

**A Roadmap to a New Environmental Management Model for Michigan
Recommendations of the Environmental Advisory Council
December 16, 2009**

EXECUTIVE SUMMARY

Michigan's current model for protecting the environment is based on a media-specific framework principally derived from federal law. Previously, this model successfully addressed a variety of threats to public health and to the environment. However, it is now achieving smaller incremental benefits and is perceived by many as inadequate to address emerging cross-media issues characterized by highly complex social and political influences and scientific uncertainty. At the same time, powerful social and economic forces limit resources available to government, constraining the successful implementation of the current model of agency organization, staffing, planning and priority setting, problem solving, and service delivery, and hence overall effectiveness.

The Environmental Advisory Council (EAC) believes the diminishing effectiveness of the current model and the lack of resources requires transition to a new model of environmental management. This new model has a legal framework and funding structure focused on overall results of environmental governance, and is not bound by media-specific approaches. A new model, building upon but going beyond the current approach, benefits from collaborative efforts to develop agreed-upon outcomes, focuses on prioritization and relative public health/environmental risk, encourages innovation, provides for continuous assessment and improvement, promotes performance above minimal compliance, and engages voluntary environmental stewardship.

Michigan's current economic and political landscape presents a defining moment to recast the vision of environmental and natural resources management. The EAC debated various approaches during a year-long process and now presents the following set of recommendations. We believe the time is ripe to further expand the conversation about a new environmental management model among stakeholders interested in improving Michigan's environmental governance. Some of our recommendations can be further considered and implemented in the near term, while others will require more extensive discussion and take longer to adopt.

INTRODUCTION

In December 2008, Department of Environmental Quality's (DEQ) Director Steven Chester asked the DEQ's EAC to consider Michigan's current approach to addressing environmental issues and the need for a new direction. This document is the EAC's response to that request.

The EAC immediately recognized this project would be unlike any it had previously undertaken.¹ First, it must draw on the insights and experience of DEQ staff across all department programs. Accordingly, the EAC invited involvement of the department's senior management team, who fully and insightfully participated in presentations and discussions throughout this project.

Second, the project must consider the interrelationship between environmental protection, natural resources management, and other issues beyond DEQ responsibility. As a result, Director Chester invited participation by the Department of Natural Resources (DNR) and the Governor's office. DNR's Deputy Director Arminda Koch and the Governor's Environmental and Natural Resources Policy Advisor Donna Stine joined as members of the EAC in the same manner as Director Chester. Finally, the EAC appointed a small planning committee, comprised of EAC members and DEQ staff, to organize the effort and focus deliberations.

The EAC has met monthly since the project launch. The first phase of the effort entailed a series of presentations on current social and economic trends,² the development and evaluation of the current environmental management model,³ the development and direction of natural resources management,⁴ evolving models of public administration,⁵ and improved decision-making for risk and resource management.⁶ The second phase entailed discussions on the information presented and the gradual development of the enclosed recommendations.

On October 8, 2009, Governor Jennifer M. Granholm issued Executive Order 2009-45 creating the Department of Natural Resources and Environment (DNRE) from the former DEQ and DNR. That order becomes effective on January 17, 2010. At the same time, Governor Granholm appointed a transition manager to organize the new department.⁷ The transition manager is charged with developing a *“proposed transformation in the way the state manages environmental quality to meet the needs of the 21st century that focuses on environmental integrity rather than concentrate on permitting.”*

Generally, public policy evolves incrementally in response to the needs and issues of the day. Michigan's current environmental and natural resources management model likewise evolved. Many techniques, tools, and perspectives offered in the EAC's recommended roadmap for a new environmental management model have emerged through that evolutionary process. But as discussed in detail below, the 21st Century

¹ For descriptions of other EAC projects and the recommendations issued, see http://www.michigan.gov/deq/0,1607,7-135-3306_30305---,00.html. This Web site also contains presentations and meeting summaries associated with this project.

² Presentations by Donald Grimes, University of Michigan, and Chuck Hersey, Southeast Michigan Council of Governments.

³ Frank Ruswick, Michigan DEQ, and Julie Sims, Michigan DEQ.

⁴ Arminda Koch, Michigan DNR.

⁵ Dr. Eric Scorson, Michigan State University.

⁶ Dr. Joe Arvai, Michigan State University.

⁷ Executive Directive 2009-6, October 8, 2009.

will present difficult challenges to the proper and efficient function of governance. Creation of the DNRE also will present its own set of policy and administrative challenges.

The EAC acknowledges both the need to accelerate a clear and purposeful new model for Michigan and the opportunity and challenges presented by the creation of the DNRE. Waiting for change to gradually arrive is not a practical or acceptable strategy. The DNRE must implement a new model for ensuring environmental integrity while carrying out day-to-day operations of merging two departments.

OBSERVATIONS

1. For forty years, environmental management has traveled a media-specific regulatory path. Michigan environmental laws are largely modeled after the federal environmental code, which is established through a set of media-specific laws (Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation and Liability Act, and many others). By the authority of corresponding state laws, Michigan is authorized and/or delegated to administer these federal environmental laws.
2. The current environmental management model is largely a system under which regulated parties seek authorization (or permission) to carry out activities with the potential to impact the natural environment and are then evaluated on the basis of whether their activities meet the terms of the authorization.
3. Agencies administering the current model are generally evaluated on whether or not their underlying activities are accomplished in a timely and effective manner. Quantifiable output measurements describe, for example, the number of and processing times for permit decisions, the number of inspections conducted, and the number of enforcement actions brought. In addition, quality assurance criteria must be met.
4. During the past four decades the current model, and the science that supports its implementation, has traditionally been focused on controlling specific sources of pollution and to address discrete problems and individual needs. This method demonstrates a media-specific approach focused on meeting standards of water and air quality and protection of public health, as examples. But this approach has largely not focused on, to the degree necessary to address current and emerging issues, long-range desired “outcomes,” balancing competing social and economic objectives, or the functioning of ecological/environmental systems.
5. The current model has significantly improved air and water quality and reduced the generation of hazardous waste, created better methods to manage solid waste, successfully protected sensitive resources, and partially addressed the legacy of environmental contamination.

6. During the last two decades, smaller gains in environmental quality have been realized and many sources of pollution are now largely controlled. Focus is shifting to maintaining these gains, regulating new sources of pollution (such as new businesses or new entrants), and addressing sources not previously regulated, such as area-wide sources of pollution and emerging pollutants. These examples, combined with issues crossing regulatory boundaries, complex social and political influences, and scientific uncertainty (such as contamination across large geographic areas), call for a transition to a new model of environmental protection.
7. The current model encourages, and often requires, a narrow vision that restricts decision making and limits problem solving options.
8. The current funding structure for environmental management limits actions that could improve environmental and resource protection and quality of service. Many programs are largely supported by federal funding provided on strict program lines and there is increasing reliance on a “fee for service” funding. Both of these funding models severely limit responses to emerging problems, result in narrow and inadequate avenues for solving problems, and stymie the transformation to a modern management model. (For example, the agency’s ability to perform ambient monitoring, critical to outcome-based progress, is limited by fee-based funding.)
9. A new environmental management model includes some media-specific aspects and assures day-to-day compliance with environmental standards, but also places a greater emphasis on the long-range “big picture.” It would use the best information science can provide to obtain the greatest benefits to public health and the environment considering available management resources and the need to balance multiple objectives.
10. The constitutional and legislative mandates to protect public health, the environment, and Michigan’s natural resources cannot be accomplished by solely focusing on authorizations and compliance, no matter how efficiently these activities are conducted. Too many sources of impact fall outside that regulatory envelope. A new model encourages innovation, provides for continuous assessment and improvement, promotes performance above minimal compliance, and rewards and engages voluntary environmental stewardship.
11. Multiple factors are at work with profound implications for the services government can and should deliver. As a result, now is a time of great opportunity and need for innovation; innovation in redesigning environmental governance and facilitating the protection and use of Michigan’s environment.
12. Momentous economic forces, far beyond the purview of any one state or nation, are forcing policy changes beyond small, incremental adjustments. Much, if not most, of the current model evolved prior to globalization of the economy and massive growth in international trade. Furthermore, the major shift in Michigan’s

economy and social forces, such as an aging population, single-issue politics, and an electorate increasingly distant from nature, have serious implications for the resources available to government.

13. Michigan faces pressures that could threaten system-wide environmental integrity in order to relieve short-term economic shortfalls. Our choices must be balanced by recognizing the interrelationships and long-term value of environmental integrity, economy prosperity, and quality of life.
14. Under the projected economic situation, there simply will not be enough resources to successfully execute the current model of internal organization, staffing, priority setting, problem solving, and service delivery. This is not unique to environmental governance and is affecting almost every state and local governmental service. Doing less by ignoring certain environmental and natural resource risks is one option, but far more preferred is creating a better way to manage Michigan's environmental and natural resources. Achieving this vision will require collaborative approaches of environmental management that transcend the current media-by-media method.
15. A new management model cannot be implemented solely by the DEQ/DNR, executive branch, or even the State of Michigan. It requires outside parties to invest in and advocate for long-term effective governance improvements.

PRINCIPLES AND RECOMMENDATIONS

1. *Michigan must transition from the current environmental management model, which tracks performance by measuring activities (outputs) without an adequate nexus to desired outcomes, to a new model focusing on outcomes. Outcomes must include public health, environmental quality, and ecological function and integrity, and must be accomplished with efficiency, effectiveness, lower transaction costs, and improved service to users.*
 - In contrast to our current system, adequate funding must be specifically earmarked for planning, establishing baselines, priority setting, collaboration, monitoring, and evaluation with outcomes as the focus.
 - Affected stakeholders must be involved in identifying appropriate outcomes.
 - The agency should manage for agreed-upon outcomes. This approach includes conscientious decisions about the most appropriate mix of tools (e.g., permitting, scientific inquiry, compliance, enforcement, incentives, and education) to achieve objectives. It also implies careful attention to priorities when allocating resources. For example, the agency should discontinue activities associated with low-priority permitting activities and instead use less time-intensive regulatory methods, and collect and use data, education and/or voluntary initiatives to achieve desired and defined outcomes. System-based

environmental monitoring would assure these lower priority sources do not cause unacceptable impacts.

- There should be continuous evaluation of program effectiveness and the role of outside contributors in achieving desired outcomes. Program objectives should be modified based on this evaluation when appropriate. Stakeholders should be involved in this process as well.

2. *The new model requires a legal framework restructured to achieve public health and ecological outcomes.*

- The current legal framework resulted from the media-specific structure embedded in state and federal law. While maintaining environmental gains of the past and assuring continuing program performance, Michigan should transition toward an integrated, outcome-based approach while undertaking efforts to broaden the federal framework. In this effort, Michigan can be a leader to its own betterment.
- Internal agency organization should minimize exclusive reliance on media-specific considerations and maximize integration of programs, disciplines, expertise, and perspectives.
- Internal management models should encourage greater use of multi-disciplinary teams, comprised of staff with a broad understanding of environmental science and policy, and programs designed to cut across media-specific structures.

3. *The new model requires a broader funding structure for environmental governance that enables issues to be holistically addressed while still providing for fiscal and program accountability.*

- Michigan must develop a broad-based and stable source of funding for environmental programs to replace media-specific and permit-fee funding sources.
- Commensurate with a broad-based funding structure, the agency should be given greater flexibility to allocate limited financial resources to address the highest priorities. The process of setting priorities should be open, transparent, and subject to public comment.
- Broad-based funding should be adequate to meet program needs and structured to provide flexibility while ensuring appropriate accountability for expenditures and program decisions on achieving objectives.

4. *Expanding collaboration and partnerships will facilitate achieving desired outcomes.*

- Michigan should recognize the very nature of environmental decision making is changing. The issues of greatest significance and impact increasingly involve multiple parties with system-wide implications, not individual actors or discrete sources of environmental stressors. Likewise, successful environmental management entails effective partnerships among local units of government, the private sector, communities, public-interest organizations, and other affected groups.
- The agency should appropriately relinquish some traditional roles and decision making authority to foster effective collaborations and partnerships.
- The agency should increase transparency in its operations. This task includes making factual information readily available, informing interested parties of the policies and practices underlying decision making, exploring new ways of communicating with and engaging the public, and being accountable for its actions. The agency should make greater and more effective use of the Internet for these purposes.
- The agency should strive for an environmental decision making process grounded in fair and consistent interpretations of law and regulations while enabling the decision maker to achieve desired outcomes of state government.

5. *The new model must manage relative risks in the process of pursuing desired outcomes.*

- Michigan should improve and develop methods to assist communities and interested parties in evaluating and setting priorities to address environmental risk.
- The agency should transition to governance systems that identify and ensure performance-based rather than process-based obligations. This transition should maintain an adequate baseline of environmental protection during the development and implementation of a new model.
- It is more difficult to be held accountable for achieving performance-based outcomes than process-based obligations; therefore, new tools must be developed to ensure accountability for the regulated community. Regulated entities must properly monitor and report on the outcomes of their activities and environmental performance.

- The new model should include ways for communities to assist in tracking environmental performance and holding regulated parties accountable for environmentally-related obligations.
6. *The new model must encourage innovation, provide for continuous assessment and improvement, promote and reward performance above minimal compliance, and engage voluntary environmental stewardship.*
- The agency should engage in a broad dialogue to identify, evaluate, and prioritize innovative mechanisms for encouraging improved environmental performance. These include the greater use of economic drivers and new and improved incentive and reward programs, such as reduced reporting requirements for good performers.
 - Michigan should improve and expand services to assist regulated entities (especially individuals and small businesses) in meeting and exceeding environmental requirements and practicing corporate social responsibility. This is an area ripe for effective partnerships between the public and private sector and levels of government.
7. *The new model requires an agency workforce with specific skills and a strong understanding of the agency's role in environmental governance.*
- The agency should ensure staff understands new decision making models, are proficient in facilitation and collaboration, skilled at integrating diverse programs and disciplines, and familiar with a variety of tools to manage risk. Without further development of these skills, the opportunities to transform the way the department operates will be limited.
 - The agency should recognize that science-based decision making within existing legal frameworks does not necessarily lead to a single “correct” answer to complex environmental problems. Rather, science can inform collaborative decision-making and the selection of a desired outcome in a given case among the range of outcomes allowed by law.
 - Funding to provide staff with necessary skill sets through training and mentoring should be a priority.
8. *The new model requires new and refined government structures to leverage expertise and inform decisions.*
- Michigan should establish a Science Advisory Board to review and recommend resolution of science-based issues and to inform environmental management decisions. This board should separate science inquiries from policy-based inquiries, thereby appropriately focusing dialogue.

- Michigan should develop and institutionalize methods of alternative dispute resolution. In appropriate circumstances, this can result in more cost-effective and efficient conflict resolution.

EXPANDING THE CONVERSATION

This is only the beginning of the conversation on creating a new model of environmental governance for Michigan. This stage of envisioning a better management system is necessarily incomplete because other ideas, people, and ultimately components must be incorporated. These other voices and insights are critical to creating a clear and concise picture of the most appropriate system of environmental stewardship, protection, use, and interaction with the environment.

As a forum, the EAC provided a logical place to start a conversation about a new environmental governance model. Throughout that conversation, EAC and DEQ participants repeatedly asked two sets of questions; one dealing with audience, the other with legitimacy:

1. To whom are we making recommendations?

The issues discussed herein extend far beyond the DEQ. Focusing only on this agency's role in the changing environmental management model will be inadequate to address fundamental issues. Though this agency has a significant role in facilitating environmental interaction, additional contexts and social forces are at play. That said, as the EAC is advisory to the DEQ director, we have principally directed our recommendations to this agency. The EAC strongly recommends this document be reviewed, discussed, and considered in recasting the governance role of the newly re-combined department under this and subsequent administrations. In fact, the EAC believes these recommendations, and more importantly the topic at hand, should ultimately transcend the state as well.

2. Who else will need to be involved in this expanding conversation and how will this be facilitated?

It was not possible to include all DEQ stakeholders in the EAC's process to date. An expanded set of stakeholders must be involved in considering the changing nature of Michigan's system of environmental governance and the wide set of societal and economic forces that underlie it.

In response to these questions, we believe two things are important to note:

1. Many of the EAC recommendations, especially those pertaining to collaboration, the skill-set of the work force, and a focus on outcomes, can and should be embedded into the transition plan for the DNRE.

2. It is necessary to include a wide-range of parties in this conversation to gain additional perspectives on the current state of environmental management and governance and to identify ways to improve and implement new methods. Current circumstances present a unique and timely opportunity to engage in that discussion and arguably an obligation to do so. The EAC suggests the following four items should occur immediately:
 - Policy makers and affected parties should begin focused discussions on the foundational aspects of a new model (i.e. the increased use of outcomes, the legal structure, and the funding structure) and program-level recommendations (i.e. managing relative risk, encouraging innovation, the use of incentives, and engaging voluntary environmental stewardship).
 - The state should work with Michigan State University, possibly under the guidance of the Sustainable Michigan Endowed Project (SMEP) leadership, to form an Environmental Policy Fellows Program similar to the SMEP co-sponsored Water Fellow Program. The SMEP program successfully contributed to educating participants on water withdrawal management in the state. A new fellows program on environmental policy should provide a safe place for discussions of related issues and should include scientists, policy practitioners, and the public sector.
 - Michigan participants should reach out to other states and the federal system for further learning and to gain different perspectives on these issues. New approaches implemented in other states should be evaluated and benchmarked.
 - Coordination and consideration of these and similar efforts should be facilitated through a small but diverse group with ties to academia, business, the professional environmental community, and government.

We believe the work of the EAC has set the stage and identified a profound need for rethinking the governance model for conserving and protecting natural resources and the environment in Michigan. We recognize this roadmap is a unique deliverable for the EAC; but these are unique times with daunting challenges requiring innovative solutions.

The EAC stands ready to assist in meeting those challenges and greatly appreciates the opportunity it was given to be involved early in this process.

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