

Advisory Board Meeting

February 7, 2019 Conference Call

Board Members Present (9 of 10)

Jerad Bales, Kelly Bennett, Peter Colohan (ex officio), Martin Doyle, Greg Gearheart, Sam Hermitte, Sara Larsen, Emily Read, Dwane Young

Updates from Chair and Executive Director

On April 8, 2019, Dr. Ashley Ward joined the IoW start-up team as our new outreach and engagement associate. Ashley is an outstanding environmental science policy leader who comes to us from UNC Chapel Hill, where she did extensive work with local communities on climate and human health impacts for the Carolina Integrated Sciences and Assessment (CISA), funded by NOAA. There is a lot of demand for the IoW to provide a convening and coordinating role between and across stakeholder groups.

The IoW also partnered with CUAHSI to hire and cost-share Rhys Ryan as a data architect. Rhys has extensive work in designing and creating data infrastructure. He most recently worked at NOAA's National Water Center on the data services for the National Water Model. He will start at CUAHSI on April 29, 2019. The IoW is also in the final stages of hiring an in-house data architect who would hopefully begin in June.

Activities from the Advisory Board

California recently held a meeting celebrating the role of citizen science. In the context of that meeting some sensitivity arose around the term "citizen scienc," Instead, "crowdsourced" or "volunteer monitoring" seems to be more broadly accepted. There is large interest for the State to partner with volunteers to address trash and micro-plastics issues. Another project the State is interesting in pursuing is to provide all stream gage data together in a single location. This is something the USGS and Texas are very interested in pursuing. The USGS has a Streamflow Collaborative that is focused on pulling together federal streamflow agency into a single portal. Currently, states and other agencies may provide data to USGS but those data are not discoverable or accessible through the USGS National Water Information System portal because those data don't meet the stringent QA/QC processes that are in place to ensure the USGS is meeting their mission of providing consistent, reliable data across the nation. This does not mean the data are not valuable, and perhaps internal guidance at GS can change or a portal outside of GS can be created to make all of those data discoverable and accessible. A potential source of funding for this joint project could be through a National Science Foundation grant; however, the team would then need to develop a long-term operations and maintenance funding strategy. CUAHSI has received permission through NSF to pursue developing a central search index for sensor data with the EPA that might also be applicable to developing a coherent stream gage database.

WaDE is convening the same group of people that participated in the IoW Colorado River Basin Roundtable in January to continue the conversation about creating water budgets. There is a desire to

create consensus, at least for the IoW, to develop a standardized process for developing water budgets in terms of definitions, data standards, metadata standards, and web service standards. The process for creating a water budget and standards would be developed in concert with the ongoing USGS water census efforts. The group recommended exploring the work being done by California's Department of Water Resources in the Tulare basin as well. The water budget working group will also need to consider developing a process for users to access and visualize the different water budget components. This could be done through stakeholder engagement and/or hackathons and data challenges. The IoW is excited to assist in these ongoing efforts with an aspirational goal of developing recommendations and convergence around methods and standards.

There are a series of upcoming water data meetings: CUAHSI's [Hydroinformatics Conference](#) at the end of July, [California Water Data Summit](#) in August, and the Western State's Water Council's Water Information Management Systems workshop in September (details forthcoming). These events will be added to the IoW website to share with others (to be launched in April).

Proposed IoW Activities and Timeline

The ED and the start-up team are developing an update to the strategic implementation plan to include a comprehensive list of IoW activities including timelines. Activities are categorized into the six strategic goals of the IoW: IoW organizational development, communications, technical framework development, hub resourcing tools, partnerships and coalitions, and value-demonstration pilots. The presentation was shared with the group and details on the value-demonstration pilot process will be the topic of the next board meeting. The Advisory board welcomed the presentation and noted that it covered a lot of work.

During a short discussion of a water utility pilot, the issue was raised of streamlining regulatory reporting requirements by allowing data to be pushed from sensors directly to state agencies and EPA. Internal conversations with federal agencies suggest that this will be challenging because of constraints embedded within current policies. There would need to be an approved process and update of permits to be feasible. While they are interested this would be a lengthy process. California is currently piloting a project to enable data to flow between laboratory data management systems (LIMS) and utility data management systems (SCADA). Perhaps the state could function as a policy laboratory to open those data and demonstrate value to encourage policy changes at the federal level. The group agreed that it is important for the IoW to include in its messaging to the goal of streamlining regulatory reporting requirements.

Business Model Meeting

The previous board meeting had a lively discussion around the appropriate business model for the IoW. Returning to that conversation, the IoW team sought the board's advice about the demand from state and federal agency to outsource public data services to a group like IoW. Many federal and state agencies have data transparency as part of their mandate or mission. The IoW could submit bids to those agencies to help them fulfill that mission and that could evolve into ongoing service.

States might retain the IoW to meet some specific task, but many will want to internalize those services over the long-term. The demand for long-term services will likely vary by agencies depending on their human, financial, and technical capacity. Some local governments may also benefit from IT support in areas where growth is exceeding the capacity of agencies to accommodate growth, including IT work. There is probably space there for someone to provide data services.

From a federal perspective, there is no one agency with a complete portfolio of water data as part of its mission. The IoW could provide data services to pull those data into a single location for the federal government. It seems that many federal agencies have attempted to create data services in house but struggle in that arena and contract with private companies. The level of resources dedicated towards improving data infrastructure vary based on senior leadership and executive mandates to expose data.

The board recommend the IoW to begin doing market research. If the IoW could create a mandate or a need, it would help develop the market. The IoW should start by compiling a list of agencies, objectives, timelines for budgets, money for contracts, etc. to understand the possibilities and create pitches. The IoW may build a set of core capacities based on this analysis. The faster we can develop frameworks for transparency, standards, and data that we can ratify across agencies – then we can be purveyors of standards and transparency. There is an opportunity for the IoW to shape water data through a sustainable financial model.

The group began to discuss if the IoW could remain a single non-profit organization that provides some free public services and while also engaging in contract work. The IoW would need to be radically transparent and set clear standards to monetize some of the services. The group will pick up this conversation in their June meeting.

Next Steps

The next board meeting is May 16, 2019.