

The operational audit of the New York State Canal System revealed the following conclusions:

- Substantial changes to the existing operational system and procedures are not the audit
- Systemic errors in the current operations of the system are not evidenced by the audit
- Improvements to the operating system can be made to enhance operations and are provided in the Recommendations Section
- Public awareness of the potential for flooding and actions to prevent or lessen flood damages need to be coordinated with the appropriate agencies, such as the NY State Office of General Services
- A regional approach to watershed management within the entire Oswego River Basin (just the Canal System) is needed to address:
 - floodplain building ordinances
 - construction of detention ponds
 - creation of wetlands
 - improved water and sewer systems
 - public education

8.0 Recommendations

Based on the research and analyses conducted for the operating audit, recommendations were made regarding operations of the system, public education and awareness, planning and improvements to the Canal System. These recommendations are conceptual; the impacts associated with each recommendation, including benefits and costs, and potential implementation problems have not been evaluated. Each recommendation is briefly described.

Operations

1. **Establish a real time automated monitoring system** comprised of a network of precipitation gages to measure rainfall and snowfall, coupled with a network of sensors at key stream and reservoir locations to verify basin response in terms of lake level or stream flow. This system would not change the operation of the canal system but would reduce the time and effort involved in gathering data.
2. **Automate the data analyses of flows** and anomalies (such as wind-driven currents) to assist in determining appropriate actions for Canal System operators.

Education

3. **Increase public education and awareness of the potential for flooding.** Brochures and pamphlets explaining potential flood risks, methods for minimizing damages, as well as actions to take during and after a flood. Information on lake levels could be disseminated via a homepage on the Internet.

Planning

4. **Work with local communities to enhance public knowledge of building codes** that require structures to be elevated to at least the level of the 1-percent annual (100-year) flood in accordance with the requirements of the National Flood Insurance Program.
5. **Participate in the development of a regional watershed management plan** to address floodplain building ordinances, construction of detention ponds, creation of wetlands, improved water and sewer systems, and public education. The plan would involve representatives from all counties, communities and controlling agencies.
6. **Establish a common datum and conversion factors between datums** for the Oswego Basin. Currently, the USACE and the NYSCC have different conversion factors to convert elevations from BCD to the National Geodetic Vertical Datum of 1929 for the lakes. Establishment of a common datum and factors would help eliminate confusion regarding lake level elevations.
7. **Develop flood inundation maps** which show areas flooded as stage increases. This information would allow the public to identify which areas could be flooded and the extent of the flooding. Also in times of high water, the lake levels should be reported as lake elevations.