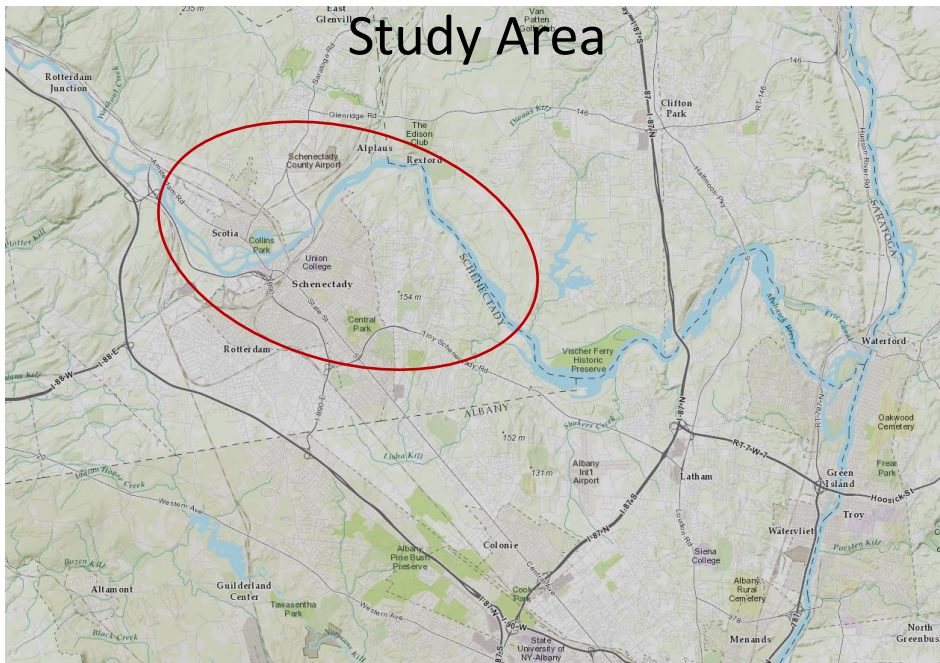


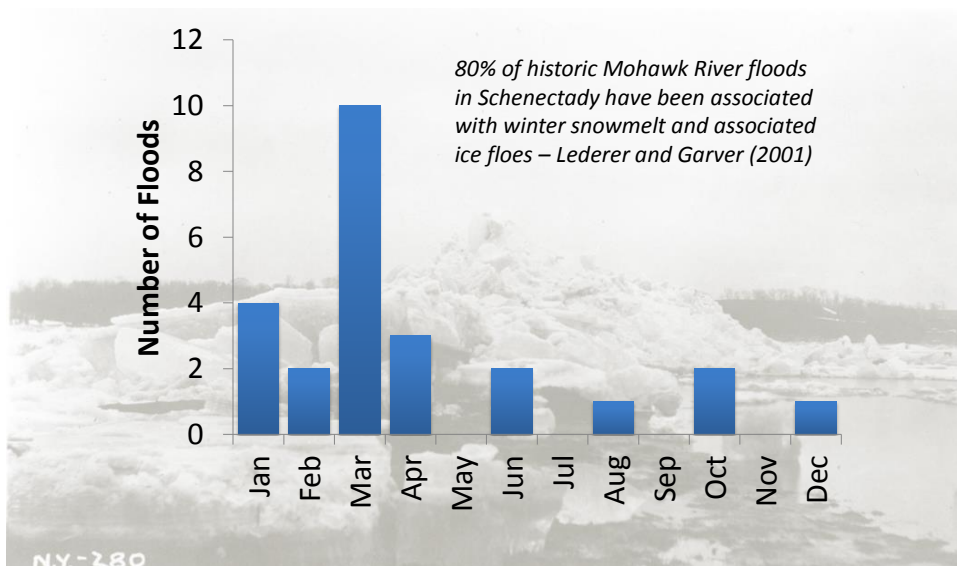
# Mohawk River Ice-Jam Monitoring Network

Gary R. Wall  
*U.S. Geological Survey,  
New York Water Science Center*





## Top 25 Floods in Schenectady since 1913



## March 1914 ice jam



Photo from USGS NYWSC archives

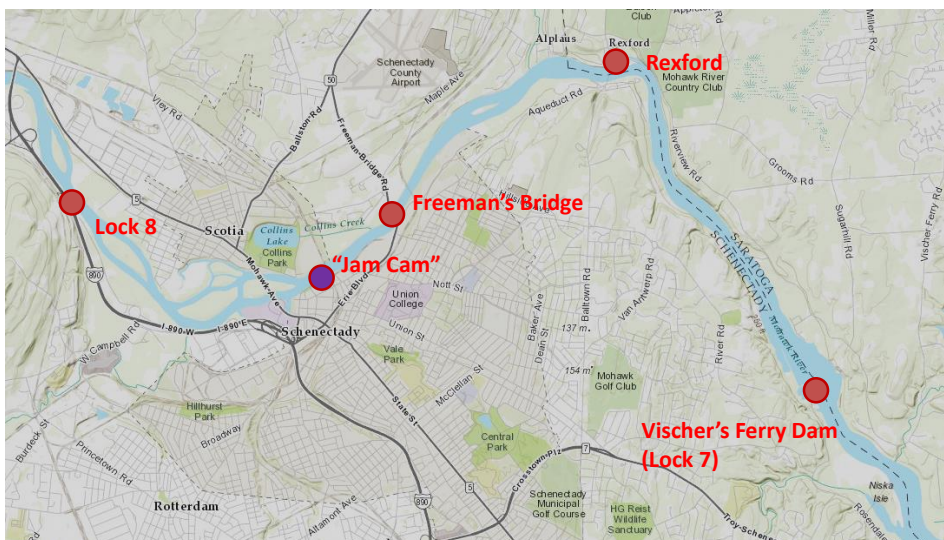


Photos from USGS NYWSC archives



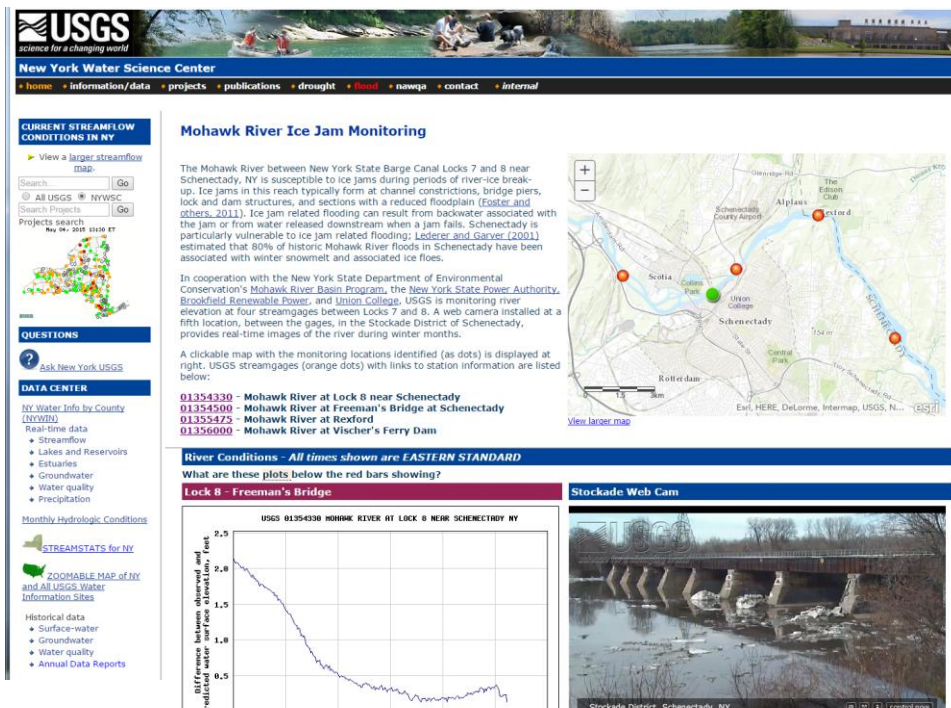
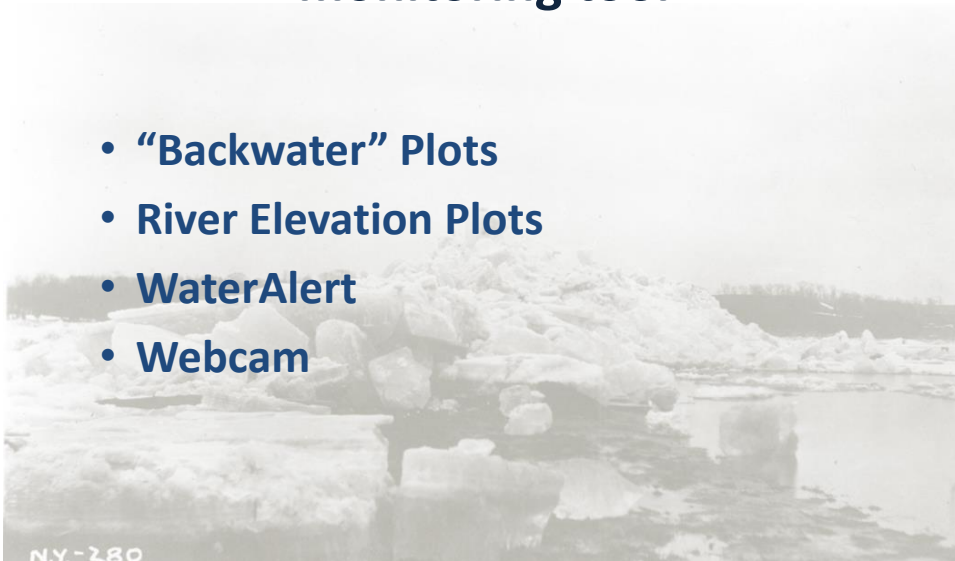


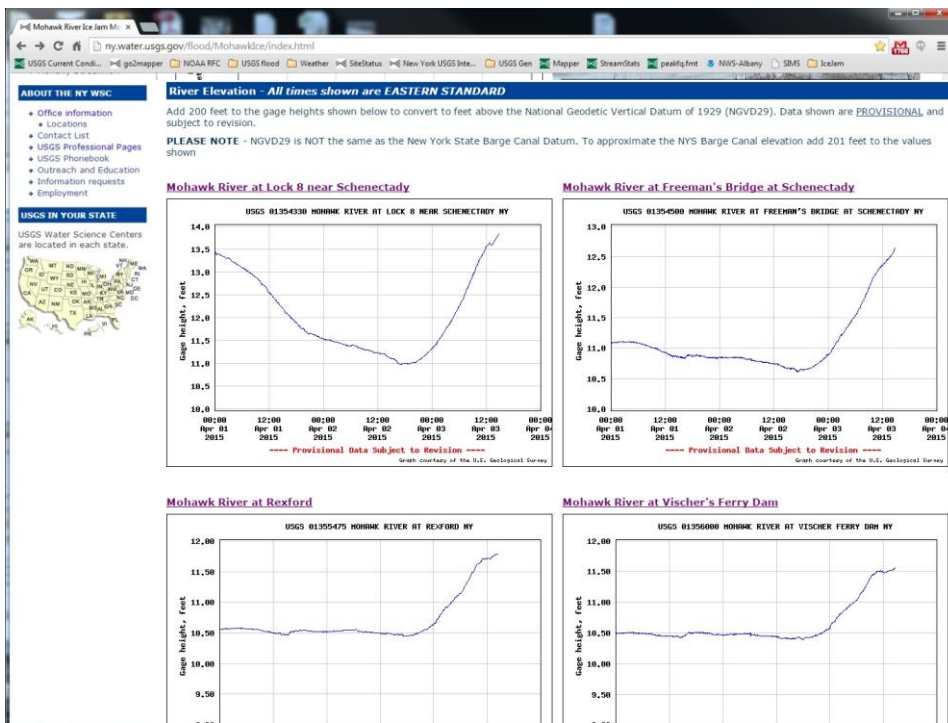
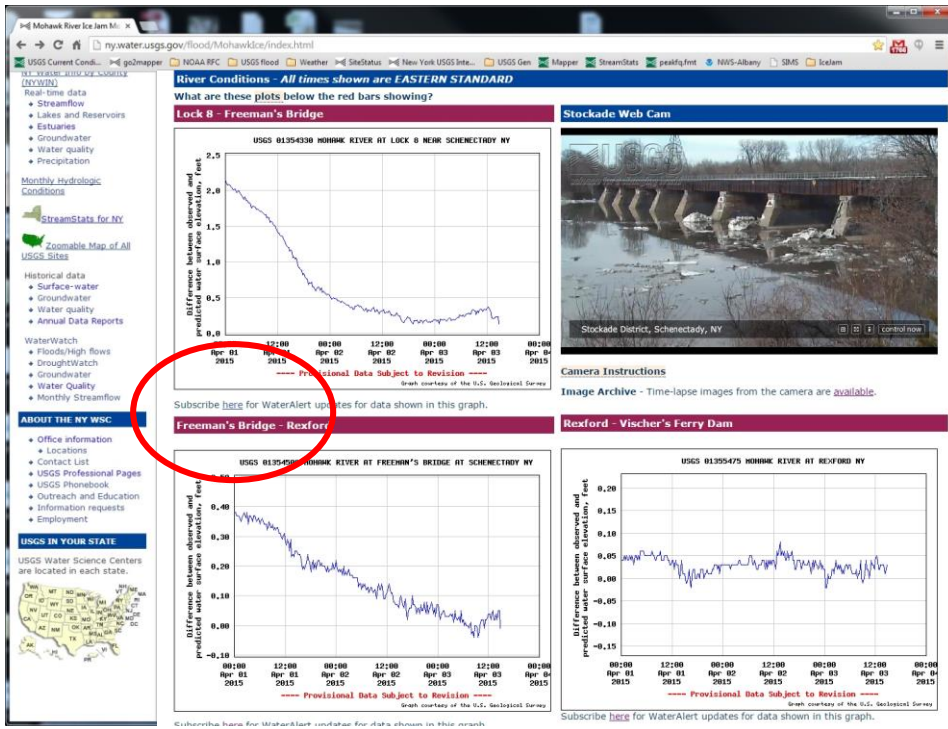
Photos courtesy of John Garver, Union College



# Four components of the monitoring tool

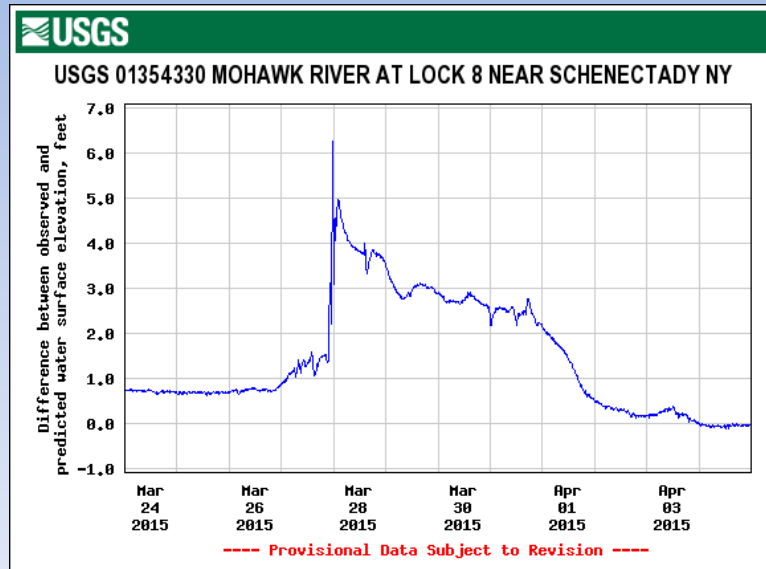
- “Backwater” Plots
- River Elevation Plots
- WaterAlert
- Webcam



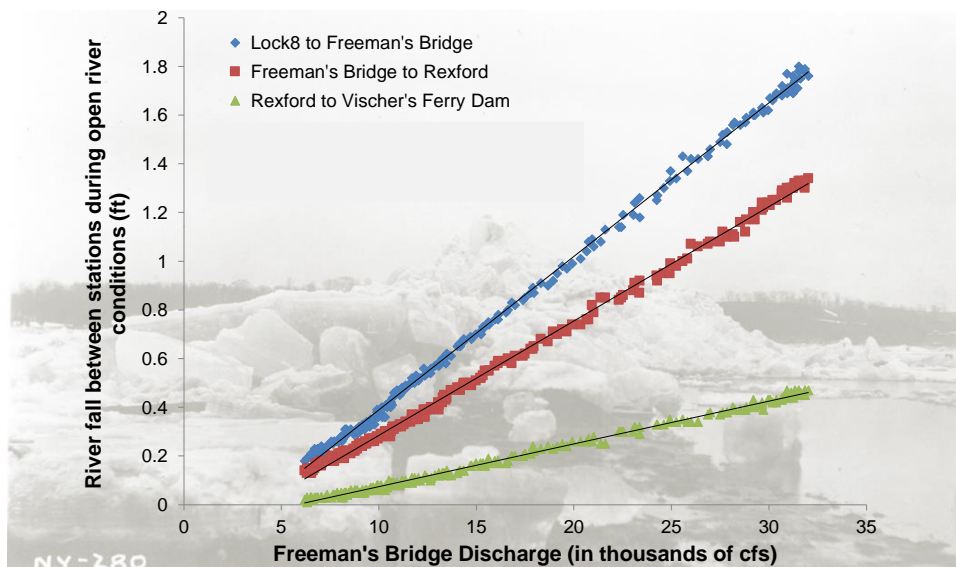




## Ice-related backwater at Lock 8



## River Fall and Discharge

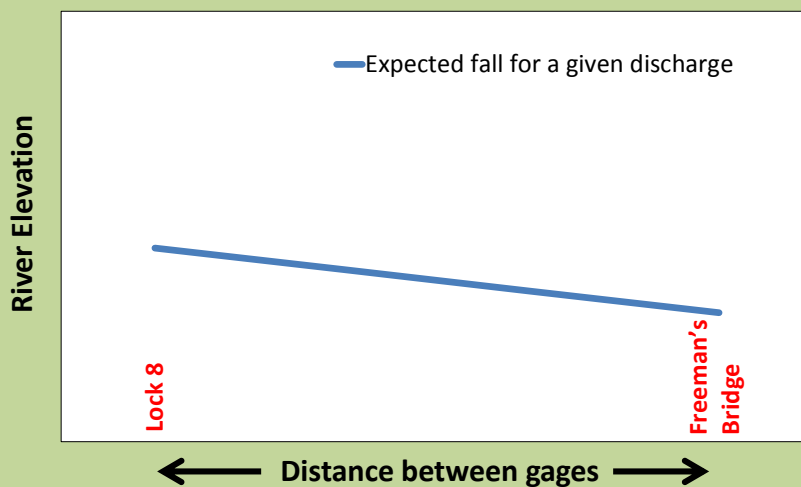


## “Index velocity” discharge rating



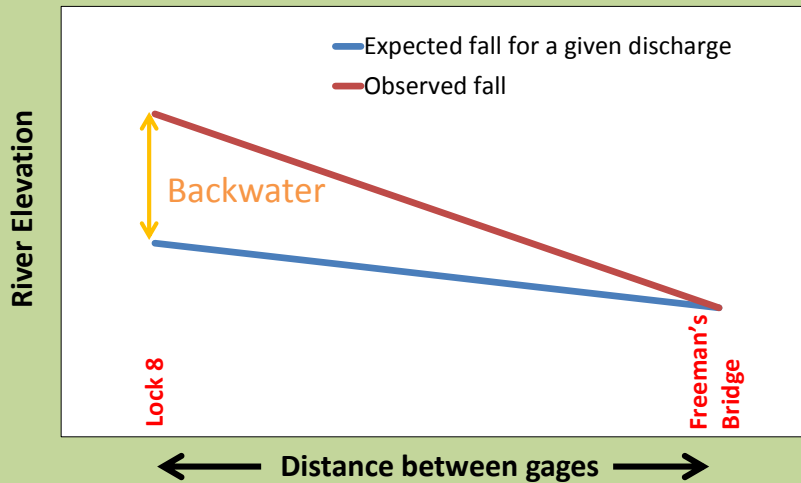
$$V_{\text{avg}} * \text{Area} = \text{Discharge}$$

## How is backwater determined?

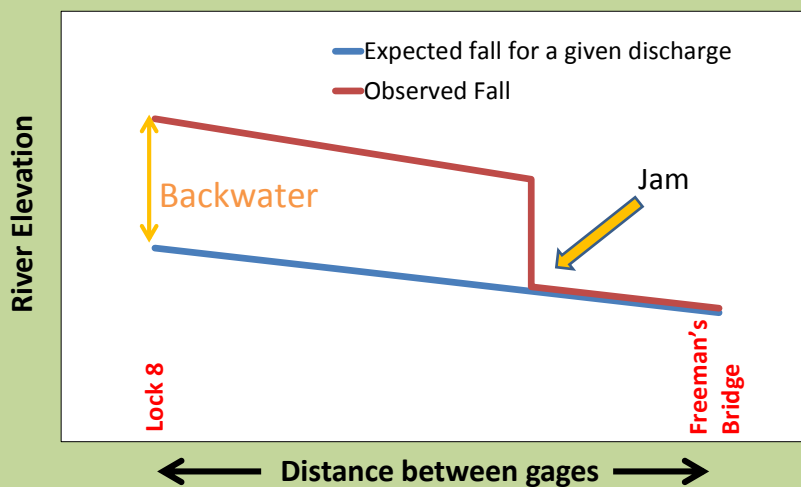




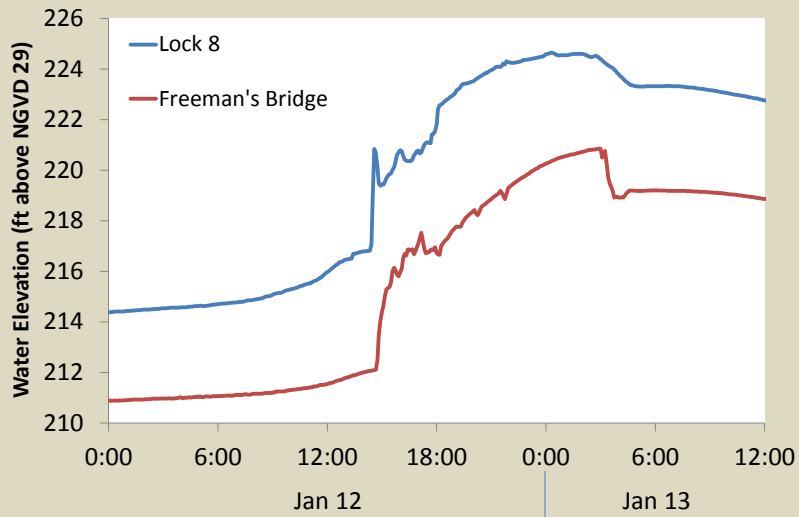
## How is backwater determined?



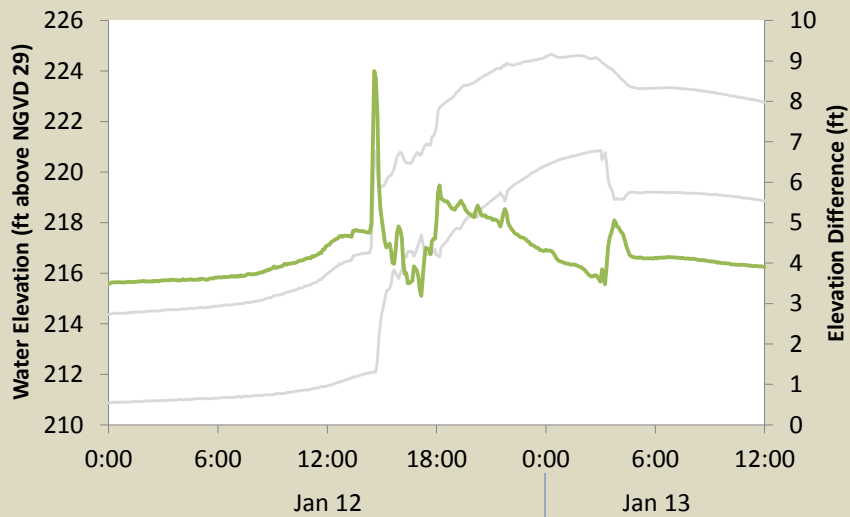
## How is backwater determined?



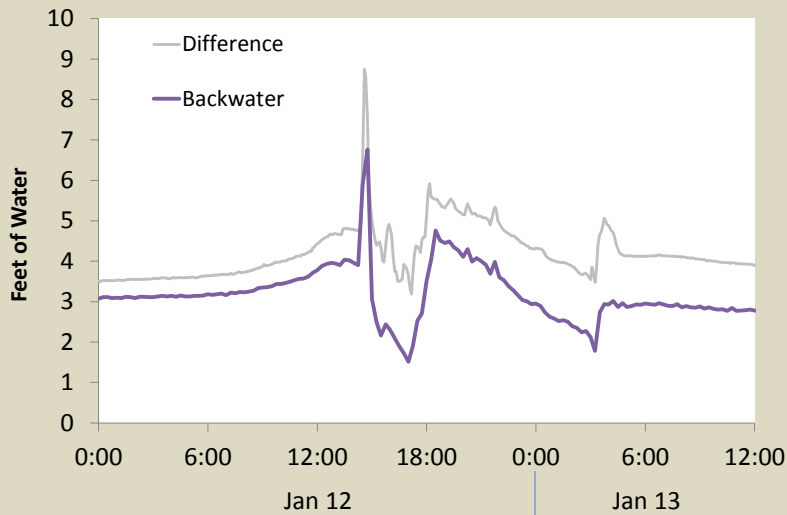
## River Elevation



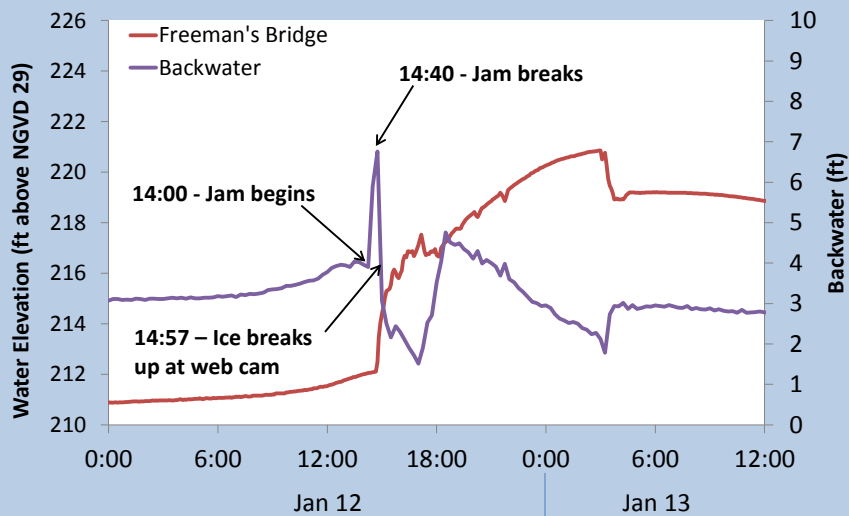
## River Elevation



## River Elevation and Backwater



## River Elevation and Backwater



Jan 12, 2014

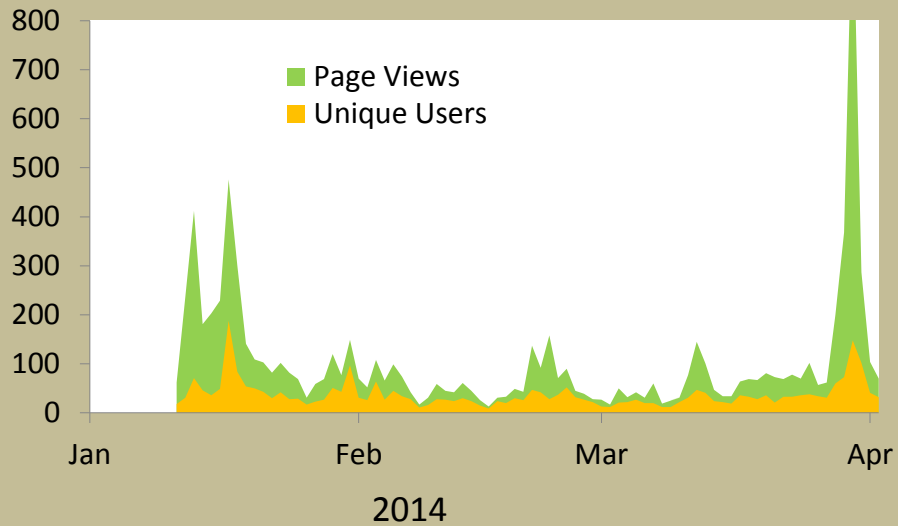


Jan 12, 2014

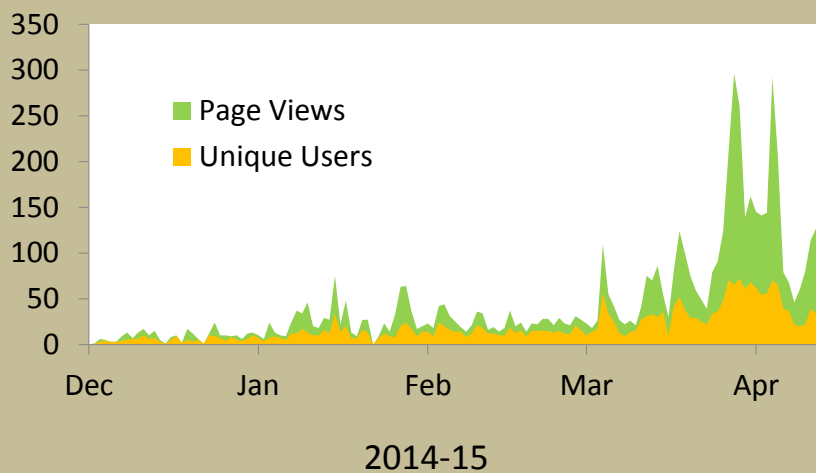




## Web cam statistics



## Web cam statistics



## 2013-14 Winter

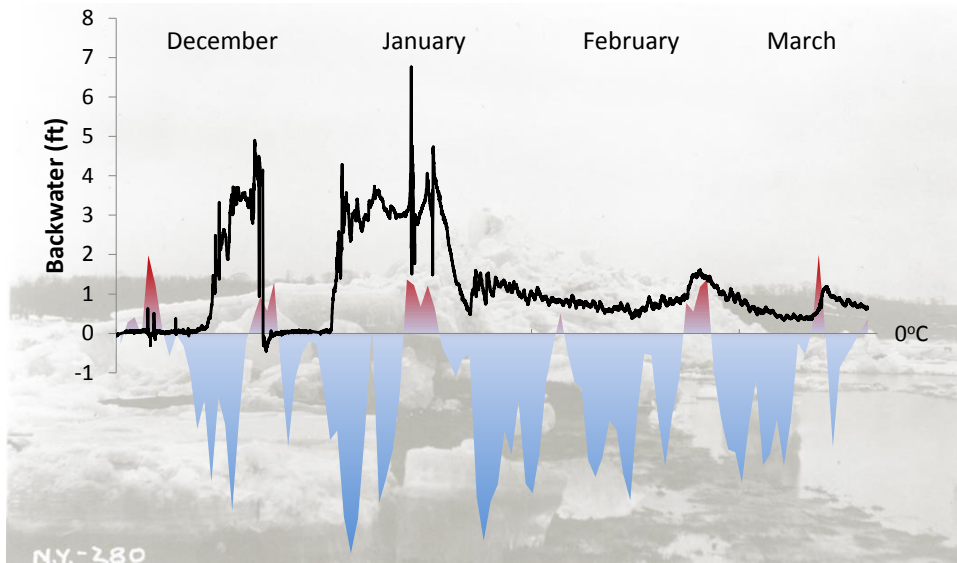


Photo courtesy of National Weather Service



Visit the tool web page at:

<http://ny.water.usgs.gov/flood/MohawkIce/>

Or Google "Mohawk ice jam monitoring"