Water Quality Report Card

Nutrients in Moro Cojo Slough – Lower Salinas River Watershed

Regional Water Board:	Central Coast, Region 3
Beneficial Uses Affected:	COLD, SPWN, WARM
Implemented Through:	Conditional Waiver of WDRs
Effective Date:	May 7, 2014 (TMDL)
Attainment Date:	2026

STATUS	☑ Conditions Improving
Pollutant Type:	☑ Point Source ☑ Nonpoint Source
Pollutant Source:	Irrigated Crop Production

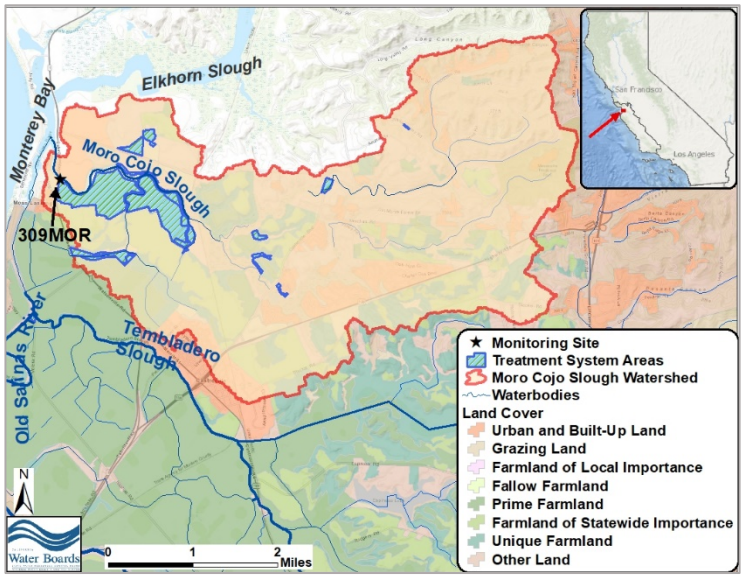
Water Quality Improvement Strategy

The Moro Cojo Slough subwatershed encompasses approximately 9,836 acres in the Lower Salinas Valley and drains directly into Moss Landing Harbor at the center of Monterey Bay. Agriculture (including irrigated cropland and grazing lands) is the current, dominant land use in the Lower Salinas Valley, with increasing transition to urban use. Moro Cojo Slough is on the Clean Water Act Section 303(d) List for nutrient or potential nutrient-related impairments including low dissolved oxygen and un-ionized ammonia. Several additional waterbodies in the Lower Salinas Valley exceed water quality criteria for nitrate, un-ionized ammonia, and experience associated nutrient-related problems such as increased algal growth and other biostimulatory conditions. The Lower Salinas River Watershed Nutrient TMDL was approved in May 2014 to address the impairments. Discharges from irrigated agriculture were established as the primary controllable source of nutrient pollution within this watershed, however tidal mixing of waters from adjacent waterbodies also contribute to nutrient loading in the slough. The 2017 Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order) implements the TMDL which calls for achieving TMDL numeric targets for nitrogen compounds by 2026. This report card evaluates total nitrogen since nitrate tends to measure only a small fraction of the total nitrogen in this system (likely because sloughs and wetlands are areas of high primary productivity, causing nitrate to be bound up in organic phases and biomass).

TMDL Allocations – Receiving Water Concentrations

Dry season (May 1-Oct. 31)	Wet season (Nov. 1-Apr. 30)
1.7 mg/L Total Nitrogen	8.0 mg/L Total Nitrogen
0.025 mg/L Un-ionized Ammonia as N	0.025 mg/L Un-ionized Ammonia as N

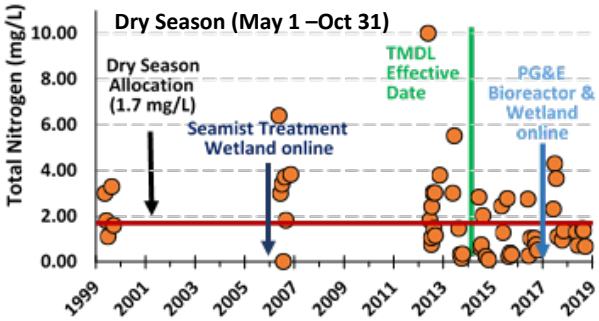
Moro Cojo Slough Subwatershed Map

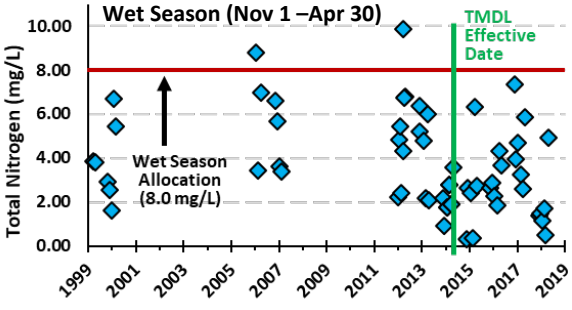


Water Quality Outcomes

- *Growers in Moro Cojo Slough watershed worked with the Central Coast Wetlands Group (CCWG) and their partners to implement nutrient treatment systems over the past 20 years. Eight installed systems now treat runoff from 1,527 acres in the watershed.*
- *Growers have employed management practices and technologies on their farms to more effectively manage nutrient inputs to improve water quality.*
- *Dry season (May 1 - Oct. 31) total nitrogen concentrations have dropped below the target of 1.7 mg/L in recent years. Sampling from summer 2018 resulted in zero exceedances.*
- *Wet season (Nov. 1 – Apr. 30) total nitrogen concentrations have been below the numeric target of 8 mg/L.*
- *Tidal influence likely contributes to nutrient loading and mixing of polluted waters from nearby waterbodies.*

Total Nitrogen Concentrations at Surface Water Quality Monitoring Site 309MOR





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