# ADVISORY WORKGROUP'S RECOMMENDED NEXT STEPS

**Regional Water Data Management Project, San Diego IRWM**

April 27, 2015

These recommendations build off the RWDMP Design Recommendations Report, but are beyond the scope of a data management system (DMS). They focus on the steps needed to establish and implement such a system. For this reason the Advisory Workgroup is providing these recommendations as a stand-alone document to the San Diego IRWM Regional Water Management Group (RWMG) and Regional Advisory Committee (RAC), rather than as part of the report.

## 1. Decision to Build and Major Steps

1. The RWMG and RAC decides whether any project has sufficient value to warrant building a DMS. This would involve the following:
    a. Identify criteria for what constitutes a high-value DMS project. The RWMG/RAC could use those identified by RWDMP stakeholders (i.e., serve and benefit multiple stakeholders, promote interoperability, build on innovative technology) or choose its own.
        i. Because this is an IRWM project, one criterion should be that the project demonstrates genuine integration and application of different types of data (e.g., water supply data, stormwater data).
    b. Review potential projects identified during the RWDMP project, and/or allow RWMG/RAC members to nominate additional projects. See item 2 below, potential project types.
    c. Select a project or bundle of projects whose value warrants building a DMS.
        i. A bundle may meet more interests but be harder to accomplish; a single project may have a more limited scope but be more feasible. The value of a demonstration project would be to illustrate the DMS's value before attempting to work at a large scale.
    d. Note: The RWMG and RAC may determine that at this time no project or bundle of projects has sufficient value for members to invest in its construction and maintenance.
2. Establish a governing body for the DMS (step #3 below).
3. For the selected project, catalog existing data and conduct a data gap assessment. In parallel, identify agencies that have relevant data and/or would be interested in supporting a DMS.
4. Identify and secure funding. A possible sequence could include:
    a. Seek funding to fill data gaps with grant funding

b. Request Proposition 1 funding in 3 years (approximately 2018) to build a DMS. Proposition 1 includes $810 million for regional water reliability, including water conservation and stormwater capture.
c. Other funding sources and arrangements (for example, agency funding)

5. Issue an RFP (step #4 below) and build the DMS.
    a. Utilize the DMS and evaluate its efficacy over time.

## 2. Potential Project Types

1. Stakeholders who participated in the RWDMP workshops recommended a project focused on watershed health and sustainability (WHS). This included 21 potential sub-topics, including ensuring "fishable" and "swimmable" waters. The selected project could pick a single or small number of watershed health & sustainability topics to focus on.
    a. An example of this is the San Diego Regional Water Quality Control Board's *Strategy for a Healthy San Diego Bay*. The *Strategy* focuses on ensuring fish and shellfish are safe to eat, waters are suitable for recreation, and ecosystems are healthy, and includes (among other steps) an assessment of conditions and corresponding data, and a monitoring coalition that shares existing data.
2. The stakeholders and Advisory Workgroup (AWG) also considered focusing on:
    a. Better sharing of data needed to apply for relevant wastewater, wetland modification, or other relevant permits.
    b. Sharing monitoring data associated with municipal separate storm sewer systems (MS4) and/or future agricultural waste discharge requirements.
        i. During the public workshops it was suggested that a DMS serve as a MS4 planning tool that uses Geographic Information System (GIS) layers to visually display available monitoring information and aids the siting of hydromodification control efforts. Esri is collaboration with the Southern California Coastal Water Research Project (SCCWRP), for example, is developing a prototype hydromodification tool focused on San Diego County.
    c. Improving public communication and education.
        i. An example of this would be to make locally and regionally-specific water conservation data publicly available, including landscape water use efficiency. At the AWG's final meeting, this was felt to be particularly relevant given the continued drought and the Governor's new mandatory water use reductions.
        ii. It was felt this could be an important part of the City of San Diego's new open data initiative, which already includes water data.
        iii. A conservation-focused project could have a public education component built in, similar to online solar installation calculators or interactive video games like PeaceMaker, that helps people understand how different water issues are integrated. It could also be branded for greater recognition.

d. Advancing planning that coordinates ecological restoration of streams and waterbodies with conservation of adjoining upland sensitive habitat areas that are identified in the region's Multiple Species Conservation Program (MSCP) plans.
e. Advancing planning for flood management, drought response, or climate change adaptation.
f. Complying with IRWM grant reporting requirements (for example, a more detailed version of the existing IRWM website).
    i. Future IRWM-funded projects could be required to have a monitoring component that provides data to the DMS.

3. The RAC may have other work groups that seek to develop specific tools or applications that advance their needs.

## 3. Governance

Note: this step is only relevant if the RAC/RWMG decides to build a DMS.

1. Establish a small (e.g., five-member) Data Management System (DMS) Work Group under the IRWM Regional Advisory Committee (RAC).
    a. Like the RWDMP Advisory Workgroup, require members to have familiarity with policies and trends associated with water data management, as well as practical experience with gathering or utilizing water data.
    b. At minimum, ensure topical representation of water supply, wastewater, stormwater, environmental conservation (including habitat conservation), and flood management interests. One person may represent more than one topic if they have demonstrable expertise.
2. Charge the group with the following:
    a. Guide the development of a Request for Proposals (RFP) for the building of the DMS (see step #4 below).
    b. Develop a multiparty funding plan for the regular maintenance of the DMS needed to ensure its functionality. (Funding for the building of the system would presumably be acquired prior to developing an RFP.)
    c. Guide the development of data sharing agreements and memoranda of understanding among participating agencies and organizations, including with Mexico for the Tijuana River watershed.
    d. Develop a communication plan for raising awareness of the DMS, and helping potential users understand how to access and share data.
    e. Periodically evaluate how well the DMS is functioning and meeting the needs of its users, and provide appropriate guidance to address deficiencies and/or emerging needs.

## 4. Development of a Request for Proposals (RFP)

Note: this step is only relevant if the RAC/RWMG decides to build a DMS.

1. Develop an RFP for a technical consultant to develop and maintain a DMS system, including the following:
    a. Identify participating agencies and organizations
    b. Set and enforce data standards
    c. Establish and enforce security protocols, including privacy and restrictions
    d. Gather metadata and address metadata gaps
    e. Maintain the web-based database system, including but not limited to scripts, access, software, support, and documentation
    f. Periodically evaluate how well the DMS is functioning and meeting the needs of its users, including review of user-generated feedback, and propose how to address deficiencies and/or emerging needs

## 5. Watershed Health & Sustainability Evaluation

Note: This step would be relevant only if the RWMG/RAC selects WHS as the focus of a DMS. This step could be overseen or undertaken by the general DMS Work Group from #3 above. This step is beyond the scope of building a DMS.

1. Establish a small WHS Evaluation Work Group through the IRWM RAC
    a. Require members to have technical expertise with either or both water quality monitoring and watershed management
    b. Invite and ensure that the San Diego Regional Water Quality Control Board participates as an active member
    c. Additional non-RAC experts could be invited to join the group
2. Charge the group with the following:
    a. Conducting a WHS evaluation that includes the following:
        i. Evaluation goals, including regulatory and other benefits
        ii. Guiding questions
        iii. Assessment of adequacy of existing data gathering efforts, corresponding coordination procedure, and identification of gaps to be filled
        iv. Desired conditions
        v. Indicators and scale of analysis
        vi. Trigger points and/or thresholds
    b. Assist in the development of a realistic budget proposal and funding plan for periodic WHS Evaluation, and provide this to the RWMG and RAC for review and advancement.