The City of New York
West of Hudson
Hydroelectric Project
FERC Project No. 13287
Joint Meeting
December 16, 2009
Agenda

• Overview of Project
  – West of Hudson Water Supply System and Project Developments
  – Preliminary Plans for Hydropower Facilities at Each Development
    (*Cannonsville, Pepacton, Neversink, Schoharie*)
  – Proposed Operations
  – Project Feasibility Evaluation

• Overview of Licensing Process

• Overview of Pre-Application Document

• Overview of Proposed Studies

• Schedule

• Stakeholder Input
Proposed Developments

• Project includes four hydroelectric facilities:
  – Cannonsville Dam and Reservoir
  – Neversink Dam and Reservoir
  – Downsville Dam and Pepacton Reservoir
  – Gilboa Dam and Schoharie Reservoir
Cannonsville Pepacton Schoharie Neversink

Delaware River Basin Developments

Cannonsville Reservoir/ Cannonsville Dam
- **West Branch Delaware River**

Pepacton Reservoir/ Downsville Dam
- **East Branch Delaware River**

Neversink Reservoir/ Neversink Dam
- **Neversink River**

Schoharie River Basin Development

Schoharie Reservoir/ Gilboa Dam
- **Schoharie Creek**
Cannonsville Development

Cannonsville Reservoir

Existing Intake Structure

New Powerhouse

Emergency Gate Tower

Cannonsville Dam

Cannonsville Development
Pepacton Development

Replace valve with turbine

East Branch Delaware River

Pepacton Reservoir

Downsville Dam
Neversink Development

Replace valve with turbine
Schoharie Development

- Proposed Intake Structure
- New Powerhouse
- Low Level Outlet Structure
- Proposed Low Level Outlet Main Shaft
- Proposed Intake Structure
- Gilboa Dam
- Schoharie Creek
- Schoharie Reservoir
Preliminary Permit

• A preliminary permit is not a project approval – the permit maintains priority of an application for a license while the permittee studies the development and prepares to apply for a license.

• A preliminary permit is not a FERC approval of a proposed project and it does not authorize construction or operation of a hydro unit.

• Obtaining a preliminary permit is the first step in considering the development of hydroelectric generation and occurs long before a license application is filed.

• Once a preliminary permit is secured the permittee can begin gathering all known and reasonably available data about the project including the environmental setting, engineering data, economic considerations, and potential interested parties. This information is compiled into a pre-application document (PAD) and is submitted to FERC and potential stakeholders.

• Using the PAD as a baseline and engaging stakeholders, the permittee can then identify additional data and studies that might be needed to analyze the potential impacts and benefits of the Project.
Overview of Licensing Process

Permit Application → Pre-Application Document → Stakeholder Participation → Develop and Perform Studies and Analyses

License Application → Environmental Review → License Approval

Construction
Proposed Operations

• Hydropower generation will be secondary to meeting the City’s water supply needs

• NYCDEP plans to operate the Delaware River Basin Developments (Cannonsville, Neversink, and Pepacton) in concert with the Flexible Flow Management Program (FFMP), unless modified by the Decree Parties (the City and the States of DE, NJ, NY, and PA)

• Water available for hydropower generation at the Delaware River Basin Developments will be comprised of conservation and directed releases, in parallel with the FFMP

• Hydropower operations at the Delaware River Basin Developments will not change the magnitude, timing, or frequency of downstream flow releases as set forth in the FFMP

• The Schoharie Development will operate in accordance with NYCDEP’s snowpack management program employed at the Schoharie Reservoir
Pre-Application Document Overview

• Helps identify and evaluate potential impacts of hydropower facilities
• Provides background information on the City’s existing reservoirs and dams
• Discusses engineering, operational, economic, and environmental information pertaining to the Project that was reasonably available and known at the time the Notice of Intent was filed
• Contains a preliminary evaluation of the following potential environmental impacts associated with the Project:
  – Geology and Soils
  – Water Resources
  – Fish and Aquatic Resources
  – Wildlife and Botanical Resources
  – Wetlands, Riparian and Littoral Habitats
  – Rare, Threatened and Endangered Species
  – Recreation and Land Use
  – Aesthetic, Cultural, Socio-Economic and Tribal Resources
• Describes studies to be performed by the City to support its license application
Overview of Proposed Studies

• NYCDEP plans to continue operating the reservoirs and dams associated with the Project in accordance with current operations and the FFMP

• Accordingly, the proposed studies relate to resource impacts due to the addition of hydropower operations at each of the Developments

• The proposed studies generally address impacts associated with construction-related activities
Project Feasibility Evaluation

• The City is evaluating the feasibility of each Project Development

• The analysis for each Development includes:
  – Identifying design alternatives by examining methods to convey water to the hydropower facilities, powerhouse location, and number/size of turbines
  – Estimating average annual generation (MWh/year) for various identified design alternatives
  – Estimating development costs for various identified design alternatives

• The assessment will inform the City as to which Developments/design alternatives are likely to be economically viable and should be further analyzed

• Based on a preliminary screening analysis, the Schoharie Development may not be economically feasible
  – The City is further analyzing the Schoharie Development to determine whether there are alternatives that are likely to be economically viable
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Site Visits and Joint Meeting</td>
<td>Dec 15-16, 2009</td>
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<tr>
<td>Stakeholders submit written comments on the PAD and submit study</td>
<td>Feb 15, 2010</td>
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<td>requests to NYCDEP and FERC</td>
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<td>NYCDEP develops study plans</td>
<td>Feb 15 - Mar 15, 2010</td>
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<tr>
<td>NYCDEP produces draft study plans</td>
<td>April 2010</td>
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<tr>
<td>NYCDEP finalizes study plans</td>
<td>May 2010</td>
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<tr>
<td>NYCDEP conducts studies</td>
<td>Summer 2010</td>
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<tr>
<td>NYCDEP submits Draft License Application</td>
<td>Sep 2011</td>
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<td>Stakeholders submit comments on Draft License Application to NYCDEP</td>
<td>Dec 2011</td>
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<td>and FERC</td>
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<tr>
<td>NYCDEP submits Final License Application</td>
<td>Mar 2012</td>
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Environmental Review

- The National Environmental Policy Act requires a comprehensive evaluation of the environmental impacts of the Project as part of the licensing process
  - The environmental review is conducted after the City files an Original License Application for the Project with the FERC
  - Until an application is filed, there is no “action” requiring an environmental review

EA – Environmental Assessment
EIS – Environmental Impact Statement
NEPA – National Environmental Policy Act
Stakeholder Input

- Provide feedback on the PAD
- Provide input on study requests
- Discuss other issues/concerns
Contact Information

• For further information:

Ms. Zinnia Rodriguez
Principal Administrative Assistant
Bureau of Legal Affairs
New York City Department of Environmental Protection
59-17 Junction Boulevard, 19th Floor
Flushing, New York 11373
Phone: 718-595-6553
Fax: 718-595-6543
Email: zinniar@dep.nyc.gov