

Progress Report for Implementation of Assembly Bill 1755, the Open and Transparent Water Data Act

April 2018



Contents

Progress Report on Implementation of Assembly Bill 1755, the Open and Transparent Water Data Act	1
Introduction.....	1
Communication and Engagement (February – April 2018).....	2
Implementing the Open and Transparent Water Data Act.....	2
Strategic Plan.....	3
Protocols.....	3
Use Cases.....	4
Exploration of Governance and Funding Options.....	5
The California Safe Drinking Water Data Challenge 2018.....	6
Interoperability Testbeds.....	6
Interagency Implementation Planning.....	7
Federated Interoperable Portals.....	8
User Focus and Continuous Improvement.....	8
Effects of AB 1755 on Local Agencies.....	11
What’s Next?.....	12
Next Steps.....	12
How can you get involved?.....	13
Useful Links.....	15
Acknowledgements.....	16

Tables

Table 1 Status of AB 1755 Platform Protocols.....	4
Table 2 Phase I Projects, July 2017–September 2019.....	9
Table 3 Phase II Projects, September 2019–September 2020.....	10
Table 4 Phase III Projects, September 2020–Future.....	11
Table 5 Ongoing Projects.....	11

Figure

Figure 1 Implementing the Open and Transparent Water Data Act.....	3
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Note: Titles and terms in blue within this report correspond to links provided in the final section, “Useful Web Links.”

Acronyms and Abbreviations

AB 1755	Assembly Bill 1755, the Open and Transparent Water Data Act
CCST	California Council on Science and Technology
CDFW	California Department of Fish and Wildlife
CNRA	California Natural Resources Agency
CWQMC	California Water Quality Monitoring Council
DSC	Delta Stewardship Council
DWR	California Department of Water Resources
GovOps	Government Operations Agency
OPR	Governor’s Office of Planning and Research
Progress Report	Progress Report — Implementing the Open and Transparent Water Data Act with Initial Draft Strategic Plan and Preliminary Protocols
SWRCB	State Water Resources Control Board

Progress Report on Implementation of Assembly Bill 1755, the Open and Transparent Water Data Act

Introduction

This is the second progress report on the implementation of Assembly Bill 1755, the Open and Transparent Water Data Act (AB 1755), which directs the California Department of Water Resources (DWR), the State Water Resources Control Board (SWRCB), the California Department of Fish and Wildlife (CDFW), and the California Water Quality Monitoring Council (CWQMC) to improve the accessibility and usability of water and ecological data. Based on extensive stakeholder engagement, the intended outcome for AB 1755 is a federated network of data portals with data that are sufficient, accessible, useful, and used to support decision making. AB 1755 implementation is an evolving process that will adapt over time in response to changing software capabilities and the needs of data users and providers.

The role of data in water management is not new. Water managers of all levels have incorporated available data into their decision-making processes, and numerous entities have stepped forward to collect, manage, and share data for specific purposes, with varying degrees of support. This legacy forms a strong foundation for AB 1755; without these accomplishments, we could not hope to realize the vision of useful data for sound, sustainable water management. We can build on past successes, while striving for—and accelerating—advances in data management, data integration, and decision-making. AB 1755 aspires to more effectively put data to work across political, disciplinary, and agency boundaries.

This April 2018 progress report includes an updated strategic plan, updates on protocols, supplemental information about use cases and their development, discussion of long-term governance and funding options, news about upcoming data challenges and testbed activities, a high-level look at interagency implementation planning, and opportunities for engagement.

This progress report builds upon the January 2018 document, “[Progress Report — Implementing the Open and Transparent Water Data Act with Initial Draft Strategic Plan and Preliminary Protocols](#)”. Taken together, the Progress Report (January 2018) and this progress report describe the background, accomplishments, and next steps in implementation of AB 1755. They reflect a user-centered approach that is intended to build the relationships and investments necessary across State, federal, and Tribal agencies, and among stakeholders to assure that AB 1755 and the larger data vision will be sustainable over time.

State agency staff and other stakeholders involved in this implementation embrace the opportunity AB 1755 affords us to support greater data sharing and to enable California to address its numerous water management challenges through data-driven decision making. Contributions of energy and expertise by the State agencies identified in legislation and beyond (i.e., State, federal, and local agencies, researchers, and philanthropy) have been awe-inspiring. Indeed, AB 1755 has catalyzed an initiative to strengthen State agency alignment, engage data providers and data users, promote partnerships, pool expertise and

resources, and build a culture of open and transparent data exchange – all prerequisites for putting data to work to transform the way water is managed in California.

Communication and Engagement (February – April 2018)

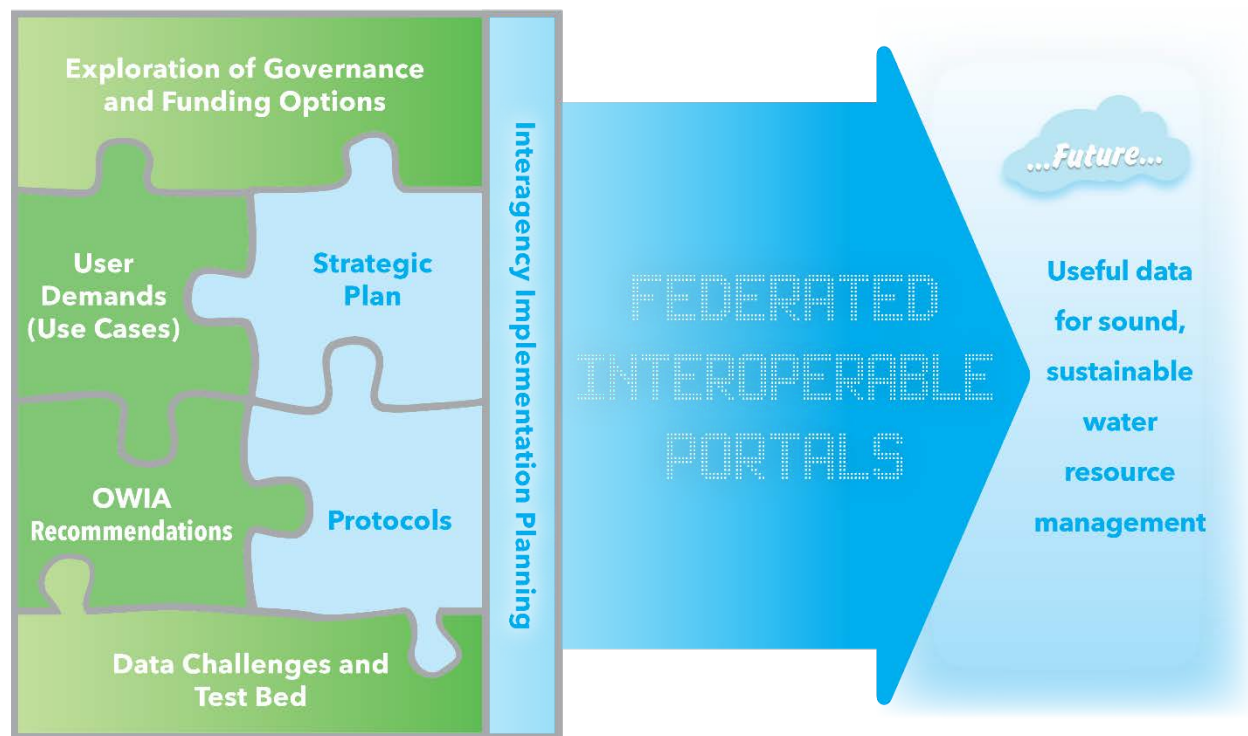
Communication and coordination are critical to the successful implementation of AB 1755, both internally and externally. Since the release of the Progress Report (January 2018), the Partner Agencies have continued their aggressive schedule of coordination to ensure continuous engagement with the water management community as summarized below.

- 13 AB 1755 implementation team meetings: February 2018–April 2018
- 9 meetings on governance and funding exploration: February 2018–March 2018
- 6 partner agency team meetings: February 2018–April 2018
- 5 presentations of the early implementation of AB 1755
 - California Water Quality Monitoring Council Meeting: February 2018
 - DWR’s Environmental Coordination Committee: February 2018
 - Public webinar on AB 1755 implementation: March 2018
 - Public engagement at the Water Board Data Fair: March 2018
 - Presentation at California Water and Environmental Modeling Forum: April 2018
- 2 convenings of State Water Agency Principals: March 2018 and April 2018
- 2 meetings with California Council on Science and Technology: February 2018 and April 2018
- 11 meetings on Safe Drinking Water Data Challenge: March 2018 and April 2018

Implementing the Open and Transparent Water Data Act

The Partner Agency Team responsible for implementing AB 1755 is comprised of many agencies including those named in legislation, DWR, SWRCB, CDFW, and CWQMC, as well as the Governor’s Office of Planning and Research (OPR), the California Natural Resources Agency (CNRA), the Government Operations Agency (GovOps), and the Delta Stewardship Council (DSC). The Partner Agency Team meets regularly to plan, discuss progress, and offer high-level guidance in the multi-agency effort to fulfill requirements of AB 1755. Figure 1 provides a conceptual characterization of the State’s approach to implementation. Progress on the efforts shown in Figure 1 will be outlined in the sections to follow.

Figure 1 Implementing the Open and Transparent Water Data Act



Strategic Plan

The Progress Report (January 2018) included an initial draft Strategic Plan. The partner agencies received many insightful comments that aided us in adapting the Strategic Plan to make it more representative of opinions expressed by the water and environmental community. New actions have been added, and many actions have been revised. Additionally, work is already underway to transition from a strategic planning posture to interagency implementation planning, in which strategic actions are being translated into specific projects intended to accomplish the four goals of the strategic plan — data are sufficient, accessible, useful, and used. [The Strategic Plan \(April 2018\)](#) has been posted on the AB 1755 website.

Protocols

The Progress Report (January 2018) included three initial protocols needed to enable early publishing of data on open data platforms: (1) identify a data steward, (2) publish and document on an open data platform, and (3) access data. Over time, these initial protocols will evolve, and additional protocols will be developed. Two protocol topics — data security and federation — have already been identified by commenters on the Progress Report (January 2018). These protocol topics and those identified in the Open Water Information Architecture and the Strategic Plan (April 2018) will be developed in coordination with technical and stakeholder groups throughout the course of AB 1755 implementation. The status of existing and prospective AB 1755 Platform protocols is summarized in Table 1.

Table 1 Status of AB 1755 Platform Protocols

Protocols developed to date	Status
Identify a Data Steward	Available in <i>Progress Report</i> (January 2018)
Publish and Document on an Open-Data Platform	
Access data	
Protocol topics to be developed	Status
Data Security	Informed by comments on <i>Progress Report</i> (January 2018)
Federation	
Use Case Development	Captured as strategic action in <i>Strategic Plan</i> (April 2018)
Interoperability	Captured as a project in <i>Progress Report</i> (April 2018), Interagency Implementation Planning section
Data Acquisition	Outlined in the <i>Open Water Information Architecture</i> (January 2018)
Quality Control	
Publication	
Data Traceability	
System Portability	
External Interfaces	

Details on developed protocols are available in the [Protocols for Assembly Bill 1755, the Open and Transparent Water Data Act](#). Additionally, an abbreviated checklist that summarizes the steps to publish data to an open data platform is now available as an appendix to the Protocols. Once developed, protocols will be tested using a testbed or similar mechanism to ensure the requirements proposed achieve the intended outcomes. A proposed process for developing, vetting, and approving new protocols was outlined in the Progress Report (January 2018), which applies adaptive management to respond to evolving user needs and technological improvement. The AB 1755 protocols will be a “living document,” and up-to-date protocols will be available through the open data platforms and the AB 1755 website.

The partner agencies invite and encourage anyone interested in developing, contributing to, or providing feedback on existing or new protocols to contact us and get involved in the process. Additional information about phasing of new protocol development is available in the Strategic Plan (April 2018) and the Interagency Implementation Planning section below.

Use Cases

As discussed in the Progress Report (January 2018), DWR, California Council on Science and Technology (CCST), and UC Water co-hosted a series of workshops founded on the conviction that, to properly enable data-driven decisions, consideration should be given to “decision-driven data.” In these workshops and subsequent efforts, researchers and water management professionals interactively developed 20 draft use cases — short examinations of how decision processes employ data — to inform a decision-driven water-data system. A [report on this effort and a compendium of the 20 draft use cases](#) was published by the UC Berkeley School of Law, Center for Law, Energy & the Environment.

The initial 20 draft use cases are not intended to span the entire decision space of water and environmental management, nor are they designed to be a comprehensive library of possible water management decisions. Rather, they serve as a proof-of-concept to demonstrate that developing use cases

is an effective means of focusing decision-making and prioritizing data collection and publication. The 20 draft use cases are a starting point for the kinds of decisions to which the evolving federated, interoperable open data portals of AB 1755 must respond.

The development of use cases helps clarify the questions that water resource decision-makers must answer and identifies the data necessary to answer those questions. Cooperative development of use cases allows water resource managers to examine a decision from multiple perspectives; it yields transparent documentation that water resource managers can use to communicate their decision-making process with stakeholders, to solicit improvements, and to foster trust in decisions; and it can help decision-makers articulate expectations of a data system in such a way that technical experts can analyze and address those expectations.

Well-documented use cases can also help inform prioritization of datasets for publication on an open data system, although the existence of a use case will certainly not be the only factor. Other tools may exist for identifying and connecting water management decisions with the data needed to support those decisions, and some datasets will be deemed critical, even absent a formal use case.

Though the initial effort to develop the 20 use cases is complete, the Partner Agencies invite anyone involved in water management decision-making to contribute additional use cases, share available datasets for publication, or federate additional existing data portals.

The use case approach has broad appeal, because it serves as a "meeting place" for water management professionals and information technology experts. It is the understanding of the Partner Agencies and our research partners that the State of Texas is embarking on the same path to identify who needs what data, in what form, for what decisions.

Exploration of Governance and Funding Options

Implementation of AB 1755 must include thoughtful choices about long-term governance and funding for the open data platform. While the Partner Agencies deliberate over the various expectations of a statewide integrated platform and the corresponding development approach, one thing is certain: In the absence of a resilient governance structure and stable funding model, the open data platform is not sustainable.

In creating, operating, and maintaining the platform, numerous actions and decisions will have to be coordinated — from system architecture to protocols adoption to platform development and use. A governance structure is the body of established rules and expectations about how these things will be decided and coordinated.

When it comes to funding the operation and maintenance of the open data system, the Open and Transparent Water Data Act established the Water Data Administration Fund, which can receive voluntary contributions, but the legislation did not include a funding appropriation. This highlights one of the biggest challenges the AB 1755 open data platform will face, the need for dedicated resources to keep it running.

During the first quarter of 2018, [an independent exploration](#) was conducted, in consultation with the partner agency team, to consider and evaluate governance and funding options for the platform described

in AB 1755. The exploration was initiated by the Water Foundation and conducted by Redstone Strategy Group, with funding from the S.D. Bechtel, Jr. Foundation, and it included the voluntary participation of a range of distinguished professionals throughout California. This group met to discuss three key questions:

1. What are the governance needs associated with implementation of AB 1755?
2. What organizational structure(s) would best meet these governance needs?
3. How can governance promote a sustainable funding model for AB 1755?

Because work on open data in California is a microcosm of a national-level conversation, the exploration also included interviews with more than 30 experts and stakeholders throughout the nation.

Redstone conducted the investigation independent of State oversight, acting with autonomy in the production of a report of findings and recommendations, and Partner Agency representatives had regular opportunities to offer input and feedback.

The Governor's Office of Planning and Research is leading an effort, with active participation of executive management at CNRA, CalEPA, DWR, SWRCB, DFW, and GovOps, to consider and evaluate governance and funding options, informed by the independent report described above. This group of partner agency executives is charged with developing specific, actionable recommendations for long-term platform governance and funding for consideration and decision by the Administration in 2018.

The California Safe Drinking Water Data Challenge 2018

Annually, as many as 1 million Californians lack access to clean, safe drinking water, and the Governor's Office of Planning and Research and the West Big Data Innovation Hub are launching a data challenge to demonstrate the power of open data to solve one of California's most pressing issues. They have initiated this data challenge to engage innovators, test data skills, and help develop tools to improve access to safe drinking water. In partnership with the Water Foundation, Imagine H2O, and the Bay Area Council, and with support from the State agency stewards of critical water data and a growing community of partners, this data challenge wants participants to use open data with an emphasis on user-centered design, to explore data's potential to better understand and define the specific challenges faced by communities lacking access to safe drinking water, help them anticipate vulnerabilities, and identify and deploy community-based solutions. The safe drinking water data challenge will also invite users to provide feedback on their experience using open data to respond to the challenge. This feedback will inform our AB 1755 efforts.

Stay tuned as more details on this event will be available soon, and follow the progress at [#CAWaterDataChallenge](#) on social media.

Interoperability Testbeds

A key attribute of the federated open data system is that it will bring together data from many places to form a consistent whole, allowing for the free exchange of information about California's water and ecological resources. The open data system should accommodate many types of analysis and visualization to support the transition from data to usable information. To facilitate this federation, the Partner Agencies will establish interoperability testbeds.

It is imperative that our efforts focus on key decisions needed for California water resources management and the data needed for those decisions.

Interoperability is vital to efficient and effective water management decision-making. Much of the data needed for water management decisions in California comes from local government, and the State will have to integrate local data into a regional view to meet broad, statewide requirements. In addition to inherent differences from one data provider to another, we must recognize that computer systems and commercial software used by water data providers differ substantially, as well.

To assure interoperability of data coming from a diverse set of sources, it will be necessary to set common protocols and data standards to facilitate the useful exchange of information. This is analogous to routine protocols for transferring data between different computers; however, achieving the interoperability of data from different sources and systems will be a much more difficult task.

Planning is underway to develop and deploy, by fall 2018, interoperability testbeds that allow innovative users to test the ability of proposed protocols and data standards to address specific use cases. Participants will work together to select and test data formats, quality assurance/quality control levels, update frequencies, and exchange protocol choices. It is also necessary to assure that relevant data are properly inventoried and available for the selected use cases. Conducting these testbeds will help ensure that proposed protocols and standards utilized for the platform are beneficial in achieving the goals of the Strategic Plan – that data are accessible, sufficient, useful, and used. Each testbed will conclude with documentation of lessons learned and analyses of beneficial or non-beneficial protocols and standards, along with specific recommendations for future actions. Testbeds will be a tool for ongoing platform development.

Interagency Implementation Planning

The next step in interagency implementation planning is to prioritize identified projects based on legislative mandates and available funds. The Partner Agencies have begun to identify and describe projects needed to achieve the goals, objectives, and actions outlined in the updated Strategic Plan (April 2018). Each Partner Agency brings to bear unique data management skillsets, perspectives, and interests toward implementing AB 1755. For example, the CWQMC and its workgroups have expertise in coordinating the monitoring, collection, and reporting of data across state agencies and then turning that data into useful information using data visualizations and tools to answer specific regulatory management questions. In turn, the portals managed by the CWQMC workgroups may consume data from the AB 1755 federated open data system. Through robust communication and coordination, the Partner Agencies seek to leverage one another's unique expertise and mandates to enhance AB 1755 project outcomes, identify areas of overlap, eliminate redundancy, and discover new efficiencies.

Tables 2-5 include the preliminary mapping of strategic goals and objectives to specific projects that are critical to achieve the vision of AB 1755. Each table includes projects identified for successive phases (time periods) of platform implementation. Due to the iterative and adaptive nature of AB 1755 implementation, plans will be continuously reviewed and revised as needed to ensure effective and efficient progress. Also, the future, long-term governance structure will have the authority to refine priorities. Finally, completion of the listed projects by the partner agencies is critically dependent on funding; many projects require funding beyond what is currently available.

Federated Interoperable Portals

In March 2018, the CNRA released its new [Open Data Portal](#), which gives agencies, stakeholders, and interested parties better access to Natural Resource Agency data. The portal helps State, federal, Tribal, and local entities make resources-related decisions by giving them open access to data that may have been inaccessible. The portal already features data, showcases, and information visualizations related to water, wildlife, conservation, energy, protected lands, and oceans. At the time of this report, State agencies have made available through the portal over 1,300 datasets and 20 data visualizations. Additional functionality as well as new and updated data will be added to the site on a continuous basis.

Another recent and significant achievement is that the CNRA Open Data Portal successfully federated data from three constituent departments. Additionally, the CNRA Open Data Portal and statewide open data portal, [data.ca.gov](#), hosted by GovOps and the California Department of Technology, are working to federate their combined library of datasets. Once accomplished, users of either portal will be able to access datasets across many State agencies and departments. This is significant for two reasons. First, it will demonstrate the feasibility of a network of federated interoperable portals in bringing together data from disparate sources. Second, successful federation will unify datasets from multiple State agencies (for example, CDFW and DWR make data available on the CNRA Open Data Portal, and the SWRCB makes data available on [data.ca.gov](#)).

The AB 1755 open data platform is being developed by federating the existing CNRA, GovOps, and other portals. As such, the partner agencies will not release a request for proposals for the development of a statewide integrated water data platform.

User Focus and Continuous Improvement

Success will be measured by the system's ability to evolve and improve over time in response to users' needs. Performance metrics and user feedback — both positive and suggestions for improvement — will be monitored and evaluated and will guide evolution of the system in the long term. Decision-making about the system itself will be addressed by a governance structure to be determined.

Table 2 Phase I Projects, July 2017–September 2019

Goals	Objectives	Project	Project Description
Completed			
Goal 1	Objective 1.1	Initial Use Cases	Develop an initial set of use cases to define and articulate stakeholders' data and information needs in terms that are translatable into platform requirements. For more information, see Data for Water Decision Making Report.
Goal 2	Objective 2.1	Initial Protocols	Develop and publish minimum protocols for data publication. This includes required and optional metadata requirements, data dictionary if applicable, and optional free text description of the data collection, data management, and data qualification methods.
Started			
Goal 2 Goal 4	Objective 2.1 Objective 4.3	Sustainable Governance and Funding	A project to establish the governance and sustained funding business model recommended by the effort led by Water Foundation, OPR, Redstone, and others. Develop governance structure and process to guide evolution of protocols.
Goal 2	Objective 2.2	Publish State-Held Datasets	Publish datasets including datasets identified in AB 1755.
Goal 2	Objective 2.2	Platform Federation	Develop and publish federation protocol. Federate with other open data platforms.
Goal 4	Objective 4.4	Safe Drinking Water Data Challenge	Conduct the Safe Drinking Water Data Challenge. Encourage citizens and government programs to develop decision-support tools and custom web application using datasets from the open data platform.
Goal 4	Objective 4.2	Communication and Engagement Strategy	Develop and implement a communications and engagement strategy for the water community.
Planned			
Goal 1	Objective 1.1 Objective 1.2	Data Inventory	Identify and publish a list of water resources-related datasets from use cases. Inventory and publish list of water resources-related datasets. Include government agency that collected the data, along with the reason the information was collected.
Goal 4	Objective 4.1	Testbeds	Select a few use cases, protocols, and data standards, and use data published on the open data platform to address the issues raised. Publish lessons learned from pilot projects to improve open data platform and protocols.

Table 3 Phase II Projects, September 2019–September 2020

Goals	Objectives	Project	Project Description
Goal 1	Objective 1.1	Use Case Protocol	Develop protocol for writing use cases based on lessons learned from use case pilot projects.
Goal 1	Objective 1.2	Streamline Data Reporting	Evaluate data currently reported to the State by local agencies to streamline reporting and reduce burden on local agencies. Produce a report with findings and recommendations.
Goal 1	Objective 1.2	Identify Data Gaps	Identify data needed, but not collected, from existing use cases. Publish identified data gaps. Support coordination between data providers and users to address data gaps.
Goal 3	Objective 3.2	Visualization, Querying, and Download Tools	Develop simple visualization tools for the open data platform. Develop tools for filtering and querying datasets, and support downloading subsets of data on open data platform.
Goal 3	Objective 3.2	Custom Web Applications and Decision Support Tools	Collaborate with third parties to develop custom web applications and decision support tools. Provide a location to feature third-party tools on a rotational basis.
Goal 3	Objective 3.2	Support Spatial Discovery	Develop map-based web application enabling users to spatially discover datasets across federated AB 1755 open data platforms.
Goal 4	Objective 4.2	Data Stewardship Training	Develop training resources for Partner Agencies wishing to elevate their data to the open data platform.
Goal 2	Objective 2.2	Publish Federal Datasets	Federate with platforms publishing federal datasets identified in legislation on open data platform.
Goal 3	Objective 3.1	Interoperability Protocol	Develop protocol to align vocabulary, metadata requirements, geo-referencing practices, keyword use, and organization of datasets to improve discoverability, interoperability and to facilitate data integration.

Table 4 Phase III Projects, September 2020–Future

Goals	Objectives	Project	Project Description
Goal 4	Objective 4.2	Data Science Training	Develop training resources for data consumers to improve data literacy.
Goal 3	Objective 3.3	Data Archive	Archive all versions of datasets on the open data platform.
Goal 3	Objective 3.1	Achieve Interoperability	Utilize interoperability protocol to standardize datasets to improve discoverability and usability of datasets on the federated open data portals.
Goal 4	Objective 4.4	Data Citations	Encourage government publications to source and cite data published in the open data platform.
Goal 3	Objective 3.2	Information and Accessibility	Foster and support development of an analytical sandbox for the water community.

Table 5 Ongoing Projects

Goals	Objectives	Project	Project Description
Goal 2	Objective 2.2	Data Publication	Expand use of data.ca.gov, data.cnra.ca.gov, and other existing open data platforms for publishing data
Goal 1	Objective 1.1	Use Case Solicitation	As needed, collect and publish use cases and data needs from data consumers and water resource managers.
Goal 1	Objective 1.1 Objective 1.2	Data Inventory	Identify, publish, and maintain a list of water resources-related datasets from use cases. Inventory, publish, and maintain a list of water resources-related datasets. Include government agency that collected the data, along with the reason the information was collected.
Goal 4	Objective 4.4	Civic Engagement	Encourage citizens and government programs to develop decision-support tools and custom web application using datasets from the open data platform.
Goal 2 Goal 4	Objective 2.2 Objective 4.3	User Feedback	Collect information from consumers on improvements that could be made to the data, or data format, and implement recommendations as feasible. Continually enhance the open data platform based on input from data consumers, data providers, and AB 1755 governance.

Effects of AB 1755 on Local Agencies

An emergent theme of public comment on the Progress Report (January 2018) was an expressed concern that AB 1755 will introduce new burdens on local water data collectors — namely new, unfunded data reporting mandates and increased legal, safety, and security concerns. The Partner Agencies acknowledge

these concerns and understand their origin. History offers many examples of well-intentioned, yet under-resourced or unfunded, mandates. The enthusiasm already exhibited for implementing AB 1755, and the governance and funding options described above, can and may guarantee a more successful outcome this time.

By ensuring that data are sufficient, accessible, useful, and used, the full potential of data can be unleashed to make sound, sustainable water management decisions and, through use cases, support more fact-based discussion of water management decisions and the data needed to make them. Transparency in data may yield new opportunities to course-correct, such as the identification of redundancy in data reporting, which would enable greater efficiency and consistency statewide.

It is noteworthy that the Open and Transparent Water Data Act imposes no new obligations on local data providers. Data reporting mandates in effect prior to the passage of AB 1755 persist, and only certain State-held and federal datasets must be made available on the open data system. While some State-held data originate at a local level, such datasets are already publicly available, subject to Public Records Act requests. In fact, the AB 1755 open data platform will enable further streamlining, and reduce duplication, of State-mandated data reporting and reports from local agencies.

In cases where a State-held dataset represents information collected by locals, it is the responsibility of the State data steward to ensure the dataset accurately reflects the local information and to identify appropriate disclaimers and terms of use. Additionally, the State data steward would need to coordinate with data originators to ensure that metadata documentation is complete and accurate.

The AB 1755 process is still evolving, and not all impacts on local agencies can be identified at this time. Local agencies will be involved in developing future protocols, including protocols on data standardization, quality control, and data security to assure that potential impacts are considered and to exploit opportunities for local agencies to benefit.

What's Next?

As described above, the Partner Agency Team, with robust engagement from external stakeholders, is producing substantial accomplishments toward implementation of the Open and Transparent Water Data Act since its passage in September 2016. Even so, much work remains to achieve the spirit of AB 1755 and accomplish the vision of useful data for sound, sustainable water management. A few of the steps the Partner Agencies will take are outlined below, as well as opportunities for water resource decision-makers, interested stakeholders, and the public to engage in AB 1755 implementation to help accelerate progress.

Next Steps

As discussed above, the Partner Agencies are considering the findings and recommendations of the Exploration of Governance and Funding Options report and are preparing a proposal to the Administration describing a sustainable model for governance and funding for of the AB 1755 open data platform. The proposal will be responsive to the needs of stakeholders, including federal, Tribal, State, and local agencies involved in water management, as well as people affected by those decisions and the consultants interested in creating solutions to California's myriad water management challenges. After a

governance structure is selected and a new governance group is empowered, it will assess progress and refine the path forward, as needed.

Until a formal governance model is in place, the Partner Agencies will continue to lead AB 1755 implementation and make progress through interagency implementation planning. The preliminary list of projects shared earlier in this document is informative, and greater detail will be forthcoming to ensure project success. The Partner Agencies will also continue working on projects already underway and will launch planned projects to help meet legislative timelines and adhere to the spirit of AB 1755 — improving water management in California.

How can you get involved?

There are many opportunities to be involved in this exciting opportunity to transform data management and application in the State of California. Specific organized civic engagement opportunities are available, including the California Safe Drinking Water Data Challenge 2018 and the interoperability testbeds. Preliminary details of those events were included in respective earlier sections of this report, and additional details will be forthcoming. Other opportunities include working on use cases and protocols and using the AB 1755 platform.

As discussed earlier, use cases are a foundational component in connecting water management decision-making to relevant data sources. While formal efforts to develop the initial 20 draft use cases are complete, no use case is ever complete. Since water management decisions can evolve as new data becomes available or new considerations come to light, so too must the use cases that support those decisions. Admittedly, the 20 draft use cases included, by reference, in the Progress Report (January 2018) do not capture the range of decisions necessary to efficiently and effectively manage California's complex water landscape. The State must develop and maintain a library of use cases. Those interested in water management decisions and the data that supports them are invited to review and suggest additions or corrections to existing use cases, and create and submit additional use cases, as needed.

Protocols and data standards must adapt over time to ensure that the needs of data providers and data consumers can be met. Three initial protocols have already been developed, available in the Progress Report (January 2018), and other protocols are outlined in the OWIA or discussed in the Strategic Plan (April 2018) and the Interagency Implementation Planning section of this report. All stakeholders are encouraged to review available information for protocol(s) or data standard(s) of interest and suggest additions and corrections to the existing content. Likewise, the Partner Agencies will gratefully accept additional ideas for protocols and data standards beyond those already outlined. Please keep in mind that the more specific the input, the greater the likelihood that we will be able to address your intent.

The Partner Agencies also invite all interested parties to make use of our existing federated open data portals. The statewide open data portal, data.ca.gov, hosted by GovOps and the California Department of Technology, and the [CNRA Open Data Portal](#) offer an extensive and growing list of resources, datasets, and visualizations available to users interested in interacting with water and environmental data. Utilizing these resources and providing feedback on both the data and interfaces is critical to ensuring that these tools continue to meet the needs of decision makers in California.

The Partner Agencies encourage all users to share with us their data stories and how they were, or were not, able to utilize the data available on the open data portals. Interested parties may also get an early start on developing decision support tools based on available use cases and datasets. Organizations with data they want posted on one of the open data portals, or perhaps wanting to federate an existing data portal, are encouraged to contact us at AB1755@water.ca.gov.

The Partner Agencies are also interested in establishing formal user groups and will compile names and contact information for those who express interest in participating, as well as other ideas to enhance open data use in California.

DWR maintains an [AB 1755 program webpage](#) with resources, announcements, and other information. You may also wish to subscribe to the AB 1755 listserv by contacting us directly at AB1755@water.ca.gov.

Useful Web Links

AB 1755 Program

<https://www.water.ca.gov/Programs/All-Programs/AB-1755>

California Safe Drinking Water Data Challenge 2018

<https://twitter.com/hashtag/CaWaterDataChallenge?src=hash>

CNRA Open Data Portal

<https://data.cnra.ca.gov/>

Data for Water Decision Making

<https://www.law.berkeley.edu/research/clee/research/wheeler/data/>

Exploration of Governance and Funding for Open and Transparent Water Data

<https://www.redstonestrategy.com/publications/ca-open-water-data/>

Progress Report — Implementing the Open and Transparent Water Data Act with Initial Draft Strategic Plan and Preliminary Protocols (January 2018)

<https://www.water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/AB-1755/AB1755ProgressReportinitialdraft13018v42.pdf>

Protocols for Assembly Bill 1755, the Open and Transparent Water Data Act (April 2018)

<https://www.water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/AB-1755/Protocols-for-AB1755.pdf>

Statewide Open Data Portal hosted by GovOps and the California Department of Technology

<https://data.ca.gov/>

Strategic Plan for Assembly Bill 1755, the Open and Transparent Water Data Act (April 2018)

<https://www.water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/AB-1755/Strategic-Plan-for-AB1755.pdf>

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