

Results of Statewide Inadequacy Assessment for California Wastewater Systems
ADVISORY GROUP SUMMARY – JULY 2026 ADVISORY GROUP MEETING

ADVISORY GROUP SUMMARY

Quantitative Inadequacy Assessment

Three separate Inadequacy Assessments compiled data from the last five years (January 2021 – January 2026) and analyzed three distinct types of systems and facilities across California's 9 Regional Water Quality Control Boards:

- **Sanitary sewer systems** (946 systems), also known as collection systems, carry sewage away from homes and businesses to treatment facilities and are regulated under the Sanitary Sewer System General Order (SSSGO).
- **NPDES facilities** (265 facilities) discharge treated wastewater into surface waters, including rivers, lakes, or the ocean under a federal NPDES permit.
- **WDR facilities** (971 facilities) discharge treated wastewater to land and are regulated under California's Waste Discharge Requirements program.

As noted in previous advisory group summaries, the criteria for the quantitative inadequacy assessments were developed in collaboration with staff from the State Water Resources Control Board (State Water Board) and the California Regional Water Quality Control Boards (collectively, the Water Boards).

SSSGO Inadequacy Criteria

Sewer systems were flagged as Inadequate if they met *either* condition:

Poor Spill Performance: Sewage spills are evaluated by the number of spills within the last five years relative to the miles of system pipe in the ground. Each system's spill history was averaged over the most recent 12 months as well as over the past 5 years. A system was considered a poor performer if it ranked in the bottom 25% of similarly sized systems in *both* time windows. This dual requirement ensures that flagged systems have problems that are ongoing. We also conducted a Generalized Extreme Studentized Deviate (GESD) statistical analysis to identify which systems' spills are statistical outliers relative to systems with similar sewer network lengths. This statistical outlier test was completed in response to feedback from Advisory Group members and can be used to provide additional information to the State Water Board when prioritizing systems. In total, 39 systems were flagged as Inadequate for poor spill performance.

Failure to Report: Some systems showed no signs of reporting activity in state records - no reports of spills, no monthly certifications confirming the absence of spills, and no annual report on file. All three conditions had to be true simultaneously for a system to be flagged as Inadequate under this criterion. In total, 40 systems were flagged for reporting failure.

Result: 79 out of 944 evaluated sewer systems (8%) were identified as inadequate.

Active Enforcement Actions

Systems currently under formal regulatory action, such as a Notice of Violation, Cease and Desist Order, or an Administrative Civil Liability order that were not flagged as Inadequate using the other criteria described above, were not officially added to the Inadequacy List. Instead, these systems were placed on a Collection Systems Under Enforcement List for additional review by the Water Board. This decision was made in part due to uncertainty about the status of each enforcement action and whether the system had already taken sufficient steps toward compliance, and therefore, considered adequate.

NPDES Inadequacy Criteria

Significant Noncompliance (SNC) is a U.S. EPA compliance metric that identifies NPDES facilities with serious permit violations on a quarterly basis. This information is publicly available through the U.S. EPA's Enforcement and Compliance History Online (ECHO) database, which provides nationwide compliance, enforcement, and permitting information. The Inadequacy Assessment and analysis was built on that existing framework.

A facility was considered inadequate if it met *either* of the following:

- It was currently in significant noncompliance for **2 or more consecutive quarters** where the problem was ongoing and not resolved, OR
- It was in noncompliance in the **most recent quarter** and had also been flagged for noncompliance in at least one prior quarter in the last five years, indicating a pattern of recurring violations rather than an isolated incident.

This approach targets facilities with persistent or repeated compliance problems, rather than those that experienced a single short-term issue.

Result: 20 out of 265 evaluated NPDES facilities (8%) were identified as inadequate.

WDR Inadequacy Criteria

WDR facilities were evaluated across three separate dimensions, and a facility could be flagged as Inadequate under any one of them:

1. Effluent Quality Violations: A facility was flagged if it exceeded its permit limit for the same pollutant in 2 or more months within any 6-month window over the past 5 years. The exceedance thresholds varied by pollutant — for example, a 20% exceedance is the trigger for nutrients and solids, while oil and grease required a 60% exceedance to be counted. This tiered approach reflects the fact that some pollutants are more harmful at lower concentrations than others.

2. Monitoring & Reporting Violations: Facilities are required to regularly monitor their discharge and submit reports to regulators. Violations of these requirements, such as failing to

submit reports, submitting deficient or late reports, or unauthorized discharges, were tallied over the past 5 years. More serious violations (such as unauthorized discharges) were weighed more heavily than administrative ones (like a late report). Facilities with violation scores in the top 25% were considered Inadequate.

3. Enforcement History: Facilities that received formal regulatory action over the past 5 years were flagged. This includes a facility incurring one or more major active or historic orders (Administrative Civil Liability, Cease and Desist, or Cleanup and Abatement Orders), or two or more active or historic Notices of Violation.

Result: 139 out of 971 evaluated WDR facilities (14%) were identified as inadequate.

Regional Water Boards' Suggested Additions

Systems and facilities that Regional Water Board staff recommended adding to the Inadequacy Lists but that did not meet the quantitative Inadequacy threshold based on available data will be added to a separate list. The on-the-ground expertise of the Regional Water Boards' staff fills a critical gap in the WWNA; thus, the WWNA project team recommends creating a Regional Water Boards' Staff-Identified Priority List. This list will include systems and facilities that do not meet the current quantitative Inadequacy Criteria, but for which the Regional Water Boards' staff have advocated for additional funding. These systems and facilities will not be included in the Solution and Cost Assessment completed by the Office of Water Programs (OWP) at Sacramento State University.

Total Counts

Table 1. Inadequate facilities as a proportion of evaluated facilities

Program Type	Inadequate Systems/Facilities Count	Total Systems/Facility Analyzed	Percent Inadequate
NPDES	20	265	7.5%
WDR	139	971	14.3%
SSSGO	79	946	8.4%
Total¹	238	2179	10.9%

¹ 3 facilities are included in both the WDR and SSSGO assessments, thus the total analyzed systems/facilities are 2,179 rather than 2,182.

Appendix A.

Summary of key changes made to Inadequacy Criteria from the April 20th Advisory Group Meeting. Each change is specific to the context and data relevant to each unique system and facility type.

NPDES

Change: Expanded data range Jan 2021-Sep 2025 to Jan 2021-Dec 2025 because of an increase in available data

Rationale: Recently revised/confirmed data source & consistency

Outcome: 7 WWTFs removed & 1 added (Apr: 26/265 to May: 20/265)

SSSGO (Collection Systems)

Change #1: Exclude the spill volume per population served criteria and rely exclusively on spill count per system length

Rationale: Change requested by Advisory Group members and State Board staff agreed that the variable is not the best representation of wastewater systems' infrastructure needs

Outcome: 29 CS removed (Apr: 118/946 to May: 89/946)

Change #2: Exclude systems that do not meet the Inadequate spill or reporting metrics, but have an active enforcement action

Rationale: Unable to determine the status of many of these enforcement actions and whether action has been taken to resolve the issues

Outcome: 10 CS removed (Prior Change #1: 89/946 to May: 79/946)

WDR

Change: Include "Historical" NOVs in Inadequacy Criteria

Rationale: NOVs for WDRs are often marked "historical" in CIWQS shortly after facilities report corrective actions; this status does not necessarily indicate that the underlying issue has been fully resolved.

Outcome: 17 WWTFs added with 2+ historic NOVs. (Apr: 122/971 to May: 139/971)