

Analysis within DEP's Bureau of Environmental Planning and Analysis. I have been with DEP since October 15, 2003. My responsibilities at DEP include overseeing environmental reviews, performing technical review and project management oversight for the Department's capital projects, conducting facility siting analysis, and environmental permit support for the Department's water supply, wastewater and stormwater infrastructure projects. This affidavit is based on my personal knowledge, review of City records, and conversations with City employees and Department consultants and contractors.

2. I submit this affidavit in opposition to petitioners' request for declaratory and injunctive relief. As set forth in their Order to Show Cause, petitioners seek a declaratory judgment (1) ordering DEP to submit an environmental impact statement ("EIS") before beginning blasting at Jerome Park Reservoir; (2) ordering DEP to submit an EIS before beginning the carting of materials from the Jerome Park Reservoir; and (3) for such other and further relief as this Court deems equitable, just and proper. Petitioners also object to the determination of the New York City Department of Buildings ("DOB") that DEP water tunnels, including the shafts at the Jerome Park Reservoir, do not require building permits under the City Charter. On July 29, 2008, the Court issued a Temporary Restraining Order enjoining DEP from conducting any surface blasting at Jerome Park Reservoir, and from carting materials in or out of the Jerome Park Reservoir site in association with any blasting, pending a hearing and determination on the Order to Show Cause.

3. As further explained below, petitioners' claims are without merit and should be denied. First, petitioners' objections to surface blasting in connection with construction of the Shaft and Meter Chamber ("SMC") at the Jerome Park Reservoir / Harris Park Annex site ("the site") are moot because DEP has decided to proceed with mechanical excavation (*i.e.*, hoe ramming) for the limited excavation work associated with the construction

of two treated water riser shafts and a portion of the footprint of the SMC that will be performed under the current awarded contract at the site. DEP has determined that although it continues to believe that blasting is likely to be less impactful than hoe ramming, proceeding with hoe ramming for the work that is the subject of the TRO will enhance DEP's ability to maintain the progress of this critical water supply project. Moreover, as the predicted noise, traffic and air quality impacts associated with hoe ramming are consistent with the potential impacts disclosed in the 2004 Final Supplemental Environmental Impact Statement ("FSEIS") for the Croton Water Treatment Plant, no additional environmental review is required prior to beginning this work. Finally, petitioners' objections to additional future work that would consolidate the shaft and meter chambers at the site are premature, as the contract for that work is currently under evaluation has not yet been awarded. DEP is currently in the process of assessing the potential impacts of all of the contemplated changes to that additional future work, including a possible change in excavation method.

A. Project Background

4. Petitioners' application for declaratory and injunctive relief concerns work occurring in connection with construction of the City's Croton Water Treatment Plant in the Bronx, an enormous and complex project that is both integral to the future viability of the City's Croton water supply system and mandated under federal law and a federal consent decree with the United States Environmental Protection Agency and the New York State Department of Health. The main Treatment Plant structure is being constructed at the Mosholu Golf Course site in Van Cortlandt Park ("Mosholu"), and will have the capacity to treat 290 million gallons of drinking water per day. See Statement of Findings for the Siting of the Croton Water Treatment Plant ("Findings Statement"), submitted as City Exhibit 1, at 1.

5. The City obtains its drinking water from three upstate water supply systems. DEP operates those water supplies for the City and is charged by the City Charter with responsibility for ensuring that City residents receive safe and healthy drinking water. The Croton system, located in Westchester and Putnam counties, is the oldest and smallest of the City's three water supply systems. On average, the Croton system provides ten percent of the City's daily water demand of approximately 1.1 billion gallons, but as needed, particularly during drought conditions, can provide up to thirty percent of the daily demand. When completed, the Croton Water Treatment Plant will provide filtration and disinfection of the Croton system water provided to New York City residents and will ensure that the water from the Croton system will be able to meet state and federal drinking water quality standards.

6. DEP began construction work on the Water Treatment Plant in 2004, and work has been on-going since that time. Under the federal consent decree, which has been ordered by the United States District Court for the Eastern District of New York, DEP is required to complete construction of the Plant and all related facilities necessary to its operation by May 1, 2011, and to commence operation of the Plant by October 31, 2011. The consent decree sets forth milestones for completion of various elements of the Plant and failure to meet those milestones would result in the imposition of substantial penalties.

7. In addition to the main Treatment Plant structures at the Mosholu site, the Croton project includes construction of various off-site tunnels, shafts, and chambers, including a new raw water conveyance system that will deliver raw water from the Jerome Park Reservoir to the new Treatment Plant, and a treated water conveyance system will transport water back to the City's distribution system.

8. Prior to commencement of construction, the Water Treatment Plant project underwent a full environmental review under the State Environmental Quality Review Act ("SEQRA") and New York City Environmental Quality Review ("CEQR") procedures. (Portions of the FSEIS, including Section 8.2 of the FSEIS, which describes the Jerome Park Reservoir and Harris Park Annex site work and analyzes its potential impacts, are submitted as City Exhibit 2. The entire FSEIS is available at http://www.nyc.gov/html/dep/html/environmental_reviews/crotoneis.shtml.) After it was issued, four separate suits were brought to challenge the FSEIS, and all four suits were dismissed after each court found that the FSEIS complied with SEQRA and CEQR.

B. Work at the Jerome Park Reservoir Site

9. Jerome Park Reservoir is located in the Bronx on a 110.5-acre site owned by the City and under the jurisdiction of DEP. FSEIS Section 8.2 at JPR 1. Before construction began for the Croton Water Treatment Plant, the site was used as an open finished water reservoir as part of the City's water supply system, storing chlorinated water just prior to its distribution to consumers. FSEIS Section 8.2 at JPR 1. Following construction of the Croton Water Treatment Plant, Jerome Park Reservoir will be used as a raw water reservoir, where untreated water will be stored prior to treatment at the Plant. The Harris Park Annex site lies between the Reservoir and Goulden Avenue and is under the jurisdiction of the New York City Department of Parks and Recreation, but it is not mapped as parkland.

10. The work at the Jerome Park Reservoir and the adjacent Harris Park Annex involves construction of new water distribution facilities and connections, including a new shaft and meter chamber to connect two new underground treated water tunnels. The new underground water tunnels will carry water from the Treatment Plant to the water distribution system. This work is necessary for operation of the Croton Water Treatment Plant.

11. Several new and rehabilitated underground structures are needed at the site as part of the Water Treatment Plant project to convert its use from a finished water reservoir to a raw water reservoir that directs water to the Treatment Plant. As concerns this proceeding, this work includes the construction of two treated water riser shafts adjacent to the Reservoir to enable connections from the Croton Water Treatment Plant to the water distribution system. As explained in a Technical Memorandum dated August 2008 (submitted as City Exhibit 3), the riser shafts and a portion of the SMC footprint are being constructed as part of the CRO-313 contract. Work under that contract commenced on August 23, 2006 and is currently on-going at the site, subject to the TRO that currently enjoins surface blasting at the site.

12. Additional work related to the SMC is also planned under a separate contract, CRO-312OS. CRO-312OS has not yet been awarded, and work under that contract is not expected to begin until approximately January 2009. The work under CRO-312OS includes construction of one consolidated SMC in the Harris Park Annex, and is expected to begin in January 2009 with the construction of a noise attenuation wall. DEP is currently evaluating whether or not there are new potentially significant environmental impacts, as compared to the impacts disclosed in the FSEIS, from a number of changes to the design and construction plans for this aspect of the project, including a possible change in the method of rock excavation for the SMC under CRO-312OS. DEP expects to finalize that analysis before the end of the year.

C. Potential Impacts from Construction of the Water Riser Shafts and a Portion of the SMC Footprint at the Jerome Park Reservoir Site Under CRO-313 As Compared to the Potential Impacts Analyzed in the 2004 FSEIS

13. The 2004 FSEIS included a highly detailed, comprehensive and thorough analysis of potential environmental impacts for all aspects of the Croton Water Treatment Plant project, in accordance SEQRA/CEQR and the policies and procedures set forth in the New York City *CEQR Technical Manual*, which provides guidance to City agencies, project sponsors and

the public on CEQR review procedures and methods. With respect to the work planned for the Jerome Park Reservoir site, the FSEIS analyzed the potential impacts of the planned construction work in several categories, including land use, zoning, public policy, neighborhood character, and visual character; socioeconomic conditions; historic resources; traffic and transportation; air quality; noise; hazardous materials; water resources; infrastructure and energy; solid waste; and public health.

14. The 2004 FSEIS concluded that the construction of the water supply infrastructure at the site would not alter the existing water supply use and character of the Reservoir complex or adversely impact the character of the surrounding community. The construction assessed in the 2004 FSEIS resulted in a low volume of truck trips per hour and would thus not result in a significant impact to traffic in the project area. The 2004 FSEIS also concluded that project-related emissions of particulate matter (PM), both from fugitive dust and mobile sources (*i.e.*, construction traffic), would not be significant. FSEIS at JPR 176. The noise levels predicted in the 2004 FSEIS during construction would be readily noticeable, but due to their short-term nature were considered to be temporary and not significant. In addition, DEP included noise attenuation measures such as noise barriers to mitigate the predicted noise impact during construction. FSEIS at JPR 179.

15. The 2004 FSEIS for the Croton Water Treatment Plant did not assess the use of blasting to excavate the Shaft and Meter Chamber at Jerome Park Reservoir. Rather, the FSEIS assumed that the tunnel shafts would be constructed using a mechanical excavation method known as raised bore drilling and that much of the excavated spoils from the tunnel shafts would be trucked through the tunnels and removed at the site of the Treatment Plant. See FSEIS Table 8.2-1 & Section 8.2.1.7 at JPR 11.

16. In order to evaluate whether the changes to the CRO-313 contract work for the SMC would alter the construction impact analysis and conclusions disclosed in the 2004 FSEIS for the site, DEP prepared a Technical Memorandum. See City Exh. 3. This Memorandum provides a summary of the analyses of potential impacts associated with the excavation work for the shafts and a portion of the SMC footprint under CRO-313 in the impact categories of noise, traffic and air quality, the environmental impact categories that warranted additional analysis to determine whether or not they could potentially result in new significant impacts that were not disclosed in the FSEIS.

17. The updated noise analysis includes new and more accurate details about the proposed construction that were not available at the time the FSEIS was prepared. In a project of this scope, magnitude, and duration, as the work progresses over time, the means and methods of construction are more fully developed. These details include an updated construction equipment list, updated design and construction plans, the recently enacted New York City Construction Noise Rules ("CNR"), and the completion of a 20-foot high noise barrier around the construction site. The predicted noise levels from the proposed construction work were revised reflecting the updated equipment list and allowable noise levels from the CNR for the various construction equipment. The noise analysis was completed for the nearest receptor S1, the Bronx High School of Science. All other sensitive receptors would experience lower noise levels.

18. Based on this analysis, DEP has determined that, without noise attenuation (*i.e.*, the existing noise barrier at the site), resulting noise levels projected for mechanical excavation would be higher compared to those presented in the FSEIS. However, because the 20-foot high noise barrier will reduce the noise by at least 10 dBA, the updated noise levels

associated with mechanical excavation are consistent with the noise levels projected in the FSEIS.¹ Therefore, the projected noise impact that would result from the proposed construction work is consistent with the impact disclosed in the 2004 FSEIS.

19. The Technical Memorandum also addresses the predicted traffic impacts from construction trucks and workers traveling to and from the site during the excavation work for the shafts and SMC footprint work under CRO-313. Under the updated design, there would be 8 truck trips during the construction traffic peak hour, which is an increase from the 5 truck trips projected in the FSEIS. There will be fewer on-site workers for this work than were reported in the FSEIS (15 workers now versus 21 workers predicted in the FSEIS). The total number of automobile and truck trips during the construction traffic peak hour would be comparable to those reported in the FSEIS. A detailed traffic analysis was not prepared because the low induced traffic volumes were beneath traffic impact thresholds (50 vehicular trips) provided in the *CEQR Technical Manual*. Thus, the analysis presented in the Technical Memorandum confirms the conclusion of the FSEIS that the total project-induced traffic would not significantly impact traffic or adversely affect any intersections.

20. Finally, with respect to air quality, the proposed work at the Jerome Park Reservoir site will comply with the City's Local Law 77, which requires the use of ultra low sulfur diesel fuel and best available technology to control particulate emissions on diesel powered equipment greater than 50 horsepower. In addition, the fugitive dust emissions will be controlled at the site by spraying water on the affected surfaces. Given these controls, the

¹ DEP's noise consultant estimated the 20-foot high noise barrier could effectively reduce the construction noise level by 16 dBA. However, the analysis presented in the Technical Memorandum conservatively assumed only a 10 dBA reduction, which is typical of a 10-foot high noise barrier.

conclusion presented in the FSEIS that a significant air quality impact is not anticipated remains valid and a detailed analysis is not warranted. Experience with use of these emissions controls at the Mosholu site found that with the implementation of Local Law 77, the emissions from diesel exhaust were reduced by over 90 percent.

D. DEP Has Decided to Forego Surface Blasting for the CRO-313 SMC Footprint and Shaft Work at the Jerome Park Reservoir Site

21. As set forth in the August 2008 Technical Memorandum, DEP has decided to proceed with mechanical excavation—*i.e.*, hoe ramming—rather than surface blasting for the rock excavation work required at the site as part of the CRO-313 contract.² The decision to go forward with hoe ramming for this limited excavation work, which involves the removal of approximately 1,800 cubic yards of soil and only 375 cubic yards of rock and is currently estimated to last approximate 6 weeks using hoe ramming, will allow the work to proceed with minimal disruption and delay to the contract schedule.

22. DEP has engaged in blasting (under the supervision of the New York City Fire Department) at several of its construction projects at other sites in New York City, including at the site of the Water Treatment Plant at the Mosholu Golf Course in Van Cortlandt Park and at sites in Manhattan for Water Tunnel No. 3 since the completion of the 2004 FSEIS. DEP has had a successful record of blasting at these sites, generally finding that blasting may shorten the

² Consistent with the work described in the FSEIS, the two new underground tunnels at the Jerome Park Reservoir site will be connected using deep rock blasting and tunnel boring machines. See FSEIS at JPR 184 (disclosing that “[v]ibrations could occur due to rock drilling and deep rock blasting activities, and from tunnel boring machines”). DEP still plans to conduct this blasting work to connect the two tunnels, as part of the work under CRO-313. It is my understanding that petitioners’ request for injunctive relief only applies to surface blasting, and not to this previously disclosed deep rock blasting activity, which will occur approximately 100 feet underground and is necessary to connect the two tunnels underground.

duration of excavation work and result in fewer noise impacts to the surrounding community. Although DEP continues to view blasting as a viable excavation method for projects associated with construction of water supply infrastructure, in the interest of ensuring that the work remains on schedule with the consent decree, DEP has decided not to use surface blasting for the limited excavation work associated with the SMC footprint and shafts under CRO-313 at the site.

E. Petitioners' Remaining Claims

23. Petitioners' papers also appear to raise claims related to the future work planned under CRO-312OS. See Affirmation of Ezra Glaser, dated July 30, 2008, at ¶¶ 20-21. As noted above, DEP is currently evaluating whether or not there are new potential significant environmental impacts associated a number of changes to the design and construction plans under CRO-312OS, and work under that contract is not expected to begin until January 2009.³ Therefore, to the extent petitioners are seeking injunctive relief in this proceeding based on the work contained in CRO-312OS, such relief would be entirely premature. DEP will conduct a technical analysis of the proposed changes to the work under CRO-312OS before work begins in order to determine whether such changes may result in any new potentially significant adverse impacts that were not previously disclosed in the 2004 FSEIS. Until DEP makes a final determination on that issue, petitioners' claims related to that work are not ripe for review.

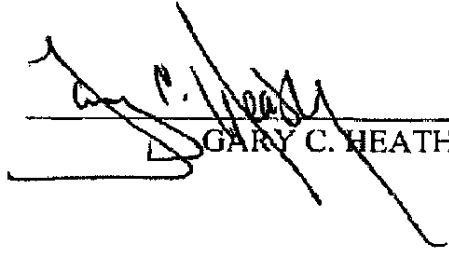
24. Finally, petitioners object to DOB's determination that the Croton Water Treatment Plant and the tunnels at the Jerome Park Reservoir site do not require a buildings permit and argue that this information was not disclosed during the environmental review. However, the FSEIS includes a section describing the permits and approvals necessary for the

³ Some additional shaft work under CRO-313, which is also not expected to begin until January 2009, is also being evaluated under this analysis.

proposed work at the Jerome Park Reservoir, including those required from agencies within New York City. FSEIS Section 8.2.4 at JPR 192. DOB permits are not listed as required in this section.

Conclusion

25. For the reasons set forth above, I respectfully request that the Court deny Petitioners' application for declaratory and injunctive relief.



GARY C. HEATH

Sworn to before me this
28th day of August, 2008.



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