

Development of Statewide Inadequacy Assessment for California Wastewater Systems

ADVISORY GROUP SUMMARY – JANUARY 2026 MEETING

INADEQUACY ASSESSMENT SUMMARY

Three separate Inadequacy Assessments will cover the three different facility and system types which meet the inclusion criteria for the WWNA, which have been detailed fully in the Phase 1 WWNA report. These assessments cover: 1) National Pollutant Discharge Elimination System (NPDES) facilities, 2) Waste Discharge Requirements (WDRs) facilities, and 3) Sanitary Sewer System General Order (SSSGO) systems. This Summary details the criteria used to define a facility or system as Inadequate in the WWNA.

Inadequacy Criteria Development

We began developing the Inadequacy Criteria in early 2024. By July 2024, we established a Working Group of State and Regional Water Boards staff experienced with compliance and enforcement reporting, tracking, and data for all three facility and system types. These Working Group members have helped us identify the most relevant violations and enforcement orders for each facility or system type and made recommendations on how criteria should be adjusted to ensure Water Boards buy-in and longevity.

We have also presented our working criteria at three Advisory Group meetings and the WWNA Phase 1 report in which we solicited feedback from the Advisory Group members. The project's "Office Hours" have been another forum for Advisory Group members to share thoughts and ideas about specific criteria which we have done our best to incorporate into the finalized criteria.

NPDES Facilities Inadequacy Criteria

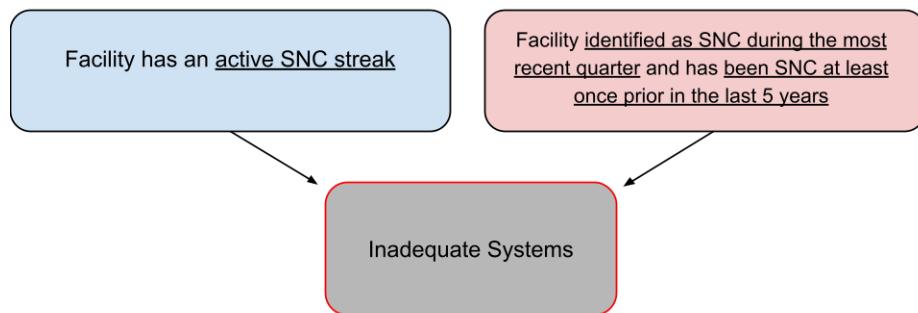
The Inadequacy Criteria for NPDES Facilities follows US EPA's definition of Significant Non-Compliance (SNC)¹ for NPDES Facilities. Our data source for this analysis is EPA's Integrated Compliance Information System (ICIS) for NPDES facilities². Our Inadequacy Criteria builds upon the SNC definition by identifying facilities that have an active SNC streak, meaning the system has been flagged as SNC in two or more continuous quarters. Another pathway is that the facility has been identified as SNC during the most recent quarter with data reported and has been identified as SNC at least once prior in the last five years. These additional criteria applied above the basic

¹ Federal Regulations: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-123/subpart-C/section-123.45>

² Data is downloaded from EPA's [ICIS-NPDES National Dataset \(Part 1\)](#) and the **NPDES_QNCR_HISTORY** file is used in our analysis. This file has historic data for NPDES facilities flagged as SNC.

SNC label from US EPA narrow the number of facilities identified as Inadequate in our analysis.

Figure 1. NPDES Facilities Inadequacy Criteria

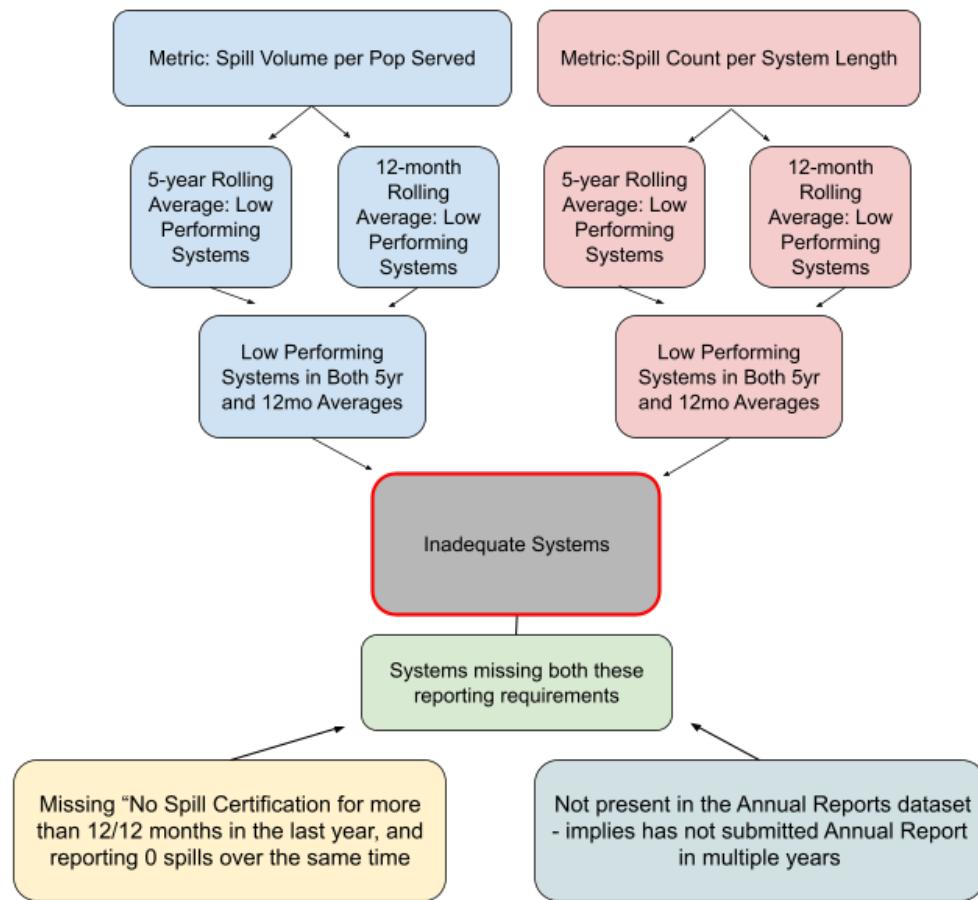


SSSGO Systems Inadequacy Criteria

The Inadequacy Criteria for SSSGO systems is focused on sanitary sewer spill counts or volume and missing required reports. These criteria were developed in close collaboration with our Working Group of Water Boards staff and members of the WWNA Advisory Group. It was recommended to include metrics that consider both spill counts per system length and spill volume per population served as they highlight slightly different challenges and thus capture a more complete set of systems. The reporting criteria especially allow us to assess systems that are not present in the Annual Reports dataset, implying this system has not submitted an Annual Report in at least a year, and systems that have not reported any system spills, yet have not certified having “no-spills” for at least the last 12 months. Data sources for these criteria include the Water Boards California Integrated Water Quality System (CIWQS) sanitary sewer system database³.

³ https://www.waterboards.ca.gov/water_issues/programs/sso/docs/index.php

Figure 2. SSSGO Facilities Inadequacy Criteria



WDR Facilities Inadequacy Criteria

The Inadequacy Criteria for WDR Facilities are focused on effluent violation exceedances and monitoring and reporting violations. These criteria were developed in close collaboration with our Working Group of Water Boards staff and an extended group of WDR staff working in various Regional Water Boards. With their guidance we selected which violation types and constituents were most relevant when trying to identify Inadequate WDR facilities, and how to set their associated thresholds and weights.

The goal of the WDR assessment is to use available data from CIWQS on permit violations stemming from effluent level exceedances to identify facilities experiencing elevated levels of selected constituents of concern in the table below. The effluent violation criteria are structured similarly to EPA's SNC criteria for effluent violations but had to be created specifically for the California context. If a facility exceeds one of these criteria for a specific constituent, it will be identified as Inadequate. Similarly, if a facility has one or more active enforcement order listed in the table below, or two Notice of Violations (NOV) the facility is identified as Inadequate.

The monitoring and reporting violations are structured differently. Selected violations will be weighted as shown below, and a cumulative score will be assigned to each facility. Facilities in the top quantile (75th percentile or above) will also be identified as Inadequate for monitoring and reporting violations.

Table 1. Inadequacy Criteria for WDR Facilities

Violation Group	Violation Type	Inadequacy Criteria
Effluent Violation	Total Suspended Solids (TSS)	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	Total Kjeldahl Nitrogen (TKN) as (N)	Exceed permit limit by 20% or in any 2 months in a 6-month period the last 5 years.
	Settleable Solids	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	pH	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	Oil and Grease	Exceed permit limit by 60% or more in any 2 months in a 6-month period the last 5 years.

	Dissolved Oxygen	Exceed permit limit by 60% or more in any 2 months in a 6-month period the last 5 years.
	Surface Loading Rate	Exceed permit limit by 40% or more in any 2 months in a 6-month period the last 5 years.
	Nitrogen, Total (as N); Nitrite plus Nitrate (as N); Nitrate, Total (as NO ₃); Nitrate, Total (as N)	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	Carbonaceous Biochemical Oxygen Demand (CBOD), Percent Removal; Carbonaceous Biochemical Oxygen Demand (CBOD)	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	Biochemical Oxygen Demand (BOD)	Exceed permit limit by 40% or more in any 2 months in a 6-month period the last 5 years.
	Ammonia, Total (as N) violation; Ammonia, Unionized (as N)	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.
	E. coli; Fecal Coliform, Total Coliform, Enterococcus	Exceed permit limit by 20% or more in any 2 months in a 6-month period the last 5 years.

Enforcement Order ⁴	Administrative Civil Liability Order (ACLO); Cleanup & Abatement Order (CAO); Cease & Desist Order (CDO)	1 or more ACLO, CAO, or CDO over the last 5 years
	Notice of Violation (NOV)	2 or more NOVs over the last 5 years.

Violation Group	Violation Type	Threshold	Weight
Monitoring & Reporting Violation	Unauthorized Discharge	1 or more Unauthorized Discharge violation(s) over the last 5 years	3
	Sanitary Sewer Overflow/Spill	1 or more Sanitary Sewer Overflow/Spill violation(s) over the last 5 years	2

⁴ Enforcement Orders are still included in the Inadequacy Criteria for WDR facilities. The Inadequacy Criteria for NPDES facilities and SSSGO systems no longer includes Enforcement Orders. Enforcement Orders are generally used to address effluent violations, such as exceedances of discharge limits. They often require the discharger to take corrective actions to return to compliance and may include schedules, fines, or other mandatory measures. If one of the enforcement orders listed are issued the system is flagged as Inadequate. If two or more NOVs are issued, the system is flagged as Inadequate.

	Failure to submit a monitoring report	1 or more missing monitoring report(s) over the last 5 years	3
	Late Report	1 or more Late Report violation(s) over the last 5 years	1
	Deficient Report	1 or more Deficient Report violation(s) over the last 5 years	1
	Receiving Water - Groundwater	1 or more Receiving Water - Groundwater violation(s) over the last 5 years	3
	Receiving Water - Surface Water	1 or more Receiving Water - Surface Water violation(s) over the last 5 years	3
	Enforcement Action ⁵	1 or more Enforcement Action violation(s) over the last 5 years	3
	Deficient Monitoring	1 or more Deficient Monitoring violation(s) over the last 5 years	1
	Order Conditions	1 or more Order Conditions violation(s) over the last 5 years	2
	Flow	1 or more Flow violation(s) over the last 5 years	3

⁵ Enforcement Actions are used to address monitoring and reporting violations such as late or missing reports, incomplete monitoring, or inaccurate data submissions. These actions ensure that the facility provides the required information for the regulatory agency to evaluate compliance. This variable is distinct in that it is identifying violations of enforcement actions rather than the issuance of an enforcement order.