Safe Drinking Water Information System (SDWIS), the Drinking Water Strategy, and Next Gen



Clint Lemmons
Infrastructure Branch
Office of Ground Water and Drinking Water



- Introduction to the Drinking Water Program
- Current SDWIS/State Data Flows
- The Drinking Water Strategy and Compliance Monitoring Data
- SDWIS/Next Generation
- Governance
- Wrap-up and Questions



Introduction to the Drinking Water Program

- Snapshot of America's Drinking Water
 - 153,000 Community water systems serve millions
 - Many more non-community serve millions more
 - 88% of the community water systems serve < 500 people
- Goal of the Program is Safe Drinking Water
 - EPA writes regulations
 - Program enforcement is delegated to states and generates large amounts of data
 - Water Systems
 - Sources
 - Monitoring results
 - Rule violations and enforcement actions

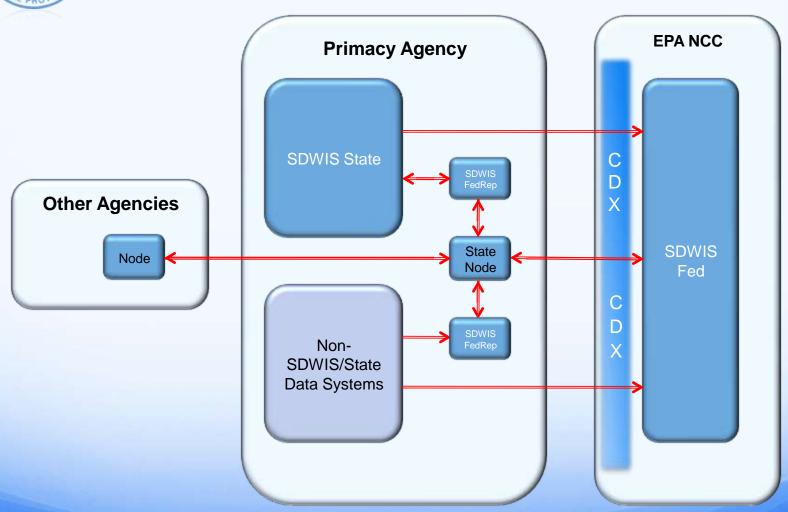


Safe Drinking Water Information System (SDWIS)

- Supports the Safe Drinking Water Act (SDWA)
- State usage is voluntary
- State and Federal versions of SDWIS
 - States need much more data than EPA requires
- States report data to EPA quarterly (to SDWIS/Fed)
- 42 states currently use SDWIS/State, 3 considering

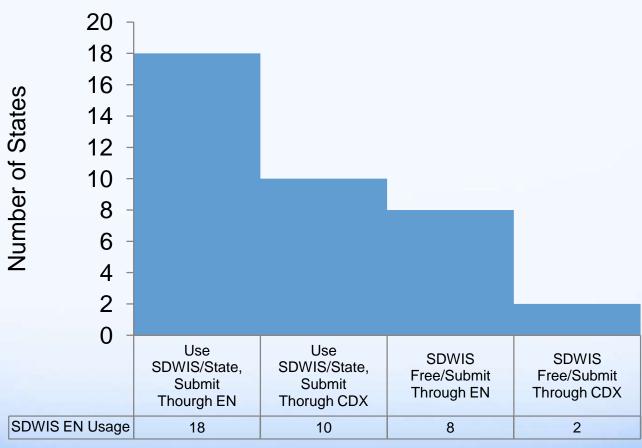


Current SDWIS Data Flow





Drinking Water EN Usage





EPA Administrator's Drinking Water Strategy

- 1. Address contaminants as a group rather than one at a time so that enhancement of drinking water protection can be achieved cost-effectively
- Foster development of new drinking water treatment technologies to address health risks posed by a broad array of contaminants
- 3. Use the authority of multiple statutes to help protect drinking water
- Partner with states to share more complete data from monitoring at public water systems.



- Sample results beyond those required now
- Sampling schedules the where, when, and how often water samples are taken
- Facility analyte levels monitoring schedules that are specific to a water treatment plant
- Other data needed to link these data to a water system
- None of these are currently available to EPA, public health agencies, and the public at a national level

CMD Effect on SDWIS Data Flows

- Greatly expanded types and volume of data collected from the states
 - New CMD data flow from states
- Will require significant modifications to the federal side of SDWIS
 - Where to store CMD at EPA
- New public-facing portal for CMD to give consistent view of nation's drinking water quality
 - President's goal of transparency
 - Places MOU partners in control of drinking water quality message



Accomplishments to Date

- MOU Steering Committee ECOS, Association of State and Tribal Health Officials (ASTHO), Association of State Drinking Water Administrators (ASDWA), and EPA
 - MOU signed; membership agrees to share data
- Launched the Implementation Work Group (IWG) EPA and states
 - What data elements need to be shared
 - Business rules for validating data
 - Characteristics of successful data exchange
 - Uses of monitoring data under the Drinking Water Strategy
 - Public messages about what story the data tell

Worked with OEI to expand EN grant eligibility for flowing CMD to EPA



Accomplishments to Date

- The IWG identified list of candidate CMD elements
- Launched pilot project to evaluate candidate CMD elements
 - Developed CMD extraction tool
 - Received data from 8 states
 - Currently evaluating data
- In process of evaluating where to store CMD received from states



Planned Events and Deliverables

May	Presentations and Panel Discussions at Data Management User's Conference, Boise
June	Conclude rule-specific discussions of "what data" EPA needs under the DWS; discuss feedback received at DMUC
July	IWG is presented with revised ECOS IPT charter for working on CMD XML schema and web services
August	IPT begins development work
October	Presentations and Panel Discussions at ASDWA Annual Conference, Minneapolis
November	IPT completes XML schema
December	IWG submits recommendations to Data Sharing Steering Committee



SDWIS Next Generation

There's nothing fundamentally wrong with SDWIS State.



Why does EPA want to replace it with something new?

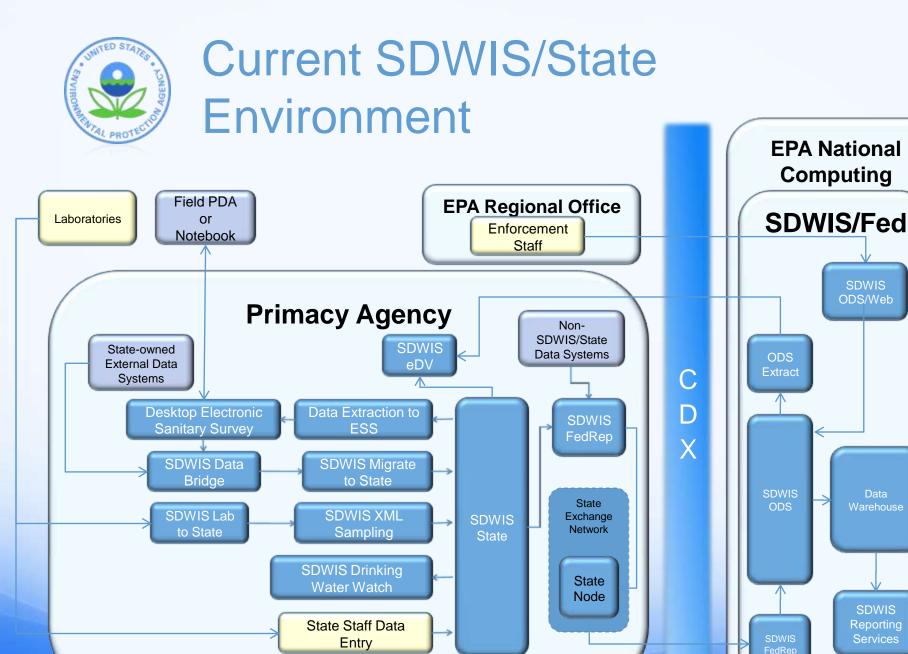


- 54 states use 4 different versions of SDWIS/State
- Development tool used no longer supported by vendor
- New rules require expensive and time-consuming development
- New rules require changing all 12 SDWIS products
- User support costs increase with new states adopting the data system

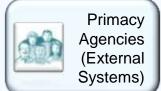


SDWIS Cost Drivers - States

- Critical state functions have not been built due to funding
- States are having difficulties obtaining hardware, related software, adequate in-house technical support
- Must install several upgraded SDWIS products with each new release
- Some states use different web application servers than Tomcat which is EPA tested and recommended
- Migrating from one schema to the next which might require specialized support
- Current web development tools are old and result in screen pages which are not user friendly



SDWIS/Next Generation



- Billing
- Permitting
- Plan Review
- Other Data



State Node

- Compliance
- Enforcement
- Inventory incl. Engineering data
- Sampling



EPA

- Compliance
- Enforcement
- Inventory



• Real Time Data Uses



SDWIS/Next Gen

Drinking Water Quality



Public

Occurrence Data

Inventory



Water Systems Node

Sampling Results



Labs



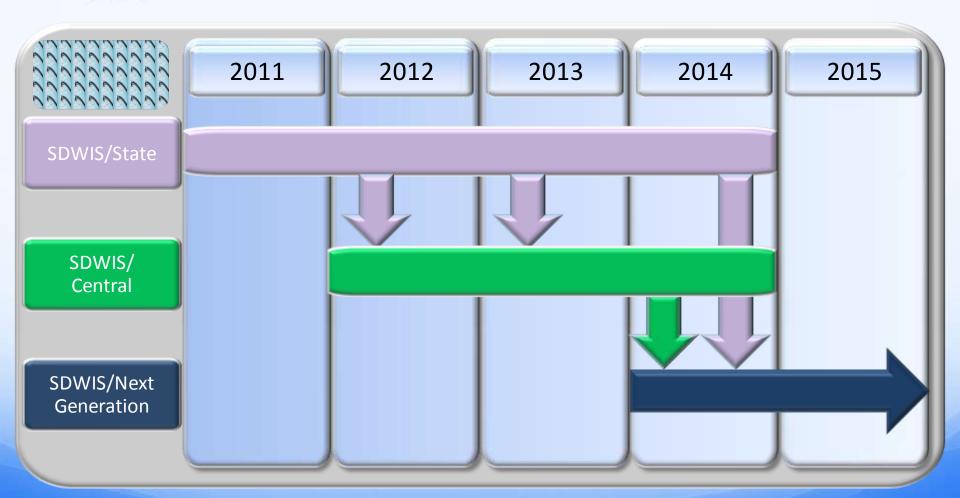
Other Federal Agencies



- Anticipate:
 - Current SDWIS/State data flows will continue to exist
 - CMD data flows will carry over to SDWIS Next Generation
- New data flows:
 - Laboratories to SDWIS/Next Generation
 - Between EPA and other federal agencies
- New web services for Drinking Water data



SDWIS/Next Generation Timeline





SDWIS Next Generation Plans

- SDWIS Central modify current SDWIS/State to accommodate multiple states – Fall/Winter 2011
- Begin migrating states to SDWIS Central Fall/Winter 2011
- SDWIS Next Generation
 - Design in Fall/Winter 2011
 - Development in 2012-2013
 - Go live date Sept 2014
 - Decommission current SDWIS/State Sept 2014



- A formalized mechanism for getting states involved in SDWIS Next Generation activities
- Executive Steering Committee between states and EPA
 - Office of Ground Water and Drinking Water Office Director as Sponsor
 - EPA Executives/Managers
 - State Drinking Water Administrators
- SDWIS Implementation Work Group
 - Mix of State and EPA business and technical specialists



- Drinking Water Program has a goal of more fully utilizing the Exchange Network
- Administrator's Drinking Water Strategy calls for states to flow CMD to EPA
- EN is helping the Drinking Water Program develop a new data flow for CMD
- At the same time, efforts are underway to replace the aging SDWIS technology
- Getting states and other stakeholders involved is key for success





Clint Lemmons Lemmons.clint@epa.gov Greg Fabian Fabian.gregory@epa.gov