

# Program Evaluation

## Water Protection Bureau

Department of Environmental Quality



## WATER POLICY INTERIM COMMITTEE

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### Introduction

Montana law requires the Water Policy Interim Committee to conduct program evaluations of the agencies under the committee's oversight.<sup>1</sup>

The committee allocated 272 hours of staff time to evaluate the four bureaus under committee oversight during the 2015-2016 interim. This evaluation generally covers the Water Protection Bureau and its two sections, the Water Protection Section and the Compliance and Technical Support Section.

### Water Protection Bureau

#### Background

The Water Protection Bureau is located in the Planning, Prevention, and Assistance Division of the DEQ. The bureau protects surface and ground water against pollution by reviewing potential sources of pollution and issuing permits. The bureau also is responsible for determinations of nondegradation (see page 4). The bureau was formerly part of the DEQ's Permitting and Compliance Division but was recently shifted in an effort to better integrate water quality-related programs.

Water quality protection in Montana began in 1907, when the Legislature passed laws responding to typhoid outbreaks in the Milk River Basin. The law required treatment of all sewage discharged into public water supplies.<sup>2</sup> In 1972, Congress passed the Clean Water Act, which seeks to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."<sup>3</sup> The 1972 Montana Constitution further declared that all persons have inalienable rights, including to a clean and healthful environment and to life's basic necessities,<sup>4</sup> and "the state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations."<sup>5</sup> The Montana Legislature has recognized these Constitutional protections through the Water Quality Act, which states:

It is the legislature's intent that the requirements of this chapter provide adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources. A purpose of this chapter is to provide additional and cumulative remedies to prevent, abate, and control the pollution of state waters.<sup>6</sup>

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<sup>1</sup> Section 5-5-231, MCA.

<sup>2</sup> Montana Legislative Environmental Policy Office, *A Guide to Montana Water Quality Regulation* (2012), 5.

<sup>3</sup> 33 U.S.C. 1251.

<sup>4</sup> Article II, sec. 3, 1972 Mont. Const.

<sup>5</sup> Article IX, sec. 1, 1972 Mont. Const.

<sup>6</sup> Section 75-5-102, MCA.

In 1974, the U.S. Environmental Protection Agency delegated authority to Montana to implement certain Clean Water Act programs, including issuance of pollutant discharge permits. Permittees must limit pollutants to standards developed by the DEQ. The EPA retains oversight authority and may administer individual cases.

The Board of Environmental Review, a seven-member board appointed by the governor, may adopt rules related to permit applications and for the process for issuing, denying, modifying, or revoking permits. The Water Quality Discharge Permit Section issues, suspends, revokes, modifies, or denies discharge permits (see below). The Compliance and Technical Support Section also ensures compliance with its permitting conditions. The board may grant a permit holder an appeals hearing if the bureau suspends, revokes, modifies, or denies a permit (see page 5). Certain permit decisions may be appealed to a district court.

## Water Quality Discharge Permit Section

Any entity proposing to discharge sewage, industrial waste, or other pollutants into state waters must apply for a discharge permit.<sup>7</sup> Definitions of the terms “state waters” and “pollution” are important.

“State waters” are surface or underground waters of any body of water, irrigation system, or drainage system. State waters do not include:

- ponds or lagoons used for treating, transporting, or impounding pollutants, or
- irrigation waters or land application disposal waters used in a disposal system and not returned to state waters.<sup>8</sup>

“Pollution” is defined as changing the physical, chemical, or biological properties of state waters to exceed water quality standards. The DEQ classifies water bodies based on the beneficial uses that are or may be supported by each water body. The department develops numeric and narrative water quality criteria to protect each of these uses, which may include drinking water, recreation, livestock, or wildlife.<sup>9</sup> Examples of pollutants with numeric water quality criteria include ammonia, selenium, and chromium; examples of narrative water quality criteria are pH and sulfide.

Pollution could come from point sources – an actual conveyance where pollutants are discharged – or from nonpoint sources, i.e. diffuse sources of pollution, like from rainfall or snowmelt moving over and through the ground. The bureau focuses on point source pollution; another DEQ section focuses on nonpoint sources.

The Water Quality Discharge Permit Section issues permits to discharge to surface water (Montana pollutant discharge elimination system (MPDES) permits) and to ground water (Montana ground water pollution control system (MGWPCS) permits). The bureau issues an average of 600 discharge permits per year, although this number is variable and has ranged as high as 1,500.<sup>10</sup>

Again, the Board of Environmental Review sets rules for issuing these permits, but it is up to the bureau to review applications and to approve, deny, modify, or revoke these permits.

## MPDES permits

The bulk of the Water Quality Discharge Permit Section’s work is issuing surface water discharge permits. The purpose of the program is to control point source discharges of wastewater into surface waters. The MPDES is

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<sup>7</sup> Section 75-5-402, MCA.

<sup>8</sup> Section 75-5-103, MCA.

<sup>9</sup> Ibid.

<sup>10</sup> Aug. 12, 2015, discussion with Montana Department of Environmental Quality staff.

designed to be compatible with the national pollutant discharge elimination system as established by the U.S. Environmental Protection Agency pursuant to section 402 of the Clean Water Act.<sup>11</sup>

Permits are designed to protect surface water quality at the point of discharge by applying relevant standards developed by DEQ. Permits may also address the cumulative effects of pollutants across an entire basin. In these cases, a calculated total maximum daily load (TMDL) is used to determine a stream's pollution "load," which is then used to figure an individual permit's allowable discharge.

Surface water discharge permits include two types – individual and general. An individual permit is site specific to that permit. These include major dischargers like city wastewater treatment plants and large industrial dischargers. General permits are "preexisting" permits for common activities, such as feedlots, fish farms, suction dredges, sand and gravel pits, domestic sewage treatment lagoons, oil and gas operations, and industrial operations. A general permit is more expedient than an individual one, with application, review, and authorization coming within 30 days.<sup>12</sup> Individual permits are more rigorous than general, and the process may last anywhere from 6 months to 2 years. The bureau has 155 individual permit holders and 1,634 general permit holders.<sup>13</sup>

Major individual permit holders are:

- FRENCHTOWN MILL SITE WASTEWATER TREATMENT SYSTEM
- MONTANA RESOURCES
- BONNER PROPERTY DEVELOPMENT
- SIDNEY SUGARS INCORPORATED
- PHILLIPS 66 - BILLINGS REFINERY
- CENEX HARVEST STATES COOP.
- WESTERN SUGAR COOPERATIVE
- MONTANA DAKOTA UTILITES ( LEWIS AND CLARK PLANT)
- EXXONMOBIL REFINING AND SUPPLY
- DECKER COAL CO (WEST MINE)
- MILES CITY WASTEWATER TREATMENT PLANT
- CITY OF HAMILTON WWTP
- LEWISTOWN WWTP
- CITY OF WHITEFISH WWTF
- CITY OF LAUREL WWTP
- BIGFORK WWTP
- CITY OF LIVINGSTON WWTP
- RED LODGE WWTF
- LIBBY WWTP
- CITY OF GLENDIVE WATER RESOURCE AND RECOVERY FACILITY
- CITY OF GREAT FALLS WWTP
- CITY OF KALISPELL WWTP
- BUTTE-SILVER BOW WWTP
- CITY OF HAVRE WWTP

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<sup>11</sup> Section 17.30.1301, Administrative Rules of Montana.

<sup>12</sup> Department of Environmental Quality webpage, *Montana Pollutant Discharge Elimination System (MPDES)*, [www.deq.mt.gov/wqinfo/mpdes/default.mcp.x](http://www.deq.mt.gov/wqinfo/mpdes/default.mcp.x).

<sup>13</sup> Environmental Protection Agency website, *Enforcement and Compliance History Online*, [www.echo.epa.gov](http://www.echo.epa.gov).

- CITY OF BILLINGS WWTP
- CITY OF MISSOULA WWTP
- CITY OF BOZEMAN WWTP
- DEER LODGE WWTP
- CITY OF HELENA WWTP
- WESTERN ENERGY CO. (ROSEBUD MINE)
- DECKER COAL CO (EAST MINE)
- PALEO SEARCH INC (SUCTION DREDGE PROJECT)
- CITY OF HARDIN (issued by the EPA)
- BUTTE HIGHLANDS MINE

A subset of the MPDES permits are storm water permits. Storm water runoff can contain sediment rates that are 10-20 times greater than farmland and 1,000-2,000 times greater than forest land.<sup>14</sup> The Environmental Protection Agency began to develop rules for storm water runoff in 1990. The DEQ incorporated these rules in 2003.<sup>15</sup> Storm water discharge permits are mostly issued for construction sites. Storm water permits comprise more than 3/4ths of all general permits issued. Operators of these sites must create a storm water pollution prevention plan to protect state waters from pollutants, especially sediment. These plans include various erosion and sediment control measures.

### Nondegradation analysis

New pollution dischargers – such as a new treatment plant or new industrial user – must also complete a nondegradation review. State law requires that existing uses of state waters and a level of water quality to protect those uses must be maintained and protected.<sup>16</sup> The process is most simply described as the following:

Before a permit is issued, consideration is given to the nondegradation policy. An applicant must complete an Application for Determination of Significance. The DEQ determines if the proposed degradation is significant. If the discharge is considered significant, the applicant must complete an application to degrade state waters. The DEQ coordinates a review of these applications with the permitting process to the maximum extent possible.<sup>17</sup>

New dischargers into high-quality waters must typically meet higher water quality standards – i.e. lower pollution limits.

### Ground water program

Ground water permittees include custom metal ore milling companies, petroleum distribution companies, soil remediation facilities, and agricultural producers. Discharges may occur from tailings ponds, waste treatment and storage ponds, spill cleanup systems, and soil treatment cells. Permits include stipulations how a discharge source is managed to prevent degradation of state waters. The permits are issued for 5 years. The Compliance and Technical Support Section ensures compliance with the terms of these 89 permits.

Other agencies regulate certain ground water discharges. Ground water discharge (MGWPCS) permits are not issued for:

<sup>14</sup> Department of Environment Quality, *Storm Water Requirements for Construction Activity* (2010), 1.

<sup>15</sup> Ibid.

<sup>16</sup> Section 75-5-303, MCA.

<sup>17</sup> Montana Legislative Environmental Policy Office, *A Guide to Montana Water Quality Regulation* (2012), 18.

- Oil and gas injection wells regulated by the federal underground injection control program
- Licensed solid waste disposal
- Disposal of normal household waste by individuals on their own property
- Permitted hazardous waste facilities
- Produced waters and other wells and pits used on oil and gas field operations
- Agricultural irrigation facilities
- Storm water disposal or detention facilities
- Septic systems serving individual residences
- Certain uranium mining
- Permitted strip or underground mines
- Facilities subject to the Major Facilities Siting Act
- Permitted carbon dioxide injection wells.<sup>18</sup>

### 401 certification

The federal Clean Water Act allows states to “address the aquatic resource impacts of federally issued permits and licenses” by certifying these permits or licenses.<sup>19</sup> A federal agency cannot issue a license or permit allowing pollution discharge until the state grants “401 certification.” (“401” refers to the section of the Clean Water Act.) An example of a certified federal action is the U.S. Army Corps of Engineers “dredge and fill” permit program, which is also known as Section 404 permits.

### Compliance and Technical Support Section

The Compliance and Technical Support Section ensures permit holders follow the terms, conditions, and stipulations of their discharge permits. This work includes gathering monitoring data and conducting inspections. The department has inspected 546 facilities over the past 5 years.<sup>20</sup>

Many regulated permittees are required to supply monitoring and compliance data. The Compliance and Technical Support Section continually monitor this information, scrutinizing program submissions and activities, updating and maintaining a database of self-reported data, generating technical and analytical reports, and notifying permit holders of compliance status, and assisting permit holders and the general public. Some compliance data is available on the EPA’s Enforcement and Compliance History Online tool, [www.echo.epa.gov](http://www.echo.epa.gov).

The Compliance and Technical Support Section also conducts inspections of permitted operations. Inspections are meant to determine compliance with regulations, permit conditions, and other requirements; verify information; and verify sampling and monitoring. In some cases, inspectors may be gathering evidence to support enforcement actions or assessing compliance with formal enforcement actions. The DEQ Enforcement Division prosecutes all violations. Within the last 5 years, 76 facilities faced formal enforcement actions.<sup>21</sup>

The DEQ does not always seek to resolve permit violations through enforcement actions. The Compliance and Technical Support Section is also interested in gaining compliance through cooperative means. “The staff also provide

<sup>18</sup> Section 75-5-401, MCA.

<sup>19</sup> U.S. Environmental Protection Agency, Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool For States and Tribes (2010), 1.

<sup>20</sup> Environmental Protection Agency website, *Enforcement and Compliance History Online*, [www.echo.epa.gov](http://www.echo.epa.gov).

<sup>21</sup> Ibid.

compliance assistance through one-on-one counseling, online resources, guides and trainings to the regulated community to help them understand their requirements and to minimize or prevent violations from occurring at regulated facilities.”<sup>22</sup>

### Fiscal review

Application and annual permit fees are the primary source of funding for the bureau. Legislative appropriations from the permit program fund for the past 4 biennia:

For fiscal years 2016-17	\$4.84 million <sup>23</sup>
2014-15	\$4.49 <sup>24</sup>
2012-13	\$4.13 <sup>25</sup>
2010-11	\$3.67 <sup>26</sup>

The bureau employs 25 full-time equivalent employees.<sup>27</sup>

### Audits

The Water Protection Bureau has not been subject to a specific legislative audit. However, in 1994, the Legislative Audit Division (LAD) conducted a performance audit, Enforcement of the Water Quality and the Public Water Supply Acts (94P-36). This audit did not focus on permitting or monitoring, but recommended other changes to the Water Quality Division of the Department of Health and Environmental Sciences for enforcement of the Water Quality Act.<sup>28</sup>

The DEQ undergoes regular biennial financial audits conducted by LAD, which may include financial transactions involving the bureau. A review of the past four biennial financial audits identified the one recommendation related to the bureau:

- Implement a procedure to achieve compliance with the fee schedule for storm water permits set in administrative rules.<sup>29</sup>

The bureau is subject to oversight and evaluation by the EPA, as described previously.

<sup>22</sup> DEQ website, *Compliance and Technical Support*, [deq.mt.gov/wqinfo/ctss/default.mcp](http://deq.mt.gov/wqinfo/ctss/default.mcp)x

<sup>23</sup> Legislative Fiscal Division, 2017 Biennium Fiscal Report (2015), C-79.

<sup>24</sup> Legislative Fiscal Division, 2013 Session Fiscal Report (2013), C-59.

<sup>25</sup> Legislative Fiscal Division, Fiscal Report for the 2013 Biennium (2011), C-57.

<sup>26</sup> Legislative Fiscal Division, Fiscal Report for the 2011 Biennium (2009), C-65.

<sup>27</sup> Aug. 14, 2015 discussion with Montana Department of Environmental Quality staff.

<sup>28</sup> Legislative Audit Division, *Enforcement of the Water Quality and the Public Water Supply Acts (94P-36)* (1994).

<sup>29</sup> Legislative Audit Division, *Department of Environmental Quality (12-16)* (2012), 7.