Idaho’s 2024 Integrated Report

Final



State of Idaho

Department of Environmental Quality

March 2025

Acknowledgments

The 2024 Integrated Report could not have been completed without the dedicated efforts of Idaho Department of Environmental Quality staff in the state and regional offices. The hard work and assistance of so many has resulted in a transparent, accessible, and comprehensive report on the current conditions of Idaho's surface waters.

Cover photo taken by Craig Nelson.

Prepared by
Dan Eardley
Idaho Department of Environmental Quality
Surface and Wastewater Division
1410 N. Hilton St.
Boise, ID 83706

Accessibility Services: The Idaho Department of Environmental Quality will provide reasonable language access services and/or disability services for documents at no charge. To request an accommodation under Title VI of the Civil Rights Act of 1964 or Americans with Disabilities Act, contact DEQ's nondiscrimination coordinator at (208) 373-0271 or *accessibility@deq.idaho.gov.* Para obtener información en español, visite *https://www.deq.idaho.gov/about-us/accessibility/.*

DEQ, March 2025, Cost codes: 24530045, 245031, 22503.Costs associated with this publication are available from the State of Idaho Department of Environmental Quality in accordance with Idaho Code § 60-202.

Table of Contents

Abbreviations, Acronyms, and Symbols vii
Executive Summary ix
2024 Report Highlights ix
Category Summaries x
Section 303(d) Summary xii
2022–2024 Integrated Report Comparisons xii
1 Introduction 1
1.1 Purpose of the Integrated Report 1
1.2 Integrated Report Categories 1
2 Background Information 3
2.1 Scope of Waters in the Integrated Report 3
2.1.1 Assessment Units 5
2.1.2 Tribal Waters Policy 8
2.2 Water Pollution Control Program 9
2.2.1 Water Quality Standards Program 9
2.2.2 Antidegradation Policy 10
2.2.3 Point Source Control Program 10
2.2.4 Nonpoint Source Management Program 11
2.2.5 TMDL Program 12
2.3 Special State Concerns 12
2.3.1 Cyanobacteria Harmful Algal Blooms 12
3 Surface Water Monitoring and Assessment 13
3.1 Monitoring Program 13
3.2 Assessment Program 14
3.2.1 Beneficial Uses 14
3.2.2 External Data 15
3.2.3 Interpreting Idaho's Water Quality Standards 16
3.2.4 Waters Other than Perennial Streams 18
3.3 Surface Water Assessment Results 18
3.3.1 Five-Part Categorization of Surface Waters 18
3.3.2 Section 303(d) List 23
3.3.3 Statewide Summaries 27
3.3.4 Section 314—Clean Lakes Program 31

3.3.5 Wetlands Program 31
3.4 Public Health Issues 31
3.4.1 Drinking Water and Source Water Assessment 31
3.4.2 Methylmercury Fish Tissue Criterion 32
4 Groundwater Monitoring and Assessment 33
5 Public Participation in Developing the Integrated Report 34
5.1 Scope of Public Comment 34
5.2 Basin and Watershed Advisory Groups Consultation 34
References 36
Appendix A. Clean Water Act § 305(b) and § 303(d) Lists 39
Appendix B. List of assessment units evaluated to have zero flow 40
Appendix C. South Fork Coeur d'Alene River Category 4b 51
Appendix D. Assessment Unit-Cause Combinations Delisted in the 2024 Integrated Report 52
Appendix E. Waters Remaining on the 2002 TMDL Settlement Agreement 58
Appendix F. Clean Water Act § 303(d) Priority Ranking 64
Appendix G. DEQ's 2022–2032 CWA Section 303(d) Vision Long-Term Planning and Prioritization: 2022 Vision 67
Appendix H. Maps Showing the Support Status of All State Waters 75
Appendix I. Map of Mercury-Impaired Water Bodies 79
Appendix J. Response to Public Comments 80
Appendix K. External Data Summary 95

List of Tables

Table A. Five-part categorization results for Idaho's streams. xi
Table B. Five-part categorization results for Idaho's lakes xi
Table C. Support status of Idaho's streams (percentages based on 92,056 stream miles). xii
Table D. Support status of Idaho's lakes (percentages based on 432,390 lake acres). xii
Table E. Summary of Category 5 updates in the 2024 Integrated Report. xii
Table 1. Summary of Idaho's water resources. 4
Table 2. Idaho basin designators for water body units in IDAPA 58.01.02 and AUs. 8
Table 3. Summary of funding requests and awards for Idaho federal § 319 and state agricultural BMP program by state fiscal years 2018–2023. 12
Table 4. Description, examples, and incorporation of data tiers. 16
Table 5. Five-part categorization results for Idaho's streams. 19
Table 6. Five-part categorization results for Idaho's lakes. 19
Table 7. Summary of waters added to Category 5 in the 2024 Integrated Report. 24
Table 8. Summary of waters delisted from Category 5 in the 2024 Integrated Report. 25

Table 9. TMDLs in development, by region. 27
Table 10. Support status of Idaho's streams. 28
Table 11. Support status of Idaho's lakes. 28
Table B1. AUs evaluated with zero flow.[a] 40
Table E1. Waters remaining on the 2002 TMDL settlement agreement.[a] 59
Table F1. Priority ranking and TMDL development schedule. 64
Table G1. Status of TMDL or alternative restoration plan 68
Table J1. Individuals and organizations who submitted public comment letters to DEQ. 80
Table K1. Adventure Scientists Assessment Outcomes. 96
Table K2. Water Quality Portal Assessment Outcomes. 98
Table K3. United States Forest Service Rocky Mountain Station Assessment Outcomes. 112
Table K4. Bureau of Land Management Assessment Outcomes 117
Table K5. Boise Bureau of Land Management Assessment Outcomes. 127
Table K6. Challis Bureau of Land Management Assessment Outcomes. 131
Table K7. Friends of the Teton River Assessment Outcomes. 135
Table K8. Idaho Governor's Office of Species Conservation Assessment Outcomes. 136
Table K9. Salmon Challis National Forest Service Assessment Outcomes. 137
Table K10. Kalispel Tribe Assessment Outcomes. 140
Table K11. Hecla Limited Lucky Friday Mine Assessment Outcomes. 143
Table K12. Selkirk Conservation Alliance Assessment Outcomes. 144
Table K13. Kootenai Tribe Assessment Outcomes. 147
Table K14. EPA Region 10 Assessment Outcomes. 148
Table K15. Trout Unlimited Assessment Outcomes. 149

List of Figures

Figure A. Five categories of the Integrated Report. x
Figure B. Number of stream AUs (or AU-cause combinations) in Categories 1–5 of the 2022 and 2024 Integrated Reports. xiii
Figure C. Number of lake AUs (or AU-cause combinations) in Categories 1–5 of the 2022 and 2024 Integrated Reports. xiii
Figure D. Extent of Category 5 impairment causes for stream AUs. xiv
Figure E. Extent of Category 5 impairment causes for lake AUs. xv
Figure 1. Components of the Integrated Report. Impaired waters on the § 303(d) list are a subset of waters from the § 305(b) list. 1
Figure 2. Categories for the 2024 Integrated Report. 2
Figure 3. Black Canyon of the Bear River in southeastern Idaho. 3
Figure 4. Idaho basins and subbasins. 5
Figure 5. Relationship between HUCs, water body units, and AUs. 7
Figure 6. Example of an AU number. 8
Figure 7. Map indicating tribal waters in Idaho's 2024 Integrated Report. 9
Figure 8. Three tiers of water quality protection identified in Idaho's antidegradation policy. 10

Figure 9. Harmful algal bloom at Hayden Lake. 13
Figure 10. DEQ field crew collecting BURP data..... 14
Figure 11. Extent of streams impaired by § 303(d) causes. 29

Abbreviations, Acronyms, and Symbols

§ 305(b)	refers to section 305 subsection (b) of the Clean Water Act, or a report on the quality of all state waters required by this section
§ 303(d)	refers to section 303 subsection (d) of the Clean Water Act, or a list of impaired water bodies still requiring a total maximum daily load required by this section
§ 314	refers to section 314 of the Clean Water Act, or an assessment of status and trends of publicly owned lakes.
2022 Vision	2022–2032 Vision for the Clean Water Act Section 303(d) Program
4b	Alternative Restoration Plan Category
5-ARP	Advanced Restoration Plan Category (5-r)
ATTAINS	Assessment and TMDL Tracking and Implementation System
AU	assessment unit
BAG	basin advisory group
BMP	best management practice
BURP	Beneficial Use Reconnaissance Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CWA	Clean Water Act
DEQ	Idaho Department of Environmental Quality
E. coli	*Escherichia coli*
EPA	United States Environmental Protection Agency
GIS	geographic information system
HAB	harmful algal bloom
HUC	hydrologic unit code
IDAPA	refers to citations of Idaho administrative rules
IDFG	Idaho Department of Fish and Game
IDWR	Idaho Department of Water Resources
IFCAP	Idaho Fish Consumption Advisory Program
IPDES	Idaho Pollutant Discharge Elimination System
ISDA	Idaho State Department of Agriculture
MeHg	methylmercury
NARS	National Aquatic Resource Surveys
NHD	National Hydrography Dataset
QA	quality assurance
QC	quality control
TMDL	total maximum daily load
USC	United States Code
USGS	United States Geological Survey

WAG	watershed advisory group
WBAG	Water Body Assessment Guidance
WBID	water body identification number

Executive Summary

Idaho's 2024 Integrated Report is submitted in compliance with the Clean Water Act (CWA) §§ 305(b), 314, and 303(d) and describes the Idaho Department of Environmental Quality's (DEQ's) ongoing efforts to monitor, assess, track, and restore the chemical, physical, and biological integrity of the state's surface waters.

The 2024 Integrated Report follows the same format as the 2022 Integrated Report and includes the following materials:

- A downloadable PDF of the § 305(b) list (Appendix A).
- An interactive mapping application and downloadable map package that displays assessments results for Idaho's surface waters.
- Appendix C, "South Fork Coeur d'Alene River Category 4b".
- Appendix K, "External Data Summary".

DEQ developed these materials to increase transparency, accessibility, and public awareness regarding the current conditions of Idaho's surface waters and the DEQ programs in place to protect them.

DEQ is working to enhance environmental quality, public health, and overall quality of life in low-income and marginalized communities facing significant challenges. This includes prioritizing and improving existing CWA programs to develop more effective initiatives, ensuring that no group bears a disproportionate burden of environmental harm or is more likely to experience water quality degradation.

2024 Report Highlights

The 2024 Integrated Report provides background information on the state's water resources, including DEQ's water pollution control program and special concerns affecting water quality; an overview of DEQ's surface water monitoring and assessment program, including beneficial use attainment status results for all state surface waters and a discussion about public health issues; an overview of Idaho's groundwater monitoring and assessment efforts; and a summary of public participation in developing the Integrated Report. The following highlights are discussed in more detail:

- Since the 2022 Integrated Report, the number of stream miles in Category 3 (unassessed waters) has decreased from 26,320 miles to 25,728 miles.
- DEQ delisted (removed) 57 assessment unit-cause combinations from Categories 4 or 5 (impaired waters).
- Since the 2022 Integrated Report, the United States Environmental Protection Agency (EPA) has approved 19 new and 58 revised total maximum daily loads (TMDLs). Lower Clark Fork and some Beaver-Camas and Willow Creek TMDLs revised the methodology of previously approved TMDLs and did not result in any new AU category changes. TMDLs that are actively being developed by DEQ are summarized in Table 9.

- In addition to TMDL's, 39 assessment-unit cause combinations have been moved to Category 4b for the South Fork Coeur d'Alene River (Appendix C).

Category Summaries

A primary objective of the 2024 Integrated Report is to describe the attainment status of Idaho's surface waters relative to their beneficial uses. To achieve this, all state waters are placed into at least one of five primary reporting categories based on the amount of information known about their water quality, whether their beneficial uses are supported, and the types of impairments preventing beneficial use support. Category descriptions for the 2024 Integrated Report are presented in Figure A.

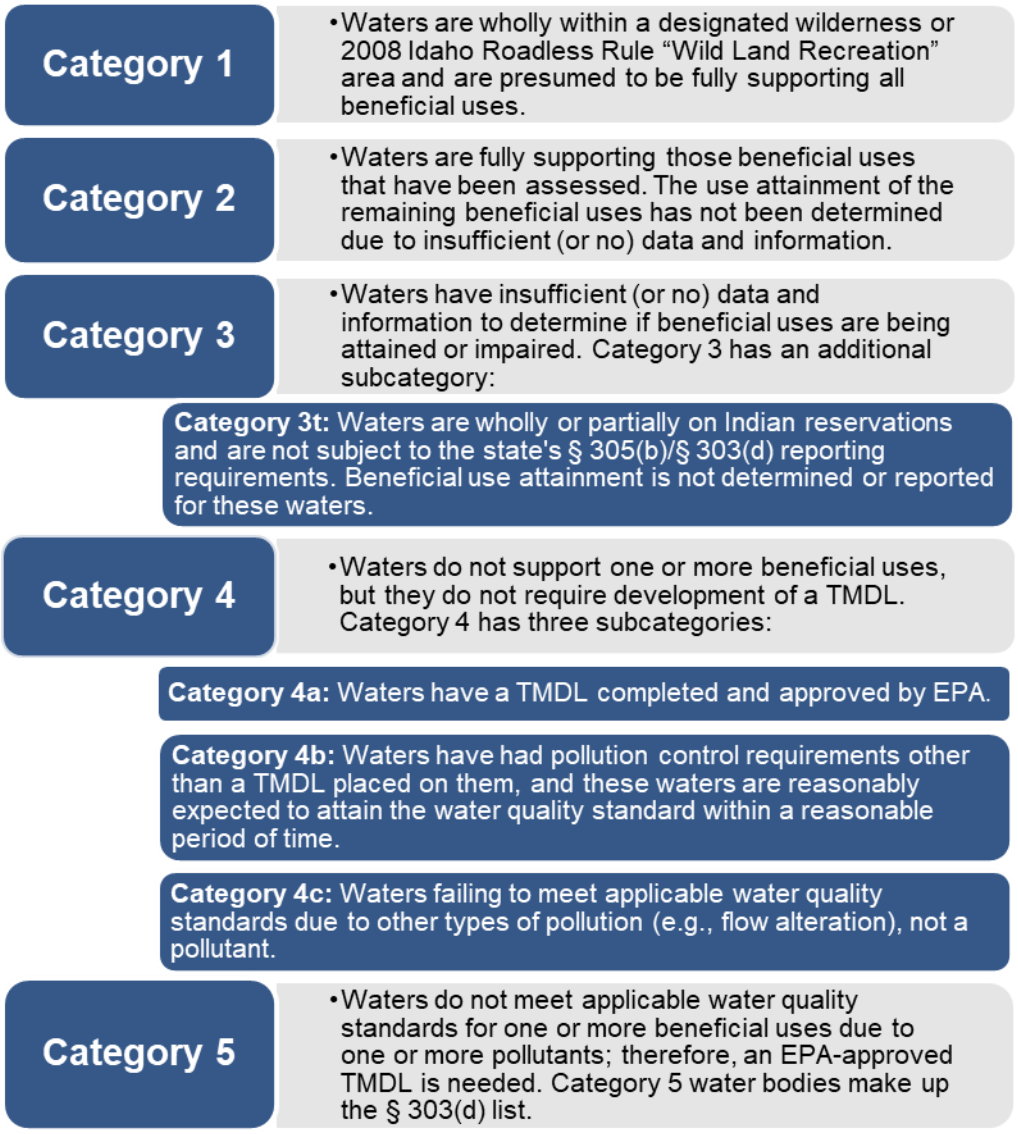


Figure A. Five categories of the Integrated Report.

Idaho's waters are subdivided into assessment units (AUs). An AU is a group of similar stream segments within a water body unit with similar hydrology (e.g., Strahler stream order), land-use practices, ownership, or land management. DEQ assigns each AU to one or more reporting categories based on its water body assessment outcome. An AU may be impaired by multiple causes, and in some cases, may be listed in multiple impairment categories (i.e., Categories 4 and 5). Therefore, Category 4 and 5 listings are commonly referred to as AU-cause combinations. Five-part categorization results for Idaho's streams and rivers (referred to as streams) and lakes and reservoirs (referred to as lakes) are presented in Table A and Table B, respectively.

Table A. Five-part categorization results for Idaho's streams. The percentage of total stream miles is out of 92,056 stream miles. Percentages total more than 100% because some miles are listed in both Categories 4 and 5.

Category	Miles	Number of AUs	AU-Cause Combinations	Percentage of stream miles
Category 1	4,077	323	-	4.4%
Category 2	25,293	1,296	-	27.5%
Category 3	25,684	1,274	-	27.9%
Category 4a	25,782	-	2,428	28.0%
Category 4b	194	-	43	0.2%
Category 4c	6,896	-	541	7.5%
Category 5	14,080	-	963	15.3%

Table B. Five-part categorization results for Idaho's lakes. The percentage of total lake acres is out of 432,390 lake acres. Percentages total more than 100% because some acres are listed in both Categories 4 and 5.

Category	Acres	Number of AUs	AU-Cause Combinations	Percentage of Acres
Category 1	4,349	159	-	1.0%
Category 2	21,824	39	-	5.0%
Category 3	175,729	361	-	41.0%
Category 4a	182,838	-	67	42.3%
Category 4b	-	-	-	0.0%
Category 4c	85,699	-	10	19.8%
Category 5	177,366	-	37	41.0%

AUs are considered to be fully supporting their beneficial uses if they are in Categories 1 or 2, not assessed if they are in Category 3, and not supporting their beneficial uses if they are in Categories 4 and/or 5. The overall support statuses of Idaho's streams and lakes are presented in Table C and Table D, respectively.

Table C. Support status of Idaho's streams (percentages based on 92,056 stream miles).

Support Status	Miles (percent of total)
Fully supporting (Categories 1 or 2)	29,370 (32%)
Not assessed (Category 3)	25,728 (28%)
Not supporting (Categories 4 and/or 5)	36,958 (40%)

Table D. Support status of Idaho's lakes (percentages based on 432,390 lake acres).

Support Status	Acres (percent of total)
Fully supporting (Categories 1 or 2)	26,173 (6%)
Not assessed (Category 3)	175,729 (41%)
Not supporting (Categories 4 and/or 5)	230,488 (53%)[a]

a. Lake support status is based on acreage. The percentage (by area) of lakes not supporting beneficial uses is relatively high because a few large lakes dominate the acreage listed in Categories 4 and 5.

Section 303(d) Summary

CWA § 303(d) requires all states to list and prioritize water bodies that are impaired and need a TMDL. For the 2024 Integrated Report, DEQ added 105 new AU-cause combinations to the § 303(d) list (i.e., Category 5) and delisted 53 AU-cause combinations from the § 303(d) list, bringing the total number of AU-cause combinations on the § 303(d) list to 1,000. A summary of updates to the § 303(d) list is provided in Table E.

Table E. Summary of Category 5 updates in the 2024 Integrated Report.

Explanation	Category 5 AU-Cause Combinations
New Category 5 listings	105
• Based on new and readily available data	105
Category 5 delistings	53
• Correction of original listing	1
• Data indicate standard has been attained	1
• EPA approval of a completed TMDL	12
• 4b restoration plan in place	39

2022–2024 Integrated Report Comparisons

Compared to the 2022 Integrated Report, the extent of stream miles fully supporting beneficial uses (Categories 1 and 2) has decreased from 29,628 miles to 29,370 miles, the extent of stream miles not assessed (Category 3) has decreased from 26,320 miles to 25,728 miles, and the extent of stream miles not supporting beneficial uses (Categories 4 and/or 5) has increased from 36,093 miles to 36,958 miles. DEQ is also reporting a decrease in the number of stream

AUs in Categories 1, 2, and 3, and an increase in the number of AU-cause combinations in Categories 4a and 5 (Figure B).

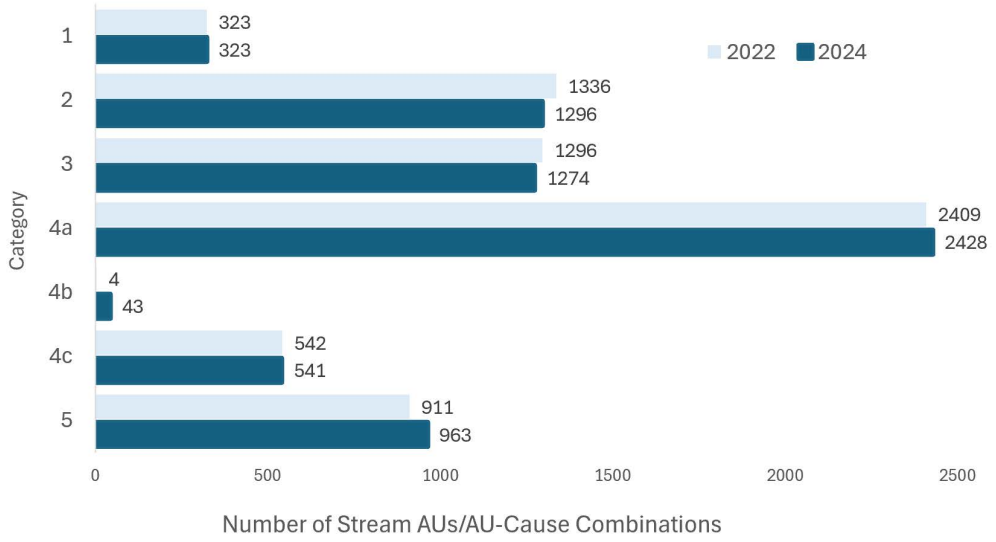


Figure B. Number of stream AUs (or AU-cause combinations) in Categories 1–5 of the 2022 and 2024 Integrated Reports.

The extent of lake acres fully supporting beneficial uses, not assessed, and not supporting beneficial uses has remained the same since the 2022 Integrated Report. DEQ is also reporting no change in the number of lake AUs/AU-cause combinations in Categories 1–5 (Figure C).

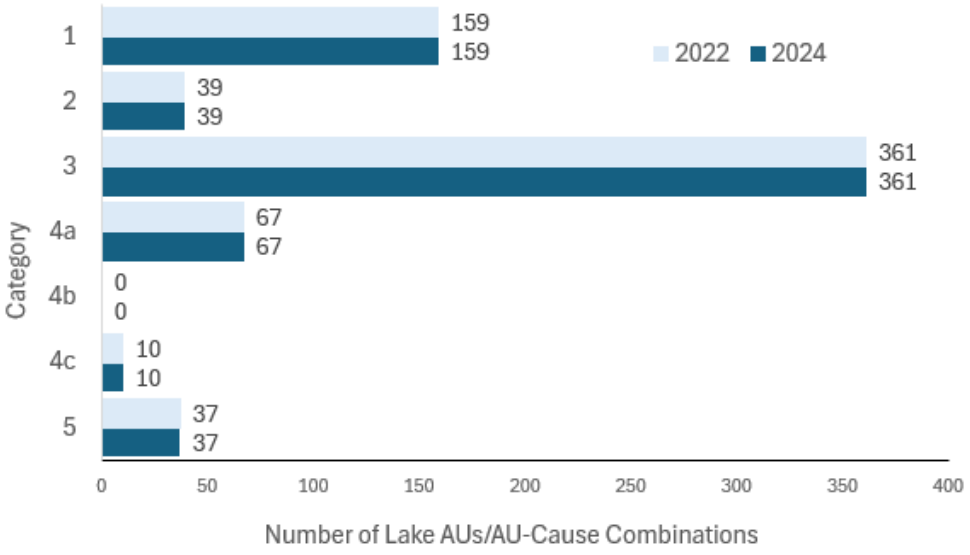


Figure C. Number of lake AUs (or AU-cause combinations) in Categories 1–5 of the 2022 and 2024 Integrated Reports.

Idaho's surface waters can be placed on the § 303(d) list for a variety of causes. A summary of § 303(d) causes for Idaho's streams and lakes is provided in Figure D and Figure E, respectively. These figures also show whether the total extent of these causes has increased or decreased since the 2022 Integrated Report.

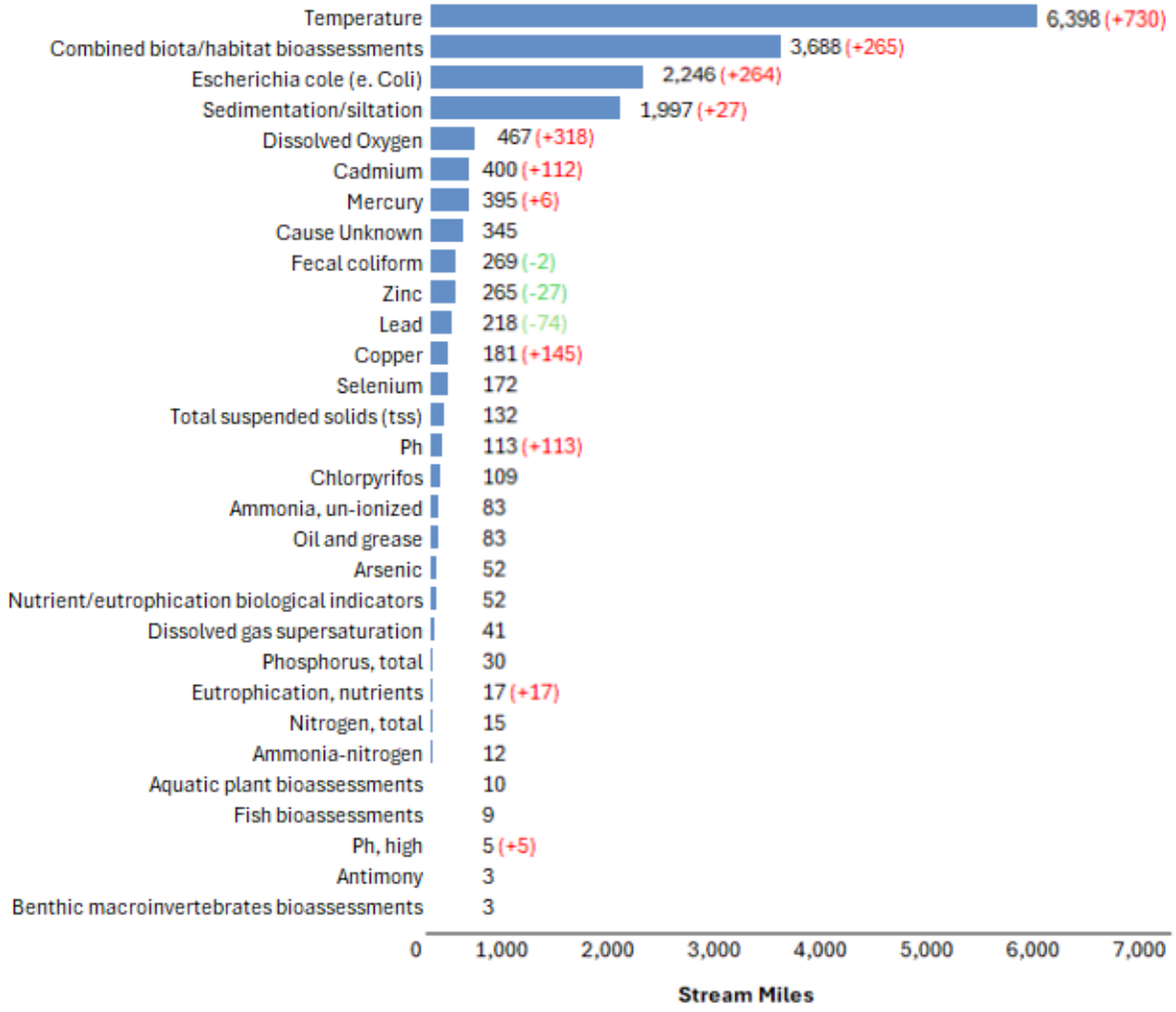


Figure D. Extent of Category 5 impairment causes for stream AUs. Numbers in parenthesis indicate change in stream miles since the 2022 Integrated Report.

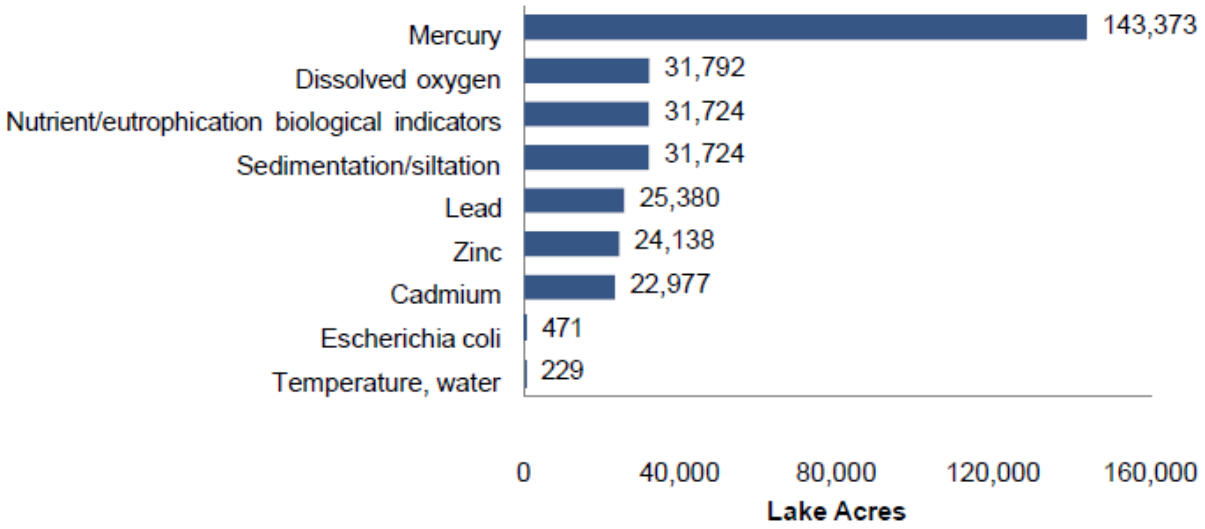


Figure E. Extent of Category 5 impairment causes for lake AUs. Category 5 causes of impairment in Idaho's lakes have remained the same since the 2022 Integrated Report.

The leading § 303(d) causes of impairment in Idaho's streams are temperature, combined biota/habitat bioassessments, *Escherichia coli* (*E. coli*), and sedimentation/siltation. Since the 2022 Integrated Report, the extent of stream miles on the § 303(d) list for temperature has increased to 6,398 miles. This increase can be attributed to the large amount of temperature data that DEQ received during the public call for data, whereby many streams failed the state's temperature criteria or, if applicable, the 1997 federally promulgated bull trout temperature criterion (40 CFR 131.33). The extent of stream miles on the § 303(d) list for combined biota/habitat bioassessment, sedimentation/siltation, and *E. coli* impairments have also slightly increased since the 2022 cycle.

CWA § 303(d) causes of impairment in Idaho's lakes have remained the same since the 2022 Integrated Report. Until DEQ develops standardized methods for monitoring and assessing lakes and reservoirs, causes associated with lake impairments will change only when DEQ participates in larger lake monitoring projects or acquires new data from outside entities. The impairments listed in Figure E were largely identified in collaborative studies.

1 Introduction

The federal Clean Water Act (CWA) requires each state to submit a biennial report on the quality of its surface waters and to identify and prioritize those waters that are impaired and need a total maximum daily load (TMDL). As the state agency responsible for implementing the CWA in Idaho, the Idaho Department of Environmental Quality (DEQ) is fulfilling these reporting requirements by submitting the biennial Integrated Report.

The 2024 Integrated Report was developed in compliance with the CWA §§ 305(b), 314, and 303(d), and incorporates DEQ data and other readily available data collected between January 1, 2018, and December 31, 2022. The report provides background information on the state's water resources, including DEQ's water pollution control program and special concerns affecting water quality; an overview of DEQ's surface water monitoring and assessment program, including attainment status results for all state surface waters and a discussion about public health issues; an overview of Idaho's groundwater monitoring and assessment efforts; and a summary of public participation in developing the Integrated Report.

1.1 Purpose of the Integrated Report

The 2024 Integrated Report serves the following purposes:

- It satisfies reporting requirements of the CWA by documenting the current conditions of all state waters (§ 305(b)), including an assessment of status and trends of publicly owned lakes (§ 314), and listing and prioritizing those waters that are impaired and need a TMDL (§ 303(d)) (Figure 1).
- It informs the public about the status of Idaho's surface waters, enabling interested parties to provide any relevant data or comment on the report's findings.
- It provides a unique opportunity for the public to understand how DEQ is maintaining, improving, and protecting Idaho's waters.

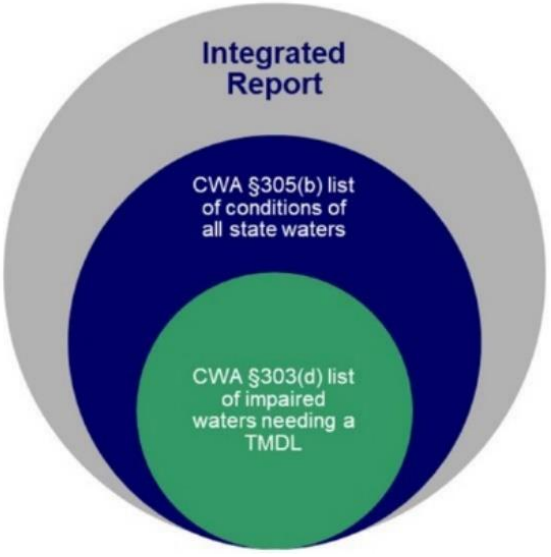


Figure 1. Components of the Integrated Report. Impaired waters on the § 303(d) list are a subset of waters from the § 305(b) list.

1.2 Integrated Report Categories

A primary objective of the 2024 Integrated Report is to describe the attainment status of Idaho's surface waters relative to their beneficial uses. To achieve this, all state waters are

placed into at least one of five primary reporting categories based on the amount of information known about their water quality, whether or not their beneficial uses are supported, and the types of impairments preventing beneficial use support. Category descriptions for the 2024 Integrated Report are presented in Figure 2.

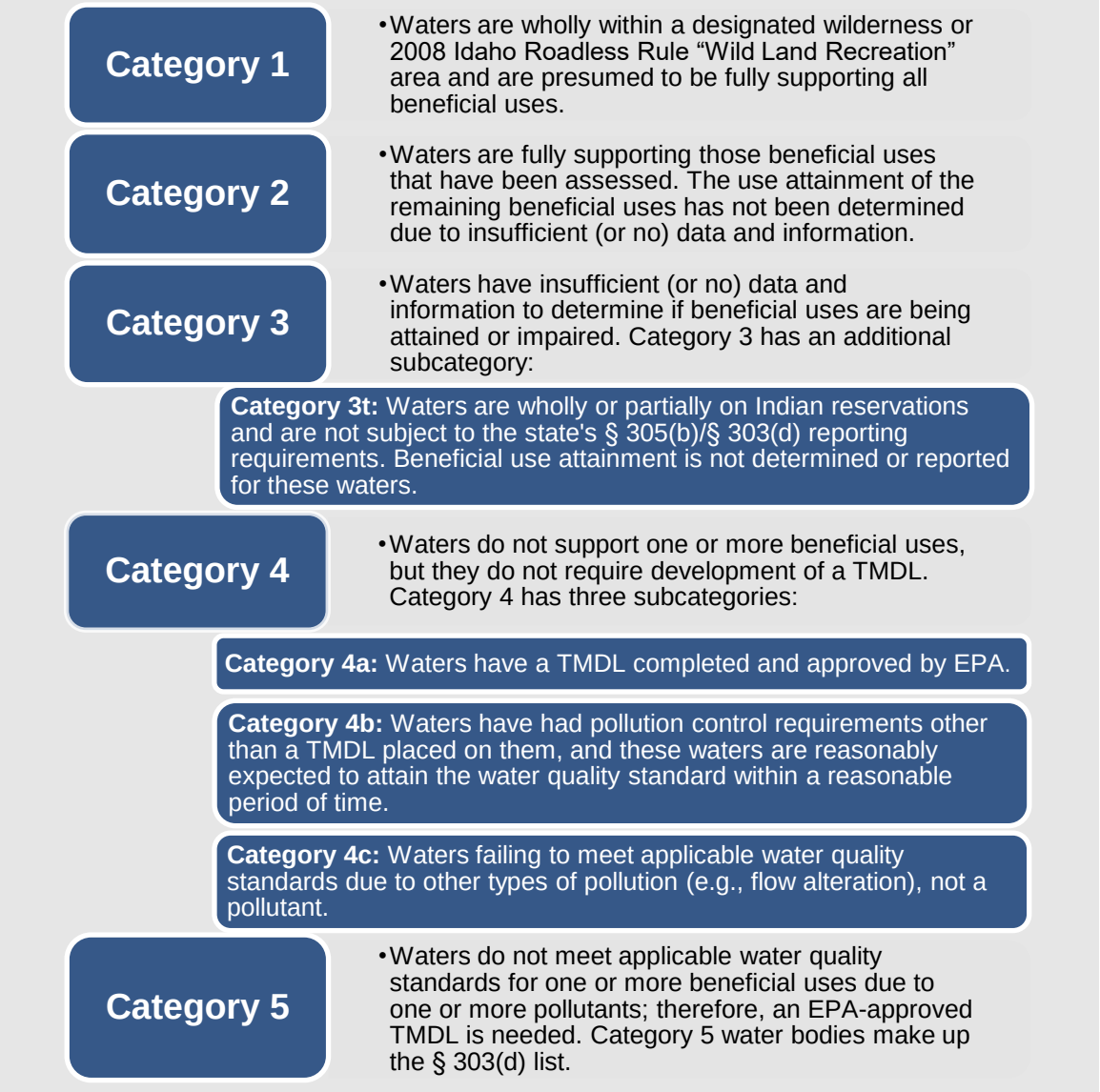


Figure 2. Categories for the 2024 Integrated Report.

For assessment and reporting purposes, DEQ subdivides Idaho's waters into assessment units (AUs). An AU is a group of similar stream segments within a water body unit with similar hydrology (e.g., Strahler stream order), land-use practices, ownership, or land management. DEQ assigns each AU to one or more reporting categories based on its water body assessment outcome. An AU may be impaired by multiple causes, and in some cases, may be listed in multiple impairment categories (i.e., Categories 4 and 5). Therefore, Category 4 and 5 listings are commonly referred to as AU-cause combinations.

2 Background Information

Idaho is home to some of the largest natural areas in the country, with abundant natural resources and numerous scenic locations. The state's diverse landscape includes snow-capped mountain ranges, volcanic plains, farmlands, world-class rapids (Figure 3), vast lakes, and steep canyons. Land use in Idaho can be broadly categorized into barren/urban/suburban (5%), agricultural (15%), forest (39%), and rangeland (41%) (Idaho Legislative Services Office 2020). Highly concentrated and expanding urban and industrial centers, along with shrinking agricultural and undeveloped areas, characterize Idaho's current land use trends. Because of Idaho's increasing population and variable land uses, the state's streams, rivers, lakes, and groundwater are affected to varying degrees by point and nonpoint sources of pollution.



Figure 3. Black Canyon of the Bear River in southeastern Idaho.

2.1 Scope of Waters in the Integrated Report

Idaho has more than 96,000 miles of rivers and streams (referred to as streams) and 469,000 acres of lakes and reservoirs (referred to as lakes), making water one of the state's most important natural resources. These streams and lakes, along with their associated wetlands, provide great natural beauty to the state and supply the water necessary for aquatic life, recreation, wildlife habitat, industry, agriculture, and domestic use. DEQ reports on the quality of approximately 92,056 miles of streams and 432,390 acres of lakes in the Integrated Report. Waters located within the boundaries of Indian reservations are not subject to the state's § 305(b)/§ 303(d) reporting requirements and are not assessed or reported in the Integrated Report. A summary of the state's water resources is presented in Table 1. Idaho's water resources are grouped into six basins and 86 subbasins (Figure 4).

Table 1. Summary of Idaho's water resources.

Item	Value	Scale	Source[a]
State population (estimate 2020)	1,839,106	n/a	US Census Bureau
Number of basins	6	1:100,000	NHD
Number of subbasins (4th-level HUCs)[b]	86	1:100,000	NHD
Total number of assessment units	5,908	n/a	ATTAINS
Number of state assessment units	5,676	n/a	ATTAINS
Number of tribal assessment units	232	n/a	ATTAINS
Total number of stream miles[c]	92,056	n/a	ATTAINS
Number of perennial stream miles	50,921	1:100,000	ID305B Streams
Number of intermittent stream miles	42,165	1:100,000	ID305B Streams
Number of other stream miles	3,560	1:100,000	ID305B Streams
Total number of lake acres[d]	432,390	n/a	ATTAINS
Acres of wetlands	712,270	1:100,000	USGS
Total number of stream miles on Indian reservations	3,399	n/a	ATTAINS
Total number of lake acres on Indian reservations	36,502	n/a	ATTAINS

a. National hydrography dataset (NHD); EPA's Assessment, TMDL Tracking and Implementation System (ATTAINS); US Geological Survey (USGS); DEQ's § 305(b) geographic information systems (GIS) layer for streams (ID305B Streams).
b. Fourth-level hydrologic unit codes (HUCs) refer to the numbered and named watersheds arising from a national standardization of watershed delineation by the USGS. Originally termed a cataloging unit, 4th-level HUCs are commonly referred to as subbasins.
c. Total number of stream miles whose quality is reported on for CWA § 305(b)/§ 303(d) requirements. The number of perennial, intermittent, and other stream miles exceeds the total number of stream miles because artificial paths and connectors that network or connect the hydrograph between rivers, lakes, swamps, and marshes create additional miles, as do portions of the artificial paths that were originally mapped as polygons in NHD data sets. Additionally, mileage from streams wholly or partially on Indian reservations was excluded from the total number of stream miles because tribal waters are not subject to the state's § 305(b)/§ 303(d) reporting requirements.
d. Total number of lake acres whose quality is reported on for CWA § 305(b)/§ 303(d) requirements. Acreage from lakes wholly or partially on Indian reservations was excluded from the total number of lake acres because tribal waters are not subject to the state's § 305(b)/§ 303(d) reporting requirements.

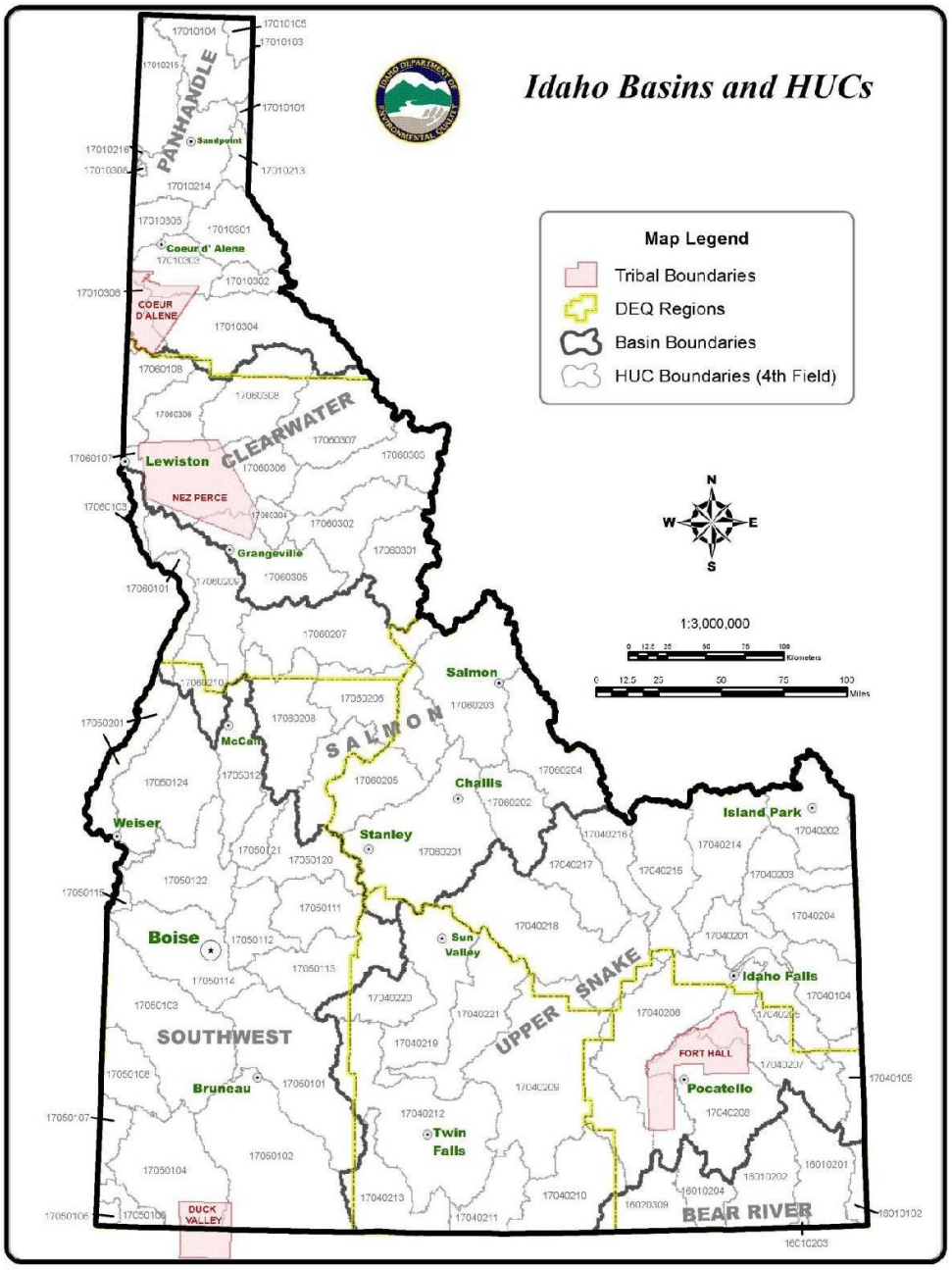


Figure 4. Idaho basins and subbasins (represented by hydrologic unit codes [HUCs]).

2.1.1 Assessment Units

Surface water in Idaho is divided into 2,641 water body units, which are codified in sections 109–160 in Idaho's "Water Quality Standards" (IDAPA 58.01.02) based on subbasins (i.e., 4th-level hydrologic unit codes [HUCs]). Idaho's water body identification system is a georeferenced network of the state's water bodies and is based on a combination of two hydrography scales: 1:100,000 and 1:250,000. Idaho's water bodies were coded to the 1:250,000-scale hydrography and named based on the 1:100,000-scale hydrography. Some water bodies have been combined or split based on land use considerations since the original codification in 2000.

Canals (unless they follow a natural channel), stock ponds, and tailing ponds are generally not coded in the system. The numbering system is based on United States Geological Survey (USGS) hydrologic units, which divides the nation into successively smaller nested units with unique identifiers, or HUCs, and creates a national standard for water resources planning and data management.

The USGS hydrologic units system includes four levels: the largest are called regions (1st-level); there are 21 regions in the nation, with 18 in the contiguous United States (Figure 5a). Regions are further divided into 221 subregions (2nd-level), 378 accounting units (3rd-level), and 2,264 cataloging units (4th-level)—the smallest element in the hydrologic units system. Although all levels are identified by HUCs—codes that range from two to eight digits—Idaho commonly uses the term HUC to refer to the eight-digit code of a cataloging unit (i.e., the 4th-level HUC), or the area of land it represents (i.e., subbasin). Unless otherwise specified, HUC in this document refers to the eight-digit cataloging unit (4th-level HUC). Idaho has six basins containing 86 HUCs (Figure 5b), two of which (17010103 [Yaak] and 17060107 [Lower Snake]) do not contain water and are not listed in IDAPA 58.01.02.

Idaho's water body numbering is based on HUCs. Within each HUC, waters are subdivided into water body units, which are then numbered using water body identification numbers (WBIDs) found in IDAPA 58.01.02, with numbers beginning at the pour point (i.e., the lowest point and outlet for the HUC) (Figure 5c). Water body units identified in the standard include all named and unnamed tributaries to the named and bounded water body unit. All waters are part of a water body unit.

For assessment and reporting purposes, DEQ further subdivides water body units into AUs (Figure 5d), typically by Strahler stream order, although other factors including land-use practices, land management, and ownership are considered. When subdividing water body units into AUs, DEQ used geographic information systems (GIS) data to identify land use designations and considered local knowledge when evaluating land uses. GIS data was based on the National Land Cover Database, which includes information regarding developed land, forested areas, and agricultural uses. If additional information is available to warrant an AU being further divided, DEQ may split the AU. AUs may be split due to land use changes or geographical or ecological differences.

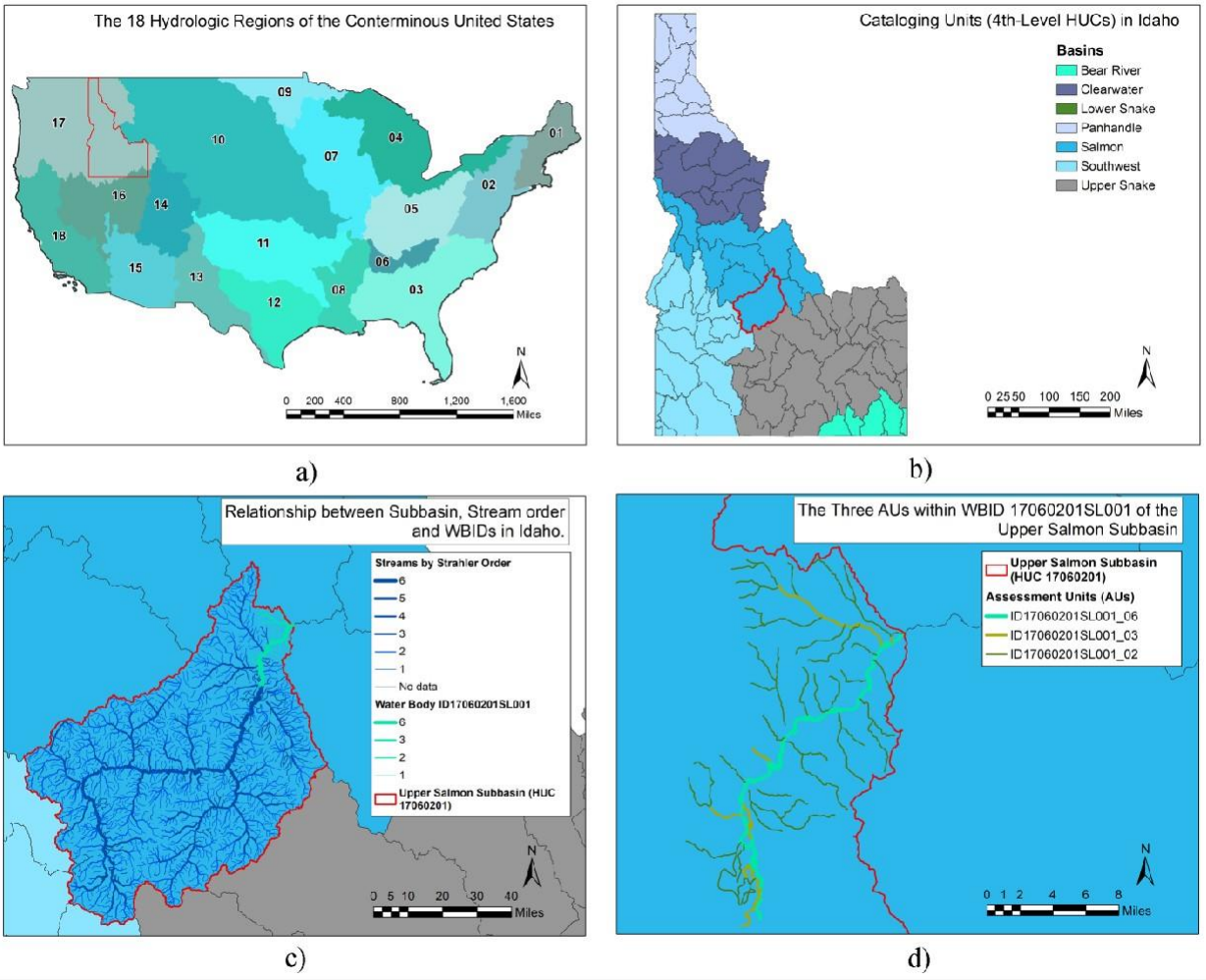


Figure 5. Relationship between HUCs, water body units, and AUs. (a) USGS hydrologic regions in the nation; (b) 86 4th-level HUCs in Idaho (the highlighted HUC is 17060201—Upper Salmon River subbasin in central Idaho); (c) HUC 17060201, Upper Salmon River subbasin, with water body unit 001 highlighted in green; and (d) water body unit 001 subdivided into three different AUs.

Using AUs to describe waters of Idaho offers many benefits, primarily that all waters of the state are defined consistently, which is a fundamental requirement of § 305(b) reporting. Because AUs are subdivisions of WBIDs, they have direct ties to IDAPA 58.01.02, so that beneficial uses defined in the standards are clearly tied to water bodies on the landscape. However, unlike their larger parent water body units, which are fixed in the standards, AUs allow for more specificity in assessments and can be more readily changed—split or aggregated—to better tailor assessments to known water quality conditions. Idaho currently has 5,908 AUs. Of these, 5,676 are considered state AUs and are subject to CWA § 305(b)/§ 303(d) state reporting requirements. The remaining 232 AUs are considered tribal AUs and are not subject to the state's § 305(b)/§ 303(d) reporting requirements (Section 2.1.2).

2.1.1.1 Referencing Assessment Units in the Integrated Report

AUs are referenced by an alphanumeric code and a written description. Each unique AU identification code begins with "ID" for Idaho, followed by the eight-digit HUC, a two-letter abbreviation for the administrative basin, a three-digit number to identify the specific water body unit, an underscore, and the stream order (Figure 6).

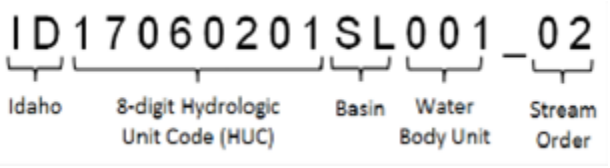


Figure 6. Example of an AU number.

The two-letter abbreviation used for the administrative basin relates to the basin designator used in IDAPA 58.01.02. Similarly, the three-digit number used for the specific water body unit relates to the WBID in the standards (e.g., S-1 in IDAPA 58.01.02 becomes SL001 for the AU). Lastly, AU splits are indicated after the stream order with a lowercase letter (e.g., ID17050114SW005_06a). Table 2 provides a crosswalk between the basin designator for water body units identified in IDAPA 58.01.02 with those used for AUs.

Table 2. Idaho basin designators for water body units in IDAPA 58.01.02 and AUs.

Idaho Basin	Water Body Unit Designator	AU Designator
Bear River	B	BR
Clearwater	C	CL
Panhandle	P	PN
Salmon	S	SL
Southwest	SW	SW
Upper Snake	US	SK

2.1.2 Tribal Waters Policy

DEQ implemented its tribal waters policy in the 2018/2020 Integrated Report (DEQ 2020) and does not assess or report on the quality of surface waters located within Indian reservations (referred to as tribal waters). To implement this policy, DEQ split AUs at the US Environmental Protection Agency (EPA)-recognized reservation boundaries[1], removed the support status of beneficial uses from waters within the reservations, and maintained the support status of beneficial uses in state waters that were adjacent to the reservations and on waters that formed the boundary between reservations and Idaho lands.

Tribal AUs are now labeled with a "T" (e.g., ID17010303PN010_02T), placed in Category 3t, and displayed as purple on DEQ's static maps to differentiate them from the support status

[1] Splitting AUs and labeling waters as tribal waters is not intended to and does not constitute a determination, waiver, admission, or statement by the State of Idaho regarding the boundaries of any tribal reservation or regarding the authority of the State of Idaho with respect to any water resource affected by this policy.

determinations of state waters (Figure 7). Beneficial Use Reconnaissance Program (BURP) sites that were located within reservation boundaries and used to make support status determinations on state waters will remain on DEQ's maps, and DEQ will no longer monitor BURP sites on Indian reservations.

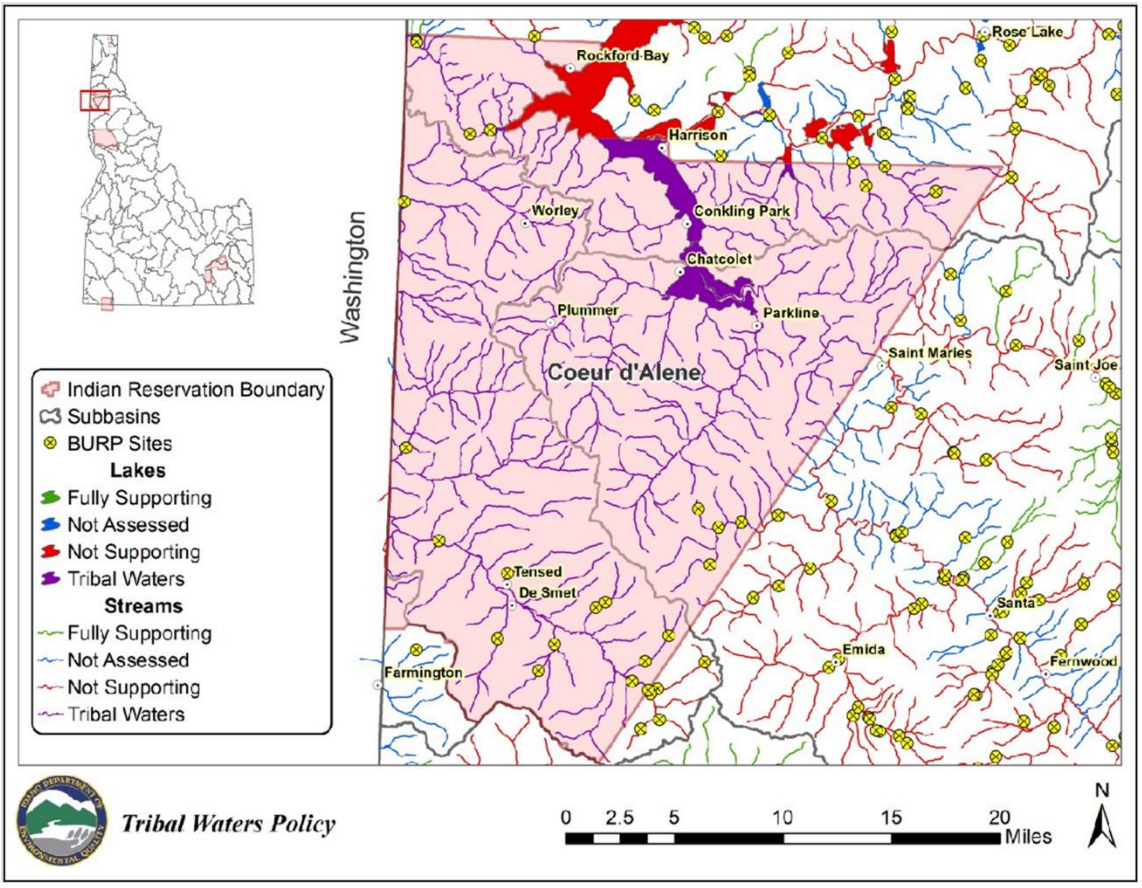


Figure 7. Map indicating tribal waters in Idaho's 2024 Integrated Report.

2.2 Water Pollution Control Program

DEQ's Surface and Wastewater Division is responsible for ensuring that the state's surface water resources meet state water quality standards. Within the division, the Surface Water Bureau is responsible for ensuring Idaho's streams, lakes, and wetlands support their beneficial uses and meet state water quality standards. The following subprograms and policies help support this goal.

2.2.1 Water Quality Standards Program

Water quality standards are the benchmarks DEQ uses to gauge protection of Idaho's surface waters. Idaho's Water Quality Standards Program is a joint effort between DEQ and EPA. DEQ is responsible for developing and enforcing water quality standards that protect beneficial uses.

EPA develops regulations, policies, and guidance—including recommended water quality criteria—to help Idaho implement the program and to ensure that Idaho's adopted standards are consistent with CWA requirements. EPA has the authority to review and approve or disapprove state standards and, when necessary, to promulgate federal water quality rules. For more information, visit Idaho's *Water Quality Standards*.

2.2.2 Antidegradation Policy

Federal regulations require all states to develop antidegradation policies to protect the existing and designated beneficial uses of their surface waters (40 CFR 131.12). Idaho's antidegradation policy, contained in IDAPA 58.01.02.051, establishes three tiers of water quality protection (Figure 8). Under Idaho rule, the level of protection (i.e., tier) is determined on a water body-by-water body basis and is tied to assessment outcomes in the most recent federally approved Integrated Report. Idaho's antidegradation policy applies to all activities that are subject to Idaho Pollutant Discharge Elimination System (IPDES) permits or CWA § 401 water quality certifications. For more information about Idaho's antidegradation policy and implementation procedures, visit *Water Quality Standards* or refer to *Idaho Antidegradation Implementation Procedures* (DEQ 2012a).

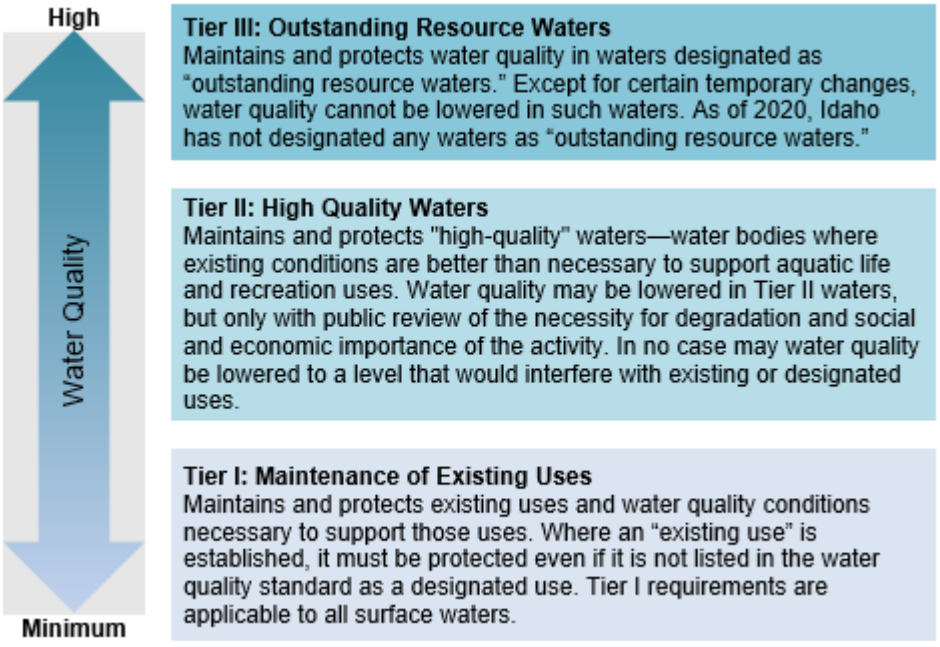


Figure 8. Three tiers of water quality protection identified in Idaho's antidegradation policy.

2.2.3 Point Source Control Program

According to the CWA, a point source is any discernible, confined, and discrete conveyance from which pollutants are or may be discharged into waters of the United States. Idaho controls point source pollution through its § 401 Water Quality Certification Program and through the IPDES Program. These DEQ programs ensure that federally permitted and licensed projects, as well as municipal, industrial, and commercial activities that discharge from a point source,

comply with state water quality standards and any other water quality requirements of state law. DEQ is responsible for issuing the following types of permits and certifications:

- **IPDES Permits**: The IPDES Program administers the discharge of pollutants into waters of the United States in Idaho. These discharges include municipal, industrial, storm water, pretreatment controls for certain discharges to publicly owned treatment works, and the sewage sludge (biosolids) management program. IPDES permits are written to comply with state water quality standards and limit the amount of pollution that point sources may discharge into Idaho's surface waters.
- **§ 401 Certifications for § 404 Dredge and Fill Permits**: The CWA requires a permit to conduct water-related construction activities, such as fills for development, water resource projects, and infrastructure development. The United States Army Corps of Engineers is responsible for issuing dredge and fill permits in Idaho.
- **§ 401 Certifications for Hydroelectric Power Plants**: State certification is required before the Federal Energy Regulatory Commission may license or relicense nonfederal hydroelectric dams.

For more information about these programs, visit *Permit Options*.

2.2.4 Nonpoint Source Management Program

Nonpoint sources do not have a clear definition in the CWA; rather, they are defined by exclusion (i.e., anything not considered a point source). Nonpoint sources of pollution include, among other things, the cumulative effect of excess fertilizers and pesticides from agricultural and residential lands; atmospheric deposition; and various land use practices including urban development, agriculture, and forestry.

DEQ developed Idaho's initial nonpoint source program in 1989 through the coordinated efforts of representatives from numerous organizations that had an interest in managing nonpoint source water pollution. The following memoranda of understanding guides DEQ's cooperative approach toward nonpoint source management efforts:

- *Memorandum of Understanding Implementing the Non-point Source Water Quality Program in the State of Idaho*—Outlines the roles and responsibilities of the parties in implementing the nonpoint source water quality provisions of the federal CWA for the State of Idaho.
- Appendix to the Memorandum of Understanding Implementing the Nonpoint Source Water Quality Program in the State of Idaho Specifying Implementation of the Agricultural Pollution Abatement Plan, 1991—Identifies roles and responsibilities for implementing the *Idaho Agricultural Pollution Abatement Plan*, updated in 2015.

The goal of DEQ's Nonpoint Source Management Program is to prevent and eliminate nonpoint source pollution in all state water bodies. The program focuses predominantly on implementing water quality activities prescribed in TMDLs through the implementation of the federal § 319 grant program and state agricultural best management practice (State Ag BMP) grant program.

These activities are designed to protect and restore beneficial uses and to prevent significant threats to water quality from present and future activities.

DEQ's Nonpoint Source Management Program awards federal § 319 and State Ag BMP grants annually to fund water quality improvement projects that address nonpoint source pollution. For the 5-year period from July 1, 2018, to June 30, 2022, DEQ received grant applications requesting over $23.1 million, and awarded over $12.8 million for water quality improvement projects to control nonpoint source pollution. Annually, DEQ awards an average of over $1.5 million in federal § 319 grants and just over $1 million in State Ag BMP grants.

A summary of annual grant requests and awards for the federal § 319 and State Ag BMP programs is presented in Table 3.

Table 3. Summary of funding requests and awards for Idaho federal § 319 and state agricultural BMP program by state fiscal years 2018–2023.

State Fiscal Year[a]	Requested ($)		Funded ($)		Totals ($)	
	Federal § 319	State Ag BMP	Federal § 319	State Ag BMP	Requested	Funded
2019	3,963,085	1,816,278	1,349,222	790,000	5,779,363	2,139,222
2020	2,311,423	693,702	1,253,994	500,000	3,005,125	1,753,994
2021	3,845,092	616,228	1,602,747	279,000	4,461,320	1,881,747
2022	3,739,564	1,148,354	1,725,289	1,279,000	4,887,918	3,004,289
2023	3,911,952	2,452,473	1,636,172	2,452,473	5,364,425	4,088,645

a. Idaho's state fiscal year is from July 1 through June 30.

2.2.5 TMDL Program

CWA § 303(d) requires all states to identify and prioritize water bodies that do not meet state water quality standards. For those water bodies on the § 303(d) list, Idaho must develop water quality improvement plans, called TMDLs, that specify the pollutant load reductions needed for those water bodies to achieve water quality standards. TMDLs are typically developed on a subbasin level, which means that water bodies and pollutants within a subbasin are generally addressed in a single document. For more information, visit Idaho's *TMDLs Program* to view a table of completed subbasin assessments, TMDLs, implementation plans, and 5-year reviews.

2.3 Special State Concerns

The following section addresses special concerns and significant issues affecting Idaho's water quality programs.

2.3.1 Cyanobacteria Harmful Algal Blooms

Cyanobacteria harmful algal blooms (HABs) are a water quality concern in Idaho. Although the exact cause of any particular HAB is usually unknown, temperature, flow conditions, and excess nutrients can contribute to bloom formation. HABs are dominated by a handful of cyanobacteria species. These cyanobacteria can produce neurotoxins that affect the brain and

nervous system, hepatotoxins that affect the liver and kidneys, and other undesirable conditions such as foul taste and odor and murky water (Figure 9). DEQ developed a HAB response plan in cooperation with the Idaho Department of Health and Welfare, and coordinates monitoring and response efforts with local water resource management agencies. For more information, see DEQ's *HAB information page*.



Figure 9. Harmful algal bloom at Hayden Lake.

3 Surface Water Monitoring and Assessment

As the agency responsible for protecting Idaho's surface water, DEQ continually monitors and assesses the quality of the state's streams and lakes. This information is used to report on the status of Idaho's waters and to make decisions regarding water quality management.

3.1 Monitoring Program

The *Surface Water Ambient Monitoring Plan* (DEQ 2012b) outlines DEQ's approach to collecting and integrating ambient water quality data from a variety of monitoring programs, including BURP, National Aquatic Resource Surveys (NARS), and special studies. DEQ's monitoring crews collect water temperature data, biological samples (e.g., macroinvertebrates, fish, and bacteria), chemical measures, and habitat data from Idaho's surface waters (Figure 10). In addition to its own data collection efforts, DEQ solicits and considers data from other agencies, organizations, and interest groups. Together, these data are used to determine whether Idaho's surface waters meet state water quality standards and support beneficial uses. For more information, see DEQ's *BURP monitoring efforts* or refer to the *Beneficial Use Reconnaissance Program Field Manual for Streams* (DEQ 2017b).



Figure 10. DEQ field crew collecting BURP data.

3.2 Assessment Program

DEQ relies on scientific findings and policy decisions in making water quality determinations, as outlined in the *Water Body Assessment Guidance* (WBAG) (DEQ 2016). This guidance document, which focuses on biology as a measure of aquatic life and water quality status, is the foundation of DEQ's ambient monitoring and assessment program. The WBAG describes the methods used to consistently evaluate data and determine beneficial use support of Idaho's waters and addresses many reporting requirements and state and federal rules, regulations, and policies.

3.2.1 Beneficial Uses

Beneficial uses are any of the various uses that may be made of lakes and streams in Idaho. These uses include, but are not limited to, aesthetics, aquatic life, agricultural water supply, domestic water supply, industrial water supply, recreation, and wildlife habitat. The beneficial use depends upon actual use, the ability of the water to support a non-existing use either now or in the future, and the basic goal of the CWA that all waters support aquatic life and recreation where attainable. *Support* of a beneficial use is defined in IDAPA 58.01.02.010.42.

Idaho's water quality standards define the water quality goals for a water body, or portion thereof, in part by designating the use or uses to be made of that water body. Idaho also has existing and presumed use protections for its undesignated waters. A *designated* use is a beneficial use assigned to a specific water body unit in the standard. The CWA requires Idaho to protect *existing* uses, which are uses that are/were actually attained in a water body on or after November 28, 1975, whether or not they are designated. Idaho presumes most waters will support cold water aquatic life and either primary or secondary contact recreation; therefore, DEQ protects all undesignated waters for those uses (i.e., *presumed* use protection). The degree of protection is the same for designated uses, existing uses, and presumed uses. For more

information about Idaho's beneficial uses and beneficial use protections, refer to section 3 of the WBAG.

3.2.2 External Data

Data are the foundation of DEQ's assessment process. Although the WBAG was primarily designed to assess BURP data, DEQ also considers data from other existing and readily available sources. Such data may be from other agencies, institutions, interest groups, or individuals, and they may relate to the existence, support status, or associated criteria of beneficial uses in a water body. DEQ ranks the quality of external data it receives into one of three tiers: Tier 1, Tier 2, and Tier 3. A summary of the tier descriptions is provided in Table 4.

DEQ also pursues several avenues for notifying the public of its intent to seek external and readily available water quality data. These avenues include a statewide news release to the media, posting announcements to DEQ's website and social media, and direct mailing notices to interested agencies, organizations, and individuals. For the 2024 Integrated Report, DEQ conducted a 60-day call for data from December 5, 2022, to February 6, 2023. Data received during this period were tiered for quality and relevance, and only Tier 1 and Tier 2 data were analyzed for the 2024 Integrated Report.

A summary of the data received and queried, and the AUs associated with the data is presented in Appendix K.

For more information about DEQ's call for data process and data tiering policy, refer to section 4.2.1 of the WBAG (DEQ 2016).

Table 4. Description, examples, and incorporation of data tiers.

Tier	Scientific Rigor	Relevance	Example	How Used
1	• Quantitative • Parameters measured • Established monitoring plan with quality assurance (QA) and defined protocols • Appropriate supervised training for samplers • Samples processed in EPA-certified lab following standard methods or by professional taxonomist • Organisms identified by a professional taxonomist	• Data relates to either water quality standards, especially numeric, beneficial uses, or causes of impairment • Data ≤5 years old • Data relates to a named water body (GIS location, latitude and longitude, or map location provided) and are representative	• PhD or master's thesis • Published or printed studies or reports • Published predictive models • EPA NARS • BURP data • Use attainability analyses • Rapid Bioassessment Protocols	• § 303(d) listing or delisting • § 305(b) reports • Subbasin assessments • TMDLs • Planning for future monitoring
2	• Qualitative or semiquantitative • May have a monitoring plan • No QA/quality control (QC) provided for within monitoring plan • Protocols may or may not be defined • Parameters rated • Field staff may not be trained; lab may not be certified • Taxonomist may not be a professional	• Data may relate to a watershed • Not water body- specific • Data >5 years old • Data may relate to other agency guidelines or objectives	• Environmental assessments • Proper functioning condition assessments • Most citizen monitoring • Models with documentation • Agency planning documents	• § 305(b) reports • Subbasin assessments or TMDLs when data adds to overall assessment quality • Planning for future monitoring
3	• May be qualitative in nature • Parameters evaluated • Field staff have little to no training • No documented monitoring plan • No QA/QC • Anecdotal in nature	• Not specific to water quality standards or beneficial uses • Location not specific • Data ≥10 years old	• Nonspecific reports or studies • Newspaper articles • Simple models without any documentation	• Planning for future monitoring • Hold for further investigations

Source: DEQ 2016

3.2.3 Interpreting Idaho's Water Quality Standards

DEQ's WBAG includes specific language detailing how narrative and numeric water quality standards are interpreted in assessments for the Integrated Report.

DEQ largely relies on BURP monitoring data and biological assessments to evaluate compliance of state narrative water quality standards and support status of aquatic life uses in the absence of specific chemical water quality data. Narrative standards are written such that the waters of the state shall be free from pollutants impairing beneficial uses. Biological assessments directly measure the support of the aquatic life beneficial uses that the narrative standards were written to protect, so that a *full support* decision based on the WBAG largely satisfies compliance with these narrative standards. However, a nonsupport decision based on the same data may not identify the specific cause of impairment. Numeric standards are somewhat

different, and a detailed discussion of the state's approach to assessing compliance with these standards is provided in section 5 of the WBAG.

3.2.3.1 Criteria Exceedance

Due to the natural variability in water quality, variability in translation to a biological response, and possible measurement errors, DEQ does not interpret numeric criteria for dissolved oxygen, pH, turbidity, and temperature as a sharp line between impaired and not impaired. Rather, impairment may occur along a continuum. Because these criteria are developed conservatively, and imprecisely reflect natural variability, DEQ believes minor excursions of the criteria are acceptable if direct biological indicators (i.e., multimetric index scores) meet criteria specified in the WBAG. In IDAPA 58.01.02.054.03, a zone is established allowing up to a 10% criteria exceedance for dissolved oxygen, pH, turbidity, and temperature, for which the assessor has some flexibility to consider other evidence (i.e., biological data) in determining whether to list the AU-cause combination in Category 5. Figure 7 of the WBAG provides an overview of this DEQ policy.

While the policy described above deals solely with frequency, DEQ does recognize that the magnitude and duration of any criteria exceedance is important to the biological response. Magnitude, duration, and frequency are typically not independent of one another. An evaluation of impairment based solely on frequency, while it can have its limitations, is a practical gauge of criteria exceedance and one that is supported by EPA policy.

Failure to meet a numeric or narrative water quality criterion is reason to list an AU in Category 5 of the Integrated Report. If the AU failed to meet specific numeric criteria, then the impairment is related to those criteria. Tier 1 data must be available to inform the assessor about the cause or causes of impairment to a beneficial use.

3.2.3.2 Bioassessment

DEQ relies heavily on biological indicators to gauge narrative and numeric criteria. An average of the multimetric index scores can range from 1 to 3 (DEQ 2016, section 6). An average score of less than 2 indicates that a water body is not supporting its aquatic life beneficial use. Since it is impractical to collect data to evaluate every possible numeric and narrative criterion, the assessor, in many instances, will not know the exact cause of an impairment—merely that a biological impairment exists. Such a determination places a water body in Category 5 with the cause as *combined biota/habitat bioassessments*.

EPA's 2002 clarification memo for the Integrated Report states:

> When existing and readily available data and information (biological, chemical or physical) are sufficient to determine that a pollutant has caused, is suspected of causing, or is projected to cause the impairment, the AU should be listed in Category 5 (EPA 2002).

The memo further clarifies that "Only when the state determines that the existing data and information (biological, chemical or physical) are *insufficient* to support an attainment determination, can an AU be listed in Category 3" (EPA 2002). DEQ discourages assessors from

making educated guesses on causes, because changing a cause after initial listing can be costly in terms of time and resources. It is reasonable and prudent to leave the cause as *combined biota/habitat* bioassessments until a more specific cause can be accurately determined in the subbasin assessment phase of the TMDL.

3.2.4 Waters Other than Perennial Streams

DEQs multimetric index scores apply primarily to perennial flowing water bodies. Intermittent waters may have important ecological functions, but they cannot sustain the same biological communities as perennial waters and cannot be assessed using the WBAG. Although the fundamental assessment approach should also be applicable to lakes, reservoirs, springs, lake outlets, inundated streams, and wetlands, DEQ must further investigate these types of water bodies to develop scientifically sound bioassessment processes and to establish appropriate reference conditions.

Narrative and numeric criteria still apply to intermittent streams, reservoirs, springs, lake outlets, and inundated streams, and these waters are still assessed when relevant narrative and numeric criteria data are available. For intermittent streams (i.e., streams with zero flow for at least 1 week during most years), numeric criteria apply only during periods of *optimum* flow.

For recreation beneficial uses, optimal flow is set by rule equal to or greater than 5 cubic feet per second (cfs); for aquatic life uses, optimal flow is equal to or greater than 1 cfs (IDAPA 58.01.02.010.54 and .02.070.06). For more information, refer to section 2 of the WBAG.

3.3 Surface Water Assessment Results

DEQ's surface water assessment results are presented in this section and includes the five-part categorization of all state surface waters, § 303(d) reporting requirements, statewide summaries of beneficial use support and § 303(d) causes of impairment, and § 314 reporting requirements. The results presented in this Integrated Report were compiled by DEQ using EPA's Assessment and TMDL Tracking and Implementation System (ATTAINS) database, a cloud-based application that helps states enter and track water quality assessment information.

Assessment results can also be accessed via the *2024 Integrated Report Interactive Mapper*.

https://mapcase.deq.idaho.gov/wq2024/

3.3.1 Five-Part Categorization of Surface Waters

Five-part categorization results for stream AUs and lake AUs are summarized in Table 5 and Table 6, respectively. To access a complete list of AUs in each category, including AU-cause combinations in Categories 4 and 5, see Appendix A. Detailed category descriptions are provided in the following sections.

Table 5. Five-part categorization results for Idaho's streams. The percentage of total stream miles is out of 92,056 miles. The percentages total more than 100% because some miles are listed in both Categories 4 and 5.

Category	Miles	Number of AUs	AU-Cause Combinations	Percentage of stream miles
Category 1	4,077	323	-	4.4%
Category 2	25,293	1,296	-	27.5%
Category 3	25,684	1,274	-	27.9%
Category 4a	25,782	-	2,428	28.0%
Category 4b	194	-	43	0.2%
Category 4c	6,896	-	541	7.5%
Category 5	14,080	-	963	15.3%

Table 6. Five-part categorization results for Idaho's lakes. The percentage of total lake acres is out of 432,390 acres. The percentages total more than 100% because some acres are listed in both Categories 4 and 5.

Category	Acres	Number of AUs	AU-Cause Combinations	Percentage of Acres
Category 1	4,349	159	-	1.0%
Category 2	21,824	39	-	5.0%
Category 3	175,729	361	-	41.0%
Category 4a	182,838	-	67	42.3%
Category 4b	-	-	-	0.0%
Category 4c	85,699	-	10	19.8%
Category 5	177,366	-	37	41.0%

3.3.1.1 Category 1

Waters are wholly within a federally designated wilderness or 2008 Idaho Roadless Rule "Wild Land Recreation" area and are presumed to be fully supporting all beneficial uses.

AUs in Category 1 meet strict land use requirements, are deemed absent of pollution sources, and are presumed to be fully supporting all beneficial uses. DEQ uses the most restrictive and protective theme of the 2008 Idaho Roadless Rule (i.e., the "Wild Land Recreation" theme) (36 CFR 294, subpart C), alongside federally designated wilderness areas, to place waters into Category 1. This definition assumes that waters wholly (100%) within one or both land management classifications meet DEQ's *natural conditions* water quality standard (IDAPA 58.01.02.054.04) and are expected to exhibit no measurable change from the physical, chemical, biological, or radiological conditions existing in a water body without human sources of pollution within the watershed (IDAPA 58.01.02.010.63). However, if readily available data or information demonstrates impairment to a beneficial use, DEQ will assess the water body

accordingly. Statewide, 482 out of 5,676 state AUs are in Category 1; totaling 4,077 stream miles and 4,349 lake acres. Most of these AUs are found in the Selway-Bitterroot and Frank Church-River of No Return Wildernesses.

3.3.1.2 Category 2

Waters are fully supporting those beneficial uses that have been assessed. The use attainment of the remaining beneficial uses has not been determined due to insufficient (or no) data and information.

AUs in Category 2 had existing and readily available Tier 1 data that indicated full support of one or more beneficial uses.

Statewide, 1,335 out of 5,676 state AUs are in Category 2; totaling 25,293 stream miles and 21,824 lake acres.

3.3.1.3 Category 3

Waters have insufficient (or no) data and information to determine if beneficial uses are being attained or impaired.

DEQ may conclude that readily available data and information are insufficient based on the following reasons:

- Existing and readily available data and information were collected using unacceptable quality assurance and quality control (QA/QC) procedures.
- The quality of existing and readily available data and information, regardless of quantity thresholds, is inadequate to provide an accurate assessment.
- Existing and readily available data and information are not representative of current conditions for the water body. This rationale might include a determination that (1) significant land use changes have occurred in the watershed, changing the hydrology and nonpoint source loading, (2) point source discharges have been removed, (3) new discharges are now operating, or (4) the locations of sampling stations did not reflect the character of the water body segment.

AUs will remain in Category 3 until DEQ can obtain sufficient data and information to determine whether beneficial uses are supported. However, an AU may remain in Category 3 indefinitely under any of the following circumstances: the stream had no flow when visited by DEQ (i.e., intermittent stream); access to the monitoring site was denied; or the monitoring site was inaccessible. When any of these circumstances are encountered, DEQ will make every attempt to revisit the AU to collect sufficient data and information to support a beneficial use attainment determination.

Statewide, 1,635 out of 5,676 state AUs are in Category 3; totaling 25,684 stream miles and 175,728 lake acres. Of the 1,274 stream AUs in Category 3, 371 AUs were evaluated to have zero flow based on 596 BURP sites. These AUs will likely remain in Category 3 until an

assessment protocol for intermittent waters is developed. Appendix B provides a complete list of AUs evaluated to have zero flow.

3.3.1.4 Category 4

Waters do not support one or more beneficial uses, but they do not require development of a TMDL.

Category 4 listings are commonly referred to as AU-cause combinations since a particular AU may have multiple causes of impairment. Each AU-cause combination in Category 4 is assigned into one of three subcategories: Category 4a, Category 4b, or Category 4c. A single AU may be in multiple subcategories of Category 4 if there are multiple causes of impairment that do not require the development of a TMDL.

Category 4a—Waters have a TMDL completed and approved by EPA.

DEQ places an AU-cause combination in Category 4a when a TMDL is developed by DEQ and approved by EPA. Once a TMDL is implemented, DEQ expects the AU to fully attain the water quality standard for the pollutant specified in the TMDL (e.g., sediment). If the AU has other impairments, it may also be included in other categories of the Integrated Report.

An implementation plan is developed by various state and federal entities identified in the nonpoint source management plan once EPA has approved a TMDL. An implementation plan details the actions needed to achieve the TMDL-specified load reductions, outlines a schedule for those actions, identifies stakeholders responsible for implementation, and specifies monitoring needed to show progress toward meeting water quality standards. Additional information can be found in the *TMDL implementation plans* located under each subbasin.

Statewide, 2,495 AU-cause combinations are listed in Category 4a; totaling 25,782 stream miles and 182,838 lake acres. EPA-approved TMDLs, addendums, and implementation plans can be found at: *Total Maximum Daily Loads | Idaho Department of Environmental Quality*.

Category 4b—Waters have had pollution control requirements other than a TMDL placed on them, and these waters are reasonably expected to attain the water quality standard within a reasonable period of time.

DEQ places an AU-cause combination in Category 4b when other pollution abatement measures—required by local, state, or federal authority—are effective enough to achieve applicable water quality standards within a reasonable time (pursuant to 40 CFR 130.7(b)(1)). When adequate pollution control requirements are established on an impaired water body, this action obviates the need for a TMDL.

For an AU-cause combination to be considered in Category 4b, six elements must be addressed in the Category 4b rationale:

1. Identification of stream segment and statement of problem causing the impairment
2. Description of pollution controls and demonstration of how they will achieve water quality standards

3. An estimate or projection of the time when water quality standards will be met
4. Schedule for implementing pollution controls
5. Monitoring plan for tracking effectiveness of the pollution controls
6. Commitment to revise pollution controls as necessary.

For each integrated reporting cycle, DEQ and EPA will review each AU-cause combination in Category 4b to ensure that all the proposed pollution control requirements are being met. If circumstances have changed and the requirements of the original Category 4b rationale are no longer being met, DEQ may place the AU-cause combination back into Category 5.

Statewide, 43 AU-cause combinations are currently in Category 4b; totaling 194 stream miles. Four AU-cause combinations are addressed in the *Bear Valley Creek 4b Justification* (DEQ and USFS 2010). DEQ is adding 39 more AU-cause combinations into Category 4b in the South Fork Coeur d'Alene River subbasin for metals. All these AU-cause combinations are addressed in Appendix C (South Fork Coeur d'Alene River Category 4b).

Category 4c—Waters failing to meet applicable water quality standards due to other types of pollution (e.g., flow alteration), not a pollutant.

DEQ places an AU-cause combination in Category 4c when the impairment is caused by *pollution* (i.e., flow alteration or habitat alteration), not a pollutant. Water bodies placed in Category 4c do not require the development of a TMDL.

Pollutants are defined in CWA § 502(6), Idaho Code § 39-3602(24), and IDAPA 58.01.02.010.79. On Idaho's § 303(d) list, these definitions include impairments such as sediment, nutrients, toxics, and temperature—if they impair a beneficial use.

Pollution is a broad concept that encompasses human-caused changes to the environment that alter the functioning of natural processes and produce undesirable environmental or health effects. Pollution includes human-induced alteration of the physical, biological, chemical, and radiological integrity of water and other media. Flow and habitat alterations are considered pollution and not specific pollutants according to EPA (CWA § 502(6) and § 502(19); EPA 2001), so DEQ does not develop TMDLs for flow alteration or habitat alteration.

Water bodies affected by these forms of pollution are not overlooked or ignored; they are identified in Category 4c of the Integrated Report. Flow and habitat alterations may often contribute to pollutants in a water body that are suitable for TMDLs. For example, excess sediment may impair a beneficial use and violate state water quality standards on a water body that may also be affected by altered water flow (or habitat alteration). If the impairment is partly caused by excess sediment, the water body will also be placed on the § 303(d) list of impaired waters (i.e., Category 5).

Statewide, 551 AU-cause combinations are listed in Category 4c; totaling 6,896 stream miles and 85,699 lake acres.

3.3.1.5 Category 5

Waters do not meet applicable water quality standards for one or more beneficial uses due to one or more pollutants; therefore, an EPA-approved TMDL is needed. Category 5 water bodies make up the § 303(d) list.

Category 5 listings are also commonly referred to as AU-cause combinations. Category 5 is a streamlined § 303(d) list and excludes waters that have an EPA-approved TMDL (Category 4a), waters addressed by other pollution control measures (Category 4b), and waters impaired by pollution (Category 4c). DEQ uses the following criteria for listing a water body in Category 5:

- The water body was listed as impaired in the 2022 Integrated Report **or**
- Tier 1 data indicate an impairment by a pollutant, **and**
- Developing and implementing a TMDL is possible.

Statewide, 1,000 AU-cause combinations are listed in Category 5; totaling 14,080 stream miles and 177,366 lake acres. More information about the 2024 § 303(d) list (i.e., Category 5 waters) is provided in Section 3.3.2.

Category 5-ARP- Waters with restoration pollution controls that provide a more immediate benefit to restore water quality as an alternative prior to the development of a TMDL

DEQ places an AU-cause combination in Category 5-ARP, Advanced Restoration Plans, when presented with a near-term plan, or description of actions, with a schedule and milestone, that is more immediately beneficial or practicable to achieving water quality standards for those AUs.

3.3.2 Section 303(d) List

For the 2024 Integrated Report, DEQ added 105 new AU-cause combinations to the § 303(d) list (i.e., Category 5) and delisted 53 AU-cause combinations from the § 303(d) list, bringing the total number of AU-cause combinations on the § 303(d) list to 1,000. To access a complete list of AU-cause combinations on the § 303(d) list, refer to Appendix A.

3.3.2.1.1 Waters Added to the § 303(d) List

DEQ added 105 new AU-cause combinations to the § 303(d) list in the 2024 Integrated Report. All new AU cause-combinations were added based on new and readily available data and none were added to refine previous causes of impairment (e.g., replacing combined biota/habitat bioassessments for temperature) (Table 7).

Table 7. Summary of waters added to Category 5 in the 2024 Integrated Report.

Explanation	Category 5 AU-Cause Combinations
New Category 5 listings	**105**
• Based on new and readily available data	105

3.3.2.2 AU-Cause Combinations Delisted from the § 303(d) List

AU-cause combinations that were listed in Category 5 of previous Integrated Reports must be accounted for in subsequent Integrated Reports. However, the fact that an AU-cause combination was previously listed in Category 5 does not necessarily mean it must remain in Category 5 until a TMDL is established. DEQ may have new data and information showing (1) an applicable water quality standard is being met, (2) the impairment was caused by *pollution* and not a *pollutant*, therefore delisting the AU-cause combination from Category 5 and listing it in Category 4c, or (3) the original Category 5 listing was erroneous.

For DEQ to delist an AU-cause combination from Category 5, DEQ must demonstrate *good cause* for not including the AU-cause combination in Category 5 of the Integrated Report (pursuant to 40 CFR 130.7(b)(6)(iv)). Good causes include, but are not limited to, the following (EPA 2005):

1. More recent and accurate data demonstrate that the applicable water quality standard(s) is being met.
2. More sophisticated water quality modeling demonstrates that the applicable water quality standard(s) is being met.
3. Flaws in the original analysis led to the water body being incorrectly listed.
4. Conditions have changed (e.g., new control equipment or elimination of discharges).
5. A TMDL or other pollution control requirements required by state, local, or federal authority will result in attainment of water quality standards for a specific pollutant(s) within a reasonable time.
6. Other relevant information supports the decision not to include the AU-cause in Category 5 of the Integrated Report (e.g., refining a cause of impairment, such as delisting combined biota/habitat bioassessments and adding temperature to the list).

DEQ delisted 57 AU-cause combinations in the 2024 Integrated Report: 53 from Category 5, 2 from 4a, and 2 from Category 4c. A detailed report of all delistings is provided in Appendix D and a summary of Category 5 delistings is provided in Table 8.

Table 8. Summary of waters delisted from Category 5 in the 2024 Integrated Report.

Explanation	Category 5 AU-Cause Combinations
Category 5 delistings	**53**
• Correction of original listing	1
• EPA approval of a completed TMDL	12
• 4b restoration plan	39
• Data indicate standard has been attained	1

3.3.2.3 Prioritization and TMDL Schedule

DEQ has been working under a *Settlement Agreement* (DEQ 2002) that established a schedule through 2007 for developing TMDLs based on HUC, AU, and pollutant. In prioritizing, DEQ considered the severity of the pollutant and the uses of the waters, the availability and quality of data, and the department's resources. Although the schedule developed in the settlement agreement was not completed by 2007, DEQ still remains under obligation to develop TMDLs for those waters remaining on the settlement agreement. Currently, 111 AU-cause combinations remain in the settlement agreement. DEQ has maintained these waters as a higher priority than waters placed on the § 303(d) list post agreement.

In the 2024 Integrated Report, DEQ will move 12 remaining Category 5 AU's from this Settlement Agreement that are in the South Fork Coeur d'Alene River subbasin to Category 4b (Appendix C).

CWA regulations make it clear that a TMDL does not need to be developed for waters where pollution control abatement measures—required by local, state, or federal authority—are stringent enough to implement any applicable water quality standard (40 CFR 130.7(b)(1)); in these cases, waters can be placed into Category 4b. Idaho rule also allows DEQ to place a water body in Category 4b when other pollution control requirements are expected to achieve full support of uses and compliance with water quality standards within a reasonable period of time (IDAPA 58.01.02.055.02). The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires cleanups to meet any standard, requirement, criteria, or limitation that is legally applicable, including those developed under the CWA or any more stringent state law (42 USC § 9621 (d)(2)(A)). Unlike a TMDL, which is a plan and not enforceable, CERCLA authorities provide enforceable mechanisms to compel cleanup.

Within the settlement agreement list, DEQ is prioritizing their completion (i.e., high, medium, low) based on a set of criteria that considers human health and aquatic resource risk, the severity and type of pollutants, and the availability of data and resources. 20 of the 111 AU-cause combinations on the settlement agreement are entirely within the Nez Perce Reservation. DEQ is not assigning priority to these 20 AU-cause combinations and is not responsible for developing TMDLs for waters on Indian reservations. Appendix E provides those waters remaining on the settlement agreement.

For waters on the § 303(d) list and outside of the settlement agreement, DEQ assigned a high, medium, or low priority ranking to the HUC for TMDL completion based on several factors: severity of the pollutant, uses to be made of such waters, severity of concern, complexity of analysis, availability of resources, funding, consultation with the Basin and Watershed Advisory Groups, and executive or legislative direction. Appendix F provides the CWA § 303(d) priority rankings.

When the source of the pollutant is a CERCLA site, a TMDL will have little impact or relevance to the implementation of CERCLA authorities. In cases where other pollutant control requirements are applicable, DEQ may assign a Category 5 water body a medium or low priority for TMDL development.

3.3.2.4 2022–2032 CWA §303(d) Vision Long-Term Planning and Prioritization

In 2022, EPA released the "2022–2032 Vision for the Clean Water Act Section 303(d) Program" (2022 Vision), replacing the 2013 "A Long-Term Vision for Assessment, Restoration and Protection under the Clean Water Act Section 303(d) Program." The 2022 Vision will identify plan priorities in individual two-year increments. These priorities use long-term planning resources such as the "Waters remaining on the 2002 TMDL Settlement Agreement" (Appendix E) and the "Clean Water Act § 303(d) Priority Ranking" (Appendix F). As each state, territory, or tribe is unique and subject to changing circumstances, these priorities will have an emphasis on flexibility and adaptability, following the intention of the planning and prioritization goal of the 2022 Vision. DEQ has developed a list of metrics, which was submitted to EPA in September 2022 and can be found in Appendix G (DEQ's 2022–2032 CWA Section 303(d) Vision Long-Term Planning and Prioritization: 2022 Vision) of the 2024 Integrated Report. DEQ will identify priority metrics every two years for the purpose of this 2022 Vision; submit them to EPA every September in 2024, 2026, 2028, and 2030; and report them in appendices of the subsequent integrated reports.

3.3.2.5 Approved, Pending, and Draft TMDLs

EPA approved 19 new and 58 revised AU-pollutant TMDLs since the 2022 Integrated Report, between May 2, 2022, and March 1, 2025. These new TMDLs addressed waters in the following subbasins: Lower Clark Fork, Beaver-Camas, and Willow Creek. Some of these TMDLs revised the methodology of previously approved TMDLs and did not result in any new AU category changes. TMDLs that are actively being developed by DEQ are summarized in Table 9.

Table 9. TMDLs in development, by region.

TMDL	HUC	Region
Bruneau River Subbasin	17050102	Boise
Boise-Mores Creek Subbasin	17050112	Boise
Lower Boise River Subbasin	17050114	Boise
Boyer Slough (Pend Oreille Lake Subbasin)	17010214	Coeur d'Alene
South Fork Coeur d'Alene River Subbasin	17010302	Coeur d'Alene
Coeur d'Alene River (Upper/North Fork) Subbasin	17010301	Coeur d'Alene
Upper Salmon River Subbasin	17060201	Idaho Falls
Pahsimeroi River Subbasin	17060202	Idaho Falls
Middle Salmon River-Panther Creek Subbasin	17060203	Idaho Falls
Lemhi River Subbasin	17060204	Idaho Falls
Lochsa River Subbasin	17060303	Lewiston
South Fork Clearwater River Subbasin	17060305	Lewiston
Orofino Creek (Clearwater River Subbasin)	17060306	Lewiston
Soda Creek (Bear Lake Subbasin)	16010201	Pocatello
Portneuf River Subbasin	17040208	Pocatello
Raft River Subbasin	17040210	Twin Falls
Upper Snake-Rock Subbasin	17040212	Twin Falls
Little Wood River Subbasin	17040221	Twin Falls
Camas Creek Subbasin	17040220	Twin Falls

3.3.3 Statewide Summaries

The overall support status of Idaho's streams and lakes is presented in Table 10 and Table 11, respectively. Maps summarizing the support status of all Idaho surface waters are located in Appendix H.

Table 10. Support status of Idaho's streams. The percentages are based on 92,056 total stream miles statewide.

Support Status	Miles (percent of total)
Fully supporting (Categories 1 or 2)	29,370 (32%)
Not assessed (Category 3)	25,728 (28%)
Not supporting (Categories 4 and/or 5)	36,958 (40%)

Table 11. Support status of Idaho's lakes. The percentages are based on 432,390 total lake acres statewide.

Support Status	Acres (percent of total)
Fully supporting (Categories 1 or 2)	26,173 (6%)
Not assessed (Category 3)	175,729 (41%)
Not supporting (Categories 4 and/or 5)	230,488 (53%)[a]

a. Lake support status is based on acreage. The percentage (by area) of lakes not supporting beneficial uses is relatively high because a few large lakes dominate the acreage listed in Categories 4 and 5.

Idaho's surface waters can be placed on the § 303(d) list for a variety of causes. A summary of § 303(d) causes for streams and lakes is provided in Figure 11 and Figure 12, respectively.

The leading § 303(d) causes of impairment in Idaho's streams are temperature, combined biota/habitat bioassessments, *Escherichia coli* (*E. coli*), and sedimentation/siltation. Since the 2022 Integrated Report, the largest impairment increase has been for temperature. This increase can be attributed to (1) the large amount of temperature data that DEQ received during the public call for data, whereby many streams failed the state's temperature criteria or, if applicable, the 1997 federally promulgated bull trout temperature criteria (40 CFR 131.33) and (2) assessment outcomes described in the *Lochsa River Subbasin Stream Temperature Natural Conditions Assessment* report (Appendix C).

Section 303(d) causes of impairment in Idaho's lakes have remained the same since the 2022 Integrated Report. Until DEQ develops standardized methods for monitoring and assessing lakes and reservoirs, causes associated with lake impairments will change only when DEQ participates in larger lake monitoring projects or acquires new data from outside entities. The impairments listed in Figure 12 were largely identified in collaborative studies.

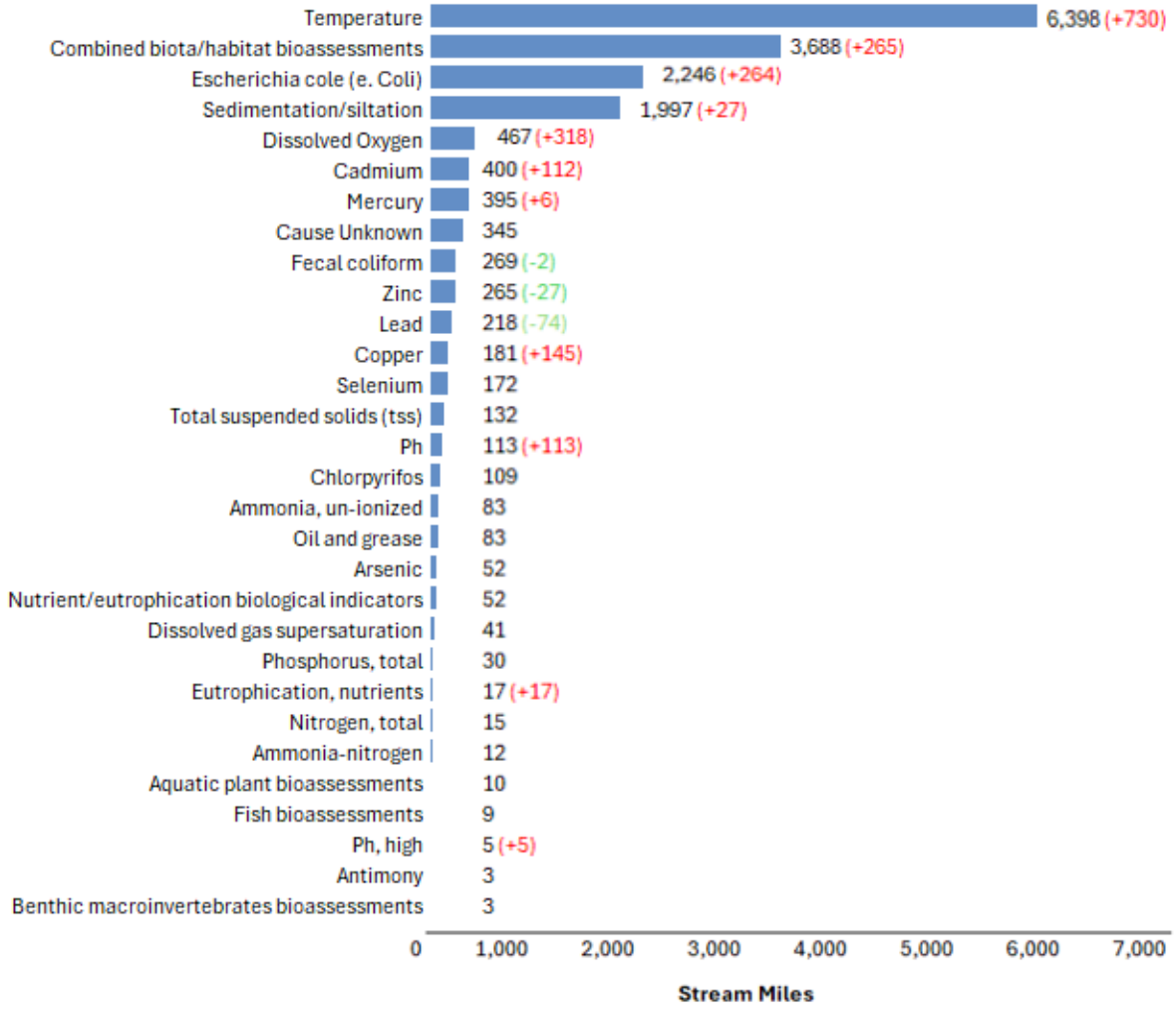


Figure 11. Extent of streams impaired by § 303(d) causes.

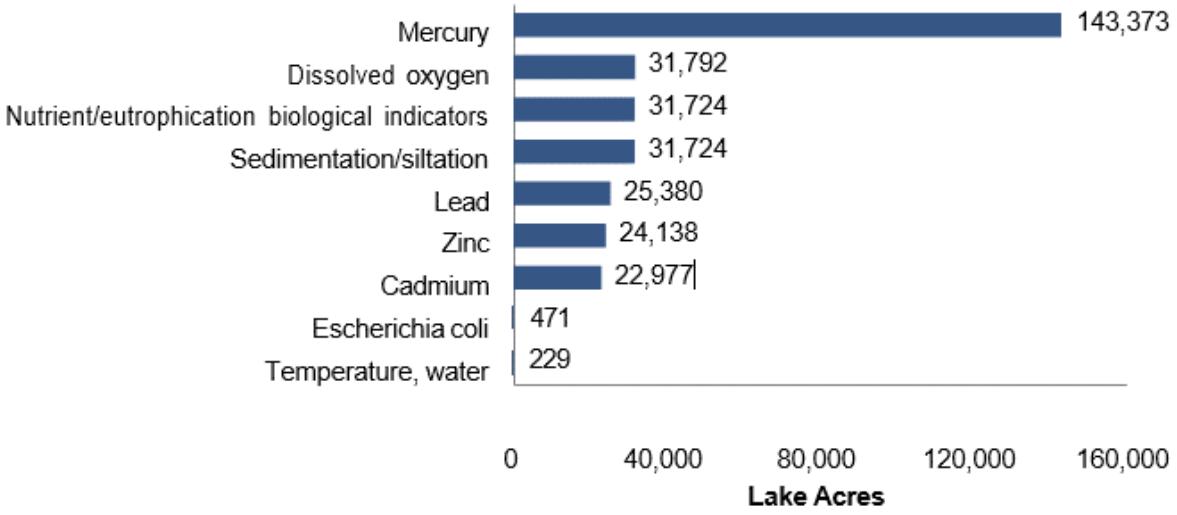


Figure 12. Extent of lakes impaired by § 303(d) causes.

3.3.4 Section 314—Clean Lakes Program

With limited resources and no established protocol for determining biological integrity in lakes, DEQ is only capable of reporting on the physical and chemical parameters as they relate to Idaho's water quality standards criteria. DEQ did participate in EPA's 2017 *National Lakes and Reservoir Assessment*. This assessment is designed to provide information on the extent of lakes that support healthy biological condition and recreation, estimate of how widespread major stressors are that impact lake quality, and offer insight as to whether lakes nationwide are improving. Results from this effort were not available for the 2024 Integrated Report.

3.3.5 Wetlands Program

Idaho has approximately 712,270 acres of mapped wetlands according to USGS maps and a list of priority wetlands maintained by EPA, Idaho Fish and Game, and the Conservation Data Center. While wetlands are protected by the CWA, DEQ does not have specific water quality standards, guidance, or policies for assessing wetland ecosystems. DEQ did participate in EPA's 2016 *National Wetland Condition Assessment*, which examined the chemical, physical and biological integrity of the nation's wetlands through a set of commonly used and widely accepted indicators, but results from this effort were not available for the 2024 Integrated Report.

3.4 Public Health Issues

Idaho's water quality has serious implications for public health. Not only do citizens rely on clean surface and groundwater for their drinking water supply, but they also recreate in and on the state's surface waters and consume fish inhabiting Idaho's waters.

3.4.1 Drinking Water and Source Water Assessment

DEQ's Drinking Water Program and Source Water Program work together to protect public health by ensuring drinking water from public water systems in Idaho are safe. Moreover, they collaborate to assess and protect the source of Idahoans' drinking water (i.e., source water).

Source water assessments are the cornerstone for source water protection. These assessments summarize the likelihood of individual drinking water sources becoming contaminated (usually a short-term *contamination event*) and offer public water systems a foundation to prepare source water protection plans and implement protection measures. Local communities can use the information gathered through the assessment process to create a broader source water protection program, address current problems, and prevent future threats to the quality of their drinking water supplies. The information acquired from assessments also assists DEQ in overseeing public water systems.

For more information, visit DEQ's *Drinking Water Program*. To access source water assessments, visit the *Source Water Program*.

3.4.2 Methylmercury Fish Tissue Criterion

Because monitoring and assessing mercury in Idaho's waters can present unique challenges, the following sections discuss topics in Idaho's *Implementation Guidance for the Idaho Mercury Water Quality Criteria* (DEQ 2005). This 2005 guidance was written when the state did not have an aquatic life criterion and relied solely on the human health criterion to protect aquatic life. The value of 0.3 milligrams of methylmercury (MeHg) per kilogram of fish tissue (wet weight) is the level set to protect the general public from adverse effects during a lifetime of exposure.

Almost all human mercury exposure comes from eating fish, rather than ingesting water, due to the high degree to which fish bioaccumulate MeHg. Through a relative source contribution, the criterion may also account for some exposure from sources other than eating fish harvested from local waters, such as eating store-bought fish that comes from marine waters. When levels of MeHg in fish tissue from any water body exceed the criterion, the potential for lifetime exposure exists above what is considered safe, and the water is listed as impaired for recreational use, which presumes the opportunity to catch and safely eat any fish present.

DEQ does not generally collect and analyze water samples for mercury or any other toxic constituent because of limited resources. Where water column data are available, DEQ compares to the water column criteria for total recoverable mercury published in 2004 Idaho Administrative Code, which continues to apply and are effective for CWA purposes for the protection of aquatic life until EPA promulgation of new aquatic life criteria (EPA 2008).

To view the 2024 Integrated Report map of mercury-impaired AUs, see Appendix I.

3.4.2.1 Fish Consumption Advisories

Although fish consumption advisories for mercury and Idaho's human health criterion are both based on the same toxicological data, they have little else in common. Fish consumption advisories inform people, usually more sensitive individuals such as children and pregnant women, how much fish with known mercury content is safe to eat. These advisories are usually water body and fish species specific; they may even specify the size of fish since contaminant levels typically increase with fish size (age). In contrast, Idaho's water quality criterion sets a level of contamination that is safe based on a fish consumption rate characteristic of the overall adult population eating a variety of fish from different trophic levels and likely different water bodies.

An Idaho Fish Consumption Advisory Program (IFCAP) advisory does not necessarily indicate that most of the general public would be exposed to unsafe levels of MeHg or that Idaho's fish tissue human health criterion is necessarily exceeded. The IFCAP fish consumption advisories advise the public on safe amounts of *specific kinds of fish* to consume (e.g., walleye or trout), given measured concentrations for a particular water body. Because of this specificity, as well as targeting only certain segments of the general population, an advisory can be issued even when the average concentration of MeHg in fish is still below the level of Idaho's fish tissue criterion. IFCAP provides a *fish advisory guide* describing safe consumption of fish caught in Idaho waters.

3.4.2.2 Calculation of Trophic Level Weighted Average

The human health criterion is based on chronic mercury exposure over a lifetime; the criterion was not formulated to protect against acute exposures. In practice, acute exposure is not a big concern because fish tissue mercury levels build up slowly over time, and a threshold dose requires repeated meals of fish. Some variation in exposure to mercury is expected over a lifetime. If variations above criteria are not large or prolonged, they will average out over time to a level below the criterion, and the intended level of protection and safety will be achieved.

Because MeHg tissue levels do vary over time—and from species to species and fish to fish—calculating a value for comparison to the criterion is a matter of much averaging. Idaho's criterion for MeHg considers that bioaccumulation varies by trophic level (i.e., a fish's place in the food chain) and species of fish, due to differing dietary habits. When data for a water body represent fish from multiple trophic levels, the water quality standards (IDAPA 58.01.02.210.01) require that results be weighted by trophic level-specific consumption rates.

Water body specific fish consumption data are preferred and when available should be used to adjust these weightings to provide a better estimate of average possible human exposure to mercury from that water body. In the absence of location-specific consumption data, trophic level weighting is based on the default consumption rates specified in Idaho water quality standards (IDAPA 58.01.02.210.01), which are based on EPA recommendations. Within a trophic level, simple averaging is used to combine results for multiple species to represent the trophic level.

Regardless of the specificity of fish consumption data, the final result is a single average MeHg value for a water body incorporating different locations, trophic levels, species, and individual fish.

DEQ lists a water body as impaired based on this weighted average fish tissue mercury concentration for a water body. The average combines results for all edible species for which data are available. DEQ prefers data from a composite of at least ten fish per species. However, if data are only available for one edible species, that is sufficient to make a listing decision for a water body.

4 Groundwater Monitoring and Assessment

DEQ is responsible for protecting the quality of groundwater in Idaho but does not undertake this task alone. DEQ monitors and protects groundwater in Idaho through partnerships with the Idaho State Department of Agriculture (ISDA), Idaho Department of Water Resources (IDWR), and many other state, local, and private agencies, organizations, businesses, and individuals. The roles of DEQ, ISDA, IDWR, the Idaho Soil and Water Conservation Commission, and the Idaho public health districts are delineated in the *Idaho Ground Water Protection Interagency Cooperative Agreement.*

The IDWR Statewide Groundwater Quality Monitoring Program is designed to assess the current condition of Idaho's groundwater quality, identify potential problem areas, and detect trends in groundwater quality. In addition, DEQ conducts regional and local groundwater quality monitoring when the statewide program or other government agencies detect potential problem areas. DEQ also initiates its own evaluations and conducts regional and local monitoring in conjunction with other agencies. DEQ chairs the Idaho Groundwater Monitoring Technical Committee that includes membership from other Idaho state agencies, public health districts, Idaho's universities, and federal agencies.

Idaho's groundwater quality monitoring program results show that significant levels of groundwater degradation have occurred in specific areas across the state. This degradation negatively impacts water quality and potentially threatens domestic water supplies, aquaculture, agriculture, mining, industry, and other groundwater beneficial uses. With input from other agencies, DEQ established a statewide priority list of areas of significantly degraded groundwater. This list is based on levels of nitrate and is used to prioritize the development and implementation of management strategies to improve groundwater in specific degraded areas.

For more information about DEQ's Groundwater Program, visit *Source Water* and IDWR's *Statewide Groundwater Quality Monitoring Program*.

5 Public Participation in Developing the Integrated Report

5.1 Scope of Public Comment

The format of the Integrated Report is established by EPA, so DEQ is not seeking comment on this aspect of the report. However, DEQ does have some discretion regarding how it categorizes waters.[2] In this regard, DEQ solicits public comment on the status of all waters of the state.

Specific comments—such as those regarding the placement of a water body in a certain category or an omission from a category—are the most helpful. Data- and site-specific comments were welcomed and evaluated prior to final submission of the 2024 Integrated Report to EPA. This final version of the 2024 Integrated Report includes DEQ's responses to public comments (Appendix J).

5.2 Basin and Watershed Advisory Groups Consultation

In accordance with Idaho Code §§ 39-3606 and 39-3609, the Basin Advisory Groups (BAGs) and Watershed Advisory Groups (WAGs) must be involved in identifying support status and impaired water bodies and setting priorities for TMDL development. Before public comment, DEQ consulted with active BAGs and WAGs regarding new § 303(d) listings, proposed delisting AUs from Categories 4 and 5, and revised priorities for TMDL development for those water

[2] The exception is when waters are being moved from Category 5 to another category.

bodies within the applicable watershed or basin. The BAGs and WAGs also had an opportunity to comment during the public comment period.

Idaho Code § 39-3614 and § 39-3616 describe the established duties of the BAGs and WAGs, respectively.

References

CFR (Code of Federal Regulations). 1983. "Water Quality Standards." 40 CFR 131.

CFR (Code of Federal Regulations). 1995. "Water Quality Planning and Management." 40 CFR 130.

CFR (Code of Federal Regulations). 2008. "Special Areas." 36 CFR 294.

DEQ (Idaho Department of Environmental Quality). 2002. *Settlement Agreement*. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2005. *Implementation Guidance for the Idaho Mercury Water Quality Criteria.* Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2011. *Idaho's 2010 Integrated Report*. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2012a. *Idaho Antidegradation Implementation Procedures* [Draft]. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2012b. *Surface Water Ambient Monitoring Plan.* 2nd ed. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2016. *Water Body Assessment Guidance.* 3rd ed. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2017a. *Idaho's 2014 Integrated Report*. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2017b. *Beneficial Use Reconnaissance Program Field Manual for Streams.* Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2018. *Idaho's 2016 Integrated Report*. Boise, ID: DEQ.

DEQ (Idaho Department of Environmental Quality). 2020. *Idaho's 2018/2020 Integrated Report*. Boise, ID: DEQ.

DEQ and USFS (Idaho Department of Environmental Quality and United States Forest Service). 2010. *Bear Valley Creek 4b Justification*. Boise, ID: DEQ and USFS.

EPA (US Environmental Protection Agency). 2001. "2002 Integrated Water Quality Monitoring and Assessment Report Guidance." Memo dated November 19, 2001. Washington, DC: EPA, Office of Water. *www.epa.gov/sites/production/files/2015-10/documents/2002_02_13_tmdl_2002wqma.pdf.*

EPA (US Environmental Protection Agency). 2002. "Clarification of the Use of Biological Data and Information in the 2002 Integrated Water Quality Monitoring and Assessment Report Guidance." Memo dated March 26, 2002. Washington, DC: EPA, Office of Water. *www.epa.gov/sites/production/files/2015-10/documents/2002_03_29_tmdl_guidance_biochange20302.pdf*.

EPA (US Environmental Protection Agency). 2005. "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303 (d), 305 (b) and 314 of the Clean Water Act." Memo dated July 29, 2005. Washington, DC: EPA, Office of Water. *www.epa.gov/sites/production/files/2015-10/documents/2006irg-report.pdf.*

EPA (US Environmental Protection Agency). 2008. "EPA Disapproval of Idaho's Removal of Mercury Acute and Chronic Freshwater Aquatic Life Criteria, Docket No. 58-0102-0302" Memo dated December 12, 2008. Washington, DC: EPA, Office of Water. *https://www2.deq.idaho.gov/admin/LEIA/api/document/download/14650.*

EPA (US Environmental Protection Agency). 2015. "Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions." Memo dated August 13, 2015. Washington, DC: EPA, Office of Water. *www.epa.gov/sites/production/files/2015-10/documents/2016-ir-memo-and-cover-memo-8_13_2015.pdf.*

EPA and LDEQ (US Environmental Protection Agency Region 6 and Louisiana Department of Environmental Quality). 2001. "Mercury TMDLs for Subsegments within the Mermentau and Vermillion-Teche River Basins." *https://attains.epa.gov/attains-public/api/documents/actions/LADEQWPD/2287/100969*.

Essig, D. 2014. "Evaluation of Water Column Chemistry Data for Compliance with Human Health Criteria." Memo dated February 26, 2014. Boise, ID: DEQ.

FTN Associates Ltd. 2002. "TMDLs for Segments Listed for Mercury in Fish Tissue for the Ouachita River Basin, and Bayou Bartholomew, Arkansas and Louisiana to Columbia." Little Rock, AR: US Environmental Protection Agency Region 6. *www.adeq.state.ar.us/downloads/webdatabases/water/tmdl/pdfs/bayou_bartholomew_2002_05_30.pdf*.

Idaho Code. 2021. "Definitions." Idaho Code § 39-3602.

Idaho Code. 2021. "Duties of Each of Watershed Advisory Groups." Idaho Code § 39-3616.

Idaho Code. 2021. "Duties of the Basin Advisory Group." Idaho Code § 39-3614.

Idaho Code. 2021. "Identification of Water Bodies Where Beneficial Uses are Not Fully Supported." Idaho Code § 39-3609.

Idaho Code. 2021. "Monitoring and Use of Reference Streams or Conditions and Beneficial Use Support Assessment." Idaho Code § 39-3606.

Idaho Legislative Services Office. 2020. *Idaho Fiscal Facts: A Legislator's Handbook of Facts, Figures and Trends*. Boise, ID: State of Idaho Legislative Services Office.

IDAPA. 2021. "Water Quality Standards." Idaho Administrative Code. IDAPA 58.01.02.

US Congress. 2011. Cleanup Standards (Comprehensive Environmental Response, Compensation, and Liability Act). 42 USC § 9621(d)(2)(A)).

Appendix A. Clean Water Act § 305(b) and § 303(d) Lists

The CWA § 305(b) list and § 303(d) list for the 2024 Integrated Report were compiled by Idaho Department of Environmental Quality (DEQ) using Environmental Protection Agency's (EPA's) ATTAINS database.

https://www2.deq.idaho.gov/admin/LEIA/api/document/download/22577

Appendix B. List of assessment units evaluated to have zero flow

Based on data from 596 beneficial use reconnaissance program (BURP) sites, 371 assessment units (AUs) have been evaluated to be dry. When a BURP crew visits a site that cannot be sampled, they record the reason selected from a list (see Table 2 in DEQ 2017a). To determine the list of AUs evaluated to have zero flow, Idaho Department of Environmental Quality selected AUs where all BURP sites were evaluated as either *dry*, *denied access*, or *inaccessible*. The list is further narrowed by those AUs with at least one BURP site reported as *dry*. Table B1 lists the AUs evaluated to have zero flow and the number of dry BURP sites found in each AU. AUs highlighted in gray contained additional BURP sites that were either *inaccessible* and/or *denied access*.

Table B1. AUs evaluated with zero flow.[a]

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID16010102BR003_02	Thomas Fork - Idaho/Wyoming border to mouth	1
ID16010201BR013_02	Lower Paris Creek	1
ID16010201BR017_02	Dry Canyon Creek - source to mouth	2
ID16010201BR018_02a	Mud Lake - Dingle Swamp system	1
ID16010201BR022_02	Georgetown Creek - source to mouth	1
ID16010202BR001_03	Spring Creek - source to Idaho/Utah border	1
ID16010202BR009_02	Unnamed Tributaries	3
ID16010202BR010_02	Williams Creek - source to mouth	1
ID16010202BR020_02e	Weston Creek	2
ID16010204BR001_02	Malad River - Little Malad River to Idaho/Utah border	1
ID16010204BR007_02	Deep Creek - source to upper Deep Creek Reservoir	1
ID16010204BR008_02	Malad River - mouth and unnamed tributaries to N Fk Canyon	6
ID16010204BR010_02	Wright Creek - source to Daniels Reservoir	1
ID16010204BR010_02b	Upper Wright Creek - headwaters to Indian Mill Canyon	1
ID16010204BR011_02	Dairy Creek - source to mouth	2
ID16010204BR013_02	Samaria Creek - source to mouth	2
ID16020309BR001_03	North Canyon	1
ID16020309BR001_03b	Deep Creek - Rock Creek to Idaho/Utah border	4
ID16020309BR002_02	Deep Creek - source to Rock Creek	1
ID16020309BR003_03	Rock Creek - source to mouth	1
ID17010104PN022_02	Tributaries to Deep Creek - below McArthur Lake	1
ID17010104PN025_02	Deep Creek - source to McArthur Lake	1
ID17010104PN027_02	Brown Creek - upper, headwaters to Brown Creek	1
ID17010213PN007_02	West Fork Blue Creek - source to Idaho/Montana border	2
ID17010213PN008_02	Gold Creek - source to Idaho/Montana border	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17010214PN001_02	Pend Oreille River - tribs, Priest River to Albeni Falls Dam	3
ID17010214PN008_02	Blanchard Lake Stream Order 01 & 02 Tribs	3
ID17010214PN009_02	01 & 02 Tribs to Spirit Lake	1
ID17010214PN011_02	Jewell Lake	1
ID17010214PN013_02a	Westmond Creek and Tributaries	1
ID17010214PN023_02	Gold Creek, headwaters to chloride gulch	3
ID17010214PN023_03	Gold Creek	1
ID17010214PN024_02	Chloride Creek	4
ID17010214PN028_02	Riser Creek - source to mouth	1
ID17010214PN041_02a	Upper Pack River - Lindsey Creek outside USFS boundary	1
ID17010214PN061_02	Unnamed tributary to Pend Oreille River	1
ID17010215PN005_02	Lower Priest River - Priest Lake to Upper West Branch Priest	2
ID17010302PN002_02a	Lower Little Pine Creek	1
ID17010303PN001_02e	Unnamed Tribs to Powderhorn & Bell Bay	1
ID17010303PN001_02f	Delcaro Ck, Lyle Ck, Scott Ck, & Stinson Ck.	1
ID17010303PN008_02	01 & 02 tribs to Anderson Lake	1
ID17010303PN010_02	Medicine Lake - Stream order 1 & 2	1
ID17010303PN013_02	Robinson Creek - source to mouth	2
ID17010303PN016_02	Unnamed Tribs to CDA River between NF CDA River and Cataldo	1
ID17010303PN017_02	Skeel and Cataldo Creeks - source to mouth	1
ID17010303PN024_02	Cottonwood Creek	1
ID17010304PN007_02a	Soldier Creek	1
ID17010304PN052_02	Simmons Creek - source to mouth	1
ID17010304PN068_02	Street Creek - source to mouth	1
ID17010305PN009_02	Nilsen Creek - source to mouth	1
ID17010305PN013_02	Twin Lakes	2
ID17040104SK002_03	Antelope Creek - source to mouth	2
ID17040104SK006_03	Fall Creek - source to South Fork Fall Creek	1
ID17040202SK005_02	Warm River - source to Warm River Spring	4
ID17040202SK011_02	Robinson Creek - Idaho/Wyoming border	1
ID17040203SK009_02	Falls River - Idaho/Wyoming border to Boone Creek	1
ID17040204SK001_03	South Fork Teton River - Teton River Forks to Henrys Fork	2
ID17040204SK005_02	Moody Creek - confluence of North and South Fork Moody Creek	2
ID17040204SK026_02	Teton River - Tributaries between Trail Creek to Teton Creek	2
ID17040205SK002_02	01 & 02 Tribs to Ririe Reservoir	1
ID17040205SK022_02	Little Valley Creek - source to mouth	1
ID17040206SK002_02	Bannock Creek - source to American Falls Reservoir	3
ID17040206SK008_02	West Fork Bannock Creek - source to mouth	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17040206SK011_02	Clifton Creek - source to mouth	1
ID17040206SK022_02a	Snake River-ephemeral streams btw RM 750 and RM 773	3
ID17040206SK022_03	Snake River	3
ID17040206SK025_03	Little Hole Draw-source to American Falls Reservoir	1
ID17040206SK026_02	Pleasant Valley - source to American Falls Reservoir	4
ID17040206SK026_03	Pleasant Valley - source to American Falls Reservoir	1
ID17040207SK002_02	Blackfoot River - Blackfoot Reservoir Dam to Fort Hall Main	3
ID17040207SK005_02a	Grave Creek - upper (Blackfoot River tributary)	1
ID17040207SK009_02	Blackfoot Reservoir 1st and 2nd order tributaries	2
ID17040207SK013_02	Dry Valley Creek - unnamed tributaries	1
ID17040207SK016_02	Diamond Creek - unnamed tributaries	2
ID17040207SK018_02	Lanes Creek - unnamed tributaries	1
ID17040207SK024_02	Wooley Valley - source to mouth	1
ID17040207SK025_02	Meadow Creek - headwaters and unnamed tributaries	1
ID17040208SK001_02	Unnamed 2nd order tributaries to Portneuf River	2
ID17040208SK001_02b	Trail Creek	2
ID17040208SK009_02	Rowe Creek	1
ID17040208SK010_02	Garden Creek - source to mouth	1
ID17040208SK018_03	Eighteenmile Creek	1
ID17040209SK000_02	Unclassified Waters	10
ID17040209SK002_02	Duck Creek, Spring Creek & 2nd order Snake River tributaries	1
ID17040209SK003_02A	Intermittent streams of Marsh Creek - source to mouth	1
ID17040209SK006_02	Snake River - Rock Creek to Raft River	2
ID17040209SK008_02	Rock Creek	1
ID17040210SK001_02	Raft River - Heglar Canyon Creek to mouth	2
ID17040210SK001_03	Raft River - Heglar Canyon Creek to mouth	1
ID17040210SK002_02	Raft River - Cassia Creek to Heglar Canyon Creek	2
ID17040210SK002_03	Raft River - Cassia Creek to Heglar Canyon Creek	2
ID17040210SK002_05	Raft River - Cassia Creek to Heglar Canyon Creek	1
ID17040210SK004_03	Conner Creek - source to mouth	1
ID17040210SK005_02	Cassia Creek - Clyde Creek to Conner Creek	3
ID17040210SK008_02	Raft River - Cottonwood Creek to Cassia Creek	3
ID17040210SK009_02	Cottonwood Creek - source to mouth	1
ID17040210SK010_02	Raft River	4
ID17040210SK010_03	Raft River	1
ID17040210SK013_02	Raft River - Idaho/Utah border to Edwards Creek	1
ID17040210SK014_02	Junction Creek - source to Idaho/Utah border	1
ID17040210SK015_02	Cottonwood Creek - source to Idaho/Utah border	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17040210SK016_03	Clear Creek - Idaho/Utah border to mouth	1
ID17040210SK016_04	Clear Creek - Idaho/Utah border to mouth	2
ID17040210SK017_02	Kelsaw Canyon Creek - source to mouth	1
ID17040210SK018_02	Meadow Creek - source to mouth	4
ID17040210SK018_03	Meadow Creek - source to mouth	1
ID17040210SK023_02	Heglar Canyon Creek - source to mouth	1
ID17040210SK023_03	Heglar Canyon Creek - source to mouth	1
ID17040210SK023_04	Heglar Canyon Creek - source to mouth	2
ID17040211SK000_02	Unclassified Waters	4
ID17040211SK000_03	Unclassified Waters	4
ID17040211SK002_02	Lower Goose Creek	2
ID17040211SK010_02	Blue Hill Creek and tribs. to Goose Creek	3
ID17040211SK011_02	Cold Creek - source to mouth	1
ID17040211SK012_02	Unnamed tributary to Birch Creek	3
ID17040211SK014_02	Land-Willow-Smith Creek complex	1
ID17040211SK014_03	Land/Willow/Smith Creek complex	4
ID17040212SK000_03	Unclassified Waters	4
ID17040212SK004_02	Tuana Gulch - source to mouth	3
ID17040212SK009_02	Deep Creek - source to High Line Canal	4
ID17040212SK012_02	Cedar Draw - source to mouth	1
ID17040212SK023_02	West Fork Dry Creek - source to mouth	4
ID17040212SK037_02	Cottonwood Creek - source to mouth	1
ID17040212SK039_02	Deer Creek - source to mouth	1
ID17040212SK041_03	Dry Creek - source to mouth	2
ID17040213SK000_03	Unclassified Waters	1
ID17040213SK002_02	Devil Creek-1st and 2nd order tribs.	5
ID17040213SK002_03	Devil Creek	3
ID17040213SK002_04	Devil Creek - 4th order segment to mouth	5
ID17040213SK003_02	Salmon Falls Creek - Salmon Falls Creek Dam to Devil Creek	3
ID17040213SK004_02	01 & 02 tribs Cedar Creek Reservoir	3
ID17040213SK007_02	Whiskey Slough, Salmon Falls Creek Reservoir tributaries	3
ID17040213SK009_02	Salmon Falls Creek-Idaho/Nevada border to Salmon Falls Creek	1
ID17040213SK011_02	Shoshone Creek - Hot Creek to Idaho/Nevada border	5
ID17040213SK011_03	Shoshone Creek - Hot Creek to Idaho/Nevada border	1
ID17040214SK005_03	Dry Creek - source to mouth	1
ID17040214SK014_02	Beaver Creek - Dry Creek to canal	2
ID17040215SK002_02	Medicine Lodge Creek - Indian Creek to playas	1
ID17040215SK022_02	Chandler Canyon complex	2

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17040215SK022_03	Chandler Canyon complex	1
ID17040216SK001_04	Birch Creek - Reno Ditch to playas	2
ID17040216SK004_03	Unnamed Tributary - source to mouth; includes Timber Canyon	1
ID17040216SK006_02	Scott Canyon Creek - source to mouth	1
ID17040216SK007_03	Mud Creek - Willow Creek to Scott Canyon Creek	2
ID17040216SK011_02	Mud Creek-source to Unnamed Tributary (T12N, R11W, Sec. 29)	1
ID17040216SK011_03	Mud Creek -source to Unnamed Tributary (T12N, R11W, Sec. 29)	4
ID17040216SK012_03	Unnamed Tributary - source to mouth (T12N, R11W, Sec. 29)	1
ID17040216SK013_02	Meadow Canyon Creek - source to mouth	1
ID17040217SK004_03	North Creek - source to mouth	1
ID17040217SK007_02	Little Lost River - Badger Creek to Big Spring Creek	1
ID17040217SK010_02	Little Lost River - confluence of Summit and Sawmill Creeks	1
ID17040217SK020_02	Dry Creek - Dry Creek Canal to mouth	1
ID17040217SK028_03	Hurst Creek - source to mouth	1
ID17040218SK002_03	Big Lost River- Spring Creek to Big Lost River Sinks (playa)	1
ID17040218SK002_04	Big Lost River-Spring Creek to Big Lost River Sinks (playas)	1
ID17040218SK006_02	Lower Pass Creek - source to mouth	1
ID17040218SK011_02	Big Lost River - McKay Reservoir Dam to Beck and Evan Ditch	3
ID17040218SK012_02	Unnamed Tributaries to McKay Reservoir	1
ID17040218SK016_02	Thousand Springs Creek - source to mouth	3
ID17040218SK017_02	Lone Cedar Creek - source to mouth	1
ID17040218SK020_02	Willow Creek - source to mouth	1
ID17040218SK021_02	Arentson Gulch and Unnamed Tributaries - source to mouth	1
ID17040218SK048_02	Spring Creek - source to mouth	1
ID17040218SK059_05	Dry Fork Creek - source to mouth	1
ID17040218SK061_03	Hammond Spring Creek complex	1
ID17040219SK000_02	Unclassified Waters	12
ID17040219SK000_03	Unclassified Waters	2
ID17040219SK002_02	Big Wood River - Magic Reservoir Dam to mouth	1
ID17040219SK002_03	Big Wood River - Magic Reservoir Dam to mouth	1
ID17040219SK010_02	East Fork Wood River - Hyndman Creek to mouth	1
ID17040219SK013_02	Trail Creek - Corral Creek to mouth	1
ID17040219SK015_02	Lake Creek - source to mouth	1
ID17040219SK025_02a	Greenhorn Creek - USFS boundary to mouth	1
ID17040219SK029_03	Thorn Creek - source to mouth	3
ID17040220SK001_02	Camas Creek - Elk Creek to Magic Reservoir	3
ID17040220SK007_02	Camas Creek - Solider Creek to Elk Creek	2
ID17040220SK008_02	Deer Creek - Big Deer Creek to mouth	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17040220SK008_03	Deer Creek - Big Deer Creek to mouth	3
ID17040220SK009_02	Deer Creek - source to and including Big Deer Creek	1
ID17040220SK010_02	Powell Creek - source to mouth	5
ID17040220SK013_02	Camas Creek - Corral Creek to Soldier Creek	2
ID17040220SK013_03	Camas Creek - Corral Creek to Soldier Creek	2
ID17040220SK018_04	Camas Creek - source to Corral Creek	3
ID17040220SK020_02	Negro Creek - 1st and 2nd order	2
ID17040220SK022_02	Malad River - 1st and 2nd order	2
ID17040220SK022_03	Malad River - 3rd order	1
ID17040220SK023_03	Unnamed Tributaries to Mormon Reservoir	1
ID17040221SK001_02	Little Wood River - Richfield (T04S, R19E, Sec. 25) to mouth	1
ID17040221SK006_02	Fish Creek - Fish Creek Reservoir Dam to mouth	1
ID17040221SK010_02	Little Wood River - Little Wood River Reservoir Dam to Carey	1
ID17040221SK010_05a	Little Wood River	1
ID17040221SK011_02	Little Fish Creek - source to mouth	1
ID17040221SK022_02	Dry Creek - source to mouth	4
ID17050101SW001_03	Dry Creek - 3rd order	1
ID17050101SW004_03	Browns Creek - 3rd order	1
ID17050101SW006_02	Sailor Creek - 1st and 2nd order	1
ID17050101SW007_02	Pot Hole Creek - 1st and 2nd order	3
ID17050101SW009_02	Rosevear Gulch - 1st and 2nd order	2
ID17050101SW009_03	Rosevear Gulch - 3rd order	1
ID17050101SW013_03	Alkali Creek - 3rd order section	2
ID17050101SW021_02	Canyon Creek-1st and 2nd order tribs below Fraiser Reservoir	1
ID17050101SW021_05	Canyon Creek - 5th order (Squaw Creek to CJ Strike)	1
ID17050101SW023_02	Canyon Creek - 1st and 2nd order above Fraiser Reservoir	1
ID17050101SW026_02	Squaw Creek - 1st and 2nd order	1
ID17050101SW026_04	Squaw Creek - 4th order (Mud Springs to Canyon Creek)	2
ID17050102SW002_02	Deadman Gulch and Black Rocks - 1st and 2nd order	1
ID17050102SW002_03	Deadman Gulch and Black Rocks - 3rd order	1
ID17050102SW003_02	Little Jacks Creek - 1st and 2nd order	1
ID17050102SW003_03	Little Jacks Creek and O X Prong - 3rd order	1
ID17050102SW004_02	Big Jacks Creek - 1st and 2nd order	2
ID17050102SW004_03	Big Jacks Creek -3rd order	2
ID17050102SW008_02	Sugar Creek - 1st and 2nd order tributaries	1
ID17050102SW008_03	Sugar Creek - 3rd order	3
ID17050102SW009_02	Loveridge and Seventyone Gulches - 1st and 2nd order	1
ID17050102SW010_02	Hot Creek - 1st and 2nd order	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17050102SW011_03	Big Draw	1
ID17050102SW014_02	Sheep Creek - 1st and 2nd order	1
ID17050102SW020_03	Deep Creek and Triplet Canyon - 3rd order	1
ID17050102SW025_03	Poison Creek - 3rd order	3
ID17050102SW026_02	Unnamed draw in Inside Desert - 1st and 2nd order	2
ID17050102SW026_03	Unnamed draw in Inside Desert - 3rd order	1
ID17050102SW028_02	Clover Creek (East Fork Bruneau River) - 1st and 2nd order	1
ID17050102SW028_03	Clover Creek (East Fork Bruneau River) - 3rd order	1
ID17050102SW035_02	Buck Flat Draw - 1st and 2nd order	2
ID17050102SW035_04	Buck Flat Draw - 4th order	1
ID17050103SW005_02	Jump Creek - 1st and 2nd order	2
ID17050103SW006_02	Snake River - 1st & 2nd order between Corder Cr. & Marsing	1
ID17050103SW006_03	Snake River - 3rd order unnamed tributaries near Sinker Cr.	1
ID17050103SW010_02	West Rabbit Creek - 1st and 2nd order	1
ID17050103SW010_03	West Rabbit Creek - 3rd order	2
ID17050103SW012_02	Sinker Creek - 1st and 2nd order rangeland tributaries	1
ID17050103SW013_02	Fossil Creek - 1st and 2nd order	2
ID17050103SW013_03	Fossil Creek - 3rd order	1
ID17050103SW014_02	Castle Creek - 1st & 2nd order rangeland tributaries	1
ID17050103SW017_02	Bates Creek - 1st and 2nd order	1
ID17050103SW018_02	Hart and Little Hart Creeks - 1st and 2nd order	1
ID17050103SW018_03	Hart Creek - 3rd order	2
ID17050103SW021_02	Birch Creek and tributaries - 1st and 2nd order	1
ID17050103SW021_03	Birch Creek - 3rd order	1
ID17050103SW022_02	McKeeth Wash - 1st and 2nd order	1
ID17050103SW022_03	McKeeth Wash - 3rd order	2
ID17050103SW023_02	Vinson Wash - 1st and 2nd order	1
ID17050103SW025_03	Corder Creek - 3rd order	2
ID17050104SW003_04	Piute Creek - 4th order	1
ID17050104SW004_04	Juniper Creek - 4th order	3
ID17050104SW005_02	Juniper Creek - 1st and 2nd order	2
ID17050104SW006_02	Thacker and Ross Sloughs - 1st and 2nd order	1
ID17050104SW007_05	Blue Creek - Shoofly Creek to Owyhee River	1
ID17050104SW010_02	Payne Creek - 1st and 2nd order	1
ID17050104SW010_03	Payne Creek - 3rd order	1
ID17050104SW011_02	Squaw Creek - 1st and 2nd order	2
ID17050104SW012_02	Little Blue Creek - 1st and 2nd order	1
ID17050104SW013_02	Blue Creek - 1st and 2nd order above Blue Creek Reservoir	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17050104SW014_04	Shoofly Creek - 4th order	1
ID17050104SW022_03	Yatahoney Creek - 3rd order	1
ID17050104SW023_02	Battle Creek - 1st & 2nd order	2
ID17050104SW026_03	Deep Creek - 3rd order rangeland tributaries	1
ID17050104SW027_04	Dickshooter Creek - 4th order	1
ID17050104SW028_02	Pole Creek - 1st and 2nd order	2
ID17050104SW029_02	Camas Creek - 1st and 2nd order	1
ID17050104SW033_04	Beaver Creek - 4th order	1
ID17050105SW001_03	Unnamed 3rd order tributary to SF Owyhee River	1
ID17050105SW002_02	Spring Creek - 1st and 2nd order	1
ID17050105SW004_02	Homer Wells Reservoir - 1st and 2nd order	1
ID17050105SW005_03	Coyote Flat - 3rd order	1
ID17050106SW001_02	Little Owyhee River - 1st and 2nd order tributaries	1
ID17050107SW001_02	Dukes Creek and Bald Mountain Canyon - 1st and 2nd order	1
ID17050107SW006_02	Squaw Creek and tributaries - 1st and 2nd order	4
ID17050107SW013_02	Cherry Creek - 1st and 2nd order	1
ID17050107SW014_02	Soldier, Stove and Sheep Creeks - 1st and 2nd order	1
ID17050108SW016_02	Deer Creek - entire drainage	1
ID17050112SW002_02	1st and 2nd order tributaries to Arrowrock Reservoir	5
ID17050113SW001_02	Arrowrock Reservoir (1st and 2nd order tributaries)	1
ID17050113SW002b_02	Willow Creek and tributaries - 1st and 2nd order	3
ID17050113SW002b_03	Willow Creek - 3rd order above Cottonwood Creek	2
ID17050113SW007_02	Cat Creek - 1st and 2nd order	2
ID17050114SW003b_02	Indian Creek Tribs - Indian Creek Res. to New York Canal	2
ID17050114SW003b_03	Indian Creek - Indian Creek Reservoir to New York Canal	3
ID17050114SW010_02	Fivemile, Eightmile, and Ninemile Creeks - 1st and 2nd order	2
ID17050114SW014_02	Big Gulch and Little Gulch Creeks, and Woods Gulch	2
ID17050114SW015_02	Willow Creek - 1st and 2nd order	2
ID17050114SW016_02	Tributaries to West Hartley Gulch and Sand Hollow Creek	1
ID17050122SW003_02	Payette River - 1st and 2nd order rangeland tributaries	4
ID17050122SW019_03	Indian Creek - 3rd order (Rattlesnake to Little Willow)	1
ID17050122SW021_03	Little Willow Creek above Paddock Valley Res. - 3rd order	1
ID17050123SW016_02	Mill, Duffner, and Williams Creeks - 1st and 2nd order	1
ID17050124SW003_05	Crane Creek - Crane Creek Reservoir Dam to mouth	1
ID17050124SW010_02	Mill Creek - entire drainage	1
ID17050124SW013_02	Bacon Creek - entire drainage	1
ID17050124SW026_02	Spring and Camp Creeks - 1st and 2nd order	1
ID17050124SW029_03	Sage Creek - 3rd order (Fairchild Reservoir outlet to mouth)	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17050201SW002_02	Tributaries to Snake River - 1st and 2nd order	1
ID17060101SL015_02	Kirby Creek - source to mouth	1
ID17060101SL016_02	Corral Creek - source to mouth	1
ID17060101SL017_02	Klopton Creek - source to mouth	1
ID17060103SL016_02	Tammany Creek-source to Unnamed Tributary(T34N, R04W, Sec19)	1
ID17060108CL004a_02	Gnat Creek - source to T40N, R05W, Sec. 26	2
ID17060108CL006a_02	Missouri Flat Creek - source to T40N, R5W, Sec. 17	1
ID17060108CL006b_02	Missouri Flat Creek - T40N, R5W, Sec. 17 to ID/WA border	1
ID17060108CL007b_02	Fourmile Creek - T40N, R5W, Sec. 5 to ID/WA border	2
ID17060108CL008b_02	Silver Creek - T43, R5W, Sec. 29 to Idaho/Washington border	2
ID17060108CL009_02	Palouse River - Deep Creek to ID/WA border; tribs	1
ID17060108CL011a_02	Flannigan Creek - source to T41N, R05W, Sec. 23	2
ID17060108CL011b_02	Flannigan Creek - T41N, R05W, Sec. 23 to mouth	1
ID17060108CL013a_02	West Fork Rock Creek - source to T41N, R04W, Sec. 30	2
ID17060108CL013b_03	West Fork Rock Creek - T41N, R04W, Sec. 30 to mouth	3
ID17060108CL014a_02	East Fork Rock Creek - source to T41N, R 04W, Sec. 29	1
ID17060108CL016_02	Palouse River - Strychnine Creek to Hatter Creek	1
ID17060108CL023_02	Meadow Creek - East Fork Meadow Creek to mouth	1
ID17060108CL029_02	Gold Creek - T42N, R04W, Sec. 28 to mouth	1
ID17060108CL032b_02	Deep Creek - T42, R05, Sec. 02 to mouth	1
ID17060108CL033b_02	Cedar Creek - T43N, R05W, Sec. 28 to Idaho/Washington border	2
ID17060109CL002_02	North Fork Pine Creek - source to Idaho/Washington border	1
ID17060201SL002_02	Morgan Creek - West Creek to mouth	1
ID17060201SL007_02	Challis Creek - Darling Creek to mouth	1
ID17060201SL014_02	Salmon River - Garden Creek to Pennal Gulch	1
ID17060201SL014_03	Salmon River - Garden Creek to Pennal Gulch	1
ID17060201SL014_04	Salmon River - Garden Creek to Pennal Gulch	1
ID17060201SL027_02	Salmon River - Thompson Creek to Squaw Creek	2
ID17060201SL027_03	Salmon River - Thompson Creek to Squaw Creek	1
ID17060201SL063_02	Salmon River - Redfish Lake Creek to Valley Creek	1
ID17060201SL072_02	Salmon River - Fisher Creek to Decker Creek	1
ID17060201SL101_02	Sullivan Creek - source to mouth	1
ID17060201SL116_02	Pine Creek - source to mouth	1
ID17060201SL117_02	McDonald Creek - source to mouth	1
ID17060201SL124_02	Road Creek - Corral Basin Creek to mouth	1
ID17060201SL129_02	Spar Canyon Creek - source to mouth	1
ID17060201SL129_03	Spar Canyon Creek - source to mouth	1
ID17060201SL130_02	Bradshaw Gulch - source to mouth	1

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17060201SL131_02	Warm Spring Creek - Hole-in-Rock Creek to mouth	1
ID17060201SL131_03	Warm Spring Creek - Hole-in-Rock Creek to mouth	1
ID17060201SL132_02	Warm Spring Creek - source to Hole-in-Rock Creek	1
ID17060201SL132_03	Warm Spring Creek - source to Hole-in-Rock Creek	1
ID17060201SL133_02	Broken Wagon Creek - source to mouth	1
ID17060201SL133_03	Broken Wagon Creek - source to mouth	1
ID17060201SL134_02	Hole-in-Rock Creek - source to mouth	1
ID17060201SL135_02	Pennal Gulch - source to mouth	1
ID17060202SL001_02	Pahsimeroi River - Patterson Creek to mouth	1
ID17060202SL002_04	Pahsimeroi River - Meadow Creek to Patterson Creek	1
ID17060202SL008_04	Pahsimeroi River - Big Creek to Furey Lane (T15S, R22E)	2
ID17060202SL011_04	Pahsimeroi R-Unnamed Trib (T12N,R23E,Sec. 22) to Goldburg Ck	1
ID17060202SL012_03	Unnamed Tributary - source to mouth (T12N, R23E, Sec. 22)	1
ID17060202SL013_03	Doublespring Creek - Christian Gulch to mouth	1
ID17060202SL015_03	Doublespring Creek - source to Christian Gulch	1
ID17060202SL017_04	Pahsimeroi R-Burnt Ck to Unnamed Trib (T12N, R23E, Sec. 22)	3
ID17060204SL032a_03	Little Timber Creek - diversion (T15N, R25E, Sec. 13)	1
ID17060204SL040_02	Texas Creek - source to Meadow Lake Creek	1
ID17060204SL044_02	Divide Creek - source to mouth	1
ID17060204SL049_02	Powderhorn Gulch - source to mouth	1
ID17060204SL053_02	Peterson Creek - source to mouth	1
ID17060209SL008_02	Salmon River - Slate Creek to Rice Creek	1
ID17060209SL008_07	Salmon River - Slate Creek to Rice Creek	1
ID17060209SL009_02	Sotin Creek - source to mouth	1
ID17060209SL011_02	Salmon River - tributaries; Little Salmon R. to Slate Creek	1
ID17060209SL047_02	Whitebird Creek - confluence of N&SF Whitebird Cr to mouth	1
ID17060209SL057_02a	Telcher Creek - 1st & 2nd order stream segments	1
ID17060209SL057_03	Rock Creek - 3rd order	2
ID17060209SL058_02	Grave Creek - headwaters to unnamed tributary	1
ID17060209SL063_02	Eagle Creek - source to mouth	1
ID17060305CL001_05T	South Fork Clearwater River - Butcher Creek to mouth Tribal Waters	1
ID17060305CL008_02	South Fork Cottonwood Creek - source to mouth	1
ID17060306CL024_02	Lawyer Creek - source to mouth	2
ID17060306CL033_02	Big Creek - source to mouth	1
ID17060306CL034_02	Jim Ford Creek	1
ID17060306CL044_02	Potlatch River - Big Bear Creek to mouth	1
ID17060306CL050_02	Little Boulder Creek - source to mouth	1
ID17060306CL055_02	Pine Creek - headwaters	3

Assessment Unit	Assessment Unit Name	Number of *dry* BURP sites
ID17060306CL060_02	Little Bear Creek - source to mouth	2
ID17060306CL062_02	Middle Potlatch Creek - headwaters	1
ID17060308CL002_02a	Swamp Creek - 1st and 2nd Order Tributaries	1
ID17060308CL012_02	Little North Fork Clearwater R.-Spotted Louis to Foehl Creek	1

a. AUs highlighted in gray contained additional BURP sites that were either *inaccessible* and/or *denied access*.

Appendix C. South Fork Coeur d'Alene River Category 4b

https://www2.deq.idaho.gov/admin/LEIA/api/document/download/22498

Appendix D. Assessment Unit-Cause Combinations Delisted in the 2024 Integrated Report

The delistings report for the 2024 Integrated Report was compiled by DEQ using EPA's ATTAINS database. DEQ delisted (removed) 57 AU-cause combinations from the state's list of impaired waters (i.e., waters in Categories 4 or 5).

2024 Integrated Report: Assessment Unit-Cause Combinations Delisted

Bear River

16010201 Bear Lake

ID16010201BR006_03	Lower Stauffer Creek - Spring Creek to Bear River	4.14	Miles

FLOW REGIME MODIFICATION

03/03/2023 (MVS): Remove Flow Regime Modification (4c) as dam was removed in October 2022 during restoration project managed by Forrest Service.

Clearwater

17060108 Palouse

ID17060108CL021_02	North Fork Palouse River - source to mouth	13.96	Miles

COMBINED BIOTA/HABITAT BIOASSESSMENTS

5/30/2023 (SA): Two BURP sites, 2021SLEWA002 and 2021SLEWA003 were completed in 2021 (scores of 2.33 and 2.67, respectively). Will change to fully supporting for CWAL and SS designated uses.

Panhandle

17010302 South Fork Coeur d Alene

ID17010302PN001_02	South Fork Coeur d'Alene River - Tributaries below Placer Cr	62.8	Miles

ZINC

CADMIUM

LEAD

ID17010302PN001_03	South Fork Coeur d' Alene River-btw Placer Cr. and Big Cr.	7.6	Miles

ZINC

CADMIUM

LEAD

ID17010302PN001_03a	South Fork Coeur d'Alene River-Canyon Creek to Placer Creek	0.852	Miles

ZINC

CADMIUM

LEAD

ID17010302PN001_04	South Fork Coeur d'Alene River - btw Big Cr and Pine Cr	9.96	Miles

CADMIUM

ZINC

LEAD

2024 Integrated Report: Assessment Unit-Cause Combinations Delisted

Panhandle

ID17010302PN001_05	South Fork Coeur d'Alene River - btw Pine Cr and CdA River	2.23	Miles
CADMIUM			
LEAD			
ZINC			
ID17010302PN002_04	Pine Creek - East Fork Pine Creek to South Fork CdA River	5.31	Miles
ZINC			
CADMIUM			
LEAD			
ID17010302PN004_02	East Fork Pine Creek headwaters and tributaries	22.54	Miles
ZINC			
CADMIUM			
LEAD			
ID17010302PN004_03	East Fork Pine Creek below Douglas Creek	4	Miles
ZINC			
LEAD			
CADMIUM			
ID17010302PN006_02	Government Gulch	3.54	Miles
CADMIUM			
LEAD			
ZINC			
ID17010302PN014_02	Canyon Creek - from Gorge Gulch to South Fork CdA R.	8.64	Miles
ZINC			
LEAD			
CADMIUM			
ID17010302PN016_02	Ninemile Creek and tribs except Ninemile Cr above East Fork	9.32	Miles
LEAD			
ZINC			
CADMIUM			
ID17010302PN018_02	Moon Creek headwaters and tribs except West Fork Moon Cr	4.64	Miles
ZINC			
LEAD			
CADMIUM			

2024 Integrated Report: Assessment Unit-Cause Combinations Delisted

Panhandle

ID17010302PN018_03	Moon Creek btw West Fork Moon and South Fork CDA River	1.76	Miles

ZINC

CADMIUM

LEAD

Upper Snake

17040204 Teton

ID17040204SK019_02	Packsaddle Creek	14.59	Miles

FLOW REGIME MODIFICATION

The 19_02 was incorrectly listed in 4C. It should be delisted and the 4c listing should go to 18_03. Packsaddle has been listed for flow alteration since 1996 and included the entire creek. 019_02 is upstream of 018_03 and the diversions are happening entirely in 018_03 according to satellite imagery.

17040205 Willow

ID17040205SK008_02	Willow Creek - Mud Creek to Birch Creek	27.76	Miles

ESCHERICHIA COLI (E. COLI)

TEMPERATURE

ID17040205SK021_02	Grays Lake - Order 1 & 2 tributaries	96.58	Miles

TEMPERATURE

ID17040205SK023_02	Gravel Creek - source to mouth	21.54	Miles

ESCHERICHIA COLI (E. COLI)

ID17040205SK024_02	Brockman Creek - Corral Creek to mouth	20.03	Miles

ESCHERICHIA COLI (E. COLI)

17040210 Raft

ID17040210SK007_03	Cassia Creek- source to confluence of Dry Creek	7.11	Miles

ESCHERICHIA COLI (E. COLI)

3-28-2023 (TG): The geometric mean for samples collected during 2021 is 109 mpn/100 mL, which is below the criterion of 126 counts per 100mL for E. coli. (WBAG III Section 5.2.6). Results are below the Statistical Threshold Value. The Secondary Contact Recreation use will change to fully supporting.

17040212 Upper Snake-Rock

ID17040212SK013_05	Rock Creek -river mile 25 (T11S, R18E, Sec. 36) to mouth	20.19	Miles

FECAL COLIFORM

11-14-2023 (TG): The Secondary Contact Recreation use will remain not supporting, but the Fecal Coliform parameter has been removed and has been replaced by Escherichia Coli due to the most recent sampling results. The parameter should remain in Category 4a, since the Upper Snake/Rock Subbasin TMDL (2000) is still applicable to a bacteria impairment.

2024 Integrated Report: Assessment Unit-Cause Combinations Delisted

Upper Snake

17040214 Beaver-Camas

ID17040214SK006_03	Ching Creek - source to mouth	11.93	Miles

ESCHERICHIA COLI (E. COLI)

A bacteria TMDL was developed for this AU as part of the Beaver-Camas 2022 TMDL and Five-Year Review. As a result, this AU will be delisted from Category 5 for E. coli and moved to Category 4a for E. coli.

ID17040214SK010_03	East Camas Creek	4.26	Miles

ESCHERICHIA COLI (E. COLI)

A Bacteria TMDL was developed as part of the 2022 Beaver-Camas TMDL and 5-year review. As a result, Secondary Contact Recreation is being delisted from Category 5 and moved to Category 4a for E. Coli.

ID17040214SK013_03	West Camas Creek -source to Targhee National Forest Boundary	6.54	Miles

ESCHERICHIA COLI (E. COLI)

A Bacteria TMDL was developed for this AU as part of the Beaver-Camas 2022 TMDL and Five-Year Review. As a result, this AU will be delisted from Category 5 for E. coli and moved to Category 4a for E. coli.

ID17040214SK017_03	Threemile Creek - source to mouth	1.82	Miles

FECAL COLIFORM

Listing should be E. coli.

ID17040214SK018_04	Beaver Creek - Miners Creek to Rattlesnake Creek	8.93	Miles

ESCHERICHIA COLI (E. COLI)

A Bacteria TMDL was developed for this AU as part of the Beaver-Camas 2022 TMDL and Five-Year Review. As a result, this AU will be delisted from Category 5 for E. coli and moved to Category 4a for E. coli.

ID17040214SK021_02	Beaver Creek - source to Idaho Creek	68.41	Miles

ESCHERICHIA COLI (E. COLI)

A Bacteria TMDL was developed for this AU as part of the Beaver-Camas 2022 TMDL and Five-Year Review. As a result, this AU will be delisted from Category 5 for E. coli and moved to Category 4a for E. coli.

ID17040214SK023_02	Pleasant Valley Creek - source to mouth	23.67	Miles

ESCHERICHIA COLI (E. COLI)

A Bacteria TMDL was developed for this AU as part of the Beaver-Camas 2022 TMDL and Five-Year Review. As a result, this AU will be delisted from Category 5 for E. coli and moved to Category 4a for E. coli.

17040221 Little Wood

ID17040221SK020_02A	Cold Spring Creek	16.78	Miles

COMBINED BIOTA/HABITAT BIOASSESSMENTS

5/1/2023 (TG): DEQ proposes to delist combined biota/habitat bioassessments as a cause of impairment to Cold Spring Creek. WBAG protocols for assessing aquatic life support based on BURP data do not apply to intermittent streams. Cold Springs Creek was first listed on the 2002 §303(d) list due to the 1998 BURP site receiving an average score of 1.50. According to DEQ's Water Body Assessment Guidance an average score of less than 2 is considered not fully supporting. At BURP site 1998STWFA048,

2024 Integrated Report: Assessment Unit-Cause Combinations Delisted

the flow was recorded as 0.3 cfs, and the stream macroinvertebrate index (SMI) received a condition rating of 1. This index should not have been applied to a stream with such a low flow, because the Hess net was not the appropriate equipment to use. Therefore, any macroinvertebrate samples that were collected are not representative of the water conditions of Cold Spring Creek. The reach has remained on subsequent §303(d) lists because the stream has not been able to be reassessed because it has been dry when BURP crews have returned to sample. Cold Spring Creek was documented dry in 2007 and again in 2014. Assessment metrics for intermittent streams are not available within the BURP monitoring framework. If data are not representative of the AU being evaluated, then the data are not considered Tier I data and therefore is not to be used for §303(d) listings per Section 4 of DEQ's Water Body Assessment Guidance. Therefore, combined biota/habitat bioassessments will be delisted from Category 5 and the attainment status for cold water aquatic life will change to “Not Assessed” and this AU will move to Category 2 because it supports the contact recreation use.

Appendix E. Waters Remaining on the 2002 TMDL Settlement Agreement

Table E1 presents the waters remaining on the 2002 TMDL settlement agreement (DEQ 2002). DEQ is not responsible for developing TMDLs for waters wholly on tribal land (highlighted in gray in the table).

Table E1. Waters remaining on the 2002 TMDL settlement agreement.[a]

Assessment Unit	Water Body Name	Subbasin	Pollutant	Priority/Status
ID17010104PN004_02	Blue Joe Creek	Lower Kootenai	Cadmium	Low
ID17010104PN004_02	Blue Joe Creek	Lower Kootenai	Lead	Low
ID17010104PN004_02	Blue Joe Creek	Lower Kootenai	Zinc	Low
ID17010214PN001_08	Pend Oreille River - Priest River to Albeni Falls Dam	Pend Oreille Lake	Temperature (water)	Medium
ID17010214PN001_08	Pend Oreille River - Priest River to Albeni Falls Dam	Pend Oreille Lake	Dissolved Gas Supersaturation	Medium
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	Coeur d'Alene River (Upper/North Fork)	Metals	Low
ID17010301PN004_04	Prichard Creek below Eagle Creek	Coeur d'Alene River (Upper/North Fork)	Metals	Low
ID17010301PN005_02	Prichard Creek -headwaters and tributaries above Butte Gulch	Coeur d'Alene River (Upper/North Fork)	Metals	Low
ID17010301PN005_03	Prichard Creek - between Barton Gulch to Butte Gulch	Coeur d'Alene River (Upper/North Fork)	Metals	Low
ID17010302PN001_02	South Fork Coeur d'Alene River - Tributaries below Placer Cr	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN001_03	South Fork Coeur d' Alene River-btw Placer Cr. and Big Cr.	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN001_04	South Fork Coeur d'Alene River - btw Big Cr and Pine Cr	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN001_05	South Fork Coeur d'Alene River - btw Pine Cr and CdA River	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN002_04	Pine Creek - East Fork Pine Creek to South Fork CdA River	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN004_02	East Fork Pine Creek headwaters and tributaries	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN004_03	East Fork Pine Creek below Douglas Creek	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN006_02	Government Gulch	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN014_02	Canyon Creek - from Gorge Gulch to South Fork CdA R.	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report

Assessment Unit	Water Body Name	Subbasin	Pollutant	Priority/Status
ID17010302PN015_02	Canyon Creek from headwaters to Gorge Gulch	Coeur d'Alene River (South Fork)	Metals	Low
ID17010302PN016_02	Ninemile Creek and tribs except Ninemile Cr above East Fork	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN017_02	Ninemile Creek above East Fork Ninemile Creek	Coeur d'Alene River (South Fork)	Metals	Low
ID17010302PN018_02	Moon Creek headwaters and tribs except West Fork Moon Cr	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010302PN018_03	Moon Creek btw West Fork Moon and South Fork CDA River	Coeur d'Alene River (South Fork)	Metals	4b to be submitted in 2024 Integrated Report
ID17010303PN007_06	Coeur d'Alene River - Latour to mouth	Coeur d'Alene Lake	Sedimentation/Siltation	Low
ID17010303PN007_06	Coeur d'Alene River - Latour Creek to mouth	Coeur d'Alene Lake	Metals	Low
ID17010303PN016_06	Coeur d'Alene River-South Fork Coeur d'Alene River to Latour	Coeur d'Alene Lake	Metals	Low
ID17040212SK010_03	Mud Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK012_03	Cedar Draw	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK014_02	Cottonwood Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK015_02	McMullen Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK015_03	McMullen Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK020_07	Snake-Milner to T Falls	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK022_03	Dry Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK034_04	Clover Creek	Upper Snake-Rock	Temperature (water)	In development
ID17040212SK035_04	Pioneer Reservoir	Upper Snake-Rock	Temperature (water)	In development
ID17050102SW009_06	Bruneau	Bruneau	Temperature (water)	High
ID17050102SW028_04	Clover Creek - E Fork Bruneau	Bruneau	Temperature (water)	High
ID17050102SW028_05	Clover Creek - E Fork Bruneau	Bruneau	Temperature (water)	High
ID17050102SW002_05	Jacks Creek	Bruneau	Temperature (water)	High
ID17050114SW001_06	Boise River - Indian Creek to mouth	Lower Boise	Temperature (water)	High
ID17050114SW002_04	Indian Creek at Nampa	Lower Boise	Temperature (water)	High
ID17050114SW002_04	Indian Creek at Nampa	Lower Boise	Cause Unknown (Nutrients Suspected)	5-ARP plan in development
ID17050114SW005_06	Boise River - River Mile 50 to Star Bridge	Lower Boise	Temperature (water)	High

Assessment Unit	Water Body Name	Subbasin	Pollutant	Priority/Status
ID17050114SW006_02	Mason Creek	Lower Boise	Cause Unknown (Nutrients Suspected)	5-ARP plan in development
ID17050114SW010_03	Five Mile Creek	Lower Boise	Cause Unknown (Nutrients Suspected)	5-ARP plan in development
ID17050114SW016_03	Sand Hollow Creek	Lower Boise	Cause Unknown (Nutrients Suspected)	5-ARP plan in development
ID17050122SW001_06	Black Can Dam to mouth	Payette	Temperature (water)	High
ID17050201SW003_08	Snake River	Brownlee Reservoir	Mercury	High
ID17060203SL005_03	Big Deer Creek	Middle Salmon-Panther	Copper	High
ID17060303CL001_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060303CL003_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060303CL008_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060303CL009_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060303CL013_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060303CL020_05	Lochsa River	Lochsa	Temperature (water)	Medium
ID17060306CL006_03	Sweetwater Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL006_03	Sweetwater Creek	Clearwater	Temperature (water)	Low
ID17060306CL006_03	Sweetwater Creek	Clearwater	Cause Unknown	Low
ID17060306CL006_03	Sweetwater Creek	Clearwater	Fecal Coliform	Low
ID17060306CL006_04	Sweetwater Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL006_04	Sweetwater Creek	Clearwater	Temperature (water)	Low
ID17060306CL006_04	Sweetwater Creek	Clearwater	Cause Unknown	Low
ID17060306CL006_04	Sweetwater Creek	Clearwater	Fecal Coliform	Low
ID17060306CL007_02	Webb Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL007_02	Webb Creek	Clearwater	Temperature (water)	Low
ID17060306CL007_02	Webb Creek	Clearwater	Cause Unknown	Low
ID17060306CL007_02	Webb Creek	Clearwater	Fecal Coliform	Low
ID17060306CL019_02T	Holes Creek	Clearwater	Ammonia (un-ionized)	NA
ID17060306CL019_02T	Holes Creek	Clearwater	Oil and Grease	NA
ID17060306CL019_02T	Holes Creek	Clearwater	Sedimentation/Siltation	NA

Assessment Unit	Water Body Name	Subbasin	Pollutant	Priority/Status
ID17060306CL019_02T	Holes Creek	Clearwater	Cause Unknown	NA
ID17060306CL020_03T	Long Hollow Creek	Clearwater	Sedimentation/Siltation	NA
ID17060306CL020_03T	Long Hollow Creek	Clearwater	Cause Unknown	NA
ID17060306CL020_03T	Long Hollow Creek	Clearwater	Fecal Coliform	NA
ID17060306CL023_02T	Sixmile Creek	Clearwater	Ammonia (un-ionized)	NA
ID17060306CL023_02T	Sixmile Creek	Clearwater	Oil and Grease	NA
ID17060306CL023_02T	Sixmile Creek	Clearwater	Sedimentation/Siltation	NA
ID17060306CL023_02T	Sixmile Creek	Clearwater	Temperature (water)	NA
ID17060306CL023_02T	Sixmile Creek	Clearwater	Cause Unknown	NA
ID17060306CL023_03T	Sixmile Creek	Clearwater	Ammonia (un-ionized)	NA
ID17060306CL023_03T	Sixmile Creek	Clearwater	Oil and Grease	NA
ID17060306CL023_03T	Sixmile Creek	Clearwater	Sedimentation/Siltation	NA
ID17060306CL023_03T	Sixmile Creek	Clearwater	Temperature (water)	NA
ID17060306CL023_03T	Sixmile Creek	Clearwater	Cause Unknown	NA
ID17060306CL024_02	Lawyer Creek	Clearwater	Ammonia (un-ionized)	Low
ID17060306CL024_02	Lawyer Creek	Clearwater	Oil and Grease	Low
ID17060306CL024_02	Lawyer Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL024_02	Lawyer Creek	Clearwater	Temperature (water)	Low
ID17060306CL024_02	Lawyer Creek	Clearwater	Cause Unknown	Low
ID17060306CL024_02	Lawyer Creek	Clearwater	Fecal Coliform	Low
ID17060306CL024_03	Lawyer Creek	Clearwater	Ammonia (un-ionized)	Low
ID17060306CL024_03	Lawyer Creek	Clearwater	Oil and Grease	Low
ID17060306CL024_03	Lawyer Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL024_03	Lawyer Creek	Clearwater	Temperature (water)	Low
ID17060306CL024_03	Lawyer Creek	Clearwater	Cause Unknown	Low
ID17060306CL025_02T	Sevenmile Creek	Clearwater	Sedimentation/Siltation	NA
ID17060306CL025_03T	Sevenmile Creek	Clearwater	Sedimentation/Siltation	NA
ID17060306CL041_02	Bedrock Creek	Clearwater	Ammonia (un-ionized)	Low
ID17060306CL041_02	Bedrock Creek	Clearwater	Oil and Grease	Low

Assessment Unit	Water Body Name	Subbasin	Pollutant	Priority/Status
ID17060306CL041_02	Bedrock Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL041_02	Bedrock Creek	Clearwater	Temperature (water)	Low
ID17060306CL041_02	Bedrock Creek	Clearwater	Cause Unknown	Low
ID17060306CL041_02	Bedrock Creek	Clearwater	Fecal Coliform	Low
ID17060306CL043_02	Pine Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL043_02	Pine Creek	Clearwater	Temperature (water)	Low
ID17060306CL043_02	Pine Creek	Clearwater	Cause Unknown	Low
ID17060306CL043_03	Pine Creek	Clearwater	Ammonia (un-ionized)	Low
ID17060306CL043_03	Pine Creek	Clearwater	Oil and Grease	Low
ID17060306CL043_03	Pine Creek	Clearwater	Sedimentation/Siltation	Low
ID17060306CL043_03	Pine Creek	Clearwater	Cause Unknown	Low
ID17060308CL001_06T	North Fork Clearwater River	Lower North Fork Clearwater	Dissolved Gas Supersaturation	NA

a. Waters on tribal lands are highlighted in gray. DEQ is not responsible for developing TMDLs for water on tribal lands. NA = Not Applicable

Appendix F. Clean Water Act § 303(d) Priority Ranking

Under CWA § 303(d), states are required to establish a priority ranking and TMDL development schedule for waters on the § 303(d) list. To achieve this, DEQ assigns a high, medium, or low priority ranking to the subbasin containing § 303(d)-listed waters (Table F1), then the subbasins are prioritized for TMDL development. Priority rankings are based on the severity of the pollutant, uses to be made of such waters, severity of concern, complexity of analysis, availability of resources, funding, consultation with the BAGs and WAGs, and executive or legislative direction.

Table F1. Priority ranking and TMDL development schedule.

DEQ Region	HUC	Subbasin	Priority	Year
Boise				
	17050102	Bruneau	High	2024
	17050103	Middle Snake River/Succor Creek	High	2024
	17050112	Boise River/Mores Creek	High	2024
	17050114	Lower Boise River	High	2025
	17050104	Upper Owyhee River	High	2030
	17050122	Payette River	Medium	2030
	17050124	Weiser River	Medium	2030
	17050201	Brownlee Reservoir	Medium	2026
	17050115	Middle Snake River/Payette	Medium	2026
	17050123	North Fork Payette River	Medium	2030
	17050101	C.J. Strike Reservoir	Medium	2030
	17050111	North/Middle Forks Boise River	Medium	2030
	17050113	South Fork Boise River	Low	2030
	17050120	South Fork Payette River	Low	2030
	17050121	Middle Fork Payette	Low	2030
	17060205	Upper Middle Fork Salmon River	Low	2030
	17060206	Lower Middle Fork Salmon	Low	2030
	17060208	South Fork Salmon River	Low	2030
Coeur d'Alene				
	17010302	South Fork Coeur d/Alene	High	2024
	17010214	Pend Oreille Lake	High	2024
	17010301	Upper Coeur d'Alene (North Fork)	Medium	2026
	17010104	Kootenai (incl. 17010101 and 17010104) and Moyie (17010105)	Medium	2026
	17010304	St. Joe River	Low	2028
	17010216	Pend Oreille River (below Albeni Falls Dam)	Low	2028
	17010215	Priest Lake	Low	2028
	17010213	Lower Clark Fork		
	17010303	Coeur d'Alene Lake	Low	2028
	17010305	Upper Spokane	Low	2028

DEQ Region	HUC	Subbasin	Priority	Year
Idaho Falls				
	17060203	Middle Salmon-Panther	High	2024
	17060202	Pahsimeroi	High	2024
	17040217	Little Lost River	High	2024
	17040215	Medicine Lodge Creek	High	2026
	17040217	Little Lost River	High	2026
	17060201	Upper Salmon	High	2026
	17040204	Teton	Medium	2026
	17040218	Big Lost River	Medium	2026
	17040216	Birch	Medium	2026
	17060207	Middle Salmon-Chamberlain	Medium	2026
	17040104	Palisades Reservoir	Low	2026
	17040201	Idaho Falls	Low	2026
	17040202	Upper Henrys	Low	2026
	17040203	Lower Henrys	Low	2026
Lewiston				
	17060308	Lower North Fork Clearwater	High	2026
	17060101	Hells Canyon	Medium	2028
	17060209	Lower Salmon	Medium	2028
	17060307	Upper North Fork Clearwater River	Medium	2028
	17060303	Lochsa River	Low	2030
	17060103	Lower Snake – Asotin	Low	2030
	17060108	Palouse River	Low	2030
	17060209	Lower Salmon	Low	2030
	17060304	Middle Fork Clearwater	Low	2030
	17060306	Clearwater River	Low	2030
Pocatello				
	17040206	American Falls Reservoir	High	2026
	17040208	Portneuf	High	2025
	17040207	Blackfoot River	Medium	2027
	16010102	Central Bear River	Low	2028
	16010201	Bear Lake	Low	2028
	16010202	Blackfoot River	Low	2028
	16010203	Little Bear River/Logan	Low	2028
	16010204	Lower Bear River/Malad	Low	2028
	16020309	Curlew Valley	Low	2028
	17040105	Salt	Low	2028
Twin Falls				
	17040210	Raft River	High	2026
	17040212	Upper Snake River/Rock Creek	High	2026
	17040221	Little Wood River	High	2026
	17040220	Camas	High	2026

DEQ Region	HUC	Subbasin	Priority	Year
	17040219	Big Wood	Medium	2028
	17040213	Salmon Falls Creek	Low	2030
	17040211	Goose Creek	Low	2030
	17040209	Lake Walcott	Low	2028

Appendix G. DEQ's 2022–2032 CWA Section 303(d) Vision Long-Term Planning and Prioritization: 2022 Vision

In 2022, United States Environmental Protection Agency (EPA) released the "2022–2032 Vision for the Clean Water Act Section 303(d) Program" (2022 Vision), replacing the 2013 "A Long-Term Vision for Assessment, Restoration and Protection under the Clean Water Act Section 303(d) Program." The 2022 Vision will identify plan priorities in individual two-year increments. These priorities are considered using long-term planning resources such as the "Waters remaining on the 2002 Settlement Agreement" (Appendix E) and the "Clean Water Act § 303(d) Priority Ranking" (Appendix F). As each state, territory, or tribe is unique and subject to changing circumstances, these priorities will have an emphasis on flexibility and adaptability, following the intention of the planning and prioritization goal of the 2022 Vision. The Idaho Department of Environmental Quality (DEQ) has developed a list of metrics, which was submitted to EPA in September 2022 and can be found in Appendix G (DEQ's 2022–2032 CWA Section 303(d) Vision Long-Term Planning and Prioritization: 2022 Vision) of the 2024 Integrated Report. DEQ will identify priority metrics every two years for the purpose of this 2022 Vision, submitting to EPA every September in 2024, 2026, 2028, and 2030 and reporting in appendices the subsequent integrated reports.

In Table G1, the *Status* column provides the intended status of the AU in question. "Complete" refers to the intention of submittal of a TMDL or other restoration plan (advance restoration plan (5-ARP) or 4b) to EPA within the two-year metric cycle, and "In Progress" refers to the intention of developing a TMDL or other restoration plan within the two-year metric cycle.

Table G1. Status of TMDL or alternative restoration plan

ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17060203SL005_03	Big Deer Creek - South Fork Big Deer Creek to mouth	COPPER	In Progress
ID17060203SL007_02	South Fork Big Deer Creek - Bucktail Creek to mouth	COPPER	In Progress
ID17010301PN003_02	Beaver Creek - Headwaters and tributaries	CADMIUM	In Progress
ID17010301PN003_02	Beaver Creek - Headwaters and tributaries	ZINC	In Progress
ID17010301PN003_03	Beaver Creek- below White Creek	CADMIUM	In Progress
ID17010301PN003_03	Beaver Creek- below White Creek	ZINC	In Progress
ID17010301PN003_03	Beaver Creek- below White Creek	LEAD	In Progress
ID17010301PN004_02	Prichard Cr., tributaries between Butte Gulch and Eagle Cr.	ZINC	In Progress
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	LEAD	In Progress
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	ZINC	In Progress
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	CADMIUM	In Progress
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	COPPER	In Progress
ID17010301PN004_03	Prichard Creek - between Butte Gulch and Eagle Creek	ARSENIC	In Progress
ID17010301PN004_04	Prichard Creek below Eagle Creek	CADMIUM	In Progress
ID17010301PN004_04	Prichard Creek below Eagle Creek	LEAD	In Progress
ID17010301PN004_04	Prichard Creek below Eagle Creek	ZINC	In Progress
ID17010301PN005_02	Prichard Creek -headwaters and tributaries above Butte Gulch	CADMIUM	In Progress
ID17010301PN005_02	Prichard Creek -headwaters and tributaries above Butte Gulch	ZINC	In Progress
ID17010301PN005_02	Prichard Creek -headwaters and tributaries above Butte Gulch	LEAD	In Progress
ID17010301PN005_03	Prichard Creek - between Barton Gulch to Butte Gulch	CADMIUM	In Progress
ID17010301PN005_03	Prichard Creek - between Barton Gulch to Butte Gulch	LEAD	In Progress
ID17010301PN005_03	Prichard Creek - between Barton Gulch to Butte Gulch	ZINC	In Progress
ID17040221SK009_03	West Fork Fish Creek - source to Fish Creek Reservoir	FECAL COLIFORM	In Progress
ID17040221SK009_03	West Fork Fish Creek - source to Fish Creek Reservoir	SEDIMENTATION/SILTATION	In Progress
ID17040221SK015_04	South Fork Muldoon Creek - Friedman Creek to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17040221SK016_02	South Fork Muldoon Creek - source to Friedman Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress

ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17040221SK020_02A	Cold Spring Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17040221SK023_03	Silver Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17040221SK023_03	Silver Creek - source to mouth	TEMPERATURE	In Progress
ID17060303CL001_05	Lochsa River - Deadman Creek to mouth	TEMPERATURE	In Progress
ID17060303CL003_05	Lochsa River - Old Man Creek to Deadman Creek	TEMPERATURE	In Progress
ID17060303CL008_05	Lochsa River - Fish Creek to Old Man Creek	TEMPERATURE	In Progress
ID17060303CL009_05	Lochsa River - Indian Grave Creek to Fish Creek	TEMPERATURE	In Progress
ID17060303CL013_05	Lochsa River- Warm Springs Creek to Indian Grave Creek	TEMPERATURE	In Progress
ID17060303CL020_05	Lochsa River - confluence of Crooked Fork, White Sand Creek,	TEMPERATURE	In Progress
ID17050112SW016_03	Daggett Creek - 3rd order (Sheep Creek to mouth)	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17050112SW014_04	Granite Creek - 4th order (Woof Creek to mouth)	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17050108SW002_02	Lone Tree Creek and tributaries - 1st and 2nd order	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17050108SW002_02	Lone Tree Creek and tributaries - 1st and 2nd order	ESCHERICHIA COLI (E. COLI)	In Progress
ID17050108SW013_03	Rock Creek above Triangle Reservoir - 3rd order	TEMPERATURE	In Progress
ID17050108SW014_02	Louisa Creek - entire drainage	SEDIMENTATION/SILTATION	In Progress
ID17050103SW006_07a	Snake River - Castle Creek to Swan Falls	TEMPERATURE	In Progress
ID17050103SW019_02	Brown Creek - 1st & 2nd order	SEDIMENTATION/SILTATION	In Progress
ID17050103SW019_03	Brown Creek - 3rd order	SEDIMENTATION/SILTATION	In Progress
ID17050103SW019_04	Brown Creek - 4th order	SEDIMENTATION/SILTATION	In Progress
ID17050103SW021_02	Birch Creek and tributaries - 1st and 2nd order	SEDIMENTATION/SILTATION	In Progress
ID17050103SW024_03	Shoofly and Poison Creeks - 3rd order	SEDIMENTATION/SILTATION	In Progress
ID17040205SK008_02	Willow Creek - Mud Creek to Birch Creek	ESCHERICHIA COLI (E. COLI)	Complete
ID17040205SK024_02	Brockman Creek - Corral Creek to mouth	ESCHERICHIA COLI (E. COLI)	Complete
ID17040205SK005_04	Willow Creek - Birch Creek to Bulls Fork	TEMPERATURE	Complete
ID17040205SK008_04	Willow Creek - Mud Creek to Birch Creek	TEMPERATURE	Complete

ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17040205SK005_02	Willow Creek - Birch Creek to Bulls Fork	COMBINED BIOTA/HABITAT BIOASSESSMENTS	Complete
ID17040205SK009_02	Mud Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	Complete
ID17040205SK009_02	Mud Creek - source to mouth	TEMPERATURE	Complete
ID17040205SK021_02	Grays Lake - Order 1 & 2 tributaries	TEMPERATURE	Complete
ID17040205SK023_02	Gravel Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	Complete
ID17040205SK030_02	Bulls Fork - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	Complete
ID17060203SL017_02	Panther Creek - source to Porphyry Creek	TEMPERATURE	Complete
ID17060203SL018_02	Moyer Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL024_02	Napias Creek - Arnett Creek to and including Moccasin Creek	TEMPERATURE	Complete
ID17060203SL025_02	Napias Creek - source to Arnett Creek	TEMPERATURE	Complete
ID17060203SL026_02	Arnett Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL031_02	East Boulder Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL035_02	Moose Creek - Dolly Creek to Little Moose Creek	TEMPERATURE	Complete
ID17060203SL078_02	North Fork Salmon River - source to Twin Creek	TEMPERATURE	Complete
ID17060203SL080_02	Twin Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL082_02	Hull Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL084_02	Squaw Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL086_02	Boulder Creek - source to mouth	TEMPERATURE	Complete
ID17060203SL090_02	Colson Creek - source to mouth	TEMPERATURE	Complete
ID17060202SL003_03	Lawson Creek-confluence of North and South Fork Lawson Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060202SL004_03	North Fork Lawson Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060202SL023_03	Burnt Creek - Long Creek to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060202SL024_02	Burnt Creek - source to Long Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060202SL029_02	Donkey Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress

ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17060202SL035_02	Patterson Creek - source to and including Inyo Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060204SL030_05	Lemhi River (East Branch)-Eighteenmile & Texas Ck Confluence	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL041_04	Eighteenmile Creek - Hawley Creek to mouth	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL011_04	Basin Creek	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL030_05	Lemhi River (East Branch)-Eighteenmile & Texas Ck Confluence	TEMPERATURE	Complete
ID17060204SL030_05	Lemhi River (East Branch)-Eighteenmile & Texas Ck Confluence	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL036_03	Texas Creek	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL036_03	Texas Creek	COMBINED BIOTA/HABITAT BIOASSESSMENTS	Complete
ID17060204SL036_03	Texas Creek	SEDIMENTATION/SILTATION	Complete
ID17060204SL041_04	Eighteenmile Creek - Hawley Creek to mouth	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL051b_03	Canyon Creek - source to diversion (T16N, R26E, Sec.22)	ESCHERICHIA COLI (E. COLI)	Complete
ID17060204SL058_04	Agency Creek - source to Cow Creek	ESCHERICHIA COLI (E. COLI)	Complete
ID17040218SK009_03	Pass Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK035_02	Star Hope Creek - Lake Creek to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK035_04	Star Hope Creek - Lake Creek to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK036_02	Star Hope Creek - source to Lake Creek	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK037_02	Muldoon Canyon Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK041_02	Corral Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040218SK049_04	Cherry Creek-confluence of Left Fork Cherry and Lupine Creek	ESCHERICHIA COLI (E. COLI)	In Progress
ID17060201SL032_04	Yankee Fork Creek - Jordan Creek to mouth	TEMPERATURE	In Progress
ID17060201SL085_03	Pole Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060201SL048_03	Basin Creek - East Basin Creek to mouth	SEDIMENTATION/SILTATION	In Progress
ID17060201SL089_02	Williams Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17010214PN018_02b	Boyer Slough	AMMONIA-NITROGEN	In Progress
ID17010214PN018_02b	Boyer Slough	PHOSPHORUS, TOTAL	In Progress
ID17010302PN001_02	South Fork Coeur d'Alene River - Tributaries below Placer Cr	TEMPERATURE	In Progress

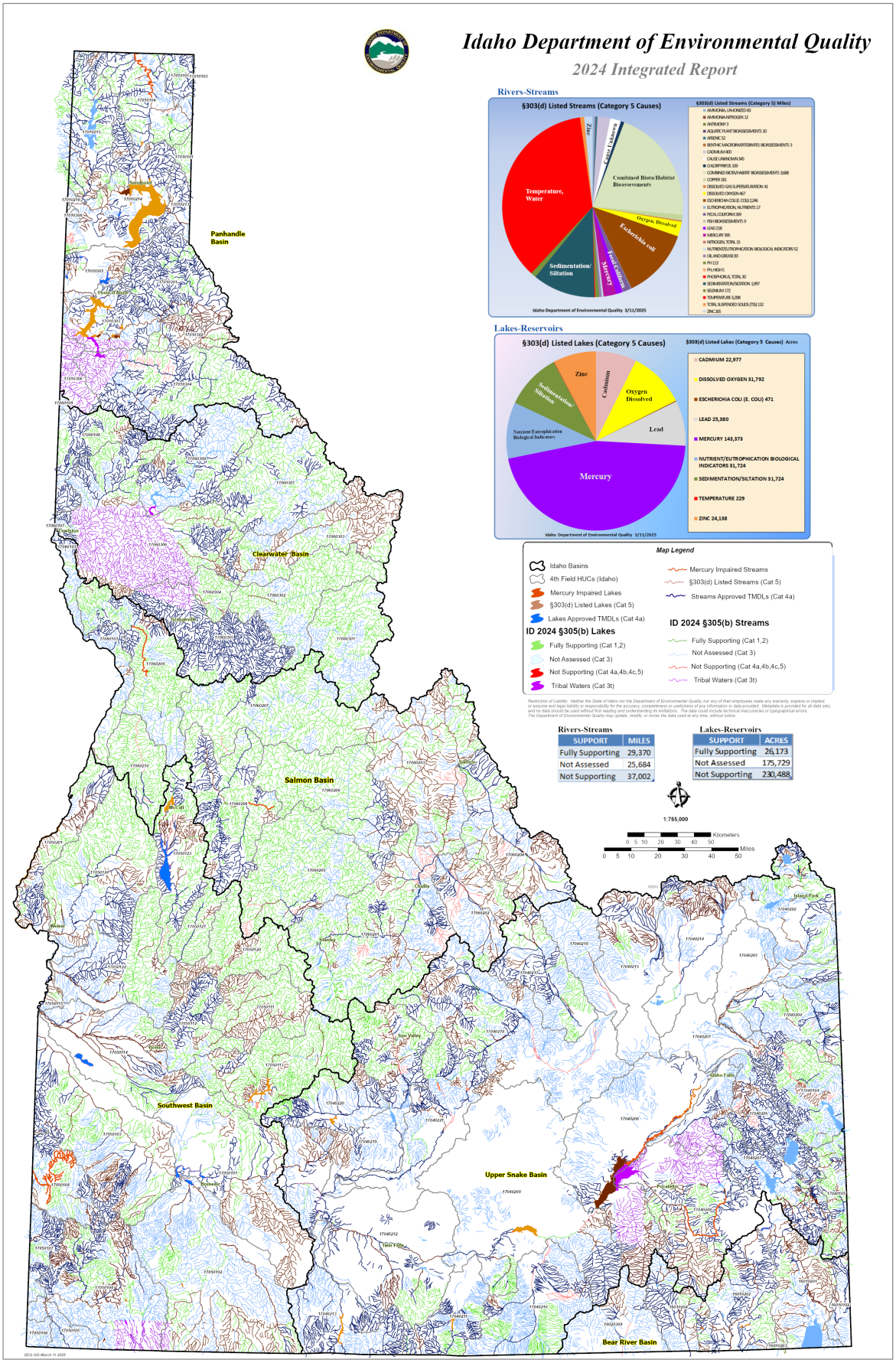
ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17010302PN001_04	South Fork Coeur d'Alene River - btw Big Cr and Pine Cr	TEMPERATURE	In Progress
ID17010302PN001_05	South Fork Coeur d'Alene River - btw Pine Cr and CdA River	TEMPERATURE	In Progress
ID17010302PN004_03	East Fork Pine Creek below Douglas Creek	TEMPERATURE	In Progress
ID17010302PN007a_02	Big Creek headwaters and tributaries	TEMPERATURE	In Progress
ID17010302PN007a_03	Big Creek btw Ink Creek and mining impact area	TEMPERATURE	In Progress
ID17010302PN009a_02	Lake Creek headwaters to mining impact area	TEMPERATURE	In Progress
ID17010302PN010_02	Placer Creek and tributaries	TEMPERATURE	In Progress
ID17010302PN011_03	South Fork Coeur d'Alene R btw Daisy Gul and Canyon Cr	TEMPERATURE	In Progress
ID17010302PN013_02	South Fork Coeur d'Alene R. headwaters and tributaries	TEMPERATURE	In Progress
ID17010302PN014_02	Canyon Creek - from Gorge Gulch to South Fork CdA R.	TEMPERATURE	In Progress
ID17010302PN015_02	Canyon Creek from headwaters to Gorge Gulch	TEMPERATURE	In Progress
ID17010302PN016_02	Ninemile Creek and tribs except Ninemile Cr above East Fork	TEMPERATURE	In Progress
ID17010302PN018_02	Moon Creek headwaters and tribs except West Fork Moon Cr	TEMPERATURE	In Progress
ID17010302PN018_03	Moon Creek btw West Fork Moon and South Fork CDA River	TEMPERATURE	In Progress
ID17010302PN020_02	Bear Creek headwaters and tributaries	TEMPERATURE	In Progress
ID17040210SK006_02	Clyde Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040210SK006_03	Clyde Creek - source to mouth	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040210SK021_03	Sublett Creek - source to Sublett Reservoir	ESCHERICHIA COLI (E. COLI)	In Progress
ID17040212SK020_07	Snake River - Milner Dam to Twin Falls	PHOSPHORUS, TOTAL	In Progress
ID17040212SK019_07	Snake River - Twin Falls to Rock Creek	PHOSPHORUS, TOTAL	In Progress
ID17040212SK007_07	Snake River - Rock Creek to Box Canyon Creek	PHOSPHORUS, TOTAL	In Progress
ID17040212SK005_07	Snake River - Box Canyon Creek to Lower Salmon Falls	PHOSPHORUS, TOTAL	In Progress
ID17040212SK001_07	Snake River - Lower Salmon Falls to Clover Creek	PHOSPHORUS, TOTAL	In Progress
ID17040212SK005_07	Snake River - Box Canyon Creek to Lower Salmon Falls	PHOSPHORUS, TOTAL	In Progress
ID17040212SK022_03	Dry Creek - source to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK013_04	Rock Creek -river mile 25 (T11S, R18E, Sec. 36) to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK013_05	Rock Creek -river mile 25 (T11S, R18E, Sec. 36) to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK014_04	Cottonwood Creek - 4th order segment	PHOSPHORUS, TOTAL	In Progress
ID17040212SK015_02	McMullen Creek - source to mouth	PHOSPHORUS, TOTAL	In Progress

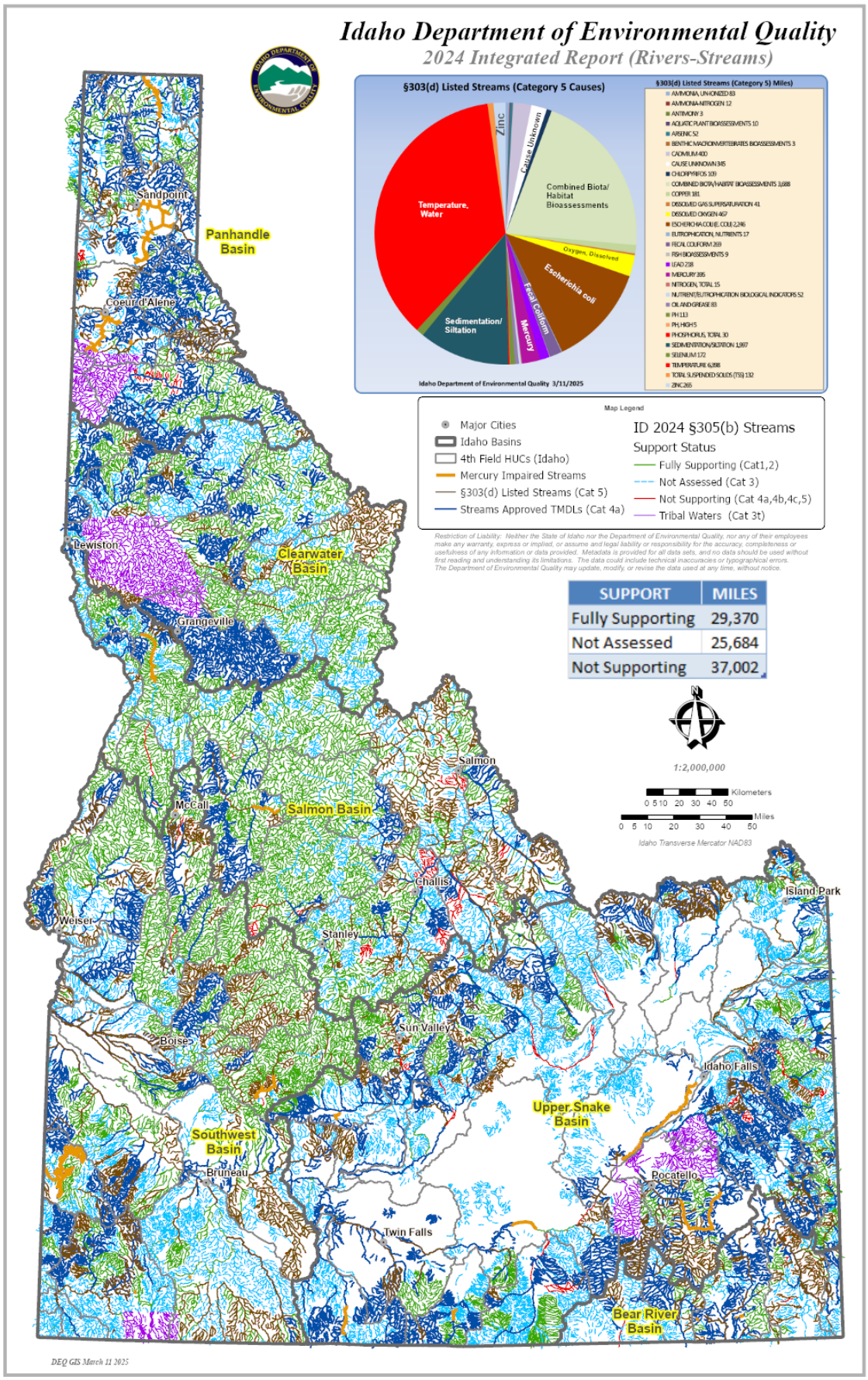
ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17040212SK015_03	McMullen Creek - source to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK027_02	Vinyard Creek - Vinyard Lake to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK019_02	Snake River - Twin Falls to Rock Creek	PHOSPHORUS, TOTAL	In Progress
ID17040212SK007_02	2nd order segments of Briggs Creeks and Cedar Draw	PHOSPHORUS, TOTAL	In Progress
ID17040212SK012_02	Cedar Draw - source to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK028_02	Clear Lakes	PHOSPHORUS, TOTAL	In Progress
ID17040212SK010_02	Mud Creek and Clear Creek	PHOSPHORUS, TOTAL	In Progress
ID17040212SK010_03	Mud Creek - Deep Creek Road (T09S, R14E) to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK011_02	Mud Creek - source to Deep Creek Road (T09S, R14E)	PHOSPHORUS, TOTAL	In Progress
ID17040212SK008_03	Deep Creek - High Line Canal to Snake River (3rd order)	PHOSPHORUS, TOTAL	In Progress
ID17040212SK005_02	Snake River tribs containing Riley Creek and Sand Springs	PHOSPHORUS, TOTAL	In Progress
ID17040212SK031_02	Sand Springs	PHOSPHORUS, TOTAL	In Progress
ID17040212SK033_02	Billingsley Creek - source to mouth	PHOSPHORUS, TOTAL	In Progress
ID17040212SK034_04	Clover Creek - Pioneer Reservoir Dam outlet to Snake River	PHOSPHORUS, TOTAL	In Progress
ID17060308CL008_05	North Fork Clearwater River - Aquaruis Cmpgrd to Dworshak R.	TEMPERATURE	In Progress
ID17060308CL031_02	Bull Run Creek - conf. of Squaw and Shattuck Creeks to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060308CL031_03	Bull Run Creek - conf. of Squaw and Shattuck Creeks to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060308CL032_02	Shattuck Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060308CL033_02	Squaw Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17060308CL033_03	Squaw Creek - source to mouth	COMBINED BIOTA/HABITAT BIOASSESSMENTS	In Progress
ID17050102SW030_04	Big Flat Creek - 4th order	ESCHERICHIA COLI (E. COLI)	Complete
ID17050102SW031_03	Three Creek - 3rd order	ESCHERICHIA COLI (E. COLI)	Complete
ID17050102SW033_02	Deer Creek - 1st and 2nd order	ESCHERICHIA COLI (E. COLI)	Complete
ID17050102SW034_03	Deadwood Creek - 3rd order	ESCHERICHIA COLI (E. COLI)	Complete
ID17050112SW007_02	Cottonwood Creek and tributaries - 1st and 2nd order	TEMPERATURE	Complete
ID17050112SW014_02	Granite Creek - 1st and 2nd order	TEMPERATURE	Complete

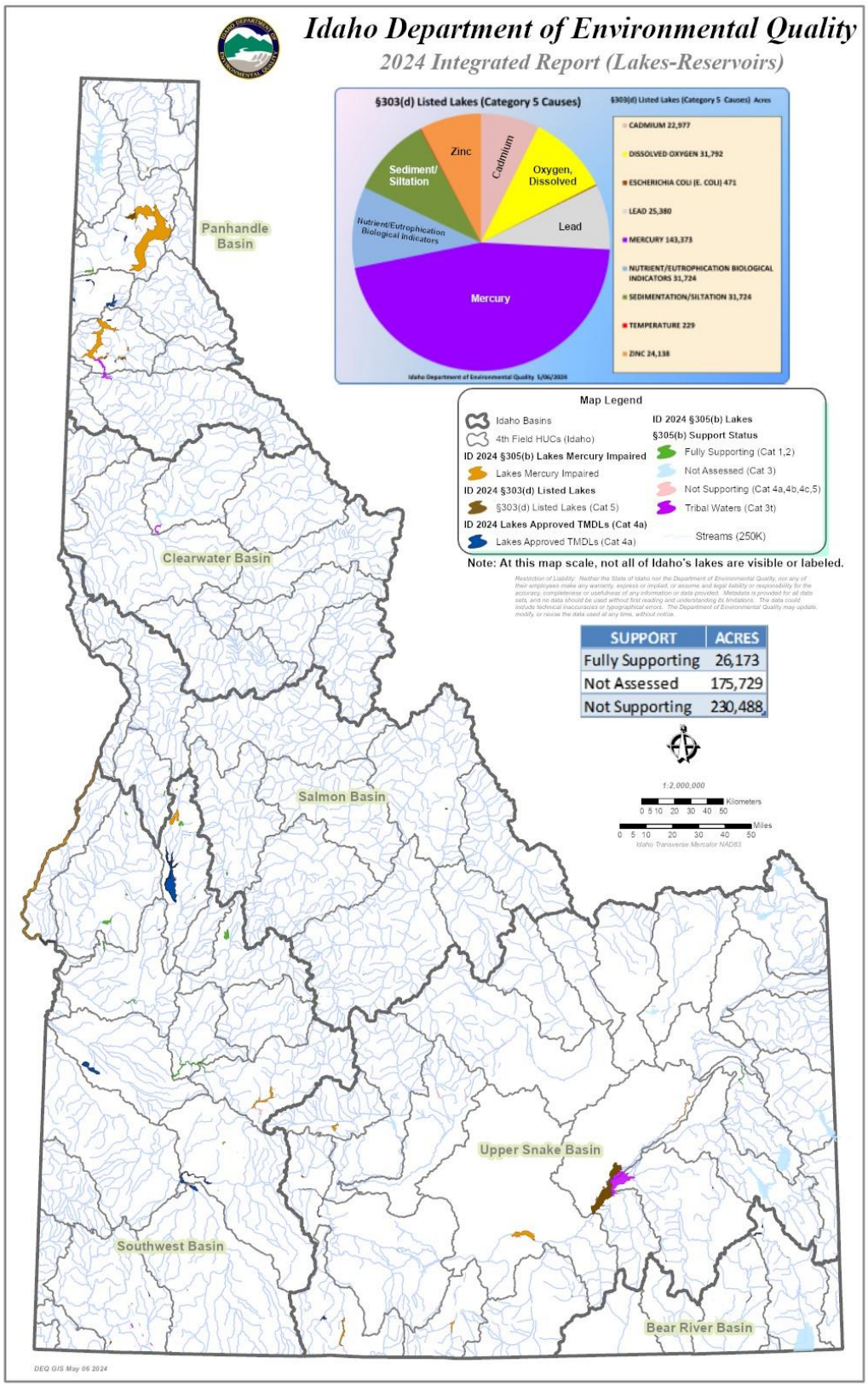
ASSESSMENT UNIT	ASSESSMENT UNIT NAME	POLLUTANT	STATUS
ID17050112SW004_05	Boise River - 5th order (North Fork to Arrowrock)	TEMPERATURE	Complete
ID17050108SW001_05	Jordan Creek - Williams Creek to State Line	MERCURY	In Progress
ID17050108SW004_02	Jordan Creek, Upper - 1st and 2nd order tributaries	MERCURY	In Progress
ID17050108SW004_03	Jordan Creek - Jacobs Gulch to Louse Creek	MERCURY	In Progress
ID17050108SW004_05	Jordan Creek - Big Boulder Creek to Williams Creek	MERCURY	In Progress
ID17050103SW002_04	Lower Succor Creek - 4th order (state line to mouth)	TEMPERATURE	Complete
ID17050103SW009_03	Reynolds, Salmon and Wilson Creeks - 3rd order segments	ESCHERICHIA COLI (E. COLI)	Complete
ID17050103SW009_04	Reynolds Creek - 4th order (Salmon Creek to Snake River)	COMBINED BIOTA/HABITAT BIOASSESSMENTS	Complete
ID17050103SW016_02	Pickett Creek - 1st & 2nd order	SEDIMENTATION/SILTATION	Complete

Appendix H. Maps Showing the Support Status of All State Waters

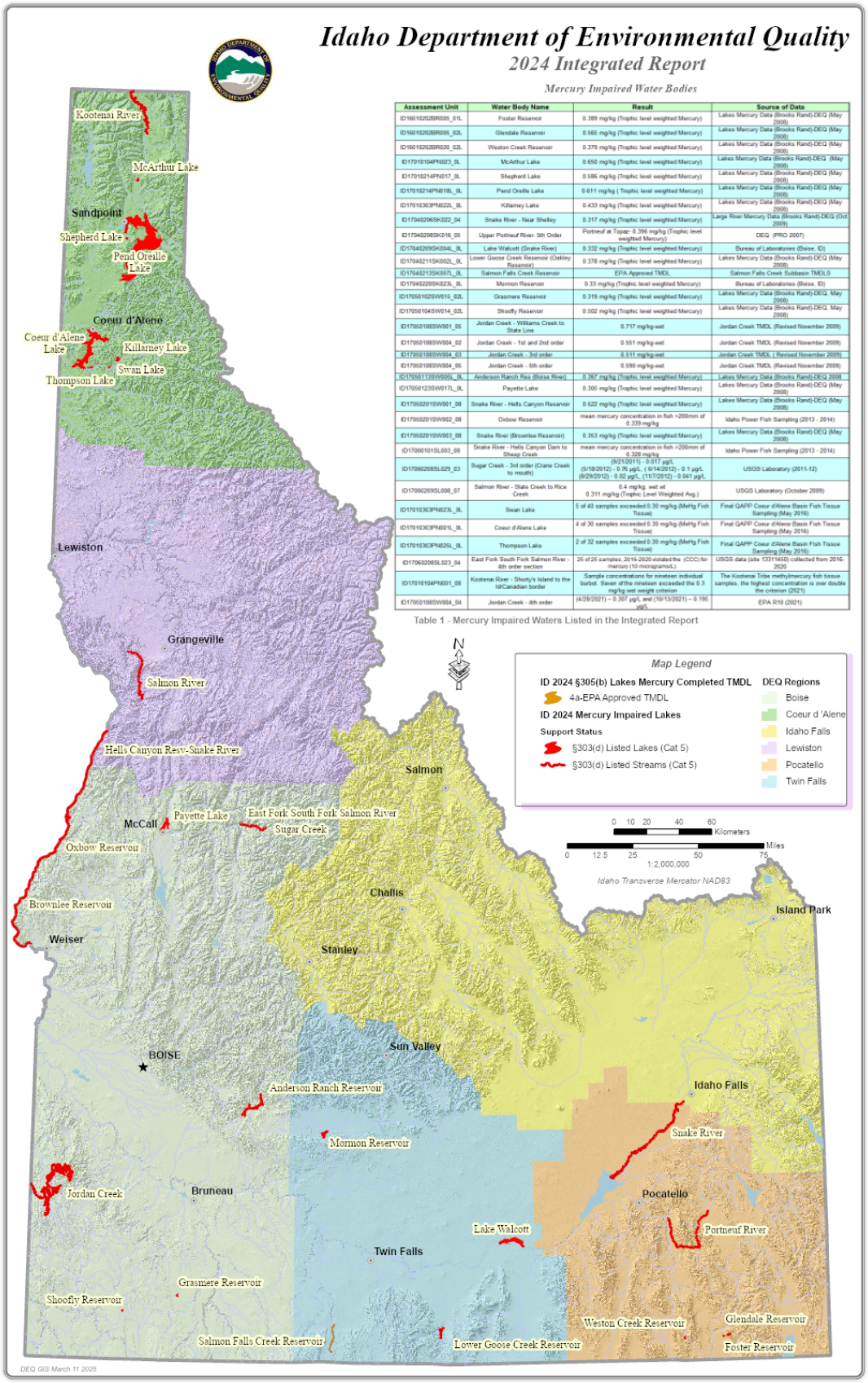
Appendix H includes three maps. The first map displays the support status of all state waters, the second map displays the support status of Idaho's streams, and the third map displays the support status of Idaho's lakes. An *interactive map* is also available. As Idaho Department of Environmental Quality corrects errors associated with assessment units (AUs) and hydraulic unit code (HUC) boundaries, some maps and AU/HUC associations included in this report may be subject to change.


Idaho Department of Environmental Quality
2024 Integrated Report
Rivers-Streams
§303(d) Listed Streams (Category 5 Causes)
§303(d) Listed Streams (Category 5) Miles
Temperature, Water
Combined Biota/Habitat Bioassessments
Oxygen, Dissolved
Escherichia coli
Fecal Coliform
Mercury
Sedimentation/ Siltation
Zinc
Cadmium
Idaho Department of Environmental Quality 3/11/2025
Lakes-Reservoirs
§303(d) Listed Lakes (Category 5 Causes)
§303(d) Listed Lakes (Category 5 Causes) Acres
CADMIUM 22,977
DISSOLVED OXYGEN 31,792
ESCHERICHIA COLI (E. COLI) 471
LEAD 25,880
MERCURY 143,873
NUTRIENT/EUTROPHICATION BIOLOGICAL INDICATORS 31,724
SEDIMENTATION/SILTATION 31,724
TEMPERATURE 229
ZINC 24,138
Nutrient/Eutrophication Biological Indicators
Lead
Idaho Department of Environmental Quality 3/11/2025
Map Legend
Idaho Basins
4th Field HUCs (Idaho)
Mercury Impaired Lakes
§303(d) Listed Lakes (Cat 5)
Lakes Approved TMDLs (Cat 4a)
Mercury Impaired Streams
§303(d) Listed Streams (Cat 5)
Streams Approved TMDLs (Cat 4a)
ID 2024 §305(b) Lakes
Fully Supporting (Cat 1,2)
Not Assessed (Cat 3)
Not Supporting (Cat 4a,4b,4c,5)
Tribal Waters (Cat 3t)
ID 2024 §305(b) Streams
Fully Supporting (Cat 1,2)
Not Assessed (Cat 3)
Not Supporting (Cat 4a,4b,4c,5)
Tribal Waters (Cat 3t)
Restriction of Liability: Neither the State of Idaho nor the Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume and legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.
Rivers-Streams
SUPPORT | MILES
Fully Supporting | 29,370
Not Assessed | 25,684
Not Supporting | 37,002
Lakes-Reservoirs
SUPPORT | ACRES
Fully Supporting | 26,173
Not Assessed | 175,729
Not Supporting | 230,488
1:785,000
Kilometers
0 5 10 20 30 40 50
Miles
0 5 10 20 30 40 50
Panhandle Basin
Clearwater Basin
Salmon Basin
Southwest Basin
Upper Snake Basin
Bear River Basin
Boundary
Bonner
Kootenai
Shoshone
Benewah
Latah
Nez Perce
Lewis
Idaho
Clearwater
Valley
Adams
Washington
Payette
Canyon
Owyhee
Gem
Ada
Boise
Elmore
Camas
Blaine
Lincoln
Gooding
Jerome
Twin Falls
Cassia
Minidoka
Power
Oneida
Franklin
Bear Lake
Caribou
Bannock
Bingham
Power
Teton
Madison
Fremont
Clark
Jefferson
Butte
Custer
Lemhi
Idaho Falls
Pocatello
Blackfoot
Rexburg
Driggs
Preston
Soda Springs
Montpelier
Grace
Malad City
Downey
Arco
Challis
Salmon
Dubois
Island Park
Ashton
Rigby
Shelley
Aberdeen
Firth
Blackfoot
Moreland
Inkom
Lava Hot Springs
Weston
Oxford
Malad Valley
Hagerman
Bliss
Wendell
Hansen
Buhl
Filer
Rupert
Heyburn
Burley
Paul
Rupert
Declo
Albion
Malta
Almo
Oakley
Hailey
Ketchum
Sun Valley
Stanley
Mackay
Arco
Dubois
Salmon
Challis
Leadore
Tendoy
Gibbonville
Cobalt
Shoup
North Fork
Carmen
Clayton
Mackay
Arco
Howe
Atomic City
Ammon
Idaho Falls
Iona
Ucon
Swan Valley
Irwin
Alpine
Palisades
Freedom
Etna
Victor
Driggs
Tetonia
Felt
Teton
Newdale
Parker
Drummond
Spencer
Dubois
Island Park
Henrys Lake
Big Lost River
Little Lost River
Birch Creek
Medicine Lodge
Beaverhead
Lemhi
Pahsimeroi
Salmon River
Middle Fork Salmon
Main Salmon
Lower Salmon
Selway
Lochsa
Clearwater
North Fork Clearwater
Middle Fork Clearwater
South Fork Clearwater
Lower Clearwater
Potlatch
Palouse
Snake
Lower Snake
Hells Canyon
Weiser
Payette
North Fork Payette
South Fork Payette
Boise
North Fork Boise
Middle Fork Boise
South Fork Boise
Lower Boise
Owyhee
Bruneau
Jarbidge
Salmon Falls
Goose Creek
Raft River
Portneuf
Blackfoot
Bear River
Malad
Little Wood
Big Wood
Camas Creek
Silver Creek
Henrys Fork
Teton
Falls
Willow
Rock Creek
Marsh Creek
Deep Creek
Cottonwood Creek
Pine Creek
Big Creek
Chamberlain Creek
Loon Creek
Middle Fork Salmon
Upper Salmon
Pahsimeroi
Lemhi
Panther Creek
Indian Creek
Napias Creek
Agency Creek
Eighteenmile Creek
Lolo Creek
Orofino Creek
Potlatch
Palouse
Snake
Lower Snake
Hells Canyon
Weiser
Payette
North Fork Payette
South Fork Payette
Boise
North Fork Boise
Middle Fork Boise
South Fork Boise
Lower Boise
Owyhee
Bruneau
Jarbidge
Salmon Falls
Goose Creek
Raft River
Portneuf
Blackfoot
Bear River
Malad
Little Wood
Big Wood
Camas Creek
Silver Creek
Henrys Fork
Teton
Falls
Willow
Rock Creek
Marsh Creek
Deep Creek
Cottonwood Creek
Pine Creek
Big Creek
Chamberlain Creek
Loon Creek
Middle Fork Salmon
Upper Salmon
Pahsimeroi
Lemhi
Panther Creek
Indian Creek
Napias Creek
Agency Creek
Eighteenmile Creek
Lolo Creek
Orofino Creek


Idaho Department of Environmental Quality
2024 Integrated Report (Rivers-Streams)
§303(d) Listed Streams (Category 5 Causes)
Temperature, Water
Sedimentation/ Siltation
Escherichia coli
Fecal Coliform
Mercury
Oxygen, Dissolved
Combined Biota/ Habitat Bioassessments
Cause Unknown
Zinc
§303(d) Listed Streams (Category 5) Miles)
Idaho Department of Environmental Quality 3/11/2025
Map Legend
Major Cities
Idaho Basins
4th Field HUCs (Idaho)
Mercury Impaired Streams
§303(d) Listed Streams (Cat 5)
Streams Approved TMDLs (Cat 4a)
ID 2024 §305(b) Streams
Support Status
Fully Supporting (Cat1,2)
Not Assessed (Cat 3)
Not Supporting (Cat 4a,4b,4c,5)
Tribal Waters (Cat 3t)
Restriction of Liability: Neither the State of Idaho nor the Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume and legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.
SUPPORT | MILES
Fully Supporting | 29,370
Not Assessed | 25,684
Not Supporting | 37,002
1:2,000,000
Kilometers
0 5 10 20 30 40 50
Miles
0 5 10 20 30 40 50
Idaho Transverse Mercator NAD83
Sandpoint
Panhandle Basin
Coeur d'Alene
Lewiston
Clearwater Basin
Grangeville
Salmon
McCall
Salmon Basin
Challis
Island Park
Weiser
Stanley
Sun Valley
Boise
Idaho Falls
Upper Snake Basin
Southwest Basin
Bruneau
Pocatello
Twin Falls
Bear River Basin
DEQ GIS March 11 2025


Idaho Department of Environmental Quality
2024 Integrated Report (Lakes-Reservoirs)
§303(d) Listed Lakes (Category 5 Causes)
Zinc
Cadmium
Oxygen, Dissolved
Sediment/ Siltation
Lead
Nutrient/Eutrophication Biological Indicators
Mercury
§303(d) Listed Lakes (Category 5 Causes) Acres
CADMIUM 22,977
DISSOLVED OXYGEN 31,792
ESCHERICHIA COLI (E. COLI) 471
LEAD 25,380
MERCURY 143,373
NUTRIENT/EUTROPHICATION BIOLOGICAL INDICATORS 31,724
SEDIMENTATION/SILTATION 31,724
TEMPERATURE 229
ZINC 24,138
Idaho Department of Environmental Quality 5/06/2024
Map Legend
Idaho Basins
4th Field HUCs (Idaho)
ID 2024 §305(b) Lakes Mercury Impaired
Lakes Mercury Impaired
ID 2024 §303(d) Listed Lakes
§303(d) Listed Lakes (Cat 5)
ID 2024 Lakes Approved TMDLs (Cat 4a)
Lakes Approved TMDLs (Cat 4a)
ID 2024 §305(b) Lakes §305(b) Support Status
Fully Supporting (Cat 1,2)
Not Assessed (Cat 3)
Not Supporting (Cat 4a,4b,4c,5)
Tribal Waters (Cat 3t)
Streams (250K)
Note: At this map scale, not all of Idaho's lakes are visible or labeled.
Restriction of Liability: Neither the State of Idaho nor the Department of Environmental Quality, nor any of their employees make any warranty, express or implied, or assume and legal liability or responsibility for the accuracy, completeness or usefulness of any information or data provided. Metadata is provided for all data sets, and no data should be used without first reading and understanding its limitations. The data could include technical inaccuracies or typographical errors. The Department of Environmental Quality may update, modify, or revise the data used at any time, without notice.
SUPPORT ACRES
Fully Supporting 26,173
Not Assessed 175,729
Not Supporting 230,488
1:2,000,000
Kilometers 0 5 10 20 30 40 50
Miles 0 5 10 20 30 40 50
Idaho Transverse Mercator NAD83
Panhandle Basin
Clearwater Basin
Salmon Basin
Upper Snake Basin
Southwest Basin
Bear River Basin
DEQ GIS May 06 2024

Appendix I. Map of Mercury-Impaired Water Bodies



Assessment Unit	Water Body Name	Result	Source of Data
ID160102028R005_01L	Foster Reservoir	0.389 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID160102028R005_02L	Glendale Reservoir	0.565 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID160102028R020_02L	Weston Creek Reservoir	0.379 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170101004PN023_0L	McArthur Lake	0.650 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170102141PN017_0L	Shepherd Lake	0.586 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170102141PN018L_0L	Pend Oreille Lake	0.611 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170102303PN022L_0L	Killarney Lake	0.433 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170402065K022_04	Snake River - Near Shelley	0.317 mg/kg (Trophic level weighted Mercury)	Large River Mercury Data (Brooks Rand)-DEQ (Oct 2009)
ID170402085K015_05	Upper Portneuf River- 5th Order	Portneuf at Topaz- 0.396 mg/kg (Trophic level weighted Mercury)	DEQ (PRO 2007)
ID170402095K004L_0L	Lake Walcott (Snake River)	0.332 mg/kg (Trophic level weighted Mercury)	Bureau of Laboratories (Boise, ID)
ID170402115K002L_0L	Lower Goose Creek Reservoir (Oakley Reservoir)	0.378 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170402135K007L_0L	Salmon Falls Creek Reservoir	EPA Approved TMDL	Salmon Falls Creek Subbasin TMDLS
ID170402205K023L_0L	Mormon Reservoir	0.33 mg/kg (Trophic level weighted Mercury)	Bureau of Laboratories (Boise, ID)
ID170501025W015_02L	Grasmere Reservoir	0.319 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ, May 2008)
ID170501045W014_02L	Shoofly Reservoir	0.502 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ, May 2008)
ID170501085W001_05	Jordan Creek - Williams Creek to State Line	0.717 mg/kg-wet	Jordan Creek TMDL (Revised November 2009)
ID170501085W004_02	Jordan Creek - 1st and 2nd order	0.551 mg/kg-wet	Jordan Creek TMDL (Revised November 2009)
ID170501085W004_03	Jordan Creek - 3rd order	0.511 mg/kg-wet	Jordan Creek TMDL (Revised November 2009)
ID170501085W004_05	Jordan Creek - 5th order	0.590 mg/kg-wet	Jordan Creek TMDL (Revised November 2009)
ID170501139W005L_0L	Anderson Ranch Res (Boise River)	0.367 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ 2008
ID170501235W017L_0L	Payette Lake	0.305 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170502015W001_08	Snake River - Hells Canyon Reservoir	0.522 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170502015W002_08	Oxbow Reservoir	mean mercury concentration in fish >200mm of 0.339 mg/kg	Idaho Power Fish Sampling (2013 - 2014)
ID170502015W003_08	Snake River (Brownlee Reservoir)	0.353 mg/kg (Trophic level weighted Mercury)	Lakes Mercury Data (Brooks Rand)-DEQ (May 2008)
ID170601015L003_08	Snake River - Hells Canyon Dam to Sheep Creek	mean mercury concentration in fish >200mm of 0.328 mg/kg	Idaho Power Fish Sampling (2013 - 2014)
ID170602085L029_03	Sugar Creek - 3rd order (Crane Creek to mouth)	(9/21/2011) - 0.017 µg/L (5/16/2012) - 0.76 µg/L (6/14/2012) - 0.1 µg/L (6/29/2012) - 0.02 µg/L (11/7/2012) - 0.041 µg/L	USGS Laboratory (2011-12)
ID170602095L006_07	Salmon River - Slate Creek to Rice Creek	0.4 mg/kg, wet wt 0.311 mg/kg (Trophic Level Weighted Avg.)	USGS Laboratory (October 2009)
ID171010303PN023L_0L	Swan Lake	5 of 40 samples exceeded 0.30 mg/kg (MeHg Fish Tissue)	Final QAPP Coeur d'Alene Basin Fish Tissue Sampling (May 2016)
ID171010303PN001L_0L	Coeur d'Alene Lake	4 of 30 samples exceeded 0.30 mg/kg (MeHg Fish Tissue)	Final QAPP Coeur d'Alene Basin Fish Tissue Sampling (May 2016)
ID171010303PN025L_0L	Thompson Lake	2 of 32 samples exceeded 0.30 mg/kg (MeHg Fish Tissue)	Final QAPP Coeur d'Alene Basin Fish Tissue Sampling (May 2016)
ID170602095L023_04	East Fork South Fork Salmon River - 4th order section	25 of 25 samples, 2016-2020 violated the (CCC) for mercury (10 micrograms/L).	USGS data (site 13311450) collected from 2016-2020
ID171010104PN001_08	Kootenai River - Shorty's Island to the Id/Canadian border	Sample concentrations for nineteen individual burbot. Seven of the nineteen exceeded the 0.3 mg/kg wet weight criterion	The Kootenai Tribe methylmercury fish tissue samples. the highest concentration is over double the criterion (2021)
ID170501085W004_04	Jordan Creek - 4th order	(4/28/2021) – 0.307 µg/L and (10/13/2021) – 0.195 µg/L	EPA R10 (2021)

Table 1 - Mercury Impaired Waters Listed in the Integrated Report

Appendix J. Response to Public Comments

The Idaho Department of Environmental Quality (DEQ) conducted a 30-day public comment period from October 15 to November 15, 2024, for the draft 2024 Integrated Report. Table J1 provides the list of individuals and organizations who submitted public comments to DEQ. DEQ's responses to public comments are provided below.

Table J1. Individuals and organizations who submitted public comment letters to DEQ.

Name	Affiliation and Organization
Eric Berntsen	Kalispel Tribe of Indians Natural Resources Department
Todd Kinsey	Soil & Erosion Education Program (SEEP) Coeur d"Alene
Michelle Maier	EPA Region 10
Will Tiedemann & Jennifer Ekstrom	Idaho Conservation League
Peter Stayton	South Fork Coeur d'Alene River Sewer District
Eric Van Orden	Coeur d'Alene Tribe
Andrew Penamora	Hecla
Mark Stockton	Integra Resources

Eric Berntsen, Kalispel Tribe of Indians Natural Resources Department

Comment: In Appendix F, Table F1, it is unclear whether the proposed Pend Oreille Lake TMDL will include segments of the Pend Oreille River between the Long Bridge and Albeni Falls Dam. We agree with making Pend Oreille Lake TMDL a high priority and request that DEQ consider all segments of the Pend Oreille River between the Lake and the Idaho/Washington state line to be high priority, given the connectivity of the entire system.

Response: DEQ appreciates the submitted water quality data and comment from the Kalispel Tribe. The Pend Oreille Lake Subbasin (HUC 17010214) reference, in Appendix F, Table F1, as a "High" priority ranking for TMDL development, refers to the Boyer Slough TMDL within the eight-digit HUC boundary. This TMDL addresses nutrient impairment, total phosphorous and ammonia, on assessment unit ID1701021PN018_2b, which is a tributary/estuary to the lake. The Pend Oreille River, from the Long Bridge to the Washington State border, remains in category 5 for temperature and dissolved gas supersaturation. These assessment units will need a TMDL developed. DEQ agrees that this development should include the assessment units from the Long Bridge to the Washington State border. DEQ looks forward to the Kalispel Tribe's involvement at that time.

Todd Kinsey, SEEP Coeur d'Alene

Comment: I've been working on solutions for algae blooms, milfoil, and muck reduction in Kootenai and Shoshone for many years and have had some positive results with things like dry barley stocks, biochar and enzymes. I'm currently doing this on bench top scale but with doing

analysis of water and lands I believe there's solutions to do before we get to tipping point. I've had resistance from government people who don't want to look at this. I want to help make a difference. Basically, I have no formal education on this but with my passion have learned a lot. I do help teach classes on stormwater management and erosion control, and my company specializes in this. How can I help?

Response: Thank you for your comment. The Idaho Department of Environmental Quality supports all improvements to water quality. The purpose of the Integrated Report is to identify the status of Idaho's surface waters through monitoring and assessments compared to Idaho water quality standards that protect beneficial uses.

Michelle Maier, EPA Region 10

Comment 1: Assessment Unit specific delistings: The EPA has reviewed the assessment unit-cause combinations that have been removed from category 5 (i.e., delisted) for the 2024 cycle in the ATTAINS database. The following comments are related to the Combined Biota/Habitat Bioassessments delistings for ID17040214SK023_02, ID17040214SK016_02, ID17040214SK008_03, ID17040214SK009_02, and ID17040214SK018_02. These assessment units have an EPA approved TMDL for temperature. ID17040214SK018_02 also has an EPA approved TMDL for sediment. Although certain causes contributing to biological impairment have been identified and addressed in the TMDLs, the delisting rationale for Combined Biota/Habitat Bioassessments should include information on how other potential causes of biological impairment have been evaluated and ruled out prior to removing these assessment units from the 303(d) list. In addition, when ruling out sediment as a cause of impairment, the EPA recommends evaluating multiple lines of evidence related to sediment sources and/or in-channel sediment conditions.

Response 1: Thank you for your comment. DEQ agrees that these five AUs will remain in category 5 for Combined Biota/Habitat Bioassessments until further analysis can be conducted to rule out other causes of impairment. The 303(d) list has been updated to reflect this delisting reversal.

Comment 2: Rationale to not use existing and readily available data: 40 CFR §130.7(b)(6)(iii) requires "a rationale for any decision to not use any existing and readily available data and information…" Appendix K states that dissolved oxygen data were provided for eight assessment units (ID17050102SW013_05, ID17050102SW003_04, ID17050102SW004_05, ID17050102SW005_02, ID17050103SW003_03, ID17050104SW031_02, ID17050104SW031_03, ID17050107SW008_05) but that the data were insufficient to assess impairment. The EPA requests that additional rationale be provided as to why the data are insufficient. It may be appropriate to place dissolved oxygen temporarily in Category 3 until sufficient data are obtained to support an attainment or impairment determination.

Response 2: Thank you for your comment. After further consideration, DEQ has moved three of these AUs to Category 3 and the other five have dissolved oxygen added as an impairment.

Assessment units ID17050102SW013_05, ID17050102SW003_04, and ID17050102SW005_02 had biological data to show support of beneficial uses, and the dissolved oxygen sampling was infrequent/brief, so it was appropriate to move these AUs to Category 3 for further monitoring. The other five assessment units, though also infrequent/brief sampling, had other impairments associated with Cold Water Aquatic Life, so dissolved oxygen was added as an impairment.

Comment 3: Protection of downstream waters: Through discussions with IDEQ on Idaho's Performance Partnership Agreement, the EPA recognizes that IDEQ has committed to evaluate Idaho's downstream waters protection provision at IDAPA 58.01.02.070.08 within the context of the Integrated Report and will work to implement this through development of an assessment methodology. Development of an assessment methodology will guide how data and information will be evaluated and analyzed in order to determine listing decisions. The EPA supports IDEQ in this process and is available for further discussions as the work progresses.

Response 3: DEQ appreciates your comments and collaboration with the Performance Partnership Agreement. DEQ will work with EPA within the framework of the Clean Water Act to help ensure protection of downstream waters.

Will Tiedemann & Jennifer Ekstrom, Idaho Conservation League

Comment: Beneficial Use Supporting Status of AU ID17060208SL023_02 is not accurately reflected in the draft 2024 IR. Publicly available data sources demonstrate historical mining impacts have impaired some segments of the AU while other sections remain unimpacted. Accordingly, best practice and best science dictate the breakup of the AU into multiple smaller AUs that better reflect "on the ground" conditions and that allow an accurate analysis of their Beneficial Use Supporting Status. Given the regulatory consequences this decision has for the on-going administrative appeal of the SGP's 401 Water Quality Certification, these changes should be reflected in the 2024 Report in order to ensure that the appeal process relies on the most accurate analysis of the Stibnite mine area watershed.

Response: Thank you for your comment and providing your perspective on the background regarding the Stibnite Gold Project and the associated water quality concerns. As mentioned, there is a pending administrative appeal by the Idaho Conservation League (ICL) concerning DEQ's water quality certification for the project. The current appeal has alleged several issues regarding Idaho's Antidegradation Rules and the 401 Certification process, including how water quality protections are determined and applied. Given the potential of this appeal to impact the certification process and policies, any adjustments to AU boundaries would be premature at this stage. DEQ appreciates your insights and will certainly revisit this topic for the 2026 Integrated Report.

Comment: Although the elevated levels of metals found in the SFCDR system are predominately from nonpoint, legacy mining sources, it is still critical to regulate point source pollution and future permits appropriately, and with rigorous oversight. The document asserts that point sources will have zinc, lead, and cadmium permit limits that meet the SFCDR site-

specific criteria. Given the requirement for point sources to meet SFCDR site-specific criteria, that regulatory mechanism must be established in the 4b designation.

Response: DEQ thanks Idaho Conservation League for providing valuable feedback regarding the proposed category change for select South Fork Coeur d'Alene River assessment units that are impaired by metals. When issuing permits for point-source dischargers in the SFCDR subbasin, DEQ's IPDES program already issues permit limits that meet the SFCDR site-specific criteria, per IDAPA 58.01.25.302.06.a. Moving the assessment units from Category 5 to Category 4b does not impact the IPDES permitting process, so the SFCDR site-specific criteria will continue to be applied to permit limits for new permits and any administratively continued permits that are re-issued. Please refer to Section 2.2 of the Category 4b Demonstration for a more detailed description.

Comment: A condition of the 4b designation must be that IDEQ strengthens IPDES permitting in the SFCDR watershed. While we agree that the Category 4b justification must be evaluated with consideration of environmental justice factors for municipal permits, private commercial interests are not subject to such considerations.

The following conditions must be applied to the 4b designation in order to assure that every reasonable remedy for SFCDR water quality is addressed:

- IPDES permits for the Lucky Friday Mine, U.S. Silver - Galena Mine and any other administratively extended permits must be updated before the next Integrated Report cycle in 2026, and zinc, lead and cadmium must be addressed in the new permits.
- Going forward, all IPDES permits should not be allowed to be administratively continued and must be reissued prior to expiration dates.
- All IPDES permit updates need to be written to adhere to current water quality standards as well as SFCDR site-specific criteria.
- The Central Treatment Plant[17] must not be allowed to accept wastewater from commercial entities. While the Plant is operated by DEQ for the public good, and treats historic mine pollution, allowing private corporations to send new mine discharge to the facility is inappropriate.
    - Specifically, the proposed re-opened Bunker Hill Mine must not be allowed to send their additional effluent streams to the Central Treatment Plant
- DEQ/EPA should place increased emphasis on identifying and correcting IPDES violations within the AUs in question.

Response: DEQ provided responses to each bullet point in the same order the comments were provided:

- Thank you for your feedback regarding administratively continued permits in the SFCDR subbasin. Your concerns will be forwarded to DEQ's IPDES program for consideration. While DEQ has a process for working through these complicated permits, it cannot guarantee that the administratively continued permits in the SFCDR subbasin will all be updated before the next Integrated Report cycle in 2026.

- IDAPA 58.01.25.101.02 states that expired permits *will remain fully effective and enforceable until the effective date of a new permit.* Facilities with expired or administratively continued permits are still part of the IPDES-permitting process and will be updated to the SFCDR site-specific criteria for lead, zinc, and cadmium as staff time and agency priorities allow. According to DEQ's 2024 IPDES Permit Issuance Plan, the three administratively continued permits in the SFCDR subbasin are in development (i.e., assigned for permit preparation and/or actively being prepared) (IDEQ 2023). Please see Section 2.2 of the Category 4b Demonstration for additional information regarding administratively continued permits.
- DEQ is required by rule to write permits that meet water quality standards, and the SFCDR site-specific criteria are the applicable water quality standards for metals in this case. Therefore, all permits will adhere to water quality standards to conform with IPDES and water quality standard rules.
- DEQ does not have unilateral control over the scope of operations of the Central Treatment Plant. The Central Treatment Plant was built and upgraded with the purpose of treating acid mine drainage continuously flowing out of the historic Bunker Hill Mine area. The recently added groundwater collection system expanded the treatment to also include a portion of groundwater around the central impoundment area. The Central Treatment Plant is currently being operated under a consent decree between EPA and the settling defendants that does not allow for "any significant change in water quality or quantity that results from investigations, exploration, repairs, expansion or alteration in mining activities that could significantly alter the chemistry or flow rate of waters to be treated that [at] the CTP [Central Treatment Plant]" (*United States of America, Plaintiff, v. Placer Mining Company, Inc., and Robert Hopper, Jr., Defendants,* Civ. No 2:04-cv-00126, Filed 03/12/2018). For the Central Treatment Plant to accept and treat additional processing water from active mining operations, court action and a new consent decree would need to be established. The process of a new consent decree between EPA and the settling Defendants is beyond the scope of this Category 4b Demonstration; however, DEQ encourages ICL to participate in any public comment opportunities related to Central Treatment Plant operations in the future.
- DEQ acknowledges ICL's concerns about IPDES permit violations and enforcement and will forward the feedback provided to DEQ's IPDES program for consideration. DEQ will continue to address IPDES permit violations following procedures in DEQ's *Enforcement Manual* and *Enforcement Response Guide*. IPDES violations and enforcement actions are outside of the scope of this Category 4b Demonstration.

<u>Peter Stayton, South Fork Coeur d'Alene River Sewer District</u>

Comment: The timing of the 4b listing is important to the District. The SFSD's Page wastewater treatment plant (WWTP) is currently operating under a 2013 administratively extended NPDES permit that includes interim numeric effluent limits with a 20-year compliance schedule for cadmium, lead and zinc. Final numeric water quality-based limits become effective January 1, 2035. The District is hopeful DEQ's plan to effect other pollution requirements to attain water

quality standards support the 4b listing and allow a change in the District's final numeric limits prior to expiration of the interim limits. The Category 4b mechanism provides a more realistic timeline for achieving water quality standards, considering the complexity of the contamination, and allows the use of ongoing CERCLA remediation efforts as a primary tool for improving water quality.

Response: DEQ thanks South Fork Sewer District for providing valuable input regarding the proposed category change for metals impaired assessment units within the SFCDR subbasin. The District's final numeric limits in it's 2013 NPDES permit are based on the SFCDR site-specific water quality criteria in the Idaho water quality standards. A re-issued IPDES permit will also include final limits that are based on meeting the site-specific criteria, as required by IDAPA 58.01.25.302.06.a, and are not expected to vary from the final limits in the 2013 permit.

Comment: The District has significant concerns regarding the surface water quality criteria for temperature and the salmonid spawning designation during the fall months in AU ID17010302PN001_04 and AU ID17010302PN011_03 (Appendix A, pp320-321). This designation results in a water Temperature standard of 13°C or less with a maximum daily average no greater than 9°C in the South Fork Coeur d'Alene River which will have a significant detrimental impact on point source dischargers and other land uses in Shoshone County. The District has concerns about applying the salmonid spawning designation to this segment for the following reasons:

- Lack of evidence of salmonid spawning: IDEQ electrofishing data from 2016 shows a small number of salmonids in the summer months in the River but no record during the salmonid spawning periods of May 15-July 1 and September 1 through November 15. No other fish count data appear to be available in the public record so this appears to be a very limited data set on which to base this standard.
- Overly restrictive salmonid spawning criteria for the species present: If further data collection demonstrates that spawning does occur, the water quality standard of 9°C does not agree with the science used to develop that standard. Data for rainbow trout (found in the electrofishing data) by Kamler and Kato (1983) found best incubation survival at 10°C and 12°C. EPA's Summary of Technical Literature Examining the Physiological Effects of Temperature on Salmonids (McCullough, et al, 2001) also notes that various species of salmonids have different spawning conditions. These widely disparate findings make it difficult to conclude that the selected standard of 13°C /9°C is appropriate for any or all salmonids. The 13°C/ 9°C spawning temperature criterion is a statewide default value and does not account for the unique environmental and ecological conditions present in the South Fork Coeur d'Alene River.
- Idaho water quality rules allow the Director to waive or raise the temperature criteria for a specific water body if the water body would be fully supported at a higher temperature criteria (IDAPA 58.01.02.070.07). Based on the data available, it appears revised water quality criteria for salmonid spawning (if shown to occur) that aligns with the observed salmonid species present would be more appropriate for the SFCDAR.
- Natural Background Conditions: Idaho water quality standards establish that when natural background conditions exceed water quality criteria, the applicable water

quality criteria shall not apply and instead there shall be no lowering of water quality standards from natural background conditions (IDAPA 58.01.02.200.09). The temperature criteria of 13°C/9°C is not achievable in the fall. Absent snow melt, the coolest temperatures in the watershed are expected to be from groundwater. Generally, groundwater temperatures range from 52°F to 58°F (11°C to 14°C). It is unlikely that surface waters could be cooler than this. Further, data provided by IDEQ suggest that there are no stream segments that can meet 13°C/9°C in the summer, including those that are fully shaded. Even before there were anthropogenic impacts to the river's watershed, regular forest fires would have exposed the river to additional thermal loading so it is unlikely that this temperature standard matches natural conditions.

Response: DEQ thanks you for your comment. Requests for changes in designated uses, standards, waivers, or variances are outside the scope the Integrated Report. Please contact the DEQ regional office for more information on these issues.

While the request does not directly pertain to the Integrated Report, DEQ will briefly attempt to answer your questions. DEQ provided responses to each bullet point in the same order the comments were provided:

- Thank you for your comment regarding electrofishing. DEQ electrofishing does not begin until June, and locations may not be accessed until July or August. The "Geography and Timing of Salmonid Spawning in Idaho" (2014) used information from several sources, including regional and statewide data sets to describe the geography and timing of salmonids in Idaho. "These data sets include information on salmonid life history, periodicity, and fish distribution to help describe the spawning and incubation/emergence periods." This report was extensively researched and has Westslope Cutthroat Trout in this basin April–July. DEQ uses this report to inform Salmonid Spawning use in Idaho's rivers, stream, lakes, and reservoirs.
- In EPA's "Summary of Technical Literature Examining the Physiological Effects of Temperature on Salmonids" (McCullough, et al, 2001), it says for Westslope Cutthroat Trout that "Adult westslope cutthroat trout held in cool 35.6-39.2°F (2-4°C) water temperatures produced more viable eggs than those held in constant water temperatures of 50°F (10°C) (Smith et al. 1983, in Shepard et al. 1982." This states that the ideal temperatures would be 2–4 degrees Celsius(°C) for optimal spawning, which is much lower than the current criteria. This report was a white paper leading up to the publication of this final set of recommendations by EPA in 2003. In the final recommendations, for egg incubation/spawning, the optimal range is listed for 6–10°C (constant) for salmonids. Reduced viability of gametes in holding adults is seen in temperatures of 13°C or above. Hence, DEQ's temperature criteria are not overly protective. Site specific criteria may be proposed for rulemaking.
- Thank you for your comment on waiving temperature criteria. DEQ does not have precedence for waiving or raising temperature criteria, and there would be specific legal and factual issues that would need to be researched and addressed before doing so. The rule (IDAPA 58.01.02.070.07) states a waiver shall be consistent with 40 CFR 131.11

which states "(1) *States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use*". To raise or waive the required temperature criteria, there would need to be sufficient data and research to support that the recommended temperature criteria change would fully support the beneficial use. IDAPA 58.01.02.275.01 describes the type of required data to pursue this option.

- Natural background variance is allowable in theory, but it would not allow a discharge with an increase of more than 0.3°C, which is below the District's temperature suggestion. Our natural conditions and other temperature rules state that the waters should not vary from natural background.

Eric Van Orden, Coeur d'Alene Tribe

Comment: DEQ must do its legally mandated duty to set TMDLs for the pollutants affecting the SFCDR to properly address the harm caused to the Tribe and Idahoans by the mining industry.

Response: DEQ thanks the Coeur d'Alene Tribe for providing valuable feedback regarding the proposed category change for select South Fork Coeur d'Alene River assessment units that are impaired by metals. DEQ agrees the agency is obligated to monitor, assess, and create water quality pollution plans for impaired waterbodies as the regulatory entity responsible for implementing the Clean Water Act in Idaho. DEQ takes this responsibility seriously and makes the protection of human health, land, air, and water at the center of each issue. As stated in the 4b Demonstration, the site-specific issues and standards, along with the unique CERCLA clean up efforts and associated agreements already provide an equivalent regulatory alternative to a TMDL and provide more enforcement possibilities than a TMDL can accomplish. The CERCLA clean up efforts also have a broader scope than a TMDL, covering groundwater and non-point source pollution, which are some of the main causes of impairments in the SFCDR.

Generally, writing a TMDL, or a plan that categorizes pollutants and the necessary reductions to restore beneficial uses, enables DEQ to move the waterbodies from Category 5 (impaired with no plan) to Category 4 (impaired with a plan), once approved by EPA. More specifically, after a TMDL is approved by EPA, the waterbodies are moved into Category 4a (impaired with a completed and approved TMDL). Category 4b is an equal alternative to Category 4a for waters that have pollution control requirements other than a TMDL placed on them, and these waters are reasonably expected to attain the water quality standard within a reasonable period of time. Both Category 4a and 4b represent waterbodies that have a plan in place that addresses the specific pollutant(s). The ultimate goal for both Categories is to restore beneficial uses, remove listed impairments, and transfer assessment units into Category 2 (fully supporting beneficial uses). The 4b Demonstration lists specifics, showing how the CERCLA extensive clean up and site-specific standards and agreements meet the 4b Category and are similar to other CERCLA-4b listed waters. Please note that Category 4b is not appropriate for all pollutants and impairments in the SFCDR subbasin. For example, Category 4b would not be an acceptable

approach for temperature impairments because temperature is not considered a pollutant of concern for Bunker Hill Superfund Site remediation (i.e., not considered an ARAR or incorporated into the RAOs). CERCLA remediation efforts and clean up thresholds uniquely align with SFCDR site-specific water quality standards and Clean Water Act requirements, making metals-impaired assessment units in the SFCDR an appropriate candidate for Category 4b.

DEQ's Category 4b Demonstration for metals in the SFCDR satisfies DEQ's legally mandated duty to address Category 5 impairments by providing an regulatory alternative to pollution control. If assessment units are moved into Category 4b, DEQ will still revisit the listing decision every Integrated Report cycle (every two years) to ensure that the listing is still appropriate. If Category 4b is no longer appropriate due to changes in CERCLA remediation, then the assessment units would likely be placed back into Category 5 and considered for TMDL development.

Comment: DEQ's Category 4b Demonstration relies on the ongoing CERCLA cleanup to assert that TMDLs on the SFCDR are not necessary. While the Tribe recognizes that CERCLA cleanup has brought improvement to the natural environment and public health, surface water in the Upper Basin, as defined in the Environmental Protection Agency's ("EPA") 2012 Interim Record of Decision ("IROD"), remains seriously impaired. Because the IROD is an interim measure, achieving the ambient water quality criteria ("AWQC") is outside of its scope.

Response: DEQ is not stating that a TMDL is not necessary for the SFCDR assessment units; the assessment units are listed in Category 5 for metals impairments which must be addressed by the State. For metals impairments in this particular subbasin, DEQ believes that Category 4b is an appropriate alternative to writing a TMDL that meets the intent of addressing Category 5 impairments. As stated elsewhere, DEQ will still revisit the 4b listing decision every Integrated Report cycle (every two years) to ensure that the listing is still appropriate.

As stated in the 4b Demonstration, while the SFCDR and tributaries in the Upper Basin are still impaired by metals, the AWQC ratio has been steadily decreasing since 1987 (EPA 2012), and the selected remedy is expected to reduce the mass loading of metals in surface water by 60% (EPA 2012). Many analyses by the U.S. Geological Survey indicate a decreasing trend in metals concentrations in the Upper Basin which are referenced and described in Sections 2.2 and 2.3 of the Category 4b Demonstration. These analyses and trends provide DEQ with evidence that CERCLA remediation is an effective and appropriate solution.

DEQ understands that EPA is currently operating under an Interim remedy for Bunker Hill Superfund Site. While remediation in the Upper Basin is currently operating under the 2012 IRODA, DEQ cites the overall CERCLA remediation process (not solely the IRODA) of Bunker Hill Superfund Site as the control in place to achieve water quality standards. While water quality standards may not be met at the end of the 30-year implementation period for the 2012 IRODA, "The Selected Remedy will address the most significant sources of contamination in the Upper Basin and will significantly contribute to meeting remedial action objectives, thus supporting a final protective remedy for the Upper Basin" (EPA 2012). Therefore, the IRODA is incredibly relevant to achieving water quality standards.

In a Letter of Support for the 2012 IRODA, the Coeur d'Alene Tribe acknowledged that "it is wise to implement work in stages, learn from that work and adaptively plan for future remediation in geographic sections" and that it "is also the Tribe's view that adaptive management may mean additional remedial efforts may be undertaken if the data proves it necessary". Remediation of the Upper Basin will take considerable time and DEQ views CERCLA as the long-term process with the regulatory backing needed for the complex environmental issue at hand.

DEQ expects a final remedy that meets Clean Water Act requirements and water quality criteria at some time in the future. According to the Code of Federal Regulations, a remedy can only be interim if a final remedy follows at a later date that fully addresses meeting ARARs, which includes achieving the ambient water quality criteria. Hence, DEQ is optimistic that the final remedy will meet water quality standards and criteria. Please refer to section 2.3—specifically Figure 4—for a detailed description of how the current IRODA fits into the greater remediation process and its relevance to the Category 4b designation.

In addition to CERCLA remediation, DEQ's IPDES point-source discharger permitting plan is still in place for facilities in the SFCDR.

Comment: However, if DEQ were to implement TMDLs for the pollutants of concern then the SFCDR and Upper Basin would make a positive step toward achieving AWQCs, which would consequently aid in the CERCLA cleanup.

Response: DEQ has considered writing a metals TMDL but decided that ultimately the TMDL product would rely on and reference CERCLA remediation documentation, making the TMDL redundant and duplicative. Other benefits include that the CERCLA remediation addresses non-point source pollution and groundwater and includes enforcement processes that a TMDL would not have. Please visit the Executive Summary of the Category 4b Demonstration for a detailed description of how DEQ came to this conclusion.

To summarize the Executive Summary, each TMDL must provide reasonable assurances that point and nonpoint source controls will achieve the expected load reductions. Similar to the Spokane River metals TMDL (IDEQ 2022), reasonable assurance for nonpoint source reductions would rely entirely on CERCLA remediation for a SFCDR metals TMDL. In other words, a TMDL would not be able to improve water quality any faster than remediation and would be able to provide anymore reasonable assurance than remediation. In this case, because "remediation" equals "reasonable assurance," remediation coupled with IPDES permitting is an equivalent process to a TMDL for metals in the SFCDR subbasin. Point source discharge permits are and will continue to be held to the SFCDR site-specific criteria at end-of-pipe. Therefore, DEQ's Category 4b approach is equivalent to the TMDL process and makes equally positive progress towards achieving water quality standards as a TMDL would while eliminating repetitive and redundant efforts.

Comment: DEQ's reliance on the IROD to justify recategorizing the SFCDR is further misplaced because that remedy is expected to take thirty years to implement, and only after implementation is complete will EPA select a final remedy that seeks to attain AWQCs.

Response: The Coeur d'Alene Tribe is correct that a Final Remedy will be identified at a future, unknown date. However, DEQ disagrees about relying on the 2012 IRODA for moving SFCDR assessment units from Category 5 to Category 4b. DEQ cites the overall CERCLA remediation process (not solely the IRODA) of Bunker Hill Superfund Site as the control in place to achieve water quality standards. This is discussed in detail in Section 2.3 of the Category 4b Demonstration. DEQ's above response also discusses the interim aspect of the current remedy in place within the Upper Basin boundaries.

Comment: EPA's 2021 Five-Year Review of the cleanup found that the "SFCDR remains the source of most of the dissolved zinc[1] and cadmium loads" in the Lake. Consequently, relying on the IROD to justify recategorization would allow harmful metals to continue flowing into the Lake, which is outside of the scope of the IROD, for decades. DEQ should take proactive measures to mitigate this harm by fulfilling its legal obligation to set TMDLs for the SFCDR.

Response: DEQ took measures with the Coeur d'Alene Basin metals TMDL in 2000, which has since been voided due to community concerns and litigation. Developing a new metals TMDL would likely be a long and expensive process given the complications of the basin, the procedural requirements for formal rulemaking, and the ever-changing amount of pollutant loading occurring as remediation progresses. DEQ believes that the most efficient and beneficial path forward for the SFCDR subbasin is to acknowledge and support remedial activities that already have decades of momentum: the CERCLA remediation process for Bunker Hill Superfund Site.

In a Letter of Support for the 2012 IRODA, the Coeur d'Alene Tribe stated, "Although these RODs and this current Amendment do not focus on the massive pollution problem in the Lower Basin and Coeur d'Alene Lake, we understand the logic of cleaning up the Upper Basin to 'shut off the spigot', thus reducing the potential of recontamination of the Lower Basin." DEQ agrees with this perspective and has seen evidence that the CERCLA remediation process has successfully decreased metals loading coming from Coeur d'Alene basin headwater reaches. While EPA's 2021 Five-Year Review does state that the SFCDR is the primary source of dissolved zinc and cadmium, the document also states that "AWQC exceedance ratios for dissolved cadmium, lead, and zinc have consistently declined across mining-affected sites in OU 3 over the past 5 years" and that "Flow-normalized metal concentrations and loads decreased with high statistical likelihood over the past 5 years". Similar decreasing trends were also identified for water years 2009–2018 (EPA 2021).

While the SFCDR and tributaries in the Upper Basin are still impaired by metals, the AWQC ratio has been steadily decreasing since 1987 (EPA 2012), and the selected remedy is expected to reduce the mass loading of metals in surface water by 60% (EPA 2012). Many analyses by the U.S. Geological Survey indicate a decreasing trend in metals concentrations in the Upper Basin, which are referenced and described in Sections 2.2 and 2.3 of the Category 4b Demonstration. These analyses and trends provide DEQ with lines of evidence that CERCLA remediation is effective and an appropriate solution.

DEQ disagrees that reducing metals concentrations in the SFCDR subbasin is outside of the scope of the 2012 IRODA. In fact, there are studies and other documentation addressing identifying pollutant loading to the SFCDR and how to reduce it.

DEQ believes that the Category 4b Demonstration for metals in the SFCDR subbasin satisfies and is entirely in agreement with Clean Water Act regulatory responsibilities and requirements.

Andrew Penamora, Hecla

Comment: The salmonid spawning temperature criteria and spring and fall spawning time periods are based on bull trout, a species that has been extirpated from the SFCDR watershed. The TMDL acknowledges that bull trout are not present, but bull trout is the salmonid species most sensitive to elevated temperature and is used as the statewide default SS temperature regime. DEQ modified the fall spawning window to protect non-native brook trout and mountain whitefish. Whitefish have not been observed in the SFCDR upstream of Canyon Creek. Brook trout will compete for resources with native westslope cutthroat trout (CTT) and shorthead sculpin. Brook trout is not a surrogate for bull trout and should not be the reason for a fall spawning period. IDEQ should consider a CTT-based SS temperature criteria and spawning window determined from available scientific information. This would be more appropriate and attainable for this AU than using Idaho's default bull trout temperature criteria. appropriate and attainable for this AU than using Idaho's default bull trout temperature criteria.

Response: Thank you for your comments. Requesting changes to designated uses, water quality standards, or other water criteria is outside the scope of the Integrated Report. Please contact the DEQ regional office for more information on these issues.

While the request does not directly pertain to the Integrated Report, DEQ will briefly attempt to answer your questions.

The salmonid spawning (SS) being protected is the Westslope Cutthroat Trout, which has a spawning timing of April–July. The South Fork CDA basin has no Bull Trout protected streams. This information is based on "Geography and Timing of Salmonid Spawning (SS) in Idaho" from Bioanalysts, which DEQ uses to identify SS. Bioanalysts defined these streams as bull trout streams at both the federal and state level. The bull trout temperature regime is not the default in Idaho, as the state bull trout criteria are found in IDAPA 58.01.02.250.02.g, while SS criteria are slightly different and found in IDAPA 58.01.02.250.02.f That both criteria are similar is not surprising; The Bull Trout is a species of salmonids.

The application of temperature criteria is determined by the "Geography and Timing of Salmonid Spawning (SS) in Idaho" report by Bioanalysts and by BURP and IDFG data if available. DEQ conducts a triennial review to assess and update our water quality standards based on new scientific information and changing 304(a) requirements. Our last review was in 2023. All

reviews are open to the public. DEQ is always open to the public proposing site-specific criteria and working with DEQ to gather the necessary data.

Comment: Idaho DEQ Water Quality Standards explicitly address climate warming and the impacts on rivers and streams. The discussion by Essig and Mebane (2003)14 in *Concepts and Recommendations for Using the "Natural Conditions" Provisions of the Idaho Water Quality Standards* describes fundamental concepts to consider when evaluating whether natural background conditions exceed numeric criteria. These include conducting assessments at the watershed scale. The SMI2 and SFI2 derivations presented in the WBAG were developed using BURP data from 1998 to 2007 (Jessup 2011). IDEQ should consider updating the SMI2 and SFI2 with data from 1998 to 2024 and also incorporate historical climate information. The approach would be consistent with current Idaho IDAPA15 definitions of natural background conditions, reference streams or conditions and resident species.

Response: Determining what should be a "natural condition" would be a legally- and factually-intensive process. DEQ will collaborate with EPA to identify measures that may be taken to enhance community resilience to natural stressors. As mentioned in our Water Quality Environmental Performance Partnership Agreement, EPA will share successes and lessons learned regarding efforts to support sustainability, including climate resilient actions. DEQ plans to revise SMI2 and SFI2 indices in the next update of the Waterbody Assessment Guidance and will take all BURP data into consideration.

Comment: Regarding Assessment Unit ID: ID17010302PN011_03.

- Main stem of the South Fork Coeur d'Alene River between Daisy Gulch and Canyon Creek. Within this AU there are multiple sub reaches that are defined by the intersection of the main stem and tributaries, including Gentle Annie Gulch, Willow Creek, Boulder Creek, Gold Creek, and Rock Creek.
- Daisy Gulch to Willow Creek sub reach includes bioassessment stations IDEQ 2014SCDAA091, and Hecla Old Mullan Dump (OMD) and Hecla SF-03.
- Willow Creek to Boulder Creek sub reach includes Hecla bioassessment station SF-02. Boulder Creek to Gold Creek sub reach includes IDEQ bioassessment monitoring station 2014SCDAA092 and Hecla SF-01. In this reach, the South Fork runs through the city of Mullan where it becomes increasingly channelized and confined by I-90.
- Gold Creek to Rock Creek sub reach includes bioassessment monitoring station 2013SDEQA108. This sub reach is channelized and confined by I-90. There are no bioassessment stations downstream of 2013SDEQA108.

Response: Assessment Unit ID17010302PN011_03 is channelized throughout by Interstate 90, the town of Mullan, and the settling ponds. DEQ will work on submitting the justification to also include this Assessment Unit as failing to meet applicable water quality standards due to habitat and flow alterations, Category 4c.

Comment: Upstream of Daisy Gulch, the Assessment Unit ID: ID17010302PN013_03; is the main stem of the SFCDR between the Little North Fork of the South Fork (LNF)and Daisy Gulch. This reach includes Shoshone Park. This AU is Category 2 because six young-of-year (YOY) fish

were captured in 2007 resulting in a designation of supported Salmonid Spawning use. The bioassessment monitoring station 2007SCDAA002 had a temperature of 11.1C on July 10.

The Little North Fork should not be in AU ID17010302PN013_02. The LNF should be included in Assessment Unit ID: ID17010302PN011_02, SFCDR tributaries between the Little North Fork and Canyon Creek . A primary reason for the greater SMI and SFI scores in AU PN013_03 is the cold-water input from the LNF (e.g., temperature of 10.4C at 2018SCDAAS034 on August 22) decreases the temperature of warmer upstream water (e.g., 12.2C on August 20 at station 2018SCDAA032). Also of importance is that the LNF has low hardness compared to the SFCDA above the LNF. It is likely that the low water hardness of the LNF contributes to SMI scores that are lower than SFCDR stations upstream (2018SCDAA032) and downstream (2007SCDAA002) of the confluence with the LNF. The low water hardness of the LNF may also contribute to the low counts of adults and YOY CTT observed in LNF BURP surveys. Headwater and Assessment Unit ID: ID17010302PN013_02; South Fork Coeur d'Alene R. headwaters and tributaries. This AU should not include the LNF for the reasons above. The warmer water at 2018SCDAA032 is from a weir at the Burlington Northern Railroad bridge that causes a wide, slow water impoundment and wetland with little shade.

Response: The Little North Fork of the South Fork Coeur d'Alene and the South Fork Coeur d'Alene, that comprise Assessment Unit ID17010302PN013_02, both had numeric temperature exceedances from data submitted in 1999 and 2010. The USGS National Hydrography Dataset water body identification (WBID) is the basis for DEQ's Assessment Unit. The Little North Fork, WBID 13, cannot be merged with a different WBID, such as WBID 11.

Mark Stockton, Integra Resources

Comment: USEPA results do not support new 303(d) listings. Results were either 1) non-detect, or 2) detected less than numeric WQS. USEPA did not detect arsenic, copper, and thallium, which were added to the 303(d) list, at any locations and did not detect nickel at key locations (total or dissolved). USEPA laboratory limits are higher than the numeric criteria for arsenic, copper and thallium and nondetects are not appropriate for evaluating exceedances of water quality standards.

Response: Thank you for your comment regarding EPA submitted data. After further analysis, DEQ agrees with your assessment. There was misinterpretation of the data and lab qualifiers leading to erroneous listings for assessment units ID1705108SW001_05, ID17050108SW003_02, ID17050108SW004_03, ID17050108SW004_04, ID17050108SW004_05, ID17050108SW010_05, and ID17050108SW017_03. DEQ has removed the new metals listings for the 2024 Integrated Report.

Comment: Trout Unlimited exceedances occur along a short reach of upper Jordan Creek near Dewey Mine. Dissolved Zinc exceedances on Long Gulch are anomalous or not consistent with DeLamar data. 303(d) listing should not apply to all 1st and 2nd order tributaries.

Response: Thank you for your comment. Surface water in Idaho is divided into 2,641 water body units, which are codified in sections 109–160 in Idaho's "Water Quality Standards" (IDAPA 58.01.02) and based on subbasins (i.e., 4th- level hydrologic unit codes [HUCs]). The numbering system is based on United States Geological Survey (USGS) hydrologic units, which divides the nation into successively smaller nested units with unique identifiers, or HUCs, and creates a national standard for water resources planning and data management. For assessment and reporting purposes, DEQ further subdivides water body units into AUs, typically by Strahler stream order, although other factors including land-use practices, land management, and ownership are considered. Water body units identified in the standard include all named and unnamed tributaries to the named and bounded water body unit. All waters are part of a water body unit. The data assessed for this AU showed impairment. DEQ accepts external data submissions during our call for data for future assessments in the next Integrated Report cycle.

Appendix K. External Data Summary

The Idaho Department of Environmental Quality (DEQ) conducted a 60-day call for data from December 5, 2022, to February 6, 2023 for the 2024 Integrated Report. DEQ announced the *Call for Data* on its website, which also provided detailed instructions for submitting external data to DEQ. DEQ reviewed the data that were submitted during this period for quality, scientific rigor, and relevance, as described in section 4 of the *Water Body Assessment Guidance*. Only *Tier 1* data were used for § 303(d) listing and delisting decisions while preparing the draft 2024 Integrated Report. This document summarizes all the external data received during the call for data, including the data used and not used for the assessments in the 2024 Integrated Report. It also summarizes external data DEQ queried from public databases and includes the data used and not used for the assessments. If any data were not used for the assessments, a rationale for why the data were not used is included in the summary.

Organization: Adventure Scientists

Parameters: dissolved oxygen, total dissolved solids, conductivity, salinity, pH, temperature

Submission Date: January 18, 2023

Adventure scientists submitted discrete water chemistry data collected using field sensors. Data were collected within Wild and Scenic Rivers in Idaho following procedures described in a Quality Assurance Plan developed by Adventure Scientists, U.S. Forest Service, National Park Service, and Bureau of Land Management. DEQ concluded all submitted data met *Tier 1* requirements.

DEQ compared submitted dissolved oxygen, pH, and temperature data to applicable numeric criteria in Idaho Water Quality Standards (WQS). Total dissolved solids, conductivity, and salinity data were not used for beneficial use support decisions because Idaho does not have numeric water quality standards for these parameters and there were no applicable existing total maximum daily loads (TMDL) targets for these parameters in waters where Adventure Scientists collected data.

Reported temperature measurements were compared to daily maximum temperatures thresholds required for protection of Cold Water Aquatic Life use (22 ℃ daily maximum, IDAPA 58.01.02.250.02.b) and Salmonid Spawning use (13℃ daily maximum, IDAPA 58.01.02.250.02.f.ii) where and when applicable. Because only single discrete temperature measurements were reported, data could not be compared to daily average thresholds for Cold Water Aquatic Life or Salmonid Spawning or Bull Trout temperature criteria (IDAPA 58.01.02.250.02g and g.i, 40 CFR § 131.33). The Adventure Scientist QAPP stated project calibration procedures required temperature measurements recorded with a Hach Pocket Pro Plus to be within 1.0 ℃ of a NIST-approved thermometer. Therefore, Adventure Scientist temperature data were classified as exceeding applicable temperature criteria if the reported

temperature exceeded the applicable daily maximum threshold value by more than 1.0 ℃ during the time period when a criteria applied within the assessment unit.

Reported dissolved oxygen measurements were compared to the Idaho WQS requirement that dissolved oxygen exceeds 6 mg/l at all times (IDAPA 58.01.02.250.02.a). Reported pH measurements were compared to the Idaho WQS requirement that pH range between 6.5 and 9 (IDAPA 58.01.02.250.01.b).

One pH result for ID17060101SL002_08 (9.14, 1/23/2022) exceeded the pH criteria, but pH was not classified as impaired because the exceedance magnitude was small (exceeded magnitude was < 10% of threshold) and three other Adventure Scientists measurements in the AU achieved criteria.

Table K1. Adventure Scientists Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010304PN041_04	St. Joe River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the Adventure Scientists data on pH, dissolved oxygen, or discrete water temperature during two events in December 2020. Cold Water Aquatic Life remains fully supporting. The two discrete water temperatures, supplied by Adventure Scientist, were not enough to compare to the Idaho water quality standards bull trout temperature criteria. Salmonid Spawning remains unassessed.
ID17010304PN058_02	Skookum Creek	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the Adventure Scientists data on pH, dissolved oxygen, or discrete water temperature during two events, December 2020 and October 2021. Cold Water Aquatic Life remains fully supporting. The two discrete water temperatures, supplied by Adventure Scientist, were not enough to compare to the Idaho water quality standards bull trout temperature criteria. Salmonid Spawning remains fully supporting.
ID17010304PN027_05a	St. Joe River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the Adventure Scientists data on pH, dissolved oxygen, or discrete water temperature during three events, two in December 2020 and one in October 2021. The three discrete water temperatures, supplied by Adventure Scientist, were not enough to compare to the Idaho water quality standards bull trout temperature criteria.
ID17060101SL002_08	Snake River - Sheep Creek toWolf Creek	No support status change; already impaired by temperature; DO and pH achieved criteria.
ID17060103SL004_08	Snake River - Salmon River to Cottonwood Creek	No support status change; already impaired by temperature; DO and pH achieved criteria.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060207SL008_07	Salmon River - Chamberlain Creek to South Fork Salmon River	No support status change. pH and DO achieved criteria. One discrete temperature measurement was provided and exceeded the salmonid spawning daily maximum temperature criteria. However, the AU was not listed as temperature-impaired because the sample location is within the Frank Church Wilderness and therefore temperature conditions were assumed consistent with natural background conditions as defined in Idaho WQS (IDAPA 58.01.02.10.63).
ID17060207SL018_02	Salmon River - Horse Creek to Chamberlain Creek	No support status change. pH and DO achieved criteria. One discrete temperature measurement was provided and exceeded the salmonid spawning daily maximum temperature criteria. However, the AU was not listed as temperature-impaired because the sample location is within the Frank Church Wilderness and therefore temperature conditions were assumed consistent with natural background conditions as defined in Idaho WQS (IDAPA 58.01.02.10.63).
ID17060207SL040_02	Corn Creek - source to mouth	No support status change. PH and DO achieved criteria. The AU is already temperature-impaired.
ID17060302CL001_06	Selway River - O'Hara Creek to mouth	AU changed from not assessed to fully supporting Cold Water Aquatic Life use; discrete DO, pH, and temperature achieved criteria.
ID17060302CL006_06	Selway River - Meadow Creek to O'Hara Creek	No support status change based on Adventure Scientists data. Discrete DO, pH and temperature achieved criteria. However, temperature added as an impairment cause based on continuous temperature data from USFS-RMRS.
ID17060302CL022_02	Selway River - Moose Creek to Meadow Creek	No support status change. AU remains fully supporting assessed uses; DO, pH and temperature achieved criteria.
ID17060303CL001_05	Lochsa River - Deadman Creek to mouth	No support status change; already impaired by temperature; DO and pH achieved criteria
ID17060303CL003_05	Lochsa River - Old Man Creek to Deadman Creek	No support status change; already impaired by temperature; DO and pH achieved criteria
ID17060303CL009_05	Lochsa River - Indian Grave Creek to Fish Creek	No support status change; already impaired by temperature; DO and pH achieved criteria
ID17060303CL013_05	Lochsa River- Warm Springs Creek to Indian Grave Creek	No support status change; already impaired by temperature; DO and pH achieved criteria
ID17060303CL020_05	Lochsa River - confluence of Crooked Fork, White Sand Creek	No support status change; already impaired by temperature; DO and pH achieved criteria
ID17060304CL001_05	Middle Fork Clearwater River - confluence of Lochsa	AU changed from not assessed to fully supporting Cold Water Aquatic Life use; DO, pH, and temperature achieved criteria.
ID17060205SL001_06	Middle Fork Salmon River - Marsh Creek to Loon Creek	No support status change. PH and DO achieved criteria during 15 discrete sampling events from 2019-2020.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060206SL001_02	MF Salmon River - 1st and 2nd order below Loon Creek	No support status change; PH and DO achieved criteria during one discrete sampling event.
ID17060206SL001_06	Middle Fork Salmon River - Loon Creek to mouth	No support status change. PH and DO achieved criteria during 14 discrete sampling events from 2019-2020.
ID17060210SL002_03	Rapid River and Lake Fork 3rd order	No support status change; PH and DO achieved criteria during one discrete sampling event in 2021.
ID17060210SL003_03	West Fork Rapid River -3rd order (Bridge Creek to mouth)	No support status change; PH and DO achieved criteria during one discrete sampling event in 2021.

Organization: Water Quality Portal

Parameters: parameters in the EPA Water Quality Portal (WQP) with a numeric criterion in Idaho Water Quality Standards (metals, pH, temperature, dissolved oxygen, 2,4-D). Queried data includes only data flagged as 'Accepted' from January 1st, 2018 through December 31st, 2022. DEQ used as much data from the Water Quality Portal as possible this cycle, our resources will allow us to analyze more of the Water Quality Portal in the future.

Submission Date: DEQ queried data from WQP on 4/28/2023.

All data queried from WQP were considered *Tier 1* and compared to applicable numeric criteria.

Table K2. Water Quality Portal Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010104PN029_08	Kootenai River	2020-2022 external temperature data from the United States Geological Survey National Water Information System database, for station 12309500, does not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit remains "not supporting". 2020- 2022 external temperature data from the United States Geological Survey National Water Information System database, for station 12309500, indicates continued exceedance in the temperature criteria for Kootenai River sturgeon. Salmonid Spawning for this Assessment Unit remains "not supporting". Already assessed metals data in 2022 IR.
ID17010105PN001_05	Moyie River	Already assessed metals data in 2022 IR.
ID17010213PN003_08	Clark Fork River	Already assessed metals data in 2022 IR.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010301PN001_05	North Fork Coeur d'Alene River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic, lead, and zinc in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Two exceedances for the Criterion Maximum Concentration for dissolved cadmium were observed in the 3 events in 2019. Hydrogen Ion Concentration values for the 19 events from 2018- 2022 are within range. Cold Water Aquatic Life is not supporting due to the cadmium exceedance. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on dissolved copper, zinc, and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Primary Contact Recreation remains fully supporting. No exceedance of the Idaho water quality standards for Domestic Water Supply were observed in the US Geological Survey National Water Information System data on dissolved copper, zinc, and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Domestic Water Supply is fully supporting.
ID17010302PN001_03a	South Fork Coeur d'Alene River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 19 events from 2018- 2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, dissolved zinc, and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Secondary Contact Recreation is fully supporting. The Idaho Department of Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle. Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010302PN001_04	South Fork Coeur d'Alene River	Continued exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved cadmium, lead, and zinc in the water column during 4 events in 2018, 23 events in 2019, 22 events in 2020, 20 events in 2021, and 50 events in 2022. Dissolved arsenic did not exceed the Idaho water quality standards. Hydrogen Ion Concentration values for 135 of the 140 events from 2018-2022 are within range. The frequency is not greater than ten percent. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved zinc, copper, and total arsenic in the water column during 4 events in 2018, 23 events in 2019, 22 events in 2020, 20 events in 2021, and 50 events in 2022. Secondary Contact Recreation is fully supporting. The USGS data on dissolved copper was not utilized in favor of simplified BLM parameters that Page Wastewater Treatment Plant collected bi-annually from 2019-2023. The dissolved copper values do not exceed the BLM outputs for acute and chronic criteria. Copper is meeting the criteria for Cold Water Aquatic Life.
ID17010302PN001_05	South Fork Coeur d'Alene River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 4 events in each of the years 2019, 2020, 2021, and 5 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 20 events from 2018-2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, zinc, and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021, and 5 events in 2022. Secondary Contact Recreation is fully supporting. The Idaho Department of Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010302PN002_04	Pine Creek	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 2 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for 10 of the 11 events from 2018-2022 are within range, the exception is a value of 5.8 in May 2018. The frequency is not greater than ten percent. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, zinc, and total arsenic in the water column during 2 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Secondary Contact Recreation is fully supporting. The Idaho Department of Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle. Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.
ID17010302PN004_03	East Fork Pine Creek	2020 and 2021 external water temperature data from the United States Geological Survey National Water Information System database, for station 12413370 on East Fork Pine Creek, do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is meeting water temperature criteria. 2020 and 2021 external water temperature data from the United States Geological Survey National Water Information System database, for station 12413370, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit remains "not supporting".
ID17010302PN006_02	Government Gulch	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 2 events in each of the years 2019, 2020, 2021, and 5 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 13 events

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		from 2018- 2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, zinc, and total arsenic in the water column during 2 events in each of the years 2019, 2020, 2021, and 5 events in 2022. Secondary Contact Recreation is fully supporting.
ID17010302PN011_03	South Fork Coeur d'Alene River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic, cadmium, lead, and zinc in the water column during 2 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Hydrogen Ion Concentration values for the 11 events from 2018-2022 are within range. Cold Water Aquatic Life is associated with an impairment and remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, zinc, and total arsenic in the water column during 2 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Secondary Contact Recreation remains fully supporting. The USGS data on dissolved copper was not utilized in favor of BLM parameters that Hecla collected in monthly sampling 2019-2021 at three locations. The dissolved copper values do not exceed the BLM outputs for acute and chronic criteria, aside from one exceedance on 5/27/2021 of 2.02 micrograms/liter. Since there are not two exceedances in a third year period, copper is meeting the criteria for Cold Water Aquatic Life.
ID17010302PN014_02	Canyon Creek	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 3 events in 2019, 4 events in 2020 and 2021, and 3 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 19 events from 2018-2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper, zinc, and total arsenic in the water column during 3 events in 2019, 4 events in 2020 and 2021, and 3 events in 2022. Secondary Contact Recreation is fully supporting. No exceedance of the Idaho water quality standards for Domestic Water Supply were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper and total arsenic in the water column during 3 events in 2019, 4 events in 2020 and 2021, and 3 events in 2022. Dissolved zinc continues to exceed criteria. Domestic Water Supply remains not supporting due to dissolved zinc. The Idaho Department of

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle. Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.
ID17010302PN016_02	Ninemile Creek	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 4 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 19 events from 2018-2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved copper and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Dissolved zinc continues to exceed criteria. Secondary Contact Recreation remains not supporting. The Idaho Department of Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle. Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010303PN007_06	Coeur d'Alene River	Continued exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved cadmium, lead, and zinc in the water column during 8 events each year for 2019, 2020, 2021, and 2022. Dissolved arsenic did not exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 39 events from 2018-2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved zinc and total arsenic in the water column during 8 events each year for 2019, 2020, 2021, and 2022. Primary Contact Recreation is fully supporting. The Idaho Department of Environmental Quality query of the EPA Water Quality Portal for the 2024 Integrated Report included dissolved copper from USGS sampling. Derivation of the Idaho aquatic life criteria for copper requires the use of the Biotic Ligand Model (BLM) to calculate acute and chronic copper criteria. The query did not include the parameters to utilize this model that captures the most bioavailable conditions for copper. A criterion derived using BLM software shall supersede any estimated criterion. Since dischargers are collecting this data from surface water, it is preferrable to use that information and not the dissolved copper results from USGS sampling which cannot be input into the BLM. Two of the Assessment Units on the South Fork Coeur d'Alene had data available for assessing this cycle. Instead of a dissolved copper query, data parameters for the BLM inputs should be requested during "call for data" from dischargers.
ID17010303PN016_06	Coeur d'Alene River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic and lead in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Dissolved cadmium and zinc continue to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 19 events from 2018- 2022 are within range. Cold Water Aquatic Life remains not supporting. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved zinc and total arsenic in the water column during 4 events in 2019, 2020, 2021, and 3 events in 2022. Primary Contact Recreation is fully supporting.
ID17010304PN041_04	St. Joe River	Already assessed metals data in 2022IR.
ID17010305PN003_04	Spokane River	Already assessed metals data in 2022IR.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010305PN004_04	Spokane River	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the US Geological Survey National Water Information System data on dissolved arsenic, cadmium, and lead in the water column during 4 events in each of the years 2019, 2020, 2021 and 3 events in 2022. Dissolved zinc continues to exceed the Idaho water quality standards. Hydrogen Ion Concentration values for the 19 events from 2018-2022 are within range. Cold Water Aquatic Life remains not supporting for lead and zinc. No exceedance of the Idaho water quality standards for Recreation were observed in the US Geological Survey National Water Information System data on annual harmonic mean of dissolved zinc and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Primary Contact Recreation remains fully supporting. No exceedance of the Idaho water quality standards for Domestic Water Supply were observed in the US Geological Survey National Water Information System data on dissolved copper, zinc, and total arsenic in the water column during 4 events in each of the years 2019, 2020, 2021, and 3 events in 2022. Domestic Water Supply is fully supporting.
ID17040209SK011_07	Snake River - American Falls Reservoir Dam to Rock Creek	USGS pH and dissolved oxygen achieve applicable criteria. No status change.
ID17040212SK007_02	2nd order segments of Briggs Creeks and Cedar Draw	USGS temperature data at gauge 13095175. Temperatures, pH and dissolved oxygen achieve criteria for Cold Water Aquatic Life. No status change.
ID17040212SK007_07	Snake River - Rock Creek to Box Canyon Creek	USGS temperature data at gauge 13093384. Temperatures exceeded numeric criteria for protection of Cold Water Aquatic Life. pH and dissolved oxygen achieve criteria for Cold Water Aquatic Life. No status change, the AU already impaired by temperature.
ID17040212SK013_05	Rock Creek -river mile 25 (T11S, R18E, Sec. 36) to mouth	USGS temperature data at gauge 13092747. Temperatures, pH and dissolved oxygen achieve criteria for Cold Water Aquatic Life. Temperatures exceed criteria for Salmonid Spawning. Metals and organics achieve criteria for Aquatic Life and Contact Recreation. This AU is not a designated or existing Domestic Water Supply, so criteria does not apply. No status change.
ID17040212SK030_02	Box Canyon Creek - source to mouth	USGS temperature data at gauge 13095500. Temperatures achieve criteria for Cold Water Aquatic Life. No status change.
ID17040219SK004_05	Big Wood River - Seamans Creek to Magic Reservoir	USGS pH data achieve applicable criteria. No status change.
ID17040221SK023_03	Silver Creek - Source to mouth	USGS temperature data at gauge 13150430. Temperatures exceed Cold Water Aquatic Life and Salmonid Spawning criteria. No status change, AU already impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040206SK022_04	Snake River	USGS dissolved.selenium (µg/L) water column data collected for this AU from 5-18-2018 to 9-4-2018 indicates no exceedance of the criteria for CWAL. USGS also sampled for dissolved oxygen and pH on 5/29/2018 and 9/4/2018 with no exceedances. However, this AU is already in CAT 5 for this use and will remain as not supporting for CWAL with mercury as the cause.
ID17040207SK010_05	Blackfoot River	USGS sampled for dissolved oxygen and pH from 1/9/2018 to 1/4/2022 with no exceedances. USGS dissolved.selenium (µg/L) water column data collected for this AU from 1-9-2018 to 9-24-2022 indicates an exceedance of the criteria for CWAL. This AU is already in CAT 5 for this use and will remain as not supporting for CWAL with selenium as the cause. USGS dissolved.selenium (µg/L) water column data collected for this AU from 1-9-2018 to 9-24-2022 indicates no exceedance of the criteria for protection of human health for Water and Fish and Fish criteria (Idaho's WBAG III, section 7.1 and 8.1). Therefore this AU will remain as fully supporting DWS. USGS dissolved selenium (µg/L) water column data collected for this AU from 1-9-2018 to 9-24-2022 indicates no exceedance of the criteria for protection of human health for Water and Fish and Fish criteria (Idaho's WBAG III, section 7.1 and 8.1). Therefore this AU will remain as fully supporting PCR.
ID17060101SL002_08	Snake River - Sheep Creek to Wolf Creek	USGS water Hg data. No support status change. Water Hg less than CMC and CCC, but AU is already mercury impaired based on fish tissue data.
ID17060103SL003_08	Snake River - Cottonwood Creek to Captain John Creek	USGS temperature data at gage 13317660. No status change. Temperatures exceeded numeric temperature criteria for protection of Cold Water Aquatic Life. No status change, but the AU was already temperature-impaired.
ID17060201SL032_04	Yankee Fork Creek - Jordan Creek to mouth	No support status change; AU already impaired by temperature.
ID17060203SL001_07	Salmon River - Panther Creek to Middle Fork Salmon River	No support status change; AU already impaired by temperature.
ID17060204SL030_04	Lemhi River (West Branch) - Big Spring Creek	No support status change; AU already impaired by temperature.
ID17060209SL008_07	Salmon River - Slate Creek to Rice Creek	USGS metals, pH, and continuous temperature data. No support status change. AU already impaired by temperature, pH and DO achieving criteria. Metals data achieve applicable human health criteria, but are insufficient to evaluate applicable aquatic life criteria. Metals data (Se, As, Cd, Cu, Pb, Ni) are available at the USGS gage 2018-2019. Metals did not exceed CMC and CCC criteria for protection of aquatic life, but data are needed in at least 3 years to conclude metals do not impair aquatic life, per Idaho Water Body Assessment guidance 3rd edition. Metals did achieve human health

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		criteria, but contact recreation use remains impaired due to fish tissue methylmercury data. If fish tissue methylmercury data exceeds human health criteria, DEQ assumes aquatic life use is impaired by mercury also. Water column total mercury data are available at the gage site 2019-2020, and did not exceed the Hg CMC or CCC for protection of aquatic life, but data are needed in at least 3 years to conclude mercury does not impair aquatic life. 2018-2019 pH data at the USGS gage achieved criteria for protection of Cold Water Aquatic Life.
ID17060302CL006_06	Selway River - Meadow Creek to O'Hara Creek	USGS metals and pH data. Metals data achieved applicable human health criteria, but were insufficient for assessing aquatic life use support. PH achieved applicable criteria. 2018 metals (As, Cu, Pb) at USGS gage 13336500 did not exceed applicable acute (CMC) or chronic (CCC) water quality criteria for protection of aquatic life, but data are needed in at least 3 years to conclude metals criteria do not impair aquatic life, per Idaho Water Body Assessment guidance 3rd edition. Metals data do achieve applicable human health criteria and therefore contact recreation and domestic water supply were assessed as fully supporting. Discrete pH data from the USGS gage achieved the pH criterion for protection of aquatic life use.
ID17060304CL002_04	Clear Creek - South Fork Clear Creek to mouth	USGS temperature data at gage 13337095. New temperature impairment. Temperature data exceeded salmonid spawning and EPA bull trout temperature criteria.
ID17060308CL008_05	North Fork Clearwater River - Aquaruis Cmpgrd to Dworshak R	USGS temperature data at gage 13340600. No status change. Temperatures exceeded numeric temperature criteria for protection of Cold Water Aquatic Life. No status change, but the AU was already temperature-impaired.
ID17050101SW005_07	Snake River - Clover Creek to Browns Creek	No beneficial use support status change; USGS toxics data (station USGS-13154500) collected from 2020-2021 met criteria for selenium and arsenic, indicating that CWAL. Dissolved Oxygen and pH achieve criteria for CWAL. However, USGS temperature data collected from 2020-2022 at the same station indicate that CWAL is Not Supporting due to the exceedance of daily average temperature criteria (19 degrees C) more than 10% of the time. CWAL will remain Not Supporting.
ID17050103SW001_07	Snake River - Marsing (RM425) to State Line	No beneficial use support status change; USGS toxics data (station USGS-4338481165817) collected in 2022 consisted of one Dissolved Mercury sample which met Cold Water Aquatic Life (CWAL) criteria. However, CWAL use in this assessment unit is associated with other impairments and will remain not supporting.
ID17050103SW002_04	Lower Succor Creek - 4th order (state line to mouth)	No beneficial use support status change; USGS toxics data (station USGS-13173500) collected from 2020-2022 consisted of 4 Dissolved Mercury samples that met Cold Water Aquatic Life (CWAL) criteria. However,

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		CWAL use in this assessment unit is associated with other impairments and will remain Not Supporting.
ID17050103SW005_03	Jump Creek - 3rd order	No beneficial use support status change; USGS toxics data (station USGS-13172890) collected in 2022 consisted of 4 Dissolved Mercury samples that met Cold Water Aquatic Life (CWAL) criteria. However, CWAL use in this assessment unit is associated with other impairments and will remain Not Supporting.
ID17050103SW006_07b	Snake River - Swan Falls to Marsing (RM425)	No beneficial use support status change; already assessed metals data in 2022 IR.
ID17050112SW004_05	Boise River - 5th order (North Fork to Arrowrock)	No beneficial use support status change; already assessed metals data in 2022IR. USGS pH and Dissolved Oxygen (DO) data collected at station USGS-13185000 in 2019 consisted of 3 samples that met Cold Water Aquatic Life (CWAL) criteria. Continuous temperature logger data collected by RMRS from 2019-2022 indicate the cold water aquatic life (CWAL) use is not supporting due to the exceedance of daily average (19 degrees C) and daily maximum (22 degrees C) temperature criteria more than 10% of the evaluated time. CWAL will remain Not Supporting. SS will remain Not Supporting.
ID17050114SW001_06	Boise River - Indian Creek to mouth	No beneficial use support status change; USGS toxics data (station USGS-13213000) collected from 2018 to 2022 consisted of 8 Dissolved Mercury samples that meet Cold Water Aquatic Life (CWAL) criteria. USGS Dissolved Oxygen (DO) and pH data (site 13213000) from 2019-2022 were examined and were determined to meet CWAL criteria. However, USGS temperature data (site 13211210) collected from 2020-2022 indicate that the CWAL use is Not Supporting due to the exceedance of daily average temperature criteria (19 degrees C) more than 10% of the time. CWAL use in this assessment unit is also associated with various other impairments and will remain Not Supporting.
ID17050114SW005_06	Boise River - Veterans Memorial Parkway to Star Bridge	No beneficial use support status change; USGS data collected at stations: USGS-13210007 and USGS-13206000 from 2019 to 2020 consisted of 6 samples that met Cold Water Aquatic Life Criteria (CWAL) criteria for pH and Dissolved Oxygen (DO). However, CWAL use in this assessment unit is associated with other impairments and will remain Not Supporting.
ID17050114SW011a_06	Boise River - Diversion Dam to Veterans Memorial Parkway	No beneficial use support status change; already assessed metals data in 2022IR. USGS data (station USGS-13203760) collected from 2019 to 2022 consisted of 16 samples that met Cold Water Aquatic Life (CWAL) criteria for Dissolved Oxygen (DO) and 11 samples that met CWAL for pH. However, the CWAL use in this assessment unit is associated with impairments caused by flow regime modification and physical habitat substrate alteration and will remain Not Supporting.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050114SW017_06	Sand Hollow Creek - Sharp Road to Snake River	No beneficial use support status change; USGS toxics data (station USGS-13213080) collected in 2022 consisted of 1 Dissolved Mercury sample and 5 Dissolved Oxygen (DO) samples that meet the Cold Water Aquatic Life (CWAL) criteria. However, CWAL use in this assessment unit is associated with sedimentation/silation.
ID17050115SW001_08	Snake River - Boise River to Weiser River	No beneficial use support status change; Two dissolved mercury samples were taken by USGS (stations: USGS-4353531165833 and USGS- 4405241165806) in 2022. The samples met applicable criteria, but since there was only two samples, the data is considered to be insufficient to assess beneficial uses. Cold Water Aquatic Life (CWAL) in this assessment unit is associated with other impairments and will remain not supporting.
ID17050120SW001_04	South Fork Payette River - 4th order	No beneficial use support status change; already assessed metals data in 2022 IR.
ID17050122SW001_06	Payette River - Black Canyon Reservoir Dam to mouth	No beneficial use support status change; two Dissolved Mercury samples were taken by USGS (Site USGS-13251000) from July 2020 to July 2022. The samples met applicable criteria for Cold Water Aquatic Life (CWAL), but because there were only two samples, the data are considered insufficient to assess beneficial uses.
ID17050122SW003_06	Payette River - NF/SF Confluence to Black Canyon Reservoir	No beneficial use support status change; already assessed metals data in 2022IR. CWAL and PCR will remain fully supporting.
ID17050123SW001_06a	North Fork Payette River - Smiths Ferry to Banks	No beneficial use support status change; already assessed metals data in 2022IR. CWAL will remain Not Supporting for Flow Regime Modificiation.
ID17050123SW016_04	North Fork Payette River - Payette Lake to Cascade Reservoir	No beneficial use support status change; already assessed metals data in 2022IR. CWAL will remain Not Supporting for Flow Regime Modification.
ID17050124SW001_06	Weiser River - Crane Creek to Galloway Dam	No beneficial use support status change; already assessed metals data in 2022IR. CWAL will remain not supporting for sedimentation/siltation and temperature.
ID17050124SW001_06a	Weiser River - Galloway Dam to Snake River	No beneficial use support status change; four additional Dissolved Mercury samples were taken by USGS (site USGS-13267410) between 2020 and 2022. The samples met the applicable criteria for CWAL use. However, CWAL use in this assessment unit is associated with temperature and sedimentation/siltation impairments and will remain not supporting.
ID17050124SW007_05a	Weiser River - Little Weiser River to Keithly Creek	No beneficial use support status change; already assessed metals data in 2022 IR.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050201SW002_08	Oxbow Reservoir	No beneficial use support status change; one dissolved mercury sample taken by the USGS (site USGS-13289220) in 2022 met applicable criteria for CWAL. However, the CWAL mercury impairment in this assessment unit is associated with previously submitted fish tissue samples that violated the 0.3 mg/kg human health criterion. This assessment unit will remain Not Supporting for CWAL.
ID17050201SW003_08	Brownlee Reservoir, Lower (Porters Flat to Brownlee Dam)	No beneficial use support status change; Mercury samples collected from 2020 to 2022 by USGS (sites 443416117084000, 444912116545700, and 13289575) met Cold Water Aquatic Life (CWAL) criteria. However, the CWAL mercury impairment in this assessment unit is associated with previously submitted fish tissue samples that violated the 0.3 mg/kg human health criterion. This assessment unit will remain Not Supporting.
ID17050201SW004_08	Brownlee Reservoir, Upper (Weiser to Porters Flat)	No beneficial use support status change; one dissolved mercury sample taken by the USGS (siteUSGS-4414471170044) in 2022 met the criteria for CWAL. However, CWAL use in this assessment unit is associated with various other impairments and will remain Not Supporting.
ID17060205SL001_06	Middle Fork Salmon River - Marsh Creek to Loon Creek	No beneficial use support status change; already assessed metals data in 2022IR.

Organization: US Forest Service Rocky Mountain Research Station

Parameters: continuous water temperature

Submission Date: December 30, 2022

The United States Forest Service Rocky Mountain Research Station submitted continuous water temperature data (collected 2021-2022) to DEQ on 12/30/2022 Submitted data were considered *Tier 1* data and were compared to applicable numeric temperature criteria.

Table K3. United States Forest Service Rocky Mountain Station Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010302PN001_04	South Fork Coeur d'Alene	2018-2021 external temperature logger data submitted by the United States Forest Service, for site 609, indicates exceedance in the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is "not supporting." 2018- 2021 external temperature logger data submitted by the United States Forest Service, for site 609, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit remains "not supporting".
ID17010302PN011_03	South Fork Coeur d'Alene	2018-2021 external temperature logger data submitted by the United States Forest Service, for site 606, do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is meeting water temperature criteria. 2018-2021 external temperature logger data submitted by the United States Forest Service, for site 606, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit remains "not supporting".
ID17010304PN007_05	St. Maries River	2018-2022 external temperature logger data submitted by the United States Forest Service, for sites 605, indicates continued exceedance in the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". Salmonid Spawning is not a beneficial use.
ID17010304PN027_05a	St. Joe River	2017-2022 external temperature logger data submitted by the United States Forest Service, for site 611, indicates continued exceedance in the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2017-2022 external temperature logger data submitted by the United States Forest Service, for site 611, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17040203SK005_05	Falls River - Stream order 5 segments	No support status change; AU already impaired by temperature.
ID17040218SK025_04	Big Lost River - Summit Creek to and including Burnt Creek	No support status change; AU already impaired by temperature.
ID17040221SK023_03	Silver Creek - source to mouth	RMRS temperature data. Temperatures exceed Cold Water Aquatic Life and Salmonid Spawning criteria. No status change, AU already impaired by temperature.
ID17060201SL047_05	Salmon River - Valley Creek to Yankee Fork Creek	No support status change; AU already impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060201SL102_05	East Fork Salmon River - Herd Creek to mouth	No support status change; AU already impaired by temperature.
ID17060202SL001_05	Pahsimeroi River - Patterson Creek to mouth	No support status change; AU already impaired by temperature.
ID17060203SL010_05	Panther Creek - Napias Creek to Big Deer Creek	No support status change; AU already impaired by temperature.
ID17060203SL029_07	Salmon River - Indian Creek to Panther Creek	No support status change; AU already impaired by temperature.
ID17060205SL020_03	Cape Horn Creek - Banner Creek to mouth	No support status change; AU already impaired by temperature.
ID17060205SL028_04	Beaver Creek - Bear Creek to mouth	No support status change; AU already impaired by temperature.
ID17060302CL006_06	Selway River - Meadow Creek to O'Hara Creek	RMRS temperature data. New temperature impairment. Temperature data exceeded Cold Water Aquatic Life and Salmonid Spawning temperature criteria.
ID17060305CL036_05	South Fork Clearwater River - 5th order mainstem segment	RMRS temperature data. No status change. Temperature data exceeded criteria, but the AU was already temperature-impaired.
ID17050102SW020_05	Bruneau River - Idaho/Nevada border to Jarbidge River	RMRS Temperature logger data collected from 2015-2022. New temperature § 303(d) listing; temperatures exceed SS and CWAL criteria.
ID17050102SW021_04	Jarbidge River - 4th order downstream of Buck Creek	RMRS Temperature logger data collected from 2015-2022. New temperature § 303(d) listing; temperatures exceed EPA 1997 Bull Trout and State temperature Bull Trout criteria; SS and CWAL criteria.
ID17050105SW001_06	SF Owyhee River - Nevada border to Little Owyhee River	RMRS Temperature logger data collected from 2016-2021. SS support status change; AU is already impaired by Temperature and SS use should have previously listed as impaired. New temperature § 303(d) listing; temperatures exceed EPA 1997 Bull Trout and State temperature Bull Trout criteria; SS and CWAL criteria.
ID17050111SW001_02	MF Boise River - 1st and 2nd order forested tributaries	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL use will remain Not Supporting.
ID17050111SW001_03	MF Boise River, Swanholm and Lost Man Creeks: 3rd order	RMRS Temperature logger data collected from 2019- 2021. No support status change; AU is already impaired by Temperature. SS and CWAL use will remain Not Supporting.
ID17050111SW010_05	North Fork Boise River - 5th order	RMRS Temperature logger data collected from 2019- 2021. No support status change; AU is already impaired by Temperature. SS and CWAL use will remain Not Supporting.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050111SW014_02	Crooked River, Pikes Fk, and Beaver Creek- 1st and 2nd order	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL use will remain Not Supporting.
ID17050112SW004_05	Boise River - 5th order (North Fork to Arrowrock)	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL use will remain Not Supporting.
ID17050112SW007_02	Cottonwood Creek and tributaries - 1st and 2nd order	RMRS Temperature logger data collected from 2018- 2022. No support status change; AU is already impaired by Temperature for SS criteria. SS use will remain Not Supporting.
ID17050113SW017_03	Boardman Creek - 3rd order (Smoky Dome Canyon to mouth)	RMRS Temperature logger data collected from 2019- 2021. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050113SW018_03	Little Smoky, Salt & Grindstone Creeks - 3rd order sections	RMRS Temperature logger data collected from 2019- 2021. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050113SW021_04	South Fork Boise River - 4th order	RMRS Temperature logger data collected from 2020-2022. New temperature § 303(d) listing; temperatures exceed SS criteria.
ID17050113SW031_03	Fall and Tally Creeks - 3rd order sections	RMRS Temperature logger data collected from 2019-2022. New temperature § 303(d) listing for CWAL use; temperatures exceed State and EPA Bull Trout criteria and general SS and criteria.
ID17050113SW033_02	Rattlesnake Creek and tributaries - 1st and 2nd order	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050120SW009_03	Canyon Creek - 3rd order	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050120SW013_03	Clear Creek - 3rd order (South Fork Clear Creek to mouth)	RMRS Temperature logger data collected from 2017- 2020. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050124SW008_02	Little Weiser River tributaries - 1st and 2nd order	RMRS Temperature logger data collected from 2016- 2020. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17060205SL013_04a	Elk Creek - Wilderness Area	RMRS Temperature logger data collected from 2019- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17060208SL001_06	South Fork Salmon River - East Fork Salmon River to mouth	RMRS Temperature logger data collected from 2020- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17060208SL010_04	SF Salmon River - 4th order (Curtis Cr. To Buckhorn Cr.)	RMRS Temperature logger data collected from 2016- 2022. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060208SL010_05	South Fork Salmon River - 5th order	RMRS Temperature logger data collected from 2020- 2021. No support status change; AU is already impaired by Temperature. SS and CWAL will remain Not Supporting.
ID17050114SW002_04	Indian Creek - Sugar Avenue to Boise River	No beneficial use support status change. USGS Dissolved Oxygen (DO) and pH data (USGS-13211441) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. However, CWAL use impairments in this assessment unit are associated with sedimentation/siltation and temperature. CWAL use will remain Not Supporting.
ID17050114SW005_02	Mill Slough and East Hartley Gulch	No beneficial use support status change; already assessed metals data in 2022IR. USGS Dissolved Oxygen (DO) and pH data (USGS-132108247 and USGS-13210050) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. CWAL use will remain Fully Supporting.
ID17050114SW005_06a	Boise River-Star to Middleton	No beneficial use support status change. Data from station USGS-13210007 from 2018 to 2020 indicate that during 5 sampling events, both PH and DO were within range for CWAL criteria.
ID17050114SW006_02	Mason Creek - entire watershed	No beneficial use support status change. USGS Dissolved Oxygen (DO) and pH data (USGS-13210985) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. However, CWAL support status in this assessment unit is associated with other impairments and will remain Not Supporting. Nutrient data was collected but cannot be used for assessment at this time because 2 parameters are required for determining a violation of nutrient standards (WBAG 5.1.1). Some total phosphorus and total nitrogen data were collected, but no evident violation of narrative criteria at this time.
ID17050114SW007_04	Fifteenmile Creek - 4th order (Fivemile Creek to mouth)	Data from station USGS-13210815 from 2018 to 2022 indicate that during all sampling events, both PH and DO were within range for CWAL criteria. However, CWAL support status in this assessment unit is associated with other impairments and will remain Not Supporting.
ID17050114SW008_03	Tenmile Creek - 3rd order below Blacks Creek Reservoir	USGS Dissolved Oxygen (DO) and pH data (USGS-13210660) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. However, the CWAL use in this assessment unit is associated with impairments caused by sedimentation/siltation and chlorpyrifos and will remain Not Supporting.
ID17050114SW010_03	Fivemile Creek - 3rd order	USGS Dissolved Oxygen (DO) and pH data (USGS-13210795) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. However, the CWAL use in this assessment unit is associated with impairments caused by sedimentation/siltation and chlorpyrifos and will remain Not Supporting.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050114SW017_03	Sand Hollow Creek - I-84 to Sharp Road	USGS Dissolved Oxygen (DO) and pH data (USGS-13213072) from 2018-2022 were examined and were determined to meet Cold Water Aquatic Life (CWAL) criteria. However, CWAL support status in this assessment unit is associated with other impairments and will remain Not Supporting.
ID17040105SK002_03	Jackknife Creek - source to Idaho/Wyoming border	USDA Forest Service temperature data was gathered at two sites in this AU from January 2017 to August 2022 . Temperature exceeded salmonid spawning criteria. This AU will remain not supporting for this beneficial use with temperature as the cause.
ID17040207SK010_02	Mill Canyon Creek and other Blackfoot River 2nd order tribs	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040208SK016_05	Portneuf River- Twentyfour Mile Creek to Marsh Creek	USDA Forest Service temperature data was gathered in this AU from August 2019 to August 2022 . Temperature exceeded Cold Water Aquatic criteria. This AU will remain not supporting for this beneficial use with temperature as the cause.

Organization: Bureau of Land Management

Parameters: Assessment Inventory and Monitoring program data

Submission Date: January 23rd, 2023

BLM submitted 2019-2020 stream physical, chemical, and biological data from BLM's AIM monitoring program. Physical data included many stream habitat measures such as pool frequency, substrate percent fines, bankfull height, large wood coverage, and others. Chemical measures included discrete field measurements of specific conductance, temperature, and pH, and lab results from grab samples for total nitrogen and total phosphorus. Biological data submitted were reach macroinvertebrate O/E index values. These reflect a comparison between the observed macroinvertebrate taxa (O) to those expected (E) in the absence of anthropogenic stressors based on modeling.

DEQ compared submitted pH data to the Idaho WQS requirement that pH range between 6.5 and 9 (IDAPA 58.01.02.250.01.b). If a sampled stream had a total maximum daily load with total nitrogen and total phosphorus targets, submitted data were compared to TMDL targets. Otherwise, total nitrogen and total phosphorus data were used to assess compliance with Idaho's narrative nutrient criterion following DEQ guidance (DEQ 2016). Idaho's narrative nutrient criterion (IDAPA 58.01.02.200.06) states surface waters "shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses." Identifying a nutrient impairment requires multiple lines of evidence including evidence of I) a source of nutrient pollution, 2) a evidence of a transport pathway to the stream, and 3) at least two lines of evidence for a measurable adverse effect on

a beneficial use, ideally including a biological line of evidence (DEQ 2016). Nutrient data were assessed within this context and combined with other lines of evidence if available. If other lines of evidence were not available within the AU, submitted nutrient data were not used for assessment decisions.

Field temperature measurements were not used because a single discrete measurement is not sufficient data to be representative of the waterbody and compare to temperature water quality standards.

Specific conductance data were not used because Idaho does not have a specific conductance water quality standard. Stream physical and biological data were not used because Idaho does not have water quality standards for submitted physical and biological measures. Using external physical and biological data for beneficial use support status calls would require either a) calculating BURP macroinvertebrate and habitat multimetric index values from external data after establishing field methods and taxonomic methods would not affect data comparability to BURP metric thresholds, or b) establishing an assessment methodology and reference conditions for external bioassesment data that is approved DEQ director in consultation with the appropriate basin advisory group as required by Idaho Water Quality Standards (IDAPA 58.01.02.42).

Table K4. Bureau of Land Management Assessment Outcomes

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010302PN011_02	South Fork Coeur d'Alene River tributaries between Little North Fork and Canyon Creek	No exceedance of the Idaho water quality standards for Cold Water Aquatic Life were observed in the BLM, National Lotic AIM, data on pH, or discrete water temperature during one event, June 2021. Cold Water Aquatic Life remains fully supporting.
ID17060101SL028_02	Divide Creek - 1st and 2nd order Tributaries	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060103SL007_02	Corral Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060207SL001_02	Salmon River - South Fork Salmon River to river mile 106	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060207SL003_02	Carey Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060207SL004_02	California Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL001_02	Salmon River - Rice Creek to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060209SL003_02	Cottonwood Creek - source to unnamed tributary	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060209SL005_02	Burnt Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL007_02	Rice Creek - tributaries	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060209SL008_02	Salmon River - Slate Creek to Rice Creek	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL011_02	Salmon River - tributaries; Little Salmon R. to Slate Creek	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL020_03	Lake Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060209SL021_03	Partridge Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL022_02	Elkhorn Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL033_02	John Day Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL034_02	Slate Creek - from and including Hurley Creek to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL043_02	McKinzie Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060209SL063_02	Eagle Creek - source to mouth	Cold water aquatic life use changed from not assessed to fully supporting based on submitted pH data. Added pH as a parameter achieving criteria.
ID17060209SL063_03	Eagle Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060210SL001_02	Little Salmon River - 1st and 2nd order below Round Valley	A discrete field pH measurement submitted by BLM for Idaho's 2024 IR achieved Idaho's pH criterion.
ID17060210SL001_05	Little Salmon River - 5th order	No beneficial use support status change. The BLM AIMs program collected 2019 data that show pH is supporting.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060305CL036_05	South Fork Clearwater River - 5th order mainstem segment	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL037_02	Red River- Siegel Creek to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL052_04	American River - 4th order, East Fork American River to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL054_03	East Fork American River - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL055_03	American River - source to East Fork American River	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL057_02	Little Elk Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL058_02	Big Elk Creek - source to WF Big Elk Creek	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL059_02	Buffalo Gulch - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL060_02	Whiskey Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060305CL061_02	Maurice Creek - source to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060306CL026_02	Lolo Creek - Yakus Creek to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17060306CL026_04	Lolo Creek - Yakus Creek to mouth	No beneficial use support status change. Added pH as a parameter achieving criteria.
ID17040209SK003_02	Marsh Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040210SK010_04	Raft River	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040211SK005_02	Goose Creek - Beaverdam Cr. to Lower Goose Cr. Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040211SK005_03	Goose Creek - Beaverdam Creek to Lower Goose Creek Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040211SK005_05	Goose Creek - Beaverdam Creek to Lower Goose Creek Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040211SK009_02	Birch Creek - Idaho/Utah border to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040211SK009_03	Birch Creek - Idaho/Utah border to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040211SK010_02	Blue Hill Creek and tribs. to Goose Creek	pH achieved criteria. Added pH as a parameter achieving criteria. Cold water aquatic life use changed from not assessed to fully supporting.
ID17040211SK011_02	Cold Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK000_02	1st and 2nd order tribs to Yahoo and Deep Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK017_02	Fifth Fork Rock Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK022_03	Dry Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK034_04	Clover Creek - Pioneer Reservoir Dam outlet to Snake River	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK036_02	Clover Creek - source to Pioneer Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK036_04	Clover Creek - source to Pioneer Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040212SK039_03	Deer Creek - source to mouth trib to Clover Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK001_06	Salmon Falls Creek - Devil Creek to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK003_06	Salmon Falls Creek - Salmon Falls Creek Dam to Devil Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK005_02	House Creek - source to Cedar Creek Reservoir	A single pH violation from the BLM lotic AIM data that was submitted. A single violation of pH criteria is not sufficient to add pH as an impairment. More monitoring is needed to determine if pH really is an issue here.
ID17040213SK005_03	House Creek - source to Cedar Creek Reservoir	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK006_02	Cedar Creek - source to Cedar Creek Reservoir	A single pH violation from the BLM lotic AIM data that was submitted. A single violation of pH criteria is not sufficient to add pH as an impairment. More monitoring is needed to determine if pH really is an issue here. .

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040213SK008_02	China, Browns, Corral, Player Creeks	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK009_06	Salmon Falls Creek-Idaho/Nevada border to Salmon Falls Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK010_02	North Fork Salmon Falls Creek-source to Idaho/Nevada border	A single pH violation from the BLM lotic AIM data that was submitted. A single violation of pH criteria is not sufficient to add pH as an impairment. More monitoring is needed to determine if pH really is an issue here.
ID17040213SK011_04	Shoshone Creek - Hot Creek to Idaho/Nevada border	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040213SK014_03	Big Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040219SK006_02	Slaughterhouse Gulch Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040219SK028_02	Rock Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040220SK002_02	Camp Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040220SK004_02	Beaver Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040220SK017_02	West Fork Corral Creek - source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040221SK002_05	Little Wood River	pH exceeded criteria. Added pH as a parameter exceeding criteria. No beneficial use support status change.
ID17040221SK014_02	Muldoon Creek -source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040221SK014_04	Muldoon Creek -source to mouth	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040221SK019_02	Friedman Creek - source to Trail Creek	pH achieved criteria. Added pH as a parameter achieving criteria. No beneficial use support status change.
ID17040105SK008_02	Crow Creek - source to Idaho/Wyoming border	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040206SK010_02a	Crystal Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040206SK012_02	Midnight Creek - source to mouth	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040207SK002_05	Blackfoot River - Blackfoot Reservoir Dam to Fort Hall Main	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040207SK020_02	Browns Canyon	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040207SK030_02	Wolverine Creek - source to Jones Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040208SK006_02a	Arkansas Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040208SK007_02a	Upper Walker Creek - headwaters to S. FK. Walker Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040208SK010_02a	Upper Garden Creek - headwaters to Garden Creek Gap	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17040208SK016_02c	West Bob Smith Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID17050102SW011_06	Bruneau River - Clover Creek to Hot Creek	No beneficial use support status change. BLM-AIMs conducted two discrete sampling events from 2021 to 2022. pH achieved criteria. Added pH as a parameter achieving criteria.
ID17050102SW013_05	Bruneau River - Jarbidge River to Sheep Creek	BLM-AIMs conducted one discrete sampling event from November 2020, in which dissolved oxygen levels did not meet CWAL criteria in three of five sample. However, as these samples were seconds apart more continuous data is desired before listing DO. Since habitat/biology were otherwise supporting, CWA and SS will be moved to cat 3 for DO for further investigation.
ID17050102SW013_06	Bruneau River - Sheep Creek to Clover Creek	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved criteria. Added pH as a parameter achieving criteria.
ID17050102SW014_03	Sheep Creek - 3rd order	No benefcial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved criteria. Added pH as a parameter achieving criteria.
ID17050102SW016_04	Marys Creek - 4th order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event from August 2021, in which dissolved oxygen levels and instantaneous temperature met CWAL criteria. However, one discrete sample does not provide sufficient data to support delisting. CWAL use will remain not supporting due to combined biota impairment.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050102SW017_03	Bull Creek - 3rd order (West Fork Bull Creek to mouth)	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050102SW020_05	Bruneau River - Idaho/Nevada border to Jarbidge River	New temperature § 303(d) listing; temperatures exceed CWAL criteria. BLM-AIMs conducted two discrete sampling events from 2020-2021. pH and DO met CWAL criteria. However, AU is impaired by temperature.
ID17050102SW021_02	Columbet and Rattlesnake Creeks - entire drainages	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050102SW021_03	Jarbidge River and Buck Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050102SW021_04	Jarbidge River - 4th order downstream of Buck Creek	New temperature § 303(d) listing; temperatures exceed CWAL criteria. BLM-AIMs conducted two discrete sampling events from 2021. pH and DO met CWAL criteria. However, AU is impaired by temperature.
ID17050102SW024_02	East Fork Jarbidge River - 1st and 2nd order tributaries	No beneficial use support status change. BLM-AIMs conducted two discrete sampling events from 2019-2020. pH and instantaneous temperature achieved CWAL criteria. However, this data is insufficient for assessing CWAL use and AU will remain not assessed.
ID17050102SW024_03	East Fork Jarbidge River - Idaho/Nevada border to mouth	No beneficial use support status change. BLM-AIMs conducted three discrete sampling events from 2019-2020. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050102SW028_05	Clover Creek (East Fork Bruneau River) - 5th order	No beneficial use support status change. BLM-AIMs conducted two discrete sampling events in 2021, in which pH and instantaneous temperature met CWAL criteria. However, two discrete samples does not provide sufficient data to support delisting. CWAL use will remain not supporting due to temperature impairment.
ID17050102SW030_02	Big Flat Creek - 1st and 2nd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021, in which pH and instantaneous temperature met CWAL criteria. However, one discrete samples does not provide sufficient data to support delisting. CWAL use will remain not supporting due to combined biota impairment.
ID17050102SW031_03	Three Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020, in which pH and instantaneous temperature met CWAL criteria. However, one discrete samples does not provide sufficient data to support delisting. CWAL use will remain not supporting due to sedimentation/siltation impairment.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050102SW033_02	Deer Creek - 1st and 2nd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050102SW033_03	Deer Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved CWAL criteria, however, the instantaneous temperature exceeded. One discrete sample with conflicting data does not provide sufficient data to determine a change in support status.
ID17050102SW034_02	Deadwood Creek - 1st and 2nd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020. pH and instantaneous temperature achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050103SW008_02	Hardtrigger Creek - entire drainage	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2019, in which pH and instantaneous temperature met CWAL criteria. However, one discrete sample does not provide sufficient data to support delisting. CWAL use will remain not supporting due to sedimentation/siltation impairment.
ID17050103SW020_03	SF Castle Creek - 3rd order (Clover Cr. to NF Castle Cr.)	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2019. pH and instantaneous temperature did not achieve CWAL criteria. CWAL will remain not supporting.
ID17050104SW001_06	Owyhee River - 6th order (Juniper Creek to SF Owyhee River)	BLM AIMs conducted one discrete sampling event: pH was out of range for CWAL/SS (9.38 and 9.43) at two locations of the AU in August 2019; more continuous data is desired before listing for pH. CWAL will remain not supporting.
ID17050104SW023_03	Battle Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2019. CWAL will remain not supporting due to temperature impairments.
ID17050104SW023_04	Battle Creek - 4th order	No beneficial use support status change. BLM-AIMs conducted three discrete sampling events in 2019, in which pH and instantaneous temperature met CWAL criteria. However, three discrete samples do not provide sufficient data to support delisting. CWAL use will remain not supporting due to temperature impairment.
ID17050107SW006_02	Squaw Creek and tributaries - 1st and 2nd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in which pH met CWAL criteria. Added pH as a parameter achieving criteria.
ID17050107SW010_02	Noon Creek - entire watershed	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in which pH met CWAL criteria. Added pH as a parameter achieving criteria.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050108SW001_05	Jordan Creek - Williams Creek to State Line	New metals § 303(d) listing; various metal concentrations exceed CWAL criteria. BLM-AIMs conducted one discrete sampling event in 2021. pH met CWAL criteria. Added pH as a parameter achieving criteria, however, this AU is impaired by metals, and CWAL use is not supporting.
ID17050108SW002_02	Lone Tree Creek and tributaries - 1st and 2nd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved CWAL criteria. Added pH as a parameter achieving criteria. However, one discrete samples does not provide sufficient data to support delisting. CWAL use will remain not supporting due to combined biota impairment.
ID17050108SW004_02	Jordan Creek, Upper - 1st and 2nd order tributaries	New metals § 303(d) listing; various metal concentrations exceed CWAL criteria. BLM-AIMs conducted two discrete sampling events in 2021. pH met CWAL criteria. Added pH as a parameter achieving criteria, however, this AU is impaired by metals, an CWAL use is not supporting.
ID17050108SW004_03	Jordan Creek - Jacobs Gulch to Louse Creek	New metals § 303(d) listing; various metal concentrations exceed CWAL criteria. BLM-AIMs conducted one discrete sampling event in 2021. pH met CWAL criteria. Added pH as a parameter achieving criteria, however, this AU is impaired by metals, and CWAL use is not supporting.
ID17050108SW010_05	Rock Creek - Triangle Reservoir Dam to mouth	New temperature § 303(d) listing; temperatures exceed CWAL criteria. BLM-AIMs conducted one discrete sampling event in 2021. pH exceeded CWAL criteria. Added pH as a parameter not meeting criteria.
ID17050108SW019_02	Trout Creek - 1st and 2nd order	No beneficial use support status change. This AU will remain not assessed. One discrete sample collected in 2021 by the BLM AIMs program is not adequate to assess this AU. The data collected include: pH, total nitrogen and phosphorus, turbidity, specific conductivity, benthic macroinvertebrate core, as well as sediment measures of percent fine sediment and bank stability.
ID17050108SW019_03	Trout Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050122SW017_03	Big Willow Creek and Dry Creek - 3rd order sections	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17050124SW032_03	Mann Creek - 3rd order above Mann Creek Reservoir	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2021. pH achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID17060210SL010_02	Goose Creek - 1st and 2nd order	No data provided.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060210SL015_03	Hard Creek - 3rd order	No beneficial use support status change. BLM-AIMs conducted one discrete sampling event in 2020. pH achieved CWAL criteria. Added pH as a parameter achieving criteria.
ID16010201BR011_02	Mill Creek - source to mouth	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16010201BR018_02b	Indian Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16010201BR019_02a	Fish Haven Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16010202BR007_02	Mink and Strawberry Creek - 2nd order tributaries	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16010202BR009_02	Unnamed Tributaries	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16010202BR009_06	Bear River – Alexander Reservoir Dam to Densmore Creek	No new data available for Assessment Cycle that would result in change to Beneficial Use Status.
ID16010202BR013_02	Densmore Creek - source to mouth	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16020309BR001_02	Deep Creek - Rock Creek to Idaho/Utah border	No new data available for Assessment Cycle that would result in change to Beneficial Use status.
ID16020309BR001_03	North Canyon	No new data available for Assessment Cycle that would result in change to Beneficial Use status.

Organization: Boise Bureau of Land Management

Parameters: Temperature

Submission Date: February 2, 2023

Boise BLM submitted continuous water temperature, Barometer, Conductivity, Resistivity, Salinity, Specific Conductance, DO, NO3, pH, E. coli, fecal coliform, and instantaneous temperature data (collected 2015 - 2022) to DEQ on February 2, 2023. Submitted data that were considered *Tier 1* data and were compared to applicable numeric criteria are included in the table below. DEQ compared submitted dissolved oxygen, pH, E. coli and continuous temperature data to applicable numeric criteria in Idaho Water Quality Standards (WQS).

Total dissolved solids, conductivity, and salinity data were not used for beneficial use support decisions because Idaho does not have numeric water quality standards for these parameters. In cases where only discrete temperature measurements were reported, data could not be compared to daily average thresholds for Cold Water Aquatic Life or Salmonid Spawning or Bull Trout temperature criteria (IDAPA 58.01.02.250.02g and g.i, 40 CFR § 131.33).

Table K5. Boise Bureau of Land Management Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050102SW003_04	Little Jacks Creek - 4th order section	BLM conducted 4 discrete sampling events from 2019 to 2020. The pH results met CWAL criteria while DO did not in 3 samples. At this time there is no biologic or habitat data that might suggest CWAL beneficial use is not supporting. CWAL and SS will be in Cat 3 for DO for further monitoring. Continuous temperature data is not available for this AU.
ID17050102SW004_05	Big Jacks Creek - upper 5th order	BLM conducted 7 discrete sampling events from September 2019 to October 2020. One discrete sampling event in July 2020 recorded Dissolved Oxygen levels (2.83 and 2.82 mg/L) below the criteria for Cold Water Aquatic Life (must exceed 6 mg/L at all times). Continuous temperature data for this AU is not available and the AU will remain listed as Not Supporting CWAL for Combined Biota/Habitat Bioassessments and DO. Though DO samples were infrequent, because AU was impaired already DO will be added.
ID17050102SW005_02	Cottonwood Creek - entire drainage	BLM conducted 2 discrete sampling events from July 2020 to October 2020. One discrete sampling event in July 2020 recorded dissolved oxygen levels (4.7 and 4.74 mg/L) below the criteria for Cold Water Aquatic Life (must exceed 6 mg/L at all times). Due to the infrequent data collected, and biological and habitat data showing supporting, CWAL will be moved to Category 3 for further monitoring. Continuous temperature data is not available for this AU.
ID17050102SW007_04	Wickahoney Creek - 4th order	No beneficial use support status change. BLM conducted one discrete sampling event in January 2020. Dissolved Oxygen (6.25 and 7.16 mg/L) and pH (7.55 and 7.49) are within range to support CWAL use. However, one discrete sampling event does not provide enough data to change the support status of CWAL. Continuous temperature data for this AU is not available and the AU will remain listed as Not Supporting CWAL for Combined Biota/Habitat Bioassessments.
ID17050102SW013_05	Bruneau River - Jarbidge River to Sheep Creek	BLM conducted one discrete sampling event in 2020. pH met CWAL criteria. DO did not meet CWAL criteria. However, there is not enough data to support conclusions that CWAL is not supporting from DO data alone, continuous temperature data is not available for this AU. Cat 3 for further investigation.
ID17050102SW020_05	Bruneau River - Idaho/Nevada border to Jarbidge River	New temperature § 303(d) listing; temperatures exceed CWAL criteria. BLM conducted one discrete sampling event in 2020. pH and DO met CWAL criteria. However, AU is impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050102SW021_04	Jarbidge River - 4th order downstream of Buck Creek	New temperature § 303(d) listing; temperatures exceed CWAL criteria. BLM conducted one discrete sampling event in 2020. pH and DO met CWAL criteria. However, AU is impaired by temperature.
ID17050103SW002_02	Sage Creek and tributaries - 1st and 2nd order	No beneficial use support status change. BLM conducted three discrete sampling events in April 2020. Dissolved Oxygen, pH and, instantaneous temperature measurements indicated that values were within range for CWAL criteria. However, CWAL will remain unassessed because three discrete sampling events do not provide enough data to assess.
ID17050103SW003_03	Upper Succor Creek - 3rd order (Granite Creek to State Line)	BLM conducted one discrete sampling event in July 2020 where dissolved oxygen was below the threshold for CWAL (must exceed 6 mg/L at all times). Updated continuous temperature data was unavailable for this assessment unit (AU). CWAL impairments in this assessment unit (AU) are associated with flow regime modification, temperature, and sedimentation/siltation. Though DO sampling was infrequent, CWAL use in this AU is Not Supporting, and DO will be added as an impairment.
ID17050103SW004_03	McBride Creek - 3rd order	No beneficial use support status change. Three samples were collected by the BLM in June 2020. Dissolved Oxygen, pH, and instantaneous temperature indicated that CWAL was supporting, however, CWAL impairments are due to sedimentation/siltation in this AU and will remain Not supporting.
ID17050103SW014_02a	Castle Creek - 1st & 2nd order forested tributaries	New dissolved oxygen impairment. Data collected from 2019 to 2020 indicated that DO levels in 6 of 8 samples were below the threshold for CWAL (must exceed 6 mg/L at all times). Continuous temperature logger data collected by the BLM from June 2020 to November 2020 exceeded CWAL criteria for daily average (19 C) and daily maximum (22 C) more than 10% of the observed period. The 2019-2020 dataset also demonstrate exceedance of CWAL criteria for temperature for all samples. CWAL and SS will remain Not supporting for temperature and DO added.
ID17050103SW014_04a	Castle Creek - upper 4th order (canyon section)	New dissolved oxygen impairment. Data collected from 2019 to 2020 indicated that DO levels in 6 of 8 samples were below the threshold for CWAL (must exceed 6 mg/L at all times). Continuous temperature logger data collected by the BLM from 06/30/2020 to 11/21/2020 had exceedances of COLD max criteria (22 C) 10.4% of the time out of the days evaluated. COLD daily average criteria (19 C) is exceeded 22% of the time. SS max criteria and daily average criteria were exceeded greater than 75% of the time for the general SS spawning period and 100% of the time for the spring spawning period for Redband trout. CWAL will remain not supporting for temperature with DO added as a parameter.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050103SW021_02	Birch Creek and tributaries - 1st and 2nd order	No beneficial use support status change. BLM conducted e. coli sampling in 2019 and 2020. The Geometric mean = 172.77 and 109.76 MPN/100mL. BUT not designated for Contact recreation, so will not change support status.
ID17050103SW024_03	Shoofly and Poison Creeks - 3rd order	No beneficial use support status change. BLM conducted e. coli sampling in 2019 and 2020. The geometric mean in June 2019 (395.252 MPN/100mL) exceeded the criteria for secondary contact recreation (SCR). However, the geometric mean in June of 2020 greatly decreased to 72.47 MPN/100mL. SCR will remain Fully supporting.
ID17050104SW001_06	Owyhee River - 6th order (Juniper Creek to SF Owyhee River)	No beneficial use support status change. BLM Discrete sampling: pH was out of range for CWAL/SS (9.38 and 9.43) during both sampling events in August 2019. AU is impaired by temperature.
ID17050104SW023_02	Battle Creek - 1st & 2nd order	New PCR § 303(d) listing; BLM E. coli data collected in 2019 indicate that Contact Recreation use is not supporting due to the exceedance of a geometric mean of 126 MPN/100 mL. PCR will move to Not Supporting. Samples collected in 2020 are not representative for assessment, only 2 samples were collected over a 22-day period due to no flow present.
ID17050104SW023_04	Battle Creek - 4th order	No beneficial use support status change. Three discrete sampling events in 2019 by BLM Boise - pH and instantaneous temp show in support of CWAL. However, this data is insufficient to support a delisting and this AU is impaired by temperature
ID17050104SW026_05	Deep Creek - 5th order (Nickel Creek to mouth)	No beneficial use support status change. BLM pH and DO data show that CWAL criteria is within range, but CWAL impairments are due to other impairments. CWAL use will remain not supporting.
ID17050104SW031_02	Nickel Creek & tributaries - 1st and 2nd order	Continuous temperature data collected at Seven locations within the assessment unit by the BLM from 2019 to 2021 indicate that Cold Water Aquatic Life (CWAL) is supporting. Six out of seven of the sites meet daily maximum temperature criteria (22 degrees C) and all sites meet daily average temperature criteria (19 degrees C). Discrete sampling at two locations within the assessment unit in 2020 resulted in dissolved oxygen levels below CWAL criteria (must exceed 6 mg/L at all times), though DO sampling was infrequent this AU is associated with other impairments and DO will be added. CWAL use is listed as impaired by sedimentation/ siltation.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050104SW031_03	Nickel, Thomas & Smith Creeks - 3rd order sections	Continuous temperature data collected by the BLM from 2019 to 2021 indicate that Cold Water Aquatic Life (CWAL) use is supporting for both daily average (19 degrees C) and daily maximum (22 degrees C) temperature criteria; all three BLM samples (collected within seconds of each other) from one sampling event in July 2020 for pH and DO fall outside of CWAL criteria; though DO sampling was infrequent, this AU is associated with other impairments, so DO will be added. CWAL support in this assessment unit is associated with aquatic plant bioassessments and sedimentation/ siltation. CWAL will remain not supporting.
ID17050105SW001_07	South Fork Owyhee River - Little Owyhee River to mouth	New dissolved oxygen impairment. Dissolved oxygen levels for 50% of sampling events from 2019 to 2020 did not meet CWAL criteria. No additional continuous temperature data are available. CWAL will remain not supporting for temperature with DO added as a parameter.
ID17050107SW008_05	NF Owyhee River - 5th order (Juniper Creek to State Line)	BLM conducted 2 discrete sampling events from 2019-2020, with 3 of 5 total samples not meeting CWAL criteria for dissolved oxygen. Though those 3 samples were collected within seconds of each other, this AU shows impairment and DO will be added. Continuous temperature data was not available for this assessment unit. CWAL will remain Not Supporting.
ID17050108SW010_05	Rock Creek - Triangle Reservoir Dam to mouth	New temperature, pH, dissolved oxygen, and metals § 303(d) listing; Continuous temperature data collected by the BLM from June 2020 to November 2020 indicate that CWAL use is Not Supporting due to the exceedances of daily average (19 degrees C) and daily maximum (22 degrees C) temperature criteria greater than 10% of the time during the evaluated period. Discrete sampling events conducted by BLM (Boise and AIMs) indicate that CWAL is not supporting due to pH levels outside of CWAL criteria (within range of 6.5-9.0) and dissolved oxygen levels (must exceed 6 mg/L at all times) more than 10% of the time.
ID17050108SW012_04	Josephine Creek - 4th order (Wickiup Creek to mouth)	No beneficial use support status change. Continuous temperature logger data collected by the BLM indicates that cold water aquatic life (CWAL) use is Fully Supporting.
ID17050108SW015_03	Spring and Meadow Creeks - 3rd order sections	No beneficial use support status change. Continuous temperature logger data collected by the BLM in 2020 indicates that cold water aquatic life (CWAL) use is not supporting due to exceedances of daily maximum (22 degrees C) temperature criteria. CWAL will remain Not Supporting.
ID17050112SW014_02	Granite Creek - 1st and 2nd order	No beneficial use support status change. Three sampling events conducted by the BLM from 2019 to 2020 indicate that CWAL use is supporting based on dissolved oxygen and pH criteria.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050124SW007_05a	Weiser River - Little Weiser River to Keithly Creek	No beneficial use status change. BLM collected four measurements (within seconds of each other) in 2019, pH levels in two samples indicated exceedances for CWAL criteria (pH within range of 6.5-9.0). More continuous data is desired before listing. CWAL use in this AU is already listed as impaired by temperature and sedimentation/siltation.
ID17050124SW008_04	Little Weiser River - Grays Creek to mouth	No beneficial use support status change. One sampling event conducted by the BLM in 2019 indicates that CWAL use is not supporting based on pH criteria (within range of 6.5-9.0), however samples are less than a minute apart and more continuous data is desired for listing this parameter. CWAL use in this AU is already listed as impaired by sedimentation/siltation.
ID17050201SW015_02	Wildhorse River - 1st and 2nd order, including Crooked River	New dissolve oxygen listing. Four out of five sampling events conducted from 2019 to 2020 by the BLM indicated that CWAL use is not supporting based on dissolved oxygen criteria (must exceed 6 mg/L at all times). CWAL use in this AU is already listed as impaired by temperature.
ID17050201SW015_04	Wildhorse River - 4th order (Bear Creek to mouth)	New dissolved oxygen listing. Three discrete sampling events conducted from 2019 to 2020 by the BLM indicate CWAL is not supporting based on dissolved oxygen criteria (must exceed 6 mg/L at all times). CWAL and SS will remain not supporting for temperature, and dissolved oxygen will be added as another parameter.
ID17050201SW016_04	Lick and Bear Creeks - 4th order sections	New dissolved oxygen listing. Three discrete sampling events conducted from 2019 to 2020 by the BLM indicate CWAL is not supporting based on dissolved oxygen criteria (must exceed 6 mg/L at all times). CWAL use in this AU is already listed as impaired by temperature.

Organization: Challis Bureau of Land Management

Parameters: Temperature

Submission Date: January 24th, 2023

Challis BLM submitted continuous water temperature data (collected 2018 - 2022) to DEQ on 1/24/2024. Submitted data that were considered *Tier 1* data and were compared to applicable numeric temperature criteria are included in the table below.

Table K6. Challis Bureau of Land Management Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060203SL053_06	Salmon River - Pahsimeroi River to Iron Creek	No support status change. The location of the temperature loggers was not clear, so the data was not used for assessment.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040217SK019_02	Summit Creek - source to mouth	No support status change; AU is fully supporting. This AU is Presumed for Warm Water Aquatic life. Temperatures achieve criteria for Warm Water Aquatic Life.
ID17040218SK016_03	Thousand Springs Creek - source to mouth	No support status change; Temperatures achieve criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this AU is Not Supporting due to sediment/siltation impairment.
ID17060201SL002_03	Morgan Creek - West Creek to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL003_03	Morgan Creek - source to West Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL004_02	West Creek - Blowfly Creek to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL007_04	Challis Creek - Darling Creek to mouth	New temperature § 303(d) listing; this AU continues to be associated with a sedimentation / siltation TMDL and a flow regime modification parameter.
ID17060201SL009_04	Challis Creek - Bear Creek to Darling Creek	No support status change; AU already impaired by temperature.
ID17060201SL010_02	Eddy Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL013_03	Mill Creek - 3rd order	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL017_03	Bayhorse Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL018_02	Lyon Creek - source to mouth	The BLM collected continuous in-stream temperature logger data at multiple locations in the AU (2018-2022).The loggers showed infrequent (less that 10 percent of records evaluated) violations of Cold Water Aquatic Life temperature criteria. There is no other Tier 1 data for the AU to be used for assessment, so that is why it will remain unassessed.
ID17060201SL019_02	Salmon River - Squaw Creek to East Fork Salmon River	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL020_02	Kinnikinic Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL021_04	Squaw Creek - Cash Creek to mouth	This AU is associated with an existing temperature impairment; Salmonid Spawning is Not Supporting. Update: Cold Water Aquatic Life is Not Supporting. New temperature impairment for Cold Water Aquatic Life; temperatures exceed Bull Trout Criteria.
ID17060201SL026_02	Bruno Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060201SL028_03	Thompson Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060201SL102_05	East Fork Salmon River - Herd Creek to mouth	No support status change; AU already impaired by temperature.
ID17060201SL103_04	East Fork Salmon River - Germania Creek to Herd Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL104_02	Big Lake Creek - source to mouth	AU will remain Not Assessed. Temperatures achieve criteria for Cold Water Aquatic Life
ID17060201SL105_03	Big Boulder Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria
ID17060201SL116_02	Pine Creek - source to mouth	AU will remain Not Assessed. Temperatures achieve criteria for Cold Water Aquatic Life
ID17060201SL118_04	Herd Creek- confluence of West Fork Herd Creek and East Pass	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060201SL123_02	Lake Creek - source to mouth	No support status change; AU is fully supporting. Temperatures achieve criteria for Cold Water Aquatic Life.
ID17060201SL124_04	Road Creek - Corral Basin Creek to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria
ID17060201SL125_02	Road Creek - source to Corral Basin Creek	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria
ID17060201SL127_03	Corral Basin Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning criteria
ID17060202SL001_05	Pahsimeroi River - Patterson Creek to mouth	No support status change; AU already impaired by temperature.
ID17060202SL002_02	Pahsimeroi River - Meadow Creek to Patterson Creek	No support status change; AU already impaired by temperature.
ID17060202SL007_04	Pahsimeroi River - Furey Lane (T15S, R22E) to Meadow Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL008_04	Pahsimeroi River - Big Creek to Furey Lane (T15S, R22E)	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL010_03	Pahsimeroi River - Goldburg Creek to Big Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL017_04	Pahsimeroi R- Burnt Ck to Unnamed Trib (T12N, R23E, Sec. 22)	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL018_04	Pahsimeroi River - Mahogany Creek to Burnt Creek	No support status change; AU already impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060202SL019_03	Mahogany Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060202SL020_03	Pahsimeroi River	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL024_02	Burnt Creek - source to Long Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL026_02	Short Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL028_02	Goldburg Creek - Donkey Creek to mouth	AU will remain Not Assessed. Temperatures achieve criteria for Cold Water Aquatic Life.
ID17060202SL028_03	Goldburg Creek - Donkey Creek to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning criteria
ID17060202SL029_02	Donkey Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL030_02	Goldburg Creek - source to Donkey Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL031_02	Big Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL034_03	Patterson Creek - Inyo Creek to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL036_02	Falls Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060202SL038_03	Morse Creek - source to Irrigation junction (T15S, R23E)	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060202SL039_02	Morgan Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060202SL039_03	Morgan Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060203SL054_03	Hot Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060203SL056_02	Allison Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria
ID17060203SL057_03	McKim Creek - source to mouth	No support status change; AU already impaired by temperature.

Organization: Friends of the Teton River

Parameters: stream discharge, dissolved oxygen, temperature, conductivity, turbidity, pH, ammonia, total suspended solids, total dissolved solids, total phosphorus concentration, E. coli

Submission Date: 12/09/2022

Friends of the Teton River submitted water chemistry data collected using field sensors. While high quality, most of the data submitted lacked the necessary parameters to be used for the assessments in the 2024 Integrated Report.

The Friends of the Teton River (FTR) collected continuous in-stream temperature data in several AUs. The data from temperature loggers that were partially out of water when retrieved were not used in assessments.

The remaining temperature data FTR submitted were considered *Tier 1* data and were used to make assessments for the following waters in the 2024 Integrated Report:

Table K7. Friends of the Teton River Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17040204SK008_04	Canyon Creek - Warm Creek to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning criteria
ID17040204SK017_04	Teton River	No support status change; AU already impaired by temperature.
ID17040204SK020_04	Teton River	No support status change; AU already impaired by temperature.
ID17040204SK024_03	Mahogany Creek -pipeline diversion (NE ¼, Sec. 27, T4N, R44)	No support status change; AU is fully supporting. Temperatures achieve criteria for Salmonid Spawning.
ID17040204SK026_02	Teton River - Tributaries between Trail Creek to Teton Creek	No support status change; AU already impaired by temperature.
ID17040204SK034_02	Warm Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning criteria

Organization: Henry's Fork Foundation

Parameters: water chemistry

Submission Date: February 6th, 2023

Henry's Fork Foundation submitted water chemistry data collected using field sensors. While high quality, the data submitted lacked the necessary parameters to be used for the assessments in the 2024 Integrated Report.

Organization: Idaho Governor's Office of Species Conservation

Parameters: percent fines

Submission Date: 02/06/2023

Idaho Governor's Office of Species Conservation (OSC) submitted substrate data collected in the Lemhi River. All data queried from OSC were considered *Tier 1* and compared to applicable numeric criteria.

Table K8. Idaho Governor's Office of Species Conservation Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060204SL001_06	Lemhi River - Kenney Creek to mouth	No support change. The Office of Species Conservation (OSC) collected substrate data in this section of the Lemhi River from 2018-2019. There is not enough evidence at this time to indicate that sediment has a measurable adverse effect on the applicable beneficial uses.
ID17060204SL005_06	Lemhi River - Hayden Creek to Kenney Creek	No support change. The Office of Species Conservation (OSC) collected substrate data in this section of the Lemhi River in 2019. There is not enough evidence at this time to indicate that sediment has a measurable adverse effect on the applicable beneficial uses.
ID17060204SL024_05	Lemhi River - Peterson Creek to Hayden Creek	No support change. The Office of Species Conservation (OSC) collected substrate data in this section of the Lemhi River in 2020. There is not enough evidence at this time to indicate that sediment has a measurable adverse effect on the applicable beneficial uses.
ID17060204SL025_05	Lemhi River - confluence of Big and Little Eightmile Creeks	No support change. The Office of Species Conservation (OSC) collected substrate data in this section of the Lemhi River in 2019. There is not enough evidence at this time to indicate that sediment has a measurable adverse effect on the applicable beneficial uses.
ID17060204SL030_04	Lemhi River (West Branch) - Big Spring Creek	No support change. The Office of Species Conservation (OSC) collected substrate data in this section of the Lemhi River in 2019. There is not enough evidence at this time to indicate that sediment has a measurable adverse effect on the applicable beneficial uses.
ID17060204SL030_05	Lemhi River (East Branch)-Eighteenmile & Texas Ck Confluence	New sedimentation/siltation § 303(d) listing. substrate data in this section of the Lemhi River from 2018-2019. The estimated percent fine substrate in riffles was generally high in this reach, and increased year over year.

Organization: Nez Perce Tribe Water Resources

Parameters: stream discharge

Submission Date: February 6th, 2023

Nez Perce Tribe Water Resources Division submitted stream discharge measurements for two AUs. DEQ did not use these data for beneficial use support status assessments because Idaho does not have water quality standards for discharge.

Organization: Salmon Challis National Forest Service

Parameters: Temperature

Submission Date: January 30th, 2022

Salmon Challis National Forest Service collected continuous in-stream temperature data in several AUs. The data from temperature loggers that were partially out of water when retrieved were not used in assessments. The remaining temperature data the Salmon Challis National Forest Service submitted were considered *Tier 1* data and were used to make assessments for the following waters in the 2024 Integrated Report:

Table K9. Salmon Challis National Forest Service Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060203SL002_05	Panther Creek - Big Deer Creek to mouth	No support status change; AU already impaired by temperature.
ID17060203SL004_02	Clear Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060203SL014_02	Panther Creek - Porphyry Creek to Blackbird Creek	No support status change; AU is fully supporting. Temperatures achieve criteria for Bull Trout.
ID17060203SL016_02	Porphyry Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL017_02	Panther Creek - source to Porphyry Creek	No support status change; AU already impaired by temperature.
ID17060203SL017_03	Panther Creek - source to Porphyry Creek	No support status change; AU already impaired by temperature.
ID17060203SL018_02	Moyer Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL018_03	Moyer Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL021_02	Little Deep Creek - source to mouth	No support status change; no designated or existing Cold Water Aquatic Life. AU will remain Not Assessed
ID17060203SL022_02	Deep Creek - source to Little Deep Creek	No support status change; AU already impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060203SL024_02	Napias Creek - Arnett Creek to and including Moccasin Creek	No support status change; AU already impaired by temperature.
ID17060203SL026_02	Arnett Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL031_02	East Boulder Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL047_02	Salmon River - Iron Creek to Twelvemile Creek	No support status change; AU already impaired by temperature.
ID17060203SL049_02	North Fork Iron Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL051_03	West Fork Iron Creek - source to mouth	Cold Water Aquatic Life changed from not assessed to temperature impaired. New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060203SL052_02	South Fork Iron Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060203SL054_02	Hot Creek - source to mouth	No support status change; no designated or existing Cold Water Aquatic Life. AU will remain Not Assessed
ID17060203SL054_03	Hot Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Cold Water Aquatic Life and Salmonid Spawning criteria.
ID17060203SL057_02	McKim Creek - source to mouth	No support status change; no designated or existing Cold Water Aquatic Life. AU will remain Not Assessed
ID17060203SL057_03	McKim Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL058_02	Poison Creek - source to mouth	No support status change; no designated or existing Cold Water Aquatic Life. AU will remain Not Assessed
ID17060203SL060_03	Twelvemile Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL070_04	North Fork Salmon River - Sheep Creek to Hughes Creek	No support status change; AU already impaired by temperature.
ID17060203SL078_02	North Fork Salmon River - source to Twin Creek	No support status change; AU already impaired by temperature.
ID17060203SL081_02	Hughes Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning criteria.
ID17060203SL082_02	Hull Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL083_03	Indian Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060203SL084_02	Squaw Creek - source to mouth	No support status change; AU already impaired by temperature.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17060203SL086_02	Boulder Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060204SL015_04	Hayden Creek - Bear Valley Creek to Basin Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060204SL016_04	Bear Valley Creek -Wright Creek to mouth	No support status change; AU already impaired by temperature.
ID17060204SL019_02	Kadletz Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060204SL020_03	Hayden Creek - West Fork Hayden Creek to Bear Valley Creek	No support status change; AU already impaired by temperature.
ID17060204SL028_02	Lee Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060204SL029b_02	Big Eightmile Creek - source to diversion	No support status change; AU already impaired by temperature.
ID17060204SL029b_03	Big Eightmile Creek - source to diversion	No support status change; AU already impaired by temperature.
ID17060204SL033_03	Big Timber Creek - Rocky Creek to Little Timber Creek	No support status change; AU already impaired by temperature.
ID17060204SL034_02	Rocky Creek - source to mouth	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060204SL035_02	Big Timber Creek - source to Rocky Creek	New temperature § 303(d) listing; temperatures exceed Bull Trout criteria.
ID17060204SL035_03	Big Timber Creek - source to Rocky Creek	New temperature § 303(d) listing; temperatures exceed Salmonid Spawning and Bull Trout criteria.
ID17060204SL050b_03	Hawley Creek - source to diversion (T15N, R27E, Sec. 03)	No support status change; AU already impaired by temperature.
ID17060204SL058_02	Agency Creek - source to Cow Creek	No support status change; AU already impaired by temperature.
ID17060206SL025_04	Camas Creek - Castle Creek to Silver Creek	No support status change; AU already impaired by temperature.
ID17060206SL034_02	Silver Creek - source to mouth	No support status change; AU already impaired by temperature.
ID17060206SL034_03	Silver Creek - source to mouth	No support status change; AU already impaired by temperature.

Organization: Kalispel Tribe

Parameters: continuous water temperature data, discharge, and water chemistry

Submission Date: January 19th, 2023

Kalispel Tribe submitted continuous water temperature data (collected 2020-2022), discharge, barometric pressure, discrete water temperature, pH, turbidity, specific conductance, and dissolved oxygen (collected 2020-2022) to DEQ on 1/19/2023. Submitted data were considered *Tier 1* data.

Continuous water temperature, pH, and dissolved oxygen were compared to applicable numeric criteria.

Table K10. Kalispel Tribe Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010215PN001_05	Priest River (McAbee Falls)	2020-2022 external temperature logger data submitted by the Kalispel Tribe, for site PRR1, indicates continued exceedance in the temperature criteria for Cold Water Aquatic Life. Dissolved oxygen and pH did not exceed criteria. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". Salmonid Spawning is not a beneficial use.
ID17010215PN003_04	East River	2020-2022 external temperature logger data submitted by the Kalispel Tribe, for site EAR1 on the East River, is less than 10 percent exceedance of the temperature criteria for Cold Water Aquatic Life temperature criteria. Dissolved oxygen did not exceed criterion. Several pH measurements are just below the 6.5 criterion range. The source of the low pH is likely the acid-generating granitic parent material and lack of calcium and magnesium. The headwater granitic parent source parent material for this stream is igneous granitic batholith. The Assessment Unit geology is glacial outwash and till, alluvial, and lacustrine deposits. Geological investigations and mapping of the Priest River basin have been conducted by Savage (1965, 1967) and Miller (1982). Summaries, maps and updates of this work are provided by Bonner County (1989), Buck (1983), McHale (1995), IWRB (1995), and Rothrock and Mosier (1997) (Priest River Subbasin Assessment and Total Maximum Daily Load, Idaho Department of Environmental Quality, October 2001, page 12 and figure 2-4). The granitic rocks are rich in silica, acidic, and lack a buffering effect. The Bonner soil type is glacial outwash origin with gravelly loamy sand or very gravelly coarse sand. There are some pockets within the outwash of very deep and poorly drained alluvial, lacustrine, and organic derived soils (Bonner County soil survey conducted by the Soil Conservation Service, USDA-SCS 1982). "Sandy soils commonly have a low content of organic matter, resulting in a low buffering capacity and a high rate of water percolation and infiltration. Thus, they are susceptible to acidification" (USDA-NRCS, *https://www.nrcs.usda.gov/sites/default/files/2022-10/Soil%20PH.pdf*) Since this drainage area has no known human sources of lower pH values, the natural factors influencing this are related to the geology,

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		rainfall, vegetation, and relief (*https://www.sciencedirect.com/science/article/abs/pii/S0009254105005425*). There is no known anthropogenic source. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2020-2022 external temperature logger data submitted by the Kalispel Tribe, for site EAR1 on the East River, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN005_05	Priest River (Outlet Dam)	2020 and 2021 external temperature logger data submitted by the Kalispel Tribe, for site OUT1, indicates continued exceedance in the temperature criteria for Cold Water Aquatic Life. Dissolved oxygen and pH did not exceed criteria. Cold Water Aquatic Life for this Assessment Unit remains "not supporting". 2020 and 2021 external temperature logger data submitted by the Kalispel Tribe, for site OUT1, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is "not supporting".
ID17010215PN022_04	Granite Creek	2020-2022 external temperature logger data submitted by the Kalispel Tribe, for site GRA1 on Granite Creek, do not exceed the temperature criteria for Cold Water Aquatic Life. Dissolved oxygen and pH did not exceed criteria. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2020-2022 external temperature logger data submitted by the Kalispel Tribe, for site GRA1 on Granite Creek, indicates continued exceedance of the bull trout temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN028_03	Goose Creek	2020-2022 external temperature logger data submitted by the Kalispel Tribe, for sites GOS1 and GOS2, indicates continued exceedance in the temperature criteria for Cold Water Aquatic Life. Dissolved oxygen did not exceed criterion. A few pH measurements are just below the criterion range. The frequency is not greater than 10 percent exceedance. The source of the low pH is likely the acid-generating granitic parent material and lack of calcium and magnesium. The headwater granitic parent source parent material for this stream is igneous granitic batholith. The Assessment Unit geology is glacial outwash and till, alluvial, and lacustrine deposits. Geological investigations and mapping of the Priest River basin have been conducted by Savage (1965, 1967) and Miller (1982). Summaries, maps and updates of this work are provided by Bonner County (1989), Buck (1983), McHale (1995), IWRB (1995), and Rothrock and Mosier (1997) (Priest River Subbasin Assessment and Total Maximum Daily Load, Idaho Department of Environmental Quality, October 2001, page 12 and figure 2-4). The granitic rocks are rich in silica, acidic, and lack a buffering effect. The Bonner soil type is glacial outwash origin with gravelly

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
		loamy sand or very gravelly coarse sand. There are some pockets within the outwash of very deep and poorly drained alluvial, lacustrine, and organic derived soils (Bonner County soil survey conducted by the Soil Conservation Service, USDA-SCS 1982). "Sandy soils commonly have a low content of organic matter, resulting in a low buffering capacity and a high rate of water percolation and infiltration. Thus, they are susceptible to acidification" (USDA-NRCS, *https://www.nrcs.usda.gov/sites/default/files/2022-10/Soil%20PH.pdf*) Since this drainage area has no known human sources of lower pH values, the natural factors influencing this are related to the geology, rainfall, vegetation, and relief (*https://www.sciencedirect.com/science/article/abs/pii/S0009254105005425*). There is no known anthropogenic source. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2020-2022 external temperature logger data submitted by the Kalispel Tribe, for sites GOS1 and GOS2, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010216PN002_08	Pend Oreille River	6/13/2023 (CN) 2020-2022 external water quality data submitted by the Kalispel Tribe, for site OLD1, was compared to numeric criteria for Cold Water Aquatic Life. Dissolved oxygen and pH did not exceed criteria. Two instantaneous water temperature recordings, of the sixteen total, exceeded the temperature criterion, 23.3 degrees Celsius on 7/19/2021 and 22.23 degrees Celsius on 8/30/2021. June 27, 2022 exceeded total dissolved gases with concentrations of one hundred fourteen percent. Cold Water Aquatic Life for this Assessment Unit remains "not supporting" due to water temperature and dissolved gas supersaturation. Salmonid Spawning is not a beneficial use.

Organization: Hecla Limited Lucky Friday Mine

Parameters: continuous water temperature and Beneficial Use Reconnaissance Program comparable data

Submission Date: February 3rd, 2023

Hecla Limited Lucky Friday Mine submitted continuous water temperature data (collected 2020-2021) and biological assessment data (Beneficial Use Reconnaissance Program comparable, collected in 2022) to DEQ on 2/3/2023. Submitted data were considered *Tier 1* data and were compared to applicable numeric temperature criteria. The biological assessment data was given index and conditional scores.

Table K11. Hecla Limited Lucky Friday Mine Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010302PN011_03	South Fork Coeur d'Alene	2020 and 2021 external temperature logger data submitted by Hecla, for sites AB3 and BL1, do not exceed the temperature criteria for Cold Water Aquatic Life. 2018-2021 external temperature logger data submitted by the United States Forest Service, for site 606, do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is meeting water temperature criteria. Hecla submitted BURP- compatible data collected in 2022 for four sites which received BURP scores of 2, 2, 2.33, and 2.33; for an overall average BURP score of 2.17 (n=4). The Cold Water Aquatic Life use is associated with an impairment and will remain Not Supporting. 2020 and 2021 external temperature logger data submitted by Hecla, for sites AB3 and BL1, indicates continued exceedance in the temperature criteria for Salmonid Spawning. 2018-2021 external temperature logger data submitted by the United States Forest Service, for site 606, indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit remains "not supporting".

Organization: Selkirk Conservation Alliance

Parameters: continuous water temperature data

Submission Date: December 7th, 2022

The Selkirk Conservation Alliance submitted continuous water temperature data (collected 2020-2021) to DEQ on 12/7/2022. Submitted data were considered *Tier 1* data and were compared to applicable numeric temperature criteria.

Table K12. Selkirk Conservation Alliance Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010215PN008_03	Soldier Creek	2020 and 2021 external temperature logger data submitted by the Selkirk Conservation Alliance is less than 10 percent exceedance of the temperature criteria for Cold Water Aquatic Life. Soldier Creek is not a listed bull trout stream by the EPA or State of Idaho. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2020 and 2021 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Soldier Creek is not a listed bull trout stream by the EPA or State of Idaho. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN009_03	Hunt Creek	2021-2022 external temperature logger data submitted by the Selkirk Conservation Alliance exceeds the temperature criteria for bull trout. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2021-2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN010_03	Indian Creek	2021-2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2021-2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN012_02	Two Mouth Creek	2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010215PN015_03	Caribou Creek	2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life remains "fully supporting". 2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates exceedance in the bull trout temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is "not supporting".
ID17010215PN017_03	Trapper Creek	2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN022_04	Granite Creek	2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN024_03	Kalispell Creek	2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2021 and 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010215PN025_02	Lamb Creek	2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN026_02	Binarch Creek	2022 external temperature logger data submitted by the Selkirk Conservation Alliance do not exceed the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved sediment TMDL and remains "not supporting". 2022 external temperature logger data submitted by the Selkirk Conservation Alliance, covering the fall spawning period, do not exceed the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".
ID17010215PN027_04	Upper West Branch Priest River	2022 external temperature logger data submitted by the Selkirk Conservation Alliance is less than 10 percent exceedance of the temperature criteria for Cold Water Aquatic Life. Cold Water Aquatic Life for this Assessment Unit is associated with an approved TMDL and remains "not supporting". 2022 external temperature logger data submitted by the Selkirk Conservation Alliance indicates continued exceedance in the temperature criteria for Salmonid Spawning. Salmonid Spawning for this Assessment Unit is associated with an approved TMDL and remains "not supporting".

Organization: Kootenai Tribe

Parameters: selenium fish tissue and water column data

Submission Date: February 5th, 2023

The Kootenai Tribe submitted selenium fish tissue data (collected 2020-2021) to DEQ on 2/5/2023 as a Kootenai-NWIS export spreadsheet in the Sample Location Form. This data may just be for the coordinates of the sample stations. The data was already assessed in the 2022 IR. The Kootenai Tribe submitted selenium water column data (collected 2021-2022) to DEQ on 2/5/2023 in the Data Folder. Submitted data were considered *Tier 1* data and were compared to applicable numeric temperature criteria.

Table K13. Kootenai Tribe Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17010104PN001_08	Kootenai River	The Kootenai Tribe submitted selenium egg-ovary samples for one individual largescale sucker, three rainbow trout, and two northern pikeminnow. This data was submitted by USGS in 2022 and not compared to criterion. At least five individuals of the same species need to be averaged or composited for a single measurement. Sixty-one water column samples of dissolved selenium from five sites, collected in 2021 and 2022, were also submitted, along with speciation. Their values did not exceed the lotic criterion. Cold Water Aquatic Life remains "not supporting" with mercury and water temperature as causes of impairment.
ID17010104PN029_08	Kootenai River	The Kootenai Tribe submitted selenium egg-ovary samples from six individual northern pikeminnow. The data from these individuals were assessed in 2022 but submitted by the USGS. Fourteen water column samples of dissolved selenium from one site, collected in 2021 and 2022, were also submitted, along with speciation. Their values did not exceed the lotic criterion. Cold Water Aquatic Life remains "not supporting" with selenium and water temperature as causes of impairment.
ID17010104PN031_08	Kootenai River	The Kootenai Tribe submitted selenium egg-ovary samples from six individual mountain whitefish. Five of these individuals were assessed in 2022 but submitted by the USGS. The additional sample collected in 2021 will not be compared to criterion. Seventeen water column samples of dissolved selenium from one site, collected in 2021 and 2022, were also submitted, along with speciation. Their values did not exceed the lotic criterion. Cold Water Aquatic Life remains "not supporting" with selenium and water temperature as causes of impairment.

Organization: EPA Region 10

Parameters: fish tissue mercury, dissolved organic carbon, total mercury (THg), methyl mercury (MeHg), aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver sodium, thallium, vanadium, and zinc in abiotic matrices (water and sediment)

Submission Date: December 21, 2022

EPA's Region 10 Site Assessment Program collected water chemistry data in the spring of 2021 and mid- October 2021. Measured parameters consisted mainly of total mercury, methylmercury, other metals, hardness, and TSS. TSS data were not utilized for assessments as they are not comparable with a specific water quality standard to determine beneficial use

support. Metals and mercury data were assessed based on applicable water quality standards, and hardness values were used to complete calculations for comparison to hardness-dependent metals criteria as needed. EPA Region 10 also conducted mercury fish tissue data collection from three locations on Jordan Creek within AU: ID17050108SW001_05 in September and December 2021. Submitted data were considered *Tier 1* data and were compared to applicable criteria (state or federal where state criteria did not exist) for the assessment decisions listed below.

Table K14. EPA Region 10 Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050108SW001_05	Jordan Creek - Williams Creek to State Line	CWAL in this AU was already impaired by temperature, mercury, and, flow regime modification. PCR in this AU was already impaired by mercury.
ID17050108SW003_02	Williams Creek - 1st and 2nd order	No Arsenic, Copper, Nickel, Silver, and Thallium § 303(d) listings; concentrations did not exceed PCR or CWAL criteria in 2021.
ID17050108SW004_03	Jordan Creek - Jacobs Gulch to Louse Creek	No Arsenic, Copper, Lead, Nickel, Silver, Thallium, and Zinc § 303(d) listings; concentrations did not exceed PCR or CWAL criteria in 2021. CWAL in this AU was already impaired by temperature and mercury. PCR in this AU was already impaired by mercury.
ID17050108SW004_04	Jordan Creek - Louse Creek to Big Boulder Creek	No Arsenic, Copper, Lead, Nickel, Silver, Thallium, and Zinc § 303(d) listings; concentrations did not exceed PCR or CWAL criteria in 2021. CWAL in this AU was already impaired by temperature.
ID17050108SW004_05	Jordan Creek - Big Boulder Creek to Williams Creek	No support status change. Data supplied by EPA indicate that total mercury fish tissue concentrations (considered equivalent to methylmercury concentrations) from 31 fish sampled on 09/29/2021 exceed the fish-only human health criterion of 0.3 mg/kg for methylmercury. Primary contact recreation and CWAL beneficial uses are already listed as impaired due to mercury, so no listing changes will be made
ID17050108SW010_05	Rock Creek - Triangle Reservoir Dam to mouth	No Copper, Lead, Nickel, pH, and Silver § 303(d) listings; concentrations did not exceed CWAL criteria in 2021.
ID17050108SW017_03	Flint Creek - 3rd order (East Creek to mouth)	No Arsenic, Copper, Nickel, Silver, and Thallium § 303(d) listings; concentrations did not exceed PCR or CWAL criteria in 2021.

Organization: Trout Unlimited

Parameters: dissolved oxygen, temperature, pH, conductivity, flow, total dissolved solids, total dissolved metals, nutrients, low-level total (THg), and methyl (MeHg) mercury.

Submission Date: January 31, 2023

Trout Unlimited submitted discrete water chemistry data using sensors and further analysis of 15 sampling locations within Jordan Creek – Source to Williams Creek (ID17050108SW004_02), from a sampling event that took place in October 2021. Discrete chemistry samples (dissolved oxygen, temperature, pH, conductivity, flow, total dissolved solids) were collected using a using a YSI probe, HACH meter, ThermoOrion Hydrolab Mutiprobe, or equivalent devices. Total dissolved metals, nutrients, Low Level THg, and MeHg were further analyzed at all 15 sampling locations following procedures described in a Sampling and Analysis Plan (SAP) developed by Trout Unlimited. Submitted data were considered *Tier 1* data and were compared to applicable criteria.

Table K15. Trout Unlimited Assessment Outcomes.

Assessment Unit Number	Assessment Unit Name	Assessment Outcome
ID17050108SW004_02	Jordan Creek, Upper - 1st and 2nd order tributaries	New metals § 303(d) listing; cadmium, zinc, and thallium exceed CWAL criteria. Data provided by Trout Unlimited indicate that the hardness-based zinc values for both acute and chronic aquatic life criteria were exceeded at four sites. Two sites were sampled on 10/12/2021 and the other two were sampled on 10/13/2021. The hardness-based cadmium values for both acute and chronic aquatic life criteria were exceeded during one sampling event at one site. Two sites exceeded the chronic criterion during one sampling event. Thirteen samples at multiple sites exceeded the Hg aquatic life chronic criterion of 0.012 µg/L on 10/12/2021 and 10/13/2021.