



ATTACHMENT A: BACKGROUND INFORMATION

Sustainable Groundwater Management Act and Possible San Diego Formation Basin Boundary Modification

February 11, 2016

Overview

The City of San Diego Public Utilities Department (SDPUD) and Sweetwater Authority (SWA) (collectively, “the parties”) are considering applying to the California Department of Water Resources (DWR) for a scientific-based modification to the boundaries of the Sweetwater Valley (Basin 9-17), Otay Valley (Basin 9-18), and Tijuana Valley (Basin 9-19) groundwater basins as defined in DWR Bulletin 118 and shown on Figure 1. These basins are located in the southern San Diego County portion of the South Coast Hydrologic Region. The proposed modification will consolidate the three basins into one and expand the boundaries to include the whole of the underlying San Diego Formation (SDF) aquifer as a groundwater basin (see Figure 2). The proposed modification is consistent with the intent of Bulletin 118 to define basins based on scientifically-recognized hydrogeologic boundaries to facilitate more coordinated management of the state’s water resources.

The parties’ application is contingent on DWR’s review of SDF groundwater planning and basin boundary modification issues with their neighboring stakeholder agencies. The purpose of this review is to design a SDF management planning approach that respects the rights and interests of the stakeholder agencies.

Background – Sustainable Groundwater Management Act

The parties are considering opportunities for locally managing the water resources of the SDF, utilizing management tools authorized by California’s Sustainable Groundwater Management Act of 2014 (Act) and subsequent amendments. In general, the Act provides authority for local entities to form Groundwater Sustainability Agencies (GSA), which in turn adopt Groundwater Sustainability Plans (GSP) for long-term sustainable management and protection of the groundwater resource. The Act allows a groundwater basin to be managed by a single GSA, or by multiple jurisdictionally bounded GSAs linked through a formal coordination agreement. For the SDF, these decisions are in the future.

Basin Boundary Modification Process

When the Act was being drafted, there was recognition that the boundaries of some of the Bulletin 118 basins would need to be modified. To this end, the Act directed DWR to develop regulations to allow agencies to propose modifications to Bulletin 118 groundwater basin boundaries. The regulations, which became effective on November 16, 2015, can be found in the California Code of Regulations (CCR), Title 23, Division 2, Chapter 1.5, Subchapter 1.

Two basic types of boundary modification are identified in the regulation: 1) scientific, and 2) jurisdictional. A scientific modification boundary modification involves the addition, deletion, or relocation of a basin boundary based on the geologic or hydrologic conditions. Jurisdictional modifications involve similar boundary modifications made for jurisdictional, not scientific, reasons and which can be shown to promote sustainable groundwater management. More information on the boundary modification process can be found on DWR's Sustainable Groundwater Management website at: www.water.ca.gov/groundwater/sqm/basin_boundaries.cfm.

The parties are considering applying to DWR for a scientific basin boundary modification, resulting in the SDF being listed in the state's inventory of groundwater basins, correcting DWR's past omissions, such that the management tools provided in the Act can be applied.

Possible Basin Boundary Modification for SDF

The parties are considering applying to DWR for a scientific-based modification to the boundaries of the Sweetwater Valley (Basin 9-17), Otay Valley (Basin 9-18), and Tijuana Valley (Basin 9-19) groundwater basins as defined in DWR Bulletin 118 and illustrated on **Figure 1**. The proposed modification will consolidate the three basins into one and expand the boundaries to include the whole of the underlying SDF aquifer, as illustrated on **Figure 2**. The proposed modification is consistent with the intent of Bulletin 118 to define basins based on scientifically-recognized hydrogeologic boundaries, to facilitate more coordinated management of the state's water resources.

The three overlying alluvial basins are designated by DWR as "low priority," but are subject to future reclassification to "medium priority." Regardless of the priority designation, the parties desire to explore instituting, in coordination with their neighboring agencies, management plans for the SDF, resulting in continued protection of jurisdictional water resources. Future plans may include the formation of a GSA and subsequent development of a GSP.

The boundary modifications being considered by the parties would expand the basin boundary to include lands within the service areas of the following water purveying entities:

- Otay Water District
- California American Water
- U.S. Navy

The boundary modifications also expand the basin boundary into other municipal jurisdictions, but none that are water purveyors. The proposed boundary modification has no effect for those water purveying agencies that do not have land within or share a border with the proposed SDF boundary.

For those agencies that do have lands within the boundary or share a border, as listed above, the proposed boundary adjustment has no immediate effect, but may allow or require those agencies to participate in future coordination regarding the possible formation of one or more GSAs and development of one or more GSPs. There are no other implications associated with the parties' proposed boundary modification.

Scientific Basis for Proposed Boundary Modifications

The boundaries for Basins 9-17, 9-18, and 9-19 were published in the Bulletin 118 in 1975 and subsequent updates in 1980 and 2003 (see Figure 1). At the time of the original Bulletin, the hydrogeology and significance of the underlying SDF was not well understood and the three basin boundaries were drawn based on the extent of their riverine alluvial deposits.

In recent years, new scientific investigations by SDPUD, SWA, the U.S. Geological Survey, and others have defined the extent and potential water-resource significance of the SDF. This new information provides the basis for the parties' proposed basin boundary modification. The parties believe the proposed modification is consistent with the intent of DWR to recognize aquifers of significant water resource potential and to define basin boundaries based on well-documented hydrogeologic boundaries (see Figure 2).

The northern hydrogeologic reach of the SDF overlaps with a fourth DWR designated basin, the Mission Valley Basin (DWR Basin 9-14). However, the vertical thickness and expected productivity of the SDF in this area is significantly reduced in comparison to the area of the proposed boundary adjustment. Also, the Mission Valley Basin is being managed by SDPUD primarily as an alluvial basin and grouping this basin into the proposed SDF basin boundary would complicate rather than aid in water resources management. For these reasons, the proposed modification does not include the existing Mission Valley groundwater basin.

Figure 1
Current (Red) Bulletin 118 Boundaries

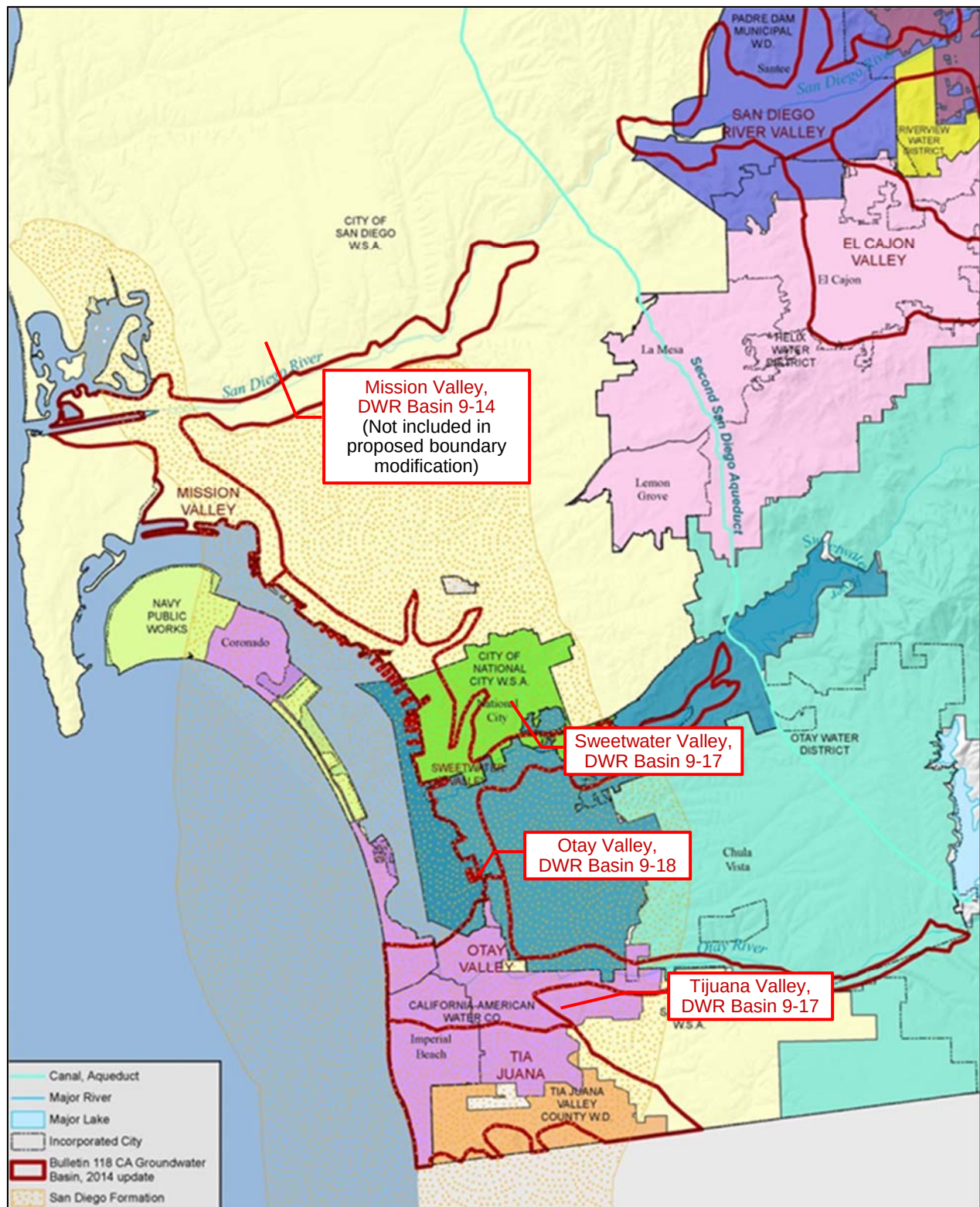


Figure 2
Current (Red) and Proposed (Green) Bulletin 118 Boundary,
for Consolidated and Renamed San Diego Formation Groundwater Basin

