SIVE PAGET & RIESEL P.C.

November 17, 2015

VIA OVERNIGHT MAIL

Basil Seggos, Acting Commissioner
Mark Gerstman, Deputy Commissioner
Eugene Leff, Assistant Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-1011

Re: Chapter 543 Report

Gentlemen:

Please substitute the enclosed letter relating to Chapter 543 for our letter of November 12, 2015 in order to correct a clerical error on page 6 of that letter. The letters are otherwise identical, except that we have copied two additional parties on the enclosed version.

Respectfully,

Daniel Riesel

Robert Schick
Director of Division of Environmental
Remediation DEC

Edward Hannon

November 17, 2015

VIA OVERNIGHT MAIL

Basil Seggos
Acting Commissioner
New York State Department of
Environmental Conservation
625 Broadway
Albany, NY 12233-1011

Re: Chapter 543 Report

Dear Commissioner:

We represent Northrop Grumman Systems Corporation ("Northrop Grumman").

Northrop Grumman requests that the New York State Department of Environmental Conservation ("Department") provide a transparent public process for the creation of the report required under Chapter 543 of the Laws of New York of 2014. This law provides, *inter alia*, that the Department "shall create and deliver to the state legislature a report" that "must focus on the utilization of hydraulic containment and state of the art remediation practices to remove...contaminants without utilizing wellhead [sic] treatment...." (Sections 1 and 2 of Chapter 543). The legislature did not specify how the Department was to "create" the report, although the Sponsor's Memo accompanying the Bill concludes that there will be no fiscal implication "[a]s DEC staff can compile the data required for the report from data they have already collected on this subject."

A question left unanswered in Chapter 543 is the nature of the process for creating the report, aside from the Department's compilation of existing data. The resolution of this issue may have particular importance, as the existing data indicates that "hydraulic containment" or "full plume containment" is not feasible. For example, the Department's Record of Decision for Operable Unit 2 ("OU2 ROD") concluded: "it is not economically or technically feasible to contain and treat all the contaminated groundwater that has migrated from the Northrop Grumman and NWIRP sites to ground water quality treatment standards." (OU2 ROD at 27-28). More recently, in 2011, the Navy convened a distinguished technical group to evaluate groundwater remedial options, partially in response to a request from Senator Schumer and the Southeast Nassau Water Committee. The report produced by that group reached a similar conclusion to the OU2 ROD determination: aquifer clean up that would obviate the need for wellhead treatment is "unachievable within a reasonable time frame, even with the benefit of unlimited economic resources." (Remedy Optimization Team Report for the Bethpage Groundwater Plume Remedy at 11). As a follow up to the optimization team report, the Navy's consultants again focused on evaluating the feasibility of hydraulic containment in the Navy's 2012 "Study of Alternatives for Management of Impacted Groundwater at Bethpage" ("Alternatives Study").

The Alternatives Study indicates that hydraulic containment might delay impacts to 15 currently unimpacted downgradient wells by 5-10 years, but would not eliminate the impacts to those wells. Further, the Alternatives Study indicates that the complex geologic setting would limit the reliability and effectiveness of a plume containment approach, resulting in unpredictable migration of contaminants bypassing the extraction system and eventually

impacting downgradient supply wells. The Alternatives Study concluded that attempting hydraulic containment would not prevent VOCs from reaching downgradient water supply wells.

Northrop Grumman's technical experts agree with the main conclusions in the Alternatives Study, and they are prepared to submit additional supporting information to that effect in writing as well as at a public hearing. Some of their observations regarding endeavors to achieve hydraulic containment include the following:

- Notwithstanding the impracticability of a full plume containment approach, it could not be implemented in a timely fashion because 10 years or more would be required to conduct additional investigations and modeling, complete remedial designs and permitting, negotiate long-term access agreements, and construct the various components of the remedial system.[1]

- Attempting full plume containment would result in extracting large volumes of groundwater, which would likely influence local hydrology in negative, unpredictable ways, such as reducing the amount of water available to water suppliers and inducing saltwater intrusion.

- Extraction of large volumes of groundwater could induce movement of other contaminant plumes in the area (e.g., Liberty Finishing Site, Old Bethpage Landfill, drycleaners) toward public supply wells.

- If the equipment and infrastructure needed to attempt a full plume containment system (e.g., the theoretical design in the Alternatives Study includes two treatment plants, 20 extraction wells, 20 reinjection wells, and miles of pipeline) were installed in the densely populated Long Island communities, its construction would have substantial negative effects on local residents and commerce (e.g., increased truck traffic, dust, noise, and disruption of normal traffic and access to businesses).

Northrop Grumman has been conducting an extensive investigation and remediation of releases associated with the former Grumman and United States Navy facilities at Bethpage,

---

[1] The Navy recently estimated that 7 years would be required to plan, design, and construct a small-scale groundwater remedial system to address a portion of the regional plume, consisting of two wells, a treatment plant, and an existing recharge basin. By comparison, implementing an extensive plume containment system would likely take in excess of 10 years.

New York in cooperation with the Department and the Navy. A considerable aspect of the Bethpage remedial work relates to protection of downgradient water supply wells, which have enabled water districts to provide potable water to their customers. An important element of this protection, as specified in the Department's OU 2 ROD has been wellhead treatment, which has consistently produced safe potable water. Wellhead treatment is not only a key component of the Bethpage groundwater remediation, but is a key component of numerous other groundwater remediation projects throughout Long Island.

The current remedial approach to the regional groundwater, which is based on substantial work undertaken in cooperation with the Department and the Navy, might be contrasted to the recent Massapequa Water District ("MWD") Plan for full containment, which adds nothing significant to the existing data. The MWD Plan appears to be based on a remedial alternative that was analyzed and then questioned in the Alternates Study. Moreover, the MWD Plan:

- Does not recognize the attributes and practical realities of the current approach, which effectively utilizes wellhead treatment.
- Exaggerates the predicted regional plume compared to what historical and current monitoring data indicates and, thus, implies that a greater number of supply wells could be impacted.
- Does not include a plan or costs associated with monitoring the effect of pumping on groundwater quality or viability of the aquifer south of the extraction wells.
- Is not consistent with green remediation principles of DER-31, whereas wellhead treatment would be less disruptive to water resources, consume less energy, and produce less waste.

The MWD Plan actually illustrates the impractical aspect of hydraulic containment because a key element of the proposed plan, the acquisition of property to accommodate large treatment plants, although clearly a problem in a congested area, is not discussed, casting serious doubt on the viability of this approach.

Chapter 543, Section 3, requires the Department to explain the Report's conclusions on essentially a remedy selection process. That requirement would obviously involve the remedy selection criteria established by the Department's existing regulations and the National Contingency Plan ("NCP"). Here, the hydraulic containment remedy would have to be compared with existing methods of protecting potable water sources. In this regard:

- The current wellhead treatment and source control approach is highly reliable and uses state-of-the-art technologies; that is, groundwater recovery wells to extract impacted groundwater and treatment using air stripping, granular activated carbon, and other polishing technologies. In contrast to MWD's theoretical full plume containment system, the current approach strategically and holistically addresses the issue.
- Wellhead treatment systems are considered by the various Nassau County water districts and NYSDOH to be protective of public health. As of 2012, approximately 185 public water supply wells in Nassau County were being treated at the wellhead for VOCs (H2M 2012).
- Wellhead treatment system design and construction is straightforward, does not require acquisition of additional real estate, would not disrupt the local community, and could be constructed in a much shorter time frame.

A public process might elicit new data that would address the issue of whether a hydraulic containment remedy, or the conceptual plan described in the Alternatives Study or the MWD Plan, would run afoul of the remedy selection procedures set forth at 6 NYCRR Part 375 and the NCP, at 40 CFR § 300.430

The DEC regulations at 6 NYCRR 375-1.8(f) set forth nine criteria for the selection of an appropriate remedy. As described below, full hydraulic containment would not meet at least four of those criteria:

> (f)(3) Long-term Effectiveness and Permanence. As indicated above, the full hydraulic containment remedy only postpones, rather than completely stops, the groundwater plume from reaching the downgradient public supply wells and therefore is not effective over the long term and therefore inappropriate under this criterion. *See* DER-10 at 132; 40 CFR § 300.430(e)(9)(iii)(C). Factors for evaluating long-term effectiveness include the extent of remaining contamination and

the reliability of controls to accomplish the cleanup objective, which militate against selecting hydraulic containment.

(f)(5) Short-term Impact and Effectiveness. The full hydraulic containment remedy fails to mitigate against short-term adverse impacts. *See* DER-10 at 133; 40 CFR § 300.430(e)(9)(iii)(E); US EPA, A Guide to Selecting Superfund Remedial Actions (1990). As indicated above, the full hydraulic containment remedy would undoubtedly take a decade or more to implement and begin operation. In the meantime, that remedy would present adverse impacts to the community and the environment associated with the construction of the expansive off-site groundwater remedial systems necessary for hydraulic containment (e.g., noise, dust, disruption of traffic and commerce).

(f)(6) Implementability. Full hydraulic containment raises substantial issues relating to technical and administrative difficulties in implementing this remedial action. See DER-10 at 133; 40 CFR § 300.430(e)(9)(iii)(F). These problems have been extensively described in the aforementioned studies. Such a remedy would also face substantial difficulty in acquiring land for the installation of off-site remedial facilities necessary for implementation. *See, e.g.,* DEC, Record of Decision for the Unisys Corporation Site: Operable Unit Number 02: Offsite Groundwater (December 2014) (finding that certain alternatives considered faced difficulty in implementability due to challenges in gaining access to multiple off-site properties that would be required for construction of remediation systems).

(f)(7) Cost Effectiveness. This criterion addresses the DEC's obligation to select the most cost effective remedy from amongst equally effective remedial actions. *See* DER-10 at-133; 40 CFR § 300.430(e)(9(iii)(G)). Even assuming, *arguendo,* that full hydraulic containment would protect water users to the same extent as would wellhead treatment, it is clear that because of the astronomical costs, full hydraulic containment would fail this test by a significant margin.

Although unlikely, a public process might develop new data that would indicate that hydraulic containment is consistent with Part 375 and the NCP, but such information would be examined and evaluated in the public process.

In light of the divergent opinions, we urge transparency and, thus, an opportunity for public comment on the Department's draft report, thereby ensuring that the final report considers

all appropriate data and factors. Without an opportunity for public comment, the report required by Chapter 543 would lack validity and be vulnerable to challenge. Moreover, a public discussion of the relevant data and science would go a long way towards reaching a common understanding of the groundwater situation, and advancing a scientific approach to the problem. As one commentator noted: "[e]ffective public participation can bring more facts to the table, ensure more thoughtful decision making and, through well-designed permits, increase the amount of data available...." 21 Pace Envtl. L. Rev. 243, 249 (2004); *Cf.* Glen Head-Glenwood Landing Civic Council v. Oyster Bay, 88 A. D. 2d 484, 494 (2nd Dept. 1982), *See also* Spyke, Public Participation in Environmental Decision Making, 26 Boston College Envt. Aff.Rv.2 (1999).

Accordingly, it would be in the public interest to make the draft report subject to public review and comment. The traditional method of accomplishing that objective is for DEC to publish a draft report and invite comments from the public and sister agencies. *Cf.*, Hoffman v. Town Bd., 255 A.D.2d 752, 753 (3rd Dept. 1998). Further public involvement might involve a public hearing on the draft report. Such a public process would be particularly beneficial in producing a final report that both meets the legislative intent and which has gained the public confidence that it is a document based on sound science.

We note that the Department recently met with representatives of the downgradient water districts, their attorneys, and elected representative to discuss the forthcoming report. Neither Northrop Grumman nor the Navy was invited to this meeting, despite both of these entities having a vast repository of knowledge with respect to the regional hydrology and groundwater quality. We view that meeting with grave concern because it would appear to be an *ex parte* attempt to influence the outcome of what should be an objective document and further illustrates

the need for an open and transparent public process. Northrop Grumman requests that it be afforded a similar opportunity to comment on the draft report and, thus, urges an open and transparent public process.

In conclusion, the "record' does not support Chapter 543's directive that hydraulic containment be treated as the putative regional groundwater remedy nor does it suggest that such a remedy would pass muster under the relevant remedy selection criteria. Moreover, we would note that a closed process will not be consistent with the legislative intent in enacting Chapter 543, under the present circumstances. Accordingly, Northrop Grumman proposes that the Department publish its draft report and provide for a 30-day public comment period. This process would not unduly delay the Department in producing a fully vetted report for the legislature, but should ensure a more-thoughtful and comprehensive report.

Respectfully,

Daniel Riesel

Mark Gerstman
Deputy Commissioner

Eugene Leff
Assistant Commissioner

Robert Schick
Director of Division of Environmental
Remediation DEC

Edward Hannon