

CLEAN WATER COUNCIL
Meeting Highlights
September 14, 2004

Location:

NJ Environmental Infrastructure Trust, Building 6, Suite 201, 3131 Princeton Pike, Lawrenceville, NJ.

Attendees:

Ferdows Ali, Amy Goldsmith, Pamela Goodwin, Marybeth Koza, Karen Nowicki, Kerry Pflugh, Lou Neely, Pat Pittore, Carmen Valentin, Dan Van Abs, Ray Zabihach, Ray Nichols, Julia Barringer and Ursula Montis.

Speaker on Mercury: Julia Barringer, a research scientist and hydrologist with USGS updated us on Mercury. She attended the Mercury workshop in Ralston, Va. The attendance at that workshop was represented by USGS and EPA speakers, people from NOAA, the Park Service, Fish and Wildlife, a representative from Indian Tribes and several academics. Attached to the minutes is the presentation that she did. Questions from our members were as followed:

Lou Neely – Wanted to know the degree of toxicity in methylmercury as compared to inorganic mercury.

Julia – I don't know whether there is a greater degree of toxicity, but methylmercury affects more parts of the body and is very damaging to the nervous system. Inorganic mercury mostly affects the kidneys. It is not without risk, but affects fewer parts of the body. Of the two forms, methylmercury is the one we should be more concerned about. Studies have also shown it to be found in Tuna fish, which, if eaten often enough by the pregnant woman, can cause damage to the unborn fetus.

Ray Nichols – In the sense of long term significance, does it make a difference which form of mercury that we monitor in our water? What tests do you run to look for mercury?

Julia – So far the tests include readings on total mercury. So if methylmercury were there, it would be included in that total number. There is no regulation at the moment that looks specifically at methylmercury in water. People are much more connected to the problem of methylmercury measurements through fish. Most states have at least one or more fish advisories. The damaging effects on wildlife is also considerable.

Pam Goodwin – In the case of groundwater, are we to presume that the source of contamination is air?

Julia – Yes. The presumption of the problem of methylmercury in fish has been that the ultimate source of it has always been atmospheric deposition. As to marine studies, I don't think anybody has studied mercury recycling in the ocean. At the mid ocean ridges, we have volcanic activity that goes on all the time. Mercury is well known to be emitted by volcanoes. The atmospheric outputs, in general, are thought of as the major source of contamination. The USGS NAWQA Program has studied mercury in surface water, sediments, fish tissue and ground water. Studies have shown that in the problem of mercury in fish, the amount of mercury in the water is more important than the amount in the sediment.

Julia - The study of mercury in groundwater has turned out to be an extremely complicated problem. Mercury in water from more than 600 domestic wells tapping the Kirkwood-Cohansey aquifer system exceeds the count for total mercury. This aquifer is a sand aquifer making it more vulnerable to contamination. There are more than 70 residential areas in 8 counties affected. Most residential areas were built on former agricultural land. Non-point sources such as atmospheric deposition and application of mercurial pesticides and fertilizers appear to be the more likely sources. There have been aggressive programs, testing wells and gathering data, to find the problem in some of the counties, particularly in Gloucester Co. and Atlantic Co.

Lou Neely – Have studies been done on the families drinking the water from these wells?

Julia – Not that I know of. I do know that there was a case in Gloucester Co. wherein a woman was diagnosed with mercury poisoning, which made the papers, but I never heard of any follow up results on this case.

Lou – Once mercury is discovered in the wells, do they continue drinking from these wells?

Julia – No. Once discovered, NJDEP usually does one of two things; they can give them a treatments system (which removes the mercury from the drinking water) or if the affected well is close to a public water line, they will tie them into that. The County Health Department people are very active in testing the wells. In several studies by the USGS/NJDEP and NJDEP, both filtered and unfiltered ground-water samples were collected. Studies found that both inorganic mercury and methylmercury do some absorbing to particles which then pass through the filters. NJDEP sampling has shown that mercury concentrations increase as water use increases over a period of about 12 hours. This probably indicates that particles/colloids are mobilized by pumping wells, which stir up the metal particles. We think that this is part of the explanation of what is going on with the domestic wells. Studies have been done on the different types of filters used and have found the results being about the same. We don't feel that filters are the problem. Researchers expect that mercury and organic matter are going to be tied to each other. That's why in the methylmercury studies, the dissolved organic matter is important because it has a certain amount of mercury complex with it and apparently that is what is bio available to the sulphate reducing bacteria to do the methylation. We are just beginning to understand what we think is going on. We are left with two questions that we do not know the answers to. First, does septic-system effluent act as a mobilizing agent for mercury in soils? We think it does because there are a lot of compounds in effluent that may interact with mercury. Secondly, does the presence of septic-system effluent create conditions conducive to mercury methylation? We think the answer is yes, but we do not know how often this occurs.

Ray Zabihach – Update on Morris Co. Stormwater Utilities Bill:

Ray reported that they were almost completed with the study. The consultant has produced a draft of information on the first three elements; 1) a literature search, 2) lessons learned throughout the country on stormwater utilities, 3) and an analysis of the ability to utilize existing legislation to implement a program on stormwater utilities in the state of NJ. The consultant is now working on task #4 which is a more detailed description of how to create the fee based funding system. The last task would then be the recommendations. An important question raised as the result of the last meeting was, that if fee based conditions now exist in terms of water supply and wastewater, can we not do that also with stormwater for the municipality that does not want to become a utility? We could get the user fee process in place and collect the monies to make this work, thus giving the municipality the ability to utilize the user fee approach, rather than becoming a utility. The biggest incentive to do this is the NJPDES permits.

Lou Neely – As part of the task force, are you looking at the tax incident aspect?

Ray – Would ask them do check on that. He did not know if it was an issue at this time.

Dan VanAbs – It was an issue in the lessons learned portion. The issue raised was not so much with residential, but more for the business side, where encouraged impervious surface could be a significant shift in their business cost.

Ray – The more I get into this, I realize that this whole process is very complex and it will not be easy to implement in the State of New Jersey. There is a push to make this type of collection of funds available to everyone (authorities, utilities, municipalities, counties). The most logical approach is by Watershed, but Watershed approach has not generally been accepted by all government levels. We are not prepared institutionally to subdivide our jurisdictional area into Watersheds. The problem is that if some do it by Watershed and others do it by jurisdictional subdivision, would there be an overlap of authority and how does that get resolved? We might want to raise this question to the consultant as to whether this has occurred elsewhere in the country where they have that choice. When the consultant gets done and we have the results, it will then go to DEP, then to OLS to create the legislative package and then before the Legislature.

Lou – Anything that is fee based supported can be a utility. So stormwater runoff could be a permissible activity under utility law.

Dan – That is inconsistent with what the consultant said. He looked at that law and said that it specifically did not mention stormwater as a permissible activity under the municipal utilities law. We will have to go back and look at this.

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PUBLIC HEARING UPDATE- KERRY PFLUGH

The Public Hearing brochure has gone out. We will have a conference call between the subcommittee and the panel of speakers at the end of September. We will go through all the questions and the moderator's role will be discussed. All arrangements have been made and there will be a luncheon following the Hearing for the speakers and the CWC members only. We hope to conclude at 1 o'clock with testimony and audience questions from 12 – 1pm.

DEP UPDATE – KERRY

We have completed a round of interviews for the Highlands hirees, but have not been authorized to make any offers yet. The Division has not reorganized yet, but will probably do so when we finalize the Highlands positions.

*****NO OCTOBER MEETING ***** PUBLIC HEARING ON OCTOBER 14, 2004

FYI – Dan – NJ Network, on Oct. 11th, at 9 pm will be airing a new half hour film called “The Highlands Rediscovered”. It is focused on the nature of the resources rather than the battle about the resources.

FYI – Kerry announced that Clean Air Council would like to do a joint meeting with us on November 10th, which is a Wednesday. Our regularly scheduled meeting is for November 9th. She asked if there were any objections to changing the date? The members were agreeable to the change of date. Ursula will contact Sonia Evans, make the arrangements and obtain an agenda for that meeting.

