

**WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
TOTAL MAXIMUM DAILY LOAD (TMDL) WORKPLAN UPDATE
August 1, 2008**

INTRODUCTION

This Workplan update outlines the Wyoming Department of Environmental Quality, Water Quality Division's (DEQ) estimate of the scope and extent of work necessary to develop Total Maximum Daily Loads (TMDL) for Integrated Report Category 5 waterbodies on the Wyoming Section 303(d) list. This update supersedes the state's July 30, 1997 TMDL Workplan; the scope and extent of which expire in 2008. The 1997 Workplan only addressed waterbodies contained on the state's 1996 Section 303(d) list. This update will set goals and basic timelines for all waters requiring a TMDL, regardless of when a waterbody was initially listed. This update will have a maximum life of ten years (December 31, 2018). This update is designed to be a living document that can be amended and revised when necessary.

DEQ's attainment of tasks contained in the 1997 TMDL Workplan has resulted in a number of programmatic successes. This update is intended to build on these successes. These successes include:

- **Use Support Determinations.** DEQ has established a rigorous and defensible process for making use support determinations on surface Waters of the State. The state's Credible Data legislation, adopted in 1999, called for the use of credible data in designating and assessing attainment of uses of surface waters. The use of credible data includes consideration of soils, geology, hydrology, geomorphology, climate, stream succession and human influence on the environment. This rigorous process has resulted in Section 303(d) lists absent of listings based on old data, qualified data, or best professional judgment.
- **Staffing Increases.** DEQ was able to hire five Full Time Employees (FTE's) for the surface water monitoring program and one FTE for the TMDL program in 1997 and 1998. The additional staff and funding support allowed the DEQ monitoring program to go from one of NPDES compliance monitoring and complaint investigation to an effective, statewide surface water monitoring program (monitoring program). The one FTE in the TMDL program enabled DEQ to perform citizen outreach and assume a comment/review role for the Department in third party development of watershed plans.
- **Expanded Monitoring Program.** The additional resources allocated to the monitoring program allowed the state to accomplish a number of monitoring and assessment tasks. These include:
 1. **Expanded Reference Stream Program.** The monitoring program completed the initial phase of the state's reference stream program. This expanded reference stream program enabled the development and continued refinement of the multi-metric Wyoming Stream Integrity Index (WSII) and the multivariate Wyoming RIVPACS model. The models are currently used for assessing attainment of aquatic life uses.

2. Accomplishment of the Targeted Monitoring Strategy. The monitoring program completed the extensive targeted monitoring effort (289 waters) outlined in Task 1, Objective 3 of Goal 5 in the 1997 TMDL Workplan.
 3. Development of Defensible Assessment Protocols. The monitoring program developed and implemented defensible assessment protocols for use support assessments on wadeable streams and reservoirs/lakes/ponds. Draft large river protocols were also developed and tested.
 4. Development of a Probabilistic Survey Program. The monitoring program developed and implemented a probabilistic stream survey program. Assessments done at randomly located sites allow the state to statistically evaluate use support characteristics of Wyoming's surface water resources.
 5. Expanded citizen/agency monitoring programs. Partnerships between DEQ and other entities have resulted in an expanded citizen/agency monitoring program across the state. These programs not only provide water quality assessment data to the DEQ for the state's biennial water quality assessment report but also track the effectiveness of best management plan implementations, increase citizen awareness in water quality issues, and assist private landowners and public land management agencies in conservation planning and management.
- Increased Public Awareness. Expanded information/education outreach efforts occurred from 1997 through 2001. Outreach efforts by DEQ and partners resulted in a number of open meetings and contacts with local stakeholders. As a result, the Wyoming population went from one where few if any citizens knew, or had even heard of TMDLs, to one where a large number of the potentially affected community had either personally attended some type of outreach or had been given a status update by a representative from an affiliated industry, governmental, or special interest group that had attended an outreach session.

Another significant component in increasing public awareness of waters not fully supporting their designated uses has been the initiation and completion of holistic watershed planning efforts. These efforts have been led by local stakeholder groups in watersheds across the state with currently over than 50% of the state's Section 303(d) waters covered by these plans. From a holistic water quality standpoint these watershed planning efforts have incorporated efforts to reduce all pollutants of concern in the watershed. Such a holistic approach not only addresses the pollutant for which a water segment is listed, but also is proactive in reducing the loads of other pollutants of concern to the citizens. These watershed planning activities have also resulted in local citizens becoming more aware of other watershed issues such as water conservation, fisheries and wildlife, water quantity, water development, and recreational use.

- Increased Public Participation. The citizen-member TMDL Work Group was established in October 1997 to assist the DEQ in addressing the pending TMDL issues. A total of 16 citizen members representing various governmental agencies, resource user groups, and special interest groups convened for the first meeting in Casper, Wyoming on October 9 – 10, 1997. The purpose of this work group was for each member to represent the perspectives of their specific interest group in order to collectively identify all issues

associated with TMDLs and strive to address those issues through workable, realistic solutions. To fulfill this purpose it was determined that the group needed to learn the issues relating to TMDLs, provide effective input on the direction of TMDL development in the state, be willing to compromise on difficult issues, and strive toward consensus.

The TMDL Work Group set ground rules that included scheduled quarterly meetings and stressed continuity of representation in the group. Quarterly meetings occurred through 2000. Meetings were every 6 months through 2002 and have been once every two years since that date.

Water quality assessment and planning efforts have also expanded the public's participation in water quality improvement activities in their watersheds. These efforts have resulted in expanded landowner participation in voluntary, incentive-based BMP implementation projects and also increased citizen volunteer participation in a wide variety of community interest water quality improvement projects.

Some goals contained in the 1997 TMDL Workplan were not fully achieved. This current update is intended to draw on the knowledge gained over the past 10 years and redesign some tasks in an effort to better achieve all workplan goals. Some of the shortcomings of the 1997 workplan include:

- Underestimation of Staffing Needs and Workloads in the Monitoring and TMDL Programs. The original workplan assumed an increase in DEQ staffing of seven FTEs (5 for monitoring and 2 for TMDL development) would be sufficient for the monitoring and TMDL development tasks. Three position re-descriptions in 1997 enabled the hiring of the Monitoring Supervisor, the TMDL coordinator, and one TMDL technical staffing person. Four new positions were authorized in 1998 - three monitoring staff and one Waste Load Allocation specialist. The new monitoring staff members were expected to perform surface water monitoring, data analysis and report writing, TMDL development, NPDES inspections, and complaint investigations. This workplan expectation grossly underestimated the workload for monitoring, data analysis, and report writing, and failed to factor in the huge increase in the number of NPDES permits, especially as related to coal bed methane development in the state. This issue was partially resolved when the Watershed and NPDES Programs split in 2002 and the monitoring program was relieved of permit inspection responsibilities. However, since that split, the EPA has demanded several new focus topics be added to the state's monitoring program. These include developing nutrient criteria, multiple aquatic life use support determination tools, and lake and wetland assessment strategies. It has become very evident that the monitoring program is unable to implement all necessary TMDL development responsibilities with the 1998 staffing levels.
- Unrealistic Assumptions. The 1997 workplan committed to the development of TMDLs for all waters on the 1996 Section 303(d) list that were determined as not fully supporting their designated uses. A number of those waters were originally placed on the 1996 303(d) list with old data, questionable data, or through best professional judgment.

Waters listed under those conditions, but lacking the credible data to refute the listing, were to be removed from the 1998 list and placed in a “needs monitoring list” (ultimately Table E of the 1998 report). The 1997 workplan included a safety net to insure timely TMDLs were developed for all “needs monitoring” waters where credible data ultimately indicated the original listing was in fact accurate. The workplan assumed 100% of all “needs monitoring” waters would be monitored in a five year period and subsequently have use support determinations completed shortly afterwards. Those “needs monitoring” waters determined to have an accurate 1996 303(d) listing were projected to have approved TMDLs by the end of 2008. This workplan goal was found to be unattainable due to a number of unrealistic assumptions which included:

1. The original workplan assumed conclusive use support determinations could be obtained through a single Beneficial Use Reconnaissance Program (BURP) site visit. In many cases, the use support determinations focus on impacted waters where the degree of impact hovers around the attainment of one or more narrative water quality standards. Because narrative standards do not contain clear, quantifiable expectations for a waterbody, several site assessment visits, using a variety of data intensive assessment tools, were utilized to make conclusive use support determinations. In addition, the Credible Data statute and regulations adopted after the development and release of the original workplan call for the collection of numerous additional pieces of data to be used in a weight-of-evidence approach to arrive at a use support determination.
2. The workplan also assumed a near-immediate turnaround on benthic macroinvertebrate samples sent to private taxonomy contractors. The huge increase in the number of benthic macroinvertebrate samples collected under this program, and the programs of other partners conducting similar assessment work, overloaded the contract laboratory and resulted in significant delays in benthic analysis turnaround time. This problem has subsequently been resolved, but the reporting backlog it caused is still being felt in the program.
3. A final unrealistic assumption was that the state’s reference stream database would be adequate to enable clear and defensible aquatic life use support determinations to be made within every ecoregion and/or sub-ecoregion in the state. Although much of the 1998 field season was spent collecting additional biological data for inclusion into the state’s Reference Stream Program, the program came up with a number of data gaps for certain ecoregions. For example, adequate populations of reference quality sites were, and continue to be, lacking for the Northwestern Great Plains, Western High Plains, and Wyoming Basins ecoregions. Without additional “reference quality” or “best available” site data to use as a benchmark, use support determinations for streams within these ecoregions have a higher than desired probability of error. A fair portion of the post-1998 monitoring has focused on expanding the reference stream data set in terms of biological, and more recently, quantitative physical habitat data. Work required for this expanded reference stream monitoring effort takes away from other assessment and TMDL development monitoring efforts.

- Adoption of Policy without updates to the TMDL Workplan. Following the development of the 1997 workplan the DEQ adopted TMDL prioritization guidance and a TMDL schedule which allowed local citizens the opportunity to resolve water quality issues prior to TMDL development. The prioritization criteria were intended to provide DEQ and its partners the opportunity to utilize the 8-13 year time frame to conduct additional water quality assessment work, watershed planning, and priority project implementation. To provide guidance and expectations on this process the DEQ, Wyoming Association of Conservation Districts (WACD), Wyoming Department of Agriculture (WDA), and the Natural Resources Conservation Service (NRCS) signed a letter of agreement on June 7, 2002 allowing conservation districts to take the lead in a locally led effort to complete and implement a watershed plan addressing the impairments identified on the 303(d) list. Such watershed planning efforts would result in the state prioritizing TMDL development as “low.” When water quality improvements under these plans occurred in a timely manner and the stream attained all designated uses, a TMDL would no longer be required. Additionally, the 1997 TMDL Workplan was not updated to reflect the effect this programmatic change that the prioritization system had on the workplan’s approved goals, objectives, tasks, and milestones.
- Loss of TMDL Work Group Momentum. With a large percentage of the listed waters given a low priority for TMDL development as a result of local watershed planning efforts, the need for DEQ TMDL citizen outreach and quarterly or biannual TMDL Work Group meetings waned. Subsequently, the TMDL Work Group only met prior to the release of the draft, biennial Integrated Report and Section 303(d) list. Those recent meetings have been poorly attended by interest groups and the Work Group has lost much of its continuity. Much of the education momentum on TMDL outreach gained by an active and involved Work Group has diminished and DEQ is once again looking at a citizenry that, in many instances, is not completely informed about the TMDL function or process.

THE TASKS BEFORE US

Since the approval of the original TMDL Workplan in 1997, almost all of the 1996-listed waters carried forward to the 1998 303(d) list were included in watershed planning efforts and given “low” priority for TMDL development. Three hundred and forty-two (342) point source TMDLs (discharge permit renewal waste load allocations) have been approved by EPA through June 2008. However, the State of Wyoming has not completed any TMDLs with nonpoint source loading components to date. Meanwhile, the number of waters requiring a TMDL has increased (Table 1). This has effectively backlogged TMDL development for 1998 through 2004 listed waters toward the end of EPA’s expected 8-13 year timeframe. Fortunately, locally-led watershed planning efforts have increased significantly in the past 5 years with local involvement in water quality planning and improvement, activities instrumental in TMDL development and implementation.

Table 1. Status of Wyoming's Section 303(d) Waters 1998 – 2008.

Integrated Report Year	Waters Requiring a TMDL ¹	Number of 303(d) Listed Waters ¹ in Watershed Planning	Number of Waters ¹ Removed from 303(d) List	Number of TMDLs Written
1998	34	0 (0 plans)	NA ²	0
2000	69	0 (1 plan)	5	0
2002	105	6 (1 plan)	4	1 ³
2004	110	10 (3 plans)	2	0
2006	113	60 (16 plans)	6	3 ⁴
2008 ⁵	122	73 (25 plans)	12	0

¹Numbers in this column denote each individual pollutant/segment combination requiring a TMDL.

² Baseline year. Only waters with “Credible Data” placed on, or removed from, the 303(d) list.

³ Point source TMDL where the point source was the sole loading component of the impairment.

⁴ Three TMDLs written by the State of Montana on impairments that originate in that state and carry over into Wyoming.

⁵Projected 2008 numbers

The increase in TMDL work load from 1998 to 2006, coupled with the lack of TMDL development during this same period, result in the DEQ facing several significant TMDL tasks during the ten-year (2008 to 2018) maximum life of this updated Workplan. These tasks are the following:

- The effective and efficient development of TMDLs for waters on the current Section 303(d) list in accordance with the DEQ's TMDL development schedule;
- Effective and efficient development of TMDLs for waters placed on future Section 303(d) Lists; and
- Timely reassessments of approved TMDLs to reflect changes in knowledge and/or physical conditions in the listed watershed. Such TMDL document reassessments are necessary to enable the document to be an effective tool in addressing water quality issues.

The tasks facing DEQ with respect to TMDL development are far greater today than in 1997. One of the shortcomings of the 1997 TMDL Workplan was its projection of future resource needs based solely on addressing the 1996-listed waterbodies. In order for this update to avoid experiencing the same shortcoming, Wyoming needs to look at a TMDL program that goes well beyond addressing the 113 segment/pollutant combinations found on the 2006 Section 303(d) list.

For this to be a successful program, DEQ needs to take a holistic view accounting for a number of items in the program design. First, the state can expect to see a certain number of new waterbodies placed on the 303(d) list each biennium. The timing of TMDL development on those newly listed waterbodies will depend largely upon their location. In some cases the newly listed waterbody will be placed in a watershed already scheduled for TMDL development. In

other cases, the newly listed waterbodies will be placed in a watershed where TMDLs have been completed, but where the TMDL reassessment is scheduled. In a few cases, the newly listed waterbody will be in a standalone watershed location and the TMDL will be scheduled accordingly.

Secondly, in order to be an accurate road map for watershed restoration, most approved TMDLs will need to be reassessed at least every five years. Reassessments will allow for refinement of the TMDL as a result of new information or if the physical conditions of the watershed have changed significantly over time. In many instances, full restoration can take decades of implementation. TMDL reassessments are critical because a TMDL that no longer reflects actual conditions in the watershed will not be accepted by the citizens as the plan to guide them to watershed restoration. These reassessments are also critical for continued citizen involvement in waterbody restoration.

Finally, the state can expect to see some waterbodies removed from the 303(d) list prior to the development of a TMDL. Waterbodies will be removed when:

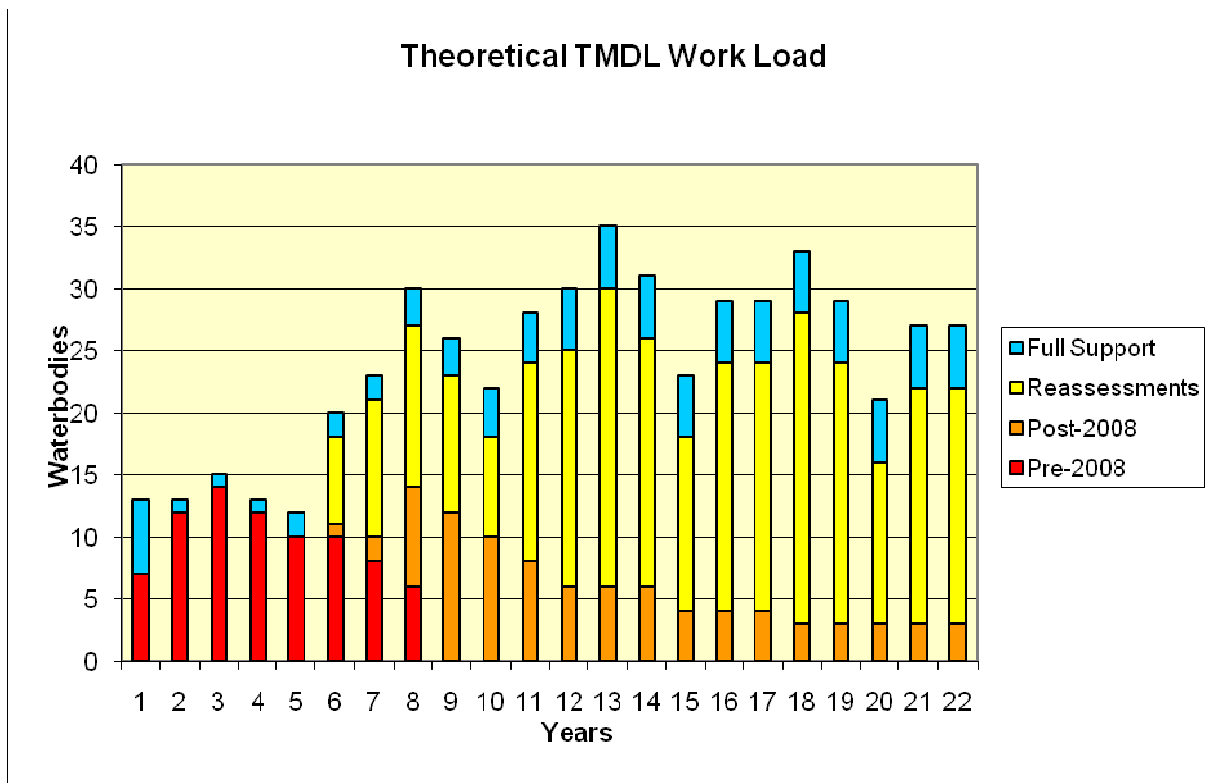
- water quality has been improved to the point where all uses are now fully supported,
- a change in water quality standards results in the waterbody no longer exceeding a certain criteria,
- the classification of the waterbody has been changed and the criterion is no longer appropriate,
- a site specific criterion has been adopted and a standards exceedance is no longer present, or
- other water quality pollutant controls are in place. However, when a waterbody is delisted due to the presence of other water quality controls, EPA mandates the condition of such waterbodies be reviewed in the biennial Integrated Report. If these other controls are not being implemented or are not effective, the waterbody could once again be placed on the 303(d) list.

The expedient removal of waters from the 303(d) list, for one of the reasons listed above, prior to the state needing to develop a TMDL will reduce the TMDL workload. However, continual stakeholder watershed planning on such delisted waters may be warranted to keep the water off future Section 303(d) lists.

Figure 1 presents the simplified, theoretical work load for the Wyoming TMDL program. This figure shows the TMDL development process for currently listed waterbodies in red. As shown in the figure, the current TMDL load is just a small spike in the long-term workload of a comprehensive program. This part of the program will peak in Year 3 and be completed in Year 8. TMDLs for waterbodies expected to be placed on future Section 303(d) lists (presented in orange) will begin in Year 6. Annual TMDL development for this second group of waterbodies is hypothesized to be highest in Year 9 as use support assessments are finalized for impaired Table E waters (waterbodies originally removed from the 1996 Section 303(d) list due to the lack of current or credible data validating the impairment, and placed in a “Waters Requiring Further Monitoring” list as represented by Table E of the 1998 Section 305(b) Report). The number of these TMDLs being developed will drop down to a fairly consistent level when all applicable

Table E waters are addressed. Five-year TMDL reassessments, as presented in yellow, will begin in Year 6. Reassessments will likely need to be done on most, if not all approved TMDLs in order to better reflect increased knowledge and changing conditions in the watershed. The reassessment is an evaluation of current knowledge and information and not a complete rewrite of the TMDL. It is expected that a relatively small percentage of the existing TMDLs will require updating the source load allocations or the calculation of the TMDL. TMDLs that require updating would have to go through the public comment process just as the original TMDL. The majority of the reassessments will result in an analysis and comparison of the initial data used to develop the TMDL and data and information that has been collected over the 5-year period. This latter example will require a brief report detailing the reassessment process and evaluation.

Figure 1. Hypothetical 22-year work load for Wyoming TMDL program. 2008 – 2029.



Finally, DEQ expects some waterbodies to reach a condition of full use support each year. The theoretical work load sets the number of fully restored waterbodies at slightly greater than the rate of new waters being listed. Under the simplified scheme presented, a long-term projection of the Wyoming TMDL program is that the state can expect to be developing on average between 10 and 15 TMDLs each year for the first 5 years of this workplan. The workload will then increase to between 20 and 25 TMDLs for the last 5 years of the workplan as impaired Table E waters are addressed and TMDL assessments are done. If the ratio of waterbodies restored to new waterbodies listed is 1.67 as projected in this theoretical representation, it will take approximately 50 years to reach the point of TMDL workload equilibrium. TMDL workload equilibrium is reached when two factors occur. First, the accelerated rate of TMDL

development will have reduced the 1998-2008 TMDL backlog and also the anticipated increased TMDL workload when use support determinations are completed on all the 1998 Table E waters and those waters with a credible impairment are returned to the 303(d) list. Second, a projected accelerated rate in waterbody restorations has resulted in a reduction in the number waterbodies needing a TMDL and subsequently a reduction in the number of TMDL reassessments. At this point of equilibrium, the rates of TMDL development, TMDL updating, and waterbody restorations are roughly equal to the number of new waterbodies placed on the Section 303(d) lists.

A 50-year timeframe to arrive at TMDL workload equilibrium may not be acceptable to the citizens of the state who prize clean water and full attainment of all designated uses. A concerted effort to increase stakeholder buy-in to water quality improvement plans, efficient and effective use of grant funding on high priority projects, and effective information and education programs will be necessary to increase the number of restored waterbodies per unit of time. These efforts also have the potential to decrease the number of waterbodies added to the 303(d) list each year. These two actions combined can reduce the timeline for TMDL workload equilibrium. TMDLs that function only as paper exercises to meet timeliness deadlines or predetermined performance measure goals may appear to address the short-term obligations of the Clean Water Act's TMDL program, but in reality result in a prolonged TMDL effort.

The TMDL program in Wyoming will face significant resource challenges for the next ten years and beyond. Additional staffing and funding will be necessary for this program. A separate request is being developed to outline needs for these resources.

PRIORITIZATION AND TMDL SCHEDULE

Section 303(d)(1) of the federal Clean Water Act requires states and tribes to “establish a priority ranking” for the segments identified as needing a TMDL. This ranking needs to take into account the severity of the pollutant and the specific designated uses adversely impacted by the pollutant. However, the most severe water quality problems or the most toxic pollutants need not always be given the highest priority for TMDL development if circumstances warrant a lower priority. TMDLs are to be established “in accordance with the priority ranking” system. Consistent with 40 CFR § 130.7(b)(4) of the Clean Water Act, each state shall also submit a priority ranking every two years in the Integrated Report, including waters targeted for TMDL development in the next two years. EPA guidance encourages the states to ensure the schedule results in TMDLs being established in a time frame no longer than 8 to 13 years from the time of initial listing.

EPA's 2006 Integrated Report Guidance recommends the ranking be clear and either in the form of a scheduled TMDL completion date or a ranking such as high, medium, or low. Prior to this update the Department utilized the high, medium, or low ranking system. The prioritization for TMDL development as reported in future Section 303(d) lists will shift from the high, medium, or low method to one that provides the date the TMDL is scheduled to be completed. The DEQ found the high, medium, and low system used in past 303(d) lists to be confusing to the public because no definitive timelines were provided. Additionally, the lack of clear dates tended to make watershed stakeholder group long-term planning more difficult. Future Section 303(d)

lists will also contain the date DEQ anticipates initiating the development of the TMDL. DEQ anticipates some TMDLs will take less than a year while some more complex watershed based TMDLs may take upwards of 3 years to finalize. By including both the scheduled initiation and projected completion dates in the Section 303(d) list, citizens in the watershed will be aware of when DEQ anticipates beginning the TMDL process, and seeking input and involvement from interested stakeholders.

The severity of the impairment, the EPA time frame, and the effective use of resources will be primary factors in developing the ranking schedule. Typically no single factor will have precedence over another factor. In general, factors for priority ranking will be utilized in the following manner:

1. **Timeliness.** Waterbodies on the Section 303(d) list for a number of years will typically be scheduled for TMDL development sooner than newly listed waterbodies.
2. **Hazards on Human and Environmental Health.** Waterbodies on the Section 303(d) list for pollutants posing a significant human or environmental health risk will typically be scheduled for TMDL development sooner than waterbodies listed due to non-priority pollutants.
3. **Quality of the Impaired Water.** Higher quality waterbodies (Classes 1 or 2) on the Section 303(d) list will typically be scheduled for TMDL development sooner than lesser quality (Classes 3 or 4) waterbodies.
4. **Timely Restoration.** Waterbodies with ongoing implementation practices having a high possibility of achieving full restoration within 8 years of initial listing will typically be scheduled for TMDL development later than waterbodies without such ongoing efforts.
5. **Endangered Species.** Waterbodies supporting Threatened or Endangered aquatic species potentially affected by the pollutant(s) of concern will typically be scheduled for TMDL development sooner than waterbodies not possessing such species.

Even after all the above factors have been adequately weighed, program and resource efficiency could ultimately be the major factor in determining the final schedule for TMDL development. TMDLs will be developed on a watershed basis whenever feasible in order to maximize staff efficiency and cost effectiveness. For example, a Class 3 waterbody recently listed for a non-priority pollutant would logically not be scheduled for TMDL development for a number of years. However this waterbody may be scheduled for TMDL development in the immediate future if it is contained in a watershed with other waterbodies placed on the list at a much earlier date, or placed on the list due to impairment from priority pollutants. The reasoning is that it is much more efficient, cost effective, and less burdensome for the public to do all the necessary TMDLs in the watershed unit at one time than it is to return to that same watershed and public on numerous separate occasions. Additionally, locally lead watershed restoration planning and implementation efforts for an entire watershed unit would be more efficient than a program that must separately plan, fund, and implement restoration efforts on numerous individual impaired waters in the watershed due to widely varying approval dates for the respective TMDLs.

Beginning in Year 6, the Department's proposed program of reassessing, and updating if appropriate, TMDLs every 5 years until restoration of the waterbody will also be a major factor

in scheduling TMDL development on newly listed waters. For example, a newly listed waterbody located within a watershed where TMDLs have already been approved typically will have its TMDL scheduled to correspond with the watershed-wide TMDL reassessment and not necessarily based on its own listing characteristics. This means many TMDLs for newly listed waterbodies in existing impaired watersheds with TMDLs will be developed within 1 to 5 years of listing.

WORKPLAN UPDATE MISSION STATEMENT

As the state agency responsible for protection of water quality, DEQ will adopt and promote local implementation of Total Maximum Daily Loads (TMDLs) for Section 303(d) Category 5 waterbodies over the upcoming 10-year period. The TMDL development process will utilize local knowledge and input in an effort to account for the physical, social, and economic environment in the watershed and thereby maximize stakeholder buy-in to the process. Watershed stakeholder buy-in is recognized as the fundamental process for the implementation of the nonpoint source loading component of the TMDL. The DEQ recognizes that local stakeholder watershed planning, using the TMDL as a planning tool to address listed waterbodies, will be a significant mechanism for this local buy-in. Local buy-in through the voluntary implementation of priority nonpoint source pollutant Best Management Practices (BMPs) is recognized as the mechanism to achieve nonpoint source load allocations and water quality goals.

Potential barriers to this mission include a lack of adequate staffing and funding to manage the program, a lack of adequate funding to implement necessary water quality improvement practices, and skepticism and mistrust of the TMDL process by stakeholders. The goals and objectives of this Workplan update were formulated to address these potential barriers.

WORKPLAN UPDATE, GOALS AND OBJECTIVES (2008 – 2018)

GOAL 1: DEQ will implement a strategy and schedule setting the pace of TMDL development in accordance with EPA performance measures and DEQ's Strategic Plan.

OBJECTIVE 1. Develop a strategy and schedule for the pace of TMDL development.

Task 1. A general TMDL pace strategy and 10-year planning schedule will be developed by DEQ and submitted to USEPA as required by grant performance measures.
Milestone: Annually.

Task 2. A detailed strategy and schedule for TMDL implementation and development for upcoming biennial periods will be included in the state's Integrated Report process.
Milestone: Biennially with annual adjustments.

GOAL 2: DEQ will forward to EPA the TMDLs for pollutant/segment combinations in Table E of the 1998 Section 305(b) Report - "Waters Requiring Further Monitoring," in a timely and resource efficient manner.

- OBJECTIVE 1. Use support determinations will be made on all 289 waters contained in Table E of the 1998 Section 305(b) Report.
- Task 1. Expand the reference stream data set for those ecoregions, subcoregions, and watersheds where biological and physical habitat data on "reference quality" or "best available" waterbodies are not sufficient to allow defensible use support determinations
Milestone: Continually for life of workplan.
- Task 2. Complete data analyses and interpretation and make use support determinations, or determinations of insufficient data, for 1998 Table E waters in a timely manner.
Milestone: Within 2 years of last data collection.
- Task 3. Reschedule site revisits on those waters where existing data are not sufficient to make a clear use support determination.
Milestone: Resample within 2 years of an insufficient data determination.
- Task 4. Report use support determinations to the TMDL Work Group and the interested public.
Milestone: As necessary for life of workplan.
- Task 5. Place all waterbodies determined not in full support of designated uses on the succeeding Section 303(d) List and establish a schedule for TMDL development.
Milestone: Biennially.
- OBJECTIVE 2. Develop TMDLs for all 1998 Table E waters where follow-up Credible Data assessments result in a subsequent relisting of the Table E waterbody for the same pollutant as reported in the 1996 303(d) list.
- Task 1. Maximize public involvement and input in the TMDL process through outreach, stakeholder involvement forums, and TMDL Work Group meetings.
Milestone: As necessary for life of workplan.
- Task 2. Obtain and utilize all applicable watershed information from existing Watershed Plans, past and existing monitoring programs,

data from other agencies, and local knowledge of the watershed in the TMDL development process.

Milestone: Continually for life of workplan.

Task 3. Develop community-supported, EPA-acceptable, and DEQ-defensible TMDLs on all Table E waters relisted in the 2000 through 2006 Integrated Reports. TMDLs will be developed in accordance with the DEQ's watershed based TMDL planning process and completed no later than 2014.

Milestone: Continually for life of workplan.

Task 4. Develop community-supported, EPA-acceptable, and DEQ-defensible TMDLs on all Table E waters relisted in the 2008 and subsequent years' Integrated Reports in a timely manner. TMDLs will be developed within 3 years of a relisting unless the DEQ's current TMDL schedule clearly indicates the TMDL will be more efficiently and economically developed in a watershed based TMDL planning unit which is scheduled for a later date. The justification for any such delays will be documented in the Integrated Report.

Milestone: Continually 2008 through 2015.

GOAL 3: DEQ will forward to EPA the TMDLs for pollutant/segment combinations placed on post-1996 Section 303(d) lists, but not contained in Table E, in a timely manner.

OBJECTIVE 1. TMDLs will be developed, on average, no later than 8 to 13 years following initial placement on the Section 303(d) List.

Task 1. Schedule TMDL development for newly listed waterbodies based upon appropriate watershed based planning units.

Milestone: Biennially.

The appropriate watershed planning unit may have been scheduled for TMDL development in the near future in which case the newly listed water will be incorporated into that schedule. The newly listed water may also occur in a watershed planning unit where TMDLs have already been established and the newly listed water will be incorporated into the planning unit's scheduled TMDL reassessment.

Task 2. Reevaluate the immediate TMDL development schedule (upcoming 4-year period) to determine how the new listings affect the overall schedule with respect to resources and timing

Milestone: Annually.

- Task 3. Solicit and obtain TMDL Work Group and stakeholder input on the proposed TMDL schedule.
Milestone: Annually.
 - Task 4. Make appropriate adjustments to the TMDL schedule and proceed with TMDL development as presented in that revised schedule.
Milestone: Annually.
 - Task 5. Maximize public involvement and input in the point and nonpoint aspects of the TMDL process through outreach and stakeholder involvement forums.
Milestone: Continually for life of workplan.
 - Task 6. Obtain and utilize all applicable watershed information from existing Watershed Plans, the WYPDES Program, past and existing monitoring programs, data from other agencies, and local knowledge of the watershed in the TMDL development process.
Milestone: Continually for life of workplan.
 - Task 7. Develop community-supported, EPA-acceptable, and DEQ-defensible TMDLs.
Milestone: Continual for life of workplan.
- GOAL 4. Improve the water quality in water quality limited watersheds by implementing the TMDLs.
- OBJECTIVE 1. Gain maximum local stakeholder buy-in and participation in the implementation of the TMDL.
 - Task 1. Support existing and encourage and support the establishment of new local watershed planning groups to address water quality limited segments, and other water-related issues of concern, in local watersheds.
Workplan: Continually for life of workplan.
 - Task 2. Provide technical support to watershed planning groups to the maximum extent possible when requested.
Milestone: Continually for life of workplan.
 - OBJECTIVE 2. Prioritize funding in order to effectively and efficiently address impairments in water quality limited watersheds.
 - Task 1. Prioritize Section 319 funding toward implementing effective BMPs within water quality limited watersheds in support of the approved TMDLs.
Milestone: Annually.

- Task 2. Encourage other funding partners to prioritize grant funding toward implementing effective BMPs within water quality limited watersheds in support of the approved TMDLs.
Milestone: Annually.
- OBJECTIVE 3. Implement the Waste Load Allocation components of the TMDLs.
 - Task 1. Work with the WYPDES Program and regulated community to incorporate Waste Load Allocations into permit renewals.
Milestone: Continually for life of workplan.
 - Task 2. Provide input to the regulated community and other DEQ programs concerning potential outside funding for treatment facility planning and upgrades.
Milestone: Continually for life of workplan.
- OBJECTIVE 4. Implement the Load Allocation Components of TMDLs.
 - Task 1. Work with all partners to encourage voluntary participation by stakeholders in watershed planning and nonpoint source pollution control implementation.
Milestone: Continually for life of workplan.
 - Task 2. Provide technical and financial assistance through the Section 319 and 205(j) programs for the development of Watershed-based Planning strategies in water quality limited watersheds.
Milestone: Continually for life of workplan.
 - Task 3. Provide technical and financial assistance through the Section 319 program for voluntary implementation of nonpoint source pollution control BMP actions which support the approved TMDL and/or Watershed-based Plan in water quality limited watersheds.
Milestone: Continually for life of workplan.
- GOAL 5. Assess the effectiveness of TMDL implementations in water quality limited watersheds.
 - OBJECTIVE 1. Perform adequate and defensible effectiveness monitoring within TMDL implementation watersheds.
 - Task 1. Monitor point source discharge effluent through permit monitoring requirements and routine compliance inspections. This assessment will be done by the WYPDES program and made available through review of electronic Discharge Monitoring Reports (eDMRs) and inspection reports.

Milestone: Continually for life of workplan.

Task 2. Include appropriate effectiveness monitoring tasks in Section 319 BMP implementation projects. Ensure adequate and complete effectiveness monitoring is done and load reduction data for implementations are reported for the project's term life.

Milestone: Annually.

Task 3. DEQ will conduct appropriate effectiveness monitoring in watersheds where Section 319 implementation project agreements have expired or watersheds where water quality improvement projects are being implemented under programs without water quality effectiveness monitoring tasks.

Milestone: Continually for life of workplan.

Task 4. Solicit and obtain monitoring data in water quality limited watersheds from other partners in the watershed.

Milestone: Annually.

GOAL 6. Reassess/Update approved TMDLs to make them applicable, up-to-date, and useable roadmaps for watershed restoration.

OBJECTIVE 1. Reevaluate and/or update TMDLs on a minimum 5-year schedule.

Task 1. Schedule newly listed waters into the most appropriate watershed based planning unit, where applicable.

Milestone: Biennially.

Task 2. Utilize effectiveness monitoring data to refine the approved TMDL

Milestone: At least once every 5 years.

Task 3. Utilize local stakeholder knowledge and planning efforts to refine the TMDL.

Milestone: Continually for life of workplan.

Task 4. Develop community-supported, EPA-acceptable, and DEQ-defensible TMDL updates.

Milestone: Annually beginning in 2013.

GOAL 7. Secure adequate staff and funding to implement the updated TMDL Workplan for all listed waters immediately and into the future.

OBJECTIVE 1. Secure adequate staff and funding to manage the Wyoming TMDL program.

- Task 1. Develop an outline of staffing alternatives (internal, external contractual, or combination internal/external contractual) and costs to achieve the immediate, short-term, and long-term needs to adequately manage the state's TMDL program.
Milestone: 2008 with biennial adjustments when necessary.
- Task 2. Present staffing and support alternatives and preferred alternative to Administration and Executive Branch for consideration and recommendations.
Milestone: 2008 and biennially when necessary.
- OBJECTIVE 2. Secure sufficient funding for TMDL outreach, TMDL development, and TMDL updating.
 - Task 1. Develop an outline for TMDL outreach, development, and updating including alternatives and individual funding requirements for each alternative.
Milestone: 2008 and biennially when necessary.
 - Task 2. Summarize potential funding resources for Task 1 alternatives including: Section 319 Staffing and Support funding; potentially as much as 20% of the total Incremental Funds in the annual Section 319 allocation; non-federal match (minimum 40%) for federal incremental funds; and other state (non-federal) funding.
Milestone: 2008 and biennially when necessary.
- GOAL 8. Maintain the Wyoming TMDL Workplan as an accurate and adaptive guidance document for DEQ.
 - OBJECTIVE 1. Update the TMDL Workplan when needed.
 - Task 1. Review Goals, Objectives, and Tasks to assess their success, failure, and continued applicability.
Milestone: Annually.
 - Task 2. Report the status of the Goals, Objectives, and Tasks to DEQ management and the TMDL Work Group.
Milestone: Annually.
 - Task 3. Make appropriate modifications to the TMDL Workplan to correct deficiencies in the plan, acknowledge changes in circumstances, and/or address new issues of concern.
Milestone: As necessary for life of workplan.