Operator Training Center

SAB Attendees:
David Vaccari
Brian Buckley
Chris Uchrin
Tom Amidon
Tony Navoy
Xiaoguang Meng
Josh Kohut
Judy Louis
Lee Lippincott
Debbie Hammond
Leslie McGeorge
Tom Vernam
Chris Kunz
Bob Schuster

USGS
Jack Gibs

NJDEP Staff

The meeting opened with a review of the charge questions.

Action Item: It was decided that charge question 4 should be dealt with by forming a small workgroup with volunteers from the Ecological SAB. This question revolves around a methodology that has been developed for the Northern region of the US from Cape Cod to Cape Hatteras. The question is: Are there unique species in New Jersey such as the horseshoe crab that might require a different approach. Brian Buckley agreed to chair a workgroup on this question.

Presentation 1 - Debbie Hammond presented information about how the department currently uses DO measurements to determine impairment of the waters of New Jersey. (See presentation 1)

One problem with EPA's approach is the idea of "independent applicability". Thus, a water body must meet all standards to be considered unimpaired. A better approach might be use the data and compare it to a bioconfirmation step such as the results of a benthic survey to see if the biology is impaired.

Presentation 2 – Leslie McGeorge and Tom Vernam discussed the department's monitoring program. (See Attachment 2)
Grab samples for the freshwater stream monitoring networks are generally collected between 8:00 AM and 12 PM. This discrete sampling is not designed to catch the low point of the diurnal DO concentrations. Three day continuous monitors are used for diurnal DO montitoring at select priority sites. These monitors collect samples every 15 minutes. This type of measurement will capture the low point on the DO diurnal cycle for the time it is deployed.

A question was asked about how instrument noise was taken into account. It was explained that the equipment internally averages the data.

Presentation 3 – Bob Schuster
There are three types of sampling that is done in the ocean. Grab samples taken by ship captains from about 8:00 AM to 12:00 PM. Continuous monitors attached to buoys, In addition, helicopter flyovers using infrared signals are used to determine areas where chlorophyll a is high. This can indicate areas where sampling should be focused.

Finally, Underwater Autonomous Vehicles can take continuous readings at various depths. This type of vehicle can only be used in the ocean.

Presentation 4 – Jack Gibs (See Attachment 4)

The USGS has several continuous monitors that are installed in various locations around the state. These monitors provide data throughout the year. Examples of the data were supplied for various locations.

Leslie McGeorge handed out a list and a map compiled by the NJ Water Monitoring Council of all continuous monitors that are currently being used in the state. This information is available on the Council's webpage at http://www.nj.gov/dep/wms/wmcchome.html , and is updated as additional monitoring locations are identified. The list includes which monitors are measuring DO, as well as other parameters, and contains links to the websites with the monitoring data.

The next meeting will be scheduled for sometime in late March. A doodle poll will be sent out to determine availability..

Presentations are available upon request.