



2017 INTERIM UPDATE to BULLETIN 118 BASIN BOUNDARY - ADMINISTRATIVE ADJUSTMENT PROCESS

This document provides an overview of the process followed by the Department of Water Resources (DWR) to conduct administrative adjustments of Bulletin 118 basin and subbasin boundaries (hereafter referred to as “basin” boundaries). This process of making administrative adjustments to Bulletin 118 basin boundaries was initiated in mid-2015 as part of the implementation of California’s Sustainable Groundwater Management Act (SGMA), the results of which will be formally implemented in the 2017 Bulletin 118 interim update. While the administrative adjustments are done at the discretion of the DWR alone, DWR has established a regulation by which local agencies can request modification of the basin boundaries under California Code of Regulations Title 23 Waters, Division 2 Department of Water Resources, Chapter 1.5 Groundwater Management, Subchapter 1. Groundwater Basin Boundaries.

These administrative adjustments modify the spatial location of High and Medium Priority¹ groundwater basins to more accurately correspond with the original written basin descriptions documented in DWR [Bulletin 118 – Update 2003 California’s Groundwater](#)². The written basin descriptions were reviewed but not modified. Future administrative edits may include edits to the written descriptions. Geographic Information System (GIS) tools were used to complete administrative adjustments to the basin boundary geospatial data.

Process

The Basin Boundary Updating Process Flowchart (see below) provides a high-level overview of DWR’s process. The process involved a phased approach. In Phase 1 DWR assessed the written basin boundary descriptions and listed other known issues related to the basin boundaries. In Phase 2 DWR evaluated the basin boundary spatial data using GIS. Issues related to basin boundary alignment when compared to selected statewide GIS data layers were noted. Administrative adjustments were made during Phase 2, as appropriate. Observations, issues, linework adjustment and other matters pertaining to basin boundaries were documented during both phases.

Phase 1 included review of basin boundary written descriptions and identification of various descriptive components, such as waterways, county lines, agency boundaries, and scientific boundaries. DWR also assessed the written description for completeness and ambiguity. The alignment of basin boundaries that reference waterways, county lines, and geologic boundaries were reviewed. Incomplete or ambiguously described basin boundaries were identified and are being evaluated for future Bulletin 118 updates or coordinated efforts with those basins seeking modification during this first basin boundary modification request submission period.

¹ High and Medium priority basins as described by the California Statewide Groundwater Elevation Monitoring (CASGEM) program. <http://www.water.ca.gov/groundwater/casgem/>

² <http://www.water.ca.gov/groundwater/bulletin118/index.cfm>

In Phase 2, DWR compared the basin boundaries previously identified in Phase 1 as referring to waterways and county lines to the referenced waterways contained in the National Hydrography Dataset³ and to the referenced county boundaries as depicted by the CalFIRE⁴ dataset. If necessary, the basin/subbasin boundary linework was adjusted to match these standard statewide geospatial datasets.

Next, basin boundaries with written descriptions that reference geologic features were compared to California Geologic Survey (CGS) 1:250,000 scale maps (CGS Regional Geologic Map Series and CGS Geologic Atlas of California⁵). For this review, basins with geologic discrepancies between the mapped linework and the written descriptions were categorized as having “significant”, “major”, or “minor” linework alignment or digitization issues. Based on these assessments, DWR is recommending the adjustment of several basin boundaries that have “significant” geologic issues and unambiguous written descriptions. DWR is working with local agencies to implement these recommendations.

The basin boundary review and administrative adjustments completed in Phase 1 and Phase 2 as described above are documented and available for public review on the SGMA website [Basin Boundary Assessment Tool \(BBAT\)](#)⁶.

DWR continues to work with local agencies in the refinement of Bulletin 118 Basin Boundaries that may be required outside of the standard process outlined by the Emergency Regulations. However, for this 2017 Bulletin 118 interim update, the Bulletin 118 written description is being used as the standard by which linework is being compared. Any modifications that require specific written description modification are required to follow the regulatory process and modification must be requested by local agencies. Current information regarding the adjustment of Bulletin 118 basin boundaries is available on BBAT.

³ National Hydrography Dataset, created by U.S. Geological Survey in cooperation with U.S. Environmental Protection Agency, USDA Forest Service and other Federal, State and local partners. (NHDH_CA_931v220), downloaded 2015-05-12 *Available upon request*

⁴ California Department of Forestry and Fire Protection (cbty24k09_1) published 2009-01-01. *Available upon request*

⁵ For information on the California Geologic Survey Map Series', refer to http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/Index.aspx

⁶ <https://gis.water.ca.gov/app/bbat/>

Overview of Bulletin 118 Basin Linework Assessment and Editing Workflow

