

MINUTES OF MEETING

**COMMUNITY ADVISORY BOARD
HAVEN WELL CONTAMINATION**

City Hall – Eileen Dondero Foley City Council Chambers

7:00 p.m.

June 2, 2015

ATTENDEES:

Mayor Robert J. Lister

Community Advisory Board

Rich DiPentima, Chairman

Councilor Stefany Shaheen

Deputy Portsmouth Fire Chief James Heinz

Kim McNamara, Portsmouth Health Officer

John Stowell, Newington Health Officer

Andrea Amico, Resident

Shelly Vetter, Owner of Discovery Child Enrichment Center

City Staff

Brian Goetz, Deputy Director, Department of Public Works

1. CALL TO ORDER

Rich DiPentima, Chairman, called the meeting to order at 7:05 p.m. All Community Advisory Board members were present.

2. PRESENTATION OVERVIEW

Chairman DiPentima welcomed the presenting guests: Scott Hilton, New Hampshire Department of Environmental Services Waste Management Division, Supervisor of Department of Defense (DOD) Section, and his colleague, Peter Sandin. Dr. Courtney Carignan, Epidemiologist, Harvard School of Public Health. Dr. Richard Clapp, Epidemiologist, Boston University School of Public Health and Adjunct Professor at University of Massachusetts – Lowell. Chairman DiPentima also welcomed the public in attendance.

Chairman Dipentima changed the agenda to start the meeting. Scott Hilton talked about the history of the Haven Well and the issues related to the pollution at Pease. Mr. Hilton also discussed his history and position as Pease Project Manager of the superfund site. This lead to Dr. Carignan and Dr. Clapp's presentation on epidemiology.

3. SCOTT HILTON, NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WASTE MANAGEMENT DIVISION.

Scott Hilton's presentation is attached to the meeting minutes. Video of the presentation can be seen on the City of Portsmouth website. Mr. Hilton emphasized that the Pease project will most likely be the first and last project of this type in New Hampshire.

Questions and discussion from board members following the presentation are as follows:

Chairman Dipentima asked what could be done to prevent the migrating pollution from effecting the Harrison and Smith wells in the future, short of having to pump the Haven well.

Mr. Hilton stated that it appears that the Haven well was containing the Perfluorinated Compounds (PFCs). The Air Force is currently developing a ground water flow model. It is a very complex model. It not only includes the ground water flow, but also the attenuation of contaminates in the aquifer. There is a Zone 3 model currently showing the capture zone of the Haven well.

Councilor Stefany Shaheen posed two questions: She asked Mr. Hilton—during his presentation— if there was imminent risk to the Harrison and Smith wells. He stated there was not an imminent risk, and the City would have at least 60 days of notice prior to contaminants reaching any City wells.

She also asked if the ground water model helped the committee determine, beyond imminent risk, how much time they have before addressing a threat? Mr. Hilton stated that wells were installed specifically to determine the immediacy of the problem. If PFCs were found in those wells above acceptable levels, they would be shut-off.

Mr. Hilton said that the Air Force, through their consultant, will be “filling data gaps” to put new monitoring wells in additional areas and better understand the ground water flow. There is flow through the soil and flow the bedrock through factures. The concept can be complicated.

Councilor Shaheen stated she understands they need to fill the data gaps, but wanted to know how soon based on Mr. Hilton's conversation with the Air Force. She specifically wants to know if the committee have the information about a potential threat to the Harrison and/or Smith wells? Mr. Hilton stated the Air Force is prioritizing the list. He recently received a report from them. The Air Force understands the urgency and they are moving forward.

Councilor Shaheen asked if there would be another well identified in regards to restoring the aquifer? She also asked if there a safe location at Pease to replace the Haven well, and if any analysis or assessment has been done up to this point?

Mr. Hilton stated the objective from the beginning has been to restore this aquifer. It is invaluable. This type of aquifer is very hard to find. Their goal is to determine how to best handle the contaminants, clean everything up, and then to keep the site protected through best management practices.

Councilor Shaheen stated she appreciated Mr. Hilton's sentiments and agrees that all 58 petroleum plumes should be cleaned up. However, that process would take longer than is needed to get another well, or an equivalent to the Haven well online. The water system is compromised because the city's system lacks a significant aquifer. She also asked if there is a safe site at Pease to replace the Haven well in the near term?

Brian Goetz, Deputy Director of Public Works, asked Councilor Shaheen for clarification regarding her question. Was she asking if another well would be drilled away from the Haven well on the Pease site?

Mr. Hilton stated the geology at that location is very highly productive. In an aquifer there are channels of crushed rock extremely permeable. In the center is a deposit of gravel and a well would be placed in that location. He stated that he does not believe there is another location on base like the Haven well.

Councilor Shaheen stated even though the issue was discovered early, meaning it was caught when the contaminate parameters were well defined, it does not mean that it was caught as soon as it was in the well.

Mr. Hilton agreed and stated that they were using AFFF in 1970. The base closed in 1991. It can be assumed that the well was contaminated sometime after 1970. Chairman DiPentima reiterated that it can be assumed that the well was contaminated years prior to the base closing. The timeframe is unknown.

Mr. Hilton stated that PFCs are soluble and move quickly. It is highly probable that it has been there for some time.

4. DR. COURTNEY CARIGNAN, EPIDEMIOLOGIST, HARVARD SCHOOL OF PUBLIC HEALTH AND DR. RICHARD CLAPP, EPIDEMIOLOGIST, UNIVERSITY OF MASSACHUSETTS – LOWELL.

Chairman DiPentima introduced the second part of the meeting as a discussion about the human health effects: A Discussion of Epidemiology.

Dr. Richard Clapp, University of Massachusetts – Lowell, began the discussion. His professional experience includes working at the Massachusetts Department of Public Health in the 1980's, where he ran the state cancer registry. He is also a professor at the Boston University School of Public Health in environmental and epidemiology, and Adjunct Professor at University of Massachusetts – Lowell. He was there to introduce a former student, Courtney Carignan.

Dr. Clapp's interest in PFCs began when he was asked to be an expert witness for the plaintiffs in Parkersburg, West Virginia eleven years ago.

A DuPont plant dumped Perfluorooctanoic acid (PFOA) on the ground and it infiltrated the ground water. The PFOA traveled underground and contaminated the water in adjacent parts of Ohio. Tens of thousands of people were drinking contaminated water with PFOA in the late 1990's and early 2000's.

He summarized the epidemiological literature at that time based on studies of workers at Parkersburg, and in 3M plants in Minnesota, New Jersey, and Belgium. EPA levied the largest enforcement fine on DuPont at that time. DuPont agreed to a court supervised settlement, whereby they agreed to conduct an enormous research study on the health effects of PFOA and those who were exposed to the drinking water. The nickname of the study is C8.

Dr. Courtney Carignan, is a post doctorate fellow at the Harvard School of Public Health. Her presentation is available on the city's website at: <http://cityofportsmouth.com/CommunityAdvisoryBoardHavenWell.html>. Video of the presentation can be seen on the City of Portsmouth website.

Questions and discussion from board members following presentation are as follows:

Councilor Shaheen asked a clarifying question: The concern at Pease is specific to PFOS, is that correct? Dr. Carignan stated that is correct, but that the PFCs are similar in structure. If you want to protect public health, it is a fair assumption to say that some of the risks are similar.

Kim McNamara, Portsmouth Health Officer, asked about the usefulness of looking at T4 levels, TSH (Thyroid-stimulating Hormone), and other hormones that can be tested in the body when the levels come back high. Can this be useful in looking at the affects?

Dr Carignan stated that it could not be looked at on an individual basis. It is not a diagnostic tool. However, the field is moving in that direction. Currently, they are looking at the mechanism between the exposure and the health outcome. If they know about the biology, they can look at the pathway it is acting through.

Kim McNamara's second question was: if the compounds are eliminated in the same form as they are consumed in because they are not metabolized? Dr. Clapp and Dr. Carignan stated they did not know. Dr. Clapp said the compounds are long lasting, and may be partially eliminated in the same form. After six or eight years they could be transformed.

Kim McNamara followed up by stating that if the exposure was high in a community that it could go through the waste water system in the same form. Dr. Clapp agreed this could be true.

James Heinz, Deputy Portsmouth Fire Chief, asked about studies on Aqueous Film-Forming Foam (AFFF) in the firefighting profession as it relates to testicular, prostate, bladder, and kidney cancer. He stated that statistically, firefighters have higher rates of cancer in those four areas.

Dr. Carignan is familiar with some studies that are being conducted, but does not have the details or data at this time. Mr. Heinz was encouraged to contact her directly regarding this matter. Dr. Clapp followed up by saying that it is difficult to isolate one chemical associated with firefighter health risks because they are exposed to so many chemicals.

Chairman DiPentima stated that the City is going to have blood level data on children and adults, but will not know how much water was consumed over a defined period of time. He wanted to know what this data means as related to health outcomes. Considering the type of potential studies, would it be logical to do a study in Portsmouth despite the lack of data surrounding the chemicals?

Dr. Clapp responded by saying that it would be difficult because of the small population and the many unknowns. He gave an example: how to identify the kids in daycare at Pease? Where are they now? The other studies had tens of thousands of participants. The health effects will come from the larger studies rather than one that would come from Portsmouth. He feels the important things to do are to continue tracking the exposure levels and the plumes.

Chairman DiPentima asked Dr. Clapp for his advice on educating the people with elevated levels. Dr. Clapp responded by saying this is the key question. A physician should communicate the data, but in this case, an environmental medicine physician would be the best resource.

Dr. Clapp gave some names of environmental physicians and talked about occupational medicine clinics around the country. One is located in Exeter, NH. Someone in the profession could explain the test results in a meeting setting. Dartmouth Medical School and an occupational medical clinic in Cambridge both have resources. Lastly, he said to be honest in what we do and do not know, and maintain vigilance moving forward.

Chairman DiPentima asked if there is any synergistic or additive effects of being exposed to more than one of the family of C8s? Dr. Clapp stated not that he knows of at this time, they are looked at separately, not in combination. Dr. Carignan is attending a conference on this matter this summer.

Councilor Shaheen reiterated the importance of finding environmental medical physicians to evaluate the findings and provide a context for families as a next step. She also stated that the bio monitoring is invaluable and important.

She asked if there is anything we can take away from this other than validating that we have a right to be concerned? Is there anything else we can confidently conclude relative to risk from the research that has been done to date?

Councilor Shaheen stated that she does not believe, nor should people watching the presentation from home believe, that if levels are elevated you are very likely to get cancer. She stated the committee does not want the public to make that conclusion from the presentation. Dr. Clapp agreed with this statement.

Dr. Carignan agreed that an environmental medical physician would be the next best step in the process in the risk communication process.

Andrea Amico asked the presenters for a good course of action regarding children who were in daycare and are not being followed over time through a study? Dr. Clapp stated that keeping regular care of children through a pediatrician would be the best action.

Councilor Shaheen asked about the traceable levels PFCs in Harrison and Smith wells. Can the panel speak to the contaminants levels? Dr. Carignan responded that the levels are below the action level. However, Dr. Clapp's paper points out that the action levels, as they stand, are studies that look at liver rates and survival in animals. Even though the levels in the Harrison and Smith wells are low, it is still a contaminant of emerging concern.

Andrea Amico asked about PFCs decreasing the efficacy of vaccinations in children. Dr. Clapp stated they cannot recommend that children should be re-vaccinated. It is an area that needs to be investigated because it is one of the documented affects.

Andrea Amico also asked about risks to women who were pregnant or breast-feeding and drank the water. Should the unborn be tested as well? Dr. Carignan stated that one would expect fetal levels to be elevated, but guidance is not available.

Chairman DiPentima reiterated that the risk communication follow-up will be in an important next step.

ADJOURNMENT

The meeting adjourned at 9:08 p.m.

Respectfully submitted,

Amy Chastain
Administrative Clerk, City of Portsmouth