Safe Drinking Water Information System (SDWIS) Modernization Board Phase II Charter

Modernization Development Phase (May 2021 - TBD)

Mission Statement

During the SDWIS Development Phase, the SDWIS Modernization Board will provide input and recommendations to the EPA Office of Water on the requirements, planning, and design of a centrally hosted modernized SDWIS system.

Phase II

This charter outlines the Board structure, operating assumptions, and decision processes to be used throughout the second phase of the modernization process. Figure 1 depicts the 3 phases of the SDWIS modernization effort, with the possibility that Board membership will shift significantly with each phase to ensure the right expertise is available from states and EPA.



Group Membership

The Board is comprised of representatives from EPA and State drinking water and information technology organizations, supported by representatives from ASDWA and E-Enterprise. The Board will consist of 9 permanent seats for states with 2 rotating seats that will change out on a yearly basis. Members are volunteers that have experience with either SDWIS State or SDWIS Fed, or both, and/or experience in other large technology modernization efforts. The Board includes members from both state and EPA drinking water programs and information management programs to ensure diverse input into the system's development. This mix will also help provide perspectives from states that utilize a centralized IT structure where technology decisions may be separated from the drinking water programs. New for Phase 2 is the addition of an EPA Regional Drinking Water Program member, with a primary focus on Regional Drinking Water Program direct implementation. Deliberate inclusion of program staff and technical staff attempts to mitigate the challenge of coordinating communication and input across agencies, offices, and functional units.

Roles, Responsibilities, and Relationships Among Workgroups

This section identifies the respective roles of the Modernization Board and other SDWIS workgroups and their relationship to one another.

SDWIS Modernization Board:

The primary role for the Modernization Board in this phase is to gather executive level input and provide feedback to the EPA SDWIS Project Management Team (PMT). The Board will help inform the work of the PMT, the technical teams, and the contractor to implement the high-level business requirements in the "SDWIS Base Functionality" document. More specifically, the Board will:

- Provide feedback to validate / finalize the high-level business requirements.
- Provide feedback on the initial project plan.
- Gain understanding from the PMT and technical teams on planned functionality prior to each upcoming module development.
- Read / listen to assessments from the PMT and technical teams on how each module was implemented by the contractor; and
- Recommend / request adjustments to development plans in response to changing circumstances or state priorities.

Additional roles and responsibilities include:

- Providing input on project decisions that will have substantial impact on State resources.
- Making requests, as relevant, to the SDWIS Executive Steering Committee for assistance in addressing issues or providing resource support.
- Supporting the Project Management Team (PMT) by providing resources from their State, as needed.
- Reviewing the ongoing project developments to ensure that states are able to administer their state's drinking water program effectively and efficiently and that state IT infrastructure is prepared to transition to the modernized SDWIS system upon release.

Example Input by the Board: Recommend that module Y development be deferred (and the ultimate system delivery date deferred) so that additional critical functionality can be added to (or corrected / improved in) module X.

EPA Executive Steering Committee:

The EPA Executive Steering Committee (ESC) is responsible for approving the initial project plan, approving significant changes to the project plan, and conducting internal EPA management communications over the life of the project. The ESC will consist of EPA senior level managers. While the group will be open and transparent in its decision-making processes with the Modernization Board, the ESC retains ultimate decision-making authority over the project.

• The establishment of the ESC does not usurp any existing decision-making authorities from either OMS or OW, however; it sets the expectation that any significant decision on or impacting SDWIS Modernization system development that one office will make is discussed with the other office at the ESC prior to decision-making.

Example Decision for the ESC: Approve the SDWIS Modernization Project Plan and approve changes to the Project Plan that adjust the scope/budget/schedule by $\geq 5\%$

EPA SDWIS Project Management Team

The Project Management Team (PMT) will consist of the Project Manager, the Product Owner, other SDWIS project managers, and Drinking Water Protection Division management.

- This team will be responsible for providing positive confirmation of individuals selected to be a part of Technical Teams and the Developers charged with building the new SDWIS system.
- This team will also assist in fielding and researching questions that are related to the programmatic functions of the developing SDWIS System as necessary.

Example Decision for the PMT: Does the contractor's plan for building the backend database meet the needs of States and EPA?

SDWIS Technical Teams and Workgroups

The SDWIS Technical Teams will be small teams of State and EPA staff that are established to address a specific technology question or development need.

Figure 2 depicts the relationship between the identified groups and the flow of communications between the groups.



Figure 2: SDWIS Development Phase Flow of Communications

Communications

This chart identifies various communications products that will be developed to keep different stakeholder audiences informed about SDWIS modernization progress. Each product includes the party responsible for developing the product, the frequency of communication, and the target audience.

Communications Product	Responsible Party	Frequency/Cadence	Target Audience(s)
Project Milestone Report Outs	Project Managers with support from Ross, ECOS & ASDWA	As they occur	Broader Drinking Water Community, Modernization Board, EPA Executive Steering Committee
Modernization Board Development Updates	Project Managers with support from Ross, ECOS & ASDWA	Bi-weekly	Modernization Board,
Technical Team Report Outs	Project Managers with support from Ross	Bi-weekly	Modernization Board, EPA Executive Steering Committee
Modernization Board Meeting Summaries	Ross	One week after each Board Meeting	Modernization Board, EPA Executive Steering Committee
All Things SDWIS Webinars	Project Managers with support from ASDWA	Monthly	Broader Drinking Water Community
E-Enterprise Executive Leadership Council Updates	Project Managers with support from Ross	Quarterly	Broader Drinking Water Community, Modernization Board, EPA Executive Steering Committee

Meeting Logistics

Board meetings will occur as needed, with the frequency adjusted to match the development of technical analysis. Support for each meeting will include agenda development, discussion facilitation, and meeting summary development with a special emphasis on action and decision tracking. Every effort will be made to meet deadlines for read-ahead materials to ensure members have adequate time to review materials and gather feedback from any other staff with specific expertise.

- *Agendas, analysis summaries, reports*: circulated no later than the three days before the meeting date.
- *Meeting actions and requested member work between calls*: circulated immediately following each call (same day).
- *Meeting summaries outlining key discussion points and decisions*: posted on SharePoint three working days after each meeting.

To support Board members, emails for this effort will include the phrase 'SDWIS Modernization Board' to make them easier to search for and will also reference any needed review or response needed from members.

Calls will include a mix of traditional presentations, discussion, and interactive structured discussion. Members are encouraged to fully engage with the web meeting tool to ensure full participation and the ability to participate in chat and polling work within calls. Members are also encouraged to use video during meetings to help with discussions whenever possible.

Membership Expectations

Modernization Board Members will conduct their business primarily through the online conference calls and e-mail. In performing their duties, Modernization Board Members shall agree to conduct proceedings in a professional, constructive, and respectful manner as well as:

- Communicate relevant information within their organization (e.g., discussions of meeting items between drinking water, information management staff and with other organizations / agencies (e.g. ASDWA and E-E / Exchange Network conferences)
- Have broad technical and managerial knowledge of the drinking water program in their state and SDWIS
- Come to meetings with sufficient background information to productively discuss meeting topics, including reading background materials.
- If members are unable to attend a Board Meeting, it is the member's responsibility to send an alternate from their organization to attend on their behalf and to follow up with this alternate to remain informed on the decisions being made by the Board. It is also important for this alternate to inform project staff which member they are sitting in for during roll call.
- Perform follow-up actions identified in meetings in a timely manner and let the group know when there are known time constraints.
- Attend meetings with a mindset for how a general user would use SDWIS into the future, not just the needs of the organization that they represent.

Relationship of this work to the E-Enterprise Digital Strategy

The SDWIS modernization effort is the first major system to undergo this type of activity since the development of the E-Enterprise Digital Strategy. The principles outlined in the Digital Strategy provide a high-level roadmap to ensure full customer engagement throughout the planning and development phases of system redesigns and the development of new systems. These expectations, while not yet finalized, provide a helpful framework under which shared governance will operate. These principles will act as a starting point for the development of a lifecycle-based governance approach that allows stakeholders to engage in transparent decision-making at all stages of the SDWIS development cycle.

- Make User-Centered Design the Top Priority
 - This will ensure that the right stakeholders are participating in modernization discussions and that these parties are actively part of the decision-making process.
- Question the Status Quo and Keep an Open Mind
 - This is going to be a focal point for the members to be mindful of and may include leveraging information from existing lookbacks, retrospectives, and lessons learned.

- Take the Time to Fully Understand Program Priorities and User Needs
 - This will be one of the main focuses of this phase and will be a key principle for members to be mindful of for the phase.
- Document current business processes, workflow, and technology
 - This is an ongoing task that both Board members and project staff will be mindful of for this phase.
- Identify the Desired Future State of Business Processes and System
 - This is a key item that will be discussed by the members as they review the ongoing continuous operations.
- Default to Using Open Data and Shared Services in the Solution Design
 - This is a key item that will be discussed by the members as they review the ongoing continuous operations.
- Consider Alternative Approaches to Designing, Building, and Operating Systems
 - This will be incorporated into discussions on the developing SDWIS system and will be a guiding principle for the members to re-imagine operations based upon new industry standards.

Membership

Consistent with the requirements of the Federal Advisory Committee Act (FACA) and the Unfunded Mandates Reform Act (UMRA), all state members of the governance board must designated to act on behalf of their state's elected officers.

The following EPA and state agency staff have been identified as the members for Phase II of the Modernization board.

Name	Org/Agency
State Information Management	
Program Members	
Victoria Phillips (Co-Chair)	Massachusetts Department of Environmental Protection
Sudhakar Adda	Arizona Department of Environmental Quality
Stephen Forrest	Montana Department of Environmental Quality
Jeff Martin	Colorado Department of Public Health and Environment
Peter Street	New Mexico Environment Department
State Drinking Water Program Members	
Shellie Chard	Oklahoma Department of Environmental Quality
Damon Guterman	Massachusetts Department of Environmental Protection
Gino Pizzini	Montana Department of Environmental Quality
Eric Bengston	Washington State Department of Health
Nicole Graziano	Colorado Department of Public Health and Environment
Michele Risko	Texas Commission on Environmental Quality
EPA Nominated Members	
Benita Best-Wong (Co-Chair)	EPA Office of Water
Karen Maher	EPA Office of Mission Support
James Brown	EPA Region 6

EPA SDWIS Leadership Team		
Participants		
Yu-Ting Guilaran	EPA Office of Water	
Anita Thompkins	EPA Office of Water	
Ron Bergman	EPA Office of Water	
Michael Plastino	EPA Office of Water	
Tina Chen	EPA Office of Water	
Deric Teasley	EPA Office of Water	
Renee Morris	EPA Office of Water	
Justin Wright	EPA Office of Water	
Percy Addo	EPA Office of Water	
Caitlin Dickson	EPA Office of Water	
Dominique Rey	EPA Office of Water	
James McCrystal	EPA Office of Water (on half time detail from AZDEQ)	
Facilitation and Support		
Rob Willis	Ross Strategic	
Kristen Durance	Ross Strategic	
Alec Ege	Ross Strategic	
Kurt Rakouskas	Environmental Council of States/E-Enterprise	
Anthony DeRosa	Association of State Drinking Water Administrators	
Mary Curtis	EPA Office of the Chief Financial Officer/Office of E-	
	Enterprise	
Dwane Young	EPA Office of Water	
Rob Cannon	EPA Office of Enforcement and Compliance Assurance	

Appendix 1: Background, Purpose, and Phase I Summary

Background & Purpose

The Environmental Protection Agency (EPA) is currently working to modernize the Safe Drinking Water Information System (SDWIS). This work builds off previous attempts to modernize the system that have been met with some development challenges. The current SDWIS State system (and associated data flow components) is a standalone system that runs at the Primacy Agency (state) level. SDWIS State provides states with these capabilities that support implementation of the drinking water program:

- Managing Water System Inventory information
- Receiving and managing large volumes of system compliance monitoring data
- Managing rule schedules
- Determining candidate drinking water rules violations (via the Compliance Determination Subsystem, the legacy version of the Business Rules Engine) and providing capabilities for drinking water rules managers to designate automated candidate violations as official violations
- Tracking enforcement and other water system actions
- Reporting system inventory, violation, and enforcement data to EPA

The reporting to EPA function of SDWIS State provides the capability for States to transmit required quarterly reporting data to EPA's SDWIS Fed Data Warehouse for reporting and analysis.

Phase I Summary

The Safe Drinking Water Information System Modernization Board (referred to as the Board throughout this document) was established in January 2020 to provide a venue for EPA and State Agencies to discuss the SDWIS modernization work and ensure stakeholder needs and impacts on partners were considered throughout the analysis, planning, and development phases. The Board provided co-regulator input and recommendations to EPA with the expectation that EPA would follow the recommendations. Ultimately, however, EPA does retain final decision-making power. In the case that EPA does not follow the Board's recommendations, EPA will report back to the board in an open and transparent manner with their reasoning behind not following the Board's recommendations.

During the first phase of SDWIS Modernization, the Board provided extensive input for the General Dynamics Information Technology (GDIT) led Alternatives Analysis, which assessed 5 options for replacing the SDWIS system. After much deliberation, the Board came to recommend to EPA their preference of Option 2, which described a centrally hosted cloud system that would allow states to customize portions of the system (the database, User Interface, and Business Rules Engine), but the base system would be usable by states as is. EPA has started the process of determining viable development approaches that would meet the requirements of option