

Massapequa Water District

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Commissioners
Frank J. Flood, Jr.
John F. Caruso
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Stanley J. Carey, Superintendent
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August 24, 2011

The Honorable Andrew M. Cuomo
Governor of New York State
NYS State Capitol Building
Albany, NY 12224

Certified Return Receipt Mail

Reference: New York State Department of Health letter dated August 19, 2011

Dear Governor Cuomo,

The Massapequa Water District is in receipt of the above captioned letter and finds it severely lacking in the information requested especially concerning the health and well-being of over 250,000 New York State residents. While the NYSDOH applauds itself for taking part in recent meetings and studies required by Senator Schumer's committee, they fail to recognize that without the initiation of the Massapequa Water District neither the Senator's involvement, nor the studies would have occurred. We stand on the fact that for the past 14 years we have been opposed to wellhead treatment simply because it is against New York State law and the goal posts continue to move as the EPA requires more stringent drinking water standards. A drinking water standard of 10 ppm of volatile organic compounds (VOC's) in 1986 compared to a 5 ppb requirement for TCE and PCE today is as significant as the Wright Brothers flight is to inter-galaxy exploration. In paragraph 3 of the NYSDOH letter it recognize problems going forward with ever-changing drinking water standards, however they do not recognize the fact that over the past 25 years under those drinking water standards people may have ingested as much as 10 pounds of carcinogens. That's a remarkable amount of toxicity and may be indicative of some of the highest cancer levels in the United States. Both New York State Departments (DOH and DEC) have had 25 years to investigate and get this right, yet they haven't. Isn't it bizarre that the NYSDOH cannot follow state law, their own policies and procedures and in fact produce a less expensive alternative to their wellhead treatment last resort requirement? The original Record of Decision (ROD) mandated by the NYSDEC for OU2 was

Committed to deliver and preserve our water supply for the welfare, health, and safety
of the inhabitants of the Massapequa Water District.

said to have cost \$30 million for the entire cleanup. Both Grumman and the Navy have gone on record stating that they have each spent in excess of \$100 million to date. This is tax payer's money. The fact of the matter is the Massapequa Water District has demonstrated that stopping the plume from contaminating 15 more drinking water supply wells is not only less expensive than the current New York State Departments of Health and Environmental Conservation approach, it stops the ingestion of toxic carcinogens at any level into the future. Isn't this the best alternative for the health and well-being of citizens of the State of New York?

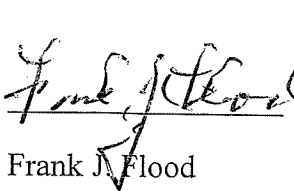
With the public water supply on Long Island being designated by the EPA as a **Sole Source Aquifer** and the State Sanitary Code requirement stating well head treatment only be considered as a measure of last resort, we believe the New York State Departments of Health and Environmental Conservation are required by law to stop this contamination from reaching our supply wells. Furthermore, these requirements should be enforced by the Governor's office especially if you read the next to last paragraph regarding the *Proposed Remedial Action Plan* (PRAP). Based on the complete ineffectiveness of OU2 (as confirmed by the *Navy Optimization Report*) and with the recent release of the Draft Feasibility Study Report for OU3 (FS), the Massapequa Water District brought together three of the affected water districts (Bethpage, South Farmingdale, and Aqua NY) to add significant numbers of citizens opposed to the Departments cleanup efforts. The four water districts have jointly followed state protocol and voiced our concerns in opposition to the highly ineffective state plan. To assist with moving the process forward we have offered a less expensive and more stringent cleanup requirement than your Department of Environmental Conservation and Department of Health have even considered.

You, as Governor, must consider that the NYSDOH has received copies of every letter and report sent to the NYSDEC regarding the OU3 cleanup. In the next to last paragraph of the attached DOH letter, we must wonder where the department stands regarding OU3. The NYSDOH has received copies of our objections to the FS, they have been provided with the letters in opposition sent to the NYSDEC, they have participated in the Senator Schumer committee meetings and telephonic communications and yet they are waiting for the draft plan (OU3 PRAP) before commenting on the health risk issues. MWD would direct their attention to both Commissioner Martens and Deputy Commissioner Leff both of whom have been in constant communication with MWD over the past nine months regarding this issue. We have directly indicated to the NYSDEC that we will not and cannot agree with anything other than immediate cleanup and containment of the OU 3 plume and the containment of the remaining groundwater contamination. Where is the NYSDOH in supporting this critical health cleanup rather than acquiescence to the NYSDEC position on wellhead treatment?

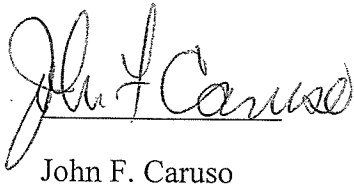
Immediate action is required since every day that goes by with no effective action the well-being of the citizens south of the Bethpage Grumman site may reach the point of no return. As far as the health issues, the technical issues, the cost issues, and the fact that this massive highly toxic plume will eventually progress to and contaminate the Great South Bay continues to fall on deaf

ears. Based on the ineffectiveness of the NYSDEC and NYSDOH in protecting the environmental health of the public we serve, we respectfully urge you to take immediate action on this critical health issue.

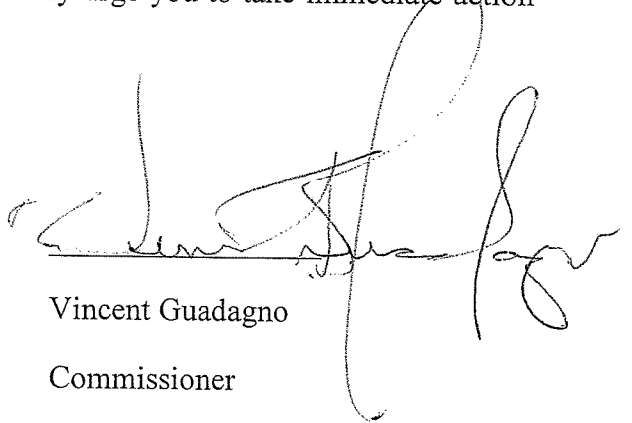
Sincerely,



Frank J. Flood
Commissioner



John F. Caruso
Commissioner



Vincent Guadagno
Commissioner

- Cc: Senator Charles Schumer
State Senator Fuschillo
Assemblyman Joseph Saladino
South Farmingdale Water District
Bethpage Water District
Aqua NY Water Company

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

August 19, 2011

Massapequa Water District
Board of Commissioners
84 Grand Avenue
Massapequa, New York 11758

Dear Commissioners:

This letter is in response to your July 25, 2011 letter to Governor Andrew M. Cuomo, and your May 23, 2011 letter to Dr. Roger Sokol of the Bureau of Water Supply Protection, regarding concerns related to the plume emanating from the Grumman and Navy sites in Bethpage and its potential impact on Massapequa Water District wells.

With respect to well head treatment for public water supplies, the Department of Health agrees that preventing contamination of drinking water wells is preferable to well head treatment. However, we also know that well head treatment is an effective, proven method to provide drinking water that meets drinking water standards. The fact that many wells in Nassau County are being successfully treated using well head treatment is evidence of the effectiveness of this approach.

We share your concern that future changes to federal drinking water standards for volatile organic chemicals could pose new challenges to water systems that have to treat contaminated groundwater. While this bears watching, changes to the standards will not be in place for several years and it is unknown what changes will be promulgated, if any. We do know that the technologies already available for removing these contaminants are proven effective and robust. These technologies are being successfully used to treat drinking water at many locations, including wells currently impacted by the Grumman-Navy Yard plume. This knowledge gives us confidence that the technologies can remain effective if the drinking water standards are revised.

As noted in a March 2, 2011 letter from the Department to Massapequa Water Superintendent Mr. Stan Carey, we understand that the water district is in a position where it cannot control the contaminant plume and must depend on other parties to perform investigations and to report the findings of these investigations. The efforts that Massapequa Water has made, and is continuing to make, demonstrate that the utility and its administrators and operators are making diligent efforts to protect its source water quality and its customers from the threat of contamination.

For over twenty years, the New York State Department of Health has been involved in characterization and remediation activities at the Navy-Grumman site. As detailed in the attachment, since last September, our staff has participated in several meetings convened by Senator Schumer, and are familiar with the findings and recommendations from the "Remedy

Optimization Team Report for the Bethpage Groundwater Plume Remedy” prepared by the Navy's Technical Team for Optimization of the Bethpage Plume Remedy, which concluded that the general strategy of on-site source containment and off-site plume monitoring has been successful in reducing the impacts to down-gradient public supply wells, and acknowledged that known off-site groundwater contamination hot spots need to be effectively contained to reduce future impacts to the down-gradient aquifer. Furthermore, the team also recommended conducting an evaluation of the technical and economic feasibility of plume containment at its leading edge and consideration of other alternatives.

Currently, the NYSDEC is preparing a Proposed Remedial Action Plan (PRAP) for Operable Unit (OU) 3, which includes the most easterly plume emanating from the Bethpage Park area. The OU 3 PRAP will incorporate a number of the recommendations outlined in the Optimization Report. The draft plan is expected to be released for comment prior to the end of the summer.

The New York State Department of Health has and will continue to work with Federal, State and local agencies, and with the water districts to determine the most appropriate actions that will need to be taken to address the groundwater plume and to protect the public water supply wells from further contamination. My staff will continue to stay involved in remediation activities. Please contact Mr. Steven Bates, Acting Director of the Bureau of Environmental Exposure Investigation at 518/402-7860 if you have additional questions about the proposed remedy.

Sincerely,



Howard A. Freed, M.D.
Director
Center for Environmental Health

cc: S. Bates

As you know, at your request Senator Schumer convened a meeting which included representatives from USEPA, USGS, NYSDEC, NYSDOH, Nassau County DOH, Northrup Grumman, Department of the Navy and representatives from each of the affected water districts, including Massapequa. At this meeting, you presented the concerns as discussed in your letter: impact of upgradient public water supply wells, the continued migration of the plume towards the Massapequa wells, and the groundwater modeling used by Northrup Grumman to predict groundwater contaminant migration. I also understand your position that wellhead treatment for Volatile Organic Chemicals (VOC) contamination is not acceptable to the Massapequa Water District.

Senator Schumer directed the Federal agencies (USEPA and USGS) to evaluate the groundwater plume modeling used to aid in development of the groundwater remedy for the off-site plume, and convened a new advisory committee, the Southeast Nassau Water Committee, to address technical issues and concerns raised by the water districts. Senator Schumer also expressed concern with the selected remedies and asked for a full review of the cleanup plans.

The USGS in cooperation with the USEPA prepared the report "*The Simulation of Groundwater Flow in a VOC-Contaminated Area near Bethpage, Nassau County, New York – A Discussion of Modeling Considerations.*" The report concluded that the way the current model is being utilized ignores information on temporal variation of several factors such as: public-supply pumping; groundwater discharges from systems remediating VOC plumes; recharge and precipitation rates; and water levels and streamflows. This modeling approach also ignores the potential for future variation in the above factors. The discussion noted that consideration of transient phenomena such as pumping cycles, redirection of containment system waters for industrial use, and climate change scenarios may help formulate future hypothetical simulations. It was also noted that public domain computer programs, USGS guidance reports on transient state calibration and uncertainty methods, and additional local and regional datasets are available to gain additional confidence in model evaluations and better judge their limitations.

As an outcome of Senator Schumer's meeting, the Navy convened a Remedy Optimization Team, made up of independent nationally recognized experts in the environmental remediation field. The team was established to evaluate the effectiveness of previous and ongoing remedies, evaluate the effectiveness of the current monitoring well network, and provide review of the USGS/USEPA evaluation of the Northrup Grumman groundwater modeling.

The "*Remedy Optimization Team Report for the Bethpage Groundwater Plume Remedy*" prepared by the Navy's Technical Team for Optimization of the Bethpage Plume Remedy concluded that the general strategy of on-site source containment and off-site plume monitoring has succeeded in reducing the impacts to down-gradient public supply wells. However, the Technical Team acknowledged that known off-site groundwater contamination hot spots need to be effectively contained to reduce future impacts to the down-gradient aquifer. The Technical Team agrees with the general assessment of the USGS's technical report and added that some of the noted modeling inadequacies can be addressed by improved modeling techniques, but that inherent limitations of any modeling effort at this large and complex site are likely to remain. The Technical Team recommended that the off-site monitoring network needs to be augmented to better quantify hydrogeologic parameters critical for improved groundwater flow modeling, to

better evaluate the on-site remedial measures currently in place, to better evaluate contributions to the plume from other non-Navy, non-Northrop Grumman Corporation sources, to better understand the overall plume's eastern and western boundaries and its leading edge, and to better monitor the plume's progress beyond its current leading edge. The Technical Team also recommends that an evaluation be conducted of the technical and economic feasibility of plume containment at its leading edge and of other alternatives, and that a comprehensive conceptual site model for all off-site groundwater contamination be developed, kept updated and be used as a dynamic tool to guide each successive monitoring, modeling, and treatment step.

Currently, the NYSDEC is preparing the Proposed Remedial Action Plan (PRAP) for Operable Unit (OU) 3, which includes the most easterly plume emanating from the Bethpage Park area. The OU 3 PRAP will incorporate a number of the recommendations outlined in the Optimization Report. The draft plan is expected to be released for comment prior to the end of the summer.