The passage of the Sustainable Groundwater Management Act (SGMA) launched an unprecedented, locally driven process to form hundreds of new public agencies that will play a critical role in managing the state's groundwater resources for decades to come. Under this landmark legislation, new Groundwater Sustainability Agencies (GSAs) must develop Groundwater Sustainability Plans (GSPs) and achieve sustainable management of the state's most critical groundwater resources within 20 years of plan implementation.

Across the state, thousands of local agencies and other stakeholders involved in managing water and land use have been working to form GSAs before June 30, 2017 in order to avoid state intervention. In doing so, they face a critical choice: to consolidate their efforts by forming a single GSA for a groundwater basin, or to establish separate GSAs that will coordinate with one another to develop a single or multiple GSPs. In developing multiple GSPs, SGMA requires that sustainability goals be defined and measured at the basin scale, and that one set of data and methodologies be used for water budgets, sustainable yield and other key parameters. In some basins, consolidation may be the most efficient and effective way to achieve these goals. However, given California's long history of local control over water and the diversity of conditions, creating a single entity to manage some basins may not be practical or politically feasible.

This report, written in 2016, provides a preliminary look at whether local agencies are pursuing consolidated (single GSA) or coordinated (multiple GSA) approaches to managing groundwater basins, and why. It draws upon GSA formation notices submitted to the California Department of Water Resources through Oct. 31, 2016 and eight case studies of GSA formation processes underway.

Given the diverse settings for groundwater management across the state, no single governance structure, whether consolidated or coordinated, will work everywhere. Drawing upon eight case studies of GSA processes, we identify a set of seven interrelated factors that appear to have played a role in decisions about the scale of GSAs and whether to pursue consolidated or coordinated approaches to basin governance. These factors include: basin size; degree of heterogeneity in basin conditions; concerns about autonomy and representation; needs for financing GSA activities; existing capacity to serve as a GSA; prior collaborative experience; and the presence of trusted basin wide leadership. The last two factors appear to play a key role in supporting the development of either consolidated or coordinated governance forms.
Drawing upon these case studies, this report identifies several lessons for agencies and stakeholders as they grapple with decisions over consolidated or coordinated approaches to basin management:

- The presence of a convening entity — whether a county government, a water district, or a water users’ association — can prove helpful to bring stakeholders together for basinwide discussions.

- Creating an inclusive, basinwide process can help stakeholders become aware of the range of governance options under SGMA, better understand their own and others’ interests and assess resource needs.

- Whether multiple GSAs within a basin choose to develop one or multiple GSPs, mechanisms will be needed to coordinate among GSAs. It is useful to begin thinking sooner rather than later about these mechanisms.

- It is important to leave room for learning, recognizing that needs will evolve as SGMA implementation proceeds, and GSA arrangements can be changed over time to address them.

Our analysis of GSA formation notices suggests that most high- and medium-priority basins are likely to have multiple GSAs. Of the 51 high- and medium-priority basins in which local agencies had submitted GSA notices as of October 31, 2016, 13 are completely covered by a single GSA. Only one of these involved the creation of a new entity with a governing body composed of multiple agencies to manage an entire basin. These patterns may change as more GSAs are formed in the coming months. However, this degree of fragmentation, while allowable under SGMA, points to the need for significant investment in coordination among GSAs in order to develop coherent goals and management strategies at the basin scale.

The simultaneous creation of hundreds of new public agencies with significant and long-term resource management responsibilities has little precedent in California or elsewhere in the US. Once GSAs have been formed and begin to exercise their new roles in managing groundwater resources, it will be critical to establish processes to learn from early experiences in governance. Further research will be needed to understand the factors that shape governance decisions and the effectiveness of consolidated and coordinated groundwater governance. Additionally, state government agencies should work closely with GSAs to create opportunities to identify and share lessons learned, such as by sponsoring workshops and funding pilot studies of innovative policies.

[Links to contact information]