LEGISLATIVE AUDIT DIVISION

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MEMORANDUM

TO: Legislative Audit Committee

FROM: Angie Grove, Deputy Legislative Auditor

DATE: June 10, 2008

RE: Audit Assessment – Water Protection Bureau, Department of Environmental Quality (08P-06)

INTRODUCTION

The Legislative Audit Committee prioritized an audit of the Permitting and Compliance Division (division), Department of Environmental Quality (department). Permitting effectiveness and backlogs were legislative concerns raised during the 2007 Legislative session. The division is composed of six different bureaus with 16 separate regulated areas. As part of our normal planning process, audit staff conducted audit assessment work in each bureau within the division. After preliminary assessment work, auditors focused on an assessment of the Water Protection Bureau (WPB).

The audit assessment process helps to increase audit efficiency and effectiveness. Allocation of audit resources to potential audit areas is based upon a determination of relative risk in various categories. The audit assessment reviewed the following categories:

1. Objectives and statutory, legal, or professional mandates
2. Change in laws or regulations
3. Complexity and/or changes in operations
4. Degree of automation and technology changes
5. Public comment, safety, and health impacts
6. Economic impact on citizens or business
7. Financial impact on state government
8. Control environment

BACKGROUND

The Environmental Protection Agency (EPA) has delegated authority to the department for implementing water quality standards of the federal Clean Water Act. As part of this federal delegation, the department receives federal funds to implement federally mandated wastewater discharge standards. WPB is responsible for regulating wastewater discharge activities affecting Montana's ground and surface water sources. The bureau has two objectives to guide it in meeting its responsibilities. One is to "effectively manage, through permitting, the discharge of materials into state waters in order to ensure appropriate

protection of public health and the environment." The other is to "conduct compliance evaluations to assess compliance with applicable water quality requirements and to offer compliance assistance to the regulated community."

The legislature enacted the Montana Water Quality Act, Title 75, Chapter 5, MCA, to fulfill its state constitutional obligation for providing a "clean and healthful environment" (Article II, Section 3 and Article IX). Under the authority of the Water Quality Act, WPB issues permits to regulate discharges to state waters, both on the surface and underground. These permits are identified as:

- Montana Pollutant Discharge Elimination System (MPDES)
- Montana Ground Water Pollution Control System (MGWPCS)
- Section 308 (pesticide)
- Section 318 (construction)
- Section 401 (Army Corps of Engineer projects)
- General Permits (storm water and concentrated animal feed operations)

Activities

Activities discharging sewage, industrial wastes, or other wastes into state waters may be required to have a discharge permit. This includes construction activities, municipal storm water collection systems, private and public sewage treatment systems, refineries, manufacturing facilities, and animal feed operations to name a few of the many activities. As of February 2008, WPB has 1,397 permits in effect, 288 of which are expired:

- 172 MPDES (90 expired)
- 70 MGWPCS (27 expired)
- 1,155 general permits (171 expired)

If an activity reapplies for a discharge permit, but the department does not issue a new permit before the original expiration date, the permit expires. However, the activity can continue to discharge under the terms of the expired permit until a new permit is issued by the department (ARM 17.30.1313). Based on current permits, 52 percent of MPDES permits, 39 percent of MGWPCS, and 15 percent of general permits are expired but still in force.

Funding

Funding is provided through a combination of General Funds, user fees, and federal funding. Organizations/activities needing to obtain discharge permits pay an initial application fee and annual operating fees. Permits are issued for a maximum of 5 years for MPDES permits and 10 years for MGWPCS. Permits must then be renewed by submitting a new application to the department. By statute, section 75-5-516, MCA, fees are to be sufficient enough to cover all permitting and compliance costs. In 2007, WPB collected $1,304,811 in permit fees, received $53,878 from the General Fund, and $517,083 from all other sources. Total appropriations for WPB were $2,223,909 with total expenditures of $1,875,772. Projected expenditures for fiscal year 2008 are expected to increase by 25 percent up to $2,348,356.

Organization

To carry out its duties, WPB is organized into two sections: 1) permitting, and 2) compliance/technical support. The ***permitting section*** is authorized 15 FTE. As of February, three FTE were vacant. The

compliance/technical support section is authorized 10 FTE with nearly half of these FTE assigned to compliance activities.

OBJECTIVES AND STATUTORY, LEGAL, OR PROFESSIONAL MANDATES

Statutory guidelines for meeting Clean Water Act requirements are provided in Title 75, Chapter 5, MCA, and Title 17, Chapter 30, ARM. Application time lines, water quality standards, and regulatory scope are provided in both MCA and ARM. The department is also obligated to comply with federal Clean Water Act implementation agreements between the EPA and the state, which are identified in Performance Partnership Agreements. The current Agreement has several specific purposes, but overall, it constitutes the full program for the department's grant and is used to evaluate grant success. In addition, if department permitting activities impact the environment, it would be required to comply with the Montana Environmental Policy Act (MEPA), as defined in Title 75, Chapters 1 through 3, MCA.

The bureau has not met the time constraints listed in statute in the issuance of discharge permits, particularly related to permit renewal applications. The department's July 2003 agreement with the EPA called for the backlog of permits to be reduced to less than 10 percent by July 2004. However, as of September 2007, EPA statistics show the bureau has only issued about 36 percent of its major permits, 47 percent of its minor permits, and 31 percent of it general permits. According to department information, 48 percent of MGWPCS and MPDES permits, excluding MPDES general permits, are expired. The bureau does not appear to have processes in place to effectively manage its workload. Failure to issue permits within the required timeline will result in an initial applicant being unable to initiate operations, and a renewal applicant potentially following out-of-date standards.

Failure to meet EPA permit backlog reduction goals could result in loss of both federal funding and the state's delegated authority. In February 2008, the EPA issued a strongly worded letter to the department expressing concern with the department's commitment to National Pollutant Discharge Elimination System (NPDES) permit issuance. The letter stated the department's permit issuance goals were insufficient to eliminate the permit backlog. The letter also stated the next Performance Partnership Agreement would not be approved without an acceptable plan to resolve permit backlogs, which is to include a multiyear backlog reduction plan with real milestones. It is unknown what effect continued discharges under expired MPDES and MGWPCS permit standards have on the quality of state waters, but the EPA has raised concerns about the department's ability to protect water quality.

CHANGES IN LAWS OR REGULATIONS

According to WPB management, permits issued prior to 1995 were based on standards of manufacturing efficiency. For example, an oil refinery that produced 10,000 barrels of oil could produce a given amount of pollutants. After 1995, those standards were changed to reflect the relative toxicity or effects of a given pollutant on the water source and the types of aquatic life in the water. This change from efficiency-based standards resulted in differences to standards in discharge permits, with potential increased costs incurred by operating activities to meet these new standards. Ongoing renewal of permits helps keep facility operations in line with new standards.

The effect of standard changes is exemplified by a recently reissued discharge permit for the Town of Whitefish. Whitefish was issued a discharge permit for its sewage treatment facility in 1996 using efficiency-based standards. The permit was due to be renewed in 2001, but was not reissued until late 2007 under newer standards. The new standards include limits for water color, turbidity, heat, pH, pollutant levels, etc. The existing sewage treatment facility is not able to meet the newer treatment standards, and according to bureau staff, will have to be replaced, at a potential cost of $25 to $30 million.

COMPLEXITY AND/OR CHANGES IN OPERATIONS

A change in specific water quality standards resulted in significant changes to developing permit standards. Difficulties in determining appropriate standards, complying with environmental review requirements, and the potential high cost of complying with new standards could increase the number of challenges to the standards and requested hearings before the Board of Environmental Review.

Permits issued for activities are complex. For each permitted activity, there are levels of exclusions. Each permit must consider water quality at the discharge point, total maximum daily load of all discharges affecting the receiving water, monitoring schedules, facility maintenance requirements, turbidity, water pH, water temperature, downstream water uses, etc.

Because discharge standards for each activity are specifically identified within each permit, compliance staff are responsible for ensuring those defined standards are met, regardless of whether those standards have changed since the permit was issued. Compliance inspectors must be constantly aware of these individual differences. Additionally, different standards have different monitoring schedules (daily, weekly, monthly, annually, etc.) and sampling requirements (after treatment, within *x* feet of discharge, at the discharge point, etc.) which increases the complexity of permit compliance activities.

AUTOMATION AND TECHNOLOGY CHANGES

Management is unable to track individual applications to ensure permit issuance schedules are being met. Permit writers have developed Excel spreadsheets to track individual work activities, but this information is not available to other members of the bureau. To track existing permits, the bureau uses a system that has limited departmental support and it cannot invoice permit holders for annual fees.

Montana statutes (75-5-516, MCA) grant a reduction to annual fees, up to 25 percent, for permitted activities meeting certain reductions in discharge limits in the preceding year. The bureau developed its own Access database to identify fees that should be collected through the permitting process, but the system is unable to determine if permitted activities are eligible for annual fee reductions. Because the bureau has no system for integrating monitoring results and fee calculations, it is difficult to determine what activities qualify for fee reductions. As a result, the bureau grants all permitted activities the maximum allowable fee reduction on the assumption all activities meet discharge reductions. The bureau is unable to determine how much revenue is lost as a result of this procedure.

The inability of the bureau to use computer technology increases workload and reduces its ability to meet state/federal permitting requirements. The permitting section has no computer modeling capability to assist department personnel in designing and writing a permit that meets appropriate water quality standards. This can result in different permit writers developing different standards using the same variables, which can leave its permit standards vulnerable to appeal before the Board of Environmental Review.

PUBLIC COMMENT, SAFETY, AND HEALTH IMPACTS

The purpose of the bureau's permitting and compliance processes is to ensure water wastes discharged into the state's water resources do not impact other water uses, whether it is used for human consumption or recreation. Failure to issue timely permits has the potential of allowing expired permits to expose state waters to pollutants that are now known to be more harmful than originally understood. This can result in increased health consequences or increased costs to treat water for human consumption. Because the bureau has not been able to meet its obligations to renew wastewater discharge permits every five years, wastes are discharged into the state's surface and ground waters that exceed current standards. What detrimental effect these discharges have on state waters is difficult to determine at this time.

Additionally, the bureau has not been able to implement an effective process for monitoring permit compliance. Current permit holders are discharging wastes based on out-of-date standards. In addition, the bureau estimates there could be a substantial number of unregulated dischargers located throughout the state; each of which could be negatively affecting state waters.

ECONOMIC IMPACT ON CITIZENS OR BUSINESSES

For new discharge permit applicants, if the permitting section is unable to complete its required review and issue a permit within the allotted time, it prevents the applicant from discharging wastewater. This could result in lost revenues, jobs, and economic development. For governments, this can mean the inability to ensure local water resources are protected from the effects of toxic materials.

For expired permit holders, failure to complete permit reviews on time results in standards not being updated as required and potentially unacceptable levels of pollutants and toxic substances entering the state's surface and ground water resources. The purpose of requiring permit renewals every five years is to update standards on a regular basis and allow changes to wastewater treatment facilities to occur on a regular basis to keep up with these changes. Failure to incrementally change wastewater treatment standards can have significant costs for organizations and local governments with older permits.

Unregulated dischargers, and expired permitted dischargers, have a potential economic advantage over permit holders complying with current standards. Unregulated dischargers have bypassed compliance costs completely and expired permit dischargers have not had to undergo potentially costly improvements to discharge systems. Ineffective compliance monitoring tempts some permit holders to reduce costs in the belief their noncompliance will not be discovered.

Allowing out-of-date pollutant discharge standards could also have the effect of increasing costs to treat water for other uses. Furthermore, these pollutants can have an adverse effect on recreational use of the state's surface waters, which can have a disastrous effect on tourism, hunting, and fishing.

FINANCIAL IMPACT ON STATE GOVERNMENT

The bureau is supported primarily through fees assessed on the regulated industry and federal funds, with only 2.7 percent of its budget provided by the General Fund. Therefore, there is little direct potential for loss of state funds. However, the bureau is the sole agency within the state with responsibility for ensuring water quality of state waters. Failure to adequately permit and ensure compliance with permitted standards could result in legal and financial liability if water quality issues result in either economic or health consequences.

CONTROL ENVIRONMENT

The permitting section has not established sufficient quality controls to ensure the same standards are developed by different department permit writers reviewing the same application. This situation is the result of two deficiencies. First, as already discussed, there is a lack of computerized modeling to account for variables affecting water quality and toxicity. Second, the department has not been able to complete work on a permit writer's manual to provide guidelines and ensure consistent results. These deficiencies could undermine the department's ability to defend permit standards in judicial proceedings or maintain its delegated authority.

Permits establish limits for wastewater discharge; compliance activities ensure those limits are met. The bureau does not appear to be able to implement an appropriate inspection schedule to ensure current permit holders are complying with standards identified in permits. The bureau has consistently failed to

meet its inspection goals. Between 2004 and 2007, the bureau committed to complete 1,145 inspections of surface water dischargers. It was only able to complete 868 of those inspections (76 percent). However, during the same period, the bureau completed 53 ground water discharger inspections (106 percent of commitment), and 248 short-term discharger inspections (no completion commitment for short-term discharger inspections). The department could be at risk of losing its EPA delegated authority, and the funding that goes with it, if it is unable to meet the terms of its agreement with the EPA. Finally, the lack of effective management controls results in WPB being unable to reissue existing permits within statutory constraints.

In 2004 and 2006, the division completed management/personnel reviews of WPB. In 2004, an internal department review identified a number of weaknesses in basic management functions. In 2006, a private consulting agency identified similar findings. In both reviews, recommendations were made to improve employee behavior, streamline work processes, reduce process bottlenecks, and improve planning. These recommendations have yet to be implemented.

CONCLUSION

At the conclusion of our assessment work, we met with department management to discuss WPB. Department managers recognize challenges exist that negatively affect the bureau's ability to meet its obligations. As a result, the department is making changes in the bureau to try to improve program management. Although our assessment work indicates an audit of program operations is warranted, the recent department changes in WPB impacted our conclusion. We recommend postponing further performance audit work for approximately two years, and then reassessing bureau activities at that time. In the interim, we recommend department management provide semi-annual updates of bureau management and permitting activities to the Legislative Audit Division for use in future reassessment.

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