New York State Department of Environmental Conservation
Division of Environmental Permits, 4th Floor
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Peter M. Iwanowicz
Acting Commissioner

December 30, 2010

Sameet Master, PE
United Water New York
700 Kindermack Rd.
Oradell, NJ 07649

Re: **Proposed Haverstraw Water Supply Project**
Town of Haverstraw, Rockland County
DEC Application ID No. 3-3922-00221
Lead Agency Review of Draft Environmental Impact Statement
Notice of Incomplete Application

Dear Mr. Master:

Please accept this amended cover letter regarding the above referenced application.

The Department of Environmental Conservation ("DEC" or "Department") staff have completed their review to determine the adequacy of United Water's proposed Draft Environmental Impact Statement (Draft EIS), submitted on November 8, 2010, for the above referenced application.[1] Based upon this review, DEC staff have determined that the November 8, 2010 Draft EIS is inadequate for public review. The applications remains incomplete at this time and DEC respectfully submits to the applicant the comments that follow to identify, comprehensively, deficiencies and areas that need to be further addressed/revised prior to commencement of the public review process.

In general, a Draft EIS must contain an "evaluation of the potential significant adverse environmental impacts at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence."2. EISs must be clearly and concisely written in plain language that can be read and understood by the public. There are several sections of this document that need to be revised to provide this clarity and the ease of public understanding required by SEQRA. The Draft EIS must also include and sufficiently address all issues identified in the Final Scope for this project. A public scoping meeting was held on May 7, 2009 to gather comments on the proposed project and public comments were considered in the development of the Final Scope, which was ultimately accepted by DEC on June 29, 2009.

Department staff have compared the Draft EIS to the requirements set forth in the Final Scope for the project. The applicant submitted a Draft EIS that addresses many, but not all, of

FN 1 DEC staff worked with staff from the NYS Department of State in the SEQRA review of this application. The joint effort is noted where relevant.
FN 2 6 NYCRR § 617.9(b)(5)(iii).

the issues required to be addressed by the scope. Department staff have identified several areas of the Draft EIS that have not met the requirements of the scope, as follows:

1. As an organizational comment, the Draft EIS did not appear to follow the organization set out in the Final Scope. The Draft EIS must address issues as they are presented in the Final Scope. Each Final Scope issue should appear in the specific chapter of the Draft EIS for which the item is required. Final Scope requirements should be addressed in the Draft EIS on a chapter / section basis, and supporting analysis should be provided immediately below those Final Scope requirements.

2. There are items identified in the Final Scope that have not been fully addressed in the Draft EIS. The Department has identified necessary revisions regarding both format and content. These changes are needed before DEC can conclude that the Draft EIS is sufficient for public review and comment. For ease of reference, Department staff comments follow direct quotes from the corresponding sections of the Final Scope.

3. Another threshold issue concerns the absence of pilot plant data to support the Draft EISand required DEC permits. This information does not appear in the Draft EIS. The Department issued a permit for the pilot plant based on the understanding that data from the pilot plant was necessary to complete a Draft EIS. The pilot plant was classified Type II under SEQRA as an engineering and environmental feasibility study necessary for the Draft EIS.3 DEC staff was told that the Draft EIS would include the pilot plant data to support a variety of issues, from disposal of the brine to determining how seasonal variations in the river may affect the operation of the desalinization plant. You will note several places in the detailed commentary where staff have indicated the need for pilot data.

4. There are additional issues that have not been adequately addressed in the Draft EIS. Department staff have provided detailed comments on these items in the attached document.

For these reasons, the Draft EIS submitted on November 8, 2010 needs to be revised, amended and re-submitted to address the Department's concerns. The application status for this project remains incomplete until the Draft EIS has been accepted. To expedite production of an adequate Draft EIS, DEC staff invite representatives of United Water to meet in work sessions to review necessary revisions and answer questions.

The Department of State assisted the DEC in its lead agency role under SEQRA for this application. The Department of State's input appears in the Coastal Consistency section and regarding land use related issues. As a courtesy to United Water, Department of State

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FN 3 6 NYCRR 617.5[21]

comments on the Draft EIS, dated December 21, 2010, are attached. Please feel free to contact me at (518) 402-9154 or via email at axsheera@gw.dec.state.ny.us.

Sincerely,

Andrea L. Sheeran
Environmental Analyst
Division of Environmental Permits

Enc
Final Scope
DEC Comments on Draft EIS
Notice of Incomplete Application
DOS Comments on Draft EIS
Memo from DEC dated August 5, 2009

Cc
Howard T. Phillips, Jr., Supervisor, Town of Haverstraw
William M. Stein, Esq., Town of Haverstraw
Andrew M. Conners, Rockland Co. Highway Dept.
Arlene Miller, Deputy Commissioner Rockland Co. Dept. of Planning
Philip A. Marino, Supervisor, Town of Stony Point
Patrick Brady, Executive Director, Haverstraw Joint Regional Sewer Board
Edward Devine, Director, Rockland Co. Drainage Agency
Harriet Cornell, Rockland County Legislature
Ellen Jaffe, Member of Assembly
USEPA, R2
US NMFS
USFWS
US Coast Guard

Proposed Haverstraw Water Supply Project
Town of Haverstraw, Rockland County
DEC Application ID No. 3-3922-00221
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New York State Environmental Quality Review Act (SEQR)

FINAL SCOPING DOCUMENT

For a Draft Environmental Impact Statement (DEIS)

United Water New York, Haverstraw Water Supply Project

Town of Haverstraw, Rockland, NY

SEQR CLASSIFICATION: TYPE 1

LEAD AGENCY: New York State Department of Environmental Conservation
Region 3
21 South Putt Corners Road
New Paltz, NY 12561-1620

LIST OF INVOLVED AGENCIES

- Town of Haverstraw Town Board
- Town of Haverstraw Planning Board
- Town of Haverstraw Zoning Board of Appeals
- Town of Haverstraw Architectural Review Board
- Town of Haverstraw Highway Department
- Town of Stony Point
- Rockland County Public Health Department
- Rockland County Highway Department
- Haverstraw Joint Regional Sewer Board
- New York State (NYS) Department of Environmental Conservation
- NYS Department of Health
- NYS Office of General Services

LIST OF INTERESTED AGENCIES

- Rockland County Solid Waste Management Authority
- NYS Department of Public Service
- NYS Department of State

- NYS Office of Parks, Recreation and Historic Preservation
- United States (U.S.) Army, Corps of Engineers
- U.S. Fish & Wildlife Service
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Department of Commerce, National Marine Service Fisheries

Introduction

This Scoping Document is adopted by the NYS Department of Environmental Conservation (DEC), as lead agency for the environmental review of the proposed United Water New York, Inc., (UWNY) Haverstraw Water Supply Project (water supply project) under the NYS Environmental Quality Review Act (ECL Article 8; "SEQR"). This document is intended to serve as the foundation for the identification and evaluation of all potentially significant adverse impacts that are pertinent to the proposed action, and to identify appropriate mitigation measures including available alternatives. It is also intended to eliminate consideration of any impacts that are irrelevant or non-significant.

Description of the Proposed Action

The project is a proposal by UWNY, a United Water Resources Inc. (United Water) company whose ultimate parent is Suez Environnement (Suez), to construct a multi-facility water supply project in the Town of Haverstraw, New York, to produce potable water from the Hudson River. The project would withdraw up to 10 million gallons per day (mgd) of water from the Hudson River. The proposal includes: a raw water intake unit and pumping station that would be located in and along the Hudson River, near a dock operated by U.S. Gypsum; a water treatment plant with desalination capability which would be located upslope, on lands of the former Haverstraw Landfill; a raw water transmission line between the two facilities; potable water main route(s) connecting the water treatment plant to existing water utility infrastructure; and pipelines to transmit effluent from the water treatment plant to the Haverstraw Joint Regional Sewage Treatment Plant (regional sewage plant). A temporary pilot intake and desalination operation will be constructed and operated for a 12-18 month period to gather data in support of design and operation assessments and decisions.

General Scoping Considerations

DEC, as lead agency, has determined that the proposed UWNY water supply project may have a significant adverse impact on the environment and a Draft Environmental Impact Statement (EIS) must be prepared. Significant environmental issues which the DEC has preliminarily identified include, but are not limited to: effects on aquatic species and habitats; water quality in the reach of the Hudson River where the intake is proposed; water supply allocation, including cross-watershed transport; suitability of the landfill site as the location for the water treatment plant; ability of the regional sewage plant to handle the proposed effluent; energy demands of pretreatment, desalination and treatment technologies, including greenhouse gas (GHG) and climate change implications; and a comparison of impacts and viability of possible alternatives to desalination for providing water supply augmentation in the UWNY service area, including demand reduction.

DEC conducted two public scoping meetings on May 7, 2009, from 1:00 p.m. to 4:30 p.m. and 6:30 p.m. to 9:30 p.m. The scoping meetings were held at the Haverstraw Town Hall, One Rosman Road, Garnerville, NY 10923, in order to identify issues of public concern and permit inclusion of relevant, substantive public issues in the final written scope. Written comments were accepted until May 22, 2009.

Contents of the DEIS

UWNY prepared and submitted a document to DEC and other involved and interested agencies titled, “Haverstraw Water Supply Project, Draft Environmental Impact Statement, United Water New York, September 26, 2008”. DEC, as lead agency, treated that preliminary draft EIS as the draft scope for the Water supply project. The following outline identifies topics which should be added to or expanded upon in developing the Draft EIS, and follows the chapter sequence of UWNY’s preliminary draft EIS. Accordingly, the Final Scoping Document which will govern content and preparation of the Draft EIS for the proposed UWNY Haverstraw Water Supply Project is composed of this document added to the preliminary draft EIS of September 26, 2008. The Final Scoping Document, including the full preliminary draft EIS, will be made available via the DEC Website at http://www.dec.ny.gov/permits/6061.html , and at www.haverstrawwater.com/deis .

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. The discussion of need for the proposed action and anticipated demand for water beyond 2015 will be expanded. This discussion will specifically include:
   - Population growth projections for the UWNY Rockland County service area assuming full build-out under existing as-of-right zoning; projected market conditions and environmental factors that constrain development (such as the presence of wetlands) may also be considered. The methodology for the analysis will be presented;
   - Demand growth projections on which the NYS Public Service Commission (PSC) order of December 2006 was based, including a synopsis of the methodology used by the PSC to develop those projections; and
   - All existing UWNY water conservation and leakage management programs, including quantification of possible water savings achievable by 2015.

2. The discussion of the existing water supply system for the UWNY Rockland County service area will be expanded. This will include:
   - Description and quantification of the system's current capacity and safe yield;
   - Water supply permit conditions that affect the system;
   - Descriptions and analyses of connections with other interconnected water supply systems of United Water, including:
     - A diagram or model that provides an explanation of the relationship of all water supply sources and delivery systems that are interconnected water supply systems of United Water in both New York State (NYS) and New Jersey (NJ); and
     - A descriptive listing of all existing water sharing agreements between and among United Water systems;
   - Obligations to support stream flows, including each waterbody supported, descriptions of the release requirements and thresholds, and quantification of each required release;
   - Expanded discussion of limits to siting new wells;
   - Water production volume records for the prior ten years, including analyses to accurately depict how the management and allocation of water supplies within the interconnected water supply systems of United Water has historically affected the

available water resource and production rate within each component water supply system;

- Provide anticipated rates of water production from the proposed water treatment plant at differing times of the year, in response to fluxes in the hydrologic cycle (drought v. abundance), and in response to management of or releases to other water systems controlled by United Water in both NYS and NJ;
- Analyze water allocation and balances of Hudson River water, within the UWNY Rockland County service area, and across the interconnected NYS and NJ United Water entities, specifically including:
  - Report and assess results from the initial year's filings of all reportable withdrawals from the Hudson River below the Troy Dam, per ECL Art.15 Title 33 (effective Apr.1, 2009); and
  - Identify and analyze the conditions under which augmentation of the UWNY Rockland County service area's water supply with Hudson River water could lead to direct export of Hudson River water to other watersheds (directly or via wastewater treatment plant discharge), or to that Hudson River water supply enabling export of other NY waters outside of NY state waterways; and
- Fully explain the management of Lake DeForest water levels, including legal requirements as well as any operational demands generated by interrelationships of the interconnected NY and NJ United Water entities, specifically:
  - Analyze implications for Lake DeForest water level management if UWNY Rockland County service area's supply is augmented by the proposed water supply, as well as by each of the other evaluated supply alternatives.

3. The analyses of the United Water peak water commitments and the short-term water supply program will be quantified, updated and expanded, including but not limited to:
   - Effectiveness in meeting safe yield; and
   - Description and evaluation of the effectiveness of the Potake Pond project for augmenting flow in the Ramapo River.

4. Expand and clarify the discussion of the PSC December 2006 Rate Order, including:
   - Provide a plain-language summary of the joint proposal upon which the proposed water supply project is based;
   - Summarize each party's primary contentions, including supporting documentation, where appropriate and available;
   - Provide a plain-language summary of the PSC December 2006 order; and
   - Describe and analyze the reasons that the rate case order did not allow consideration of water conservation and efficiency as crediting toward the requirement for increased water volume.

5. Provide a discussion of UWNY's corporate status, and describe the authority of PSC, NYS Department of Health, DEC, and other relevant agencies to maintain regulatory control of water resources of the State in light of that status.

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Provide additional discussion and documentation of the site selection process for the proposed water treatment plant and intake facility. This information should be coordinated with the expanded discussion of potential restrictions on the landfill site to be provided in Chapter 10 as well as with discussions of project alternatives to be provided in Chapter 18.

2. The discussion of existing water quality of the Hudson River, and the effects on that water quality from relevant industrial or municipal wastewater discharges and other relevant activities, will be expanded. Specific information to be provided will include:

   - Based on data from prior operations by U.S. Gypsum, analyze the potential for impacts on intake water quality resulting from periodic U. S. Gypsum dredging:
     - Describe frequency, depth, and areal extent of dredging allowed by U.S. Gypsum's permit;
     - Provide maps or plans showing location of dredging areas relative to the location of the proposed in-river intake structure;
     - Include and assess available information on water and dredge spoil quality collected during previous dredging activities; and
     - Describe physical and operational measures which could be implemented to avoid adverse effects on intake water quality related to dredging operations, including but not limited to modifying operations at the intake or water treatment plant during dredging operations.
   - Assess potential contaminants reaching the intake site as a result of upstream dredging of PCBs, including data from the proposed pilot operation as well as any water quality sampling data available from the PCB dredging operations;
   - Evaluate possible contamination at the proposed intake site by groundwater flow from the former Haverstraw landfill, based on sampling data from landfill monitoring wells as well as sampling data from proposed intake or pilot operation; modeling may be used to augment or support conclusions, but may not be substituted for sampling;
   - Identify and assess potential contaminant load at the proposed intake site from discharges to the river by other industrial operations, including waste water treatment plants and power generation facilities; location maps and discharge profiles will be provided for all such discharges within 25 miles of the proposed water intake site, and pilot plant sampling will specifically test for constituents of those identified discharges;

- Identify and assess impacts on water quality at the proposed intake site of existing, significant non-point water pollution sources within 25 miles of the proposed intake site, including but not limited to agricultural or landscaping operations adjoining the shoreline, and storm drain discharges; and
- Based on available water quality data and information gathered during operations of the pilot plant, provide a full chemical and contaminant profile of Hudson River water at the intake; analysis of data should reflect changes over time, including but not limited to tidal and seasonal variations as well as any effects of large precipitation or storm water flow events (such as spring runoff).

3. Analyze potential for contamination of the raw water transmission line by groundwater flow from the former Haverstraw landfill, based on sampling data from landfill monitoring wells and discussion of the design for the raw water transmission line; data from pilot plant operation may be used to augment this analysis.

4. Expand the discussion of the water treatment process by providing more detail about each step in the process, and analyzing each of the disposal options under consideration for management of pretreatment and desalination residuals and effluent. Data from pilot plant operations will be included in this analysis but need not be the sole basis for it. Specifically:
   - For each pre-treatment, desalination and post-treatment step proposed for use in the full-scale water treatment plant:
     - Characterize the chemical composition of the entering water stream;
     - Describe the treatment step including chemicals and processes used as well as contaminants removed;
     - Characterize the chemical composition of the exiting process water stream;
     - Provide a complete chemical analysis of the aggregate wastes produced; and
     - Calculate the volumes of wastes produced. (If wastes will be dewatered, also calculate cubic feet of dewatered solid waste which would be produced.)
     - The analysis of contaminants and waste characteristics shall include, at a minimum, volatile organics, pathogens, pharmaceuticals, radionuclides, PCBs, mercury and other heavy metals, and pH.
   - Provide the analytical information listed above for each overall treatment protocol, combination or variant under consideration for use in the full-scale water treatment plant, including pre-treatment, desalination and post-treatment options, supported by any information derived from pilot operations;
   - For each potential waste stream identified in the two analyses above, describe available waste management alternatives, including any constraints on the ability of designated or potential solid waste or wastewater management facility/-ies to accept the wastes. Analyze any facility modifications or operational changes which could be

required to enable either the regional sewage plant or the Rockland County Solid Waste Management Authority (Waste Authority) facility to handle the wastes generated by the water supply plant, including estimated costs for or generated by those modifications; and

- Discuss the necessity of and techniques proposed for blending of the end-product water from the proposed water treatment plant with other treated waters from UWNY's distribution system.

5. Expand and provide more detail on all safety measures proposed to be included as part of standard operations. Specifically:
   - Provide additional details about the proposed monitoring and notification program, including but not limited to identification of specific parameters or contaminants which will be monitored by the proposed early detection/warning system for the intake, proposed UWNY responses, and threshold levels which would trigger those responses;
   - Describe specific measures to prevent migration of any landfill contaminants to the treatment plant site, raw water line, potable water main connections, and effluent line to regional sewage plant, during both construction and operation;
   - Explain standard operating procedures and safety protocols, including emergency response coordination with local providers, for all aspects of the water supply project; and
   - Describe anticipated emergency response protocols which would be used in an unforeseen event such as a spill in the Hudson River, unplanned release from Indian Point, floods, or other natural disaster.

6. Describe UWNY's proposed plans for operations within its service area in the event that the water supply project must be shut down, specifically including contingency plans for replacement supplies, emergency rationing, or other responses.

7. Evaluate the proposed facility's likely reliability as a water supply, including a study of comparable facilities that examines actual production vs. design capacity over time, including the percentage of downtime for repair and maintenance. Specifically:
   - Provide an overview of comparable water treatment plants, and comparable desalination plants, and discuss how they may provide an indication of expected performance for the proposed project;
   - Provide available operation performance profiles for comparable plants, including annual summary tables of operating times that indicate the percentage of time that plants operated at full capacity versus operations at partial or no supply over a previous five year history; and
   - Analyze the reliability of comparable desalination plants as reliable water supplies.

Chapter 3: Land Use, Zoning, and Other Programs

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Expand the analysis of the proposed water supply project's conformity with existing plans by assessing the proposal's compatibility with existing, adopted regional, state, and national designations and plans. Specifically, identify all applicable regional, state and national designations, land use plans, and other relevant natural resource or energy plans and evaluate the consistency of the proposed project with the goals of those plans or designations. These shall include, at least:

    - Most recent NYS Open Space Plan (last adopted 2006; 2009 revision under public review as of 6/2009);
    - Most recent NYS Energy Plan (last issued 2002; under revision as of 6/2009);
    - Hudson River Estuary Action Agenda;
    - Greenway Compact, Smart Growth Principles, and land use plans;
    - Hudson River Valley National Heritage Area Program;
    - Water Resources Planning Council - - "Delaware-Lower Hudson Region Water Resource Management Strategy, January 1989" (or more recent revision);
    - Ramapo Watershed Intermunicipal Council goals and initiatives;
    - Governor Paterson's "45 X 15" initiative;
    - U.S. Mayors' Climate Protection Agreement, as adopted by municipalities within the UWNY Rockland County service area;
    - NYS "Climate Smart Community" pledge, as adopted by municipalities within the UWNY Rockland County service area; and
    - Final Report of the New York Oceans and Great Lakes Ecosystem Conservation Council, Our Waters, our Communities, Our Future: *Taking Bold Action Now to Achieve Long-term Sustainability of New York's Ocean and Great Lakes*

    In evaluating consistency of the project with any designation or plan, specifically address recurring goals of sustainability and conservation of water, land, fish, wildlife and air resources; protection of marine resources, coastal resources, wetlands, estuaries, and shorelines; promoting sound practices for river valleys and other uniquely valuable areas; preservation of natural beauty and scenic areas; and reductions of waste generation and energy consumption.

Chapter 4: Visual Resources

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Revise the rendering of the water treatment plant and site to conform the drawing of the projected plant to narrative and plan specifications for the plant, and to reflect existing site conditions at and surrounding the proposed plant site.

Chapter 6: Socioeconomics

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Compare projected increases in water rates as a result of the proposed water supply project with projected rates for other feasible and reasonable long-term supply alternatives. This analysis will include a discussion of potential effects on water rates for the desalination option based on future fluctuations in the price of electricity.

2. Assess effects on relative costs to users for the proposed water supply project and other feasible and reasonable long-term supply alternatives if potential additional fees for water withdrawals are imposed (*see* ECL Art. 15 Ch. 33, and background memos). Specifically include outcomes of any consultations or agreements with any NYS agencies concerning such fees or payments for private withdrawal of a public resource.

Chapter 8: Geology, Soils, and Groundwater

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Expand and update the geology and seismology analysis of the proposed water supply project, and any reasonable and feasible alternatives, based on the most current United States Geologic Survey (USGS) seismic hazard maps. The expanded discussion will evaluate potential risks to each component of the proposed water supply project associated with potential seismic activities. Where feasible, analyses should be supported by maps or diagrams.

2. Summarize the data, conclusions and recommendations of the approved report, if available, from the Rockland County Water Resource Assessment, being finalized by the USGS as of 6/2009. Specifically, re-analyze the ability of the evaluated resources to meet the projected water demands of the UWNY Rockland County service area to 2015 and beyond using that information.

Chapter 9: Natural Resources

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Expand the analyses of potential impacts of construction of the proposed intake on aquatic resources as follows:
   - Provide more precise delineations of habitat areas for the species which overwinter in Haverstraw Bay;
   - Characterize additional distinct or significant aquatic habitat areas and the species which use them, in the vicinity of the proposed intake location;
   - Evaluate potential effects of the intake construction on each these species and habitats, including but not limited to identifying vulnerable life stages or species, essential habitat areas, and critical seasons; and
   - Provide specific details as to the timing of piling and dredge works for the intake facility and assess species-specific impacts based on that timing.

2. Expand the analysis of potential impacts of operation of the proposed intake on aquatic resources:
   - Based on data in the *Hudson River Annual Year Class Reports*, augmented by population and habitat analyses from Ch. 9, #1, above, describe the species, life stages and sizes of aquatic organisms likely to use the habitat at and around the proposed intake location, including any regular tidal and seasonal patterns or fluctuations;
   - Analyze and predict potential for entrainment and impingement by the proposed water supply project intake for each of the species and life stages as identified above;
   - Conduct an entrainment study to further investigate the effectiveness of the 2 mm wedgewire screen proposed for use during full-scale operations to exclude icthyoplankton; sampling windows will be selected based on the *Hudson River Annual Year Class Reports* analysis above; initial results may be reported while additional testing continues; and
   - Based on the literature review supplemented by early information from the entrainment study, describe and quantitatively assess the probable effectiveness of the proposed full-scale water supply intake's entrainment and impingement protection measures.

3. Based on available information, assess commercial, subsistence and recreational fishing pressure in the vicinity of the proposed water supply intake, and estimate potential impacts of both construction and operation of the intake on those fishing uses.

4. Based on available data and the entrainment study described above, provide a more extensive analysis of potential cumulative impacts to fisheries of the proposed water supply intake by evaluating losses of key species within the context of current losses due to impingement and entrainment from other existing water withdrawals in the lower Hudson Additionally, assess potential additional losses or long-term impacts to fisheries or the Haverstraw Bay Significant Coastal Fish and Wildlife Habitat as a result of altered regional sewage plant discharges in combination with existing and proposed water supply project intakes. Based on the above and readily available scientific and economic literature, estimate the total number of fish lost and estimate the value of potential fisheries and habitat losses based on generally accepted valuation systems.

5. Evaluate potential justification for and impacts of reclassifying the Hudson River in Haverstraw Bay as a drinking water source, including but not limited to:

   - Provide historic water quality data (20 year minimum) for the reach of the Hudson River including Haverstraw Bay which is currently classified as “SB” under NY’s water quality classification standards;
   - Generally describe any wastewater discharges added or discontinued within 20 miles of the proposed water supply intake for same period of record for which historic water quality data can be provided;
   - Analyze potential impacts on holders of existing NY State Pollutant Discharge Elimination System (SPDES) or federal EPA National Pollutant Discharge Elimination System (NPDES) wastewater permits for discharges within or near the reach which could be re-classified, specifically addressing the consistency of the terms of major discharge permits, such as that for the Indian Point power plant and municipal wastewater discharges, with such a reclassification, and generally identifying likely changes which might be necessary in the terms of those discharge permits should a reclassification occur; and
   - Describe and analyze potential impacts to other Hudson River users resulting from re-classifying Haverstraw Bay a drinking water source.

Chapter 10: Hazardous Materials

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. The boundaries of the area covered by consent orders related to the former Haverstraw Landfill include the proposed site for UWNY's water treatment plant. Explain and analyze the actual suitability of the site for that use, including but not limited to an analysis of legal constraints the prior landfill use may place on future uses of the site; physical limitations which the prior landfill use or closure treatments may impose on the proposed use of the site; and potential for any form of contamination from the proposed landfill to affect any phase or facility of the water supply project. As part of this evaluation, the potential for landfill gases such as methane and hydrogen sulfide to migrate into enclosed structures associated with the proposed site use, and the associated health and safety risks, must be addressed. Impacts of the proposed site use on the closed landfill must also be explained and evaluated, including potential changes in surface drainage, site hydrology, physical integrity of the landfill cap, groundwater monitoring wells, and the ability of the landfill's responsible party to carry out required post-closure monitoring and maintenance activities.

2. Based on the expanded discussion of operating procedures at the water treatment plant to be provided in Chapter 2, discuss all chemicals that would be used in each phase of water treatment, including:
   - A sequential, comprehensive description of each treatment process or step indicating chemical additions at, and waste stream from each step;
   - Specifications for handling, labeling and storage of process chemicals;
   - Descriptions and chemical analyses of process waste products as well as any aggregated post-treatment wastes which UWNY proposes to create for waste management purposes, including effluents, dewatered sludges, and other wastes;
   - Detailed discussions of handling and proposed disposal of waste products, including any necessary pretreatment as well as specific disposal methods and facilities proposed to be used; if multiple waste management options are still under consideration, provide this information for each.
   - Analyze potential disposal options and facilities for water treatment plant wastes and effluent and address potential impacts on their receiving facilities and surrounding ecosystems. Include assessment of each potential disposal facility's capacity to handle the amount of wastes to be generated, plus calculations of the costs associated with disposal of all desalination waste and byproducts, including whether those costs

would be borne by UWNY and its water users or by publicly-operated disposal or treatment facilities.

3. Based on process descriptions and analyses in Chapter 2, expand the discussion of the potential use of the regional sewage plant to treat water treatment plant wastes by:
   - Characterize, in detail, the predicted composition of the potential waste stream from the water supply treatment plant to the regional sewage plant;
   - Analyze and assess the ability of the regional sewage plant to process all effluent constituents, including discussing whether facility or permit modifications (or both) would be necessary for the regional sewage plant to treat the wastewater stream;
   - Compared to current operations, predict and characterize likely changes in the composition of the permitted discharge from the regional sewage plant should it accept wastes, including brine, from the water treatment plant;
   - Assess potential impacts to the Hudson River and its resources of discharge of altered regional sewage plant effluent including added volume and constituent from the proposed project, and specifically considering contents and concentrations of brine's non-saline components, and their potential impacts on aquatic biota;
   - Analyze changes in chemical composition of sludge and other wastes from the regional sewage plant based on constituents which would be added by treating wastes from the water supply plant; and
   - Assess disposal constraints and options for management or disposal of regional sewage plant waste products based on how their composition would be altered by processing water treatment plant wastes.

4. Evaluate potential impacts to Waste Authority facilities which now handle regional sewage plant wastes. The evaluation will:
   - Identify potential effects of added salt and chemical contaminants from the proposed project in the regional sewage plant's wastes on the Waste Authority's equipment and infrastructure;
   - Analyze potential composition changes in the Waste Authority's recycled end product, compost, because of the process wastes generated by the proposed water treatment plant;
   - Assess the continued ability of the Waste Authority to accept regional sewage plant wastes if water supply project-generated waste constituents result in compromised compost composition based on current requirements; and
   - Assess potential changes in the Waste Authority's ability to deliver existing services, including impacts on County-wide rate structure, if project generated waste

constituents prevent the Waste Authority from accepting regional sewage plant wastes.

5. Evaluate potential impacts of flooding on the proposed facilities, with emphasis on the intake site, including:
   - Potential for contamination of each component facility during a flood event;
   - Available means to avoid that contamination; and
   - Potential for predicted increases in sea level rise related to global climate change to increase the probability or frequency of such flooding events.

6. Evaluate potential contamination to the raw water supply line and the processed water distribution lines along the entire route of each, specifically analyzing potential for contamination and means to avoid such contamination, based on each proposed route and considering at least the following possible contaminant sources:
   - U .S. Gypsum facilities and operations;
   - Insul-X/Former Kay-Fries Inc. site;
   - Town of Haverstraw Landfill (former and present); and
   - Regional sewage plant facilities and operations.

7. Based on the detailed characterizations of water treatment process wastes to be developed in Chapter 2, specifically assess the fate of any detectable PCB contaminants throughout water treatment and waste disposal. Specifically discuss available disposal options (including landfills, hazardous waste landfills, composting, and/or incineration) related to actual levels of PCB at each process or waste management step, including legal as well as technical constraints. Provide sufficient background on general properties of PCB for the general reader to understand the alternatives assessed.

8. Evaluate potential for water supply project components to contaminate their surroundings, and precautions to be taken to avoid such contamination. Elements to be considered include:
   - The pump assemblies at the intake station, particularly regarding releases of lubricants, fuels and the like during normal and high water episodes;
   - Water treatment plant buildings and process components, particularly considering potential ground contamination from below-grade chlorine contact basins, process chemical storage, and finished water storage reservoirs; and
   - Evidence that bedrock wells in the vicinity of the plant are isolated from the unconsolidated overburden aquifer.

Chapter 11: Infrastructure

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Expand on the discussion of the regional sewage plant in Chapters 2 and 9, by describing the existing and available capacity of the sewage treatment plant; future expansion capability of that plant; and ability of the sewage treatment plant to treat all of the regulated potential components of waste water which would be produced by the water supply project (as identified and quantified by the analyses required for Ch. 2 and 9, specifically including but not limited to data from pilot plant tests). Also address potential legal and economic consequences if the regional sewage plant were to fail to meet applicable water quality standards or SPDES permit conditions due to effluent received from the proposed water treatment plant.

2. Analyze the availability of alternative energy sources to provide electricity to the proposed project, including but not limited to potential for onsite generation; assess how emissions from the project's energy source(s) would be affected based on which energy source(s) are used; and describe which energy source(s) will be proposed for final project design.

3. Expand the Energy section to explain in greater detail how Orange & Rockland Utilities would supply or deliver the electricity to meet the project's electrical demand. Based on information provided by Orange & Rockland Utilities, discuss any infrastructure requirements required to provide electricity to the water supply project, particularly the water treatment plant, including the need to construct new or upgraded substations, transmission lines, or distribution lines.

4. Additionally, evaluate how the required electricity and means to supply it will impact congestion on the Mid-Atlantic National Transmission Corridor.

Chapter 16: Global Climate Change

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Based on responses in Chapter 3, item 1 (analysis of the proposed water supply project's conformity with existing plans), specifically consider and evaluate consistency of the proposed project with the energy use and climate change goals of each plan which contains those elements.

2. Consider possible increases in salinity at the location of the proposed water intake which are projected to occur as a result of unavoidable, ongoing global warming over the expected operating life of the proposed project. Specifically analyze any resulting process changes as well as effects on electricity consumption over the projected life of the water supply project based on possible need to treat source water with changed saline content. Based on those projections, calculate any increased indirect greenhouse gas (GHG) generation as a result of increased electricity demand.

3. The DEIS will include in the evaluation of global climate change any additional GHG emissions from the regional sewage plant resulting from processing effluent from the proposed water supply project

4. The DEIS will include an evaluation of the risk of greater flooding to the proposed facilities as well as the facilities' impact upon the floodplain, considering predicted sea level rise generated by global climate change.

Chapter 17: Coastal Zone Consistency

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. The analysis of consistency with coastal zone policies in the DEIS will be revised to reflect changes to the scope of the enhanced analyses provided in other chapters of the DEIS, as appropriate.

2. In coordination with Chapter 18, Item 19, ensure that the discussion of alternative sites for the proposed water treatment plant and intake facilities considers and evaluates locations outside of the Haverstraw Bay Significant Coastal Fish and Wildlife Habitat.

Chapter 18: Alternatives

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. The discussion of the No Action Alternative will be expanded to clearly describe all component projects and tasks being undertaken as part of United Water's short-term water supply program.

2. Describe potential measures for enhanced water conservation and implementation of green infrastructure in the UWNY service area as an alternative to the Proposed Action. This may include, but will not be limited to, relevant case studies of planning and legislative measures that have been implemented in study communities (the communities) that were intended to conserve water, including the following:
   - Discuss structural and operational measures implemented in the study communities for the purposes of water conservation;
   - Evaluate the outcomes of efforts in the communities in terms of actual water savings achieved from campaigns to promote water conservation among consumers;
   - Assess land use regulations governing the communities which were intended to alleviate future deficiencies or accommodate future water demands, and discuss the potential applicability and effectiveness of similar regulations for the UWNY Rockland County service area, particularly considering the level(s) of government with appropriate authority to enact and enforce such regulations;
   - Assess the potential applicability and effectiveness of implementing green building and infrastructure codes with water conserving elements for structures and landscaping, which could be enacted by municipalities within the UWNY Rockland County service area; and
   - Evaluate potential water demand reductions from incentive based alternative pricing models, such as increased cost for greater water consumption and discounts for minimization of consumption. Case studies from the communities where alternative pricing models have been implemented should be referenced.

3. Evaluate potential water savings in the existing United Water service area system from feasible actions to minimize existing water losses, including but not limited to losses through leaks in the distribution system.

4. Expand the Reuse of Wastewater Alternative to describe the possibility of distributing treated water (i.e., gray water) from Rockland County wastewater Treatment plants for industrial use or private irrigation. In addition, consider the possibility of recharging the aquifer to contain and supply grey water as well as water that could be treated, including volume estimates.

5. Evaluate the alternative of installing an additional gray water piping network for treating and delivering captured runoff (i.e., rain water) for irrigation or other non-potable uses. This alternative will also consider the combination of gray water and rain water for irrigation or other non-potable uses, including aquifer recharge.

6. Evaluate the Suffern Quarry, Tompkins Cove Quarry, and Congress Haverstraw Quarry, each independently as well as cumulatively, for potential use as water supplies. Evaluation of each quarry will include:

   - More thorough discussion of the factors affecting the potential use of the quarry;
   - The ability, including volume estimates, to use the quarry to capture and store stormwater; and
   - The ability of waters directed to the quarry to recharge aquifers, including volume estimates.

7. A thorough investigation of the implementation of preliminary draft EIS Alternative F, Use of the Suffern Quarry, was not provided due to a claimed *potential* conflict with "possible use" of the quarry for flood mitigation by the U. S. Army Corps of Engineers (USACE). Include a more thorough discussion of the potential use of the quarry for flood mitigation, including information concerning land ownership, probability of use by the USACE, the feasibility of dual-purpose use of the quarry for flood mitigation and reservoir storage, and any anticipated effects on coastal uses and resources of quarry use for flood or reservoir storage.

8. Include a discussion of surface water storage options other than Ambrey Pond, with estimates of achievable water volumes, including:

   - Capture and storage of high water spilling over reservoirs for either direct use or recharge of aquifers.

9. The discussion of the Hudson River Flood Skimming alternative will be expanded to describe the potential storage options for this alternative other than surface water storage, such as water towers or underground storage.

10. The DEIS will include an assessment of the Ramapo River High-Flow Skimming Alternative as included in the 1979 Ambrey Pond Reservoir Draft Environmental Impact Statement (Ambrey Pond DEIS, Alternative G). Update information to enable current comparison of this alternative to the proposed water supply project.

11. Additional detail on the Ambrey Pond Alternative will be provided, including identification of any remaining private properties which would still need to be acquired; estimated costs of those acquisitions; the required buffer area; life-cycle (operational and maintenance) costs of this alternative; and effects on water rates.

12. The discussion of the Ambrey Pond Alternative will include background concerning the evolution of the design for this alternative, specifically including reasons that the larger reservoir originally proposed was later reduced in size.

13. Evaluate the lands currently owned by UWNY (or any related business entity/-ies) surrounding the existing Upper and Lower Ambrey Ponds and within the designated buffer area of the potential reservoir area, specifically:

    - Provide a current land use and general cover type map, noting such things as successional and mature woodlands, wetlands, agricultural areas, developed/settled lands, and any highly disturbed or waste areas;
    - Provide an inventory of any rare/special concern, threatened or endangered species (plants and animals) potentially found or known to occur on the lands; and
    - Describe existing use by wildlife, including resident and migratory species.

14. The description of the Ambrey Pond Alternative (preliminary DEIS Alternative K) indicates that the Ramapo Fault alignment is in close proximity to the proposed dam for the Ambrey Pond Reservoir, and that there is a possibility of fracture in the event of a large earthquake. The DEIS should include more information regarding the alignment of the proposed dam and impoundment relative to the fault; the potential or likelihood of fracture; associated hazards of such an event, including identification and characterization of downstream hazard areas; and any additional effects of such an event on coastal uses and resources.

15. Evaluate the potential of alternative management practices of the reservoir system in Rockland County, specifically including modifying Lake Deforest water releases to supply more water to Rockland County.

16. Evaluate water conservation and management strategies which could be implemented in the Hackensack watershed, with the goal of maintaining higher flows in the Hackensack River and, therefore, resulting in less discharge of water from the Lake Deforest Reservoir to New Jersey waters. Include an examination of NYS and NJ water release laws as well as any interstate agreements, for the possibility of altering water releases to NJ.

17. Discuss possible alternative or beneficial uses for wastewater, solid wastes and brine produced by the water treatment plant.

18. Utilizing chapter 16 of the preliminary draft EIS as a model, specifically including tables 16-2 and 16-3, provide an analysis of energy consumption and potential GHG emissions from each feasible and reasonable alternative, and expand the discussion of comparisons among alternatives of energy use and GHG emissions.

19. The discussion of alternative sites for the proposed water treatment plant and alternative sites for the proposed intake within the river will be expanded, and will include a discussion of intake locations considered outside of the Haverstraw Bay Significant Coastal Fish and Wildlife Habitat as well as bases for choosing the former Haverstraw Landfill as the proposed water treatment plant site.

Chapter 19: Cumulative Impacts/Indirect Effects

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Include a discussion of a reasonable range of potential future uses of the Ambrey Pond lands, including parkland, if the proposed Haverstraw Water Supply Plant is completed.
   - For each of those possible uses, address potential impacts on water supply demand, flooding, aquifer recharge, and loss of forest lands (including carbon sink value).
   - Discuss viable management alternatives for these lands should the desalination-based water supply project proceed; and
   - Assess predictable potential impacts of each management option, including relative probability of each occurring, plus impacts of each on land use, wildlife, rare, threatened or endangered species, and GHG gas sequestration (due to potential loss of carbon sinks).

2. The potential effects of the proposed water supply project on drinking water supplies in other watersheds will be considered, and the relationships of the water supplies in surrounding watersheds will be discussed (in coordination with the expanded discussion to be provided in Chapter 1).

3. Analyze the impacts of the proposed water supply project on communities outside of the NYS boundary.

4. Discuss the potential effects of the proposed water supply project on flooding in the watershed and surrounding area.

Chapter 20: Growth-Inducing Aspects

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Discuss all anticipated growth-inducing effects resulting from the Proposed Project, including:
   - The capacity of all existing public services and facilities to support anticipated population growth based on growth projections as described in expanded Chapter 1;
   - An assessment of population growth and corresponding water demand as a result of the project, with an evaluation of the role of the proposed project in facilitating all potential developments in the region that cite or otherwise rely on the proposed water supply project as a long-term source of water; and
   - An evaluation of the potential effects of induced growth upon water demand, flooding and aquifer recharge in the United Water service area.

2. Evaluate the effects that additional growth enabled by the water supply project would have on air quality and traffic issues within the proposed water supply project's service area, including potential for exacerbating traffic-based GHG generation.

Chapter 22: Unavoidable Impacts

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Based on additional and expanded analyses of potential impacts as required within the prior and following chapters, re-assess the potential for the proposed water supply project to result in unavoidable permanent, significant adverse environmental impacts.

Chapter 23: Environmental Justice

ADDITIONAL INFORMATION TO BE PROVIDED

The Draft EIS will expand upon the preliminary draft by including the following topics.

1. Evaluate the impact on rates to consumers for water from desalination versus all other alternatives, specifically including the ability of residents in identified environmental justice communities of concern within the UWNY Rockland County service area to support long-term rate increases.

2. Provide information on local subsistence anglers who may utilize the river in proximity to the proposed project. Evaluate how subsistence fishing activities may be impacted. Explain information sources; non-statistical, observational methods may be used.

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LEAD AGENCY DRAFT ENVIRONMENTAL IMPACT STATEMENT REVIEW COMMENTS
UNITED WATER NEW YORK HAVERSTRAW LONG TERM WATER SUPPLY PROPOSAL
APPLICATION NUMBER 3-3922-00221
DECEMBER 30, 2010

I. ISSUES SET FORTH IN THE JUNE 2009 FINAL SCOPE THAT HAVE NOT BEEN ADDRESSED BY THE DRAFT EIS.

Chapter 1: Purpose and Need

The Final Scope requires:
1. *The discussion of need for the proposed action and anticipated demand for water beyond 2015 will be expanded. This discussion will specifically include:*

- *Demand growth projections on which the NYS Public Service Commission (PSC) order of December 2006 was based, including a synopsis of the methodology used by the PSC to develop those projections.*

DEC COMMENT:
This information was not addressed in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis , as required by the Final Scope.

The Final Scope requires:
2. *The discussion of the existing water supply system for the UWNY Rockland County service area will be expanded. This will include:*

- *Descriptions and analyses of connections with other interconnected water supply systems of United Water, including:*
  - *A diagram or model that provides an explanation of the relationship of all water supply sources and delivery systems that are interconnected water supply systems of United Water in both New York State (NYS) and New Jersey (NJ); and*
  - *A descriptive listing of all existing water sharing agreements between and among United Water systems. (Bullet 3)*

DEC COMMENT:
This information is not presented in this chapter. Specifically address water sharing agreements with United Water New Jersey.

The Final Scope requires:
2. *Obligations to support stream flows, including each waterbody supported, descriptions of the release requirements and thresholds, and quantification of each required release;*

DEC COMMENT:
This information is not presented in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter please provide a detailed analysis,

as required by the Final Scope.

The Final Scope requires:
2. *Expanded discussion of limits to siting new wells.*

DEC COMMENT:
This information is not presented in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
2. *Analyze water allocation and balances of Hudson River water, within the UWNY Rockland County service area, and across the interconnected NYS and NJ United Water entities, specifically including:*

- *Report and assess results from the initial year's filings of all reportable withdrawals from the Hudson River below the Troy Dam, per Environmental Conservation law (ECL) Article 15, Title 33 (effective Apr.1, 2009).*

DEC COMMENT:
This information is not addressed in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
4. *Expand and clarify the discussion of the PSC December 2006 Rate Order, including:*

- *Describe and analyze the reasons that the rate case order did not allow consideration of water conservation and efficiency as crediting toward the requirement for increased water volume.*

DEC COMMENT:
Section 1.2.4 of the Draft EIS does not fully include this item. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope. Describe UWNY's on-going conservation program as well as any additional measures that were considered or rejected in the PSC proceeding.

<u>Chapter 2: Project Description</u>
The Final Scope requires:
2. *The discussion of existing water quality of the Hudson River, and the effects on that water quality from relevant industrial or municipal wastewater discharges and other relevant activities, will be expanded. Specific information to be provided will include:*

- *Based on data from prior operations by U.S. Gypsum, analyze the potential for impacts on intake water quality resulting from periodic U.S. Gypsum dredging:*
  - *Include and assess available information on water and dredge spoil quality collected during previous dredging activities; and*
  - *Describe physical and operational measures which could be implemented to avoid adverse effects on intake water quality related to dredging operations, including but not limited to modifying operations at the intake or water treatment plant during dredging operations.*

DEC COMMENT:
These items have not been addressed fully in this chapter, as required. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope. Although some of this information is presented in appendices, the data must be analyzed and a narrative assessment of available information must be made.

The Final Scope requires:
2. *Evaluate possible contamination at the proposed intake site by groundwater flow from the former Haverstraw landfill, based on sampling data from landfill monitoring wells as well as sampling data from proposed intake or pilot operation; modeling may be used to augment or support conclusions, but may not be substituted for sampling.*

DEC COMMENT:
Information from operations of the pilot plant was not included in the Draft EIS. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
2. *Based on available water quality data and information gathered during operations of the pilot plant, provide a full chemical and contaminant profile of Hudson River water at the intake; analysis of data should reflect changes over time, including but not limited to tidal and seasonal variations as well as any effects of large precipitation or storm water flow events (such as spring runoff).*

DEC COMMENT:
Information from pilot plant operation is not included in the Draft EIS. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
3. *Analyze potential for contamination of the raw water transmission line by groundwater flow from the former Haverstraw landfill, based on sampling data from landfill monitoring wells and discussion of the design for the raw water transmission line; data from pilot plant operation may be used to augment this analysis.*

DEC COMMENT:
This information is absent from this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope. Please provide a supplemental analysis that can be obtained from the pilot plant's actual intake structure.

The Final Scope requires:
4. *Expand the discussion of the water treatment process by providing more detail about each step in the process, and analyzing each of the disposal options under consideration for management of pretreatment and desalination residuals and effluent. Data from pilot plant operations will be included in this analysis but need not be the sole basis for it. Specifically:*

- *Provide the analytical information listed above for each overall treatment protocol, combination or variant under consideration for use in the full-scale water treatment plant, including pre-treatment, desalination and post-treatment options, supported by any information derived from pilot operations.*

DEC COMMENT:
Data from pilot plant operation was not included in the Draft EIS. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
4. *For each potential waste stream identified in the two analyses above, describe available waste management alternatives, including any constraints on the ability of designated or potential solid waste or wastewater management facility/-ies to accept the wastes. Analyze any facility modifications or operational changes which could be required to enable either the regional sewage plant or the Rockland County Solid Waste Management Authority (Waste Authority) facility to handle the wastes generated by the water supply plant, including estimated costs for or generated by those modifications.*

DEC COMMENT:
These items have not been addressed as required. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
4. *Discuss the necessity of and techniques proposed for blending of the end-product water from the proposed water treatment plant with other treated waters from UWNY's distribution system.*

DEC COMMENT:
These items have not been addressed as required. Further analysis must be made regarding the ability of the Haverstraw Joint Regional Sewage Treatment Plant to accept the full waste stream from project operations through the headworks of the plant. See also Section II.

The Final Scope requires:
5. *Expand and provide more detail on all safety measures proposed to be included as part of standard operations. Specifically:*
   - *Provide additional details about the proposed monitoring and notification program, including but not limited to identification of specific parameters or contaminants which will be monitored by the proposed early detection/warning system for the intake, proposed UWNY responses, and threshold levels which would trigger those responses.*

DEC COMMENT:
This information is absent from this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
5. *Describe anticipated emergency response protocols which would be used in an unforeseen event such as a*

spill in the Hudson River, unplanned release from Indian Point, floods, or other natural disaster.

DEC COMMENT:
This information is absent from this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter please provide a detailed analysis, as required by the Final Scope.

The Final Scope requires:
6. Describe UWNY's proposed plans for operations within its service area in the event that the water supply project must be shut down, specifically including contingency plans for replacement supplies, emergency rationing, or other responses.

DEC COMMENT:
This information was not included in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter please provide a detailed analysis, as required by the Final Scope.

Chapter 6: Socioeconomics
The Final Scope requires:
1. Compare projected increases in water rates as a result of the proposed water supply project with projected rates for other feasible and reasonable long-term supply alternatives. This analysis will include a discussion of potential effects on water rates for the desalination option based on future fluctuations in the price of electricity.
2. Assess effects on relative costs to users for the proposed water supply project and other feasible and reasonable long-term supply alternatives if potential additional fees for water withdrawals are imposed (see ECL Art. 15 Ch. 33, and background memos). Specifically include outcomes of any consultations or agreements with any NYS agencies concerning such fees or payments for private withdrawal of a public resource.

DEC Comment:
This information was not included in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope. An analysis must be made of all alternatives to the proposed project, not only the project itself. The Draft EIS does not provide sufficient analysis with regard to alternatives.

Chapter 8: Geology, Soils and Groundwater
The Final Scope requires:
2. *Summarize the data, conclusions and recommendations of the approved report, if available, from the Rockland County Water Resource Assessment, being finalized by the United States Geologic Survey as of 6/2009. Specifically, re-analyze the ability of the evaluated resources to meet the projected water demands of the UWNY Rockland County service area to 2015 and beyond using that information.*

DEC COMMENT:
This information is not presented in this chapter. Information that is sporadically presented throughout the Draft EIS should be consolidated in this chapter and please provide a detailed analysis, as required by the Final Scope.

Chapter 9: Natural Resources

The Final Scope requires:

5. *Evaluate potential justification for and impacts of reclassifying the Hudson River in Haverstraw Bay as a drinking water source, including but not limited to:*

- *Generally describe any wastewater discharges added or discontinued within 20 miles of the proposed water supply intake for same period of record for which historic water quality data can be provided;*
- *Analyze potential impacts to current State Pollutant Discharge Elimination System or federal EPA National Pollutant Discharge Elimination System (NPDES) wastewater permits for discharges within or near the reach which could be re-classified, specifically addressing the consistency of the terms of major discharge permits, such as that for the Indian Point power plant and municipal wastewater discharges, with such a reclassification, and generally identifying likely changes which might be necessary in the terms of those discharge permits should a reclassification occur; and Describe and analyze potential impacts to other Hudson River users resulting from re-classifying Haverstraw Bay a drinking water source.*

DEC COMMENT:

An analysis of potential impacts to other Hudson River users resulting from a reclassification of Haverstraw Bay as a drinking water source must be included in the Draft EIS, regardless of whether UWNY is requesting a reclassification.

Chapter 19: Cumulative and Indirect Effects

The Final Scope requires:

1. *Include a discussion of a reasonable range of potential future uses of the Ambrey Pond lands, including parkland, if the proposed Haverstraw Water Supply Plant is completed.*

- *Assess predictable potential impacts of each management option, including relative probability of each occurring, plus impacts of each on land use, wildlife, rare, threatened or endangered species, and GHG gas sequestration (due to potential loss of carbon sinks).*

DEC COMMENT:

This item has not been fully addressed. The Draft EIS fails to assess threatened and endangered species issues. Also, all management options for the Ambrey Pond lands must be evaluated for the items required in bullet number three.

Chapter 20: Growth-Inducing Aspects

The Final Scope requires:

2. *Evaluate the effects that additional growth enabled by the water supply project would have on air quality and traffic issues within the proposed water supply project's service area, including potential for exacerbating traffic-based GHG generation.*

DEC COMMENT:

This item is not addressed to the satisfaction of the Department in this chapter. Cumulative and secondary impacts associated with existing and future water withdrawals of Hudson River water, increased development associated with additional water supply, and the precedent setting nature of the proposed activity warrant additional consideration. Please provide the source of the growth

projection conclusions presented in the Draft EIS. The Draft EIS must start with an analysis of the "No Build" alternative which addresses the level of growth in Rockland County without the proposed project. This concept must be discussed specifically with relation to cumulative and growth inducing impacts. See comment number 87.

II. THE REQUIRED PILOT PLANT DATA SUPPORTING THE DRAFT EIS, IS NOT PROVIDED AS REQUIRED BY THE JUNE 2009 FINAL SCOPE

The Department indicated to UWNY in January 2009, based upon representations of the applicant, that the Pilot Plant is properly designated a SEQRA Type II action. Based upon these representations, DEC allowed the SEQRA review to be segmented because "the proposed pilot plant desalination plant would be constructed and operated only to gather data in support of UWNY's applications for the proposed LTWSP, including the corresponding draft environmental impact statement."[1] Additionally, the Final Scope requires that the Draft EIS include information gathered during operations of the pilot plant. Specifically, the Final Scope states that "based on available water quality data and information gathered during operations of the pilot plant, provide a full chemical and contaminant profile of Hudson River water at the intake; analysis of data should reflect changes over time, included but not limited to tidal and seasonal variations as well as any effect of large precipitation or storm water flow events (such as spring runoff)." Thus, the DEC's expectations regarding the data as necessary for the Draft EIS review is consistent, long-standing and based upon the applicant's input. This data has not been included in the Draft EIS submitted on November 8, 2010. Data from pilot plant operations must be presented in the Draft EIS to meet SEQRA requirements for public review and comment.

Additionally, actual data on pilot plant waste stream characteristics can significantly aid the Department with its review of United Water New York's proposed management of these residuals. The applicable statutory requirements with respect to the blending of reverse osmosis concentrate with the effluent from the Haverstraw Joint Regional Sewage Treatment Plant are being considered by the Department.

III. THE DRAFT EIS MUST BE REVISED AND RE-SUBMITTED WITH ADDITIONAL INFORMATION AND ANALYSIS TO MEET SEQRA REQUIREMENTS FOR PUBLIC REVIEW AND COMMENT.

The Draft EIS must contain an "evaluation of the potential significant adverse environmental impacts at a level of detail that reflects the severity of the impacts and the reasonable likelihood of their occurrence." 6 NYCRR § 617.9(b)(5)(iii). The Draft EIS does not satisfy this requirement, as set forth by chapter, below. SEQRA also requires that an EIS must be clearly and concisely written in plain language that can be read and understood by the public. Please present information in such a format.

Executive Summary

1. Section S.3.1, second full paragraph: Extensive monitoring and analysis of water quality in Haverstraw Bay Data is referenced, as well as a variety of seasonal conditions that may be

1 Letter to Sameet Master, Project Manager from Betty Ann Hughes, Chief, SEQR & Training, DEC Environmental Permits, January 26, 2009.

encountered in the Hudson. Given the absence of the data from the UWNY pilot plant operation, the basis for these conclusions must be included in this section.

2. Section S.4.15, fourth paragraph: Remove or modify the following statement: *"…and the Proposed project contributes to adaptation to potential water security concerns related to the potential future impact of climate change."* This statement should be qualified as an opinion.

3. Section S.4.16, last sentence: *"It was determined that the Proposed Project would be generally consistent with the policies of the New York State Coastal Management Program, and would also be consistent with and would not have an adverse effect on the LWRPs of surrounding communities"* This sentence must be deleted or re-written to make it clear that it is UWNY, as the applicant, who has made a recommended Coastal Consistency determination for this project. Such determination is subject to the concurrence or objection of the State of New York. [1]

4. Section S.5.1.3: Reference in this section to NYS mining policy is out of context. Environmental Conservation Law, Article 23, Section 23-2703, states: *Declaration of policy. The legislature hereby declares that it is the policy of this state to foster and encourage the development of an economically sound and stable mining industry, and the orderly development of domestic mineral resources and reserves necessary to assure satisfaction of economic needs compatible with sound environmental management practices.* DEC will require the use of the full quotation, or removal of the reference from this section.

5. Section S.5.1.5: When is the phrase "*not a viable alternative*" or *"not feasible"* is used, it should be made clear that "The Applicant" or "UWNY" contends this, rather than stating such as a matter of fact.

6. Section S.5.1.5, second paragraph, last sentence: This sentence is grammatically incorrect. Please revise.

7. Section S.7, second paragraph, last sentence: This sentence should be revised to reflect that it is UWNY's contention that the proposed project is not expected to induce growth beyond that which is described in the county and local plans. See also DEC comment number 87. Include a summation of information required by that comment in this section.

8. In Project Description section, a 10 million gallon per day (MGD) withdrawal of water is referenced, however the Draft EIS focuses mostly on the 7.5 MGD of treated water that the proposed project would produce. In S5 and S.3.2.1 the difference is explained, yet throughout the Draft EIS 7.5 MGD is referenced. When referencing the total withdrawal of water, 10 MGD should be used.

Chapter 1: Purpose and Need

9. Section 1.3.1.2.2: Further explain existing water supply, both emergency and non-emergency, connections to New Jersey, including water main sizes, frequency of use and quantities of water transferred in the past. Expand discussion of agreements with adjacent water supply companies, particularly with respect to cost.

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1 DEC staff and Department of State staff, comment jointly

10. Section 1.4.2.2.1: It is unclear whether the 17,948 housing unit build-out analysis includes lands contained within the footprint of the Ambrey Pond alternative.[1]

11. Section 1.4.2.4: Explain in further detail and discuss why 13% is considered acceptable for "real losses" from the water supply system. Compare UWNY system-wide losses to average losses of other water systems as a matter of reference. Discuss steps to reduce water losses that UWNY has/is currently undertaking.[1]

12. Table 1-5: Table should be updated with 2010 data.

13. Appendix 1: Include a summary table that lists the number of meters replaced/repaired, miles of water main repaired/replaced, miles of water main acoustically tested for leakage, number of hydrants tested/replaced over, at least, the past five years.

Chapter 2: Project Description

14. Section 2.2.1: This section states that the project could not be constructed outside of UWNY's service area, specifically in the Village of Nyack. Please explain why being located outside of UWNY's service area is a basis for disqualifying a site.

15. Section 2.3.6.3: This section references production of 1.3 MGD of reverse osmosis concentrate at full plant build-out. Clarify the relationship of the 1.3 MGD with respect to the withdrawal of 10 MGD and the expected potable water production capacity of 7.5 MGD. Is this 1.3 MGD meant to be the difference between 10 MGD and 7.5 MGD? If so, why is this number 1.3 and not 2.5 MGD? Please explain.

16. Section 2.7.4.3: Please clarify whether per person cost projections are based on current populations or projected population levels? This should be made clear. [1]

17. Section 2.7.4.4 states: "*NYSDEC (or any other state agency) is not authorized, per the ECL or any other statute, to charge United Water a fee or tax to withdraw water from the Hudson River for use in a public water supply*". The applicant cites Environmental Conservation law, Chapter 15, Title 33 for this proposition. This statute does not address the subject of a monetary charge by a state agency for the withdrawal of water itself, i.e. a public resource. Rather, this statute requires reporting of significant water withdrawals and mandates a small processing fee be submitted with the report that is required annually, save for public water suppliers and agricultural users. Please explain UWNY's interpretation of this statue in such a way, or remove this reference.[1]

18. Section 2.8.1: Discuss other necessary federal resource agency consultations, such as the United States Fish and Wildlife Service and the National Marine and Fisheries Service.[1]

19. Section 2.8.2: Please note that the Department of State issues a concurrence or an objection to an

1 DEC staff and Department of State staff, comment jointly

applicant's consistency determination. [1]

20. Section 2.9, Bullet 2: States "*The Determination of Significance is the Lead Agency's determination that a Draft EIS should be prepared for the proposed project.*" This should be revised to reflect that SEQRA regulations state that the Determination of Significance is the format with which the Lead Agency evaluates a proposal's potential to cause significant adverse environmental impacts. A Determination of Significance can result in a Positive Declaration (and the preparation of a Draft EIS) or a Negative Declaration. A Positive Declaration was issued for this project on April 2, 2009.

21. Discuss the current state of the pressure zones in the Rockland County water supply system, how they are managed and any shortcomings that could limit the delivery of water supply under stressed conditions. Discuss how bringing the project on-line will affect the management of those zones.

22. Figures 2-17, 2-18 and 2-19 are difficult to compare to each other. Include a combined table that shows how each source usage changes from Phase I to II to III. Also, include a fourth graph and incorporate this into the table showing a current breakdown of source use without the project.

23. Appendix 2.3: An assessment of the effectiveness and operational functionality of the desalination plant that takes water from the Taunton River and provides water service to Brockton, Massachusetts, and the surrounding areas, should be included. Specifically discuss the ability of this plant to operate reverse osmosis membranes in the northeastern climate. Include information on the water quality classification of the Taunton River at the intake location, how that compares to New York standards, and how this facility manages reverse osmosis concentrate compared to the applicant's proposed facility.

Chapter 3: Land Use, Zoning and Other Programs

24. Figure 3-2: This figure has too many lines and too much white space. Use colors to represent zones so that the reader is able to gain a better understanding as to where zone boundaries are. Furthermore, the legend indicates that "PIO" is "Residential Waterfront." This should be "Planned Industrial Office."[1]

Chapter 4: Visual Resources

25. Section 4.5.2.11: The NYS Department of State has issued policy guidance that states: "the addition of structures which because of siting or scale will reduce identified views or which because of scale, form, or materials will diminish the scenic quality of an identified resource." The statement "The proposed project would not result in irreversible modification…" does not include the entire statement that is provided within the Department of State Coastal Management Program policy guidance. Either reproduce the entire quotation or omit its reference.[1]

26. Figure 4.4a, Photo 2: This is a photo of the pilot plant site, not the proposed water treatment plant site.

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1 DEC staff and Department of State staff, comment jointly

27. Regarding resources of local importance, please provide an explanation regarding why these particular locations were chosen. Generally, it is Department staff's responsibility to identify and ensure mitigation of impacts to Federal and State designated aesthetic resources, and defer locally designated resource issues to local decision makers. However, as lead agency, the Department has the responsibility of ensuring that all officially designated (if any) visual and aesthetic resources have been adequately addressed in a visual impact study. Local resources designated as having visual or aesthetic value are generally found in a municipality's Comprehensive Plan. In the absence of such locally designated resources, representative locations such as public parks and well traveled roadways are acceptable.

28. For all resources within the inventory, an analysis of the significance of potential impact should be included. Specifically, the test of significance should include a reference to the impairment/lack of impairment of the aesthetic character or quality associated with the resource, not just visibility/lack of visibility within the viewshed. Consequently, all aesthetic resources with potential visibility of the project must have an explanation of their specific value and quality addressed in the significance assessment.

Chapter 6: Socioeconomics

29. This chapter should reference the basis for the population projections, such as the underlying studies used to prepare them. Website locations where the studies may be obtained is preferable, or if they are not available on the web, they should be either included or excerpted in the appendices.[1]

30. Section 6.2.1: This section should be updated with 2010 data.

Chapter 7: Cultural Resources

31. Include a copy of the August 2010 Cultural Resources Survey Report in the Appendices for this chapter, as well as any correspondence received from NYS Office of Parks, Recreation and Historic Preservation. Summarize and discuss the report in the chapter. A discussion of how avoidance alternatives might be possible for archeological and historical properties should be included as well.

Chapter 8: Geology, Soils and Groundwater

32. The recent United States Geological Survey study on Rockland County Water Resources has advocated increased wastewater treatment at the Orangeburg Wastewater Treatment Plant, and discharge into lower Hackensack in lieu of the current required discharge from DeForest (project objectives section.) This point should be discussed in this chapter.

33. Section 8.5.3- This section should provide more information regarding the stormwater management element of the project that entails a "discharge to a stream on the southern part of the Site."

34. Section 8.5.4- If a Class SB water body is to be considered and approved for use as a source of water

supply, the applicant must identify the maximum levels of contaminants that are allowable in an SB water body under 6 NYCRR Part 703, and describe whether and how the proposed water treatment plant can adequately treat those maximum contaminant levels for water supply purposes. Data from pilot plant operations, including seasonal variability of river conditions should be used to support this description, as required by the Final Scope. Likewise, the applicant must also specifically identify and describe the monitoring that may be necessary, on a regular basis at the intake site, in order to detect increases in contaminants, over time, which may be allowable in SB waters vs. class A or SA waters, and could require a modification of the treatment train to ensure continued adequate treatment.

35. Table 8-2, pages 8-12 and 8-13: The parameters chlorine, sulfate, total dissolved solids, total organic carbon and total volatile suspended solids are listed twice. Also, is the parameter chlorine meant to be chloride? Please correct and clarify.

36. Table 8-3: It appears as if the Maximum and Mean values for fluorine have been switched.

37. Appendix 8.2.: Provide acute and chronic dilutions and the associated spatial extents of the mixing zones under current, design and future operating conditions for the Haverstraw Joint Regional Sewage Treatment Plant. This is to ascertain the behavior of the discharge plume in the ambient water i.e., if the plume hugs the bottom surface of the receiving waters or is buoyant in character. Also tabulate the results of salinity, total dissolved solids, temperature and ammonia under different operating scenarios, including impacts from climate change such as sea level rise and altered storm frequency and severity.

38. Appendix 8.2, Page 11: This page states that the chronic ammonia standard would be exceeded. Describe the remediation measures in terms of plant upgrade to comply with the ammonia standard. Also, describe the actions, which the faculty would take if the excessive loads of total dissolved solids and chlorides up set the current treatment process system and the facility failed to meet the SPDES permit requirements after accepting the United Water New York discharge.

39. Pilot testing of a reverse osmosis unit should be conducted to determine the actual concentrations of inorganics and total dissolved solids in the reject water.

40. The Draft EIS should state whether any water treatment chemicals such as anti-scalents are anticipated to be used upstream of the reverse osmosis filter and predict discharge concentrates in the reverse osmosis reject water.

Chapter 9: Natural Resources

41. Information pertaining to the potential impacts on fish from the proposed drinking water intake appears limited due to the minimal amount of sampling conducted to date. The Final Scope requires the following information be included in the Draft EIS:

a. The pilot plant intake should be used to collect entrainment samples. This intake has been

designed as a scale model of the proposed desalinization plant intake and would better simulate actual conditions than the entrainment test apparatus previously used in 2010.

b. Sampling at the intake should be conducted weekly, from February through October to more accurately characterize seasonal variations of the ichthyoplankton subject to entrainment in the vicinity of the proposed intake.

c. At a minimum, four samples of 100 cubic meters or larger in volume, should be collected during each weekly sampling event, at times that will assess diurnal variability. Information should also be collected to determine the effects on entrainment rated due to tidal stages.

d. Previous sampling efforts withdrew water from the Hudson River through a 2 millimeter (mm) wedgewire screen and an open pipe oriented into the river flow. The Draft EIS states that the proposed plant will operate during ebb flow only, therefore samples should also be collected through an open pipe oriented downstream of tidal flow.

e. The Draft EIS did not comply with the Department's requirements regarding aquatic sampling. The use of wedgewire screens with a smaller slot width than 2mm should be tested, as specifically required by DEC in a memorandum, dated August 11, 2009, from Andrea Sheeran to Sameet Master regarding the Proposed Plan for Data Collection and Analysis, dated August 5, 2009. One mm and .5 mm sizes should be evaluated as requested.

f. Data from the above studies should be presented in the Draft EIS showing the estimated entrainment rates at "full flow", which the Draft EIS indicates is 10MGD. This rate should then be compared against estimates adjusted for the proposed plant operations with consideration for actual flow, time of year, time of day, tidal flow and proposed intake screens.

g. The Draft EIS should include a comparison of the estimated entrainment rate of the proposed plant with some or all of the six existing drinking water intakes located on the tidal portion of the Hudson River. Existing data may be utilized to generate these estimates.

42. Section 9A.5.1.1: Discuss the ability of the proposed sediment curtains to be maintained within the Hudson River during the range of flow conditions expected during project construction.

43. Section 9A.5.2.2, Page 9A-34: *"Because zebra mussel populations do not create a regular bio-fouling problem on intake structures located in freshwater locations more than 35 miles north of the Project Sites (i.e., Poughkeepsie Water Treatment Facility), zebra mussel is not expected to not create significant bio-fouling problems on intake structures located downriver where fluctuating salinity levels have the potential to create unfavorable conditions."* This sentence contains a confusing double negative. Please clarify.

44. Section 9A.5.2.2, Page 9A-36: List the author of the referenced Wedge-Wire Screen Efficacy Study.

Chapter 10: Hazardous Materials

45. Sediment sampling and analyses will be required to characterize sediments to be dredged/disturbed during installation of the intake structure. Samples will be required at both the potential Horizontal Directional Drilling (HDD) exit pit location and along the potential direct-bury route. A sediment sampling plan should be submitted to the Department for approval prior to collecting any samples. Procedures outlined in NYSDEC Technical and Operational Guidance Series (TOGS) 5.1.9 should be followed during write up of the plan and during sample collection and analyses.

46. Results of the sediment analyses will be evaluated to determine best management practices for dredging that will be imposed for construction of the intake structure, should the proposed project be approved, and potential monitoring requirements. See TOGS 5.1.9 Table 3 and Chapter IV. For UWNY's information, based on the U.S. Gypsum sediment sampling results, the sediment in the vicinity contains Class C levels of Polychlorinated Biphenyls (3 ppm). A discussion of this fact, and an overview of sediment management options per TOGS 5.1.9, should be made in this chapter.

Chapter 11: Infrastructure and Energy

47. Section 11.4.2.6- With regard to wastewater treatment capacity as indicated, if the proposed project's sludge is transmitted to the Haverstraw Joint Regional Sewage Treatment Plant for dewatering, instead of onsite treatment at the water treatment plant, the existing solids dewatering equipment in place at Haverstraw Joint Regional Sewage Treatment Plant may need to be replaced or upgraded to handle the water treatment plant sludge. This should be discussed in this chapter with cost data.

48. Section 11.4.4.3- Provide an assessment, including relevant data, of the viability of the site's wind resources and their ability to produce sufficient power to meet the electricity needs of the proposed water treatment plant. Such an assessment must include information on the wind power structures necessary to provide such power, with both height and total blade length. For UWNY's information, should the siting of a wind turbine at this site be pursued, DEC guidance on the review of wind energy generation projects should be followed.

49. Provide a qualitative analysis here that discusses the high energy needs of reserve osmosis membrane filtration and the potential for air quality impacts through the generation of electricity from available sources required to meet the energy needs of the proposed project.

Chapter 13: Noise

50. Noise levels in the Benson Street area may exceed a 6 decibels a-weighted (dBA) increase during the night, according to this chapter. A discussion of potential mitigation measures to reduce nighttime noise should be included. "Sound pressure increases of more than 6 dB may require a closer analysis of impact potential depending on existing sound pressure levels and the character of surrounding land use and receptors." DEC Program Policy DEP-00-1 "Assessing and Mitigating Noise Impacts" February 2, 2001 at page 13.

51. DEC's Noise Policy discusses the following as an option for assessing night time noise by assigning a weighting factor: "*Equivalent Sound Level (Leq) correlates well and can be combined with other types of noise analyses such as Composite Noise Rating, Community Noise Equivalent Level and day/night noise levels characterized by Day-night averaged sound level (Ldn) where an Leq(24) is measured and 10 decibels is added to all noise levels measured between 10 pm and 7 am. These different types of noise analyses combine noise measurements into measures of cumulative noise exposure and may weight noise occurring at different times by adding decibels to the actual decibel level. Some of these analyses require more complex noise analysis than is mentioned in this guidance. They may be used in a noise analyses prepared for projects.*" DEC Program Policy DEP-00-1 "Assessing and Mitigating Noise Impacts" February 2, 2001 at 7. This type of analysis is appropriate in this situation to avoid disturbing neighbors. Please use this guidance to prepare the

required analysis.

Chapter 15: Construction Impacts

52. An alternative intake design for withdrawal of water from the Hudson is not presented. Please present an assessment of the use of an "infiltration gallery". Include a discussion on the implications of the proximity of the Haverstraw Landfill to this type of intake structure with respect to potential for contamination.

53. With respect to sediment, an estimate of the amount of material to be dredged for each option, including the potential direct-bury option should be provided.

54. The Draft EIS should include a description of dredged material management options.

55. A discussion of the effectiveness of silt curtains in Hudson River flowing regime should be provided. This discussion should include a description of the configuration of silt curtains and whether they would be full-depth, weighted, and what velocity limitations apply.

56. The report should contain a description of possible alternatives to micro-tunneling under Minisceongo Creek and/or Haverstraw Marina in case that option proves to be infeasible.

57. Section 15.2.2.1.1: Tunneling - There needs to be an emergency response plan for the drilling fluid in case there is a spill or breakthrough into the river during tunneling. Include a description of what the drilling fluid is composed of.

58. Section 15.2.2.1.3: Cofferdams – The Draft EIS mentions using grout during the installation of the cofferdam. What kind of grout and what is it made of?

59. Provide information and data that the area of the Hudson River where the intake structure would be located is a previously disturbed area of the river. Provide the source of the previous disturbance.[1]

Chapter 16: Global Climate Change

60. Provide data or references demonstrating that Rockland County and any reservoirs located in the county would be impacted by drought associated with climate change.

61. Tables presented in this chapter should also be listed in the Table of Contents on Page TOC-14.

62. Section 16.4- Should be updated to reflect the latest in Federal actions and the status of the NYS Climate Action Plan.

63. Section 16.6.4: States *"…and the Proposed project contributes to adaptation to potential water security*

concerns related to the potential future impact of climate change." This statement should be identified as a conclusion of the project sponsor, i.e., "United Water believes that…".

64. Section 16.7: States "*There is no direct causal relationship with the Proposed Project's emissions and a specific climatic event*." While it is understood that there is a direct contribution to Climate Change and related impacts from the proposal, it is also recognized that this impact is difficult to measure. However, given the state goals of reducing CO2(e) 80% by 2050 from 1990 levels, options exist, and need to be identified and qualified, that if implemented would ensure the project is as close to carbon neutral as is practicable. Please make this idea clear in the Draft EIS.

Chapter 17: Coastal Zone Consistency[1]

65. Section 17.1, third full paragraph: Foreseeable affects on the coastal zone are applicable within United Water's service territory, not just other Local Waterfront Revitalization Plan communities.

66. Section 17.2.1.1: The discussion of Policy five should be expanded to include growth inducing aspects of the proposed project within or affecting the coastal zone in areas of United Water's service territory where public infrastructure may not otherwise be adequate. This discussion may be included with the larger growth inducing effects discussion.

67. Section 17.2.1.2: Please refer to DOS' commentary in its letter dated December 21, 2010, and reconcile any response with the discussion in the Draft EIS. This discussion should be cross referenced in Chapter nine of the Draft EIS.

68. Section 17.2.1.2: With respect to Coastal Zone Management Act policies nine and ten, avoidance should be considered prior to minimization of impacts in commercial and recreational fisheries impacts. Discuss how these impacts are first avoided, rather than only minimized or mitigated. This discussion may be included with the aquatic resource impact discussion.

69. Section 17.2.1.2: The Draft EIS does not provide sufficient analysis that there will be negligible impacts from releasing the high salinity reverse osmosis wastes into Haverstraw Bay. Please provide data from pilot plant operations.

70. Section 17.2.1.3: Discussion of Policy 14 should be expanded to include the in-water structure and associated scour or deposition.

71. Section 17.2.1.4: Discussion of Policy 20 should include an assessment of possible public use and potential for loss of use of the area proposed to be occupied by the intake structure.

72. Section 17.1.1.7: Discussion of Policy 24 should assess views identified within the Scenic Areas of Statewide Significance document available at www.nyswaterfronts.com. An effect on a Scenic Areas of Statewide Significance, not location within a Scenic Areas of Statewide Significance, is the test for applicability of this policy. This discussion may be included under the more general discussion of

1 DEC staff and Department of State staff, comment jointly.

visual impacts and cross referenced in section 17.

73. Section 17.2.1.10: Policy 39 analysis should be expanded to consider the reverse osmosis concentrate as waste.

Chapter 18: Alternatives

74. An alternative intake design for withdrawal of water from the Hudson is not presented. DEC recommends an assessment of the use of an "infiltration gallery" be included. An infiltration gallery was constructed along the Hudson River in the Town of Bethlehem, NY to supplement the town's water supply. While these systems have limitations, this type of intake would avoid in water construction impacts, and eliminate impingement and entrainment of aquatic organisms. It would also provide water lower in salinity than water directly withdrawn from the Hudson River at the proposed site. Include a discussion on the implications of the proximity of the Haverstraw Landfill to this type of intake structure with respect to potential for contamination.

75. The Chapter discusses the greenhouse gases associated with the No Action alternative, but as a minimum, a qualitative discussion should be included that discusses the greenhouse gas emissions associated with the other alternatives.

76. Provide an additional evaluation of alternatives to the proposed project focusing on the quantities of potable water and associated potential environmental impacts. The evaluation should include an "Alternative Summary Table" that identifies the various combinations of proposed alternatives and the quantities of potable water that each alternative will provide. The table should also include a summary of the potential environmental impacts of each alternative. Analysis should be quantitative, where data is available, otherwise qualitative. The table should be supplemented with a narrative that clearly, and accurately, summarizes both the potential quantities of potable water available from each alternative and their associated potential environmental impacts.

77. Section 18A.3.1.1.1, third paragraph: Discussion of the Lake DeForest Water Supply Permit should not discount the option of a permit modification. Please explain UWNY's conclusion that a permit modification isn't possible.

78. Section 18A.3.1.1.2: Revise per comment directly above.

79. Section 18A.3.1.1.3: *"United Water is unaware of any other alternative management strategies that might maintain higher flows in the Hackensack River downstream of Lake DeForest…"* This section should be revised and resubmitted to assess increase in flows that could result from the relocation of nearby wastewater treatment plant (WWTP) outfall flows in the upstream watershed.

80. Section 18B.3.2.1.2: figures 18B-4 and 18B-5 consider the visual impact of the potential 410 foot wind turbine. Compared to the visual analysis done for the preferred, low profile, alternative, the analysis for this large, vertical object is limited. Consequently, an additional desk top visual impact assessment is required for this structure, including a viewshed analysis, appropriate simulation, an assessment of the potential significance of the impact, and mitigation strategies. For guidance, please refer to NYS DEC Program Policy DEP-002 "Assessing and Mitigating Visual Impacts," July 31, 2000.

This document will be used by staff when evaluating the visual and aesthetic impacts generated from the proposed facility

81. Section 18C.3.2.1: The first paragraph of this section should be revised and resubmitted to identify the total acreage that would be needed for the Ambrey Pond project. Current wording is confusing and requires the reader to add the number of acreage owned by UWNY and the remaining acreage that will need to be acquired. If 459 acres is indeed the total acreage required for this alternative, it should be stated clearly here.

82. Appendix 18A.2: This appendix discusses mostly grey water reuse. There is no discussion of using treated effluent from Haverstraw Joint Regional Sewage Treatment Plant to recharge tributaries of Lake Deforest or the Hackensack River below the Deforest Dam. Water that goes to the Haverstraw Joint Regional Sewage Treatment Plant is being diverted out of the Hackensack / Ramapo basins. Discuss this.

Chapter 19: Cumulative and Indirect Effects

83. Revise this chapter to factually acknowledge the fact that water supplied to households in Rockland County will eventually reach one of the seven WWTPs in the county and will therefore have an impact on the receiving water's watershed. Assess those impacts. Despite the majority of Rockland County WWTPs having outfalls to the Hudson River, the three that discharge to the Ramapo River cannot be dismissed through UWNY's contention in Section 19.4.1 that *"the fact that the wastewater treatment plants that discharge to the Ramapo River are located a great distance from the Project Sites, it is extremely unlikely that any water produced by the Proposed Project would reach the Ramapo River watershed, either directly or through discharge to one of the wastewater treatment plants located near Suffern. Therefore, the Proposed Project is not anticipated to contribute to flows to the Ramapo River at Suffern or to downstream areas. Therefore, the proposed Project would not result in the indirect export of Hudson River water to the Ramapo River and would not affect downstream water supply systems."* Please explain this conclusion and discuss the implications of increased flows in the Ramapo River.

84. The quantity of water being moved from the Hudson River watershed to the Hackensack and Ramapo River(s) watersheds should be addressed in Section 19.4. The Draft EIS identifies this movement of water as a concern, but the Draft EIS never actually addresses the potential impact.[1]

85. Analyze how the presence of the proposed project impacts the current water supply needs of Rockland County; identify how the proposed project could alter UWNY's use of Lake DeForest particularly regarding the movement of water between New York and New Jersey.

Chapter 20: Growth-Inducing Aspects

86. This chapter does not address the growth-inducing aspects of the project that could result from a build-out beyond what current zoning allows. Assess whether the amount of water supplied by the proposed project would enable growth beyond what current zoning allows.

87. Approximate how many additional three-bedroom households could be served by the desalinization

plant based on DEC standardized hydraulic loading tables for sewage treatment plants. (*Design Standards for Wastewater Treatment Works for Intermediate Sized Sewerage Facilities- 1988*, Table 3- Expected Hydraulic Loading Rates, DEC Division of Water.) Provide exact references for growth projections along with planning documents indicating desirability of such growth in Rockland County. If such documents and references are available on the internet, state the web addresses. Website locations where the studies may be obtained is preferable, or if they are not available on the web, they should be either included or excerpted in the appendices. Then, in table format, summarize growth information by stating a base case for growth based on the no-action alternative, preferred alternative, and other alternatives.

Chapter 22: Unavoidable Impacts

88. Add a discussion of measures to avoid or mitigate potential impacts to potential archeological properties.

New York State Department of Environmental Conservation
Notice of Incomplete Application - This is NOT a Permit

Application ID: 3-3922-00221/00001 *Batch Number*: 608510

Facility: UWNY HAVERSTRAW REVERSE OSMOSIS WATER TREATMENT PLANT
70 GRASSY POINT RD
HAVERSTRAW, NY

Applicant: UNITED WATER NEW YORK INC *Owner ID*: 3089
360 W NYACK RD
WEST NYACK, NY 10994-1743

Permit(s) Applied for: 1 - Section 401 - Clean Water Act Water Quality Certification
1 - Article 15 Title 5 Excavation & Fill in Navigable Waters
1 - Article 15 Title 5 Stream Disturbance
1 - Article 15 Title 15 Water Supply

Project Location: in HAVERSTRAW in ROCKLAND COUNTY

Your application for Permit is incomplete. The following items are required:

The Draft Environmental Impact Statement (EIS) submitted on November 8, 2010 needs to be revised, amended and re-submitted to address the Department's concerns. The applications for permits this project requires will remain incomplete until the Draft EIS has been accepted.

Please submit requested information by _____
No further action can be taken until all of these materials are received.

Contact Person:
ANDREA SHEERAN
NYSDEC
625 BROADWAY
ALBANY, NY 12233

Telephone Number: (518) 402-9167

Signature:

Date: December 30, 2010

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

DAVID A PATERSON
GOVERNOR

RUTH NOEMÍ COLÓN
ACTING SECRETARY OF STATE

December 20, 2010

Ms. Andrea Sheeran
NYS DEC Division of Environ. Permits
Central Office
625 Broadway, 4th Fl.
Albany, NY 12233-1750

Re: F-2008-0753
U.S. Army Corps of Engineers/ NY District Permit Application
NYS DEC Region 3 Application
United Water - Haverstraw Long Term Water Supply Project - build and operate WTP and intake structure
Hudson River, Town of Haverstraw, Rockland County
Preliminary DEIS Comments

Dear Ms. Sheeran:

Thank you for the opportunity to review and comment on the United Water – Haverstraw Long Term Water Supply Project Preliminary Draft Environmental Impact Statement (EIS). The Department of State (DOS) anticipates that these comments will aid in the completion of a complete and informed EIS. Please note that the lack of comment regarding any particular topic should not necessarily imply that DOS agrees with or accepts the arguments contained therein. Note also that DOS will be reviewing United Water's consistency certification for the above referenced project upon submittal by the applicant of all necessary data and information required pursuant to the New York State Coastal Management Program (CMP) and the requirements listed at 15 CFR part 930 DOS has informed United Water by letter dated October 29, 2008 that a Final Environmental Impact Statement is considered required necessary data and information for DOS to begin its review of United Water's consistency certification; DOS has also engaged in substantial preliminary consultation with United Water and provided substantial EIS scoping comments to the DEC dated May 21, 2009

As indicated in our May 21, 2009 preliminary DEIS comments, a complete assessment of the proposed project's need is of paramount importance. In the DEIS, the applicant continually references Public Service Commission (PSC) orders requiring the establishment of a long term water supply option for Rockland County. However, as DOS was not involved with said order, DOS will need, and the DEIS should contain, the justification for requiring 7.5 million gallons per day of additional potable capacity From the analysis provided, it appears that existing population trends were projected into the future and that the only constraint applied to said projection is the maximum build out capacity of Rockland County based on current zoning. Additional constraints which will affect population patterns within Rockland County including potable water as a limiting resource were not included in the analysis. Consideration should be given to the overall water budget available to Rockland County and the decision to expand capacity beyond this budget should only be taken after all available options are considered. Furthermore, the document fails to adequately consider water conservation methods in its

assessment of need While it is recognized that United Water, as a business entity, does not have independent regulatory authority, it does, however, have the ability to recommend conservation and control measures to appropriate regulatory authorities as well as the ability to control new and illicit connections to its transmission and distribution systems. As such, the EIS should include documentation of United Water's attempts to control water usage through policy recommendations to applicable regulatory authorities and an assessment of United Water's ability to refuse new connections to its supply system, thus minimizing the need for the stated volume of potable water.

The preliminary DEIS also fails to consider the New York State Smart Growth Public Infrastructure Policy Act, enacted September 29, 2010. This Act states

> *"It is the purpose of this article to augment the state's environmental policy by declaring a fiscally prudent state policy of maximizing the social, economic and environmental benefits from public infrastructure development through minimizing unnecessary costs of sprawl development including environmental degradation, disinvestment in urban and suburban communities and loss of open space induced by sprawl facilitated by the funding or development of new or expanded transportation, sewer and waste water treatment, water, education, housing and other publicly supported infrastructure inconsistent with smart growth public infrastructure criteria "*

and as such, the effects of the proposed activity on sprawl either caused by the activity itself, or public infrastructure that the proposed facility will necessitate, must be evaluated. Information sufficient to allow applicable state agencies to make necessary certifications pursuant to this act should be included in the EIS This would include an assessment of the effects of any additional transportation or utility infrastructure that will be required should build out continue as anticipated.

Climate change and associated sea level rise impacts do not appear to be considered adequately within the provided document. Changing precipitation patterns, potential salinity regime changes and surface water level rise should be considered and their potential effects on the proposed projects operation should be analyzed.

Cumulative and secondary impacts associated with existing and future water withdrawals of Hudson River water, increased development associated with additional water supply, and the precedent setting nature of the proposed activity warrant additional consideration The effects of multiple desalinization plants withdrawing water from the saline portion of the Hudson River should be evaluated for their potential cumulative effects on coastal resources. In addition, the effects on coastal resources that the residential build out associated with the proposed increased water supply capacity will allow should be evaluated. This should include effects of increased stormwater runoff, air emissions, traffic and other impacts associated with sprawl.

The effects of discharging the reverse osmosis waste products, notably salts, on water quality within the Hudson River should be completely evaluated. While several references to state water quality standards are made, the applicant should be aware that SEQRA should assess impacts, not the ability of a certain activity to meet applicable standards; therefore, specific impacts associated with the changing salinity regime should be incorporated into the EIS. Additionally, alternative methods for waste salt disposal should be evaluated including offsite removal (i.e., dewatering and disposal, or retail/wholesale road salt).

The alternatives discussions warrant additional information and evaluation The waste water treatment and reservoir replacement alternative merits considerable further evaluation. Innovative waste management and recycling methodologies are generally encouraged by the CMP, as illustrated under

Policy # 32, and as the CMP requires that applicable coastal policies be advanced where possible, this alternative should not be discounted because of cost and undocumented potential public opposition DOS notes that the cost of this alternative is within the cost range of the preferred alternative and therefore the reasoning for discounting this alternative on the basis of cost is unclear The applicant should also note the DOS does not consider cost in its evaluation of an applicant's consistency certification.

In addition to the general comments provided above, DOS offers the specific comments listed below:

1) The Haverstraw Bay Significant Coastal Fish and Wildlife Habitat narrative states that "Any physical modification of the habitat or adjacent wetlands, through dredging, filling, or bulkheading, would result in a direct loss of valuable habitat area." The proposed desalination project would require permanent destruction of the substrate of Haverstraw Bay through dredging, filling, and bulkheading, as well as introduce increased levels of salinity back into Haverstraw Bay through the wastewater treatment facility As such the applicant should further evaluate the proposed project within the context CMP policy #7 and the narrative for Haverstraw bay, which discusses habitat destruction and alteration, especially since the project requires the withdrawal of water using a wedgewire screen system, trenching and dredging

2) What are the anticipated additional air emissions associated with the plant?

3) Provide information as to how locating the intake structure at 10 feet below mean water level would not interfere with any current or likely future navigation

4) More discussion should be provided within the alternatives analysis that considers the capture of stormwater to replenish groundwater systems?

5) How would the high salinity in the RO concentrate be returned to the brackish levels equivalent to the Hudson River at the time of discharge without additional water volumes equivalent to the original withdrawal?

6) The justification for the desalination plant is projected population growth rates for Rockland County thus necessitating a continuous water supply to meet unchecked demand Provide projected growth rates and land use patterns that support the unchecked growth, as well as the additional infrastructure expenditures required to maintain the water supply demand and the cost to rate payers.

7) The creation of a seemingly endless supply of water in a county already pushed to its population limits creates a situation where roadways, infrastructure, schools, fire and police services are unsustainable and unaffordable to meet the needs of an overpopulated region. Provide how these services will be met.

8) Provide information on the amount of dredging and filling that is planned for the installation of an intake pipe in the Hudson River

9) Provide data demonstrating that Rockland County and any reservoirs located in the county would be impacted by drought associated with climate change Provide more information on how any

projected future water needs could not be met through a reservoir system, thus offsetting the significant use of electricity that would be consumed through the desalination plant.

10) The project must be consistent with all 44 New York State coastal policies, not "generally" consistent as the applicant suggests

11) Provide further evaluation of alternative measures that combine multiple alternatives in a way that may provide for the volume of potable water purportedly needed.

12) Information within the Ambrey Pond Reservoir alternative analysis suggests that a significant increases in property taxes would occur. Provide information that the increase in property taxes would not be passed along in savings to Rockland County residents thus offsetting any increase in water rates.

13) Since there are no current approvals in land use, site plans, zoning, etc that would support increased population growth and the need for the desalination plant provide data that explains the counterintuitive reasoning presented on pages S-32-33. The availability of the unlimited water supply would be justification for unsustainable land use patterns and not the reverse as suggested by the DEIS.

14) Provide information, to supplement the municipalities withdrawing water from the Hudson River as a drinking water source, were the water withdrawals are operated by a private utility company.

15) Page 17-8 Provide data to support the generalized statements "Rapid recovery of the disturbed habitat would occur because the organisms present (benthos and fish) are adapted to living in highly variable and naturally disruptive environments"; "The increase in mortality represented by dredging would be offset very quickly by an increase in survival in the benthos as the disturbed substrate is re-colonized."

16) Provide information and data that the area of the Hudson River where the intake structure would be located is a previously disturbed area of the river. Provide the source of the previous disturbance.

17) p. 3-1. Why is land use analysis limited to 1000 ft. of project area? This would seem to be a narrow interpretation. The discussion here includes overviews from various local, regional, state planning documents/efforts. Should the discussion also include land use impacts or overall alignment with goals and objectives of these plans as a result of choosing this alternative over another?

18) p. 3-19 Section 3.3.1: "In the future without the Proposed Project, this DEIS assumes that land uses on the Project Sites would remain unchanged." Again, the narrow study area and project sites focus limits the analysis here How might surrounding land uses change, favorably or unfavorably, if the proposed project is advanced versus an alternative?

19) p. 6-11 Section 6.4.1. "Any development or growth that occurs in the immediate area would do so independent of the Proposed Project." The scope should look at any growth inducing aspects of the abandonment of considered project alternatives and plans as they relate to land use, development and potential growth

20) The document should address the land use issues associated with the potential disposition and use of lands should the Ambrey Pond project be abandoned?

21) Figure 3-2 Existing Zoning (just after page 3-5) is quite confusing- there are too many lines and too much white space. Perhaps if they used colors to represent the zones, the reader could get a better understanding as to where the zone boundaries are. Furthermore, the legend indicates that "PIO" is "Residential Waterfront", this should be "Planned Industrial Office".

22) Chapters 1 and/or 6 should provide the methodologies (or provide a specific reference to the studies) for the population projections that they are basing the need for the project on. It is understood how they arrived at the build-out analysis (based on current zoning), but they don't provide much related to how the population projections numbers were arrived at. Section 6.4.2 (on p. 6-11) provides slightly more information on the studies, but doesn't go so far as to provide a way for the reader to access those studies (I think they should be part of the appendix).

From page 6-2

6 2 1 1 RESIDENTIAL ANALYSIS

Future residential population and household estimates for Rockland County and the United Water service area are based on recent population projections from public and private sources, including the New York Metropolitan Transportation Council (NYMTC) demographic forecasts for 2010–2035 (released in 2009), Cornell University's Program on Applied Demographics (PAD) residential population projections by age and sex for Rockland County through 2035 (released in 2008), Rockland County Department of Planning's population projections through 2035 (released in 2010), and Woods & Poole Economics State Profile for New York through 2040 released in 2009) Additional discussion of these data sets is provided in section 6 4, "The Future Without the Proposed Project "

23) We are concerned about the quantity of water being moved from the Hudson River watershed to the Hackensack River watershed It should be addressed in section 19 4 (below)
The DEIS identifies it as a concern, but never actually addresses the potential impact The DEIS should provide some analysis of the potential impacts of drawing water from the Hudson, running it through United's system and it then it being ultimately discharged into the Hackensack River watershed from the wastewater treatment plant outfalls (as shown on Figure 19-3).

(From page 19-12)
19.4. INDIRECT EFFECTS ON OTHER WATERSHEDS
19.4.1. EFFECTS OF THE HAVERSTRAW WATER SUPPLY PROJECT ON OTHER WATER SUPPLIES

Concerns have been raised about the potential effects of the Proposed Project on drinking water supplies in other watersheds and the potential impacts of the Project on communities outside New York State Specifically, concerns have been raised that the introduction of Hudson River water to United Water's system would result in additional flows in the Hackensack and

Ramapo Rivers due to decreased demand for water from Lake DeForest and the Ramapo Valley Well Field, and that these additional flows are equivalent to the transport of Hudson River water to the Hackensack and Ramapo Rivers, which then flow to New Jersey

24) The DEIS does not appear to provide enough analysis, or security, that there will be negligible impacts from releasing the high salinity RO wastes into Haverstraw Bay. Perhaps with more data from the pilot study, instead of "modeling results" there will be greater confidence.

Chemical Parameters(from page 17-9)
"Finally, the construction and operation of the Proposed Project would not cause any impairment to the chemical parameters, including dissolved oxygen, carbon dioxide, acidity, dissolved solids, organics, salinity, and pollutants (e g , heavy metals, toxics and hazardous materials), identified in NYSDOS's CMP or Coastal Fish and Wildlife Habitat Rating Form As discussed in Chapter 9A, "Aquatic Natural Resources," there would be little, if any, effect on the chemical parameters associated with construction of the intake and its associated piping or the operation of the intake There is little, if any, effect on dissolved oxygen or carbon dioxide associated with the discharge of diluted RO concentrate from the water treatment plant via discharges through the JRSTP to the SCFWH There is the potential for very small changes to acidity, dissolved solids, organics, salinity and pollutants associated with the discharge for the water treatment plant via the JRSTP to the SCFWH However, all of these discharges would be in compliance with the JRSTP's SPDES permit, and would not cause any exceedance of the surface water quality standards Also, these water treatment plant discharges would not cause a change in the overall salinity patterns within the SCFWH Neither the construction nor the operation of the intake would impair dissolved oxygen, carbon dioxide, acidity, dissolved solids, organics, salinity, and pollutants in the Haverstraw Bay SCFWH "

(from page 17-10)
"As detailed in chapters cited above, modeling results for contaminant concentrations in the RO concentrate discharged to the JRSTP confirmed that the discharge would meet applicable NYSDEC surface water quality standards, which are established, in part, to ensure attainment of the designated uses, including the protection of aquatic life (6 NYCRR § 702 9) Therefore, the discharge of the RO concentrate to the JRSTP would not cause a potential for adverse impacts due to the introduction of hazardous pollutants or contaminants, and fish and wildlife resources would be protected "

25) Section 1.4.1.2 The table should be updated with 2010 information which will be available as of 12/21/2010.

26) Page 1-36 It is unclear whether the 17,948 housing unit build out analysis include lands currently contained within the footprint of the Ambrey Pond alternative. If so, they should be removed from this analysis. This build out analysis should also consider development constraints other that zoning, i.e. public infrastructure, steep slopes etc.

27) Section 1.4.2.4 should go into further detail and discuss why 13% is considered acceptable for "real losses" from the water supply system

28) Section 2.1, are there any controls proposed to limit Hudson River withdrawals should other water sources be adequate, (would river withdrawals be a last resort or a continual process)?

29) Section 2 2.1 identifies that the proposed facility could not be constructed outside of United Water's service area; the reasoning for this is unclear.

30) Page 2-19 states "...average load of TSS.. is 250,000/lbs/days at 1.3 MGD when plant is operating at full capacity." It is unclear whether this statement expects 1.3 MGD to be the full operating capacity or if this was a typographic error.

31) Page 2-34, do the per person cost estimates utilize current population levels or project population levels?

32) Section 2 7.4.4, please provide the citation for the NYS legislature mandate requiring no tax or fees to be charged for water withdrawals. The provided citation appear to pertain to monitoring requirements.

33) Page 2-36, DOS issues a concurrence of an objection to an applicant's consistency certification, not a determination.

34) Section 2.8 1 should discuss required federal resource agency consultation that are required as well as required regulatory agencies.

35) Section 4.5.2.11, The statement "The proposed project would not result in irreversible modification. ." does not include the entire statement that is provided within the CMP policy guidance. Policy guidance also adds the statement "the addition of structures which because of siting or scale will reduce identified views or which because of scale, form, or materials will diminish the scenic quality of an identified resource."

36) Section 6.2.1 should be updated with 2010 data

37) Please provide a list of desalinization facilities with similar locations and with similar rainfall regimes to the proposed project area.

38) Chapter 8 should discuss how changing sediment loads will affect the operation of the proposed facility.

39) Page 9A-29 should discuss the ability of the proposed sediment curtains to be maintained within the Hudson River during the range of flow conditions expected during project construction.

40) Page 9A-33 More justification beyond size is necessary to make the statement that the loss of habitat is not expected to result in significant impacts The narrative describing Haverstraw Bay says "Any physical modification of the habitat or adjacent wetlands, through dredging, filling, or bulkheading, would result in a direct loss of valuable habitat area "

41) Page 9A-34 the last sentence of the second full paragraph contains a confusing double negative.

42) Page 9A-36 what specific study is being referenced here.

43) Section 9A 5 5.1 Discuss why 707 square feet of habitat loss is not significant. An argument beyond percentage of overall habitat would not be considered sufficient to answer this question.

44) Section 14.5.1 This section appears to only evaluation air quality impacts associated with HVAC operations and not the high energy usage requirements of Reverse Osmosis. This section should be expanded.

45) Section 17.1 Third full paragraph, foreseeable affects on the entire coastal zone are applicable, not just other LWRP communities.

46) The discussion of Policy 5 should be expanded to include growth inducing aspects of the proposed project within or affecting the coastal zone. In areas where public infrastructure may not otherwise be adequate

47) Policy 7 discussion should be edited to demonstrate that the applicant understands that the reasons for designation of a SCFWH are irrelevant once designated. They all receive equal protection under policy 7 and based on their associated habitat narrative. Please consider that previous DOS decision demonstrate that new structures within Haverstraw Bay are generally discouraged How is this project different than previous DOS decisions?

48) Policy 9 and 10 avoidance should be considered prior to minimization of impacts in commercial and recreational fisheries impacts. Discuss how these impacts are first avoided, rather than minimized or mitigated.

49) Policy 14 should be expanded to include the in water structure and associated scour or deposition.

50) Policy 20 should include an assessment of the public's loss of use of the area proposed to be occupied by the intake structure.

51) Policy 24 should be expanded to include an assessment of views identified within the Scenic Areas of Statewide Significance (SASS) document available at www.nyswaterfronts.com. Please be advised that affects on a SASS, not location within a SASS is the test for applicability of this policy.

52) Policy 39, This policy analysis should be expanded to consider the reverse osmosis concentrate as waste.

53) Section 18A.2.1.2 should include an assessment of the volume of water potentially saved by increase the replacement frequency of United Water's infrastructure.

54) Section 18A can a combination of alternatives be employed that can provide adequate water supplies until the identified operating quarries have reached their useful life spans and then a quarry option be initiated? Several Tilcon quarries are purported to have an operational lifespan of 50 years Can mining activities be concentrated at one quarry, thereby making it available sooner for water storage purposes?

Please consider the above comments prior to the release of a DEIS to allow applicable agencies and the public ample opportunity to review the potential impacts of the proposed project.

If you have any questions or comments please contact Matthew Maraglio at 518 474-5290 (email. matthew.maraglio@dos.state.ny.us) and reference our file number F-2010-0753.

Sincerely

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Alexander B. Grannis
Commissioner

MEMORANDUM

TO: **Sameet Master, PE, UWNY**
FROM: **Andrea Sheeran, NYSDEC Division of Environmental Permits**
SUBJECT: **United Water New York Haverstraw Water Supply Project**
Proposed Plan for Data Collection and Analysis
DEC ID: 3-3922-00221/00001
DATE: **11 August 2009**

New York State Department of Environmental Conservation (DEC) has reviewed the United Water New York Haverstraw Water Supply Project Proposed Plan for Data Collection and Analysis, submitted via electronic mail on 05 August 2009. The plan, as submitted, is inadequate. DEC, as Lead Agency under State Environmental Quality Review (SEQR) overseeing the preparation of the Environmental Impact Statement (EIS) on this project, offers the following comments, and will require the following additional items be incorporated into the referenced plan:

1.) DEC is looking to have this study assess diel, tidal, seasonal, and inter-annual variability. Weekly sampling must occur throughout the entire season, from spring through fall, for at least one year. All species entrained or potentially entrained must be identified and enumerated. Information on the total number of fish eggs and larvae that will be entrained under all pumping scenarios each year by species and life stage is required.

2.) The entrainment study should address the effectiveness of narrower slot wedge wire screens (0.5 mm and 1.0 mm) on minimizing entrainment for the purpose of informing the evaluation of all possible technologies and eventual selection of the most protective technology available.

3.) Standard Operating Procedures and Quality Assurance/Quality Control procedures for both field collections and laboratory analysis must be submitted.

4.) Entrainment impacts need to be evaluated at all pumping scenarios at all potential withdrawal times and tidal periods (flood vs. ebb).

5.) DEC notes that Alden Labs have been selected by UWNY to perform sampling. Please provide contact information for a representative from Alden who can discuss these sampling activities with DEC's Division of Fish, Wildlife and Marine Resources staff.

These comments are consistent with the EIS Scoping document that DEC and UWNY prepared cooperatively and finalized on 29 June 2009, specifically those items to be addressed by Chapter Nine: Natural Resources in the Scope and the Draft EIS prepared by UWNY in September of 2008.

As always, please feel free to contact me with questions or to discuss. I can be reached at 518-402-9154 or via email at axsheera@gw.dec.state.ny.us. For specific, technical questions on the items listed in this memorandum, please contact Chuck Nieder of DEC's Division of Fish, Wildlife and Marine Resources, Bureau of Habitat at 518-402-9216 or via email at wcnieder@gw.dec.state.ny.us.

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