

Drinking Water Quality Institute  
September 10, 2010 Meeting Minutes  
New Jersey Environmental Infrastructure Trust Building  
Princeton Pike, Lawrenceville, NJ

Members Present: Judith Klotz (Acting Chair), Perry Cohn, Sandra Krietzman, Anthony Matarrazzo, Leslie McGeorge, Gloria Post, Sheng-Lu Soong, Carol Storms

Members Absent: Stephen Jenniss, Paul LaPierre, Daniel Caldwell

Non-members Present: Linda Bonnette, Alan Dillon, Branden Johnson (NJDEP-Division of Water Supply); Judy Louis (NJDEP-Office of Science); Zoltan Szabo (US Geological Survey); Chrissy Buteas (Capital Impact Group); Tracy Carluccio (Delaware Riverkeeper Network); Tony Russo (Chemistry Council of New Jersey); Bill Wolfe (New Jersey Public Employees for Environmental Responsibility); Ed Rodgers, Bob Hartman (New Jersey Network)

**1. Call to Order, Welcome and Introductions—J. Klotz**

Acting Chairman Klotz called the meeting to order at 1:08 PM. She noted the absence of DWQI members S. Jenniss, P. LaPierre and D. Caldwell, and that she would be acting chair, as S. Jenniss had been acting chair the previous meeting. In response to her query, B. Johnson noted that no word had been received on the governor's appointments (currently empty) to the DWQI, which under the New Jersey Safe Drinking Water Act include appointment of the permanent chair. J. Klotz suggested that the DWQI website include a listing of DWQI members' names and the slots which they fill (for example, who appointed them and whether they represent water purveyors, academia, or the public/environmental interests). C. Storms mentioned that she had heard of two recent appointments, but did not recall details.

**2. Minutes from May 7, 2010—J. Klotz**

Draft minutes were reviewed by the DWQI and were approved, contingent on corrections suggested by J. Klotz and C. Storms (implemented by B. Johnson).

**3. Subcommittee Summaries—Subcommittee Chairpersons**

*Health Effects—L. McGeorge:* She noted first that the Subcommittee had adjusted its workplan, delaying action on radium and tertiary butyl alcohol to the first quarter of 2011; they would consider adding nitrates to their workload at a future meeting. Second, after A. Stern's presentation at the previous Health Effects Subcommittee (HE) meeting on the slope factor developed by the NJDEP Chromium Workgroup for oral exposure to hexavalent chromium, the HE had accepted this slope factor as the basis for a Health-based MCL recommendation for hexavalent chromium at its September meeting. L. McGeorge distributed copies of a memorandum to the Testing and Treatment Subcommittees, recommending a health-based maximum contaminant level (HBMCL) of 0.07 µg/L for hexavalent chromium based on this slope factor. Third, the subcommittee had made progress in preparation and development of a risk assessment for PFOA. She distributed copies of a memorandum to the Testing and Treatment Subcommittees, which noted that potential HBMCLs for PFOA which are currently being considered fall within the range of 0.04 µg/L to 0.01 µg/L, or as low as reasonably achievable. L. McGeorge emphasized that the subcommittee had made no decision on what

HBMCL to recommend, but was merely recommending that the other subcommittees begin their review so as to identify any information that might affect whether HBMCLs within this range could be achieved. In response to a question about the timing of HE's final recommendation, G. Post said that would depend on subcommittee members' comments on the eventual draft of the risk assessment.

*Testing—S. Krietzman:* On behalf of the absent S. Jenniss, she noted that the planned July meeting of the Subcommittee had been cancelled due to his absence to deal with laboratory issues; another meeting had not yet been scheduled. On hexavalent chromium, several members had examined the method that California DPH used for low level hexavalent chromium analysis, EPA Method 218.6 (which is very similar to EPA SW 7199) with modifications. The NJDEP Office of Quality Assurance offers certification for EPA 218.6 with the water pollution program. The modifications used by CA-DPH with EPA 218.6 are not complicated and can be implemented by those EPA 218.6 certified laboratories which have the expertise to make the necessary instrument configurations. CA-DPH was able to analyze hexavalent chromium to a minimum level of 0.06 ppt, at a cost of about \$200 per sample. Since the Health Effects Subcommittee recommended that the Testing Subcommittee perform reviews of hexavalent chromium to identify any analytical information that might affect achieving the recommended HBMCL, the Testing Subcommittee would now be required to establish a practical quantitation limit (PQL) for hexavalent chromium. J. Louis noted that DEP's Office of Science is pursuing research with Brian Buckley of EOHSI on chromium species present in raw and finished water. S. Krietzman stated that the development of a PQL for CrVI would be similar to that for PFOA, for which several analytical methods offer reporting levels (similar but not identical to PQLs, which still need to be decided) of 4, 5 or 10 ppt (or nanograms per liter). S-L. Soong noted that at least three New Jersey laboratories are certified to test for PFOA.

*Treatment—S. Krietzman:* On behalf of the absent P. LaPierre, she noted that the Treatment Subcommittee had not met since the last DWQI meeting, although P. LaPierre and C. Storms of that group were both participating in the work of the Radon Ad Hoc Subcommittee. As E. Murphy has left NJDEP, A. Dillon will take over NJDEP staff support on treatment, including moving forward Subcommittee-recommended NJCAT literature reviews on chromium and PFOA.

*Radon Ad Hoc—J. Klotz:* She provided a short history, given the lengthy gap and new DWQI appointees since this subcommittee had last reported. The Radon ad hoc committee had finalized a detailed report in 2009 recommending a MCL for radon in drinking water for public water supplies. However, the report had not made a recommendation for addressing radon in private wells, which were more likely to be affected, saying that this issue should be examined in the future.

At its meeting in July, the group began looking at appropriate emerging technology, and received a presentation from a consultant working with Aqua America. The group also discussed radon occurrence, with the goal of making a recommendation to the DWQI about which counties should be subject to PWTA testing requirements for radon once a radon MCL is adopted by NJDEP. Finally, the committee began gathering data that could inform advice for homeowners on testing and treatment options. J. Klotz also noted that she had been interviewed

by reporters recently on the radon MCL and related issues (copies of two press articles were distributed).

#### **4. Consultation on Contaminants with Regional Requirements in Private Well Testing Act (PWTA)—S. Krietzman**

This topic followed up on J. Louis' presentation of occurrence data for arsenic, mercury, and gross alpha radiation at the May meeting; although the PWTA does not require that DWQI make recommendations to NJDEP, it does allow for consultation with DWQI by NJDEP. J. Louis had suggested that, based upon available occurrence data, requiring both gross alpha and uranium in northern PWTA tests would be feasible because the test for arsenic currently required in the 12 northern counties also identifies uranium. She had recommended extending arsenic testing to five counties in southern New Jersey (Burlington, Camden, Gloucester, Monmouth and Salem) with potential exceedances of the arsenic MCL due to glauconite-bearing formations in three aquifers, as the current method for required mercury tests in 10 southern counties also identifies arsenic levels. Finally, she had recommended in her May talk that there were insufficient data to support extending mercury testing under PWTA into northern New Jersey.

At the current meeting, questions were raised about occurrence and treatment issues. Z. Szabo noted that, following upon an earlier USGS study in the Highlands, his agency is conducting a study in the Piedmont to determine whether occurrence of gross alpha, uranium and radium can be distinguished indirectly through tests of dissolved oxygen levels, rather than more expensive direct tests. Because radium and uranium require different treatment methods (anion versus cation, respectively), one needs to determine which of them is responsible for high gross alpha levels in a given test, so that inappropriate treatment is avoided.

J. Louis noted that a recent study in Maryland of arsenic in the Potomac-Raritan aquifer (which extends into southern New Jersey) found levels of arsenic exceeding 5 ug/l in some wells, providing additional reason to extend PWTA tests for arsenic to glauconite-bearing counties.

L. McGeorge proposed that these PWTA recommendations from J. Louis be summarized in bullet form for the next DWQI meeting, so that the Institute could take a vote as part of NJDEP's consultation on this issue.

J. Klotz asked that an updated version of the DWQI workplan, including both the revised timelines from the HE Subcommittee, addition of nitrates (if HE decides to add it), and any revisions by the other subcommittees, be available for the DWQI's next meeting.

#### **5. NJDEP Science Advisory Board's (SAB) Initial Agenda—J. Klotz**

J. Klotz said she had added this topic to the agenda for the information of DWQI members who might be interested in a new advisory body that may be looking at issues related to DWQI work. The SAB held its inaugural meeting September 8, to introduce its members and learn about initial issues which NJDEP Commissioner Martin would like the SAB to address ([www.state.nj.us/dep/sab/draft-issues.pdf](http://www.state.nj.us/dep/sab/draft-issues.pdf)).

The full SAB and the four standing committees will meet in October. J. Klotz is a member of the Public Health standing committee. Besides Public Health, the Water Quality and Quantity committee is potentially the most relevant of SAB standing committees for DWQI topics; the other two are Climate and Atmospheric Sciences, and Ecological Processes. J. Klotz noted that potentially relevant topics to the DWQI on NJDEP's draft issues list for the SAB included environmental contaminants of emerging concern and NJDEP's cumulative risk model, among others.

## **6. Public Comment**

*B. Wolfe of New Jersey Public Employees for Environmental Responsibility:* He noted that he is an advocate of "the public interest," and the quarterly meetings of the DWQI [Ed. Note: scheduled as needed, so they may or may not be quarterly] result in many issues for him to cover in the public comment period at each meeting.

First, B. Wolfe wished to follow up on the May 7 presentation (posted on the NJDEP website June 28) of a "white paper" on unregulated contaminants. Research conducted by NJDEP found over 500 unregulated drinking water contaminants among the supplies tested, most of which had no toxicological data. Wolfe stated that it is not feasible to deal with this number of unregulated contaminants one at a time, when a technically and economically feasible approach of grouping contaminants by treatment approach is available. S. Krietzman responded that the document distributed May 7 was not a "white paper," but rather a summary of NJDEP work on this topic to date. It was written in response to a request from the Association of State Drinking Water Administrators prompted by USEPA's new contaminant policies. G. Post added that reports of some of the studies on unregulated contaminants mentioned in the document are posted on the NJDEP Office of Science website. These reports could be linked to the DWS summary document posted on the DWQI website. B. Wolfe expressed concern that NJDEP is not being more proactive on this issue. Current NJDEP projects which will evaluate treatment removal of synthetic organic chemicals were discussed by L. McGeorge and A. Dillon.

Second, B. Wolfe urged that the DWQI write and send to the NJDEP Commissioner the letter mentioned in its February minutes to request swift adoption of the recommended perchlorate Maximum Contaminant Level (MCL), rather than acquiesce in the Commissioner's decision to defer action until the USEPA decides whether to regulate perchlorate.

Third, B. Wolfe asked whether the DWQI has any concern that its MCL recommendations of March 2009 were not being implemented by NJDEP, and if yes, why not write a letter to the Commissioner expressing those views?

Fourth, B. Wolfe urged publication of public information about the radon MCL recommended by the DWQI which has not yet been proposed. J. Klotz noted that the DWQI is working on that issue with regard to private wells, while the MCL recommendation was for public water supplies.

Fifth, B. Wolfe noted that the current drought watch had water quality implications, such as nitrates in surface waters. P. Cohn said that this was a concern to several DWQI members and

others, and that it would be valuable to look at this issue more closely, even if it is hard to plan for drought. L. McGeorge observed that the Health Effects Subcommittee is considering adding nitrate to the DWQI workplan.

Sixth, B. Wolfe asked about the status of the Water Supply Master Plan, and S. Krietzman noted that it is under review.

Seventh, B. Wolfe noted that the NJDEP request to the new SAB to evaluate the nitrate dilution model is another issue of concern that overlaps with the DWQI's responsibilities.

*Tony Russo, New Jersey Chemistry Council:* He noted that DWQI's standard operating procedure is that the Health Effects subcommittee makes a formal referral of its recommended Health-based MCL to the Testing and Treatment subcommittees. On the basis of the work of these three Subcommittees, the full DWQI recommends an MCL to NJDEP, which then proceeds to develop proposed regulations. He stated that this procedure means that the regulated community has opportunity for input only during the public comment period for the proposed regulation. L. McGeorge agreed that there is no public notice or input before that point, but DWQI does make its recommendations publicly available when they are finalized.

T. Russo noted that the case of PFOA appeared to be a departure from this process, as the HE Subcommittee was referring it to other subcommittees without having reached a final decision as to the recommended health-based MCL (HBMCL). G. Post responded that the memorandum issued today gave the subcommittees a heads-up to begin to evaluate analytic and treatment options appropriate for the range of HBMCLs being considered by the HE Subcommittee.

L. McGeorge added that the chromium HBMCL recommendation process differed from other HBMCLs recommended by the HE Subcommittee, as NJDEP rather than DWQI developed the risk assessment basis for this HBMCL. This risk assessment was reviewed and accepted by the HE Subcommittee.

T. Russo asked how the DEP SAB would interact with the DWQI and NJDEP's various other advisory committees. L. McGeorge replied that there is substantial scientific expertise on and in support of the DWQI, and it is up to the Commissioner whether or how to supplement that with SAB expertise. S. Krietzman added many issues facing NJDEP are not relevant to the DWQI, including many which do not have a similar advisory board to provide expertise, so the SAB can play an important role there. T. Russo finished by urging the importance of transparency in DWQI operations.

*T. Carluccio of the Delaware Riverkeeper (DR):* She was glad to hear of progress on PFOA and chromium, and asked if there was a typical time by which the Testing and Treatment Subcommittees would complete their reports. L. McGeorge said it depends (for example, is there a feasible method?); S. Krietzman added there are usually one or more subcommittee meetings between DWQI meetings, and from one to multiple subcommittee meetings before they make recommendations to the full DWQI. T. Carluccio asked when the NJDEP's report on occurrence of perfluorinated compounds in New Jersey drinking water supplies would be

available. S. Krietzman responded that it had been drafted and was being reviewed by the agency.

B. Wolfe said that the executive order establishing the SAB clearly says its agenda is set by the NJDEP Commissioner, so if T. Russo wants an issue to be addressed by the SAB, he should bring his suggestion to the attention of the Commissioner. B. Wolfe said the SAB is constrained to focus on science, not policy, and there will be chaos if that “bright line” is blurred. L. McGeorge responded that the Commissioner had made clear to the SAB that it was only to consider the science, but that some issue descriptions might need to be revised to make that clearer. B. Wolfe continued that several SAB members are from the wastewater treatment community, and, in his opinion, the interests of the wastewater treatment community conflict with the interests of water purveyors. B. Wolfe also observed that a toxicology consultant for industry made a presentation on PFOA risk assessment to the DWQI last year, an opportunity offered to no other interested party.

### **7. Next Meeting**

The next meeting was tentatively scheduled for early December; B. Johnson would send DWQI members a link to a Doodle Poll to indicate their availability. The meeting date will be posted on the DWQI website.

### **8. Adjournment**

Acting Chairman Klotz brought the meeting to a close at 2:49 P.M.

Minutes by B. Johnson 10-6-10.