

POTOMAC RIVER

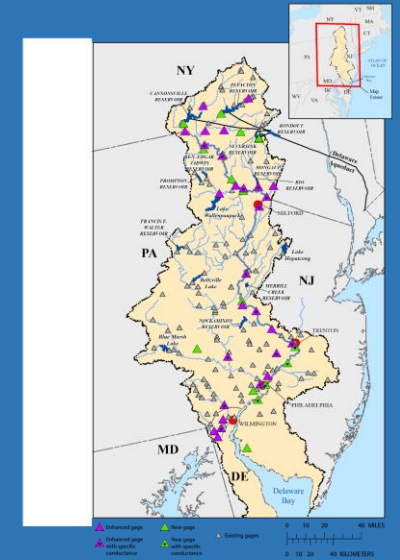
Next Generation of Water
Observing Systems?

What is NGWOS?

- NexGen Water Observing System
 - Develop high density monitoring networks in select basins
 - Support modern water prediction and decision support systems
 - Integrated set of fixed and mobile monitoring assets in the water, ground, and air
 - Water Quantity, Quality, and Use Data

NGWOS Design Strategy

- Implement NGWOS in ~10 medium-sized watersheds (10,000-20,000 mi² each) that are representative of larger water-resource regions and augment the existing streamgauge network elsewhere in the region with modest enhancements.



- Leads to more accurate predictions of streamflow, aquifer levels and water-quality conditions at unmonitored locations across the nation.

Characteristics of a Next-Generation Water Observing System

- State-of-the-art measurements
- Multidisciplinary sampling sites
- Increased spatial and temporal coverage
- New technology testing and implementation
- Improved cost effectiveness
- Modernized and timely data storage and deliver



Photograph by John Lane (USGS)



Identify water monitoring gaps and data needs for modeling



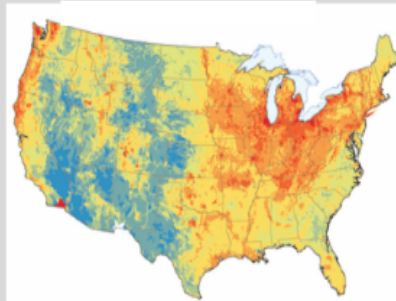
Determine stakeholder needs for water data and information



Establish integrated set of fixed and mobile monitoring assets in the water, ground, and air



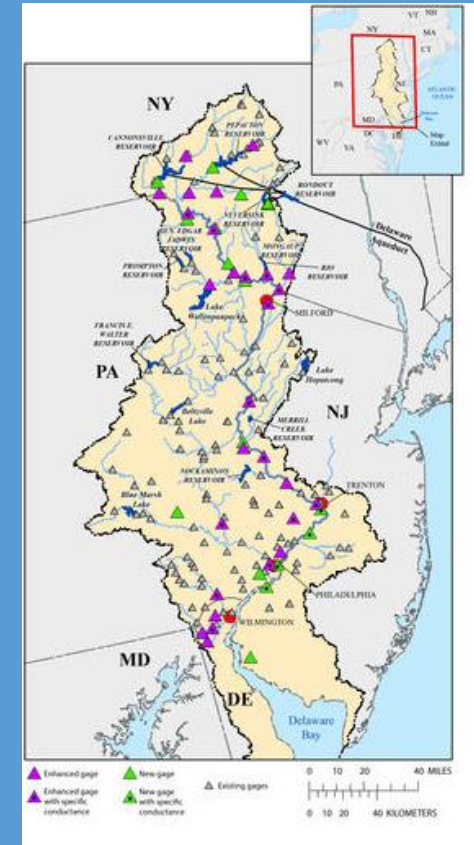
Integrate delivery of water quantity, quality, and use data



Work with partners and stakeholders to inform modern water prediction and decision support systems

Pilot NGWOS – Delaware River Basin

- The Delaware River Basin pilot provides an opportunity to develop the NextGen observing system in a nationally important, complex interstate river system
- Network optimization analyses completed
- Installed 17 new streamgages to address critical data gaps
- Added enhancements to 28 existing gages
- Enhancements will include new two way communication, web cams, temp and specific conductance
- Creating innovation spots to conduct research on new monitoring methods



NGWOS Basin Selection

- A Basin Selection Team is being formed with staff from OCOO, WSC's and Regions, 40-50 candidate NGWOS basins selected by end of 2019
- Water Science Centers have been asked to propose basins including info on:
 - Ongoing innovative water monitoring
 - Modeling
 - Stakeholder needs and support
 - Identify critical water issues
- Begin stakeholder engagement to make final selection of NGWOS basins #3-10 in FY20

We need your help!

- Stakeholder engagement will be considered when making final selections

Department of Interior

Other Federal Agencies

Other Stakeholders

