

Assessing The Quality of Navajo Nation Surface Waters to Determine Impairment



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Federal Clean Water Act

- **Section 305(b) requires surface water assessment reporting.**
- **Section 303(d) requires surface water impairment listing.**
- **How do we establish the relationship between 305(b) and 303(d)?**

USEPA Guidance - CALM

Consolidated Assessment and Listing Methodology

Toward a Compendium of Best Practices

First Edition

July 2002

Prepared By:

U.S. Environmental Protection Agency
Office of Wetlands, Oceans, and Watersheds

With Assistance From:

EPA Regional Offices
Office of Science and Technology
Office of Research and Development
Office of Ground Water and Drinking Water
Office of Wastewater Management
Office of Environmental Information
Office of General Counsel

USEPA Guidance - CALM

- Provides states and tribes with framework for assessing WQS attainment.
- Uses analyses of chemical, physical, biological, toxicity, bacteria, and habitat data as water quality indicators.
- Provides statistical considerations to obtain “credible data”.
- Provides information required for 305(b) reporting.

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USEPA Guidance - IRG

**Guidance for 2006 Assessment, Listing and Reporting
Requirements Pursuant to Sections 303(d), 305(b) and 314 of
the Clean Water Act**

July 29, 2005

Watershed Branch
Assessment and Watershed Protection Division
Office of Wetland, Oceans and Watersheds
Office of Water
United States Environmental Protection Agency

USEPA Guidance - IRG

- Provides states and tribes with framework for categorizing waters based on attainment of water quality standards.
- Water body impairment is defined by the category of designated use support.
- Impaired water bodies are reported on 303(d) lists.
- Integrates 305(b) reporting and 303(d) listing.

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Minnesota Guidance



Guidance Manual For Assessing the Quality of Minnesota Surface Waters

for the Determination of Impairment

305(b) Report and 303(d) List

October 2005

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Navajo Nation EPA Guidance

**GUIDANCE FOR ASSESSING THE QUALITY OF NAVAJO
NATION SURFACE WATERS TO DETERMINE IMPAIRMENT
(Integrated 305(b) Reporting and 303(d) Listing)**



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Three Principal Objectives:

1. Use 305(b) assessment data to determine water quality standard (WQS) attainment,
2. Use WQS attainment to determine designated use support; and
3. Use designated use support categorization to determine impairment for 303(d) listing.

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Navajo Nation EPA Guidance – Section 2 - 305(b) Assessment

- **WQS may be numeric or narrative.**
- **WQS may be chemical, biological, physical, toxicity based, and/or habitat based.**
- **Compare water quality data to WQS to determine if designated use is supported.**
- **If WQS is attained, the designated use is supported for that standard.**
- **If WQS is not attained, the designated use is not supported for that standard.**

Navajo Nation EPA Guidance – Section 2 - 305(b) Assessment

Summary of data needed to determine designated use support.

Water Quality Standard (WQS)	Designated Use(s)*	Minimum Number of values	Number or Percent Exceedances of WQS	Designated Use Support Decision
Metals, Organics, Inorganics, and Radiologicals	Dom, FC, PrHC, ScHC, AgWS, AqHbt (chronic), L&W	5 values in 3 years	≤ 1	Fully Supported
			≥ 2	Not Supported
Metals, Organics, and Inorganics	AqHbt (acute)	5 values in 3 years	< 1	Fully Supported
			≥ 1	Not Supported
Asbestos	Dom	5 values in 3 years	< 1	Fully Supported
			≥ 1	Not Supported
Dissolved oxygen, pH, suspended sediments, temperature, turbidity	Dom, PrHC, ScHC, AqHbt	10 values in 10 years	< 15 %	Fully Supported
			≥ 15 %	Not Supported

Navajo Nation EPA Guidance – Section 2 - 305(b) Assessment

Summary of data required to determine designated use support (continued)

Water Quality Standard (WQS)	Designated Use(s)	Minimum Number of values	Number or Percent Exceedances of WQS	Designated Use Support Decision
E-Coli	Dom, PrHC, ScHC	10 values in 10 years	< 15 % for single sample and < 1 for geometric mean	Supported
			≥ 15 % for single sample and/or ≥ 1 for geometric mean	Not Supported
Methylmercury in Fish Tissue	FC	Most recent data	< 0.3 milligrams methylmercury / kilogram fish	Supported
			≥ 0.3 milligrams methylmercury / kilogram fish	Not Supported
Narrative	One or more	Designated Use Support Decision made on a case-by-case basis.		
Biological Community Water Body Morphology Toxicity Testing	<i>(RESERVED)</i>	<i>(RE-SERVED)</i>	<i>(RESERVED)</i>	<i>(RESERVED)</i>

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Section 3 – 303(d) Impairment

- **Impairment is contingent upon designated use support.**
- **Water bodies are assigned one of five categories based on their designated use support status.**
- **Water bodies falling into Category 5 are considered impaired and listed on the 303(d) list.**

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Section 3 – 303(d) Impairment

Category 1: All designated uses are supported;

Category 2: Some designated uses are supported, but insufficient data to determine if the other designated uses are supported;

Category 3: There is insufficient data to determine if any designated use is supported;

Category 4: At least one designated use is not supported, but does not require development of a Total Maximum Daily Load (TMDL) because:

4a: A TMDL has been approved by USEPA; or

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Section 3 – 303(d) Impairment

Category 4: At least one designated use is not supported, but does not require development of a Total Maximum Daily Load (TMDL) because:

4b: Pollution control requirements are expected to result in the support of the designated use; or

4c: The designated use is not supported because the water body is impaired, but the impairment is not caused by a pollutant. This can include flow alterations and/or naturally occurring elements.

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Section 3 – 303(d) Impairment

Category 5: At least one designated use is not supported and:

5a: A TMDL is underway or scheduled; or

5b: A review of the designated use and/or water quality standards will be conducted to determine if appropriate for the surface water body; or

5c: Additional data is needed before a TMDL is scheduled.

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