APPENDIX A. WYOMING 2032 303(D) VISION STRATEGY

1.0 INTRODUCTION

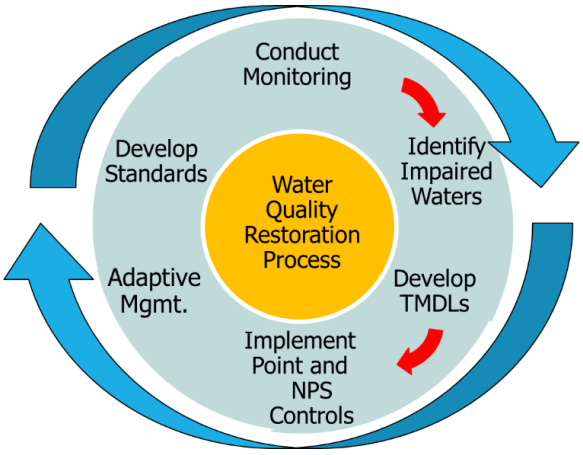
This appendix presents the Wyoming Department of Environmental Quality's (WDEQ) strategy for implementing the Total Maximum Daily Load (TMDL) and Assessment Program for the period spanning Federal Fiscal Year (FY) 2025 through FY 2032. The strategy has been developed following the U.S. Environmental Protection Agency's (EPA) guidance provided to states in September 2022. EPA requires states to identify long-term 303(d) program priorities by April 1, 2024.

Wyoming's *TMDL and Assessment Program* implements Sections 303(d) and 305(b) of the Federal Clean Water Act (CWA). Under CWA Section 303(d) States are required to submit to EPA a list of impaired and threatened waters still needing a TMDL (i.e., the "303(d) List"). The supporting regulation (40 CFR 130.7) requires States to submit this information to EPA on April 1 of every even numbered year. States must then establish TMDLs for the pollutants that impair the waters on the 303(d) List. Under CWA Section 305(b) and its supporting regulation (40 CFR 130.8) States are required to report to EPA on the status of the Nation's waters on April 1 of every even numbered year.

Under the umbrella of CWA Sections 303(d) and 305(b), Wyoming's *TMDL and Assessment Program* is responsible for the following activities:

- Developing and maintaining Assessment Methods (i.e., methods for interpreting Wyoming's water quality standards for the purpose of determining designated use support).
- Conducting designated use support determinations to identify those water bodies that are impaired as well as those that are supporting their uses.
- Developing and maintaining tools and databases to facilitate tracking assessment data and making the data available internally within WDEQ and externally to the public.
- Reporting on the status of Wyoming's waters through the biennial Integrated 303(d) and 305(b) Report (IR).
- Developing TMDLs, Advanced Restoration Plans (previously referred to as "TMDL Alternatives"), and Protection Plans in collaboration with watershed stakeholders.
- Identifying pollutant sources and pollutant source load quantification.
- Assisting watershed stakeholders with Best Management Practice (BMP) implementation and development of study designs for water quality monitoring.
- Assisting with water quality and hydrologic monitoring projects.

The goal of the *TMDL and Assessment Program* is to identify and restore impaired waters. This is accomplished through coordination with several other WDEQ Water Quality Division (WQD) programs including the Monitoring, Assessment, Permitting, Nonpoint Source, and Wyoming Pollution Discharge and Elimination (WYPDES) Programs. As such, this strategy has been developed in coordination with each of these programs and has been developed in the context of the WQDs broader water quality objectives.



2.0 ELEMENTS OF THE 2032 303(D) VISION STRATEGY

WDEQ's 2032 303(d) Vision Strategy (hereafter referred to as "the 2032 Vision Strategy") includes the following five primary elements:

1. Building and Maintaining the Foundation
2. Re-evaluating Previously Approved TMDLs
3. Re-assessing Historic 303(d) Listings
4. Developing Plans to Achieve Water Quality Standards
5. Communication and Partnerships

2.1 BUILDING AND MAINTAINING THE FOUNDATION

Water quality standards are the foundation of the TMDL and Assessment program. The objective of the Assessment Program is to identify those surface waters in the state that are and are not meeting water quality standards. The objective of the TMDL Program is to develop plans that, when implemented, will result in attainment of water quality standards. As such, methods to facilitate consistent and repeatable interpretation of all the applicable numeric and narrative water quality criteria ("Assessment Methods") are an essential foundational component of the TMDL and Assessment Program. Apart from the development of a method to interpret Wyoming's *E. coli* criteria completed in 2021 and minor updates, Wyoming's Assessment Methods have not undergone a significant update since 2017. The objective of this element of the 2032 Vision Strategy is to complete an update of *Wyoming's Methods for Determining Surface Water Quality Condition* (WDEQ, 2020).

Tentatively, it is envisioned that the updated Assessment Methods document will be presented in two parts. The first part (Basis and Overall Approach) will describe the authorities and obligations WDEQ has to assess and report on surface water quality in the state of Wyoming and will outline the basic data requirements and framework for how the WDEQ assesses water quality for the purpose of conducting formal use support determinations. Assessment methods specific to Wyoming's designated uses (e.g., aquatic life, fisheries, drinking water, etc.) and for some individual pollutants or pollutant groups, each referring to the Basis and Overall Approach document by reference, will be presented separately.

The first priority will be to complete the Basis and Overall Approach component of the Assessment Methods. Designated use and pollutant-specific methods will follow. Work is currently ongoing to develop methods for the Aquatic Life designated use, cyanotoxins in lakes and reservoirs, and nutrients in lakes and reservoirs.

2.2 RE-EVALUATION OF PREVIOUSLY APPROVED TMDLS

Since 2009, WDEQ has completed 20 TMDL and three Advanced Restoration Plans addressing two lakes and 79 stream segments (**Figure A- 1** and **Table A- 1**). Although watershed stakeholders have been actively engaged in follow-up studies and implementation of Best Management Practices (BMPs) associated with most of these TMDLs and Advanced Restoration Plans, the ultimate goal of water quality standards attainment has not yet been achieved for many of these projects. As part of the 2032 Strategy, WDEQ proposes to prioritize these projects for the completion of watershed-scale re-evaluations to:

- Evaluate progress toward meeting the water quality goals established by the TMDLs,
- Provide an informed technical basis to guide continued TMDL implementation, and
- Define the next steps for implementation of BMPs and any water quality monitoring and follow-up studies that may be needed.

It is envisioned that the TMDL Re-evaluations will involve the following steps:

1. Compiling and evaluating the available water quality data to assess progress toward meeting water quality standards;
2. Identifying water quality data gaps;
3. Working closely with watershed stakeholders to map and describe BMPs that have been implemented since the TMDLs or Advanced Restoration Plans have been completed;
4. Evaluating the extent that those practices have addressed the significant sources associated with the impairment;
5. Conducting one or more watershed reconnaissance visits with key watershed stakeholders;
6. Identifying the high-priority sources that still need to be addressed;
7. Providing recommendations for continued implementation of the TMDL, if necessary, and;
8. Summarizing the results in a brief report.

It is acknowledged that a substantial amount of time may be needed to begin to observe environmental improvements, even with very active implementation. As such, the TMDL Re-evaluations will focus on those projects that are greater than five years old. Projects greater than five-years old have been prioritized based on the date of TMDL completion, the amount of implementation that has occurred (using Clean Water Act Section 319 and 205(j) funding awarded by WDEQ to support implementation as a surrogate measure), the level of stakeholder interest, known existing or emerging water quality issues, and other WDEQ priorities (**Table A- 2**). It is envisioned that one to two TMDL Re-evaluations will be completed per year, depending upon complexity of the issues, amount of available data that needs to be evaluated, and resource availability.

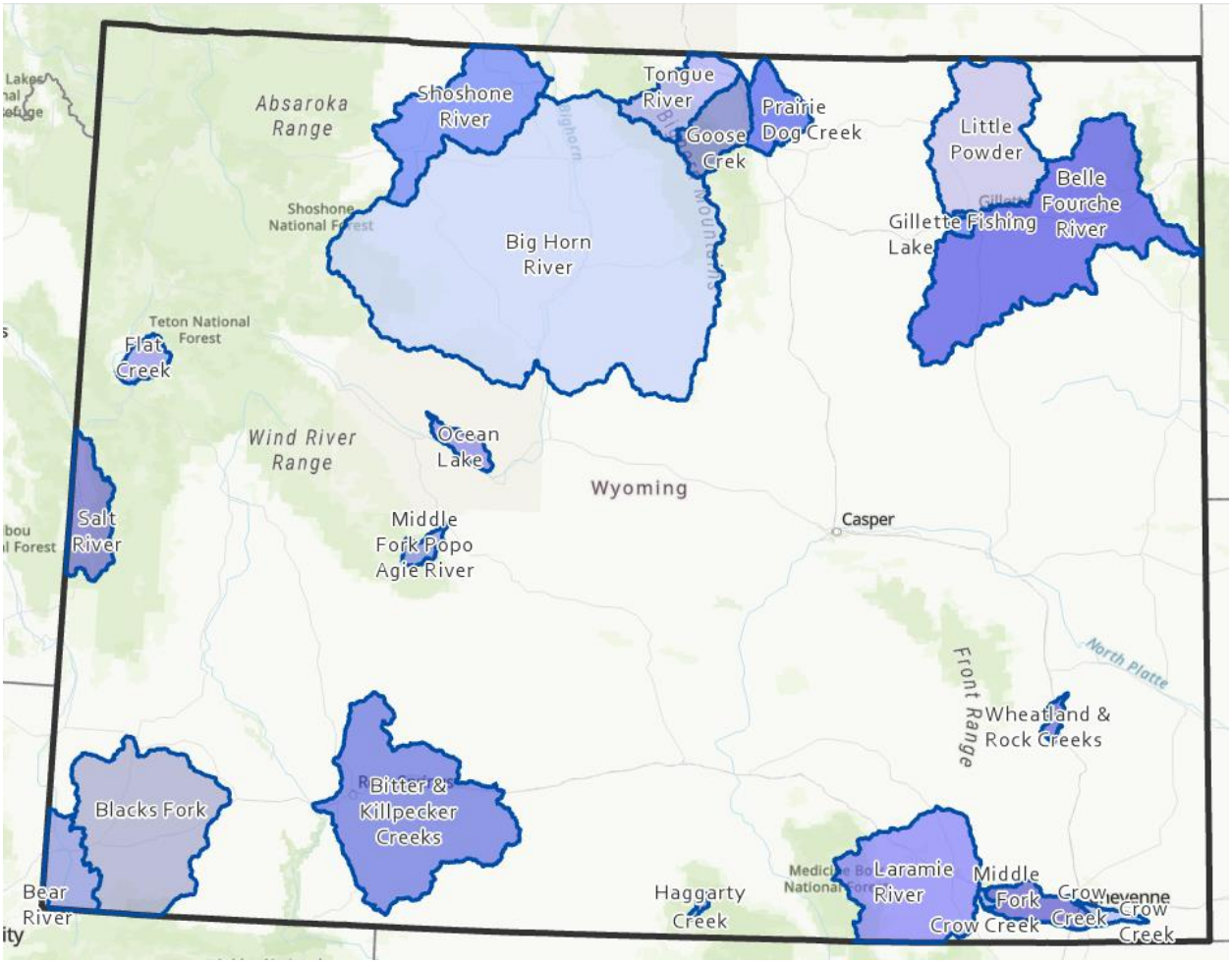


Figure A- 1. Location of Completed and Approved TMDLs in Wyoming.

Table A- 1. Completed and Approved TMDLs and Advanced Restoration Plans.

TMDL Document	Approval Date	# of AUIDs	Pollutants Addressed
Ocean Lake Sediment	2009	1	Sediment
Goose Creek	2010	11	Pathogens, sediment, physical habitat alterations
Haggarty and West Fork Battle Creeks Metals	2011	2	Copper, cadmium, silver
Belle Fourche Pathogens, Ammonia, and Chloride	2013	5	Pathogens, Ammonia, and Chloride
Gillette Fishing Lake Sediment and Nutrients	2013	1	Sediment, nutrients
Big Horn Pathogens	2014	16	Pathogens

Crow Creek Pathogens	2014	4	Pathogens
Shoshone Pathogens	2014	8	Pathogens
Crow Creek Selenium	2014	1	Selenium
Salt River Pathogens	2016	2	Pathogens
Middle Crow Creek Pathogens	2016	1	Pathogens
Bear River Sediment	2017	1	Sediment
Bitter and Killpecker Creeks Pathogens	2018	2	Pathogens
Prairie Dog Creek Pathogens	2018	5	Pathogens
Blacks Fork Pathogens	2019	4	Pathogens
Flat Creek (5-alt)	2021	1	Physical habitat alteration
Little Powder River (5-alt)	2021	1	Pathogens
Middle Fork Popo Agie River (5-alt)	2021	2	Pathogens
Crow Creek Sediment	2022	3	Sediment
Laramie River Pathogens	2022	2	Pathogens
Wheatland Rock Pathogens	2022	2	Pathogens
Tongue River Watershed Pathogens	2022	9	Pathogens

Table A- 2. Tentative TMDL Re-Evaluation Priorities

TMDL Document	Priority Ranking
Belle Fourche (Pathogens, Ammonia, and Chloride) and Gillette Fishing Lake (Sediment and Nutrients)	1
Goose Creek (Pathogens)	2
Big Horn (Pathogens)	3
Ocean Lake (Sediment)	4
Crow Creek (Pathogens)	5
Shoshone (Pathogens)	6
Haggarty and West Fork Battle Creeks (Metals)	7
Salt River (Pathogens)	8
Crow Creek (Selenium)	9
Middle Crow Creek (Pathogens)	10

Note: The Belle Fourche and Gillette Fishing Lake TMDLs have been combined since they are both within the same watershed.

2.3 RE-ASSESSING HISTORIC 303(D) LISTINGS

According to the most recent approved *Wyoming Integrated 305(b) and 303(d) Report (2020)*, there are 62 waterbody segments on Wyoming's 303(d) List (**Table A- 3**). Many of these were listed greater than 20 years ago (**Figure A- 2**). As part of the 2032 Strategy, WDEQ plans to initiate a program to re-assess historic 303(d) listings. The 303(d) listings will be prioritized for re-assessment by considering age, confidence in the original listing, cause and severity of impairment, aquatic resource and socioeconomic values of the waterbody, and resource availability. Most of the re-assessments will be conducted by WDEQ, but, given the long-term relationship that WDEQ has had with the Wyoming Association of Conservation Districts regarding water quality monitoring, it is envisioned that WDEQ may partner with the Conservation Districts on some of the re-assessments. In such cases, the re-assessments would be conducted under a jointly prepared, and WDEQ approved, Sampling and Analysis Plan (SAP).

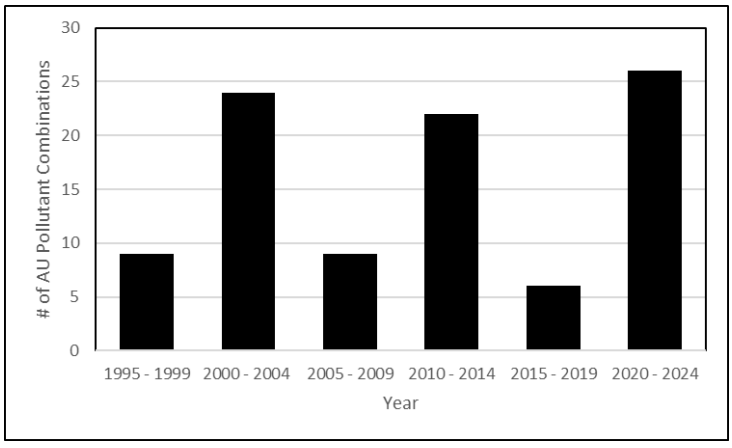


Figure A- 2. Number of assessment unit/pollutant Combinations by original listing date.

Table A- 3. 303(d) Listed Waters.

Assessment Unit ID	Assessment Unit Name	Cause of Impairment	First Listed
WYGR140401070701_01	Hams Fork	PH	1996
WYLS140500030408_02	West Fork Loco Creek	NUTRIENTS	1996
WYLS140500030408_02	West Fork Loco Creek	PHYSICAL SUBSTRATE HABITAT ALTERATIONS	1996
WYLS140500030408_02	West Fork Loco Creek	TEMPERATURE	1996
WYPR100902040300_01	Salt Creek	OIL AND GREASE	1996
WYLS140500030408_01	Savery Creek	PHYSICAL SUBSTRATE HABITAT ALTERATIONS	1998
WYNP101800060603_01	Crooks Creek	OIL AND GREASE	1998
WYPR100902020103_01	Powder River	CHLORIDE	1998
WYBR160101010801_01	Bridger Creek	SEDIMENTATION/SILTATION	1998
WYPR100902020103_01	Powder River	SELENIUM	2000
WYGR140401050506_01	Bitter Creek	FECAL COLIFORM	2000
WYNP101800070302_02	Rasmus Lee Lake	SELENIUM	2000
WYNP101800070302_03	Goose Lake	SELENIUM	2000
WYNP101800070303_01	Oregon Trail Drain	SELENIUM	2000
WYNP101800070406_01	Poison Spider Creek	SELENIUM	2000
WYNP101800070406_02	Poison Spider Creek	SELENIUM	2000
WYNP101800070406_03	Poison Spider Creek	SELENIUM	2000
WYNP101800070503_01	Illco Pond	SELENIUM	2000
WYNP101800070504_01	Casper Creek	SELENIUM	2000
WYNP101800070703_01	Thirty-three Mile Reservoir	SELENIUM	2000
WYPR100902020102_00	Powder River	SELENIUM	2000
WYPR100902020600_01	Powder River	SELENIUM	2000
WYYR100700060101_01	Clarks Fork Yellowstone River	CADMIUM	2000
WYYR100700060101_01	Clarks Fork Yellowstone River	COPPER	2000
WYYR100700060101_01	Clarks Fork Yellowstone River	SILVER	2000
WYGR140401050506_01	Bitter Creek	CHLORIDE	2002
WYPR100902050305_01	Crazy Woman Creek	MANGANESE	2002
WYTR100901010301_01	Tongue River	TEMPERATURE	2002
WYBH100800050607_01	Muddy Creek	ESCHERICHIA COLI (E. COLI)	2002

Assessment Unit ID	Assessment Unit Name	Cause of Impairment	First Listed
WYBH100800050404_01	Poison Creek	ESCHERICHIA COLI (E. COLI)	2002
WYTR100901010400_01	Prairie Dog Creek	FECAL COLIFORM	2004
WYTR100901010402_01	Prairie Dog Creek	MANGANESE	2004
WYTR100901010402_01	Prairie Dog Creek	FECAL COLIFORM	2004
WYPR100902030400_01	South Fork Powder River	SELENIUM	2006
WYPR100902030403_01	Willow Creek	SELENIUM	2006
WYPR100902040300_01	Salt Creek	SELENIUM	2008
WYGR140401070208_01	Smiths Fork	PHYSICAL SUBSTRATE HABITAT ALTERATIONS	2008
WYNP101800070302_01	Poison Spring Creek	SELENIUM	2008
WYPR100902030404_01	Posey Creek	SELENIUM	2008
WYPR100902060303_02	Dalton Ditch	ESCHERICHIA COLI (E. COLI)	2008
WYPR100902060303_03	Piney-Cruse Ditch	ESCHERICHIA COLI (E. COLI)	2008
WYSR170401030205_01	Flat Creek	PHYSICAL SUBSTRATE HABITAT ALTERATIONS	2008
WYGR140401070208_01	Smiths Fork	ESCHERICHIA COLI (E. COLI)	2010
WYLS140500040308_01	Muddy Creek	CHLORIDE	2010
WYLS140500040308_01	Muddy Creek	SELENIUM	2010
WYPR100902030407_01	Murphy Creek	SELENIUM	2010
WYPR100902020103_01	Powder River	ARSENIC	2012
WYPR100902020600_01	Powder River	ARSENIC	2012
WYTR100901010400_01	Prairie Dog Creek	MANGANESE	2012
WYTR100901010400_01	Prairie Dog Creek	TEMPERATURE	2012
WYTR100901010402_01	Prairie Dog Creek	TEMPERATURE	2012
WYSP101900090104_01	North Branch North Fork Crow Creek	ESCHERICHIA COLI (E. COLI)	2012
WYTR100901010401_01	Meade Creek	MANGANESE	2012
WYTR100901010401_01	Meade Creek	ESCHERICHIA COLI (E. COLI)	2012
WYGR140401040203_01	Little Sandy River	SEDIMENTATION/SILTATION	2012
WYLS140500030106_01	Roaring Fork Little Snake River	COPPER	2014
WYNP101800020104_01	Bear Creek	COPPER	2014
WYNP101800020104_03	Rambler Creek	COPPER	2014
WYNP101800050103_02	Little Medicine Bow River	SEDIMENTATION/SILTATION	2014

Assessment Unit ID	Assessment Unit Name	Cause of Impairment	First Listed
WYPR100902060303_04	Dalton Ditch	ESCHERICHIA COLI (E. COLI)	2014
WYBH100800030106_03	Twin Creek	SEDIMENTATION/SILTATION	2014
WYBH100800030108_03	Little Popo Agie River	HYDROGEN SULFIDE	2014
WYBH100800030108_03	Little Popo Agie River	OIL AND GREASE	2014
WYSR170401050102_01	Crow Creek	SELENIUM	2014
WYTR100901010208_04	Little Goose Creek	ESCHERICHIA COLI (E. COLI)	2018
WYTR100901010401_02	Prairie Dog Creek	ESCHERICHIA COLI (E. COLI)	2018
WYTR100901010207_03	Little Goose Creek	ESCHERICHIA COLI (E. COLI)	2018
WYNP101800100504_01	Laramie River	SEDIMENT	2018
WYBH100800010104_01	Brooks Lake	NUTRIENTS	2018
WYBH100800010104_01	Brooks Lake	PH	2018
WYSR170401030205_01	Flat Creek	ESCHERICHIA COLI (E. COLI)	2020
WYSR170401030101_01	Fish Creek	ESCHERICHIA COLI (E. COLI)	2020
WYNP101800060104_01	Lander Creek	ESCHERICHIA COLI (E. COLI)	2020
WYSR170401030101_01	Fish Creek	NITROGEN, TOTAL	2024
WYSR170401030101_01	Fish Creek	PHOSPHORUS, TOTAL	2024
WYBH100800060406_01	Badwater Creek	CHLORIDE	2024
WYBH100800060406_01	Badwater Creek	DISSOLVED OXYGEN	2024
WYNP101800120609_01	Dry Creek	ARSENIC, INORGANIC	2024
WYGR140401060104_02	Trout Creek	SEDIMENTATION/SILTATION	2024
WYNP101800120611_01	Horse Creek	ARSENIC, INORGANIC	2024
WYSR170401030101_02	Fish Creek	ESCHERICHIA COLI (E. COLI)	2024
WYBH100800060404_01	Badwater Creek	ARSENIC	2024
WYBH100800060404_01	Badwater Creek	AMMONIA	2024
WYBH100800060404_01	Badwater Creek	CHLORIDE	2024
WYBH100800060404_01	Badwater Creek	HYDROGEN SULFIDE	2024
WYBH100800060404_01	Badwater Creek	DISSOLVED OXYGEN	2024
WYBH100800060404_01	Badwater Creek	TEMPERATURE	2024
WYBH100800060404_01	Badwater Creek	TOTAL DISSOLVED SOLIDS (TDS)	2024
WYBH100800060404_01	Badwater Creek	TURBIDITY	2024
WYBH100800060404_01	Badwater Creek	BOTTOM DEPOSITS	2024
WYGR140401040104_01	Big Sandy River	ESCHERICHIA COLI (E. COLI)	2024
WYBH100800060106_01	Alkali Creek	HYDROGEN SULFIDE	2024
WYBH100800060106_01	Alkali Creek	TOTAL DISSOLVED SOLIDS (TDS)	2024

Assessment Unit ID	Assessment Unit Name	Cause of Impairment	First Listed
WYBH100800060106_01	Alkali Creek	TURBIDITY	2024
WYBH100800060106_01	Alkali Creek	DISSOLVED OXYGEN	2024
WYBH100800060106_01	Alkali Creek	BOTTOM DEPOSITS	2024

2.4 DEVELOPING PLANS TO ACHIEVE WATER QUALITY STANDARDS

The objective of the planning component of the 2032 Vision is to pursue and develop TMDLs and other restoration plans to attain and maintain water quality standards, facilitate effective implementation, and drive restoration of impaired waters. EPA's guidance for the 2032 Vision provides the flexibility to pursue an approach that has a high likelihood for immediately beneficial and most practicable restoration of water quality. For example, while the requirement to develop TMDLs for impaired waterbodies on State's 303(d) lists remains, waterbodies may be given a lower priority for TMDL development while other restoration plans are pursued. WDEQ proposes to take advantage of tfhis flexibility by pursuing three planning projects within the 2032 Vision, each with a unique approach tailored to the situation: 1) develop a conventional TMDL for Brooks Lake, 2) collaborate with watershed stakeholders to develop an Advanced Restoration Plan for Fish Creek, and 3) develop a Protection Plan for Boysen Reservoir. Additional planning projects, unanticipated at this time, may be pursued during the 2032 planning period depending upon water quality issues that arise and resource availability.

2.4.1 Brooks Lake (WYBH100800010104_01)

The Aquatic Life Other than Fish, Cold Water Game Fish, and Nongame Fish designated uses in Brooks Lake were listed as impaired due to nutrients and pH in 2018. A comprehensive water quality monitoring study was initiated in 2020 to: 1) quantify nutrient loads from all natural and human-influenced sources, and: 2) to evaluate conditions in nearby reference lakes. The monitoring study is expected to be completed in 2024. The results will form the basis for the source assessment and water quality goal setting components of the TMDL process. Assuming the results suggest that human-influenced nutrient sources are significant, a TMDL will then be developed with a tentative completion date in late 2026 or 2027.

2.4.2 Fish Creek (WYSR170401030101_01 and WYSR170401030101_02)

The Recreational designated use in the entire length of Fish Creek was listed as impaired in 2020 due to exceedances of Wyoming's *E. coli* criteria. The Aquatic Life Other than Fish, Cold Water Fish, and Nongame Fish designated uses in the upper 9.6 miles (WYSR170401030101_01) are listed as impaired due to nutrients in this IR cycle (i.e., 2024). The Teton Conservation District is collaborating with WDEQ to develop an Advanced Restoration Plan (ARP) to address both impairments with a tentative completion date in 2024.

Following EPA guidance (Best-Wong, 2015), the ARP will, at a minimum, include the following elements:

- Identification of specific impaired water segments or waters addressed by the alternative restoration approach, and identification of all significant sources contributing to the impairment.
- Analysis to support why the State believes that the implementation of the alternative restoration approach is expected to achieve WQS.
- An Action Plan or Implementation Plan to document: a) the actions to address all significant sources—both point and nonpoint sources, as appropriate—necessary to achieve WQS (this may include e.g., commitments to adjust permit limits when permits are re-issued or a list of nonpoint

source conservation practices or BMPs to be implemented, as part of the alternative restoration approach); and, b) a schedule of actions designed to meet WQS with clear milestones and dates, which includes interim milestones and target dates with clear deliverables.
- Identification of available funding opportunities to implement the alternative restoration plan.
- Identification of all parties committed, and/or additional parties needed, to take actions that are expected to meet WQS.
- An estimate or projection of the time when WQS will be met.
- Plans for effectiveness monitoring to: demonstrate progress made toward achieving WQS following implementation; identify needed improvement for adaptive management as the project progresses; and evaluate the success of actions and outcome.
- Commitment to periodically evaluate the alternative restoration approach to determine if it is on track to be more immediately beneficial or practicable in achieving WQS than pursuing the TMDL approach in the near-term, and if the impaired water should be assigned a higher priority for TMDL development.

2.4.3 Boysen Reservoir (WYBH100800050607_02)

"Protection Plans" are described as "a proactive and holistic consideration of management actions to protect healthy waters" (EPA, 2022); which aligns directly with Wyoming's Nutrient Strategy (WDEQ, 2017). Boysen Reservoir is not currently listed as impaired but is showing signs of degradation given the occurrence of documented harmful cyanobacteria blooms (HCBs) since 2015. It is also a priority due to its use as a public drinking water supply, the high level of recreational use it experiences, and the outlet from Boysen Reservoir (i.e., the Wind River) being a Class 1 Outstanding Water. Development of a Protection Plan provides an opportunity to align existing and future efforts of Wyoming DEQ's TMDL and Assessment, Water Quality Standards, and Nonpoint Source Programs, with watershed stakeholders to proactively address the issue of recurrent HCBs in Boysen Reservoir.

The contributing watershed to Boysen Reservoir is very large, totaling approximately 7,700 square miles, with complex hydrology, a full suite of potential point (e.g., municipal domestic wastewater, oil and gas production) and nonpoint (e.g., cropland, irrigation return, grazing) nutrient sources, and a diverse mix of stakeholders, including the Eastern Shoshone and Northern Arapaho Tribes on the Wind River Reservation, which occupies approximately 30 percent of the watershed. As such, development and implementation of a Protection Plan for Boysen Reservoir will be a phased, long-term, resource intensive effort with considerable stakeholder involvement to be executed for the duration of the 2032 planning period.

2.5 COMMUNICATION AND PARTNERSHIPS

The objective of this element of the Vision Strategy is to improve coordination with, and better complement efforts across DEQ's Watershed Quality Division (internal) and the water quality efforts of other governmental departments and agencies (external) to identify and achieve shared goals.

Internal

The TMDL and Assessment Program relies heavily on the Surface Water Monitoring, Nonpoint Source (NPS), and WYPDES Programs. The Surface Water Monitoring Program provides much of the data and technical support for completion of use support determinations. Wyoming's Nonpoint Source Program and associated grants (i.e., Clean Water Act Section 319 and 205(j) grants) provide the primary mechanism for implementing the nonpoint source components of TMDLs and Advanced Restoration Plans in Wyoming. The WYPDES Program implements the wasteload allocations presented in TMDLs for point source pollutant discharges into surface waters.

The 2032 Vision seeks to enhance collaborative efforts with the Surface Water Monitoring Section to streamline the process for completion of use support determinations and increase the pace of 303(d) and

305(b) assessments. Increased collaboration between the NPS and TMDL and Assessment Programs is also proposed to better align priorities, to increase technical support to recipients of NPS grants awarded to improve water quality in impaired waters, and to generate more interest in voluntary implementation of NPS BMPs in impaired waters. Specifically, increased collaboration is proposed with the NPS Program in:

- Reviewing grant applications,
- Working with watershed stakeholders to solicit grant applications in priority waters,
- Reviewing data submittals and grant reports, and
- Tracking BMP implementation associated with impaired waters and TMDLs.

External

The TMDL and Assessment Program has collaborated with the Wyoming Association of Conservation Districts (WACD) on surface water quality monitoring, watershed planning, and implementation of NPS BMPs since the late 1990s. This partnership has resulted in numerous "success stories" where water quality has been improved due to the collaborative efforts of the Conservation Districts and DEQ. The 2032 Vision Strategy seeks to better align priorities and focus our collaborative efforts very specifically on those priorities. The TMDL and Assessment Program has identified the following priorities where collaborative assistance with the Conservation Districts is needed:

- Implementation of voluntary NPS BMPs to specifically address known impairments,
- Mapping and describing the BMPs that have been implemented to date within the watersheds of impaired waters,
- Project or site-specific BMP effectiveness monitoring,
- Long-term trend monitoring on any 303(d) listed waters for the listed pollutants, and
- Collection of nutrient data in tributaries to lakes and reservoirs with chronic HCBs

Focusing collaboration on the priority areas selected above will leverage the local knowledge and project implementation strengths of the Conservation Districts in tandem with technical assistance and direction from DEQ.

DEQ also seeks to work closely with the Conservation Districts on the re-evaluation of previously approved TMDLs, described above, and to work collaboratively on the development of planning documents in Fish Creek, Brooks Lake, and Boysen Reservoir.

Additionally, the TMDL and Assessment Program intends to enhance relationships with other governmental agencies that routinely collect surface water quality data (e.g., USFS, USGS, BLM, WGFD) to explore opportunities to better utilize existing and future water quality data.

3.0 REFERENCES

Best-Wong, Bonita. 2015. Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions. United States Environmental Protection Agency memorandum dated August 13, 2015.

USEPA. 2022. The Vision for the Clean Water Act Section 303(d) Program. https://www.epa.gov/tmdl/Vision. Accessed November 3, 2023.

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