



# MICHIGAN

OFFICE OF THE AUDITOR GENERAL

## AUDIT REPORT



THOMAS H. MCTAVISH, C.P.A.  
AUDITOR GENERAL

The auditor general shall conduct post audits of financial transactions and accounts of the state and of all branches, departments, offices, boards, commissions, agencies, authorities and institutions of the state established by this constitution or by law, and performance post audits thereof.

– Article IV, Section 53 of the Michigan Constitution

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Michigan  
*Office of the Auditor General*  
**REPORT SUMMARY**

*Performance Audit  
 Clean Michigan Initiative  
 Environmental Protection Programs  
 Department of Environmental Quality*

Report Number:  
 761-0217-08

Released:  
 January 2009

*The Department of Environmental Quality (DEQ) administers the environmental protection programs funded by the Clean Michigan Initiative (CMI) bond. These programs include the Brownfield Redevelopment and Environmental Cleanup Program, Waterfront Redevelopment Program, Remediation of Contaminated Lake and River Sediments Program, Nonpoint Source Pollution Prevention and Control Program, Clean Water Fund Program, and Pollution Prevention Program. This performance audit was required by Section 324.19615 of the Michigan Compiled Laws.*

**Audit Objective:**

To assess the effectiveness of DEQ's processes for identifying and selecting projects to fund with CMI bond proceeds.

**Audit Conclusion:**

We concluded that DEQ's processes for identifying and selecting projects to fund with CMI bond proceeds were effective. Our report does not include any reportable conditions related to this audit objective.

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**Audit Objective:**

To assess the effectiveness of DEQ's contracting and monitoring efforts of CMI-funded projects.

**Audit Conclusion:**

We concluded that DEQ's contracting and monitoring efforts of CMI-funded projects were effective. Our report does not include any reportable conditions related to this audit objective.

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**Audit Objective:**

To assess the effectiveness of DEQ's efforts to establish and achieve program goals for CMI-funded programs.

**Audit Conclusion:**

We concluded that DEQ's efforts to establish and achieve program goals for CMI-funded programs were moderately effective. Our assessment disclosed one reportable condition (Finding 1).

**Reportable Condition:**

DEQ should continue its efforts to fully develop a comprehensive process to assess the effectiveness of CMI-funded programs (Finding 1).

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**Audit Objective:**

To assess the effectiveness of DEQ's process to identify and allocate administrative costs to CMI-funded programs.

**Audit Conclusion:**

We concluded that DEQ's process to identify and allocate administrative costs to CMI-funded programs was effective. Our report does not include any reportable conditions related to this audit objective.

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**Agency Response:**

Our audit report contains 1 finding and 1 corresponding recommendation. DEQ's preliminary response indicates that it agrees with the finding and will comply with the recommendation.

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A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: <http://audgen.michigan.gov>



Michigan Office of the Auditor General  
201 N. Washington Square  
Lansing, Michigan 48913

**Thomas H. McTavish, C.P.A.**  
Auditor General

**Scott M. Strong, C.P.A., C.I.A.**  
Deputy Auditor General



STATE OF MICHIGAN  
OFFICE OF THE AUDITOR GENERAL  
201 N. WASHINGTON SQUARE  
LANSING, MICHIGAN 48913  
(517) 334-8050  
FAX (517) 334-8079

THOMAS H. MCTAVISH, C.P.A.  
AUDITOR GENERAL

January 21, 2009

Mr. Steven E. Chester, Director  
Department of Environmental Quality  
Constitution Hall  
Lansing, Michigan

Dear Mr. Chester:

This is our report on the performance audit of the Clean Michigan Initiative Environmental Protection Programs administered by the Department of Environmental Quality.

This report is issued pursuant to Section 324.19615 of the *Michigan Compiled Laws*, which states that every two years that State programs are funded with money from Clean Michigan Initiative bond proceeds, the Office of the Auditor General shall conduct a performance audit of the programs. Upon completion of the performance audit, the Office of the Auditor General shall submit a report on the audit to the audited department and the Legislature.

This report contains our report summary; description of programs; audit objectives, scope, and methodology and agency responses and prior audit follow-up; comments, finding, recommendation, and agency preliminary response; summary of appropriations and expenditures, presented as supplemental information; and a glossary of acronyms and terms.

Our comments, finding, and recommendation are organized by audit objective. The agency preliminary response was taken from the agency's responses subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during this audit.

AUDITOR GENERAL



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## Description of Programs

### Clean Michigan Initiative

In November 1998, Michigan voters approved a \$675 million Clean Michigan Initiative (CMI) bond for environmental, health, and natural resources protection programs that would clean up and redevelop contaminated sites; protect and improve water quality; prevent pollution; abate lead contamination; reclaim and revitalize community waterfronts; enhance recreational opportunities; and clean up contaminated sediments in lakes, rivers, and streams. The scope of this audit included the six environmental protection programs administered by the Department of Environmental Quality (DEQ): Brownfield\* Redevelopment and Environmental Cleanup Program, Waterfront Redevelopment Program, Remediation of Contaminated Lake and River Sediments Program, Nonpoint Source Pollution Prevention and Control Program, Clean Water Fund Program, and Pollution Prevention Program.

The Department of Community Health administers the CMI health protection program. The Department of Natural Resources administers the CMI natural resources protection programs.

Sections 324.19601 - 324.19616 of the *Michigan Compiled Laws* provide for the specific use of CMI bond proceeds as follows:

	<u>Not More Than</u>
<u>Environmental Protection Programs:</u>	
Response activities* at facilities*	\$ 335,000,000
Waterfront improvements	50,000,000
Remediation of contaminated lake and river sediments	25,000,000
Nonpoint source pollution prevention and control projects or wellhead protection projects	50,000,000
Water quality monitoring, water resources protection, and pollution control activities	90,000,000
Pollution prevention programs	20,000,000
 <u>Health Protection Program:</u>	
Abatement of lead hazards	5,000,000
 <u>Natural Resources Protection Programs:</u>	
State park infrastructure improvements	50,000,000
Local recreation projects	50,000,000
Total	\$ 675,000,000

\* See glossary at end of report for definition.

DEQ's environmental protection programs account for \$570 million (84%) of the total \$675 million in CMI bonds. As of September 30, 2007, the State of Michigan had issued \$390 million (68%) in CMI bonds for the environmental protection programs administered by DEQ.

### DEQ's CMI Programs

DEQ, through its various divisions, administers the following six CMI programs:

1. Brownfield Redevelopment and Environmental Cleanup Program (not more than \$335 million): This Program provides funding to four subprograms:

- Redevelopment-Based Cleanup Projects (\$155 million)

This subprogram funds cleanups and/or demolition at contaminated sites in order to promote commercial redevelopment, create jobs, and revitalize neighborhoods. This subprogram also can be used to correct leaking underground storage tanks.

- Public Health and Environmental Cleanup Projects (\$97 million)

This subprogram provides State-funded cleanups at contaminated facilities that pose an imminent or substantial danger to the public health, safety, or welfare or to the environment.

- Brownfield Redevelopment Grants and Loans (\$75 million)

This subprogram provides grants (\$37.5 million) and loans (\$37.5 million) to local units of government for response activities at known or suspected contaminated properties with redevelopment potential.

- Municipal Landfill Cost-Share Grants (\$8 million)

This subprogram provides grants to local units of government that undertake cleanup actions at municipal solid waste landfills on, or nominated for, the federal Superfund National Priorities List of contaminated sites.

2. Waterfront Redevelopment Program (not more than \$50 million): This Program provides grants to local communities for innovative waterfront improvements that contribute significantly to the local unit of government's economy; to the

redevelopment or revitalization of neighborhoods; and to the increase of public access to the Great Lakes, their connecting waterways, a river, or a lake. Eligible activities include environmental response activities, acquisition of waterfront property, relocation and/or demolition of buildings and facilities, and infrastructure and public facility improvements.

3. Remediation of Contaminated Lake and River Sediments Program (not more than \$25 million): This Program expands efforts already underway to remove sediments from lakes and rivers contaminated by toxins, such as polychlorinated biphenyls (PCBs), mercury, and dichlorodiphenyltrichloroethane (DDT).
4. Nonpoint Source Pollution Prevention and Control Program (not more than \$50 million): This Program provides grants to nonprofit entities or local units of government to implement physical structures as identified in an approved DEQ watershed management plan to control the runoff of pollutants, such as sediment, nutrients, and pesticides, into rivers, lakes, and streams. This Program also funds activities to reduce nonpoint source pollution from a specific pollutant source as identified by DEQ, such as the purchase of land or development rights in critical areas of a watershed or fencing and provision of alternative watering systems to eliminate livestock access to lakes or streams.
5. Clean Water Fund Program (not more than \$90 million): This Program provides funds to implement a comprehensive water quality monitoring plan to determine water quality trends, evaluate water protection programs, and detect emerging problems. Also, funding is available to implement recommendations in watershed management plans in designated areas of concern or pursuant to lakeside management plans; provide assistance to local units of government to implement the regulations under phase II of the federal Storm Water Permit Program; identify and eliminate illicit connections to storm sewer systems; provide State matching funds required to access a federal grant for the Conservation Reserve Enhancement Program in Michigan; locate and plug abandoned wells; identify and fix failing septic systems that threaten or impair State waters; and protect high quality streams and lakes.

6. Pollution Prevention Program (not more than \$20 million): This Program consists of three subprograms:

- Retired Engineers Technical Assistance Program Fund (\$10 million)

This subprogram creates an endowment to provide funding for pollution prevention assessments by retired engineers and scientists for small businesses, municipalities, and public institutions.

- Small Business Pollution Prevention Assistance Revolving Loan Fund (\$5 million)

This subprogram provides funds to establish a revolving loan fund for small businesses to implement pollution prevention improvements.

- Pollution Prevention Activities (\$5 million)

This subprogram will further pollution prevention activities throughout the State, including start-up funding for local governments to operate household hazardous waste collections; grants to public and private organizations to implement regional pollution prevention projects; establishment of the Green Chemistry Support Program to advance research, development, and implementation of green chemistry technologies and practices; and development of an environmental education curriculum for middle schools.

## Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up

### Audit Objectives

Our performance audit\* of the Clean Michigan Initiative (CMI) Environmental Protection Programs, Department of Environmental Quality (DEQ), had the following objectives:

1. To assess the effectiveness\* of DEQ's processes for identifying and selecting projects to fund with CMI bond proceeds.
2. To assess the effectiveness of DEQ's contracting and monitoring efforts of CMI-funded projects.
3. To assess the effectiveness of DEQ's efforts to establish and achieve program goals\* for CMI-funded programs.
4. To assess the effectiveness of DEQ's process to identify and allocate administrative costs to CMI-funded programs.

### Audit Scope

Our audit scope was to examine the program and other records of the environmental protection programs of the Clean Michigan Initiative. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Our audit procedures, conducted from April through October 2008, generally covered the period October 2004 through September 2007.

As part of our audit, we prepared a summary of appropriations and expenditures for the CMI environmental protection programs at DEQ. Our audit was not directed toward expressing an opinion on this information and, accordingly, we express no opinion on it.

\* See glossary at end of report for definition.

### Audit Methodology

We conducted a preliminary review of DEQ's operations related to CMI to formulate a basis for defining the audit objectives and scope of the audit. Our review included interviewing DEQ personnel; reviewing applicable laws, regulations, policies, procedures, and other reference materials; reviewing selected files, records, and reports; and obtaining an understanding of DEQ's operations as they related to CMI activities.

To accomplish our audit objectives, we interviewed DEQ personnel and examined selected CMI files and other information relating to the specific CMI programs and subprograms we selected for review.

To accomplish our first objective, we examined DEQ's methods for identifying eligible participants and projects, prioritizing and selecting projects, and documenting the criteria and rationale used.

To accomplish our second objective, we gained an understanding of the procedures related to contracting and monitoring used by DEQ. We reviewed contracts and grants to obtain an understanding of the projects' requirements. We evaluated whether DEQ had sufficient procedures to ensure the eligibility of program expenditures and evaluate the completion of the agreed-upon projects to ensure compliance with contract/grant requirements and consistency with program purposes.

To accomplish our third objective, we determined whether DEQ had established measurable performance standards\* and goals. Also, we evaluated whether DEQ had sufficient procedures to collect actual performance data and compare it to desired results.

To accomplish our fourth objective, we obtained an understanding of DEQ's process to identify and allocate administrative costs. Also, we examined administrative costs to ensure that they related to CMI-funded projects.

### Agency Responses and Prior Audit Follow-Up

Our audit report contains 1 finding and 1 corresponding recommendation. DEQ's preliminary response indicates that it agrees with the finding and will comply with the recommendation.

\* See glossary at end of report for definition.

The agency preliminary response that follows the recommendation in our report was taken from the agency's written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and the State of Michigan Financial Management Guide (Part VII, Chapter 4, Section 100) require DEQ to develop a formal response to our audit findings and recommendations within 60 days after release of the audit report.

We released our prior performance audit of the Clean Michigan Initiative, Environmental Protection Programs, Department of Environmental Quality (76-217-05), in February 2006. Within the scope of this audit, we followed up both prior audit recommendations. DEQ complied with one recommendation, and we repeated the other recommendation in this report.

COMMENTS, FINDING, RECOMMENDATION,  
AND AGENCY PRELIMINARY RESPONSE

## PROCESSES FOR IDENTIFYING AND SELECTING PROJECTS

### COMMENT

**Audit Objective:** To assess the effectiveness of the Department of Environmental Quality's (DEQ's) processes for identifying and selecting projects to fund with Clean Michigan Initiative (CMI) bond proceeds.

**Audit Conclusion:** We concluded that DEQ's processes for identifying and selecting projects to fund with CMI bond proceeds were effective. Our report does not include any reportable conditions\* related to this audit objective.

## CONTRACTING AND MONITORING EFFORTS

### COMMENT

**Audit Objective:** To assess the effectiveness of DEQ's contracting and monitoring efforts of CMI-funded projects.

**Audit Conclusion:** We concluded that DEQ's contracting and monitoring efforts of CMI-funded projects were effective. Our report does not include any reportable conditions related to this audit objective.

## EFFORTS TO ESTABLISH AND ACHIEVE PROGRAM GOALS

### COMMENT

**Audit Objective:** To assess the effectiveness of DEQ's efforts to establish and achieve program goals for CMI-funded programs.

**Audit Conclusion:** We concluded that DEQ's efforts to establish and achieve program goals for CMI-funded programs were moderately effective. Our assessment disclosed one reportable condition related to assessment of program effectiveness (Finding 1).

\* See glossary at end of report for definition.

## **FINDING**

### **1. Assessment of Program Effectiveness**

DEQ should continue its efforts to fully develop a comprehensive process to assess the effectiveness of CMI-funded programs. Such a comprehensive process would provide assurance that DEQ's CMI-funded programs resulted in the cleanup and redevelopment of contaminated sites; the protection and improvement of water quality; the prevention of pollution; the reclamation and revitalization of community waterfronts; and the cleanup of contaminated sediments in lakes, rivers, and streams. Also, such a process would allow DEQ to identify shortcomings in its CMI-funded programs and to make improvements where needed.

Program effectiveness can be assessed and improved by using quantifiable performance standards or goals and objectives\* that reflect management expectations for level of outputs\* and outcomes\*, a mechanism to collect output and outcome data, a comparison of actual results to management's expectations, and proposals for program changes to improve effectiveness where needed.

DEQ implemented some elements of a comprehensive assessment process. For example, DEQ implemented a policy that requires its divisions to develop annual work plans, which were incorporated into DEQ's overall strategic plan. These work plans outline planned initiatives, program enhancements, and ongoing program activities. Also, the Environmental Science and Services Division (ESSD) annually issues its Pollution Prevention Report that summarizes the year's activities and the amount of waste reduction. In addition, the Remediation and Redevelopment Division (RRD) annually develops action plans to monitor project status, assist in project accountability, and help ensure the effective use of limited resources for the Brownfield Redevelopment and Environmental Cleanup Program. However, our review disclosed areas in which DEQ could improve its assessment of the performance of its CMI-funded programs:

- a. DEQ had not established quantifiable goals by which management could assess the effectiveness of CMI-funded programs. Without quantifiable goals, DEQ cannot determine if its CMI-funded programs are effective and achieving an acceptable level of results.

\* See glossary at end of report for definition.

Of the 6 CMI programs and subprograms selected for review, DEQ established quantifiable goals for the Nonpoint Source Pollution Prevention and Control Program. However, for the 5 remaining CMI programs and subprograms, DEQ described program goals in generalized terms, such as "Reduce dependence on Level of Effort firms by using additional state staff and equipment" and "Enhance the collection and interpretation of surface water quality monitoring data." These goals were not quantified and did not provide a measurable basis for assessing specific performance. Quantified performance goals might describe the expected number of sites to be cleaned up and redeveloped, the expected amount of water quality improvement, and the amount of sediments to be removed and properly disposed.

We reported a similar condition in our prior performance audit. DEQ indicated in its response that it would continue to incorporate quality improvement principles into its strategic planning process and related activities.

- b. DEQ had not complied with its strategic plan policy to semiannually report the comparison of expected to actual results for its programs. Reporting the comparison of management's expected results, which are documented in its work plans, to actual results would allow DEQ to identify the strengths, weaknesses, and needs of programs and, more importantly, would allow DEQ to assess program effectiveness.

DEQ's strategic plan policy requires its divisions to report their comparison of expected to actual results to the deputy director in April and October of each year. Three divisions administer the six CMI-funded programs and subprograms selected for review. One division (RRD) reported its comparison of expected to actual results in accordance with the strategic plan policy. However, another division (ESSD) did not fully comply with the reporting requirements of the strategic plan policy by reporting once a year, and the third division (the Water Bureau) did not report its comparison of expected to actual results. Although DEQ did not have quantifiable goals, it could still compare the actual results of its performance to the planned initiatives, program enhancements, and ongoing program activities that are outlined in its work plans.

Since our prior audit, DEQ has improved its program assessment process, including addressing our prior audit finding related to improving the completeness

and accuracy of RRD's performance measurement system. However, DEQ should continue its efforts to fully develop a comprehensive process to assess the effectiveness of CMI-funded programs.

### **RECOMMENDATION**

WE AGAIN RECOMMEND THAT DEQ CONTINUE ITS EFFORTS TO FULLY DEVELOP A COMPREHENSIVE PROCESS TO ASSESS THE EFFECTIVENESS OF CMI-FUNDED PROGRAMS.

### **AGENCY PRELIMINARY RESPONSE**

DEQ agrees with the finding and informed us that it has made substantial progress toward the development of a comprehensive process to assess the effectiveness of CMI-funded programs. A considerable amount of information related to CMI programs is tracked and reported in various formats. DEQ stated that it will work toward making clearer connections between program goals, measurements, and outcomes.

## **PROCESS TO IDENTIFY AND ALLOCATE ADMINISTRATIVE COSTS**

### **COMMENT**

**Audit Objective:** To assess the effectiveness of DEQ's process to identify and allocate administrative costs to CMI-funded programs.

**Audit Conclusion:** We concluded that DEQ's process to identify and allocate administrative costs to CMI-funded programs was effective. Our report does not include any reportable conditions related to this audit objective.

# SUPPLEMENTAL INFORMATION

CLEAN MICHIGAN INITIATIVE (CMI) ENVIRONMENTAL PROTECTION PROGRAMS

Department of Environmental Quality (DEQ)  
 Summary of Appropriations and Expenditures  
As of September 30, 2007

	<u>Appropriations</u>	<u>Expenditures</u>
Brownfield Redevelopment and Environmental Cleanup Program	\$ 305,806,802	\$ 211,261,050
Waterfront Redevelopment Program	49,999,938	44,698,293
Remediation of Contaminated Lake and River Sediments Program	22,531,164	14,209,830
Nonpoint Source Pollution Prevention and Control Program	36,134,484	20,625,495
Clean Water Fund Program	60,834,767	46,646,559
Pollution Prevention Program	18,634,580	17,623,342
DEQ Administration	<u>16,651,997</u>	<u>16,651,639</u>
 Total	 <u><u>\$ 510,593,732</u></u>	 <u><u>\$ 371,716,208</u></u>
 Portion of total CMI bonds allocated for environmental protection programs	 \$ 570,000,000	 \$ 570,000,000
 Percent appropriated and expended	 89.6%	 65.2%

Source: Department of Environmental Quality Consolidated Report on the Environmental Protection Bond Fund, the Cleanup and Redevelopment Fund, and the Clean Michigan Initiative Bond Fund, Fiscal Year 2006-07.

# GLOSSARY

## Glossary of Acronyms and Terms

brownfield	Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.
CMI	Clean Michigan Initiative.
DEQ	Department of Environmental Quality.
effectiveness	Success in achieving mission and goals.
ESSD	Environmental Science and Services Division.
facility	Any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Section 324.20120a(1)(a) or Section 324.20120a(17) of the <i>Michigan Compiled Laws</i> or the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located. "Facility" does not include any area, place, or property at which response activities have been completed which satisfy the cleanup criteria for the residential category provided for in Section 324.20120a(1)(a) and Section 324.20120a(17) of the <i>Michigan Compiled Laws</i> or at which corrective action has been completed under part 213 of the Natural Resources and Environmental Protection Act (Act 451, P.A. 1994, as amended) which satisfies the cleanup criteria for unrestricted residential use.
goal	An intended outcome of a program or an agency to accomplish its mission.
objective	A specific outcome that a program or an agency seeks to achieve its goals.

outcome	An actual impact of a program or an agency.
output	A product or a service produced by a program or an agency.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve program operations, to facilitate decision making by parties responsible for overseeing or initiating corrective action, and to improve public accountability.
performance standard	A desired level of output or outcome.
reportable condition	A matter that, in the auditor's judgment, falls within any of the following categories: an opportunity for improvement within the context of the audit objectives; a deficiency in internal control that is significant within the context of the objectives of the audit; all instances of fraud; illegal acts unless they are inconsequential within the context of the audit objectives; significant violations of provisions of contracts or grant agreements; and significant abuse that has occurred or is likely to have occurred.
response activity	The evaluation, interim response activity, remedial action, demolition, or the taking of other actions necessary to protect the public health, safety, or welfare; the environment; or the State's natural resources.
RRD	Remediation and Redevelopment Division.







