

Water Quality Report Card

Nitrate in Bell Creek

Regional Water Board: Central Coast, Region 3

Beneficial Uses Affected: MUN, COLD, WARM

Implemented Through: Conditional Waiver of WDRs

Effective Date: August 20, 2013

Attainment Date: October 1, 2016

STATUS Conditions Improving

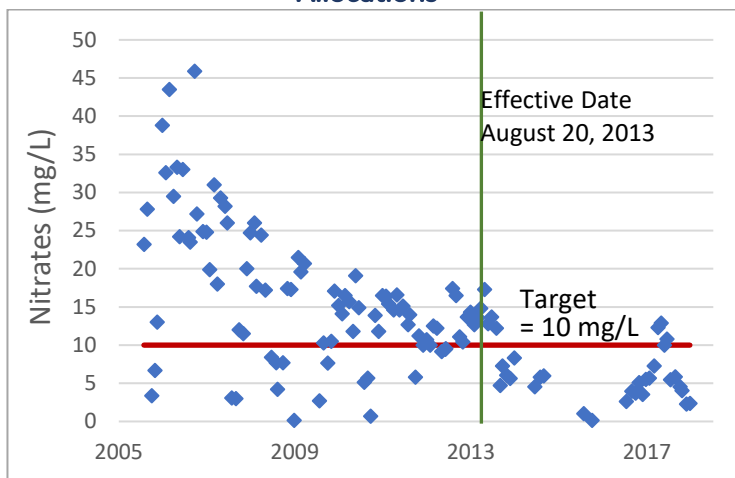
Pollutant Type: Nonpoint Source

Pollutant Source: Agriculture

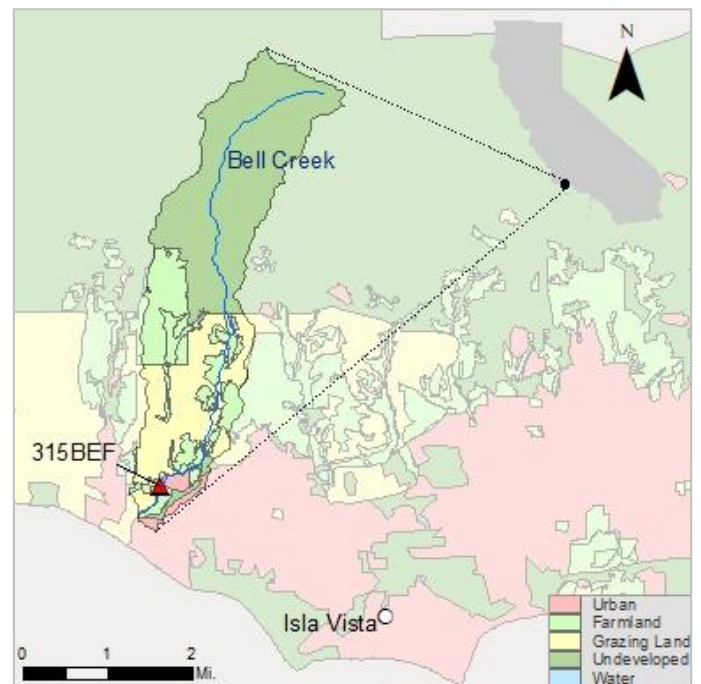
Water Quality Improvement Strategy

Bell Creek is in southern Santa Barbara county. It runs south-by-southwest for approximately 7 miles from the Santa Ynez mountains to the Pacific Ocean just west of Goleta and Isla Vista. The Bell Creek watershed comprises approximately 6 square miles of urban, agricultural, and undeveloped land. It is on the federal Clean Water Act section 303(d) List due to elevated nitrate levels that exceeded water quality standards. Waterboard staff identified irrigation runoff from agricultural lands as the source of the pollutant. The Total Maximum Daily Load (TMDL) for nitrate (as nitrogen) in the Bell Creek watershed identified the existing [Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands in the Central Coast Region](#) (Agricultural Order) as the appropriate regulatory mechanism to restore water quality. Compliance with the Agricultural Order, including enrollment of owners and operators of irrigated lands, development of Farm Plans, development of Irrigation and Nutrient Management Plans, and other measures was intended to achieve a Load Allocation of 10 mg/L by October 1, 2016. Statistical analysis of the data from monitoring station 315BEF shows a significant decrease in concentration and the Load Allocation has been consistently achieved with few exceptions since the adoption of the TMDL.

Bell Creek Nitrate Data compared to the TMDL Load Allocations



Bell Creek Watershed Map



Water Quality Outcomes

- The Load Allocation for nitrate of 10 mg/L as nitrogen has consistently been achieved at monitoring site 315BEF since the 2016 TMDL attainment date, with only three exceptions.
- All three exceedances since the TMDL attainment date occurred in fall of 2017, a drought year, and were much lower than historic concentrations.
- Additional data are needed to determine Load Allocation attainment and before Bell Creek can be removed from the 303(d) List.
- Implementation practices in the watershed, such as irrigation management, likely contributed to the improvement in nitrate levels. However, this is unconfirmed because growers in this watershed are not required to report management practice implementation data under the current Agricultural Order.