



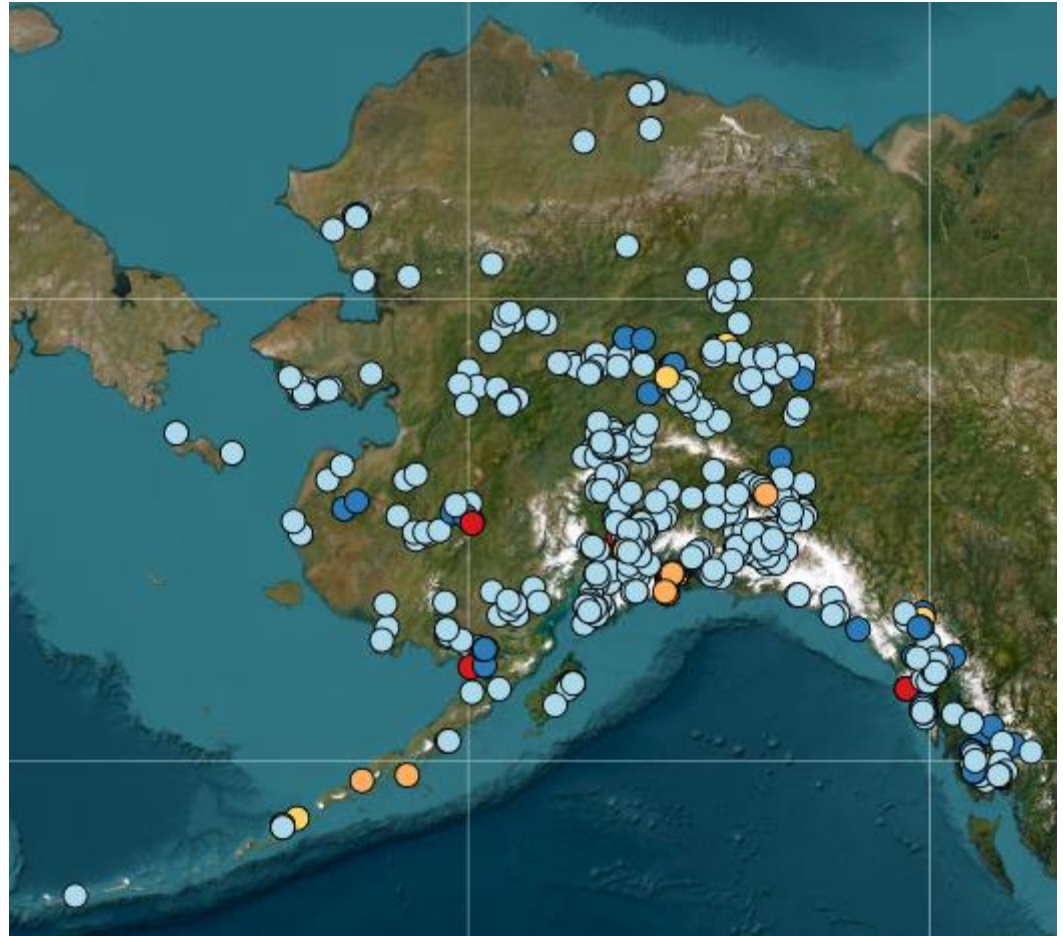
Draft 2024 Alaska Integrated Water Quality and Assessment Report

Public Meeting
July 8, 2024

Division of Water
July 2024

What is the Integrated Report?

- The IR is a biennial report that summarizes the health of a state's waters
- It is a comprehensive assessment of data to determine whether waterbodies meet water quality standards



DEC Integrated Report Team

- Terri Lomax, Water Quality Program Manager

Monitoring and Assessment

- Amber Crawford, Section Manager
- Jenny Petitt, Integrated Report Coordinator
- Maryann Fidel, Marine Monitoring

Regional Staff

- Laura Eldred, Section Manager
- Ashley Oleksiak, Southcentral, Aleutians
- Jeff Fisher, Northern/Interior
- Gretchen Pikul, Southeast
- Mary Inovejas, Kenai Peninsula, Western



Today's Presentation

- What is the Integrated Report
- Integrated Report
 - Process and timeline
 - Data evaluation and data requirements
 - Proposed waterbody categories
- How to make public comments

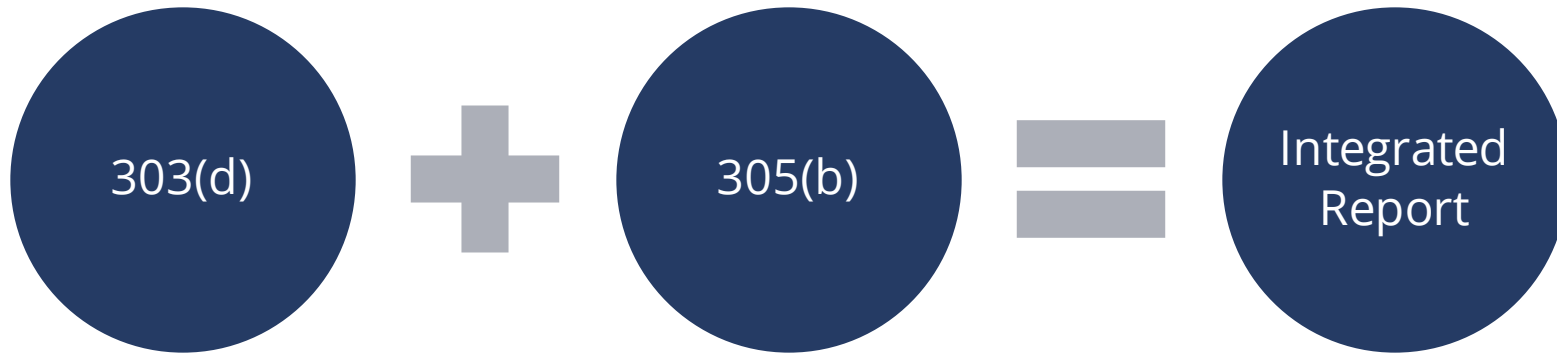


Why?

- Understand water quality in Alaska
- Protects human health
 - identify impairments
 - Identify areas for restoration or other projects
- Prioritize restoration areas
- Prioritizes projects in communities for grant funding (Alaska Clean Water Action)



Clean Water Act 303(d) and 305(b)



303(d)

- Identify polluted waterbodies and set restoration priorities
- Impaired waters list or the 303(d) list
- Impaired waterbodies are prioritized for restoration

305(b)

- Report on the health of all waters, not just those that are impaired
- Biennial water quality report to congress or Section 305(b) report



Water Quality Standards

- Describe desired condition of a waterbody
- Basis for reviewing water quality data

**DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**



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WATER QUALITY STANDARDS

Amended as of November 13, 2022



Designated Uses

- Water Supply
 - Drinking, culinary, and food processing
 - Agriculture
 - Aquaculture
 - Industry
- Recreation
 - Contact
 - Secondary
- Growth and Propagation of Fish, Shellfish, Other Aquatic Life, and Wildlife



Listing Methodologies

Define data and analysis requirements

- Consolidated Assessment and Listing Methodology (CALM)
- Petroleum hydrocarbons, oils and grease
- Pathogens
- Residues
- Turbidity

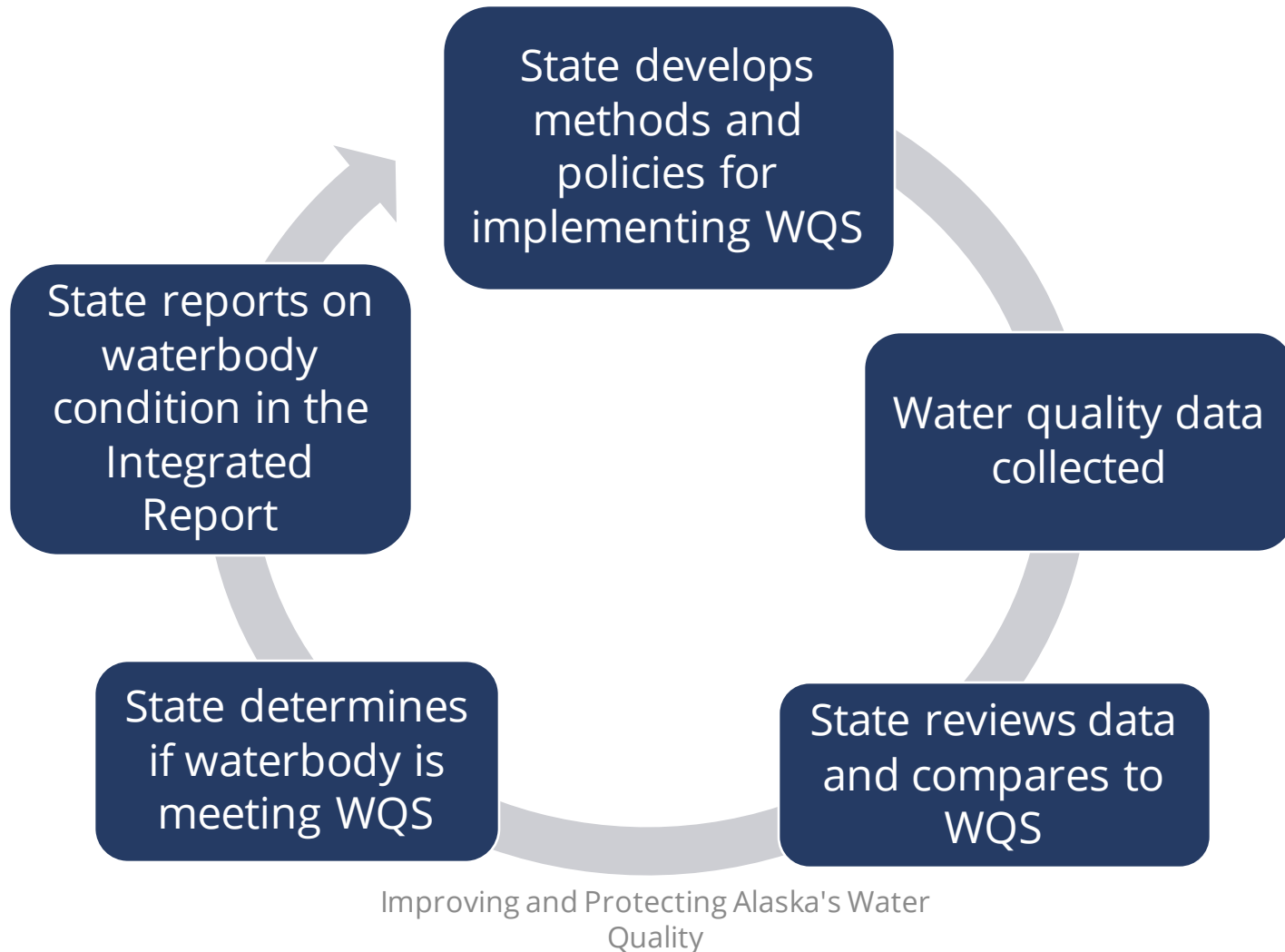


Minimum Data Requirements

- Must be collected under an approved Quality Assurance Project Plan and meet data quality objectives
- Minimum number of representative data points
- Samples collected over at least 2 years, within the most recent 5 years



Water Quality Assessment Process



2024 Integrated Report Timeline

- Call for Data Oct 01 2022 – Feb 1, 2023
- Data analysis completed spring 2024
- Stakeholder outreach
- **Public Notice (30 days)**
- Submit to EPA
- EPA approval



Water quality data evaluation

- Review data for minimum data quality requirements
- Analyze data against Alaska's Water Quality Standards using listing methodologies
- Prepare findings: individual waterbody categories for data received



Integrated Report Categories

Categories 1 and 2	Waterbodies for which there is enough information to determine that water quality standards are attained for all or some of their designated uses.
Category 3	Waterbodies for which there is not enough information to determine their status.
Category 4	Waterbodies that are impaired but have one of several different types of waterbody recovery plans.
Category 5	Waterbodies that are impaired and do not yet have waterbody recovery plans. Also known as 303(d) list of impaired waters.



Category Redux

- Waterbodies have both
 - Parameter specific categories
 - Waterbody overall category
- Overall category
 - If a waterbody is impaired for any parameter, then the overall category is either 4 or 5
 - If a waterbody has pollutants in categories 2 and 3 and there is no evidence of exceedances, then the overall category is 2

Pollutant	Category	Definition
Fecal coliform	4a	Not meeting criteria
E. coli, DO, pH, Temperature, Turbidity	3	Insufficient information
Petroleum hydrocarbons	2	Meeting criteria

This waterbody's overall Category is 4a



2024 IR Summary

- Original data pull
~89,000 results
- After data processing
 - 116 waterbodies
 - 46 parameters
 - 7 marine uses or 7 freshwater uses





Category 1

All designated uses attained – meets everything

- Most of Alaska's waters should fall here, but we do not have the data to verify. No waters currently Category 1.



Category 2 Summary

Some designated uses attained for some pollutants

2022 Overall Category	2024 Overall Category	Count
4a	2	2
2 & 3	2	34
Not previously assessed	2	13
	Total	49

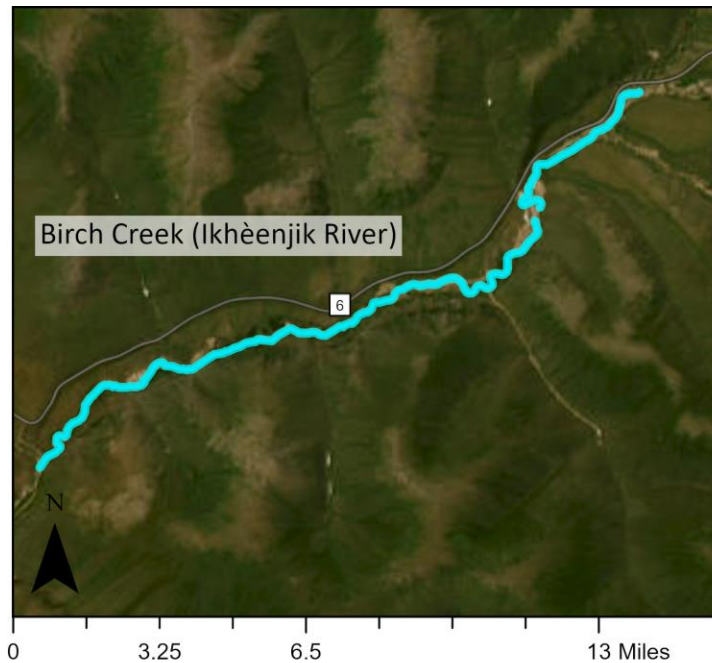
- New waterbodies
 - Mostly remapped coastal assessment units
 - Koyukuk River



Category 2

Previous impairments that are now attaining WQS

Waterbody	Pollutant	Designated Uses Previously Impacted
Little Survival Creek	<i>E. coli</i>	All uses
Birch Creek	Turbidity	Drinking Water/ Contact/ Secondary Recreation



Category 3

Not enough information to determine whether water quality standards are attained

2022 Overall Category	2024 Overall Category	Count
2 & 3	3	18
Not previously assessed	3	22
	Total	40

- New Waterbodies
 - Kenai Lake
 - Several coastal assessment units
 - Piledriver slough
 - Slikok creek
 - Egegik River



Category 4a

Impaired with a Total Maximum Daily Load

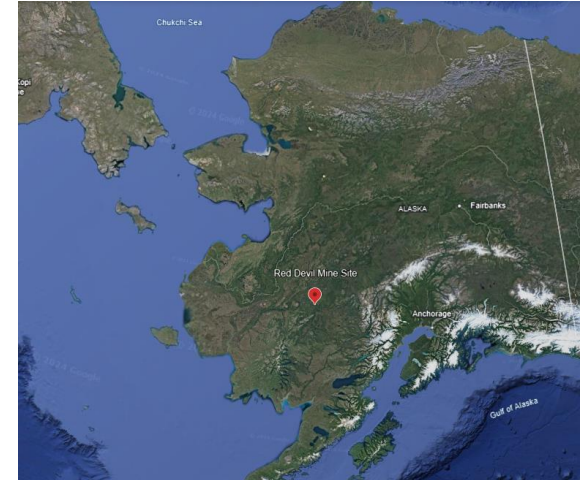
- Two waterbodies in the Anchorage area moving from Category 4a to 5
- No new waterbodies added to 4a



Category 4b

Impaired with a Recovery Plan

- Kuskokwim River (Red Devil) and Red Devil Creek
- Mercury mine on the Kuskokwim River, abandoned in 1971. Contaminated site managed by BLM, located on public lands
- Placed on impaired waters list in 2010 for exceeding criteria for toxic and other deleterious substances (antimony, arsenic and mercury)
- Record of Decision finalized January 2024
- Recommend moving from Category 5 to Category 4b



Category 5

Impaired (polluted) and needs a restoration plan
(TMDL or alternative)

Waterbodies	Pollutant	Designated Uses Impacted
<ul style="list-style-type: none">Little Campbell CreekChester Creek	Bacteria: E. coli	Freshwater: Contact Recreation



Category 5

Impaired without a Recovery Plan

Pollutant & Water Use	Criteria
(2) Bacteria, for fresh water uses	In a 30-day period, the geometric mean of samples may not exceed 126 <i>Escherichia coli</i> (<i>E. coli</i>) colony forming units (CFU)/ 100ml, and not more than 10% of the samples may exceed a statistical threshold value (STV) of 410 <i>E. coli</i> CFU/100 ml.
(B) Water Recreation (i) contact recreation	

- The individual sample result for *E. coli* exceeded 410 cfu/100mL during more than 10% of the time per water year at both Little Campbell and Chester Creeks
- Analysis confirmed not attaining Water Quality Standards for *Fecal coliform* (existing impairment)



2024 IR Highlights

Overall Category	Summary	Waterbodies
5	2 waterbodies move from Category 4a to 5	<ul style="list-style-type: none">• Little Campbell Creek• Chester Creek
4b	2 waterbodies move from Category 5 to 4b	<ul style="list-style-type: none">• Kuskokwim River (Red Devil)• Red Devil Creek
2	2 waterbodies move from Category 4a to 2	<ul style="list-style-type: none">• Birch Creek• Little Survival Creek



How do impaired waters get healthy?

Water quality recovery takes time	<ul style="list-style-type: none">• Set priorities• Create realistic timelines
Identify information gaps and needs	<ul style="list-style-type: none">• Water quality data• Engineering designs
Develop and implement watershed restoration plans, such as TMDLs	<ul style="list-style-type: none">• Limits on permitted discharges• Outreach and education• Voluntary reduction of nonpoint source pollution
Re-evaluate conditions every 2 years	<ul style="list-style-type: none">• Call for data• Re-analyze• New IR category



2024 IR Resources – DEC web page

<https://dec.alaska.gov/water/water-quality/integrated-report/>

- Attainment/impairment summaries
 - Draft 2024 Campbell and Chester Cat 5 Summary
 - Draft 2024 Birch Cat 2 Summary
 - Draft 2024 Little Survival Cat 2 Summary
- 4B Demonstration
 - Draft 2024 Red Devil Mine 4b Demonstration
- Other supporting docs
 - Draft 2024 IR Frequently Asked Questions
 - Draft 2024 IR Fact Sheet
 - Draft 2024 TMDL Priorities and Schedule
- Public Notice

Improving and Protecting Alaska's Water
Quality



INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT REPORT

Overview

Draft 2024 IR

Approved 2022 IR

Past Reports/Resources

Map of Assessed Waters

Impaired Waters and Recovery Plans (TMDLs)

Draft 2024 Integrated Report

The Alaska Department of Environmental Conservation (DEC) is seeking written comments on the Draft 2024 Integrated Water Quality Monitoring and Assessment Report (IR). Every two years, DEC reports on the condition of Alaska's waters, which helps the State prioritize waters for action such as data gathering, watershed protection, and rehabilitation of impaired waters. This report categorizes waterbodies and identifies impaired waters under the Clean Water Act sections 305(b) and 303(d).

The deadline to submit written comments is 11:59 PM Alaska Standard Time on July 22, 2024. DEC will host an informational meeting on July 8, 2024 from 4 to 6 PM. Join the information meeting online by clicking this link: [Integrated Report Meeting](#) (link updated 6/25/2024). You may also attend by calling in to 907-202-7104, access code 563 276 878# (for audio only).

Draft 2024 Integrated Report Map

The Draft 2024 Integrated Report [Assessed Waters map](#) shows the cumulative waterbody segments (Assessment Units) assessed during previous Integrated Reports up to and including the most recent Draft 2024 Integrated Report

Draft 2024 IR Documents

- [Public Notice \(PDF\)](#)
- [Draft Integrated Report Factsheet, Updated 6/25/2024 \(PDF\)](#)
- [Questions and Responses Pertaining to Draft 2024 Integrated Report, Updated 7/1/2024 \(PDF\)](#)
- [Frequently Asked Questions \(PDF\)](#)
- [Draft Little Survival Creek Attainment Summary \(PDF\)](#)
- [Draft Birch Creek Attainment Summary \(PDF\)](#)
- [Draft Red Devil Mine 4b Demonstration \(PDF\)](#)
- [Draft Campbell Creek and Chester Creek Impairment Summary \(PDF\)](#)
- [Draft Total Maximum Daily Load \(TMDL\) Priorities and Schedule \(PDF\)](#)

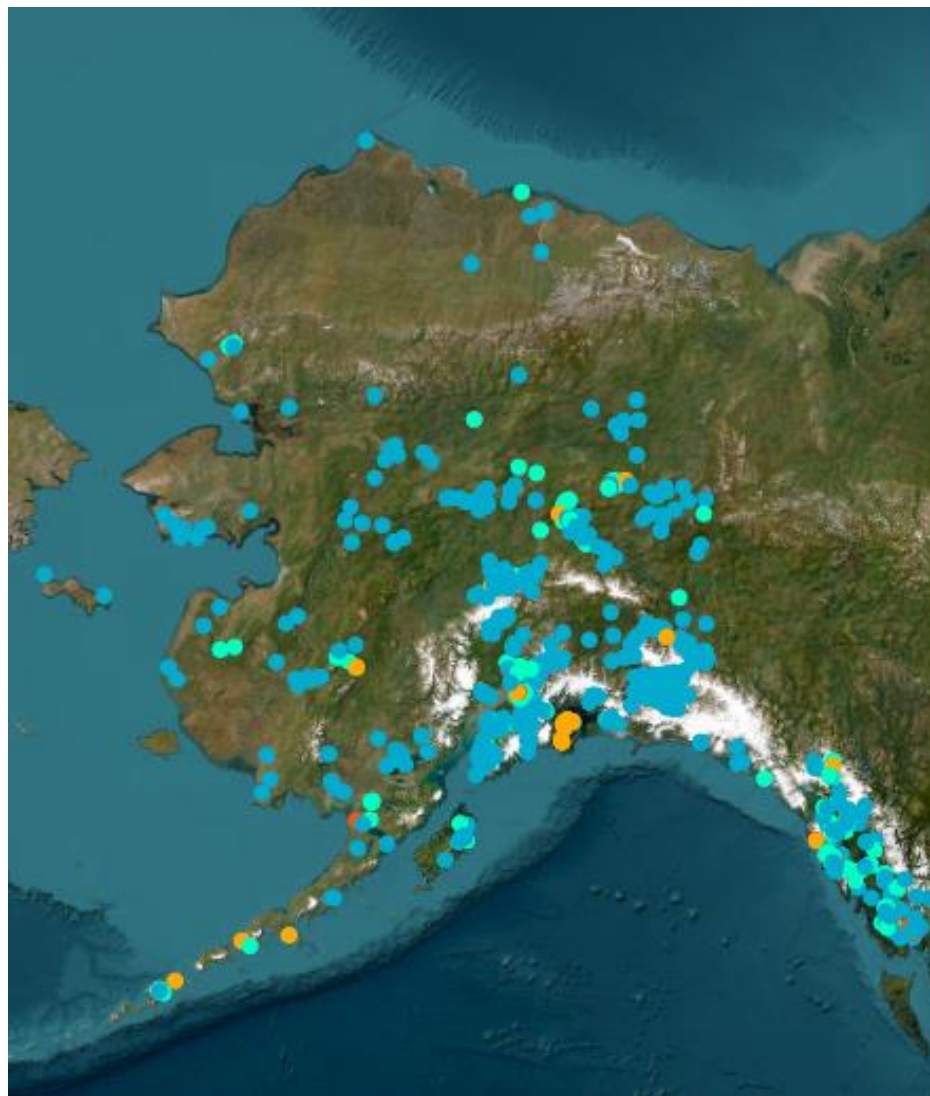
Listing Methodologies

- [Consolidated Assessment Listing Methodology \(PDF\)](#)
- [Turbidity Listing Methodology \(PDF\)](#)
- [Pathogens Listing Methodology \(PDF\)](#)

✉ Indicates an external site.



Assessed Waters Map



Rivers

Assessment Unit Category

- 2 (Attaining)
- 3 (Not enough information)
- 4A (Impaired)
- 4B (Impaired)
- 5 (Impaired)

Beaches

Assessment Unit Category

- 3 (Not enough information)
- 4B (Impaired)
- 5 (Impaired)

Lakes

Assessment Unit Category

- 2 (Attaining)
- 3 (Not enough Information)
- 4A (Impaired)



2024 IR Fact Sheet

lists all waters assessed

Fact Sheet

Draft 2024 Integrated Report

Appendix A

Proposed Changes for the 2024 Integrated Report

Category 5

Waterbody Name (Assessment Unit ID)	Parameter	Previous Category (2022 IR)	Proposed Category (2024 IR)
Chester Creek (AK_R_2040108_003)	<i>Escherichia coli</i>	3	5
Little Campbell Creek (AK_R_2040106_004)	<i>Escherichia coli</i>	3	5

Category 4

Waterbody Name (Assessment Unit ID)	Parameter	Previous Category (2022 IR)	Proposed Category (2024 IR)
Kuskokwim River (Red Devil) (AK_R_3050101_006_008)	Antimony, Arsenic, Mercury	5	4b
Red Devil Creek	Antimony, Arsenic, Mercury	5	4b

Improving and Protecting Alaska's Water
Quality



What happens next?



1. DEC reviews comments and revises as needed
2. DEC submits Final 2024 Integrated Report and Response to Comments to EPA
3. EPA approves or disapproves the Category 4 and 5 waters
4. EPA reports to Congress

Public Comments

Public comments must be received in writing:

- **Mail:** Jenny Pettit
43335 Kalifornsky Beach Road, Suite 11, Soldotna, AK
99669-9792
- **E-mail:** jenny.petitt@alaska.gov
- Deadline for comments is
11:59pm, July 22, 2024



Questions?
Thank you for your time!

Deadline for comments 11:59 pm July 22,
2024

