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VIA USPS Priority Mail

Richard L. Tomer, Chief
Regulatory Branch
US Army Corps of Engineers
New York District
Jacob K. Javits Federal Building
New York, NY 10278-0090

April 14, 2009

Re: Public Notice Number NAN-2006-03113-WOR

Dear Mr. Tomer:

As a signatory to the 1997 New York City Watershed Memorandum of Agreement (MOA), and in keeping with our mission to protect the ecological integrity of the Hudson River, its tributaries, and safeguard the 2,000-square-mile New York City drinking water supply watershed, Riverkeeper has a demonstrated interest in issues that will affect water quality in the New York City Watershed. Accordingly, we offer the following comments on the above-referenced Army Corps of Engineers (the Corps) Public Notice, the application by RFB, LLC for authorization to discharge fill material into waters of the United States, including wetlands, in association with the construction of a 269-unit residential subdivision to be known as Kent Manor.¹

We urge the Corps to deny the applicant's permit application. As discussed in more detail below, the specific and cumulative impacts of the proposed activity on drinking water quality, public health and welfare, and water quality standards weigh heavily against issuing the permit pursuant to Section 404 of the Clean Water Act (13 U.S.C. § 1344).

I. Overview of Kent Manor and the Phosphorus-Impaired Croton Falls Reservoir

The proposed Kent Manor development would consist of a 273-unit condominium complex, a sports/recreation complex, servicing roads, parking lots, and a surface discharging waste water treatment plant in the Town of Kent, Putnam County, New

¹ The "Work Description" of RFB, LLC's application indicates Kent Manor is a 269-unit residential subdivision. *See* US Army Corps, Public Notice NAN-2006-03223-WOR, at 3. However, in review pursuant to the New York State Environmental Quality Review Act (SEQRA), the lead agency found it is a 273-unit condominium development. *See* New York City Department of Environmental Protection, Environmental Findings for the Kent Manor Project, April 30, 2007, *available at*, http://www.nyc.gov/html/dep/pdf/kent/km_findings.pdf.

York.² Stormwater runoff from approximately 103 acres of the 113-acre site (95%) flows into the phosphorus-restricted Croton Falls Reservoir.³ The proposed development would disturb 46 acres permanently, including the creation of 21 acres of impervious surfaces.⁴

The proposed Kent Manor development is located entirely within the New York City Watershed, an area that comprises only 4.2% of New York's lands yet serves as the source of *unfiltered* drinking water for over 9 million consumers. The Croton Falls Reservoir, to which Kent Manor's wastewater treatment plant and nearly all surface water would ultimately discharge, is located within the Croton System of the New York City Watershed. The Croton System serves as a source of *unfiltered* drinking water for almost 1 million people on an average daily basis, and upwards of 3 million during drought conditions.

A. Croton Falls Reservoir is Phosphorus Impaired

The New York State Department of Environmental Conservation has formally listed the Croton Falls Reservoir on its list of "impaired" water bodies, pursuant to Section 303(d) of the Clean Water Act, because this water body violates applicable New York State Water Quality Standards for phosphorus.⁵ This reservoir has been the subject of extraordinary and expensive efforts pursuant to the MOA to control phosphorus and other pollutants. The Croton Falls Reservoir is also subject to the Clean Water Act's "total maximum daily load" (TMDL) program for phosphorus.

The Croton Falls Reservoir, like other reservoirs in the New York City Watershed, is "eutrophic," having excess algae growth due to phosphorus discharges into the reservoir.⁶ Excessive algae growth impairs the taste and odor of reservoir water and depletes levels of dissolved oxygen in the reservoir's bottom waters, impairing aquatic life and releasing metals into the water.⁷ Eutrophic conditions also result in increased levels of organic carbon in the water.⁸ "Disinfection byproducts" form when the drinking water is later treated with chlorine before its distribution to consumers.⁹ The disinfection

² See See Final Supplemental Environmental Impact Statement (FSEIS), Kent Manor, April 18, 2007, Description of Proposed Action, available at, http://www.nyc.gov/html/dep/pdf/kent/km_description.pdf.

³ See FSEIS, at 3.1-5, available at, http://www.nyc.gov/html/dep/pdf/kent/km_surface_water.pdf.

⁴ See FSEIS, at 3.1-9.

⁵ See 6 NYCRR § 703.2.

⁶ See New York City Dep't of Env't'l Protection, Development of a water quality guidance value for Phase II Total Maximum Daily Loads (TMDLs) in the New York City Reservoirs, 2-4 (March, 1999) (hereinafter NYCDEP TMDL Report).

⁷ See NYCDEP TMDL Report, *supra*, at 7-9; Nat'l Research Council, Watershed Management for Potable Water Supply: Assessing the New York City Strategy, at 106-07 (2000) (hereinafter NRC Study).

⁸ See NRC Study, *supra*, at 2, 493-94.

⁹ See NYCDEP TMDL Report, *supra*, at 7-8; NRC Study, *supra*, at 5.

byproducts may increase the risk of cancer and early-term miscarriages in people drinking the water.¹⁰

Significantly, federal regulations require the Corps to consider the effects on public drinking water supplies in making the factual determinations and findings of compliance or non-compliance associated with its decision regarding 404(b) permits.¹¹

B. Importance of Wetlands and their Buffers in the New York City Watershed

In the Corps' recent final rule regarding compensatory mitigation for losses of aquatic resources, the Corps emphasized a "watershed approach" when selecting compensatory mitigation projects, requiring measurable and enforceable ecological performance standards and regular monitoring for this program.¹² The final regulations from this rule state: "Buffers may also provide habitat or corridors necessary for the ecological functioning of aquatic resources."¹³

In response to general comments regarding this rule, the Corps stated that: "We agree that wetland buffers often help ensure the long term viability of wetlands, and the rule promotes the use of such buffers."¹⁴ The Corps also stated that "[u]pland buffers...can provide substantial contributions to the ecological sustainability of aquatic resources within watersheds."¹⁵

The United States Environmental Protection Agency indicated in New York City's 2007 Filtration Avoidance Determination that "[w]etlands play a major role in watershed protection."¹⁶ Throughout the New York City Watershed, in riparian and floodplain areas, the transition zone between upland and aquatic ecosystems, wetlands "trap sediment, assimilate and transform nutrients," and perform other important functions.¹⁷ From a drinking water perspective, critical wetland functions include their ability to maintain good water quality in watercourses and reservoirs "and to improve degraded water."¹⁸ Wetlands and their buffers therefore serve an important purpose in controlling and mitigating phosphorus discharges to New York's drinking water reservoirs.

¹⁰ See NRC Study, *supra*, at 2, 5-6, 102-05, 109.

¹¹ See 40 CFR 230.50.

¹² Final Rule, Compensatory Mitigation for Losses of Aquatic Resources, 70 Fed. Reg. 19593, 19594 (April 10, 2008) (codified at 33 CFR 325 and 332).

¹³ 33 CFR 332.3(i).

¹⁴ Final Rule, Compensatory Mitigation for Losses of Aquatic Resources, 70 Fed. Reg. 19593, 19604 (April 10, 2008) (codified at 33 CFR 325 and 332).

¹⁵ Compensatory Mitigation for Losses of Aquatic Resources, 70 Fed. Reg. 19593, 19635 (April 10, 2008).

¹⁶ US EPA, 2007 NYC Final Filtration Avoidance Determination, July 2007, Section 4.8, p. 58.

¹⁷ NRC Study, at 74.

¹⁸ *Id.*

The National Research Council (NRC), in a landmark study of New York City's watershed protection programs, found that "[c]onstructed wetlands generally require large land areas and special design enhancements to achieve significant phosphorus removal."¹⁹ The NRC study also found that restored wetlands "are usually ineffective in long-term net phosphorus removal" and that they "may even increase phosphorus loadings under certain hydrological conditions."²⁰

Furthermore, the NRC study warned against reducing wetland buffers, primarily because wetlands sequester nutrients.²¹ This study concluded that "*it is essential* that terrestrial buffers be maintained maximally in the vicinity of wetlands" and that "buffer management for wetlands should be no different than for reservoirs and streams."²²

Thus, wetlands and their buffers play a critical role in processing phosphorus. All wetlands and their buffers within the Croton Falls Reservoir's drainage basin, such as those under consideration here, are therefore critically important to controlling the amount of phosphorus entering this impaired unfiltered drinking water supply reservoir.

II. Established Wetlands Will Not Function Without Adequate Buffers

The applicant's proposal to "establish" 2.26 acres of wetlands is woefully inadequate because 2.0 acres of these "wetland mitigation areas" contain no or extremely limited buffer zones. Therefore, while the proposal attempts to comply with the longstanding national goal of "no net loss" of wetland acreage, it violates this rule with respect to "no net loss" of wetland function.²³

The applicant proposes filling 0.81 acres of jurisdictional wetlands and establishing 2.26 acres of wetlands as compensatory mitigation.²⁴ The applicant has acknowledged that wetland functions include "fish and wildlife habitat, recreation, stormwater and flood control, and surface and ground water quality improvement."²⁵ As discussed previously, critical functions of the wetlands at issue include improving water quality of the phosphorus-impaired Croton Falls Reservoir.

¹⁹ NRC Study at 353 (internal citations omitted).

²⁰ *Id.*

²¹ *See* NRC Study, at 438.

²² *Id.* (emphasis added).

²³ *See* Final Rule, Compensatory Mitigation for Losses of Aquatic Resources, 70 Fed. Reg. 19593, 19594 (April 10, 2008) (codified at 33 CFR 325 and 332) (discussing "longstanding national goal of 'no net loss' of wetland acreage *and function*") (emphasis added).

²⁴ *See* US Army Corps, Public Notice NAN-2006-03223-WOR (Corps Public Notice), at 3.

²⁵ *See* Final Supplemental Environmental Impact Statement (FSEIS), Kent Manor, April 18, 2007, at 3.3-6, available at, http://www.nyc.gov/html/dep/pdf/kent/km_wetlands.pdf.

The applicant has acknowledged further that wetland buffers afford protection to wetlands.²⁶ In fact, water quality benefits of buffer areas include reducing thermal impacts (shade), nutrient uptake, providing infiltration, reducing erosion, and restoring and maintaining the chemical, physical and biological integrity of water resources.²⁷ NRC also found it “essential” that wetland buffers be maintained to the maximum extent in the New York City Watershed.²⁸

Nevertheless, the applicant has proposed disturbance to 6.35 acres of the state-regulated wetland buffer (Wetland C),²⁹ and has proposed wetland mitigation areas adjacent to Wetland B with little or no buffers at all.³⁰ In fact, over 100 border feet of proposed Mitigation Area A are sited abutting a proposed roadway, and another 100 border feet appear to be separated from a cul-de-sac and parking area by no more than 10 feet.³¹ In addition to proposed Mitigation Area A, proposed Mitigation Areas B, C, E, and G all appear to have inadequate buffers, with Mitigation Area G abutting Nichols Road for approximately 200 feet.³²

Impervious surfaces such as roads and parking lots impact water quality by increasing the volume and velocity of stormwater runoff and facilitating the delivery of pollutants into receiving waters. Stormwater scours pavement, transporting a multitude of pollutants including motor oil, engine coolant, brake linings, rust, nutrients, litter, animal waste, sand, salt, and other materials. Impervious surfaces also convey to wetlands and surface waters pesticides, herbicides, fertilizers, heavy metals and pathogens.

Vegetated wetland buffers provide transitional areas that intercept stormwater from upland habitat and impervious surfaces before it reaches wetlands. Buffers also filter sediment, pesticides, heavy metals and other pollutants from stormwater, and reduce nutrient loadings to wetlands by uptake in vegetation and denitrification, thereby protecting wetlands from excessive loadings and allowing them to perform similar functions without compromise. Buffers also function to store water and reduce peak runoff velocities during storm events and provide habitat for flora and fauna and corridors for wildlife to move between larger sections of habitat.

Water quality benefits are significant when protected buffers exceed the common minimum 100-foot width adopted by New York State and the New York City

²⁶ *See id.*, at 3.3-6.

²⁷ *See* USEPA, MODEL ORDINANCES TO PROTECT LOCAL RESOURCES, available at <http://www.epa.gov/owow/nps/ordinance/>

²⁸ NRC Study at 438.

²⁹ *See* FSEIS, at 3.3-9.

³⁰ *See* Corps Public Notice, Wetland Impacts and Mitigation Areas for development of Kent Manor, Sheets 3 - 5.

³¹ *See id.*

³² *See id.*

Department of Environmental Protection within the New York City Watershed. A survey of scientific literature by the Environmental Law Institute, specifically pertaining to thresholds applicable to land use decision-making, found that “land use planners should strive to establish 100-meter wide riparian buffers to enhance water quality and wildlife protection.”³³

Having acknowledged that buffers afford wetlands protection, the applicant then is also aware that the proposed establishment of 2.26 acres of mitigation wetlands having either insufficient buffers or no buffers whatsoever will impair the recognized functions of the wetlands. Not only is it counterintuitive to construct a mitigation wetland surrounded by a road, a parking lot and a cul-de-sac, but the resulting impairment of wetland functions negates such a proposal as a mitigation measure.

Even though the applicant proposes to establish wetlands at a replacement ratio of 2.26 to 0.81, the combined area of buffer-compromised Wetland Mitigation Areas A, B, C, E and G is 2.0 acres, leaving only 0.26 acres of adequately buffered mitigation wetlands. The applicant therefore has disguised a 0.26-acre wetland establishment as a nearly 3 to 1 replacement ratio when in fact the functions of 2.0 acres (88%) of the replacement wetlands will be impaired and those mitigation areas will likely fail to establish at all.

In addition, the applicant’s proposal to disturb 6.35 acres of Wetland C will impair the functions of that 7.1-acre state-regulated wetland.

For these reasons, the applicant’s “mitigation plan” is illusory because the only buffer zones for a majority of the mitigation areas are impervious surfaces. The applicant’s mitigation plan therefore results in a net loss of wetlands function.

A. Wetland B – Net Loss of Wetland Function

The applicant proposes to fill 0.5 acres of Wetland B permanently, filling permanently Wetland B’s upper portion and a 640-foot intermittent watercourse connecting Wetland B’s upper portion with the lower half to the south.³⁴ Significantly, Wetland B’s upper portion is very near the steep slopes of the parcel’s northern area.³⁵

The applicant’s mitigation area of 0.91 acres is inadequate because the applicant plans to site more than half of this area adjacent to impervious surfaces, including a road, cul-de-sac, and parking area.³⁶ Further, the applicant plans to have utility lines crossing this mitigation area.³⁷

³³ See ENVIRONMENTAL LAW INSTITUTE, CONSERVATION THRESHOLDS FOR LAND USE PLANNERS 20 (2003), available at http://www.elistore.org/reports_detail.asp?ID=10839.

³⁴ See Corps Public Notice, Sheets 3 and 4.

³⁵ See Corps Public Notice, Sheets 3 and 4.

³⁶ See Corps Public Notice, Sheet 3.

³⁷ See Corps Public Notice, Sheet 8.

Thus, the applicant plans to fill Wetland's B's northern portion and intermittent stream, and wants to mitigate this impact with constructed wetlands adjacent to impervious surfaces downstream from this permanent fill. This results in a net loss of wetland function because surface water flowing off the steep slopes, which Wetland B's upper portion contained previously, will now flow over impervious surfaces into a wetland with no or extremely limited buffer zones.

III. No Guarantee of Long-Term Protection for the "Mitigation Plan"

The Corps final rule for compensatory mitigation for loss of aquatic resources requires a guarantee of long-term protection for the mitigation. The Corps's regulation states: "The aquatic habitats, riparian areas, buffers, and uplands that comprise the overall compensatory mitigation project must be provided long-term protection through real estate instruments or other available mechanisms, as appropriate."³⁸ Nothing in the applicant's plan guarantees long-term protection for the alleged mitigation measures proposed.

IV. Application of Clean Water Act Section 404(b) guidelines militate against issuing the permit.

The Corps public notice acknowledges it must apply EPA's Clean Water Act Section 404(b) guidelines to this application. Federal regulations require an applicant to meet all the requirements of the Section 404(b)(1) guidelines.³⁹ Application of these guidelines, however, demonstrates that the Corps must deny this application.

A. The Applicant Has Not Provided Any Practicable Alternatives

The Corps' Public Notice for this application does not contain any practicable alternatives. However, practicable alternatives include not filling the wetlands at issue.⁴⁰

B. The Applicant's Discharge of Fill Material Will Contribute to Violations of State Water Quality Standards

The Section 404(b)(1) guidelines prohibit the discharge of fill material if it contributes to violations of any State water quality standard.⁴¹ Significantly, unlike other

³⁸ 33 CFR 332.7(a)(1).

³⁹ See 40 CFR 230.10

⁴⁰ See 40 CFR 230.10(a)(1).

⁴¹ See 40 CFR 230.10(b).

requirements in the guidelines, this requirement does not contain the exception provided in Clean Water Act Section 404(b)(2).⁴²

The New York State Department of Environmental Conservation has formally listed the Croton Falls Reservoir on its list of “impaired” water bodies, pursuant to Clean Water Act Section 303(d), because this water body violates applicable New York State Water Quality Standards for phosphorus.⁴³ As discussed above, the discharge of fill material into wetlands within the New York City Watershed, and the applicant’s insufficient “mitigation plan,” will exacerbate phosphorus loading in the Croton Falls Reservoir.

Therefore, the proposed activity will contribute to a violation of State water quality standard, in contravention of the Section 404(b) guidelines.

C. The Applicant’s Discharge of Fill Material Will Contribute to Significant Degradation of Waters of the United States

As discussed above, the applicant’s discharge of fill material into wetlands within the New York City Watershed will contribute to significant degradation of waters of the United States. Federal regulations provide that effects contributing to significant degradation include significant adverse “effects on municipal water supplies.”⁴⁴

The Croton Falls Reservoir is phosphorus-impaired. Permanently filling wetlands and constructing wetlands adjacent to impervious surfaces, with no or little buffers, will allow additional surface water to flow over the project site and ultimately into the Croton Falls Reservoir. This will reduce the amount of phosphorus these wetlands can process, thereby allowing phosphorus to discharge into the Croton Falls Reservoir. This will therefore contribute to the amount of phosphorus entering the Croton Falls Reservoir and will contribute to significant degradation of waters of the United States.

V. Conclusion

We urge the Corps to analyze this issue in the proper context to reduce discharges of phosphorus into an impaired, unfiltered drinking water reservoir.

In considering the cumulative impacts to wetlands, the Corps will reflect the “national concern for both protection and utilization of important resources,” including wetlands and water quality.⁴⁵

⁴² Clean Water Act Section 404(b)(2) allows the Corps to apply “the economic impact of the site on navigation and anchorage” in certain cases where the guidelines would otherwise prohibit specification of a site. CWA § 404(b)(2).

⁴³ See 6 NYCRR § 703.2.

⁴⁴ 40 CFR 230.10(c)(1).

⁴⁵ See Corps’ Public Notice, at 1..

Because the proposed wetland fills and grossly inadequate mitigation plan will adversely impact wetlands and the drinking water quality for nine million New Yorkers, the protection of these critically important resources must outweigh their utilization for private gain. Therefore, and for all of the foregoing reasons, the Corps must deny the referenced application for a permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

Thank you for the opportunity to comment on this important issue. If you have any questions, feel free to contact us at 914-422-4343.

Sincerely,



James L. Simpson
Staff Attorney



William Wegner
Staff Scientist

Cc:

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