

The City of New York  
West of Hudson  
Hydroelectric Project



FERC Project No. 13287

Joint Meeting

December 16, 2009

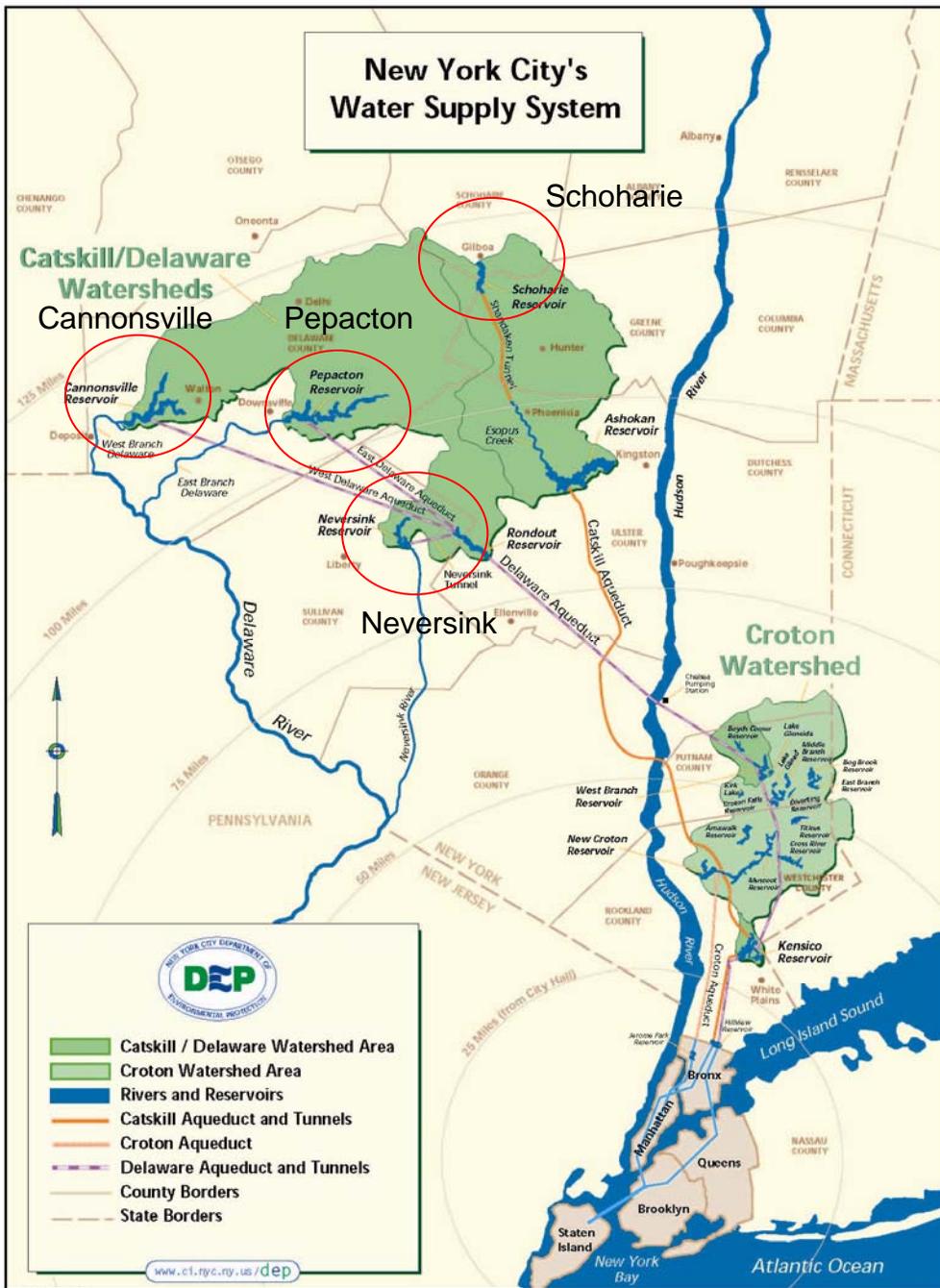


# Agenda

- 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



## 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*



Spillway

*Cannonsville Reservoir*

Cannonsville Dam

Existing Intake Structure

New Powerhouse

Emergency Gate Tower

# Cannonsville Development



East Branch  
Delaware River

Pepacton  
Reservoir

Downsville Dam



Replace valve with turbine

# Pepacton Development



Replace valve with turbine

# Neversink Development

Neversink Dam

Neversink River

# Schoharie Development

Schoharie Creek

New Powerhouse

Low Level Outlet Structure

Proposed Low Level Outlet Main Shaft

Gilboa Dam

Proposed Intake Structure

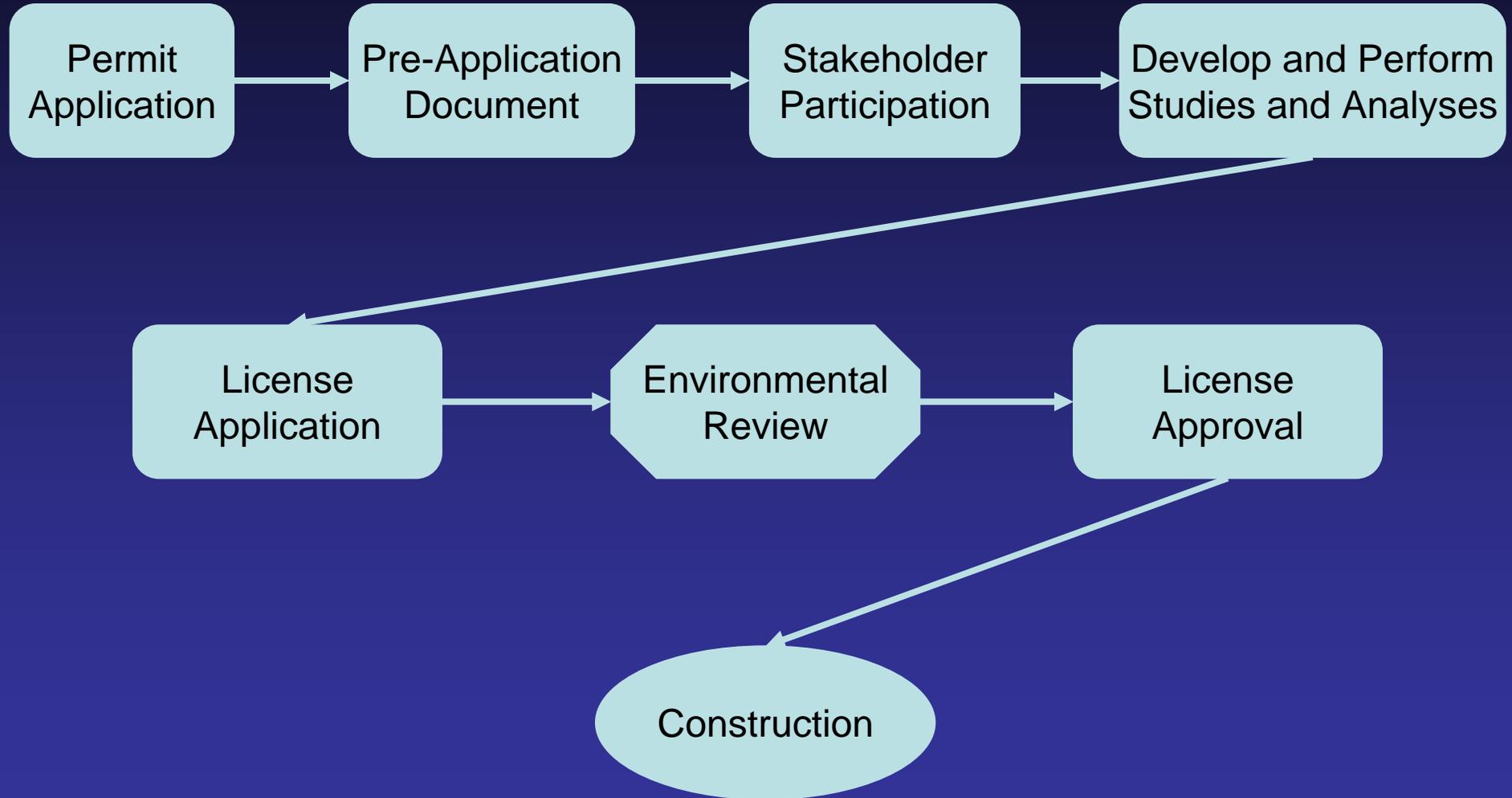
Schoharie Reservoir



# 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



# 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

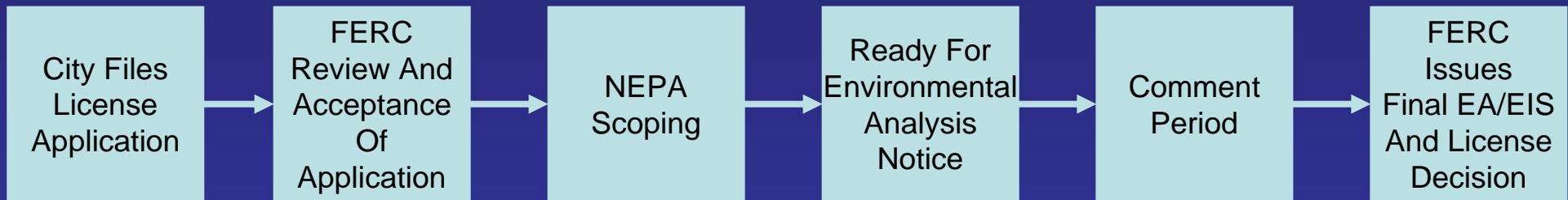
- The City is evaluating the feasibility of each Project Development
- The analysis for each Development includes:
  - Identifying design alternatives by examining methods to convey water to the hydropower facilities, powerhouse location, and number/size of turbines
  - Estimating average annual generation (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

# Pre-Licensing Process Schedule

Site Visits and Joint Meeting	Dec 15-16, 2009
Stakeholders submit written comments on the PAD and submit study requests to NYCDEP and FERC	Feb 15, 2010
NYCDEP develops study plans	Feb 15 - Mar 15, 2010
NYCDEP produces draft study plans	April 2010
NYCDEP finalizes study plans	May 2010
NYCDEP conducts studies	Summer 2010
NYCDEP submits Draft License Application	Sep 2011
Stakeholders submit comments on Draft License Application to NYCDEP and FERC	Dec 2011
NYCDEP submits Final License Application	Mar 2012

# 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:

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