

**INTERIM REPORT
TO THE GOVERNOR**

by the

Hinckley Reservoir Working Group

December 17, 2007

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Interim Report to the Governor

by the Hinckley Reservoir Working Group

SUMMARY

The Hinckley Reservoir Working Group set forth a strategy and schedule for accomplishing the Governor's charge and has begun its work. The Working Group was charged by the Governor to examine and make recommendations regarding specific issues surrounding the uses of water from Hinckley Reservoir.

Issues identified to be critical to the Working Group's charge include: operational requirements for water users; communications and emergency response; and the hydrology of water sources that feed the Hinckley Reservoir and the Barge Canal. In addition, several other issues that have been raised will be summarized in the Final Report of the Working Group.

This interim report describes the Working Group's progress to date and outlines the Working Group's strategy for meeting the Governor's charge, including the completion and submittal of a Final Report to the Governor in March 2008.

BACKGROUND

Working Group Formation

On October 19, 2007, Governor Eliot Spitzer directed the formation of the Hinckley Reservoir Working Group. The Working Group was charged by the Governor to examine specific issues surrounding the uses of water from the Hinckley Reservoir and to make recommendations regarding:

- the water levels needed at the Hinckley Reservoir to service drinking water needs, fisheries, power generation and canal operations;
- the capability of other canal reservoirs to help meet those needs;
- an early warning system to communicate drought situations to stakeholders and facilitate their communication regarding all competing needs; and
- a report of the water usage and meteorological data for 2006 and 2007 to better understand the factors that contributed to low reservoir conditions in the fall of 2007.

The Working Group is chaired by the New York State Department of Health (NYSDOH) and includes the following members:

- Oneida County
- Herkimer County
- New York State Department of Environmental Conservation (DEC)
- New York State Emergency Management Office (SEMO)
- NY State Thruway Authority (NYSTA) and Canal Corporation (Canal Corp)
- New York Power Authority (NYPA)
- Mohawk Valley Water Authority (MVWA)
- New York State Office of Parks, Recreation and Historic Preservation (OPRHP)

Representatives of the Governor's Office have supported the Working Group by attending meetings and providing assistance to the Working Group as needed. A list of participants is included in Appendix 1 of this interim report.

Hinckley and Delta Lake Reservoirs

The Hinckley Reservoir, located in Herkimer and Oneida Counties, and the Delta Lake Reservoir, located about 15 miles west in Oneida County, were constructed by the State when the old Erie Canal was converted into the modern day Barge Canal in the early 1900s. See Figure 1. These reservoirs were constructed to serve as the primary water sources for the Barge Canal near Rome and Herkimer, NY. The Delta Lake Reservoir was designed to serve as the primary source of water for the highest elevation of the canal, the critical Rome summit section, that is located between canal locks 20 and 21 near Rome, NY. The Hinckley Reservoir serves as the primary source of water for the Mohawk River portion of the Barge Canal, located east of the Rome summit section near Herkimer, NY. Hinckley Reservoir water is also used to maintain navigation in the Rome summit section when water is diverted from West Canada Creek, through a feeder canal to Nine Mile Creek, and then into the Rome summit section. Water supplied to the Rome summit section is essential for canal navigation westward to Oneida Lake and beyond and eastward towards the Hudson River. There is a number of other available water sources for the Rome summit section, but none are capable of providing the quantity of water that the primary reservoirs at Hinckley and Delta provide.

The Hinckley Reservoir also serves as the sole source of drinking water for the greater Utica area; provides water to hydropower facilities operated by the New York Power Authority (NYPA) at the Hinckley Dam and independent power producers located downstream along West Canada Creek; and provides water to maintain the prime trout waters of West Canada Creek. Prior to the construction of the Hinckley Reservoir, West Canada Creek was used as the source of drinking water for the Utica area and to produce hydropower by the predecessor companies of the current independent hydropower producers. The Delta Lake Reservoir does not serve as a public drinking water supply and is not presently used for hydropower production, but water released from Delta helps to maintain the fishery in a portion of the upper Mohawk River. Both

the Hinckley and Delta reservoirs provide flood protection benefits for downstream areas, but neither were built nor are operated for the primary purpose of flood management.

The Hinckley Reservoir is operated by NYPA pursuant to a 1982 Federal Energy Regulatory Commission (FERC) license and a Hydropower Easement and Operating Agreement between the Canal Corp and NYPA. This agreement requires NYPA to operate the Hinckley Reservoir in accordance with a 1920 Hinckley Reservoir Operating Diagram. NYPA performs daily operations associated with the Hinckley Dam under the oversight of the Canal Corp. NYPA's role includes controlling releases made from Hinckley Reservoir into West Canada Creek and coordinating reservoir management activities with the independent hydropower users located downstream. The Mohawk Valley Water Authority (MVWA) operates and maintains an intake structure at the Hinckley Dam to obtain water directly from the reservoir for subsequent treatment.

The Delta Lake Reservoir is operated and maintained by the Canal Corp without NYPA involvement. Delta Lake State Park, operated by OPRHP, is located on the reservoir and depends upon reservoir operations for recreational purposes (beaches and boating) and as a source of non-potable water. The Canal Corp communicates water management information to the OPRHP as needed.

Overview - Summer / Fall of 2007

In the summer and fall of 2007, Hinckley Reservoir water levels were well below normal for that time of the year. In September 2007, the Mohawk Valley Water Authority (MVWA), Oneida County and the NYSDOH raised concerns about the continued operation of the drinking water supply. By mid-September reservoir water levels were at a historic low for September and declining due to lack of precipitation and continued reservoir releases. The Hinckley Reservoir, which is the sole source of water for approximately 130,000 people, was reported to be at 17% of capacity.

These concerns led to a number of responses by involved parties. On September 17, 2007 the Canal Corp initiated an hourly locking schedule to conserve water. On September 24, 2007 NYPA reduced the releases being made from the Hinckley Reservoir at the direction of the Canal Corp. On September 25, 2007, State and County agencies held a conference call to review and assess the situation. One result of the September 25th conference call was an agreement to further reduce releases from Hinckley to help stabilize the reservoir elevation. On September 26, 2007, Oneida County Executive Anthony Picente issued a County drinking water conservation emergency, and the public served by the MVWA was directed to initiate mandatory water conservation measures. In the following weeks, a number of conference calls and meetings were held and subsequent steps were taken by the involved State and County agencies to help stabilize the reservoir, including:

- DEC agreed to a temporary reduction in the minimum required discharges to West Canada Creek and initiated continuous monitoring of stream conditions below Hinckley because of fishery concerns.
- Canal Corp temporarily suspended water diversions from West Canada Creek to the Canal summit, normally used to maintain Canal water levels for navigation.
- Canal Corp revised canal operations to draw water from other sources, including from Delta Lake Reservoir, and continued the previously initiated hourly lockings.
- NYPA further reduced reservoir releases, at Canal Corp direction, to help stabilize the reservoir elevation. Independent hydropower producers went off line as a result of lowered releases. NYPA power production went offline in early September as result of hydraulic limitations when the reservoir level fell below 1195 feet.

Several significant rain events occurred in October and November 2007 that caused the reservoir to recover. The County declaration was carried through until October 16, 2007, when drinking water users were allowed to resume normal water usage. By October 23, 2007 normal releases from the Hinckley Reservoir needed for downstream users were resumed and NYPA returned to producing power at the Hinckley Dam. By mid-November the reservoir water elevations had returned to levels typically seen during that time of the year.

STATUS of WORKING GROUP ACTIVITIES

The Hinckley Reservoir Working Group was convened in October 2007 and as of December 17, the full group has met three times at the State Office Building in Utica. All of these meetings were open to the public and included a comment period for members of the general public and other interested parties.

Copies of the agendas for the full group meetings, including the objectives for each meeting, are included as Appendices 2, 3 and 4 to this interim report.

First Working Group Meeting

The first full Working Group meeting was held on November 2, 2007. The objectives of this first meeting included establishing an understanding of water uses and infrastructure and mapping out a plan to complete the charge to the Working Group.

To help develop a plan to meet the Governor's charge, member agencies were asked to identify issues that are of concern to them and to propose ideas for the structure and responsibilities of technical committees to address these issues. Member agencies were also asked to provide input on content that should be included in a final report to the Governor. Input from the member agencies was then used to begin the development of a committee structure and charges for individual committees.

Presentations were made by NYPA, the Canal Corp, MVWA and the DEC. NYPA gave the Working Group an overview of the hydropower operations that rely on water released from the Hinckley Reservoir. The Canal Corp provided a summary of canal operations, especially focusing on the use and management of the multiple water resources that supply water to the Canal summit section for navigation needs. MVWA reviewed the operation of the drinking water system that serves the greater Utica area, including plans and considerations for future water service expansions. DEC gave the Working Group an understanding of the high value of the West Canada Creek fishery and the results of its monitoring of low flow conditions during fall 2007.

Second Working Group Meeting

The second full Working Group meeting was held on November 16, 2007. The objectives of the second meeting included: reviewing an outline for the final report and forming committees and agreeing on their charges.

During the November 16 meeting, three committees were formed to help the Working Group meet its charge. Leadership for each committee was assigned and member agencies were asked to assign staff to participate on these committees. The three committees are communications, operations and hydrology. The charges to each of these committees and the assigned committee participants are in Appendix 5.

All three committees have begun their efforts to meet their assigned charges and tasks. All three committees have met at least once since they were formed.

Third Working Group Meeting

The third full Working Group meeting was held on December 10, 2007 to review this interim report prior to its submittal, review the progress of the committees, and to identify and address any new issues that have arisen as the three committees work to complete their charges.

ISSUES IDENTIFIED

Many issues have surfaced as result of the formation of the Working Group, the Governor's charge to the group, input from member agencies, and input from other interested parties. Some of these issues have become reasonably well defined, some require additional evaluation by the group and its committees, and some issues may not be specific to the Governor's charge.

Critical Issues Directly Related to the Governor's Charge

1. Operational Requirements for Water Users

The Working Group needs to understand the infrastructure, operational needs and legal obligations of water users of Hinckley Reservoir, West Canada Creek and other Canal summit sources (including Delta Lake Reservoir) to be able to respond to its charge. Associated with this issue are: identifying water needs for the various users; multiple legal and contractual obligations; licenses and permits that control how water users operate; and operational and infrastructure limitations at the Hinckley Reservoir and other Canal summit sources. How the water resources are managed is especially important during stressed conditions.

2. Communications and Emergency Response

Communications are key to managing water use at the Hinckley Reservoir, especially during periods of prolonged drought or floods. A communications protocol should consider which entities and contacts should be included, setting trigger level(s) for early warning communications, and identifying possible actions to be taken. In addition to providing for early warnings, communication protocols should support routine communications and data sharing among stakeholders that may serve to avoid problem conditions.

3. Hydrology/Data Needs

Assessment of the hydrology related to water resources available to Hinckley Reservoir, West Canada Creek and other Canal summit sources is needed to determine the probability of recurrence of low levels in the Hinckley Reservoir. This should include an evaluation and understanding of the 1920 Hinckley Operating Diagram and a comparison to long term conditions that have occurred since its formulation. Identifying data gaps and developing, compiling and analyzing data that are necessary for assessing and establishing triggers for emergency communication and operational change are needed.

Issues Outside of the Governor's Charge

A number of related issues were raised by Working Group members and interested parties that are not specific to the Governor's charge to the Working Group. The Working Group has acknowledged these issues and plans on identifying and summarizing them in the final report. Related issues raised so far include:

- Future economic development;
- Future water service area expansion;
- Recreational activities;
- Commercial operations (e.g. marinas, camps, campgrounds);
- Agricultural operations;
- Property values; and
- Private wells.

In addition to these issues, litigation is pending between MVWA, the Canal Corp and others that is related to matters being addressed by the Working Group. For a number of reasons, the Working Group will not be discussing or offering an opinion on the litigation itself.

FINAL REPORT STATUS

An outline for the draft final report was developed for review by the Working Group. The Working Group's comments have been incorporated into the revised draft final report outline dated November 19, 2007 and included herein as Appendix 6. The draft outline includes collaborative writing assignments for each section of the report and identifies where contributions from the technical committees will be needed. The outline may be modified as needed as the Working Group prepares the final report.

The member agencies have been charged with producing first drafts of the first three background sections by January 4, 2008 for evaluation by the Working Group in its scheduled January 8, 2008 full Working Group meeting. For some areas of the report, a significant amount of data gathering and evaluation is required. For other areas, data gaps may be significant and will be identified and prioritized. Data evaluation and collaboration among committees and member agencies is likely to continue through March 2008.

CONCLUSION

The Hinckley Reservoir Working Group has been formed and all member agencies are participating. A strategy is in place to meet the Governor's charge and make use of the member agency resources and talents. The Working Group has produced an outline for the Final Report, is drafting background sections for that report, and is compiling and analyzing the data necessary to address the issues outlined in the Governor's charge. It is clear from the group's discussions that the issues associated with the management of the Hinckley Reservoir are technically and legally complex and involve many interests and agencies.

APPENDICES

Appendix 1 - List of Member Agency Representatives

AGENCY / PRIMARY CONTACT	ALTERNATE / ADDITIONAL PARTICIPANTS
<p><u>Chair:</u> Nancy Kim Interim Director, Center for Environmental Health New York State Department of Health</p>	
<p><u>Governor's Office:</u> Delores Caruso Regional Representative Office of the Governor</p>	<p>Anthony Giardina Office of the Governor Director of Regional Affairs</p>
<p><u>Oneida County:</u> Honorable Anthony J. Picente, Jr. Oneida County Executive</p> <p>Daniel W. Gilmore Environmental Health Director Oneida County Health Department</p>	<p>Al Candido Chief of Staff</p> <p>Nick DeRosa Public Health Director Oneida County Health Department</p> <p>Sean Clive Oneida County Health Department</p> <p>Joseph Robertaccio Oneida County Health Department</p>
<p><u>Herkimer County:</u> Honorable James W. Wallace Herkimer County Administrator</p> <p>Robert Vandawalker Director of Emergency Medical Services</p>	<p>Dr. Gregory O'Keefe Director of Public Health Herkimer County Health Department</p>
<p><u>New York State Department of Environmental Conservation:</u> Judy Drabicki Director, DEC - Region 6</p> <p>Skip Shoemaker Regional Engineer DEC - Region 6</p>	<p>Al Ashe DEC - Region 6</p> <p>Mike Holt DEC - Albany</p>
<p><u>New York State Emergency Management Office:</u> Thomas Fargione Deputy Director for Response</p> <p>Brian Head SEMO</p>	<p>John Gibb Director</p>
<p><u>New York State Thruway Authority:</u> Daniel Gilbert Chief of Staff, NYS Thruway Authority</p>	<p>Richard Garrabrant NYS Thruway Authority, Syracuse Division</p>

AGENCY / PRIMARY CONTACT	ALTERNATE / ADDITIONAL PARTICIPANTS
<p>Lawrence Frame Deputy Director, NYS Canal Corporation</p>	<p>Pamela J. Davis NYS Canal Corporation</p> <p>Howard Goebel NYS Canal Corporation</p> <p>Steven P. Eidt NYS Canal Corporation</p> <p>Catherine Sheridan NYS Canal Corporation</p> <p>Ray Engel NYS Thruway Authority</p> <p>Tony Kirby NYS Thruway Authority</p>
<p><u>New York State Power Authority:</u> John Osinski Director of Regulatory Affairs</p> <p>Richard Mueller New York State Power Authority</p>	<p>Mark Malone New York State Power Authority</p>
<p><u>Mohawk Valley Water Authority:</u> Patrick Becher Executive Director</p> <p>Dick Goodney Mohawk Valley Water Authority</p>	<p>Connie Schrepel Mohawk Valley Water Authority</p> <p>Elisabeth DeGironimo Mohawk Valley Water Authority</p>
<p><u>New York State Office of Parks, Recreation and Historic Preservation</u></p> <p>Marc Talluto Director Health, Safety and Emergency Management</p> <p>Laura Tully Manager, Delta Lake State Park</p>	
<p><u>New York State Department of Health:</u> Richard Svenson Director, Division of Environmental Health Protection</p> <p>Victor Pisani Director, Bureau of Water Supply Protection</p>	<p>Bruce Phillips Division of Legal Affairs</p> <p>Jack Dunn Bureau of Water Supply Protection</p> <p>Craig D. Jackson Bureau of Water Supply Protection</p> <p>Kristine L. Wheeler Bureau of Water Supply Protection</p> <p>Ron H. Heerkens Director, Central Regional Office</p> <p>John Strepelis Central Regional Office</p>

Appendix 2 - November 2, 2007 Meeting Agenda and Minutes

Hinckley Working Group

AGENDA - First Meeting
November 2, 2007 10:00-12:00 Noon
Utica State Office Building
207 Genesee Street
Conf Room A and B

Objectives - The objectives of this first Working Group meeting are:

- for participants to meet and get to know each other
- to lay out ground rules for participation
- to develop a fuller understanding of water uses and infrastructure
- to map out a plan to meet the Governor's direction to the Working Group
- schedule subsequent meetings and conference calls

INTRODUCTIONS - Nancy Kim 10 min

RESPONSIBILITIES of the GROUP - Nancy Kim 10 min

PRESENTATIONS - Overview of Infrastructure and Operations
Dependent on Hinckley Reservoir

West Canada Creek Hydropower - NYPA	15 min
Canal Operations - Canals	15 min
Drinking Water - MVWA	15 min
West Canada Creek Fishery – DEC	10 min

WORKING GROUP REPORTS - Nancy Kim 10 min

OPEN FOR COMMENTS 15 min

ASSIGNMENTS & FOLLOWUP MEETINGS - Nancy Kim 20 min

Hinckley Working Group

MEETING MINUTES

10:00 a.m. Friday, November 2, 2007
Utica State Office Building, Conference Room A-B

OBJECTIVES, INTRODUCTION AND WORKING GROUP RESPONSIBILITIES

Nancy Kim, PhD, Working Group Chair

- Meeting convened at 10:10 a.m.
- Group reviewed agenda, issues to consider (report outline) and contact list. All working group members were asked to verify the contact information on the handout, make corrections, and provide any updates to NYSDOH staff at the conclusion of the meeting.
 - Time for public comments set aside at the end of the meeting. Anyone interested in making a comment was asked to check the box on the sign in sheet.
 - Written comments will be collected by Craig Jackson from NYSDOH at:
New York State Department of Health
Bureau of Water Supply Protection
Flanigan Square
547 River St.
Troy, NY 12180
(518) 402-7650
cdj01@health.state.ny.us
- Media inquiries should be forwarded to Christine Pritchard at the Governor's Press Office at (518) 474-8418.
- The charge, as outlined in the Governor's October 19, 2007 press release was reviewed. Dr. Kim recommended that the core group should divide into sub committees. The Working Group will make recommendations regarding:
 - The water levels needed at Hinckley Reservoir to service drinking water needs, fisheries, and canal operations;
 - The capability of other canal reservoirs to help meet those needs;
 - An early warning system to communicate drought situations to stakeholders and facilitate their communication regarding all competing needs; and
 - A report of the water usage and meteorological data for 2006 and 2007 to better understand the factors that contributed to the current situation.
- General business rules and code of conduct for Working Group members were developed by NYSDOH. Key points include:
 - Keep discussions limited to the Governor's charge, and minimize debate on issues that are not part of the working group's scope, including legal matters involving working group members.
 - Be respectful and courteous of others' opinions
 - Minimize side conversations.
 - Respect that issues such as water system security may be more appropriately discussed in a closed forum.
 - Limit discussion during meetings to those making presentations, and to the primary designee in the Working Group. The primary designee should delegate questions or discussions to technical staff or other agency staff when pertinent to the discussion in order to focus conversation.
 - Minutes will be taken by NYSDOH staff and distributed for review and comment.

- All media inquiries should be addressed to Christine Pritchard at (518) 474-8418 who will triage all phone calls to Agencies.

PRESENTATIONS

New York Power Authority (NYPA) Rich Mueller and John Osinski

NYPA made a presentation on the operations of the NYPA power project (Jarvis) at Hinckley Reservoir. Key points include:

- NYPA maintains a 9 Mega Watts power project licensed by the Federal Energy Regulatory Commission (FERC) in 1982.
- Rule Curve
 - The rule curve was developed in 1920.
 - NYPA added target elevation lines as part of the FERC license.
 - NYPA adheres to the rule curve from June to November, and normally during December and January. In February and March, staff looks at snow in the watershed and manages the reservoir so that it can accept the spring melt. The reservoir is typically full on May 31 for the beginning of the Barge Canal Season.
 - The rule curve represents a minimum release. If the reservoir is spilling, more water than what is prescribed in the rule curve will be released.
 - Any deviation is made with the consent of the Canal Corporation, and after consultation with Erie Boulevard Hydro. Deviations would also need to be documented to FERC.
- Section 401 Water Quality Certification, which is a condition of the FERC license requires a minimum continuous flow of 160 cubic feet per second (cfs) of flow downstream of the diversion weir for stream maintenance for the fishery along West Canada Creek.
- Water flows from the Jarvis project through the Prospect power house. Water from the Prospect power house flows to the Trenton Falls power house. Downstream of the Trenton Falls power house, some water that is released at Trenton Falls is drawn off by the diversion weir.
- Other projects on the West Canada Creek include the Newport Project, approximately 15 miles downstream and the Herkimer Project, approximately 26 miles downstream from Hinckley.
- The reservoir was drawn down in 1987 and 1988 for dam embankment stabilization. Extensive stabilization was completed as a requirement of NYPA's license.

New York State Department of Environmental Conservation Jack Hasse, Fisheries Biologist

DEC Region 6 made a presentation on the West Canada Creek fishery, and the impacts to this resource during the 2007 Emergency Declaration. Key points include:

- DEC looks at the West Canada Creek resource in three different parts:
 - Upper creek above Hinckley and into the Adirondack Park:

- Few big industries.
- Primary economic drivers are logging and recreation with notable hunting and camping element.
- DEC does not manage this portion of the resource intensely, because there is limited pressure.

- The Hinckley Reservoir section - includes West Canada Creek below Hinckley to Trenton Falls:
 - Limited access, limited fishing.
 - Some fishing. Hinckley Reservoir itself is not conducive to producing a fishery because 85% of the substrate is sand and water levels frequently fluctuate.
 - Not intensely managed by DEC.

- Lower 25 miles to Mohawk River confluence:
 - Area DEC is most concerned with.
 - Section impacted by State of Emergency.

- The lower West Canada Creek is always in the Top 10 of most visited fisheries in NYS

- The special regulation district allows catch and release fishing only.
 - Over 45,000 brown trout per year are stocked in that stretch of the creek that are between 8-9 inches. They recently started stocking 12-15" fish.
 - DEC estimates the fishery generates approximately \$1.3 million to the local economy with an annual cost of \$50,000-60,000.

- Direct impacts of the State of Emergency on resource.
 - Prey fish were exposed.
 - Sightings of eagles, herons and diving ducks feeding in pools increased. Changes in animal behavior was noted. There were more sightings of eagles, ospreys and diving ducks feeding in pools. Crows were feeding in low water.
 - Significant snail mortality due to exposure.
 - Temperatures fluctuated between 5 and 7 degrees per day between Trenton Falls and Middleville. Temperatures ranged between 62-74 degrees. Lethal temperature for brown trout is 78 degrees.
 - Fish trapped in pools.
 - DEC closed fishery. Fishery will remain closed outside of special regulation district until April 1.
 - Fish nests were left stranded, however this was not a result of the August and September but rather earlier in the year when levels began to drop. DEC estimates that the activities of this season could have an impact on what people catch 2-3 years from now.

New York State Thruway Authority, Canal Corporation

Dan Gilbert, Chief of Staff

Howard Goebel, Canal Hydrologist

The Canal Corporation made a presentation on canal infrastructure, and the importance of Hinckley Reservoir on canal navigation. Key points include:

- Rome Summit
 - The Rome Summit is between lock 21 and 20. It is a high point on the Erie Canal where water flows in both directions - east into the Mohawk River to Waterford and west into Oneida Lake.
 - 420 ft. elevation. Canal drops west to Oneida Lake and east toward Waterford at this location.

- Hinckley Reservoir is a 374 square mile watershed. The watershed is dynamic and robust, and is quick to refill.
- Delta Reservoir Operations
 - Canals can bring in flow into Delta through the Black River through the former Black River canal which is referred to as the Forestport Feeder.
 - One of the limitations of using Delta is the hydraulic capacity of the Forestport Feeder. This feeder can only bring in about 100 cfs.
 - Canals has been using water from the Black River since May.
 - Delta is typically filled by May 1. The gates are set to a minimum discharge to see how much flow comes downstream. It provides water to operate the canal and provides fishery needs.
 - Delta serves the Delta Lake State Park non potable water supply. Delta was drawn almost to a level where it was also compromised.
- The rainfall experienced in the past month in the Hinckley watershed is half of what we have seen in the Delta watershed, but it reacts faster.
- Hinckley Reservoir Operations
 - Created for canal navigation in 1915.
 - Sole drinking water supply for Mohawk Valley Water Authority.
 - Hydraulic head for NYPA Jarvis power project at reservoir levels 1195' and above
 - Flood attenuation
 - West Canada Creek watershed fills quickly. The active season impact is different from dormant season. In the dormant season, the rain goes to direct runoff.
 - Flow in West Canada creek can be diverted from the Morgan dam and flow through a man made canal through 9 mile creek into the Rome Summit. The capacity of 9 mile feeder is 300 cfs.
 - Reservoir levels cycle throughout the year. Releases are controlled by the 1920 operating diagram. Canals has contractual obligation with independent operators of hydro projects along the creek to follow this diagram. The 1920 operating diagram and the 1921 agreement allows for exclusions during an extraordinary emergency or drought.
 - Agreements between the State of New York, predecessors to Mohawk Valley Water Authority and predecessors to hydro power generators reference maintenance of compensating reservoirs to recover drinking water demands. Gray Reservoir is the only such compensating reservoir ever put on line, and was breached in the 2002.
- Other canal sources
 - Northern Reservoirs
 - Woodhull, North Lake and South Lake reservoirs, Alder Creek and Forestport Reservoir.
 - Algonquin power operates Alder Pond, Forestport and Alder Creek Reservoirs.
 - Normal minimum flow is 142 cfs on Black River. Need to reduce minimum flow to 83 cfs so that all the water that is needed can go into Forestport Feeder Canal.
 - During 2007 season, North Lake level dropped and no longer could supplement canal needs
 - Southern Reservoirs

- Normally drain south but are reversed for canal needs.
- Chenango Feeder brings water to the Rome Summit, but the hydraulic capacity of the canal is low and there is limited ability to bring a volume of water that meets navigation needs.

- Canal regulations create a minimum width of canal channel and depth of 14'. 21.5 ft of overhead clearance is required.

Mohawk Valley Water Authority
Patrick Becher, Executive Director

Mohawk Valley Water Authority made a presentation on current and future drinking water needs in the greater Utica area as well as system operations. Key points include:

- Operating characteristics
 - Drinking water first taken from West Canada Creek in 1905 - prior to the construction of Hinckley Reservoir.
 - Two raw water lines convey water to the water treatment plant. Both lines are under Prospect Pond, making them difficult to evaluate.
 - Water treatment plant is sized for 32 Million Gallons per Day (MGD). Currently averages 19 MGD. Peak demands are around 21 MGD. Peak usage was about 24 MGD in 1969 and 1970. Demand continues to drop because most industrial users are lost.
 - System serves towns to the east, west and south as well as a small portion of Herkimer County.
 - Lower intake openings were covered with plates due to poor water quality. During 2007 emergency, slots were cut into the plates to allow more water to enter the raw water transmission main.
 - As water level drops, there are hydraulic limitations to how much raw water can be transmitted to the plant.
 - Between 11 and 13 MGD of water is billed. Unmetered use occurs in the system and there are unaccounted for losses such as fire fighting, street cleaning and leakage.

- Presented MVWA as a region wide solution to drinking water problems. Several neighboring communities in Oneida and Herkimer Counties have experienced drinking water issues such as:
 - Dry residential wells in the summer and during prolonged periods of dry weather.
 - Flooding.
 - Residential wells with documented e-coli and total coliform contamination.
 - Stipulation agreements from NYSDOH to install filtration.
 - Compliance with new regulations.
 - Operation of equipment for VOC removal.
 - Algae blooms.

- SCADA system that allows reservoir to be monitored from Utica offices. Levels are compared to the 20 year average.

WORKING GROUP REPORTS

- Interim report is due by December 17.
- Final report due in March. NYSDOH recommend the follow items be added:
 - A description of Hinckley Reservoir.
 - A description of the West Canada Creek issues.

- Water use and allocations in terms of contracts and permits.
- Water use and management, which is specific to the charge.

- Agencies will be assigned to write background information pertinent to their operations.

- Additional agencies that are identified by Working Group members as having valuable input can be brought into the discussion to provide comment.

- Working group recommendations and concerns
 - Several Working Group members had concerns about resurrecting contracts dating to the early 1900's when the overall charge was to look forward to prevent a repeat of the 2007 emergency declaration.
 - Members noted minimal focus on the communication to assess trends in the reservoir levels thus potentially avoiding a State of Emergency.
 - Members recommended an analysis of weather patterns be added to determine how flows can be adjusted.
 - Members recommended establishing short term and long term goals.
 - Members recommended an evaluation of alternate canal sources and their limitations.
 - Members recommended establishing thresholds, trigger points and an early warning system identifying drought conditions.

ASSIGNMENTS AND FOLLOW UP MEETINGS

- Working Group members were asked to complete the following assignments:
 - Identify appropriate committees and assign staff
 - Identify data needed so agencies can generate appropriate information in a timely fashion
 - NYSDOH will come up with a proposal for the interim report, and have the working group react to it at the December 10th meeting. Working group members will provide comments, and an additional draft will be reviewed by the working group prior to the 17th.
 - Committees will reconvene the first full week in January with final committee reports due in February.

- Next Meeting:
 - Friday November 16
 - December 10

Meeting adjourned 12:21 p.m.

Appendix 3 - November 16, 2007 Meeting Agenda and Minutes

Hinckley Reservoir Working Group

AGENDA - Second Meeting
November 16, 2007
Main Working Group 10:00 -12:00 Noon
Committee Organization Sessions 12:00 Noon - 1:00 PM
Utica State Office Building
207 Genesee Street
Conference Room A and B

Objectives - The objectives of the second Working Group meeting are:

- Agree on draft outline for Interim Report
- Review draft Final Report outline
- Form committees and agree on charges

INTRODUCTIONS & REVIEW AGENDA	10 min
MINUTES from NOV 2 WORKING GROUP MEETING	10 min
INFORMATION SHARING	10 min
DRAFT INTERIM REPORT OUTLINE	10 min
DRAFT FINAL REPORT OUTLINE	20 min
COMMITTEES	40 min
<ul style="list-style-type: none">• Suggested Committees• Committee Charges and Membership• Discussion	
OPEN FOR COMMENTS	10 min
ASSIGNMENTS, DELIVERABLES & FUTURE MEETINGS	10 min
<ul style="list-style-type: none">• Draft Interim Report for Group review - Dec 3• Interim Report to Governor by Dec 17• Draft Some Sections of Final Report – January 4• Next meeting December 10th.• Future meeting January 8th or 11th	

Hinckley Working Group MEETING MINUTES

10:00 a.m. Friday, November 16, 2007

Utica State Office Building, Conference Room A-B

INTRODUCTIONS AND REVIEW AGENDA

- Meeting convened at 10:00 a.m.
- Working group members reviewed the agenda and the meeting objectives. Meeting objectives included:
 - Agree on draft outline for Interim Report
 - Review draft Final Report outline
 - Form committees and agree on charges

MINUTES FROM NOVEMBER 2 WORKING GROUP MEETING

- Minutes from the November 2nd meeting were provided to the working group members. Comments were requested by November 23, COB.
- Working group members requested clarification on the Delta Lake State Park public water supply. Staff from NYSDOH and Oneida County Health Department stated that Delta Lake State Park is supplied water from a series of wells, however the presentation from the Canal Corporation at the November 2nd meeting stated that water was taken from Delta Lake. Representatives from OPRHP stated that this water supply was non potable. NYSDOH will clarify the minutes.
- Ms. Drabicky from DEC noted that the minutes state a consent order was issued to the Town of Verona to find a new source. She stated that DEC does not issue consent orders for this purpose. The group decided to strike the statement from the minutes.

ELECTRONIC MEETING SPACE

- Dr. Kim recognized that it's important for Working Group members to have access to information, but conceded that at this point in time, documents and attachments are too large for distribution by e-mail.
- NYSDOH has been looking for suitable electronic meeting space to host working group documents. Because use of internal servers for this purpose raise concerns of outside access to sensitive information, NYSDOH looked to free internet based services. The user agreements for some of these services permitted any document posted by the working group to be used for promotional purposes. NYSDOH will investigate other options using a fee based service.
- Until suitable electronic meeting space can be secured, information will be sent out to the primary and secondary contact from the agency in a suitable format. Primary and secondary agency contacts will be responsible for further distribution.
- Working group members offered the following suggestions:
 - NYPA has worked with PSC where documents have been shared with hundreds of participants via listserv with minimal difficulties.
 - Mr. Giardina recommended the State Office for Technology (OFT) be contacted.

INTERIM REPORT OUTLINE

- The working group was provided with an interim report outline.
- The working group was tasked to determine what specific items should be identified in the interim report, and asked the group to send their comments to Craig Jackson by November 23.
- Deadlines for review and comment for the interim report were provided to the working group. NYSDOH will send these dates to the committee by e-mail following the meeting.

FINAL REPORT OUTLINE

- The working group members were asked to review and comment on the final report outline.
- Group members discussed how member agencies would contribute to the final report directly or via technical committees, and discussed changes to the final report outline and writing assignments. NYSDOH will incorporate the recommendations of the working group into the draft outline and distribute to the working group for additional comments.
- Working group members discussed several issues that were not addressed in the final report outline:
 - Agriculture
 - Property values around Hinckley Reservoir, and how impacts to reservoir levels affect tax base
 - Drought impacts on private wells
 - Impacts to recreational opportunities
- A lengthy discussion involved the role of the working group on issues of long term planning and to what degree this is included in the Governor's charge. Some working group members were concerned that the report outline did not look beyond the events of 2007, and address overarching issues related to economic development and sustainability. It was agreed that the future of the water supply would have significant impacts on economic development in Oneida and Herkimer Counties, but these issues would be best addressed through the planning process after the working group charge is complete. It was agreed that the complex issues associated with this resource were beyond the scope of this working group, and could not be addressed in its tenure.
- NYSDOH recommended that issues related to contracts and regulations be placed in an appendix in the final report.
- DEC recommended that the activities of the Drought Management Task Force be incorporated into the final report. SEMO agreed that the Drought Management Plan could be included as an appendix in the Communication Committee report.

PROPOSED TECHNICAL COMMITTEES

- NYSDOH recommended that three technical committees be established by the working group, and handed out a draft document describing the proposed technical committees, members and charges. These three committees are: Communications, Operations, and Hydrology.
- The working group discussed the charge of each technical committee, and made several recommendations. NYSDOH will incorporate those recommendations and redistribute to the working group members.
- The working group suggested that a definition of short term and long term be provided to clarify the time frame for issues and recommendations. NYSDOH will provide a definition.
- The working group agreed that in some instances, it would be difficult for agencies to find consensus. Differing opinions where a resolution was not achieved would be added to the committee reports and discussed.

- Agencies were asked to provide names of technical committee members by the 21st of November.
- Technical committees were asked to have two or three conference calls or meetings by the next working group meeting on December 10 and provide a briefing at that meeting.
- NYSDOH will look at comments submitted by the working group members, and further discuss at the next meeting if a long term issues committee should be established.

DATA NEEDS AND DATA GAPS

- NYSDOH will provide a definition of short term and long term to establish a consistent time frame for technical committee recommendations.
- NYSDOH will continue to pursue obtaining electronic space to host documents.

OPEN COMMENTS

- Kathy Kellogg, West Canada Creek Riverkeepers
- Richard Pertz, Remsen Town Planning Board
- Nancy Kim requested that anyone who wanted to provide written comments should submit them to Craig Jackson.

ASSIGNMENTS, DELIVERABLES AND FUTURE MEETINGS

- NYSDOH will distribute contact information for agency designees on technical committees to the committee chairs.
- NYSDOH will send a memo outlining deadlines for review and comment on interim report.
- Next meeting will be held on December 10. Meeting will focus on finalizing the interim report due December 17.
- The following meeting is scheduled for January 8 with a snow date of January 11.
- Agencies assigned sections in the final report should provide draft information at the January meeting.

Appendix 4 - December 10, 2007 Meeting Agenda

Hinckley Working Group

AGENDA - Third Meeting
December 10, 2007
Main Working Group 10:00 -12:30
Breakout Sessions 1:00 - 3:00 PM
Utica State Office Building
207 Genesee Street
Conference Room A and B

Objectives - The objectives of the third Working Group meeting are:

- Finalize Interim Report
- Report on progress, problems, issues, results by committee chairs
- Respond to questions/issues of committees

INTRODUCTIONS & REVIEW AGENDA	10 min
COMMENTS ON MINUTES from NOV 16 WORKING GROUP MEETING	10 min
COMMENTS ON INTERIM REPORT	20 min
COMMUNICATIONS COMMITTEE REPORT AND DISCUSSION	30 min
OPERATIONS COMMITTEE REPORT AND DISCUSSION	30 min
HYDROLOGY COMMITTEE REPORT AND DISCUSSION	30 min
PUBLIC COMMENTS	10 min
ASSIGNMENTS, DELIVERABLES & FUTURE MEETINGS	10 min
<ul style="list-style-type: none">• Interim Report to Governor - Dec 17• Drafts of writing assignments in three background sections of the final report - Jan 4• Next full Working Group Meeting - January 8 (Jan 11 snow day)• Discussion - All	

Appendix 5 - Technical Committees Charges

November 19th

Hinckley Reservoir Working Group Proposed Technical Committees, Members and Charges

Communications

Members: Lead - SEMO: Support - Oneida County, Herkimer, MVWA, Thruway/Canals, NYSDOH

Committee Charge: To formulate recommendations for future communications, including early warning communications, needed to facilitate timely responses when low reservoir water levels occur in the Hinckley Reservoir. The committee should review communications made during the 2007 response to low reservoir conditions and suggest a protocol for future communication.

Operations

Members: Lead - NYPA: Support - Thruway/Canals, MVWA, NYSDOH, DEC, Oneida, Herkimer

Committee Charge: To formulate recommendations for short term water resource management actions that will maintain the viability of the resource for water users of the Hinckley reservoir. Suggestions for the committee are to:

- develop an understanding of the infrastructure and operational needs and requirements of water users of Hinckley Reservoir, West Canada Creek and other Canal summit sources (including Delta Lake Reservoir)
- review the actual operations and water uses during 2006-2007
- compare 2006-2007 operations and water uses to long term conditions
- identify water levels and reservoir storage volumes that may be considered critical for the operation of the drinking water treatment plant
- identify water levels and/or discharge volumes that may be considered critical for the operation of the hydropower facilities on West Canada Creek
- identify water levels that may be considered critical for fish maintenance
- identify water levels and capacities that may be considered critical for canal operations
- identify water levels that may be considered critical for recreational purposes
- develop options and recommendations for reservoir conditions that can be implemented in the short term to trigger early warning communications and consideration for operational changes
- identify data or information gaps and the importance of filling those gaps

Hydrology

Members: Lead - DEC: Support – NYPA, Thruway/Canals, NYSDOH, MVWA
(Committee may need to contact the NYS Geological Survey (?) or USGS)

Committee Charge: To characterize the hydrology related to water resources available to water users of Hinckley Reservoir, West Canada Creek and other Canal summit sources. Suggestions to the committee are to:

- develop an understanding of the available hydrologic information, including precipitation, stream flows and other appropriate watershed data
- evaluate hydrologic and meteorological conditions during 2006-2007
- compare 2006-2007 hydrologic and meteorological conditions to long term conditions
- assess the probability of recurrence of inflow conditions to Hinckley reservoir that are as low or lower that what was experienced in 2007
- evaluate the precipitation and watershed data that were used to form the 1920 Hinckley operating diagram, and compare to long term conditions
- develop options and recommendations for hydrologic conditions that could serve over the long term as mitigating factors or triggers for actions and decisions related to the daily operation of the Hinckley reservoir
- identify data or information gaps and the importance of filling those gaps.

Appendix 6 - Draft of Final Report Outline

**DRAFT – November 19th
Hinckley Reservoir Working Group
Final Report Outline**

EXECUTIVE SUMMARY	NYSDOH
INTRODUCTION	NYSDOH
HINCKLEY and DELTA LAKE RESERVOIRS	
Physical Description	NYSDOH
History of the Reservoirs	NYSDOH
Hydrographics and Water Resources	Hydrology Committee
WATER USES - WEST CANADA CREEK, HINCKLEY RESERVOIR AND OTHER WATERS AS NECESSARY	
Introduction	NYSDOH
Drinking Water	MVWA/Oneida/Herkimer/DEC
Fisheries, Water Permit	DEC
Canal Navigation	Thruway/Canal
Hydropower Generation	NYPA
Recreational	OPRHP/Oneida/Herkimer/DEC
Summary (?)	NYSDOH
WATER USE AND MANAGEMENT DURING 2006-2007, COMPARED TO HISTORIC DATA	
Introduction	NYSDOH
Weather Patterns	Hydrology Committee
Water Resource Conditions	
Drinking Water	MVWA/Oneida/Herkimer/DEC
Fisheries	DEC
Canal Operations	Thruway/Canal
- Hinckley Reservoir	
- Delta Lake Reservoir	
- Northern Reservoirs	
- Southern Reservoirs	
Hydropower Generation	NYPA
Recreational Uses (?)	OPRHP/Oneida/Herkimer/DEC
Agricultural Uses (?)	Ag&Mkt/Farm Bureau
2007 Water Conservation Emergency	Oneida/Herkimer County
Summary (?)	NYSDOH

REPORT OF OPERATIONS COMMITTEE

REPORT OF HYDROLOGY COMMITTEE

REPORT OF COMMUNICATIONS COMMITTEE

RECOMMENDATIONS OF THE WORKING GROUP

Short Term

Communications and Emergency Management
Emergency Response Triggers

Long Term

Communications and Emergency Management
Future Considerations/Needs
Data Gaps and Information Needs

APPENDICES

A. Statutory Considerations

Canal Law and Regulations	Thruway/Canal
Environmental Conservation Law and Regulations	DEC
Public Health Law and Regulations	NYSDOH
Other Local, State or Federal Laws (?)	

B. Contracts, Licenses, Permits

Pre-Hinckley Contracts – 1905-1909	MVWA
Hinckley Contracts 1917, 1921	Thruway/Canal
Current Hydropower Contracts	NYPA
State Water Supply Permit	DEC
FERC License	NYPA

C. Drought Management Coordination Annex

SEMO

ISSUES FOR FURTHER CONSIDERATION

Property values – could be mentioned in intros
Economic issues – could be mentioned in intros
Private wells could be included in drinking water section
Comments presented at meetings – could be included in minutes or intros

FIGURES

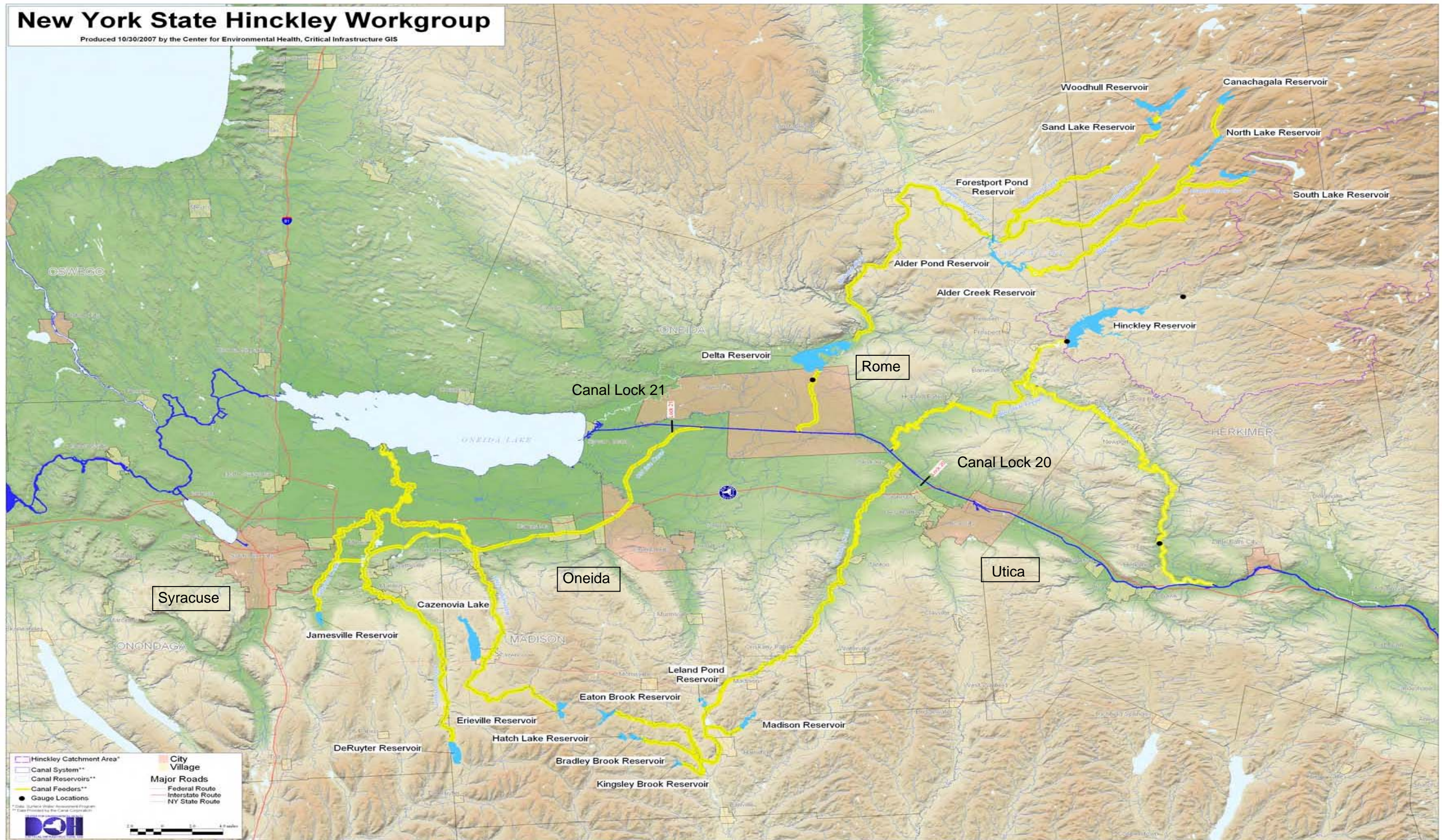


Figure 1 – Map of the Hinckley Reservoir Area