USGS Water Mission Area Update on Activities and 2018 Plans

Western States Water Council
June 28, 2017

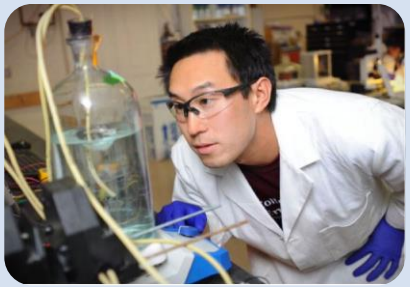
Sonya Jones
Water Availability and Use Science Program Coordinator

Water Mission Area: 4 Programs

Groundwater and Streamflow Information Program

National Water Quality Program

Water Availability and Use Science Program



Water Resources Research Act Program

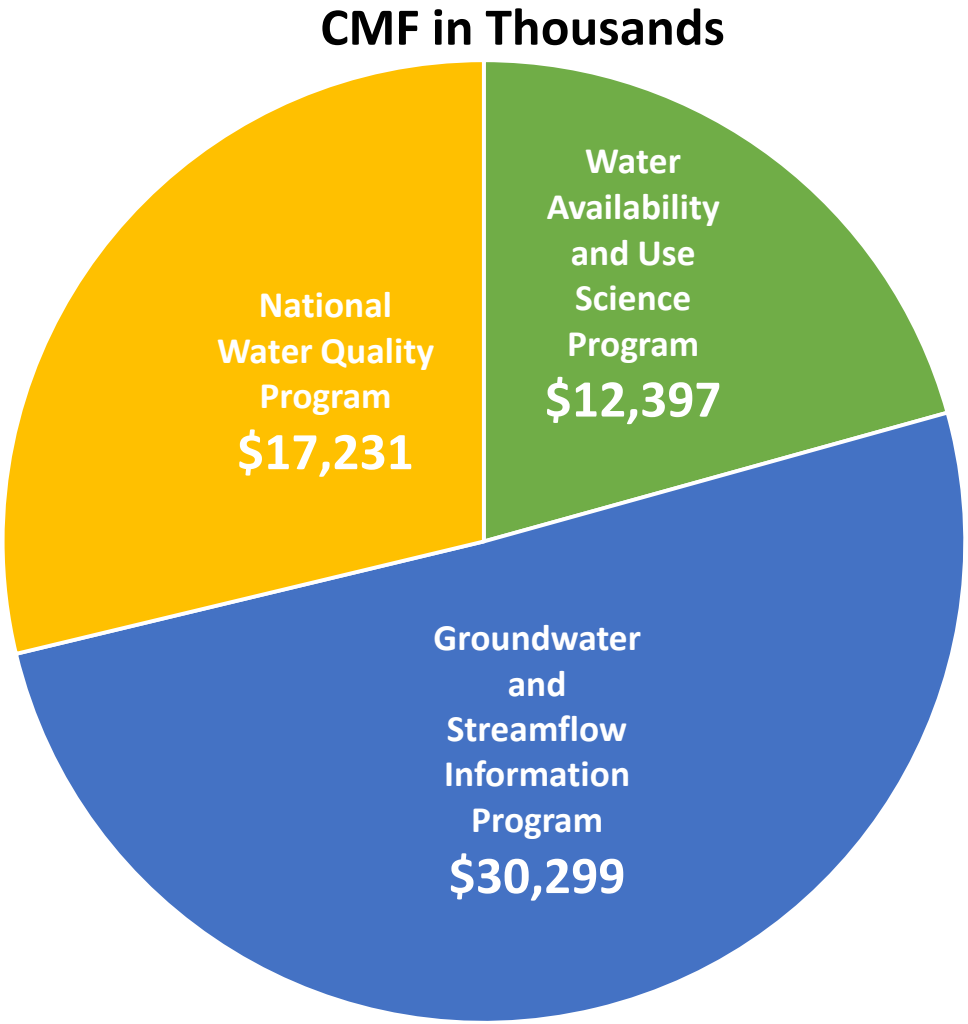
Includes Cooperative Matching Funds (CMF)

(Requirement for cooperators to match CMF to support local science needs that also support Federal Programs)

Water Budget Structure: Cooperative Matching Funds (CMF)

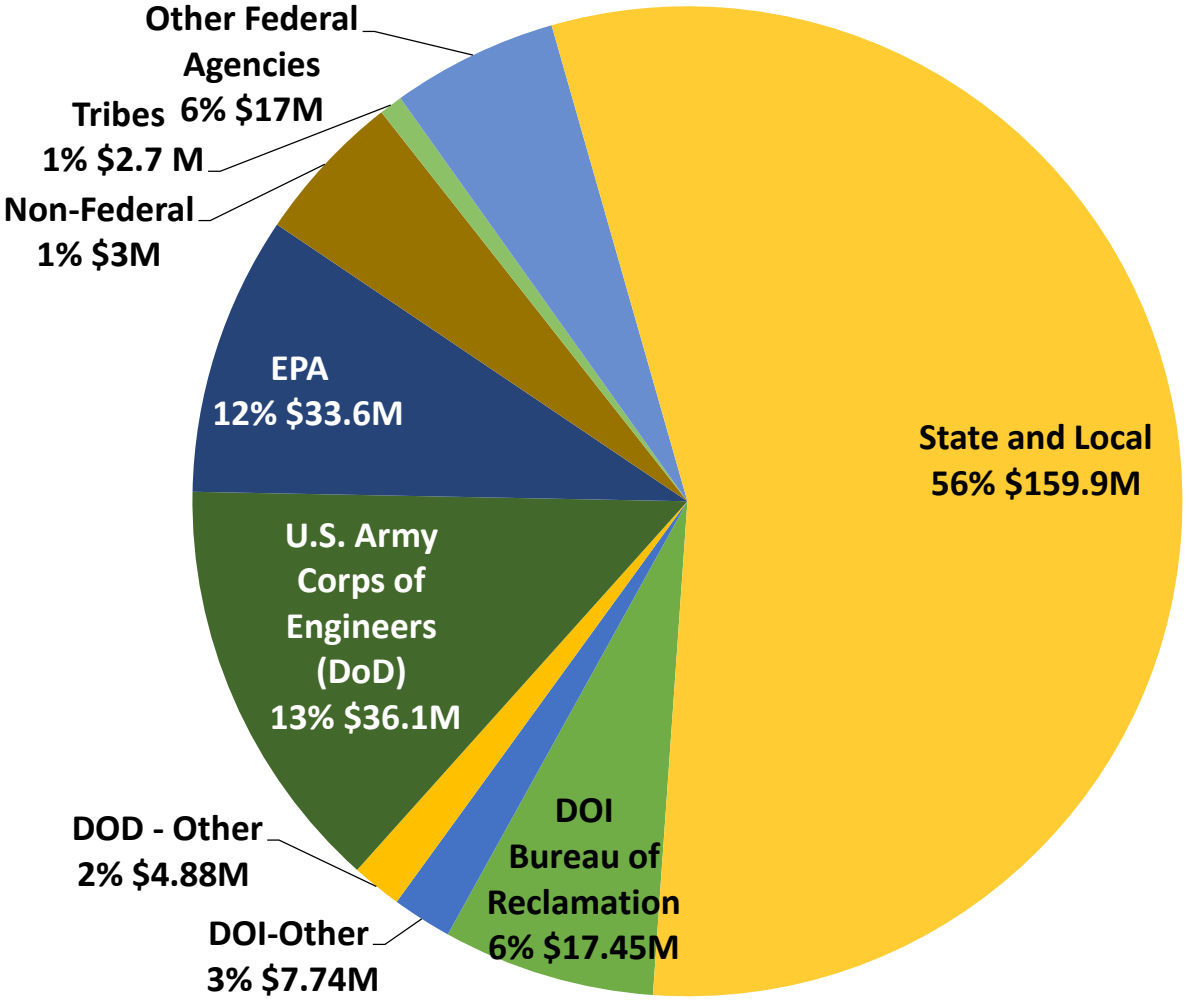
FY17 CMF is allocated among three programs to support cooperative work with States, municipalities, and Tribes.

Total: $59,927,000

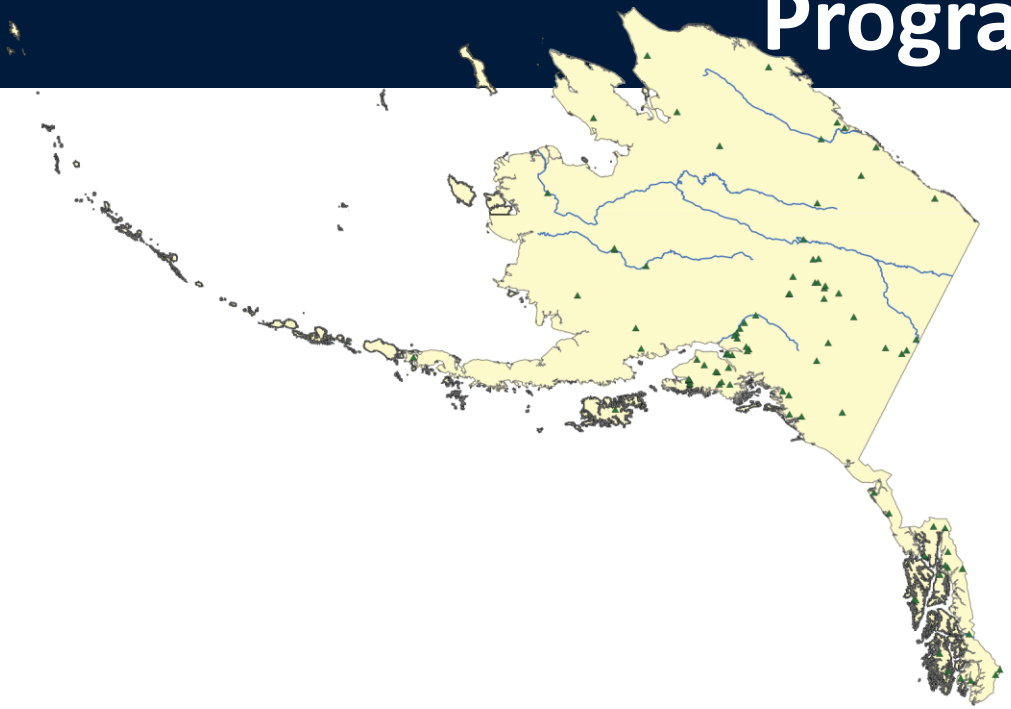


NOTE: FY17 Increases for WAUSP +$1m for Water Use Research; GWSIP +$500k Indian Water Rights Settlement; NWQP redirect $717k Urban Water Federal Partnership

USGS Water Resources Partners
Total FY 2016 Reimbursable Funds: $282.3M



Groundwater and Streamflow Information Program



3,664 Streamflow Gages Active Throughout the Western States

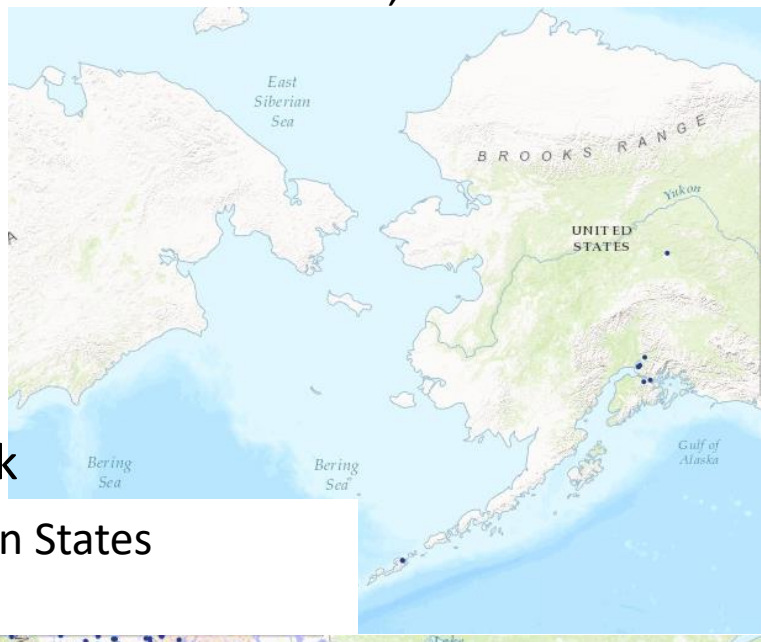
National Groundwater Monitoring Network—Water Level Network

Wells in USGS database in the Network—1,639

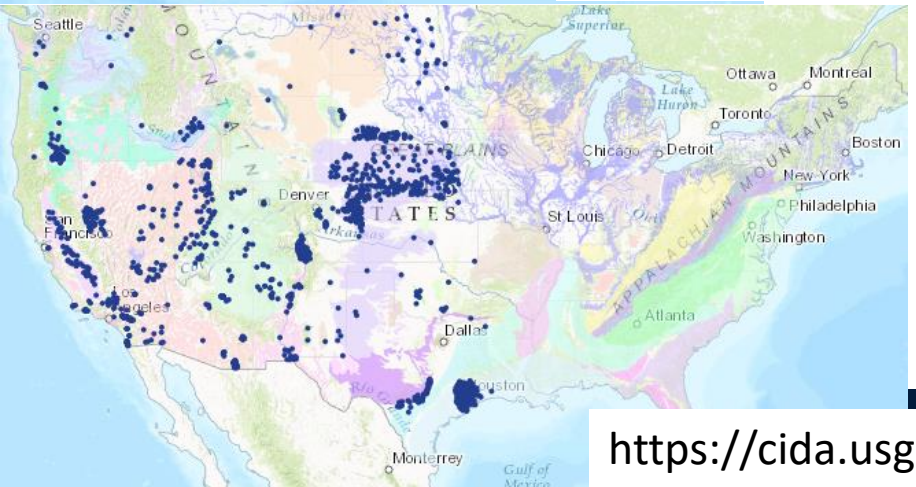
2X

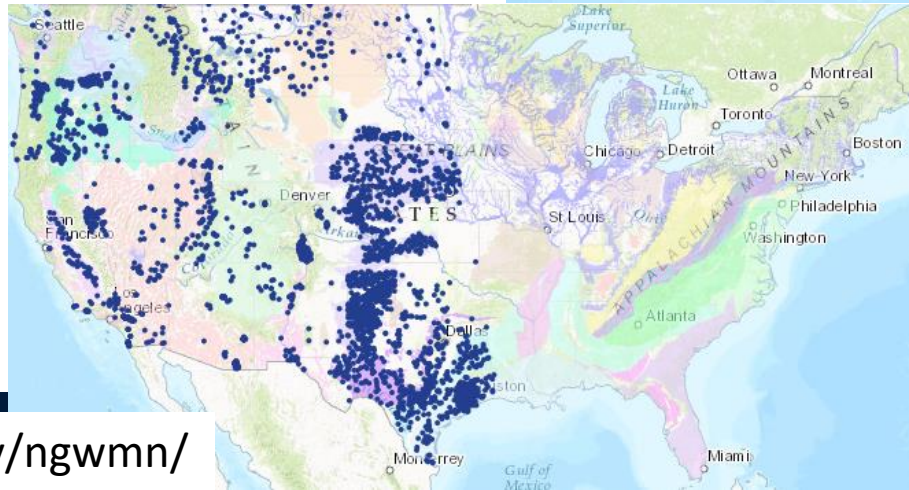
Almost Doubled the Wells in the Network Once Partner Data Are Added in Network

Local, State, Federal and USGS Wells in the Network—3,192 wells



Currently there are 10 Western States Participating in the Network





https://cida.usgs.gov/ngwmn/

Groundwater and Streamflow Information Program – 2017

- $500,000 increase Cooperative Matching Funds for Indian Water Rights
- $160,000 new funds for Unuk River, AK streamgage and water-quality data collection
- $700,000 increase for Water Hazard's response capacity building
- $700,000 increase for National Groundwater Monitoring Network (NGWMN)

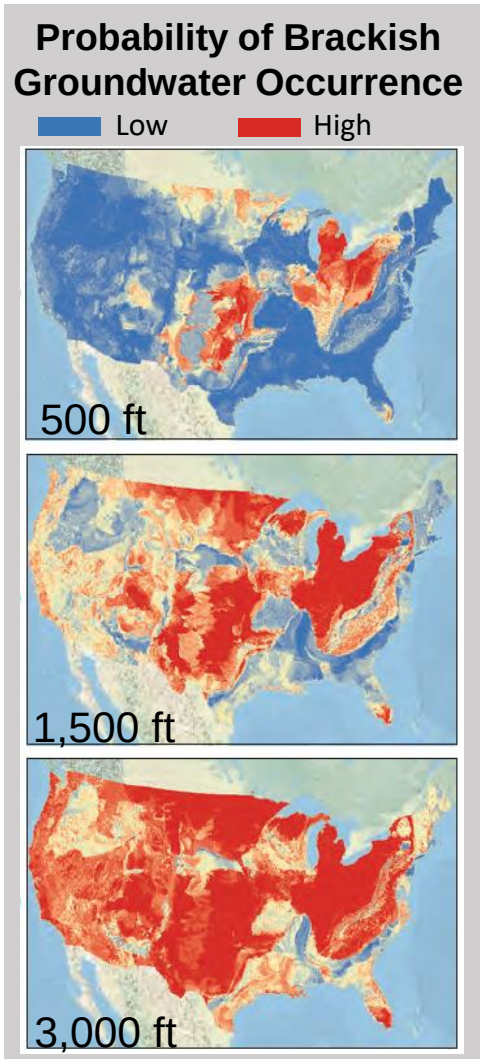
Water Availability and Use Science Program – 2017

- 2015 Water Use Compilation is underway
  - Data published this year
  - Trends report in 2018
- WUDR Grants will be awarded in the coming months
- Regional GW studies – new in FY17
  - California Coastal Basins
  - Colorado Plateau
- 2017 Increases
  - $2M for Mississippi Alluvial Plain Aquifer
  - $1M in Cooperative Matching Funds for Water Use

National Brackish Groundwater

Understanding brackish groundwater supplies can help determine whether they can supplement or replace taxed freshwater sources in water-stressed areas.

- First National assessment since 1965
- The amount of brackish groundwater underlying the country is more than 800 times the amount currently used each year
- Developed maps showing geographic distribution and depth of brackish resources
- Developed maps showing chemistry of water, chemistry of the water dictates type and cost of treatment
- Report was released in April 2017: https://pubs.er.usgs.gov/publication/pp1833



National Water Quality Program

- Assess quality and trends of Nation's freshwater resources
- Evaluate how human and natural factors affect quality of surface water and groundwater
- Evaluate relative effects of multiple stressors on aquatic ecosystem health
- Predict the effects of human activities, changing climate, and management strategies on water quality and ecosystem health
- Restore and enhance water-quality monitoring networks to provide more timely information on status and trends
- Transform data and models into tools for decision makers
- Provide data and tools to predict ecological conditions in streams
- Cooperative Matching Funds w/ States, municipalities, and Tribes



2018 President's Budget Request

- Reduces funding to the Water Mission Area by $30,413M
- WMA prioritized 1) monitoring, 2) assessments, and 3) research
  - A break in monitoring can never be rectified – missing data can never be captured and are lost forever. Impacts both immediate and future water resource decision-making; can involve life and property decisions.
  - Assessments (comprehensive studies of particular water resources issues; usually place-based) have direct, near-term value to stakeholders, who use them to make a wide variety of practical water-resource decisions.
  - Research, while critical to the long-term function and success of the WMA, provides benefits in the future. It can be delayed and restarted later, with impacts of delayed future benefits, interim loss of expertise, and cost of regaining expertise.
- WMA protected streamgages and the Cooperative Matching Funds (CMF)
  - Streamgages are what the WMA is most known for, and are essential to public safety.
  - CMF were protected to help ensure the viability of our Water Science Centers.

Groundwater and Streamflow Information Program Changes

- Reduces the National Research Program ($1.54M)
- Reduces the National Groundwater Monitoring Network ($1.70M)

Water Availability and Use Science Program Changes

- Reduces the National Research Program (-$4.3M)
- Eliminates the Water Use Data and Research (-$1.5M)
- Eliminates the Mississippi Alluvial Plain Aquifer Assessment Project (-$1M)
- Eliminates the U.S.-Mexico Transboundary Aquifer Assessment Project (-$1M)
- Eliminates the Water-Use Unconventional Oil and Gas Project (-$250K).
- Eliminates the Focus Area Studies (-$1.6M)
- Reduces the Regional Groundwater Evaluations (-$789K)
- Eliminates Groundwater Model Development, Maintenance and Sustainability (-$1.1M)

National Water Quality Program Changes

- Reduces the National Research Program (-$6.011M)
- Eliminates the National Park Service Cooperative Water Partnership (NPS-CWP) (-$1.743M)
- Eliminates the National Atmospheric Deposition Program (-$1.576M)
- Defers the National Water Quality Assessment (NAWQA) Project Lower Mississippi Stream Quality Assessment (-$4M)
- Delays NAWQA Project Trends Assessments (-$2.628M)

Water Resources Research Act Program Changes

- **Eliminates the Water Resources Research Act Program (-$6.488M)**