Water Quality Portal Update

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USGS Water Mission Area
Multiple Data Sources and Types

- Portal Data Records (347 million total)
  - USGS
    - Biodata: 1.4 million
    - NWIS: 101 million
  - EPA (STORET/WQX): 244 million
  - ARS/STEWARDS: 1.2 million

- Data Contributors
  - Federal: EPA, USGS, USCOE (regional), NPS, USBR
  - States and Territories: 50+ multiple in progress
  - Tribes: over 250

- Data Types
  - Physical/Chemical
  - Biological
  - Metrics
  - QA/QC (Coming soon)
Built Using Responsive Design

Water Quality Portal works on any device with a modern web browser
FY17 WQP Strategic Plan Progress

- **System Performance**
  - Core improvements of technical infrastructure
    - Documentation and standardization ([Swagger docs](#))
    - Cloud readiness
  - Extension of EPA Data load to more components
  - USGS- ensuring NWIS Modernization aligns with portal

- **Data Quantity and Quality**
  - EPA team is doing significant outreach and training efforts
  - Portal is serving out metrics and reporting levels
  - Multiple best practices workgroups: Nutrient, Metals, and Biological Data
  - 347 Million result records available
FY17 WQP Strategic Plan Progress

- **Data Display and Discovery**
  - Upstream/downstream querying is possible
  - Working with stakeholders to develop a summarization service
  - EPA team developing data analysis tool

- **Outreach/Education**
  - Peer Reviewed paper: [https://doi.org/10.1002/2016WR019993](https://doi.org/10.1002/2016WR019993)
  - Communication plan drafted
Sites with Nutrient data, downstream from the Yahara River bridge
Leveraging Downstream Queries

Can answer questions in minutes that took days or weeks previously—see Young 2016

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Young, Dwane, 2016 NWQMC
FY18 goals

- **System Performance**
  - Explore hosting alternatives (e.g. cloud)
  - Continue incremental data loading improvements

- **Data Quantity and Quantity**
  - Additional endpoints: Project, Indexes, Files
  - Continue discussions around data quality
  - Work with new organizations to submit data

- **Data Display and discovery**
  - Summarization service- lead to summary data on user-relevant pages
  - EPA team working on data analysis tool

- **Outreach/Education**
  - Portal Communication Plan (With NWQMC WIS)
  - Factsheets and other outreach materials

- **Strategy and status**
  - Continued discussion with NWQMC