
EQB continuous improvement process for environmental review

Environmental Quality Board
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Executive Summary

Introduction

The Minnesota Environmental Quality Board (EQB) is made up of nine agency heads, eight public members, and one non-voting member to provide leadership and coordination across agencies on complex, priority environmental issues that are multi-jurisdictional, and multi-dimensional, as well as to provide for opportunities for public access and engagement. EQB oversees Minnesota's environmental review program, which was created in 1973 to provide usable information to communities, decision-makers, and project proposers on the environmental effects of a proposed project. The board is responsible for monitoring the effectiveness of the state environmental review program and is directed by rule to take appropriate measures to modify and improve the effectiveness (Minnesota Rule 4410.0400).

The Minnesota Environmental Quality Board (EQB) wants to ensure that the environmental review program continues to serve the needs of Minnesota well into the future. To this end, the EQB has chosen to build a continuous improvement approach to be more proactive and systematic in making necessary changes. The goal of the continuous improvement process is to identify and prioritize program changes in a strategic, transparent, and efficient manner to support continuous evolution and optimization of the program.

Background

The EQB contracted with Management Analysis and Development (MAD) to help coordinate the development of a continuous improvement process.

MAD consultants conducted research on:

- Recommendations from past EQB evaluations: A review of recommendations from ten reports consisting of past EQB evaluations conducted between 1994 and 2021.
- Notable examples of successes and best practices: Interviews with environmental review program state representatives in California, Massachusetts, Washington, and Wisconsin.
- Best practices in the literature: A focused literature review examining best or emerging practices in environmental review.

Between January and March 2023, MAD and EQB staff gathered input in two main ways:

- A listening session held on Monday, January 30, 2023.
- Written feedback gathered through the online Engagement HQ platform from January through March 2023.

MAD and EQB staff conducted regular meetings to gain feedback from:

- A continuous improvement interagency team.
- Board members at EQB monthly meetings.

MAD produced two summaries for the board on the research and engagement work. At the March board meeting, MAD provided the memo titled “Research summary on the environmental review effectiveness for continuous improvement.” The content of this memo is included in this report in Phase 1: Background research as well as Appendix A: Interview guide for state comparison research, Appendix B: Summary of state comparison data, and Appendix C: Summary of past EQB evaluation recommendations. At the May board meeting, MAD provided an update on the engagement work as well as a list of all of the improvement ideas and responses submitted through the engagement process. A full list of the improvements submitted and their sources is found on the EQB website [EQB May 2023 Packet](#), “List of improvements and their sources” (attachment 2).

The research, engagement, and facilitation efforts with the board and continuous improvement interagency team (CI team) culminated in a proposed continuous improvement process, to be executed at least once a biennium, with the following proposed procedural steps:

1. Solicit ideas for program improvements.
The process will begin with a call for suggestions for programmatic improvements from governmental partners, stakeholders, and the public. Ideas for improvements will be collected through multiple channels including, but not limited to, an engagement HQ online platform, phone calls, emails, and meetings.
2. Review the scope of the improvements.
All improvements must pertain to EQB’s purview or represent ideas that could reasonably fit under EQB purview. Ideas that pertain solely to the authority of other agencies would not move forward in the process. EQB staff will make and document such determinations.
3. Evaluate and score improvements using a program effectiveness prioritization matrix.
EQB staff will run scoped-in improvements through the prioritization matrix, scoring improvement ideas based on how they meet the criteria for program effectiveness. Improvements will be ordered based on how they contribute to overall program effectiveness.
4. Plan for implementation of improvements.
EQB staff will consider logistics and resource needs for undertaking the improvements that met the most criteria for program effectiveness. Staff will present this information to the Environmental Review Implementations Subcommittee (ERIS) and make a recommendation for which improvements to act upon.
5. ERIS completes review of implementation planning.
ERIS will review the improvement ideas, their matrix scoring, and the implementation considerations. ERIS will make a recommendation to the board on which improvement projects the EQB should implement.
6. Board completes review and directs staff to implement selected projects.
The board will review ERIS’s recommendation and reach a consensus on which improvements EQB would like to focus on for a time period as determined by the board.

Benefits of a CI process

Regular implementation of this standardized six-step process will provide consistency in assessment and implementation of environmental review program improvement suggestions. The process steps are

comprehensive, action-oriented, and inclusive. They are the result of over six months of research, engagement, and board member feedback.

This process will:

- Provide clarity on the board’s definition of an effective program, through the criteria in the prioritization matrix.
- Allow the board to clearly identify areas of improvement and maintain knowledge of needed improvements over time.
- Create a standardized way of prioritizing needed improvements.
- Provide a transparent evaluation process showing why improvements are or are not pursued.

CI process board resolution

The board approved and adopted a resolution on June 21, 2023. The resolution is stated below:

The board resolved to adopt and use the following continuous improvement procedural steps at least once a biennium for the environmental review program:

1. EQB staff solicit ideas for program improvements.
2. EQB staff review the scope of the improvements.
3. EQB staff evaluate and score improvements using a program effectiveness prioritization matrix.
4. EQB staff plan for implementation of improvements.
5. ERIS completes review of implementation planning.
6. Board completes review and directs staff to implement selected projects.

These steps will be re-evaluated at least every four years, so the board may make any necessary adjustments.

CI process step 3 includes Program Effectiveness Prioritization Matrix

A key part of the continuous improvement process and a focus with this project is the Program Effectiveness Prioritization Matrix version 3.0 with nine criteria of an effective environmental review program in Minnesota upon which to base the prioritization. The matrix also includes scoring instructions; each criterion will receive a score of either 2 points, 1 point, or 0 points.

Matrix component: Criteria of an effective environmental review program in Minnesota

1. **Scientific integrity:** Considering, encouraging, or making available the most up-to-date, reputable, and complete science-based information for analysis of environmental and human health impacts or mitigation

2. **Environmental protection:** Using information in government decisions to safeguard the environment and people in Minnesota
3. **Measurability:** Identifying quantifiable data for understanding project and/or environmental review program impacts to human health and the environment
4. **Inclusivity:** Inclusion of voices that have historically been marginalized, excluded, or disproportionately impacted by pollution and the ability for those voices to influence the conversation so that disproportionate impacts are reduced going forward; engagement and outreach is emphasized for environmental justice areas¹ making public participation easier, more systematic, and more intentional
5. **User-friendliness:** Clear communication, clear procedures, or understandable information to interact with environmental review; ease or efficiency to thoroughly and accurately complete environmental reviews
6. **Accessibility:** Access to decision-makers and processes so that the public can provide meaningful input into decision-making and receive explanations and updates for why certain decisions are made
7. **Consistency:** Uniformity of environmental review processes thereby promoting dependability and reliability in environmental reviews; eliminates ambiguities; promotes comparability
8. **Quality assurance:** EQB's ability to verify accuracy and completeness of information used in the environmental review program
9. **Accountability:** The project proposer's, Responsible Government Unit's (RGU's), and board's ability to better demonstrate meeting the program's obligation to the public and to the environment through reporting, data sharing, transparently explaining decisions, taking responsibility for actions, and being able to explain, justify, and take consequences for them

Matrix Component: Scoring instructions

Each criterion will receive a score of either 2 points, 1 point, or 0 points.

2 Points: Does an improvement directly or fully increase a criterion as defined below? Award 2 points.

1 Point: Does an improvement indirectly or partially increase a criterion as defined below? Award 1 point.

0 Points: Does an improvement maintain or not address a criterion? Award 0 points.

¹ "Environmental justice areas" has the same definition as given in MN Stat. 115A.03.

Introduction

The Minnesota Environmental Quality Board (EQB) is made up of nine agency heads, eight public members, and one non-voting member to provide leadership and coordination across agencies on complex, priority environmental issues that are multi-jurisdictional, and multi-dimensional, as well as to provide for opportunities for public access and engagement. As a public-facing board, the EQB strives to engage Minnesotans and provide greater access to conversations regarding the future of our environment.

EQB oversees Minnesota's environmental review program, which was created in 1973 to provide usable information to communities, decision-makers, and project proposers on the environmental effects of a proposed project. The board is responsible for monitoring the effectiveness of the state environmental review program and is directed by rule to take appropriate measures to modify and improve the effectiveness (Minnesota Rule 4410.0400).

Environmental review objectives, Minnesota Rule 4410.0300

The objectives of the environmental review program as stated in Minnesota Rule are:

Subpart 4. Objectives

The process created by parts 4410.0200 to 4410.6500 is designed to:

- A. provide usable information to the project proposer, governmental decision makers and the public concerning the primary environmental effects of a proposed project;
- B. provide the public with systematic access to decision makers, which will help to maintain public awareness of environmental concerns and encourage accountability in public and private decision making;
- C. delegate authority and responsibility for environmental review to the governmental unit most closely involved in the project;
- D. reduce delay and uncertainty in the environmental review process; and
- E. eliminate duplication.

Historically, program updates have occurred through legislative direction, mandatory category evaluation, and other initiatives. However, these program improvement initiatives have occurred often in response to a specific issue rather than a comprehensive and forward-looking approach to adapting the program to future needs. The EQB wants to ensure that the environmental review program continues to serve the needs of Minnesota well into the future. To this end, the EQB chose to build a continuous improvement approach to be more proactive and systematic in making necessary changes. The goal of the continuous improvement process is to identify and prioritize program changes in a strategic, transparent, and efficient manner to support continuous evolution and optimization of the program.

In fall 2022, the EQB contracted with Management Analysis and Development (MAD) for management consulting services to help coordinate the development of a continuous improvement process.

Research and engagement

MAD provided consulting services on research and engagement to identify best practices and recommendations to inform the development of the CI process for the EQB environmental review program.

MAD consultants conducted research on:

- Recommendations from past EQB evaluations: A review of recommendations from ten reports consisting of past EQB evaluations conducted between 1994 and 2021.
- Notable examples of successes and best practices: Interviews with environmental review program state representatives in California, Massachusetts, Washington, and Wisconsin.
- Best practices in the literature: A focused literature review examining best or emerging practices in environmental review.

MAD consultants and EQB staff gathered engagement input in two main ways:

- A listening session held on Monday, January 30, 2023.
- Written feedback gathered through the online Engagement HQ platform from January through March 2023.

Facilitation and project output

The research and engagement work resulted in identifying what an effective ER program looks like and obtaining input to create a list of potential improvements. MAD facilitated discussions that supported the development of a decision matrix and criteria for prioritizing improvements.

MAD and EQB staff facilitated regular meetings to gain input on the development and refinement of the criteria and matrix from:

- A continuous improvement interagency team composed of EQB member agencies' environmental review subject matter experts.
- Board members at EQB monthly meetings.

This effort culminated in a new continuous improvement process for the environmental review program.

Approach

Phase 1: Background research

This section contains the initial background research MAD conducted between October and December 2022. The full text of the findings and Appendix A, Appendix B, and Appendix C were presented to the EQB Board on March 15, 2023.

Methods

Between October and December 2022, MAD consultants conducted research on:

- Recommendations from past EQB evaluations: A review of recommendations from 10 reports consisting of past EQB evaluations conducted between 1994 and 2021 (Appendix C contains full list of reports).
- Notable examples of success and best practices: Interviews with environmental review program state representatives in California, Massachusetts, Washington, and Wisconsin.
- Best practices in the literature: A focused literature review examining best or emerging practices in environmental review.

Findings

Overall findings and considerations

Over the last few decades, various parties have recommended that EQB improve the efficiency of the environmental review process and procedures. In response, EQB has conducted rule changes, process revisions, and issued guidance over the years in an effort to improve implementation of the environmental review process.² Based on MAD's analysis of past evaluation recommendations from 1994 to 2020, EQB reported having taken some actions to resolve many of the recommendations as of the time of this research (Appendix B). This report summarizes recommendations from past evaluations that have not been resolved or have been partially resolved (pages 3 to 5). They include a wide range of recommendations including strengthening the environmental review program through statutory change and structural reform, changing environmental review requirements and mandatory categories, and updating environmental review processes and procedures.

Additionally, based on MAD's research, there are several overarching themes and considerations that emerged for continuous improvement of the Minnesota environmental review program.

² For a full list of rule changes from 1990 to 2009, refer to Minnesota Pollution Control Agency, "Environmental Review Streamlining Legislative Report," December 2009. Accessed at https://www.eqb.state.mn.us/sites/default/files/documents/MPCA%20Environmental%20Review%20Streamlining%20Report_0.pdf.

- Minnesota’s environmental review program governance structure and authority differs from other states’ environmental review programs.** The environmental review program in Minnesota is housed within EQB, an interagency coordinating body that includes nine state agency leaders and eight public members, one from each Congressional District. Other states studied for this project including California, Massachusetts, Washington, and Wisconsin, house their environmental review programs within cabinet agencies or the Office of the Governor. Similar to Minnesota, the oversight of the environmental review program is separated in the states of California and Massachusetts, while in Washington State the oversight entity is the Department of Ecology, which can also act as a lead or co-lead for certain types of project reviews. There is no single oversight entity in the state of Wisconsin, however the main environmental review compliance coordinator is housed within the Department of Natural Resources, and additional state environmental policy act coordinators are located in all state agencies. A significant difference between states studied for this research is the degree of oversight authority. In Massachusetts the environmental review program oversight entity (the Massachusetts Environmental Policy Act Office) conducts review for projects that require one or more state agency actions, including determining the adequacy of documents submitted, pre-filing meetings with project proponents, public disclosure and consultation, and site visits. The states interviewed for this research also have relatively more staff dedicated to the environmental review program oversight than Minnesota (for more details refer to pages 6 to 9).
- Strengthen information sharing, public disclosure, and engagement mechanisms for environmental review with the public and tribes in Minnesota.** Based on MAD’s focused literature review, public disclosure of a project’s primary environmental effects is a critical objective of environmental review. Previous efforts to improve the environmental review program have also stressed the importance of improving public engagement and tribal engagement in the environmental review process in Minnesota (pages 3 to 5). MAD’s interviews with other states found that California and Washington have made program improvements for public disclosure, public engagement, and tribal consultation, through rule change as well as investment in technology. For example, both California and Washington have moved to online submission and publication of environmental review documents (for more details on public disclosure and engagement, refer to pages 6 to 7). California has also updated guidance on tribal engagement for projects that may impact cultural and historical resources. Similarly, the Washington State environmental review process requires consultation with tribes to ensure protection of cultural and historical resources (for more details on tribal consultation and protection of cultural and historical resources, refer to page 7).
- Consider comprehensive updates to Minnesota’s environmental review program, process, rules, and guidance on emerging issues.** MAD consultants found that the federal government³ and many states are taking action to address emerging issues such as climate change impacts, including greenhouse gas (GHG) emissions, resiliency, adaptation, as well as environmental justice. The states of California and

³ In January 2023, the White House Council on Environmental Quality (CEQ) released federal guidance to consider GHG and climate to better evaluate and disclose climate impacts during environmental reviews. For information about the guidance, refer to <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>

Massachusetts have updated environmental review rules and requirements to account for climate change and environmental justice legislations (for more details, refer to pages 9 to 10).

Detailed findings

This section will address recommendations from past EQB evaluations, notable examples of success and best practices from other states, and best practices in the literature and environmental review practice.

Recommendations from past EQB evaluations

Review of past EQB evaluations

MAD reviewed EQB evaluations conducted between 1994 and 2021 and found 51 recommendations that offered suggestions on a wide range of topic areas (Appendix C). For this analysis, MAD excluded four recommendations that were identified by EQB staff as those that EQB already has authority to do or is not within EQB purview.

Figure 1 highlights the broad themes of those recommendations, a majority of which appeared to center around Environmental Assessment Worksheet (EAW) and Environmental Impact Statement (EIS) requirements and overarching environmental review program and process changes. Other, less common themes found were related to public engagement and disclosure, EQB authority and structure, administrative and judicial appeal process, and climate change-related guidance. A full list of recommendations including their source and status in terms of implementation, can be found in Appendix C.

Figure 1. Broad themes of recommendations from past EQB evaluations (N=51)



Unresolved or partially resolved recommendations

MAD shared the list of these recommendations with EQB staff who have extensive and long-term knowledge of the environmental review program to confirm the statuses of these past recommendations. As shown in Table 1 and Figure 2, EQB reported having taken actions on 20 recommendations, as of the time of this study. In their review of the recommendations, EQB staff only checked for whether or not a recommendation has been implemented or resolved and not on the feasibility of a recommendation.

Figure 2. Status of recommendations by theme (n=51)

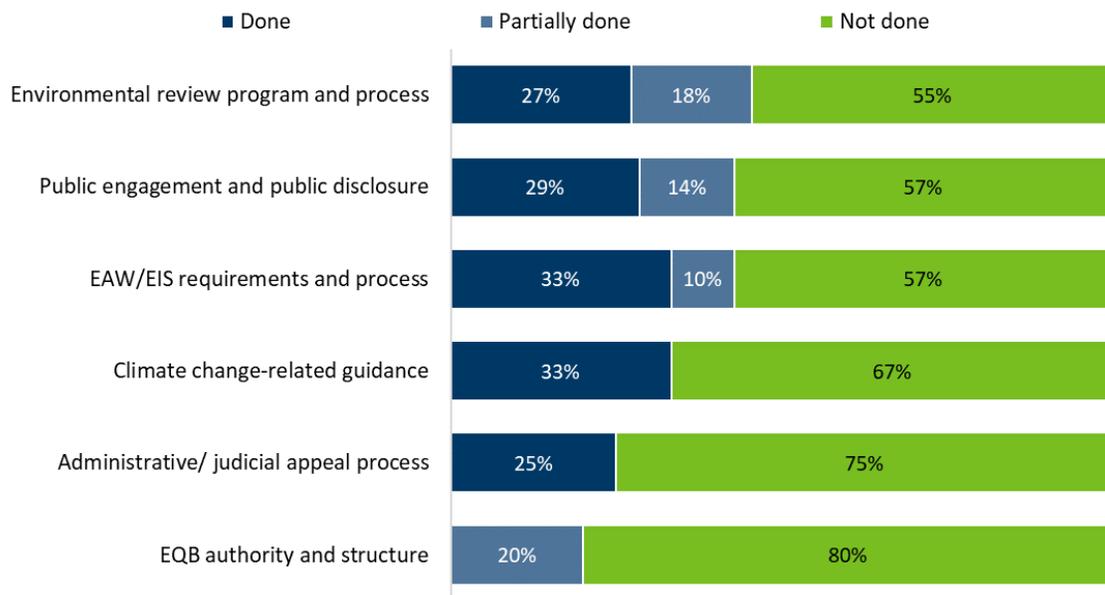


Table 1. Status of recommendations by theme (n=51)

Themes	Done	Partially done	Not done	Total
EAW/EIS requirements and process	7	2	12	21
Environmental review program and process	3	2	6	11
Public engagement and public disclosure	2	1	4	7
EQB authority and structure	0	1	4	5
Administrative/ judicial appeal process	1	0	3	4

Themes	Done	Partially done	Not done	Total
Climate change-related guidance	1	0	2	3
Total	14	6	31	51

MAD reviewed the themes or sets of recommendations from past evaluations that are unresolved or partially resolved. The following list summarizes these recommendations.

- **EAW/ EIS requirements and process:** Recommendations from previous evaluations include a wide variety of specific recommendations to update the EAW/ EIS requirements and forms such as, including analysis of alternatives to the project, updating as needed, guidance and rules to developing EAW, inclusion of more context and mitigation discussion in all EAWs, and so forth.
- **Environmental review program and process:** Recommendations from previous evaluations include expanding scope of mandatory categories, expanding the use of alternative review processes, issuing guidance on emerging trends such as human health impacts, reviewing all environmental documents for completeness, providing technical assistance to RGUs in the implementation of environmental review, expanding the capacity of the environmental review program through increased funding.
- **Public disclosure and engagement:** Recommendations from previous efforts include, improving meaningful engagement in the environmental review process through improved understanding of public and tribal engagement best practices, requiring RGUs to notify the public of opportunities for participation in the environmental review process through various means, disclosure of final course of action chosen by the permitting agency, and including comprehensive information about a project’s major impacts in the *EQB Monitor*.
- **EQB authority and structure:** Recommendations from past reports include strengthening EQB oversight and authority through statutory change and structural reform for implementation of environmental review, developing penalty structures when project proponents fail to conduct review, and amending Minnesota Environmental Policy Act of 1973 (MEPA) to give EQB authority to intervene and reverse RGU decisions for state and local projects that are not consistent with MEPA.
- **Administrative/ judicial appeal process:** Recommendations include, halting construction of projects until judicial appeal process has been completed, and judicial appeals to be conducted in jurisdictions where the project is located.
- **Climate change-related guidance:** Recommendations from previous evaluations include, updating guidance or regulations for RGUs to evaluate the significance of greenhouse gas emissions to account for cumulative impact, and providing guidance to RGU’s in calculating climate costs.

Notable examples of success and best practices from other states

Methods

In close consultation with EQB staff, the consultants developed a list of interview questions for state representatives, which can be found in Appendix A. MAD conducted interviews with representatives of environmental review programs in California, Massachusetts, Washington, and Wisconsin. The EQB selected these states for comparison research because they have state environmental policy acts similar to the National Environmental policy Act (NEPA) and have progressive environmental review programs. Appendix B summarizes how the four states administer their environmental review programs and how they compare to Minnesota's environmental review program. Unless otherwise noted, the information below and in Appendix B are from interviews with environmental review program representatives from these states.

The Minnesota environmental review program differs considerably from other state environmental review programs

The states interviewed for this research have enacted state environmental policy acts, similar to NEPA that established environmental review processes in those states. In Minnesota, the EQB, an interagency coordinating body that includes nine state agency leaders and eight public members, one from each Congressional District, is charged with administering the environmental review program. The board has three full time employees to administer the program. In other states the administration and oversight of environmental review differed and is located within cabinet agencies or the Office of the Governor. In California, the oversight entity is the Governor's Office of Planning and Research (OPR). In Massachusetts, the environmental review program oversight is located in the Massachusetts Environmental Policy Act Office that is part of the Executive Office of Environmental Affairs (EEA). In Washington, the oversight entity for the environmental review program is the Department of Ecology. In Wisconsin, there is no oversight entity, however, the state's environmental review compliance coordinator is situated within the Department of Natural Resources.

All states interviewed highlighted that all state agencies (including permitting agencies) and in certain cases local government units have responsibilities for implementation of the environmental review processes according to their state's environmental policy act regulations. For example, In Washington State, the Department of Ecology oversees the rules and guidelines for the state's environmental policy act and is a lead agency for certain type of projects. Therefore, they can also conduct reviews for those projects. In Wisconsin, while there is no single oversight entity, but there are environmental review coordinators (Wisconsin Environmental Policy Act coordinators) in all state agencies. Additionally, the states interviewed shared a similar overall goal of minimizing environmental impacts of projects, but the environmental review procedures varied among states.⁴

The oversight entities play varying roles in the environmental review process including writing rules and issuing guidance, as well as establishing mechanisms for public input in environmental review, and coordinating review of projects. Some notable differences include the degree of authority to coordinate state level review in California and Massachusetts. For example, in Massachusetts, the Secretary of Environmental Affairs (the oversight entity), has the authority to determine adequacy of environmental review documents and compliance

⁴ MAD's comparison research was limited in scope to understanding the environmental review program and did not explore the environmental review processes or procedures of other states in detail.

with the state’s environmental policy act. Additionally, the Massachusetts Environmental Policy Act Office (the staff of the environmental review program oversight entity) provides pre-filing information to project proponents,⁵ and assigns analysts to review the project and conduct site visits when Massachusetts Environmental Policy Act review of a project is initiated.⁶ In California, once environmental review documents are submitted by a lead agency, the Governor’s Office of Planning and Research (the oversight entity) coordinates review of those documents by other state agencies by ensuring appropriate parties provide comments, and makes those comments available for lead agencies⁷ to consider.⁸

While none of the states interviewed had a formal coordinating body similar to EQB, all state representatives discussed coordination and collaboration with lead or responsible agencies (including permitting agencies and local government agencies) as a key responsibility. They include wider program coordination efforts including work groups, commissions, advisory committees, and technical assistance and consultation on a case-by-case or ongoing basis. For example, in Massachusetts there are standing collaborative meetings between the oversight entity (Executive Office of Environmental Affairs), the state executive office of housing, and the department of transportation for stronger collaboration on certain projects (e.g., real estate). Of the states interviewed, only Washington (Department of Ecology) has both responsibilities to write rules and guidance and also co-leads reviews with local agencies on certain types of project proposals.

The states interviewed for this research have a wide range of Full-Time Equivalent (FTEs) staff dedicated to their environmental review program coordination in their oversight entities, including 10 in Washington, six in California, five in Massachusetts and one main environmental review compliance coordinator in Wisconsin. These programs have considerably more FTEs compared to Minnesota which has three FTEs dedicated to the environmental review program.

States have made improvements to their programs to better align with their objectives of improving public disclosure and participation in the environmental review process.

Both California and Washington State have made a significant investment recently to upgrade and modernize mechanisms for submission and disclosure of environmental review documents.

- In California, the State Clearing House (SCH), a division of the Governor’s Office of Planning and Research, coordinates the state-level review of documents prepared under the California Environmental Quality Act (CEQA). In addition to advising government agencies and the public on the environmental

⁵ Massachusetts Environmental Policy Act (MEPA) regulations define a proponent as “an agency or person, including a designee or successor in interest, that undertakes, or has significant role in undertaking, a project.” For more details, refer to <https://www.mass.gov/regulations/301-CMR-1100-mepa-regulations#11-02-definitions>

⁶ Environmental notification form (ENF) preparation and filing, Massachusetts Environmental Policy Act Office. Accessed on February 21, 2023, at <https://www.mass.gov/guides/environmental-notification-form-enf-preparation-and-filing#-preparing-an-enf->

⁷ The California Environmental Quality Act defines lead agency as “the public agency that has the primary responsibility for carrying out or approving a project.” For more information, refer to <https://ceqaportal.org/tp/Lead%20Agency%20Responsible%20Trustee%2003-23-16.pdf>

⁸ Review process of draft environmental documents, Governor’s Office of Planning and Research. Accessed February 15, 2023, at <https://opr.ca.gov/sch/document-submission.html>

review process, SCH is also responsible for coordinating the review and distribution of environmental review documents and maintaining records of these documents for public access. In 2020, the SCH transitioned to two online platforms for submission (*CEQA Submit*) and publication (*CEQAnet*) of environmental documents. For submission of documents, users must register on *CEQA Submit* and receive a user guide to be able to submit their documents. *CEQAnet* is a searchable database containing environmental documents submitted for review since 1990. It contains summaries of environmental impact reports, statements, and other types of CEQA documents, as well as some federal NEPA documents.

- The Washington Department of Ecology also made similar updates to their program to allow for more timely submission and publication of the State Environmental Policy Act (SEPA) documents and NEPA documents.⁹ Lead agencies register to access an online portal to submit their environmental documents instead of emailing them to the department. The department also makes available resources on how to register for SEPA record submission, including instruction videos, and training opportunities. Once documents are submitted, the department reviews them prior to publishing in the *SEPA Register*, which is a searchable database that anyone can search and view environmental documents submitted since 2020.

States are taking steps to address emerging issues such as climate change, environmental justice, and cultural and historical impacts within environmental review.

All state representatives discussed emerging issues and trends for their programs such as climate change, GHG emissions, resilience and adaptation, and environmental justice. States have taken several steps to address these issues, including adopting legislation and streamlining environmental review to statutory updates. Specific examples include:

- Since 2010, Massachusetts has adopted environmental review protocols around GHG emissions, climate change, and environmental justice to better align with the state's climate change and environmental justice legislations. Effective 2022, an environmental impact report is required for any project that impacts air quality within one mile of an environmental justice community as well as advance notification and meaningful community engagement of the environmental justice populations.¹⁰ The Massachusetts environmental review program provides various resources to project proponents, including climate assessment and environmental justice mapping tools to be included in environmental review documents.
- In 2018, California adopted amendments to the CEQA guidelines aimed at improving the analysis of GHG emissions and climate change impacts.¹¹ The updated guidelines direct lead agencies to analyze the GHG emissions of proposed projects, focus on the projects' effects on climate change, consider an

⁹ Statewide SEPA Register, Department of Ecology. Accessed January 6, 2022, at <https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-Register>.

¹⁰ Massachusetts Environmental Policy Act Office, Executive Office of Energy and Environmental Affairs. Accessed January 6, 2022, at [https://www.mass.gov/guides/environmental-justice-protocols-and-resources#-environmental-justice-\(ej\)-protocols-](https://www.mass.gov/guides/environmental-justice-protocols-and-resources#-environmental-justice-(ej)-protocols-).

¹¹ 2018 CEQA Guidelines Update, Governor's Office of Planning and Research. Accessed January 6, 2022, at <https://opr.ca.gov/ceqa/guidelines/updates.html>.

appropriate analysis timeframe for the project, and consider developing scientific knowledge and state regulatory schemes, among others.

- At the time of interviews, Washington Department of Ecology was in the process of conducting rulemaking changes on GHG assessments to address analysis and mitigation of GHG emissions in environmental review of industrial and fossil fuel projects.¹² The rulemaking is anticipated to streamline GHG emission analysis with rulemaking changes being conducted for Washington State’s climate and clean fuel standard legislations.

States are taking steps to better assess the potential impacts to cultural and historical resources and improve tribal consultation in environmental review.

- In California, the Governor’s Office of Planning and Research issued updated guidelines for tribal consultation in accordance with statutory revisions related to impacts to tribal cultural resources in 2014.¹³ The updated guidelines direct public agencies to consult with California Native American tribes during the CEQA process for projects that tribes request consultation on and is “traditionally and culturally affiliated with the geographic area of the proposed project.”¹⁴
- In Washington State, the State Environmental Policy Act (SEPA) checklist requires projects to disclose potential impacts to historic and cultural resources.¹⁵ The checklist requires proposer to describe consultation with tribes to assess the potential impacts to cultural and historic resources. The Department of Ecology provides resources, including contact information, maps of federally recognized tribes in the state, and other materials to support tribal consultation.

Other environmental review improvements

- In 2014, Wisconsin conducted a rule change to strategically refocus the Department of Natural Resources environmental review process and procedures. Mainly, the agency stopped creating an “environmental assessment,” a document outlining the decision not to do an environmental impact assessment.¹⁶

Successes and challenges

As part of the interviews, MAD consultants also asked state representatives to share successes and challenges of their environmental review program. As highlighted above, several states pointed to significant changes that

¹² Washington Department of Ecology. Accessed January 6, 2022, at <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-445>.

¹³ Tribal Cultural Resources (AB 52), Governor’s Office of Planning and Research. Accessed, January 6, 2022, at <https://opr.ca.gov/ceqa/tribal/>.

¹⁴ Tribal Cultural Resources, Ibid.

¹⁵ SEPA checklist guidance, Section B: Historic and cultural preservation. Accessed, February 21, 2023, at <https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p>

¹⁶ MAD has not been able to get additional details about the implications of this rule change. According to Ma *at al*, 2009 report referenced in this research (page 12), Wisconsin has adopted mandatory thresholds for preparation of Environmental Impact Statements (EIS) for projects that may significantly impact the quality of the environment.

have been made to their environmental review programs to improve information sharing, public engagement, and strengthening the review process to streamline it with policy updates in their states, including addressing emerging issues such as climate change and environmental justice. Additional notable examples shared include:

- According to Wisconsin state representatives, the 2014 rule change helps the agency be more strategic with the limited resources they have for environmental review. It has also created efficiencies by freeing up resources for evaluating environmental impact of projects that require greater attention. The shift to strategic analysis helps the agency be more proactive in its environmental analysis.
- The Washington state environmental policy act allows lead agencies to deny a project if there are significant adverse impacts to cultural and historical resources. Lead agencies can work with proposers on mitigation, but it also provides authority to lead agencies to deny or condition a permit.
- Massachusetts's program allows for consolidation of the state environmental review process within the executive office, which provides efficiencies for reviewing environmental documents.
- In California and Washington State, the move to shift environmental submission and publication online has led to efficiencies as well as improved record management by creating an online repository of environmental documents.

Several state representatives also discussed challenges, including:

- The small size of teams dedicated to the environmental review program
- Lack of formal interagency coordination bodies
- Subject-matter limitations within the oversight entity, with existing staff not being technical experts in all areas they have to review
- For topics such as climate change, limited ability to provide expert review when analysis is required, because these are not topics regulated by a lead agency or permitting agency

Best practices in the literature and environmental review practice

The following section summarizes best practices for environmental review in the literature. MAD collected this information from a focused review of information available through federal and state government websites, as well as publicly available information from academic sources.

Public disclosure and engagement

Public disclosure and engagement is an integral objective of environmental review. The importance of public engagement and involvement in environmental review, as well as how public engagement can strengthen environmental review at both the federal and state level, is well established in the literature.¹⁷ Nearly all states that have state environmental policy acts require public engagement in the environmental review process. Responsible government units or lead agencies are required to inform the public of projects under review and

¹⁷ Zhao Ma, Dennis R. Becker, and Michael A. Kilgore, "Characterising the landscape of state environmental review policies and procedures in the United States: a national assessment," *Journal of Environmental Planning and Management* 52, no. 8 (December 2009): 1035–1051, <https://doi.org/10.1080/09640560903327591>.

provide opportunities for members of the public to comment through mail, email, or public hearings. Several states, including Minnesota, also allow a public petition process for projects that may not require a review.

Cumulative environmental impacts

Cumulative environmental impacts or effects, as defined by the Minnesota Rules 4410 is “the impact on the environment that results from incremental effects of the project in addition to other past, present, and reasonably foreseeable future projects regardless of what person undertakes the other projects.”¹⁸ It is a “process of systematically analyzing and evaluating a proposed project’s cumulative environmental impacts.”¹⁹ In their 2009 study examining state environmental review programs for integration of cumulative impact assessment, Ma, Becker and Kilgore (2009) found that amongst the 37 states²⁰ that have some form of formal environmental review policies and procedures, a majority of states require cumulative impact assessments as part of the review process albeit to varying extents.²¹ These variations include level of specific procedural requirements and the implementation of the requirements. The study also found that state environmental review programs face challenges in effectively implementing cumulative impact assessments. The study recommended that states develop explicit guidelines that provide step-by-step direction for predicting and evaluating potential cumulative impacts, establish state oversight over assessment-related activities, increase collaboration between state agencies to share information and technical resources, develop policies that enable sharing assessment costs between project proposers and responsible government units.

Health impact assessment

A growing body of research points to the importance of integrating health impact risk assessments within environmental review.²² In a 2012 study, Minnesota Department of Health (MDH) describes health impact assessments as “a systematic process that uses an array of data sources and analytical methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program or project on the health of a population and the distribution of those effects within the population.”²³ In the same study, MDH found that the NEPA as well as several state statutes on environmental review supports the incorporation of

¹⁸ Minnesota Rules, part 4410.0200 subpart 11, item A

¹⁹ Zhao Ma, Dennis R. Becker, and Michael A. Kilgore, “The integration of cumulative environmental impact assessments and state environmental review frameworks”(January 2009), <https://conservancy.umn.edu/bitstream/handle/11299/107768/201.pdf;sequence=1>. Accessed January 6, 2023.

²⁰ These 37 states include the 16 states that have state environmental review policy acts (or tier 1 states as described by the authors of the study) as well as 21 states which do not have a government oversight entity and environmental review only applies to certain activities as described by state statutes or rules. For more information, refer to Ma et al, 2009.

²¹ Ma et al, Ibid.

²² Rajiv Bhatia and Aaron Wernham, “Integrating human health into the environmental impact assessment: an unrealized opportunity for environmental health and justice”, *Environmental Health Perspectives*, 118, no. 8 (August 2008): 991-1000, <https://doi.org/10.1289/ehp.11132>

²³ Minnesota Department of Health, 2012, “Incorporating Health and Climate Change into the Minnesota Environmental Assessment Worksheet”, <https://www.health.state.mn.us/communities/environment/places/docs/eawreport.pdf>
Accessed January 6, 2023

health impact assessments in the review process. MDH found that several states, including California, Massachusetts, New York, and Washington have taken steps to incorporate health impact assessments within environmental review. MDH recommended that EQB revise and update environmental review guidelines and processes to better incorporate health in Minnesota’s environmental review process.

Environmental justice

Federal statutes and regulations require examination of environmental justice within the federal environmental review process as well as state and local agencies that receive federal assistance to incorporate some components of environmental justice in their programs.²⁴ Environmental justice within environmental review allows for a more comprehensive analysis of “potential adverse significant impacts, alternatives, and mitigation methods that would protect communities of color, low-income communities, and other communities whose social demographics lead to increased exposure to pollutants and serious disparate impacts.”²⁵ Several states, including New Jersey, Colorado, and Massachusetts have taken steps to protect communities disproportionately impacted by effects of pollution and environmental threats, such as through adoption of policies that minimize environmental health impacts, reforming land use and development policies, and increasing opportunities for communities to engage in environmental decision-making processes.²⁶ These efforts have resulted in the creation of variety of tools to improve data collection and identification of communities, such as EPA’s *EJSCREEN*, California’s *CalEnviroScreen*, Maryland’s *MD EJSCREEN*, Washington’s *Environmental Health Disparities Map*.

Phase 2: Recommendations from engagement efforts

Methods

Between January and March 2023, EQB and MAD gathered input in two main ways:

- One listening session held on Monday, January 30, 2023
- Written feedback through Engagement HQ27 between January and March 2023

Participants in engagement efforts were guided to provide responses to the following questions:

- What are the characteristics of an effective environmental review program?
- What suggestions do you have for improving the effectiveness of the environmental review program?

²⁴ Alan Ramo, “Environmental justice as an essential tool in environmental review statutes—a new look at federal policies and civil rights protections and California’s recent initiatives”, *19 Hastings West Northwest J. of Env’tl. L. & Pol’y* 41 (2013), Available at:

https://repository.uchastings.edu/hastings_environmental_law_journal/vol19/iss1/4

²⁵ Ramo, *Ibid*.

²⁶ National Conference of State Legislatures, “State and Federal Environmental Justice Efforts”, <https://www.ncsl.org/environment-and-natural-resources/state-and-federal-environmental-justice-efforts>, Accessed January 6, 2023.

²⁷ Engagement HQ is an online public engagement tool that provides a range of formats to gather input from interested parties. For more information, refer to <https://granicus.com/solution/govdelivery/engagementhq/>.

- What is the environmental review program doing well or not well?
- What frustrations do you have about the environmental review program?
- If you had a magic wand, what one thing would you do to improve the environmental review program?

Several themes emerged from the feedback through both engagement efforts. Using an inductive approach, MAD coded feedback and recommendations and categorized comments based on different themes that emerged from the responses. MAD applied multiple themes to comments that fit into more than one theme. MAD and EQB reviewed and recoded subsets of comments as necessary to ensure consistency in coding for major themes and sub-themes.

MAD organized this summary into two broad categories with the purpose of identifying:

- Topics or broad work areas that EQB should prioritize for improvement
- Values or criteria for improving environmental review effectiveness

Engagement effort participants

EQB received over two hundred comments from both engagement efforts with suggestions for improving environmental review. These include suggestions and recommendations from:

- **Thirteen respondents who participated in the January listening session:** These respondents included environmental review technical professionals, representatives of environmental advocacy or nonprofit organizations, and representatives of local and state government agencies who perform environmental review.
- **One hundred twenty-four participants who provided input through Engagement HQ:** These respondents include technical professionals involved in performing or authoring environmental review, members of the public who attend public meetings or have signed or organized petitions, representatives of tribal government, and representatives of environmental advocacy or nonprofit organizations.

Figure 3. Location of participants who provided input through Engagement HQ²⁸

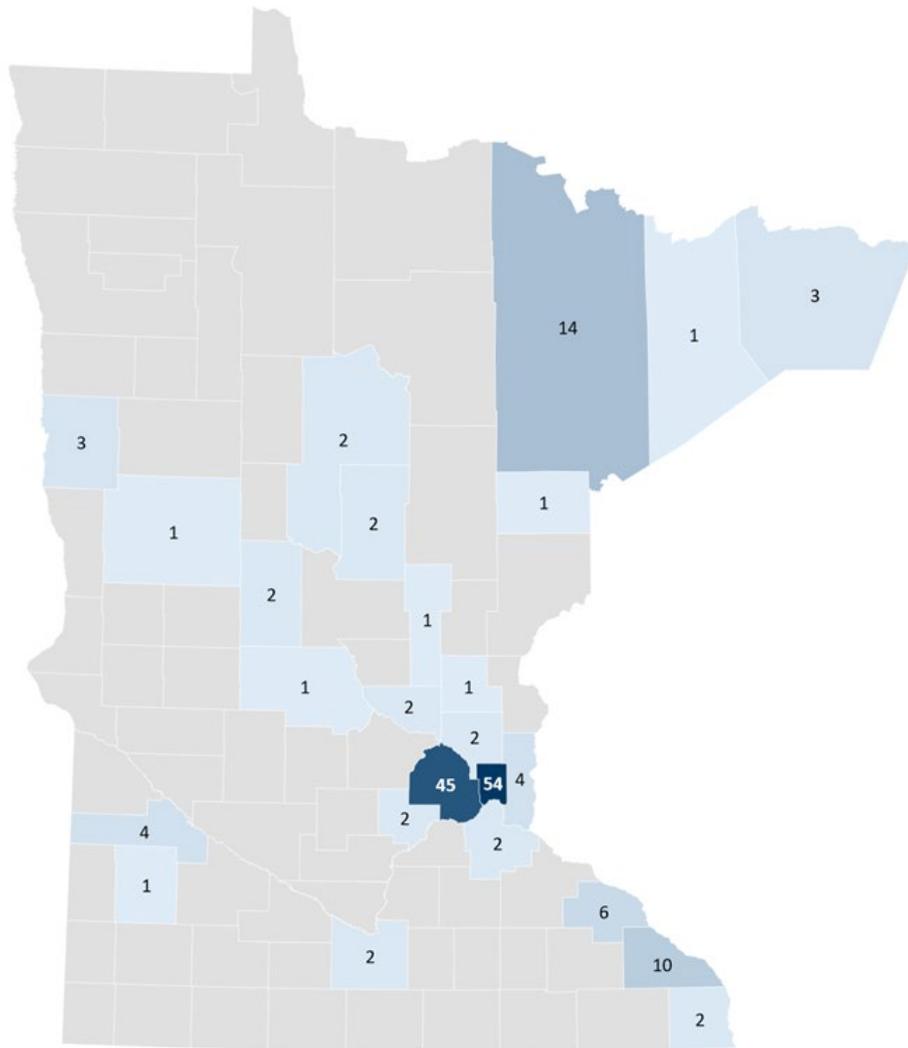


Table 2. Location of participants who provided input through Engagement HQ

County	Count of ZIP Codes registered
Anoka County	2
Blue Earth County	2
Carlton County	1
Carver County	2
Cass County	2
Clay County	3
Cook County	3
Crow Wing County	2

²⁸ When participants registered to provide input through Engagement HQ, they were asked to provide their zip code. MAD used the zip code data to summarize the information in this chart by counties. Additionally, three respondents who provided input provided zip codes for North Dakota and Wisconsin.

County	Count of ZIP Codes registered
Dakota County	2
Hennepin County	45
Houston County	2
Isanti County	1
Lake County	1
Lyon County	1
Mille Lacs County	1
Otter Tail County	1
Ramsey County	54
Sherburne County	2
St. Louis County	14
Stearns County	1
Todd County	2
Wabasha County	6
Washington County	4
Winona County	10
Yellow Medicine County	4
Total	168

How to interpret the summary

This analysis provides the frequency that each theme was used for a response. While some respondents provided general suggestions or identified specific problems, others included multiple ideas that were categorized into multiple themes. Additionally, some individual suggestions or identified problems fit into more than one theme.

Throughout this document, select statements from respondents are included in *italics*. The statements reflect the respondents' sentiment and content, but MAD lightly edited some responses for spelling, clarity, and length.

In addition to using the frequency of number of comments, this report uses the terms below to describe how many respondents talked about a specific theme or sub-theme:

- **A few** is generally two or three.
- **Several** is generally more than a few, but less than one-fourth.
- **Most** is more than half, but less than two-thirds.
- **Majority** is more than two-thirds.
- **Nearly all** is greater than 90 percent.

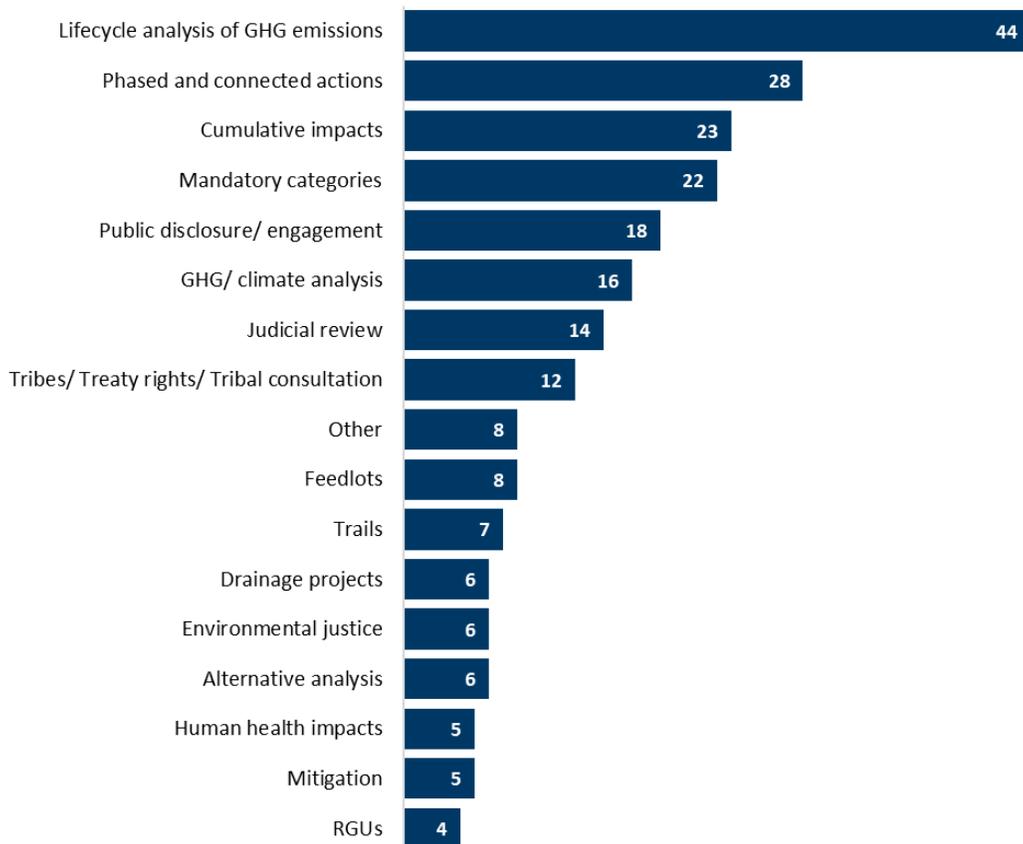
MAD and EQB have not vetted any of the ideas. The comments should be read not as a factual assessment of environmental review issues by independent researchers or EQB but as a summary of the perception of interested parties and tribal government representatives who engage with the environmental review program.

Improvement topics

The engagement effort generated various improvement topics or broad work areas that EQB could prioritize for improvement. As shown in Figure 4, the most frequently mentioned topic is greenhouse gas lifecycle analysis, followed by comments around phased and connected actions, cumulative impacts, and mandatory categories. Other, less frequently mentioned improvement topics include environmental review related to housing and development, streams and wetlands, alternative review, wind projects, and water appropriation.

This section summarizes the comments received about these topics in order of the frequency they were mentioned.

Figure 4. Improvement topics from engagement input



1. Full lifecycle analysis of greenhouse gas (GHG) emissions

Forty-four comments mentioned examining full lifecycle emission impacts of projects. Several respondents specifically mentioned the recent improvements to the Environmental Assessment Worksheet (EAW) to account for a project's potential climate impact and urged EQB to strengthen the review process to account not only for direct and indirect emissions, but also the projects' lifecycle emissions. A few others also suggested a broader

analysis of the short-term and long-term impact on the state's water, air, lands, health, and climate, analysis of GHG lifetime emissions of a project, inclusion of impacts to ecological and traditional values (e.g., loss of traditional plant medicines), and accounting for emissions that happen outside of Minnesota. Examples of what respondents said include:

- *True Cost Accounting of GHG lifetime emissions with estimations on a yearly basis. The inventory of emissions should project lifetime emissions with estimations on an annual basis. True Cost Accounting should be standard, including loss of traditional plant medicines and ecological/traditional value as well as the full environmental footprint as determined through life cycle analysis methods. This would include emissions from extraction, transportation, and raw materials used in project construction. For example, a facility constructed using concrete will account for the emissions from mining, processing, and transportation of concrete. This is important to account for even when it happens outside the State of Minnesota as the climate of the earth as a system will still impact us in Minnesota.*
- *I appreciate the EQB's recent improvements on the Environment Assessment Worksheet (EAW) to include calculation of greenhouse gas emissions for projects undergoing environmental review. However, the current agency guidance on the revised EAW only requires calculation of direct and indirect emissions, rather than full lifecycle accounting. Calculating lifecycle emissions is especially important for making sound decisions about fossil fuel infrastructure, because these types of projects will often enable the transportation/release of massive amounts of carbon, possibly for decades and well beyond the time frame just for construction. I ask that you update the agency guidance and/or the EAW to include a full lifecycle accounting of greenhouse gas emissions related to a project, in addition to the currently required calculation of direct and indirect emissions.*
- *It is unrealistic to omit lifecycle emissions from an environmental review. The goal is to get a handle on, and control, environmental quality, which cannot be done when a major piece of the environmental puzzle is left off the table. Lifecycle accounting is necessary to give us the information we need to make fully informed decisions about projects that affect environmental quality.*

2. Phased and connection actions

Twenty-eight comments received discussed more action around phased and connected actions. This includes potential actions by the same project proposer that may impact the same geographic area due to future project expansions (phased actions), and two or more projects that are related and one may lead to the other (connected actions). These respondents urged EQB to take action to assess the environmental impacts of future foreseeable expansions, with several respondents saying the current process allows a "bait-and-switch" approach where small projects are reviewed and the proposers then continue to expand to a much larger project, avoiding a full assessment of impact to the environment. A few examples of what respondents said include:

- *Require a full assessment of the environmental impacts over the lifetime of a proposed project or facility. Consider realistic expansion plans and how the product and its production materials will be disposed of. The public should see the complete environmental assessment of a project's impact including greenhouse gas emissions, health impacts, stream flows, water quality impacts, air quality impacts, and landfill impacts. An assessment should provide not just the direct emissions or outputs, but the environmental context of the project so that its cumulative impact can be addressed.*
- *I've seen "bait-and-switch" practices in action in MT where we live 5 months of the year. MT's governor and majority of the state legislators don't believe in regulations or restrictions on business*

expansion that directly impacts human and environmental health. MT DEQ and DNRC ramrodded an approval for an expansion of a gravel pit in my community with an addition of a 23-acre open-cut mining permit without adequate environmental impact research. It also allows the company to add an asphalt and cement factories on the premises, with very little oversight on current (and future) environmental mitigation efforts by the gravel pit located on the shores of the Madison River, a Mecca for fly-fisher-people from around the world. And the MT DEQ and DNRC almost got away without a town hall meeting!! Thankfully, there are conscientious environmentalists in MT, swimming against powerful, reactionary folks who are against regulations and restrictions on businesses. The environmentalists rallied support for a town hall meeting after the permit was approved. We are still waiting for the final decision from the state. Don't let MN turn into a MT. That's not a good thing.

- *Minnesota environmental review currently allows a “bait-and-switch” process where project proponents propose the smallest possible “project” for review so that the full impacts on water, air, lands, health, Treaty-reserved rights, and climate are not considered before a project is studied and approved. Not only is cumulative environmental review deferred until after developments are in the ground, but once the initial project is constructed state agencies do all they can to ensure that a comprehensive review of later stages and impacts is never done. Minnesota’s current environmental review process lacks scientific integrity and emphasizes short-term profits over long-term cumulative adverse impacts. It is a distortion of the purpose of environmental review. Relatively simple rule changes could address these fundamental problems.*

3. Cumulative impacts

Twenty-three comments received were related to improving cumulative impacts analysis in environmental review. A majority of these comments discussed the need for comprehensive cumulative impact analysis in environmental review in general, such as continuous monitoring and assessment of projects’ impact on Minnesota’s environment as well as residents of a proposed project’s location. A few comments included specific suggestions about updating the definition of cumulative impacts in EQB guidance to reflect the most up-to-date scientific definition, and to reconcile differing definitions that exist in rules (i.e., two definitions for the terms *cumulative impacts* and *cumulative potential effects*). A few comments suggested providing guidance to proposers and responsible government units (RGUs) in assessing cumulative impacts. A few other comments suggested supporting strong laws and rules to assess cumulative impacts, evaluating permit applications to weigh effects of cumulative impacts (currently out of EQB purview), and improving public reporting on cumulative impacts.

- *The EQB should review the definitions of cumulative impact and cumulative potential effect and revise the rules so that there is a single definition. Currently Minn. R. 4410.0200 includes two slightly different definitions for the terms “cumulative impact” and for “cumulative potential effect.” This causes confusion for RGUs, project proposers, consultants, and the public. We suggest that the rule be clarified to create just one definition. EQB’s rules implementing MEPA introduced the necessary concept of cumulative impacts/effects, which are impacts that, while on their own may not be significant, nevertheless may be significant when considered in the context of the ongoing and probable effects on the environment and public health from other past, present, and reasonably foreseeable future actions. The EQB should consider ways to improve the cumulative impacts analysis, so these analyses are actually being performed, and not glossed over, in environmental review documents.*

- *EQB has given guidance and followed a court a decision that gives the most confusing definition of cumulative effects and impact and that defies science. EQB needs to go to a scientific definition on what cumulative effects and impact are. For help you can go to the EPA and the president’s council on environmental quality for definitions. Would not have to reinvent the wheel, EPA has already done that for you.*
- *My suggestion is to look backwards and look at all the indicators that show continued decline, in biodiversity we have bird populations, amphibians, every class of living things in decline, and if a project is proposed that is going to contribute to that, that should be a key indicator for everyone. Yet we do not do that, tie outcomes to past outcomes. The old adage continuing to do the same thing expecting different results is insanity, that’s what we are doing, continue to do environmental review in the same way, continue to get degradation of resource, there are ways to turn that needle in the opposite direction, right now environmental review is not doing that conversation needs to be continue.*

4. Mandatory categories

Twenty-two comments from the engagement input were related to creating, revising, or eliminating, mandatory categories for environmental review. While several respondents discussed agricultural drainage projects, others also identified issues related to environmental review for off-highway vehicle (OHV) trails, water appropriations, stream realignment projects, wind turbine projects, projects with potential impact to environmental justice communities, and watersheds. Specifically, respondents recommended:

- **Creating new mandatory categories:** Comments related to environmental review of agricultural drainage projects recommended creation of a mandatory category, such as the requirement for an EAW, to assess the impact of such projects on Minnesota’s public water quality. Several of these comments discussed the cumulative water quality impacts on Minnesota’s public waters, including the Minnesota River Basin. Other suggestions for creation of new mandatory categories included projects related to watersheds, wind turbine sites, and projects with potential to emit GHG.
- **Revising existing mandatory categories:** Several comments also suggested revision to existing requirements, specifically around water appropriations projects, feedlots, streams and wetlands, OHV trails, and housing development.
- **Eliminating mandatory categories:** One comment recommended elimination of alternatives analysis for pipeline projects and to instead create a mandatory Environmental Impact Statement (EIS).

A few respondents also said that instead of specific mandatory categories, EQB should consider geographical elements when determining the level of environmental review required (i.e., EAW or EIS).

Examples of what respondents said include:

- *As part of the Climate Action Framework, Minnesota has set goals to reduce its GHG emissions by 50% by 2030 and to achieve net-zero emissions by 2050. Doing so will require significant changes across all sectors: transportation, agriculture, electricity generation, industrial, commercial, residential, and waste. As we work as a state to cut our GHG emissions, any new projects that will emit large amounts of GHGs should be subject to additional scrutiny. Requiring an EIS for large emitters will help project proposers, decision-makers, and the public to understand where the emissions are coming from and provide information about alternatives, mitigations, and new approaches that could decrease emissions. EQB should commence a rulemaking process that would*

add this as a mandatory category and that would explore appropriate levels that would trigger an EIS for different types of projects.

- *Despite the stark evidence that drainage systems negatively impact water quality in the Minnesota River Basin and other watersheds throughout the state, Minnesota’s environmental review program is not equipped to address these impacts. In some cases, existing mandatory EAW or EIS categories do intersect with drainage projects. However, to capture drainage impacts with more precision, EQB should create a mandatory category attuned to drainage projects that threaten Minnesota River Basin water quality. [We] recommend that EQB add a new mandatory category with reasonable thresholds to address cumulative water quality impacts. Like the mandatory EAW category for animal feedlots in Minn. R. 4410.3200, subp. 29, this category could include a general threshold that applies across the State and a more conservative threshold that applies to sensitive areas, such as waterbodies impaired for turbidity and total suspended solids (“TSS”) like the Minnesota River Basin.*
- *The mandatory EAW category for new water appropriations should be changed in two ways: (1) revising the category for appropriations for commercial or industrial purposes to projects that use an average of 5 million gallons of water per month, and (2) revising the category for appropriations for irrigation so it is not limited to projects in one continuous parcel or from one source of water. These changes will help ensure the state has sufficient water as we face increasing demands on our water supply and the uncertainty of climate change.*
- *Rather than having a fixed category of mandatory review, a GIS map could be developed that shows portions of state that are under significant degradation, such as a Minnesota river watershed. If you have a water-related project, in that water shed, you could go to GIS map and see automatically that would be a mandatory review because it is already significant where the resources have been degraded. If you have biodiversity loss in other parts of the state, a similar GIS map, could show if you are going to be an extractive process or even a mineral component, it would be mandatory EIS because that area has been degraded by the kind of land use change you are proposing. So it would be a real time updated feedback mechanism where people would understand just by going to a map that they are proposing a project that has already the type of which has already contributed to degradation so it would be real-time feedback, everybody would know where and what kind of project requires closer scrutiny So I think an interactive GIS map that plots these things out would be very functional and very real-time responsive.*

5. Public disclosure and engagement

Eighteen comments received through the engagement process discussed improvements to current public disclosure and engagement practices for environmental review. Respondents recommended improving the:

- **Involvement of residents of a proposed project’s location**, including holding a public hearing in the county where a project is being proposed, notifying the residents who live within a ten-mile radius of a proposed project, extending the public comment period to sixty days, adding the ability to petition for an EAW if fifty or more signees live within ten miles of a proposed project and an EIS if one hundred or more signees live within ten miles of a proposed project, and making discussions between proposers and RGUs open to the public.
- **Accessibility to environmental review processes and documents**, including reducing jargon and using more plain language in environmental review documents, making the processes more accessible for the public, improving accessibility of electronic documents, and providing documents in multiple languages.
- **Dissemination of environmental review information and documents**, including improving the technology used for dissemination of environmental review documents, such as improving the search function on *EQB Monitor* and distributing documents submitted to *EQB Monitor* to required agencies

and the public without having to email the documents separately, giving practitioners the ability to update the site with results, and improving the mapping functions on the website.

A few comments also suggested improving public reporting of approved projects' cumulative impacts and requiring RGUs to notify local and state agencies when a proposed project will be undergoing environmental review.

Examples of what respondents said include:

- *EAW petitions should be automatically granted if 50 or more signees live within 10 miles of the proposed project. The public should also be able to petition for an EIS if 100 or more people who live within 10 miles of the proposed project sign a petition. Those who would be most impacted by a proposed project deserve to know what the potential impacts are and to have a voice.*
- *Require clear language standards and document length limits so the average citizen has half a chance to be able to understand these documents.*
- *Make the standard public comment be 60 days from when notice is given to local communities. Especially during spring planting and fall harvest, 30 days is simply not enough to learn about a proposed project, understand what is being proposed, and submit a public comment.*
- *Improve annual public reporting on the accumulative impact of all approved projects, including impacts on water and projected GHG emissions.*
- *Modify Minn. R. 4410.1500 to include a mechanism requiring all RGUs to notify local/state agencies when a proposed project will be undergoing environmental review to ensure agencies do not make final governmental decisions on the proposed project until environmental review has been completed. The first notice for most projects in the EQB Monitor or other local media is typically announcing the opening of a comment period on an environmental review document. This creates a gap in time/communications between an RGU determining a proposed project will undergo environmental review and other government agencies becoming aware of the environmental review for said proposed project; thus, not being aware of the enactment of the prohibition on final governmental decisions.*

6. GHG and climate impact analysis

Sixteen comments discussed broader recommendations around GHG emissions and climate impact analysis. As discussed above, several of these comments were related to accounting of full lifecycle analysis of GHG emissions in addition to direct and indirect emissions. Additionally, respondents also suggested issuing further guidance to proposers about the level of GHG emissions that should be considered potentially significant, revising current guidance on burning biomass, updating EQB guidance to reflect the urgency of the climate crisis, and adopting more stringent criteria for assessing climate impacts on environmental justice communities.

- *Now that the EAW requires consideration of GHG emissions, there should be guidance to developers about what level of GHG emissions should be considered a potentially significant environmental effect, so that an EIS would be ordered.*
- *The EQB recently, and rightfully, revised the EAW to include information relating to climate change—calculations of greenhouse gas emissions, discussions of emissions mitigations, and climate resiliency measures. To ensure this critical information is gathered for every project, the alternative EAW form used for feedlots also should be revised to include this information, as soon as possible. The climate analysis performed for feedlots currently is significantly less robust than that in the new EAW form,*

despite the fact that feedlots are a significant source of greenhouse gas emissions. Feedlots need to perform the same climate analysis required of other projects in Minnesota.

- *Stricter criteria in the revised ER rule for assessing potential climate effects in [Environmental Justice] EJ defined communities. It is clear that EJ communities are on the frontlines of climate change and will be disproportionately affected. Climate change will not be experienced evenly across Minnesota communities. That said, any assessment of climate effects must take into the account where the proposed project is being conducted and the population being impacted. The EQB should require projects to use tools such as EPA’s EJScreen, MPCA’s MNRisk cumulative pollution modeling, and MDH health data, along with localized community knowledge in assessing and getting a full picture of these impacts.*

7. Judicial review

Fourteen comments discussed judicial review and the appeals process for environmental review. Nearly all of these comments suggested authorizing judicial review of scoping decisions in general as it relates to foreseeable expansion of projects (discussed in *phased and connection actions*, above). One respondent also recommended revising language about the format of appeals because in their view, it is inconsistent with the Minnesota Environmental Policy Act (MEPA). Another respondent suggested creating appeals process similar to the Board of Water and Soil Resources.

Examples of what respondents said include:

- *[We] propose revising language about the format of appeals in Minn. R. 4410.0400, subp. 4 because the Rule is inconsistent with MEPA. The Rule provides that decisions on the need for an EAW, the need for an EIS, the adequacy of an EIS, and the adequacy of an alternative urban areawide review (“AUAR”) document may be reviewed through a declaratory judgment action in district court. This language came from the 1980 version of MEPA, which was enacted before the Court of Appeals was created. However, in 2011, the Minnesota Legislature revised MEPA to authorize review of decisions on the need for an EAW, the need for an EIS, or the adequacy of an EIS pursuant to the Minnesota Administrative Procedure Act in the Court of Appeals. Minn. Stat. 116D.04, subd. 10. Accordingly, the rule is now inconsistent with the statute with regard to the method of obtaining judicial review for such decisions. The Rule should be revised to be consistent with MEPA. This would ensure parties are aware that (1) these decisions are now reviewed in the Court of Appeals and (2) a petition for writ of certiorari must be filed and served within 30 days of notice of the final decision in the EQB Monitor. In addition, because the statutory language does not specifically provide for judicial review of an AUAR, [we] propose that the language of the rule be changed to provide for review of an AUAR in the Court of Appeals as well, to ensure that review of all decisions may be obtained in the same manner.*
- *You need to create an appeal process that does not involve going to District Court. BWSR has a decision appeal process that you could copy.*

8. Treaty rights and tribal consultation

Twelve comments received discussed treaty rights and tribal consultation in environmental review. While many of the comments suggested that EQB uphold treaty rights when making environmental review decisions, a few also recommended that EQB improve relationships with tribes and implement recommendations from tribes to improve coordination during environmental review. A few others also discussed specific approaches to improve consultation during environmental review such as providing information early on in the process, providing

technical guidance or data if tribes request it, ensuring tribes have sufficient time to consider information provided, and addressing tribal concerns in a timely manner.

Examples of comments include:

- *Tribal governments as elected officials representing a sovereign nation have a right to petition the state as a governmental body and not as a “citizen group”. Tribes should not have to procure 100 signatures to request any form of environmental review.*
- *Our Indigenous relatives have been good stewards of our natural resources for millennia. They negotiated treaties with settlers to try to preserve those resources and the EQB should study our obligations under those treaties and follow them.*
- *[We] strongly encourage the EQB to use the continuous improvement process to develop its relationship with Tribes and to implement any Tribal recommendations received that will promote coordination with Tribes both before and during environmental review. This may include the development of internal EQB procedures for Tribal coordination and guidance for other agencies conducting environmental review.*
- *Throughout this improvement process, EQB should engage in meaningful consultation with Tribes. If EQB proactively engages with Tribes now, it can better promote coordination with Tribes both before and during environmental review. Tribes are governments, not special interest groups. Due to Tribes' sovereign status and the subject-matter expertise of their environmental departments, Tribal concerns must be given "significant weight" in environmental review. I encourage EQB to develop its relationship with Tribes throughout this revision process and to implement any Tribal recommendations that will promote coordination before and during environmental review. This may include the development of internal EQB procedures for Tribal coordination and guidance for other agencies conducting environmental review.*

9. Other topics

Other topics discussed less frequently (less than ten comments) include:

Feedlots: Eight comments discussed environmental review related to feedlots, including mandatory categories for feedlots, monitoring air quality around feedlots, improved coordination between state agencies and counties on feedlot manure application, holistic environmental review to include the full chain of production from feed to market, requirement of climate impact analysis in the EAW for feedlots, and improving information about existing rural well maps in feedlot permit applications. Examples of comments include:

- *The alternative EAW form for feedlots should be revised to require the same climate change information included in the new EAW form. The EQB recently, and rightfully, revised the EAW to include information relating to climate change—calculations of greenhouse gas emissions, discussions of emissions mitigations, and climate resiliency measures. To ensure this critical information is gathered for every project, the alternative EAW form used for feedlots also should be revised to include this information, as soon as possible. The climate analysis performed for feedlots currently is significantly less robust than that in the new EAW form, despite the fact that feedlots are a significant source of greenhouse gas emissions. Feedlots need to perform the same climate analysis required of other projects in Minnesota.*
- *It is clear that large feedlots have the potential for significant environmental effects. Therefore, the EQB and MPCA should be enforcing existing law and ordering EISs on all proposed new or expanding feedlots with more than 700 animal units.*

- *For environmental review of feedlots to be holistic, it should also include the entire chain of production from feed to market, rather than just the facility itself. Otherwise, you're not accounting for all the fossil fuels used in transportation, the loss of soil carbon to grow feed, and more.*

Trails: Seven comments recommended environmental review requirements for trails, including several comments recommending mandatory categories for trails (discussed above). Examples of comments include:

- *Ditches, a valuable source of food and wildlife habitat for birds, small mammals, and pollinators are being replaced by trails. Trails can be enriching for humans, but most are not eco-friendly. The replacement is 8-12 ft. wide of asphalt that emits heat and can burn feet of dogs and wildlife. Black dirt and grass fills the ditch where it had been loamy soil, wildflowers, native grasses, and nesting areas. Another negative impact, straw laced with plastic netting that entangles wildlife, birds, and inserts plastic into their diet.*
- *There are different criteria for mandatory EAWs for OHV trails (25 miles) vs. areas (80 acres), but no legal definition of the terms "trail" and "area". This has resulted in a proposed 200-acre OHV area (entirely on city property, high density trails, one access point) being termed a "trail" to avoid state environmental review. Alternatively, require mandatory EAWs for all new OHV trails/areas other than minor re-routes as recommended by a 2003 Legislative Audit.*
- *For quality reviews, broaden the scope to include ALL proposed trails in Minnesota—require at least an environmental worksheet or EIS.*
- *Require a comprehensive environmental review for all motorized recreation trails—EAW for short and EIS for longer systems. This review should include not only impacts to wildlife and habitat but negative economic impacts to communities and quiet use recreationists.*

Alternatives analysis: Six comments received were related to alternatives analysis in the environmental review process including providing more alternatives analysis in the EAW process to better inform the public about alternatives to the project. One respondent said,

- *I suggest adding analysis of alternatives to EAWs, as alternatives analysis was initially intended to be the core of MEPA. When MEPA was first passed, many more projects went through an EIS, and therefore, through alternatives analysis. When review was shifted to RGUs, the number of EISs dropped precipitously, and now, few projects see an EIS, and almost never do RGUs order an EIS in cases where they are not required by statute. I propose that more projects should undergo alternatives analysis. Short of requiring more EISs, the best way to do this would be to add this to EAWs.*

Environmental justice: Six comments included various recommendations to better address environmental justice in environmental review. Nearly all recommendations were around rule change to address environmental justice appropriately in environmental review to better account for environmental impact to low-income neighborhoods and communities of color who are disproportionately impacted by air pollutants. In addition to potentially creating a mandatory category for projects that may impact environmental justice communities (discussed above), respondents also recommended a stronger definition of environmental justice and issuing guidance and providing tools to better assess how environmental justice communities are impacted by proposed projects. Additionally, a few respondents suggested development of an engagement strategy for these communities to provide meaningful input in the environmental review process. As one respondent said:

- *Establish a robust [Environmental Justice] Engagement Strategy for all Environmental Review processes and proposed rule changes. We are troubled by the loose language by the EQB around*

engagement of environmental justice communities. Environmental Review is a critical tool for community accountability and understanding of larger infrastructure and high impact projects. The EQB's framing of 'meaningful engagement' as something that 'happens when all participants have the chance to feel heard and understand the basis for decisions, even if they would prefer a different outcome, (page 5)' is inadequate. Feeling 'heard' is not enough. To date, we have not seen a robust EJ community identification and engagement strategy laid out by the EQB in its Environmental Review processes. This is unacceptable given the extreme racial and economic disparities in the state of Minnesota across multiple metrics. Meaningful engagement first means a definition by the EQB of what an environmental justice community is, a tailored engagement approach to engagement of that impacted geography/population, and EJ communities being given the tools and resources to understand the technical aspects of a project to effectively provide comment and participate. Critically, any meaningful engagement must include outcome, not just process—namely the ability to affect the results positively to the benefit of impacted communities.

Drainage projects: Six comments discussed drainage projects and the need to create a mandatory category for such projects, as discussed earlier in the engagement section. According to one respondent, “The EQB should create a new mandatory environmental review category for drainage projects that addresses cumulative water quality impacts.”

Mitigation: Five comments received discussed mitigation in environmental review. These included recommendations to update the definition of mitigation in rules, and more transparency in mitigation efforts discussed between RGUs and project proposers. According to one respondent, mitigation is often put off for the permitting process; however, this limits the ability to make informed decisions during the EAW or EIS process. Additionally, according to the respondent, it does not get addressed during permitting.

Human health impacts: Five comments mentioned the need to incorporate human health impacts in environmental review. Respondents urged the EQB to consider how pollutants impact health conditions of communities, as well as further review potential for worsening health outcomes in those communities already adversely impacted by pollution. According to one respondent, “Health risk assessment as a part of EAWs and EISs have been suggested by the medical professional community for decades now, yet no part of the environmental review process focuses on health impacts.”

RGUs: Four comments discussed the RGUs with nearly all comments discussing reduction of conflict of interest in RGU designation. According to one respondent, “The most “disinterested” level of government should be assigned as RGU - not the most local, who are often fully committed to the project. Seek RGUs that can fairly evaluate the public interest.” One respondent also said that state agencies should be given preference to act as the RGU when conducting environmental review as state agencies are more likely to have staff with technical expertise compared to local agencies.

Alternative review: One comment also suggested the elimination of comparative environmental analysis for environmental review of pipelines. According to the respondent:

- *The EQB should eliminate the alternate environmental review process for pipelines found in Minnesota Rules chapter 7852 because it does not comply with the Minnesota Environmental Policy Act ('MEPA'), creates confusion, and does not provide for sufficient public engagement. Any pipeline projects that were previously allowed to use the comparative environmental analysis should be put back into the mandatory EIS category found in 4410.4400, subp. 24. First, the comparative environmental analysis for*

pipelines does not comply with MEPA because it does not address the same issues as an EIS when it is used for pipelines that only require a routing permit. In that instance, the comparative environmental analysis does not require a sufficient analysis of alternatives to be consistent with Minnesota Rule 4410.2300, subd. G, which requires an analysis of alternatives, including alternative sites, technologies, modified designs or layouts, modified scale or magnitude, and alternatives incorporating reasonable mitigation measures, as well as the no action alternative. Alternative forms of environmental review must address the same issues as an EIS pursuant to Minn. Stat. 116D.04, subd. 4a. Using the comparative environmental analysis for pipelines that only require a routing permit clearly does not meet this requirement when the environmental review does not contain an alternatives analysis that complies with Minnesota Rule 4410.2300, subd. G. This problem has been recognized since the creation of the comparative environmental analysis and was even documented in the SONAR for the rules in Chapter 7852 (then Chapter 4415). Second, the rules in 7852 create confusion. There have been numerous lawsuits and arguments before the Public Utilities Commission about whether the comparative environmental analysis, or other form of environmental review, should be used. And the comparative environmental analysis's interaction with the citizen petition process is muddled. Third, the rules in 7852 provide next to no information about how the public engages with and comments on the comparative environmental analysis, making the process opaque, confusing, and inaccessible for the general public. The comparative environmental analysis is not serving its purpose of 'address[ing] the same issues and utiliz[ing] similar procedures as an environmental impact statement in a more timely or more efficient manner,' and it should therefore be eliminated, and the EIS used instead.

Values or criteria for improving environmental review program effectiveness

Use the most recent and complete science in environmental review processes

Thirteen comments were related to improving the environmental review process to better align with the most up-to-date science. Respondents said that for environmental review processes to be effective, information provided through the process must be supported by data and the most up-to-date science. A few comments also suggested improvements such as informal or formal peer review of EAWs and EISs, establishing a neutral body consisting of experts to review documents, and ensuring EQB publications reflect the latest science (e.g., Climate and Energy Report Card, Pollinator Report, Emerald Ash Report).

- *Minnesota's current environmental review process lacks scientific integrity and emphasizes short-term profits over long-term cumulative adverse impacts. It is a distortion of the purpose of environmental review.*
- *An effective environmental review process includes information sufficiently supported by data and widely accepted science.*
- *Environmental review could emulate scientific literature, professional publication undergoes multiple rounds of objective, disinterested peer review. EQB could create a pool of experts to provide this service and have funding available for these independent expert's work.*

Align environmental review program with objectives and intent of Minnesota Environmental Policy Act (MEPA)

Ten comments suggested various improvements to the environmental review processes to better align with MEPA's intent and purpose.

Provide usable information: A few comments specifically suggested various revisions to the process to better align with the intent of environmental review laws and rules, including to provide usable information to decision-makers, project proposers, and the public. They include suggestions to add mitigation and alternatives analysis to all environmental review documents, improved definitions, and guidance (e.g., cumulative impacts, potentially significant environmental effects) in order to minimize differing interpretations, so more informed decisions can be made. Examples of what respondents said include:

- *I suggest adding analysis of alternatives to EAWs, as alternatives analysis was initially intended to be the core of MEPA. When MEPA was first passed, many more projects went through an EIS, and therefore, through alternatives analysis. When review was shifted to RGUs, the number of EISs dropped precipitously, and now, few projects see an EIS, and almost never do RGUs order an EIS in cases where they are not required by statute.*
- *In general, effective programs have clear and agreed upon regulations with minimal interpretation required, standardized process, equitable program requirements, adequate staff resources, measurable achievable metrics that are preferably outcome based with human health and environmental benefits, and ongoing stakeholder feedback. Specifically for the Environmental Review program, with respect to climate impacts, possibly need rulemaking to define what exactly is the criteria and standard is for "potentially significant environmental effects" so that RGUs can make meaningful and informed EIS-needs decisions, make the environmental review and petition process function better for our Tribal governments with early and often engagement.*

Provide the public with systematic access to decision-makers: One respondent also suggested improving public transparency in discussions between project proposers and RGUs. According to the respondent,

- *Discussions between the project proposers and the RGUs occur behind the scenes, without knowledge of the public. The public is often told that as a result of discussions with the RGU, the project proposer modified their project to improve it and reduce its environmental effects before the environmental review document was completed. However, because these conversations occur out of the public eye and before the environmental review process, there is no public-facing documentation of the RGU's concerns and changes to the project in response. Sharing how a project proposer has been willing to change the design of its project to mitigate the project's possible environmental effects will help build more trust in the environmental review process and in the RGUs that perform it. If this information is never shared with the public, the public can only assume that projects are rarely, if ever, asked by RGUs to change in order to reduce their impacts, leading to pervasive distrust of the environmental review process and the agencies and governments that perform environmental review. If projects are modifying their designs to reduce their impacts, this is something the public should know as part of the environmental review process.*

Other respondents provided suggestions to improve the process to better align with MEPA and environmental review rules in more general terms such as prioritizing environmental protection over economic or monetary

gains and ensuring all documents receive appropriate review to protect Minnesota’s environment. Examples of what respondents said include:

- *The EQB should explore why so few EISs are ordered by RGUs and propose changes to guidance or rules that would ensure projects that have the potential to significantly affect the environment undergo an EIS, as required by MEPA. Under MEPA, an EIS must be ordered when a project has the “potential for significant environmental effects.” Minn. Stat. 116D.04, subd. 2a. But in practice, RGUs rarely—almost never—find that a project has the potential for such effects. Considering the numerous environmental issues in our state, from impaired waters to greenhouse gas emissions, it seems highly unlikely that no projects approved since 2015 have any potential to significantly affect the environment, yet almost no discretionary EISs were ordered during that time. From the years 2015 to 2020, between 48 and 86 EAWs were conducted each year, but during that same time only 1 or 2 EISs were conducted every year. It appears most of those EISs were conducted because they triggered a mandatory category, not because an RGU determined a project had the potential for significant environmental effects. This is not the way MEPA was intended to work. Only an EIS requires an analysis of alternatives to a project, which is one of the most important ways that environmental review can lead to improvements in a project. When a project actually has the potential to significantly affect the environment, RGUs should order an EIS. Given the amount of pollution in our state, it is simply not possible that every project that completed an EAW was successfully modified to prevent it from having potential significant environmental effects, so that an EIS was not warranted. In other words, the fact that virtually no projects are found to have a potential significant environmental effect in Minnesota shows that something is wrong in the environmental review process, and the EQB should explore this problem and potential solutions for it.*
- *When reviewing future projects and the impact on the environment, the environmental impact has to be prioritized over jobs/money.*
- *I live in the Arrowhead region and would like to remind decision makers that “this is [somebody’s] backyard”. Wildlife impact important.*

Improve consistency between environmental review, permitting, and other state and federal laws

Six comments offered suggestions for improving consistency between environmental review, permitting processes, and other state and federal laws. They ranged from inclusion of aquifer tests for a water appropriation permit in the EAW, improving compliance with the Federal Endangered Species Act, updating the definition of “mitigation” in environmental review rules to align with the definition established by the Supreme Court in *Citizens Advocating Responsible Dev. v. Kandiyohi Cnty. Bd. of Comm’rs*, 713 N.W.2d 817, 835 (Minn. 2006), and addressing loopholes in the federal and state regulatory framework that allow “creeping approval.” A few comments also discussed consistency between various review and permitting processes and documents, common approaches, or methods for RGUs to evaluate environmental impacts, and consistent regulation for projects that cross multiple review areas. Examples of what respondents said include:

- *The definition of what constitutes a “mitigation” under Minnesota Rule 4410.1700, subd. 7 should be modified to include the definition that the Minnesota Supreme Court established in *Citizens Advocating Responsible Dev. v. Kandiyohi Cnty. Bd. of Comm’rs*, 713 N.W.2d 817, 835 (Minn. 2006) (“CARD”). Despite this definition being the law of this state, it is often overlooked when RGUs assess whether environmental effects are mitigated. Under CARD, the Supreme Court ordered that mitigations may only be considered if they are: 1) specific, 2) targeted, and 3) certain to be able to mitigate environmental effects. Mitigations that amount to only “vague statements of good*

intentions” are not sufficient to find that a project’s potential significant environmental effects will be “mitigated” under Rule 4410. 1700, subp. 7.

- *Section 9 of the federal Endangered Species Act (“Act”) prohibits ANY PERSON from “taking” an endangered species of fish or wildlife. Note “person” under the Act includes businesses and other corporations. The Section 9 take prohibition applies to federal and non-federal activities, including activities on private property. “Take” is broadly defined under the Act. To take a species is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect. Harm includes activities that destroy or significantly modify habitat to an extent that it actually kills or injures the endangered species. Harassment includes intentional or negligent act or omission which creates the likelihood of injury by annoying it in a way that disrupts normal behavioral patterns. Despite the Act’s applicability to state and private projects, state EAWs typically fail to adequately discuss effects to federally endangered and threatened species. EAWs also typically fail to address compliance strategies for projects that are reasonably certain to result in “take” under the Act. Absent this information, RGUs are making project approval decisions without taking a hard look at the proposed project’s effects to species protected by the Act. Note that many proposed projects occurring within the Twin Cities metro are reasonably certain to result in take (i.e., adverse effects) for the federally endangered rusty-patched bumble bee per USFWS guidelines. In greater Minnesota, take of northern long-eared bats is also reasonably certain to occur in many cases.*
- *Better consistency within the MnDNR License to Cross Public Lands and Waters program is needed. In my experience, projects are not regulated uniformly across different review personnel. For example, for a project with three parallel conduits crossing state lands in multiple review areas, one reviewer licensed all three conduits as a single crossing; in another review area each conduit is licensed separately (and fees are thus triple). In some cases, license fees end up in the thousands of dollars. Additionally, for a project crossing multiple review areas, one reviewer required the company name to be on the license a very specific way and another reviewer required it in a different, very specific, way. This wasted a lot of time with attorneys and company admin having to signing draft licenses multiple times until an agreement could be reached.*

Mitigate or eliminate conflict of interest

Six comments suggested improvement to environmental review processes to reduce or eliminate conflict of interest, mainly in delegation of RGUs for environmental review. As described earlier, respondents specifically suggested addressing conflict of interest in RGU designation, including preference for selection of state agencies as RGUs over local governmental units and addressing the conflict of interest in funding preparation of environmental review documents in which a project proposer is an RGU. Examples of what respondents said include:

- *RGU conflict of interests should be resolved. The RGU or acting authority over the MEPA process for projects needs to not have a vested interest, or a real or perceived conflict of interest. For example, a city government should not be the RGU for its own City project. This is a conflict of interest and should be accounted for in the [environmental review] ER rules.*
- *Third party contractors should no longer be allowed to draft environmental review documents. They represent an inherent conflict of interest since their primary clients are industry.*
- *Importantly, local governments often appear to be proponents of the projects they are supposed to be reviewing, introducing the possibility of bias into environmental review.*

Phase 3: Development of CI process and facilitation approach

Facilitation approach

MAD and EQB staff facilitated regular meetings to gain input on the development and refinement of the criteria and matrix from:

- Board members at EQB monthly meetings. MAD presented material and facilitated discussions at six board meetings in December 2022, January 2023, and March–June 2023. At the time of the continuous improvement project, there were 17 voting board members and one non-voting board member. Appendix D contains a full list of the board members.
- A Continuous Improvement Interagency Team composed of EQB member agencies' environmental review subject matter experts. The CI Team served in an advisory capacity. They guided the work by identifying gaps, providing input, helping sculpt the prioritization matrix, and acting as a sounding board through the process. The members of the CI Team are listed in Appendix E: Interagency Continuous Improvement Team.

The facilitation effort culminated in a new continuous improvement process for the environmental review program.

Overview of CI process development and refinement steps

The research and engagement work informed the approach to the continuous improvement process development. The work helped identify the elements of an effective environmental review program and provided a means to obtain input to create a list of potential improvements. MAD, in partnership with EQB staff, coordinated the development of a decision matrix and criteria for prioritizing improvements. The actual matrix, scoring, criteria, CI process steps, and related explanations are in the next main section of the report, "Phase 4: output: CI process for environmental review program."

Development of initial criteria and matrix: Version 1

MAD and EQB staff used research, engagement input, and facilitated conversations at board and CI Team meetings to inform the elements of an effective environmental review program. MAD and EQB staff sought input on what the characteristics and elements of an effective environmental review program are through these mediums. MAD and EQB staff used these inputs to develop the initial criteria, criteria definitions, and scoring approach for the program effectiveness prioritization matrix.

In April 2023, MAD and EQB presented the initial matrix to the board. The initial matrix included twelve criteria and a yes/no approach to scoring, where the improvement would be scored as either meeting or not meeting the criteria. Board members provided feedback on the matrix and discussed whether the criteria covered all of the important components of how environmental review work gets done and what environmental review covers while still being easy to use. They also noted if anything was missing from the list of criteria and if the criteria

cover key aspects of program effectiveness. In March and April, CI Team members were also heavily involved in the development of the initial decision criteria and matrix. CI Team members provided edits directly in draft documents and gave feedback during discussions at team meetings. MAD also provided an online whiteboard called Mural where CI Team members gave consolidated feedback on criteria and approaches to scoring.

Refinement of criteria and matrix: Version 2

At the May board meeting, MAD and EQB presented the refined criteria and matrix. EQB staff also presented an initial continuous improvement process and matrix test results. The changes addressed the primary feedback from the board and CI Team: reduce the number of criteria, add more nuances/levels in scoring, and revise some specific words in the criteria.

The main changes from Version 1 to Version 2 of the matrix included the following:

- Reduced the number of criteria from 12 to 9:
 - “Understandable” was re-titled to “user-friendly”
 - Removed “public engagement” and grouped it with “inclusivity” while recommending that it also be highlighted in the EQB’s overall strategic plan.
 - Removed “transparent” and grouped it with “accessible” since there was overlapping language between the two. Also recommending that it will be highlighted in the EQB’s overall strategic plan.
 - Removed “programmatic integrity” while recommending that it also be highlighted in the EQB’s overall strategic plan.
- Added scoring on a scale of 0 to 2, but did not weight criteria against one another
- Updated definitions based on CI Team and board member feedback

At the May board meeting the board gave input on whether the draft criteria definitions, matrix design/scoring, and initial matrix test results meet the needs of the board. The board confirmed that the draft document met their needs and that the process development was ready to move to the next step. The next step was for EQB staff to score all of the relevant improvements in the matrix.

Refinement of criteria and matrix: Version 3

At the June board meeting, MAD presented Version 3 of the refined criteria and matrix. Changes in Version 3 of the matrix included clarifying directly and indirectly in scoring and providing better explanation on some items and assumptions. Also, between the May and June board meetings, EQB staff created a comprehensive CI process for presentation to the board at the June board meeting. The CI process formed the core part of the board resolution approved at the June meeting.

The main changes from Version 2 to Version 3 of the matrix included the following:

- Changed the phrasing of the scoring to: Does an improvement directly or fully increase a criterion as defined below? Award 2 points. Does an improvement indirectly or partially increase a criterion as defined below? Award 1 point. Does an improvement maintain or not address a criterion? Award 0 points.

- Clarified that the inclusivity definition will reference the environmental justice area definition in statute 115A.03

The main edits to the CI process included the following:

- Clarified that EQB staff does the scoring
- Added a Frequently Asked Questions section to the board packet memo
- Added a step where ERIS would review the EQB staff's matrix and planning; ERIS would then make sequencing recommendations to the board for board discussion and decision
- Changed from running the process annually to running it at least once a biennium

CI process partnership with tribes

EQB is committed to creating and strengthening relationships with the eleven tribes that share geography with Minnesota. EQB received several ideas for improvements from tribes, both through recent engagement and in previous efforts. EQB also received several comments pertaining to tribes which did not come directly from tribal nations. Comments from tribal nations are specifically about the improvements list and not about the ongoing use of the matrix or overall CI process steps.

Some ideas offered include:

- Designing an alternative to the petition process such as a government-to- government petition process so tribal leadership does not have to collect 100 signatures
- Developing guidance on best practices for tribal engagement in environmental review
- Working with tribes to define cultural resources and add a new mandatory category to address tribal cultural resources.

At the time of this report's publication, EQB is reaching out to tribes for their additional ideas, to help refine understanding of the comments that were already sent, and also to get feedback on any recommendations which impact tribes but did not come directly from tribes. EQB received feedback pointing to the need for improved tribal relations and engagement. EQB plans to make improvements, including developing a tribal consultation and coordination policy.

EQB plans to coordinate each biennium with each tribe to gather more improvements and work with tribes to prioritize those projects separately. EQB wants to respect the sovereignty of tribes and as such, tribal concerns should be given priority and significant weight. Any ideas from tribes will be considered concurrently, in a separate list, and in parallel to the matrix.

Matrix scoring, testing and results

EQB staff completed the first review and matrix scoring of improvements for the continuous improvement process for the Minnesota environmental review program.

Methodology

EQB staff followed the continuous improvement proposed process steps:

1. EQB staff solicit ideas for program improvements.
2. EQB staff review the scope of the improvements.
3. EQB staff evaluate and score improvements using a program effectiveness prioritization matrix.
4. EQB staff plan for implementation of improvements.
5. ERIS completes review of implementation planning.
6. Board completes review and directs staff to implement selected projects.

Staff completed the scoring of improvements using the matrix. Improvements ranged in topic, specificity, and format. Staff combined improvements by topic when appropriate and assigned each improvement a “likely mechanism” for completion (i.e., Guidance, Rule change, EAW Form change). Staff did not edit the improvements as they were submitted, except to take an excerpt from a long submittal that isolates the action for improvements. Staff documented any assumptions made throughout the process. The most important assumption was that each improvement would be implemented at a high quality and be fully resourced.

Any improvements related to a mandatory category were not run through the matrix. Instead, they will be evaluated during the process to write the 2024 Mandatory Categories Report. The Mandatory Categories Report is a legislatively mandated report. It is required to be completed by EQB and member agencies every three years. The comments that EQB received regarding changes to any mandatory category will support EQB’s evaluation of each mandatory category for this report. Development of this report includes a public process, so there will be more opportunities for public comment on these ideas and other ideas related to environmental review mandatory categories.

Additionally, all tribal-related improvements are being considered separately, with precedence. EQB is working to speak directly with tribes to ensure proper implementation of such impactful ideas and working on these ideas is a priority for EQB staff. This begins with building a Tribal Coordination and Consultation Policy and with reaching out to tribes directly to engage on which changes to prioritize.

Any comments or recommendations EQB could not evaluate in the matrix or put on the mandatory categories list can be found in this section titled “Comments to inform criteria.” Commonly, these comments or recommendations were used to inform the criteria of an effective environmental review program. Others needed more information before they could be effectively run through the matrix.

Matrix results, total scores

EQB staff scored the following improvements as meeting the highest number of criteria for program effectiveness. Any improvement scoring eight or less was not included in this table. The following eight improvements scored the highest compared with the over ninety improvements that were scored. Appendix F: Results of scoring 2023 improvements contains a list of all of the improvements that EQB staff scored and their corresponding score.

Note: In the table below the improvements are listed as they were submitted by those giving input through the engagement process. There may be grammatical errors or colloquial expressions.

Table 3. Highest Scoring Improvements

Total Score	Improvement
12	<p>What I would suggest is a neutral body possibly funded by EQB, that is simply a pool of experts, who are independent and have no interest except getting the science of an environmental document right, this could function like peer review for scientific journals. If there's money available, and the idea would help stop the logjam of lawsuits, the model I go by is the UN intergovernmental panel on climate change, it is a large pool of unpaid scientists, but do it out of dedication to the integrity of science. This objective independent panel could function that way, and free up this whole amount of money and time and effort that this spent in these factual wars, yet it is not about the facts we are warring on opinion. If you have got money, I suggest that is how you might spend it..... I suggest EQB Improve the Science with informal or formal Peer Review—Most easily done by separating public comments by credentialed experts from lay comments and requirement to disclose conflicts of interest. More effective formal peer review would emulate scientific literature review by having pool of independent experts on retainer (not consultants) review EAWs and EISs for scientific integrity. ER could emulate scientific literature, professional publication undergoes multiple rounds of objective, disinterested peer review. EQB could create a pool of experts to provide this service and have funding available for these independent expert's work.</p>
11	<p>Establish Threshold Criteria for Significance of Impact - Improved guidance and criteria for RGU decisions on whether significant environmental effects are predictable from a proposed project.</p>
11	<p>Require a full assessment of the environmental impacts over the lifetime of a proposed project or facility. Consider realistic expansion plans and how the product and its production materials will be disposed of, including for example, complete environmental assessment of a project's impact including greenhouse gas emissions, health impacts, stream flows, water quality impacts, air quality impacts, and landfill impacts. An assessment should provide not just the direct emissions or outputs, but the environmental context of the project so that its cumulative impact can be addressed</p>
11	<p>Improve annual public reporting on the accumulative impact of all approved projects, including impacts on water and projected GHG emissions; additional review requirements to better assess and protect waters from cumulative impacts</p>
11	<p>A Findings Statement should be issued by each permitting and approval authority documenting the final course of action chosen (including mitigation measures to be carried out); how review documents were used to arrive at it (including reasons for rejection and selection of alternatives), and how the decision complies with MEPA's policy goals.</p>

Total Score	Improvement
10	It would be very useful if the EQB could serve as a go between when permits are issued during a prohibition or other process issues arise. EQB could issue advisory opinions that petitioners could use. EQB could provide some sort of redress to petitioners short of bringing a lawsuit. Evaluate What possible role could EQB play to provide independent advisory (only) review for ER challenges, agency actions and/or decisions? The goal being to reduce unnecessary legal challenges, costs, wasted time, resources and divisiveness.
9	Strengthen EQB capacity for oversight and assistance in implementation of environmental review
9	EQB could address this by improving guidance on the cumulative impacts analysis and/or clarifying what is required in rule. Create cumulative impacts standards. Until they exist, reviews must consider pre-existing conditions. Properly consider cumulative environmental impacts of individual projects in context of overall pollution burden in watershed/airshed. Incorporate an analysis of a project's contribution to cumulative pollution burdens that will occur in concert with other, neighboring industries and sources of emissions and pollution discharge. Consider cumulative pollution burden already existing in a community before allowing additional burdens. Include overall environmental status of area when determining an EAW in reviewing a project's impact (example: pre-existing conditions like level of use in the area, type of use, waterways, logging roads, etc.) The ER process should determine significant cumulative impacts and consider them in reviews.

Phase 4 Project Output - 2023 continuous improvement process for the environmental review program

Program Effectiveness Prioritization Matrix components

The final version of the continuous improvement process for the environmental review program includes a Program Effectiveness Prioritization Matrix version 3.0 with nine criteria of an effective environmental review program in Minnesota. The matrix also includes scoring instructions where each criterion will receive a score of either 2 points, 1 point, or 0 points.

Criteria of an effective environmental review program in Minnesota

1. **Scientific integrity:** Considering, encouraging, or making available the most up-to-date, reputable, and complete science-based information for analysis of environmental and human health impacts or mitigation
2. **Environmental protection:** Using information in government decisions to safeguard the environment and people in Minnesota
3. **Measurability:** Identifying quantifiable data for understanding project and/or environmental review program impacts to human health and the environment

4. **Inclusivity:** Inclusion of voices that have historically been marginalized, excluded, or disproportionately impacted by pollution and the ability for those voices to influence the conversation so that disproportionate impacts are reduced going forward; engagement and outreach is emphasized for environmental justice areas²⁹ making public participation easier, more systematic, and more intentional
5. **User-friendliness:** Clear communication, clear procedures, or understandable information to interact with environmental review; ease or efficiency to thoroughly and accurately complete environmental reviews
6. **Accessibility:** Access to decision-makers and processes so that the public can provide meaningful input into decision-making and receive explanations and updates for why certain decisions are made
7. **Consistency:** Uniformity of environmental review processes, thereby promoting dependability and reliability in environmental reviews; eliminates ambiguities; promotes comparability
8. **Quality assurance:** EQB's ability to verify accuracy and completeness of information used in the environmental review program
9. **Accountability:** The project proposer's, RGU's, and board's ability to better demonstrate meeting the program's obligation to the public and to the environment through reporting, data sharing, transparently explaining decisions, taking responsibility for actions, and being able to explain, justify, and take consequences for them

The criteria are organized by rule objectives (Minnesota Rule 4410.0300) to emphasize the connection between criteria and rule. The rule objectives for the environmental review program are noted in the Background section of this document. Grouping the criteria by objectives is solely a way to organize and visualize the criteria to check for balance.

- Criteria for providing usable information (objective A) includes the criteria of scientific integrity, environmental protection, and measurability.
- Criteria for engagement (objective B) includes the criteria of inclusivity, user-friendliness, and accessibility.
- Criteria for process (objectives D and E) includes the criteria of consistency, quality assurance, and accountability.
- Note: Objective "C" is task-oriented and thus not included ("Delegate authority and responsibility for environmental review to the governmental unit most closely involved in the project.").

Scoring instructions

Each criterion will receive a score of either 2 points, 1 point, or 0 points.

2 Points: Does an improvement directly or fully increase a criterion as defined below? Award 2 points

1 Point: Does an improvement indirectly or partially increase a criterion as defined below? Award 1 point

0 Points: Does an improvement maintain or not address a criterion? Award 0 points

²⁹ "Environmental justice areas" has the same definition as given in MN Stat. 115A.03.

Table 4. Program Effectiveness Prioritization Matrix

Criteria for information (objective A)			Criteria for engagement (objective B)			Criteria for process (objectives D and E)		
Scientific integrity	Environmental protection	Measurability	Inclusivity	User-friendliness	Accessibility	Consistency	Quality assurance	Accountability
<p><i>Does an improvement directly or fully increase a criterion as defined below? Award 2 points.</i></p> <p><i>Does an improvement indirectly or partially increase a criterion as defined below? Award 1 point.</i></p> <p><i>Does an improvement maintain or not address a criterion? Award 0 points.</i></p>								
means considering, encouraging, or making available the most up-to-date, reputable, and complete science-based information for analysis of environmental and human health impacts or mitigation	means using information in government decisions to safeguard the environment and people in Minnesota	means identifying quantifiable data for understanding project and/or environmental review program impacts to human health and the environment	means inclusion of voices that have historically been marginalized, excluded, or disproportionately impacted by pollution and the ability for those voices to influence the conversation, etc.	means clear communication, clear procedures, or understandable information to interact with environmental review ; ease or efficiency to thoroughly and accurately complete environmental reviews	means access to decision-makers and processes so that the public can provide meaningful input into decision making and receive explanations and updates for why certain decisions are made	means uniformity of environmental review processes thereby promoting dependability and reliability in environmental reviews; eliminates ambiguities; promotes comparability	means EQB's ability to verify accuracy and completeness of information used in the environmental review program	means the project proposer's, RGU's, and Board's ability to better demonstrate meeting the program's obligation to the public and to the environment through reporting, data sharing, transparently explaining decisions, taking responsibility for actions, and being able to explain, justify, and take consequences for them

Continuous improvement process: Procedural steps

The CI process was approved and adopted by the Minnesota Environmental Quality Board resolution at the board meeting on June 21, 2023. The resolution approved by the board is included in Appendix G: Resolution of the Minnesota Environmental Quality Board.

Resolution

The board resolved to adopt and use the following continuous improvement procedural steps at least once a biennium for the environmental review program:

1. EQB staff solicit ideas for program improvements.
2. EQB staff review the scope of the improvements.
3. EQB staff evaluate and score improvements using a program effectiveness prioritization matrix.
4. EQB staff plan for implementation of improvements.
5. ERIS completes review of implementation planning.
6. Board completes review and directs staff to implement selected projects.

These steps will be re-evaluated at least every four years, so the board may make any necessary adjustments.

CI process: Rationale

Regular implementation of this standardized six-step process will provide consistency in assessment and implementation of environmental review program improvement suggestions. The process steps are comprehensive, action-oriented, and inclusive. They are the result of over six months of research, engagement, and board member feedback.

This process will:

- Provide clarity on the board's definition of an effective program, through the criteria in the prioritization matrix.
- Allow the board to clearly identify areas of improvement and maintain knowledge of needed improvements over time.
- Create a standardized way of prioritizing needed improvements.
- Provide a transparent evaluation process showing why improvements are or are not pursued.

CI process procedural steps: Detail

1. Solicit ideas for program improvements.

The process will begin with a call for suggestions for programmatic improvements from governmental partners, stakeholders, and the public. Ideas for improvements will be collected through multiple channels including, but not limited to an engagement HQ online platform, phone calls, emails, and meetings.

2. Review the scope of the improvements.
All improvements must pertain to EQB’s purview or represent ideas that could reasonably fit under EQB purview. Ideas that pertain solely to the authority of other agencies would not move forward in the process. EQB staff will make and document such determinations.
3. Evaluate and score improvements using a program effectiveness prioritization matrix.
EQB staff will run scoped-in improvements through the prioritization matrix, scoring improvement ideas based on how they meet the criteria for program effectiveness. Improvements will be ordered based on how they contribute to overall program effectiveness.
4. Plan for implementation of improvements.
EQB staff will consider logistics and resource needs for undertaking the improvements that met the most criteria for program effectiveness. Staff will present this information to the Environmental Review Implementations Subcommittee (ERIS) and make a recommendation for which improvements to act upon.
5. ERIS completes review of implementation planning.
ERIS will review the improvement ideas, their matrix scoring, and the implementation considerations. ERIS will make a recommendation to the board on which improvement projects the EQB should implement.
6. Board completes review and directs staff to implement selected projects.
The board will review ERIS’s recommendation and reach a consensus on which improvements EQB would like to focus on for a time period as determined by the board.

Implementation considerations

Planning for implementation-considering feasibility

Step Four of the continuous improvement process is about EQB staff “Planning for the implementation of improvements.” Discussions with board and CI team members led to consideration about what approaches or “screening questions” to use in examining the implementation of improvements.

EQB staff are planning to use the following planning and sequencing considerations to build out options and plans for the implementation of improvements.

- What type of action is required? (Example: rulemaking, guidance updates, trainings, etc.)
- Does EQB have the authority to take that action?
- What is the size and timeline of the project?
- What resources are needed to complete the project?
- Can multiple improvements be made through one project?
- What are the contingencies—does the project hinge on something else happening first?
 - Completion of another project
 - Legislative grant of authority
 - Additional funding (budget request)
 - Additional staffing

As EQB staff gain experience in moving improvements into actual projects, staff will likely want to refine this list of planning questions. EQB staff will want to ensure that the most effective projects move forward in a feasible way.

Creating a sustainable and replicable process

A well-functioning continuous improvement system structures the gathering and vetting of the improvements in a manner aligned with streamlined implementation.

Improved format for gathering improvements

Board and CI Team members have noted that the input provided on improvements was not submitted in a consistent manner. For example, the improvement statement varied in amount of detail provided, if how to accomplish the action was provided, and if a justification was provided on why the improvement is important.

EQB staff developed a potential format on how to ask for feedback on the next iteration of collecting input on the Engagement HQ Tool.

Here is the proposed feedback template.

Pre-fill the formatting of the improvement (example: I would like to see EQB change _____ in order to _____).

(optional) This would ideally be accomplished by new legislation/existing rule change/form updates/guidance updates/training/enforcement/structural changes/other procedural changes).

Short justification: Why? What's the problem you're trying to solve?

Ask: Which criteria do you think this improvement mainly addresses?

Considerations for vetting improvements

EQB staff have designed a review process where they combined improvements by topic when appropriate and assigned each improvement a "likely mechanism" for completion (i.e., Guidance, Rule change, EAW Form change). Staff may find with more experience that there are other vetting or sorting considerations when classifying projects or modifications to their existing process. Also, EQB staff are turning some improvement ideas into "projects" that can be planned and implemented. A project could include multiple improvement ideas, so EQB staff could consider how to structure their vetting of the improvements in order to combine complementary improvement ideas into one project (by, for example, looking at the elements or building blocks involved in the improvement).

Appendix A: Interview guide for state comparison research

This appendix contains the full text of the interview questions

Introduction

Thank you for agreeing to speak with me today about your state's environmental review program. The Minnesota Environmental Quality Board (EQB) has asked Management Analysis and Development (MAD), where I work, to contact representatives of other state environmental review programs and ask these questions. MAD is a division within the State of Minnesota and is a neutral third party.

Data practices

The Minnesota Data Practices Act protects any information that you give MAD. MAD has a special section in state law that helps us keep your information private (Minnesota Statutes 13.64). I will be taking notes that will summarize the themes from the interviews but will leave out names or any other information that could identify specific people in our report. Interview notes will not become public documents and would remain private data. You do not have to take part in this interview—it's completely voluntary. If there are any questions you do not want to answer, you are welcome to skip them.

Questions

1. Could you please tell us briefly about yourself and your role in your organization?
2. Can you tell us about the current administration of your state environmental review program?
 - a) Which state agency administers the program?
 - b) What is the program's main role in the implementation of your state's environmental protection act?
 - c) What are your programmatic goals and objectives?
3. What is the governance structure for your state's environmental review program?
 - a) What enforcement and/or compliance authority do you have, if any?
 - b) Who are the key decision makers?
 - i) How many FTEs do you have?
 - c) What involvement do you have with other responsible government units in the implementation of your state's environmental review program?
4. How does your state environmental review program set programmatic priorities?
5. What trends or emerging needs have you observed for your state's environmental review program? (i.e., climate change, life cycle impacts, cumulative impacts, GHG emissions, etc.)
 - a) How does your program address these emerging issues?
6. How does your environmental review program address cross-jurisdictional issues?
7. What do you think are the advantages/ strengths of your state's environmental review program?
 - a) What practices or approaches have you found to be most impactful/ effective?
 - b) What notable examples of success or best practices can you share?
 - c) What opportunities do you see for your state's program?
8. What challenges have you encountered in your approach?
 - a) How has your state government responded to those challenges?
 - b) What are other opportunities to address those challenges or make general improvements?

9. What improvements have been made to your state's environmental review program, if any?
 - a) What are some lessons learned from these efforts?
10. What information (i.e., performance measures/ data) do you collect to measure results or outcomes of your state's program, if any?
 - a) What mechanism and tools do you use to track this information, if any?
11. Is there anything else you'd like to share with us about your state's environmental review program?

Appendix B: Summary of state comparison data

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Environmental review program oversight entity	<ul style="list-style-type: none"> The Environmental Quality Board (EQB) 	<ul style="list-style-type: none"> The Governor's Office of Planning and Research (OPR) 	<ul style="list-style-type: none"> The Massachusetts Environmental Policy Act (MEPA) Office, located in the Executive Office of Energy and Environmental Affairs (EEA) 	<ul style="list-style-type: none"> The Department of Ecology 	<ul style="list-style-type: none"> No single entity with oversight and administration responsibility.
Entity responsible for developing administrative rules interpreting state environmental policy act	<ul style="list-style-type: none"> EQB 	<ul style="list-style-type: none"> Governor's Office of Planning and Research 	<ul style="list-style-type: none"> Massachusetts Environmental Policy Act Office 	<ul style="list-style-type: none"> Department of Ecology 	<ul style="list-style-type: none"> No single entity responsible. Lead agencies have adopted similar administrative rules and procedural guidelines
Entities responsible for preparing environmental documents	<ul style="list-style-type: none"> Lead agencies or responsible government units 	<ul style="list-style-type: none"> Lead agencies or responsible government units 	<ul style="list-style-type: none"> Lead agencies or responsible government MEPA Office conducts review for projects that require one or more state agency action 	<ul style="list-style-type: none"> Lead agencies or responsible government units 	<ul style="list-style-type: none"> Lead agencies or responsible government units

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Other responsibilities of the environmental review program	<ul style="list-style-type: none"> • Monitor the effectiveness of the program and respond appropriately to modify and improve the effectiveness • Provide guidance documents and technical assistance • Assign responsible governmental units to conduct environmental reviews • Publish the EQB Monitor which is a legislative requirement to post project updates and public comment periods. 	<ul style="list-style-type: none"> • Coordinate state level review and filing of all California Environmental Quality Act (CEQA) documents, including reviewing, and distributing environmental document to state agencies for review • Maintain records of all CEQA documents • Provide technical assistance to state and local government units • In certain circumstances, designate lead agencies • Run the State Clearing House- the state’s single point of contact 	<ul style="list-style-type: none"> • Determine adequacy of environmental documents submitted for a project • Solicit comments from the general public and state agencies • Represent the Secretary at public consultation sessions on projects 	<ul style="list-style-type: none"> • Provide technical assistance to agencies, applicants, and citizens as they participate in the review process • The department also serves as the SEPA lead or co-lead agency for some proposals 	<ul style="list-style-type: none"> • Not applicable

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Programmatic objectives	<ul style="list-style-type: none"> Overall goal is to provide usable information to project proposers, the public and decisionmakers prior to government approvals 	<ul style="list-style-type: none"> Overall goal is to minimize impacts to the environment through public disclosure 	<ul style="list-style-type: none"> Overall mission is to minimize environmental impact 	<ul style="list-style-type: none"> Overall goal is to provide public notice and engagement, systematic analysis of impact and to consider those impacts prior to making decisions and providing updates to laws and rules 	<ul style="list-style-type: none"> Compliance with the law
Oversight entity for enforcement/compliance of state environmental policy act (according to state representatives)	<ul style="list-style-type: none"> Minnesota rules are enforced through litigation 	<ul style="list-style-type: none"> Enforced through litigation 	<ul style="list-style-type: none"> Enforcement lies with the lead agency 	<ul style="list-style-type: none"> Hearing boards or appeal court and lead agency is responsible for enforcement 	<ul style="list-style-type: none"> No authority
Number of FTEs dedicated to ER program	<ul style="list-style-type: none"> 3 FTEs dedicated to administering the environmental review program 	<ul style="list-style-type: none"> 6 FTEs dedicated to clearing house, receiving documents, and providing technical assistance 	<ul style="list-style-type: none"> 7 FTEs total; 5 environmental analysts, 1 Director and 1 admin staff 	<ul style="list-style-type: none"> 10 FTEs total at Ecology (including headquarters and regional units) 	<ul style="list-style-type: none"> 1 FTE coordinator

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Involvement with lead/ responsible agencies/governmental or local units (RGUs and LGUs)	<ul style="list-style-type: none"> • EQB supports with technical assistance, issues letters of extension, reviews and assigns petitions and assigns RGU. • RGUs process petitions and perform environmental reviews 	<ul style="list-style-type: none"> • OPR is responsible for coordinating with state agencies to provide opportunities for review and comments • OPR staff sit on a variety of work groups, commissions, aspects of the CEQA involved 	<ul style="list-style-type: none"> • On a case-by-case basis create advisory committees for regulation revisions • Standing collaborative meetings between EEA (oversight entity), executive office of housing, and department of transportation 	<ul style="list-style-type: none"> • Provide technical assistance • Co-lead with local government for certain type of proposals as requested by local agencies (based on capacity and expertise) 	<ul style="list-style-type: none"> • WEPA coordinator works with other state lead agencies including providing advice and consultation for compliance
Trends and emerging issues	<ul style="list-style-type: none"> • Climate change • Tribal engagement and consultation • Environmental justice • Public/community engagement 	<ul style="list-style-type: none"> • Climate change and greenhouse gas emissions • Tribal consultation 	<ul style="list-style-type: none"> • Climate change • Environmental justice 	<ul style="list-style-type: none"> • Climate change, and greenhouse gas emission assessments • SEPA can be used to assess vessel traffic impact on orca populations—SEPA can issue suggested guidance 	<ul style="list-style-type: none"> • Climate change • Environmental justice

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
<p>How does the program address these issues?</p>	<ul style="list-style-type: none"> • Developing continuous improvement process • Climate is considered on EAW form and guidance • Board subcommittee considers effectiveness of program • Public discussion and then board directs staff on program priorities/initiatives. 	<ul style="list-style-type: none"> • In 2018 OPR and the California Natural Resources Agency updated the guidelines related to new legislation on assessing transportation impacts, greenhouse gas emissions, and climate change. 	<ul style="list-style-type: none"> • MEPA Office promulgated protocols on GHG emissions, and climate change-related guidance to align with statutory updates • Environmental justice- mandate passed with higher level of threshold for environmental impact review, have updated protocols and regulatory changes • Separate climate team with the executive office that developed scientific tools assessing climate risks 	<ul style="list-style-type: none"> • Currently updating rules to streamline GHG emission analysis with rulemaking changes being conducted for Washington State’s climate and clean fuel standard legislations • Provide technical assistance/ guidance. 	<ul style="list-style-type: none"> • Currently no mechanisms in place, looking at NEPA and CEQ for potential guidelines.
<p>How does the program address cross-jurisdictional issues</p>	<ul style="list-style-type: none"> • EQB determines appropriate government agencies (RGUs and LGUs) to do the review • Ombuds and board decides if there's a dispute. • Board can designate themselves as the RGU in cross-jurisdictional issues. 	<ul style="list-style-type: none"> • Notification process including with tribal government and federal government. If a tribe asks to be involved, lead agency has to be notified and they engage, and consult based on tribe’s request 	<ul style="list-style-type: none"> • Through interagency collaboration—if a project requires several different permits, the reviews are consolidated 	<ul style="list-style-type: none"> • NEPA documents are posted on the register • Data sharing agreement in place with the British Columbia, Canada provincial government, including weekly project updates 	<ul style="list-style-type: none"> • Cooperative work with Public Utilities Commission and Department of Transportation • Coordinate/ communicate with tribal and federal government • Cooperation with federal agencies on environmental review

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
<p>Advantages of the current program according to state representatives</p>	<ul style="list-style-type: none"> • The program is designed to provide information to the public for informed and meaningful participation, to project proposers early in the process to reduce their environmental impacts, and to government decision makers on how projects would affect their communities • A coordinating board oversees program requirements for consistent implementation to RGUs. 	<ul style="list-style-type: none"> • Law is self-governing. • Having a dedicated resource through the CEQAnet to bring those impacts and permits together, and consolidating the information and informing the public • Lead agencies are required to include the permitting entities in the environmental documents that are available for public to view on CEQAnet 	<ul style="list-style-type: none"> • Consolidation of the environmental review process. It is housed in a centralized fashion and there are benefits and efficiencies 	<ul style="list-style-type: none"> • Substantive authority to deny a project, and consideration of cultural and historical impact of a proposal. If there are significance adverse impact to these resources, then lead agencies can work with the proposer to mitigate, but also gives lead agency opportunity to deny or condition a permit 	<ul style="list-style-type: none"> • Strategic refocus to shift resources and efforts to projects that are large and controversial. Strategic analysis looks at alternatives, provides information for program decision or rule making

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Challenges of the current program or approach according to representatives	<ul style="list-style-type: none"> • At times, inconsistencies exist with implementation and variable expertise among delegated government units • The rules don't identify any enforcement procedures • The program is not able to measure outcomes from downsizing projects • EQB has only three FTEs and no technical expertise to perform reviews; staff don't prepare technical documents 	<ul style="list-style-type: none"> • Small team dedicated to coordination of statewide review as well as maintaining record of environmental review documents • Documents are submitted by lead agencies and the State Clearing House accepts them as they are; Agencies are instructed to provide accessible documents, but it is a work in progress 	<ul style="list-style-type: none"> • Scoping is limited by statute. For example, topics such as climate change resiliency are not topics that are regulated by a permit program. If analysis is required, they may not get expert review because that permitting agency may not require climate resiliency • Subject matter limitations—being housed within a separate body there is a risk of reviewing procedures diverting from what the permit agencies are doing. The existing staff are not necessarily experts in areas they may have to deal with 	<ul style="list-style-type: none"> • Benefit of environmental review and analysis of impact, but also a regulatory burden and barrier to development, depending on perspectives 	<ul style="list-style-type: none"> • Less staff and resources available when an environmental analysis is required

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Implemented Improvements to the program	<ul style="list-style-type: none"> • A climate question was added in the EAW form • Ombuds position piloted • Convened panel to assess and identify necessary changes which resulted in continuous improvement process • Developing a new, online interface to collect EQB Monitor submittals with a connected searchable database of environmental review projects and the associated documents • Over time, increased staffing from 1.5 to 3 FTE 	<ul style="list-style-type: none"> • Initiated in 2013, and adopted in 2018, OPR and the Natural Resources Agency updated guidelines for improving environmental review to address greenhouse gas emissions and climate change; the state also proposed changes to assess transportation impacts • In 2020, the state clearing house transitioned to two online platforms for environmental document submission and publication, the CEQAnet and CEQA Submit 	<ul style="list-style-type: none"> • Since 2010, Massachusetts has adopted environmental review protocols around GHG, climate change, environmental justice to better align with the state’s climate change and environmental justice legislations • Starting 2022, environmental impact reports are required for any project that impacts air quality within one mile of an environmental justice community as well as advance notification and meaningful community engagement of environmental justice populations 	<ul style="list-style-type: none"> • Updated SEPA Register submission to give agencies authority to create their own records and allows it to be processed in a timelier fashion • SEPA Register also creates a permanent repository of SEPA records, overall improving available information to the public and record management of environmental review 	<ul style="list-style-type: none"> • Rule change to do less environmental analysis on whether or not an EIS is required; It was time consuming and resource intensive. • Have not completed an environmental analysis since 2014. • Rewrote the rules to provide strategic environmental analysis on policy, including addressing emerging issues • Environmental analysis only conducted for large and controversial projects

Theme	Minnesota	California	Massachusetts	Washington	Wisconsin
Performance measures or data collected/ mechanisms and tools used	<ul style="list-style-type: none"> • Data Management Plan, limited information due to the fact that it's a delegated program 	<ul style="list-style-type: none"> • No formal performance metrics • OPR uses Google analytics to provide information on users to the CEQAnet, but not used systematically; the state clearing house is exploring how users currently interact with CEQAnet to further improve upon suggestions. 	<ul style="list-style-type: none"> • Generate reports, basic project numbers and numbers of filings, track environmental justice reports 	<ul style="list-style-type: none"> • Surveys of users to understand what people find valuable 	<ul style="list-style-type: none"> • The number of EAs (has gone down from 2014 from 40 to 0)

Appendix C: Summary of past EQB evaluation recommendations

This section contains the recommendations from past EQB evaluations by the year and source of the recommendation. It is meant to provide an overview of the status of these recommendations. In their review of the recommendations, EQB staff only checked for whether or not a recommendation has been implemented or resolved and not on the feasibility of a recommendation.

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	An administrative appeal process should be established to hear appeals of RGU decisions.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	MEPA (Minnesota Environmental Protection Act) should be amended to direct that the 30-day period for judicial appeals to be filed on the day the RGU's decision is published in the EQB Monitor.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Construction on a project should not be allowed to begin until all judicial appeals under MEPA or MERA (Minnesota Environmental Rights Act) have been decided. Courts should be instructed to give preference to such cases in order to prevent undue delay.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	MEPA should be amended to allow those judicial appeals for projects for which a state agency is the RGU be held either in the county where the project is to be located or in the county where the principal office of the RGU is located, at the discretion of the party filing the appeal.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The following questions should be added to the EAW (Environmental Assessment Worksheet) form: 1) If the project emits criteria air pollutants, is the project site located within a prevention of significant deterioration area for any of these pollutants? If so, what is the size of the remaining increment for those pollutants? 2) If the project emits criteria air pollutants (e.g., sulfur dioxide, particulates), is the project site located in a non-attainment area for any of those pollutants? Which ones? 3) Discuss any inconsistencies between project impacts and any applicable state, regional or local plans.	Not done

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EAW form should direct RGUs for toxics-related projects to contact the Minnesota Technical Assistance Project regarding the existence of feasible pollution prevention measures that would reduce the generation of toxic chemicals.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	3) Clarify exemption from review of highway safety improvement projects in MN Rules. Ch. 4410.4600, subp. 14A. Such exemptions should apply only to specific locations where safety problems exist; they should not be used to exempt entire linear projects from review, as happen currently.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	4) Clarify exemption from review of highway projects consisting of modernization of an existing roadway or bridge that may involve the acquisition of minimal rights-of-way. This exemption has been used to avoid environmental review.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	EAWs should include analysis of a specified range of alternatives to the project. Alternatives to the project as proposed by the developer are only required to be analyzed in EISs (Environmental Impact Statements), not in EAWs. EAWs should not be required to include analysis of alternatives that are irrelevant because of project type, e.g., EAWs for highway projects would not examine alternative processes, but would focus on alternative routes and designs.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	All projects should provide a short description of the project's purpose in environmental documents. Further, all projects proposed by public entities should discuss the need the project will address as well as the beneficiaries of the project.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	MN should offer proposers of projects for which an EIS is not mandatory but which "have the potential for significant environmental effects" the option of avoiding preparing an EIS if the proposer agrees to implement mitigation measures which lower the impacts below that significance threshold.	Not done

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EQB, in consultation with its member agencies, should develop mandatory EAW and EIS review thresholds for the following project types: 1) Commercial composting 2) aquaculture operations 3) agriculture feedlots (EIS only) 4) golf courses (EAW only) 5) facilities discharging sewage, industrial and other wastes into the waters of the state, including indirect discharges to wastewater treatment plants, in amounts greater than 200,000 gallons per day, facilities discharging toxic chemicals into waters of the state, facilities generating air emissions of toxic chemicals 6) facilities generating hazardous wastes 7) storage of toxic chemicals	Partially done- numbers 1,2,3,7 are not done.
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Revise the following thresholds: 1) Add a new threshold for dams to MN Rules Ch. 4410.4300, subp. 24, requiring a mandatory EAW for construction of a dam with an upstream drainage area of 50 square miles or more.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	2) Add a new threshold for highways to MN Rules Ch. 4410.4300, subp. 22, requiring a mandatory EAW for: "D. the reconstruction of an existing road two miles or greater in length if the road is substantially without well-defined right-of-way, or if it involves an increase in right-of-way width of 40% or more including temporary slope easements and borrow areas taken during construction."	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	5) Revise threshold for wetlands to require mandatory EAWs for 1. wetland impacts greater or equal to 1 acre that are within 500 ft of the ordinary high-water mark of recreational development, natural environment, and general development lakes, and 2. cumulative impacts to 5 or more wetland basins and or cumulative wetland impacts equal to or greater than 1 acre.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	6) Lower the mandatory EAW threshold for projects converting forested or other land with native vegetation to a different open space land use from 640 acres to 40 acres.	Not done

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	7) Lower the mandatory EAW threshold for the permanent conversion of forested or other land with native vegetation, including native pasture, from 80 to 20 acres.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Past stages of a project should be counted towards the mandatory threshold. Review is mandatory when the total of past and present phases exceeds the applicable threshold.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EQB and its member agencies should review mandatory categories and thresholds biennially to determine if changes or additions need to be made, i.e., if certain project types that should undergo review are not captured by the current rules.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Th EQB and member agencies should comply with MEPA's requirement for issuing annual environmental quality reports.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EQB should automatically review all environmental documents--EAWs, EISs, responses to comments--for completeness. Incomplete documents should be returned to RGUs with the missing items identified and the understanding that the review process will not proceed until the missing information is supplied.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The record should be a separately prepared document, so that the facts the RGU relies upon to make its decision are unambiguously set out in a form easily obtainable by the public.	Done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Remove the administration of the environmental review program from the EQB and place it in the hands of an independent agency for which such administration is the sole function.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	MEPA should be amended to give the EQB the authority to intervene and reverse RGU decisions for all state and local projects it believes are inconsistent with MEPA, EAWs as well as EISs.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The description of projects in the EQB Monitor should succinctly state the project's major environmental impacts, e.g., type and quantity of air or water pollutants emitted or discharged, acreage of wetlands or forested diminished, etc.	Not done

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EQB, in conjunction with the attorney general's office and the PCA, should develop monetary penalties to be applied to project proponents who fail to conduct review when required.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	A Findings Statement should be issued by each permitting and approval authority documenting the final course of action chosen (including mitigation measures to be carried out); how review documents were used to arrive at it (including reasons for rejection and selection of alternatives), and how the decision complies with MEPA's policy goals.	Not done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Final decisions on permits should be made no sooner than 30 days after the final EAW or EIS decision. In cases where the permit is non-controversial, as evidenced by the absence of intervenors during the draft permit process, this period could be waived.	No EQB authority to do this
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Permits for expansions by facilities which have a history of non-compliance should contain conditions requiring more stringent monitoring and reporting of environmental conditions than would be imposed otherwise.	No EQB authority to do this
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Require RGUs to notify the public of opportunities for participation in the environmental review process by one of the following means: a paid legal notice or ads in a general circulation newspaper, notice posted in the vicinity of the project site, or notice mailed to property owners in the vicinity of the project site.	Partially done
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The deadline for requests for the EQB to make the EIS adequacy determination should be extended to the end of the draft comment period, or five days after the date of the public hearing, whichever is later.	May no longer be relevant
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	The EQB should fully computerize its environmental review record-keeping system to enable immediate access to individual project status and the dates actions were taken, as well as the generation of statistics regarding project types, length of the process, RGU types, etc.	Done

Year	Source	Conducted by	Recommendation	Status
1994	<i>Unfulfilled promises</i>	Minnesota Center for Environmental Advocacy	Language in the rules regarding the range of alternatives to be examined, the depth of examination, and the format of such analysis should be strengthened.	Not done
2007	<i>Technical Representatives' Report to the Environmental Quality Board on Environmental Review</i>	EQB	Policy and Assistance The EQB administers the Environmental Review program and makes certain decisions at the policy level as described in "EQB's Historical and Present Role in Environmental Review" section of this report. Overall, EQB staff and Technical Representatives do not recommend any changes in this role.	EQB does this
2007	<i>Technical Representatives' Report to the Environmental Quality Board on Environmental Review</i>	EQB	Major Structural Reform The EQB staff and Technical Representatives recommend that any new effort to restructure Environmental Review be attempted only if the following conditions are met: 1. There is a clearly defined problem or opportunity that EQB members, given the EQB's mission, feel would be irresponsible of them not to address now; 2. Significant resources (money) are secured for the effort and a workplan is clearly defined; and 3. If, to move structural reform ahead, the board feels that some level of consensus among stakeholders is needed, the process should be headed by professionals with expertise in consensus-building/conflict resolution and ideally experience with similar issues. The EQB staff and Technical Representatives believe that state agency staff should not embark on Environmental Review reform again without leadership from a qualified outside party, possibly from outside the state system and selected through a nationwide search.	Partially done
2011	<i>Environmental Review and Permitting Evaluation Report</i>	Office of the Legislative Auditor	EQB should continue to make its work on customizing EAW forms a priority.	Done
2011	<i>Environmental Review and Permitting Evaluation Report</i>	Office of the Legislative Auditor	EQB should identify best practices of the environmental review process and encourage their widespread use where appropriate.	Done

Year	Source	Conducted by	Recommendation	Status
2011	<i>Environmental Review and Permitting Evaluation Report</i>	Office of the Legislative Auditor	EQB should work with associations of local governments to 1) identify resources to assist local governments that lack experience or expertise with environmental review, and 2) develop and promote environmental review training for continuing education of association members.	Not done
2011	<i>Environmental Review and Permitting Evaluation Report</i>	Office of the Legislative Auditor	EQB should modify the process for redesignating a responsible governmental unit and develop criteria to help potential responsible governmental units determine whether they have sufficient expertise and experience to conduct environmental reviews.	Not done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Strengthen EQB capacity for oversight and assistance in implementation of environmental review	Not done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Develop a better system of making information available	Done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Expand the use of Alternative Urban Areawide Review (AUAR) or AUAR-like alternative review processes	Not done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Develop a pilot screening tool for EAW development and early coordination process.	Not done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Revise EAW to consider broader issues or effects.	Partially done
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	Develop an easier process for RGU re-designation.	Done

Year	Source	Conducted by	Recommendation	Status
2012	<i>Evaluation and Recommendations for Improving Environmental Review</i>	EQB	<p>Hire and retain additional staff to carry out the above recommendations:</p> <ul style="list-style-type: none"> - At a minimum, two FTEs should be dedicated solely to administration of the environmental review program with appropriate administrative support and leadership from an Executive Director. - A substantial one-time cost and an annual maintenance cost will be needed to implement the second priority recommendation. - A substantial one-time cost and an annual maintenance cost will be needed to implement the second priority recommendation. 	Partially done

Year	Source	Conducted by	Recommendation	Status
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Streamlining the process, flexibility, and alternatives</p> <p><i>Problem statements:</i></p> <ul style="list-style-type: none"> • <i>The intersection between federal, state, and local permitting requirements can sometimes result in redundancies that needlessly slow the process.</i> • <i>The current ER process might not allow enough flexibility when potential environmental effects are evaluated under multiple regulatory processes.</i> <p>Panel recommendations:</p> <ol style="list-style-type: none"> 1. The EQB should review and update as needed, existing guidance and rules relative to developing a scoped EAW. 2. The EQB should consider a pilot for a new process for an application for exception to an EAW when an EAW is mandatory pursuant to MN Rules 4410.1000. 3. Instead of an “expedited” process, a new process for an “application for exception” should be created. <ul style="list-style-type: none"> o The process would be similar to the petition process, except that it would be initiated by a project proposer for an exception. o A project proposer could submit an application, with sufficient information that an RGU would be able to use the criteria in MN Rules 4410.1700 to decide whether an EAW must be prepared because the project may have has the potential for significant environmental effects. 	Not done

Year	Source	Conducted by	Recommendation	Status
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Education and outreach <i>Problem statement: Project proposers, RGUs, and the public need more information and training about the ER process, how environmental review relates to other regulatory processes, and best practices for public engagement.</i></p> <p>Panel recommendations:</p> <ol style="list-style-type: none"> 1. The EQB should develop best practices around notification policy, including tribal notification. 2. The EQB should facilitate technical support from state experts for topic areas outside of their permitting authority. 3. The EQB should build capacity among RGUs, project proposers, and consultants to advance effective public engagement. <ul style="list-style-type: none"> o The EQB should continuously identify, document, and disseminate best practices through its website; trainings for RGUs, project proposers, and consultants; workshops for sharing best practices among practitioners; and supporting documents. 4. Provide training for local RGUs to ensure consistent approaches for implementing Minnesota Rules 4410. 5. Convene a practitioners' group of RGUs, specialized consultants, and other interested parties for recurring meetings to increase information sharing and identification of new and emerging issues. 	Not done

Year	Source	Conducted by	Recommendation	Status
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Health impact <i>Problem statement: There isn't a consistent approach for assessing all aspects of health in the ER process.</i></p> <p>Panel recommendation EQB should provide more guidance on how to incorporate human health impacts into environmental review. Moreover, this guidance should provide a variety of options, including but not limited to how to complete the EAW form with greater human health impacts considered in each question; using EAWs as a screening tool for an HIA; including HIAs in EISs—particularly in scoping of the EIS and any other method that could better integrate a human health perspective into ER.</p>	Not done
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Climate change considerations, including greenhouse gas calculations <i>Problem statement: There isn't a consistent approach for assessing climate change-related impacts in the ER process.</i></p> <p>Panel recommendations:</p> <ol style="list-style-type: none"> 1. To support RGUs in the quantification of their GHG emissions in metric tons of carbon dioxide equivalent for all mandatory categories, the EQB should develop and disseminate guidance and tools, including a consistent and simple calculation method. 2. All EAWs should provide a narrative discussion of the project's climate adaptation planning and emission mitigation opportunities. 3. Additional stakeholder engagement should take place before any recommendations are implemented. 	Done

Year	Source	Conducted by	Recommendation	Status
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Mandatory category rulemaking <i>Problem statement: Some mandatory categories and thresholds may be confusing and not align with recent program updates.</i></p> <p>Panel recommendation:</p> <ol style="list-style-type: none"> 1. Broaden the scope of categories that were identified in the proposed 2017 rulemaking to include panel recommendations for specific categories (see page 17). 2. Identify all categories that have thresholds for applicability and affirm with RGUs with permitting authority if those thresholds are still appropriate; make changes if needed. 3. Evaluate and eliminate some existing categories, if those project types no longer have the potential for significant environmental effects. 4. Ensure mandatory categories are easily understood and the thresholds are relevant. 	Partially done

Year	Source	Conducted by	Recommendation	Status
2018	<i>Environmental Review Advisory Panel Evaluation</i>	MAD	<p>Meaningful engagement in the ER process <i>Problem statement: Competing needs and different levels of understanding between project proposers, RGUs, and the public can result in ineffective public engagement in the ER process.</i></p> <p>Panel recommendations:</p> <ol style="list-style-type: none"> 1. The EQB should more actively recruit tribal representatives on future panels as the panel observed a lack of representation of tribal voices in the ER process. 2. The ER program should intentionally recruit and engage diverse audiences, with particular emphasis on people who are traditionally underrepresented and underserved. 3. Recommend RGUs to use accepted best practices for public engagement that are appropriate for their project needs. <ul style="list-style-type: none"> o The EQB should continually identify, document, and disseminate define best practices through its website; trainings or workshops for RGUs, project proposers, and consultants; and supporting documents. 4. Encourage RGUs to bring the public into project discussions early in the process and provide guidance for initiating conversations with the public. 5. Add a question on the EAW form that asks project proposers and RGUs to describe the public engagement process. The form should also specify opportunities for public participation in other approval processes. 6. A concise summary in plain language should be provided at the beginning of the ER document. 	Not done

Year	Source	Conducted by	Recommendation	Status
2021	<i>Mending MEPA Analysis: Properly Addressing Climate Change Costs Under the Minnesota Environmental Policy Act</i>	Minnesota Journal of Law, Science & Technology	<p>The proposed draft guidance still lets too many projects fall through the environmental review cracks.</p> <p>1) The Draft Recommendations’ so-called “de minimis” threshold of 25,000 tons per year for requiring additional climate and mitigation discussion is far too high. With this threshold, EAWs for projects emitting fewer than 25,000 tons per year of greenhouse gases would not have to contain more detailed mitigation information or discuss consistency with state emissions reduction goals. Calling 25,000 tons per year a “de mini-mis” threshold—and requiring less analysis for smaller projects—creates a risk of inaccurately implying that smaller quantities of greenhouse gas emissions may not be significant under MEPA. To gather the most relevant information about climate impacts and best inform significance determinations, Minnesota RGUs should be required to include more detailed context and mitigation discussion in all EAWs, regardless of a project’s total emissions.</p> <p>2) The EQB should consider a much broader mandatory EAW category, or else provide more guidance as to what level of emissions should require a discretionary EAW.</p> <p>3) This situation calls for an increased focus on mitigation. If RGUs are to properly recognize the cumulative significance of numerous smaller-emitting facilities and additional project types, they would benefit from tools that allow them to approve those facilities without undertaking an impossible number of EISs.</p>	Not done

Year	Source	Conducted by	Recommendation	Status
2021	<i>Mending MEPA Analysis: Properly Addressing Climate Change Costs Under the Minnesota Environmental Policy Act</i>	Minnesota Journal of Law, Science & Technology	EQB could clarify further—either through guidance or a regulatory change to the EIS decision criteria—that RGUs should evaluate the significance of greenhouse gas emissions in the context of broader statutory and policy goals. This context is important because of the cumulative nature of climate change; standing alone, a bare number of several thousand (or million) tons of CO ₂ emissions may not mean much to a decision-maker. The current Minnesota EAW form asks for project emissions but provides no accompanying information for courts or policymakers to assess the meaning of those numbers.	Not done
2021	<i>Mending MEPA Analysis: Properly Addressing Climate Change Costs Under the Minnesota Environmental Policy Act</i>	Minnesota Journal of Law, Science & Technology	The EQB could provide guidance for RGUs on calculating climate costs. While emissions data is a critical piece of the puzzle, it does not tell the full story. The harmful impact of greenhouse gas emissions comes not from their mere presence in the air, but from their contribution to climate change. One solution would be to add a question to the EAW form asking for a discussion of the impact of the project’s emissions on climate change. The EQB could supplement that discussion with guidance for project proposers on calculating the social cost of carbon (which can be done with a simple formula—the social cost of carbon is measured in dollars per ton).	Not done

Appendix D: Environmental Quality Board members

Agency leaders

- Grace Arnold, Commissioner (Department of Commerce)
- Brooke Cunningham, Commissioner (Department of Health)
- Nancy Daubenberger, Commissioner (Department of Transportation) and Chair of EQB
- Katrina Kessler, Commissioner (Pollution Control Agency)
- Kevin McKinnon, Acting Commissioner (Department of Employment and Economic Development)
- Thom Peterson, Commissioner (Department of Agriculture)
- Alice Roberts-Davis, Commissioner (Department of Administration)
- Sarah Strommen, Commissioner, (Department of Natural Resources)
- Gerald L. Van Amburg, Board of Water and Soil Resources Chair
- Charles Zelle, Metropolitan Council Chair (nonvoting member)

Public appointees

- Peter Bakken, Congressional District 1
- Joseph Bauerkemper, Congressional District 8
- Kenneth Foster, Congressional District 7
- Rylee Hince, Congressional District 2
- Dan Katzenberger, Congressional District 3
- Mehmet Konar-Steenberg, Congressional District 5
- Nicholas Martin, Congressional District 4
- Paul Nelson, Congressional District 6

Appendix E: Interagency Continuous Improvement Team

Agencies represented:

- Metropolitan Council
- Minnesota Department of Agriculture
- Minnesota Department of Commerce
- Minnesota Department of Employment and Economic Development
- Minnesota Department of Health
- Minnesota Department of Natural Resources
- Minnesota Department of Transportation
- Minnesota Pollution Control Agency

Staff from the Environmental Quality Board and consultants from with Management Analysis and Development (MAD) supported and facilitated the Interagency Continuous Improvement Team meetings.

Appendix F: Results of scoring 2023

improvements

The improvements were collected from past research, heard during a listening session, or submitted by members of the public during the engagement portion of the CI project. The wording of the improvement suggestions are in the words of the submitters—EQB staff may have grouped or separated comments. The descriptions of the improvements were not edited for clarity or to fix grammatical errors. EQB staff scored over eighty improvements. The results of the scoring of the improvements are contained in the table below.

Improvements	Total Score
<p>What I would suggest is a neutral body possibly funded by EQB, that is simply a pool of experts, who are independent and have no interest except getting the science of an environmental document right, this could function like peer review for scientific journals. If there's money available, and the idea would help stop the logjam of lawsuits, the model I go by is the UN intergovernmental panel on climate change, it is a large pool of unpaid scientists, but do it out of dedication to the integrity of science. This objective independent panel could function that way, and free up this whole amount of money and time and effort that this spent in these factual wars, yet it is not about the facts we are warring on opinion. If you have got money, I suggest that is how you might spend it..... I suggest EQB Improve the Science with informal or formal Peer Review – Most easily done by separating public comments by credentialed experts from lay comments and requirement to disclose conflicts of interest. More effective formal peer review would emulate scientific literature review by having pool of independent experts on retainer (not consultants) review EAWs and EISs for scientific integrity. ER could emulate scientific literature, professional publication undergoes multiple rounds of objective, disinterested peer review. EQB could create a pool of experts to provide this service and have funding available for these independent expert's work.</p>	<p>12</p>
<p>A Findings Statement should be issued by each permitting and approval authority documenting the final course of action chosen (including mitigation measures to be carried out); how review documents were used to arrive at it (including reasons for rejection and selection of alternatives), and how the decision complies with MEPA's policy goals.</p>	<p>11</p>
<p>Establish Threshold Criteria for Significance of Impact—Improved guidance and criteria for RGU decisions on whether significant environmental effects are predictable from a proposed project.</p>	<p>11</p>
<p>Require a full assessment of the environmental impacts over the lifetime of a proposed project or facility. Consider realistic expansion plans and how the product and its production materials will be disposed of, including for example, complete environmental assessment of a project's impact including greenhouse gas emissions, health impacts, stream flows, water quality impacts, air quality impacts, and landfill impacts. An assessment should provide not just the direct emissions</p>	<p>11</p>

Improvements	Total Score
or outputs, but the environmental context of the project so that its cumulative impact can be addressed	
Improve annual public reporting on the accumulative impact of all approved projects, including impacts on water and projected GHG emissions; additional review requirements to better assess and protect waters from cumulative impacts	11
Tribal governments as elected officials representing a sovereign nation have a right to petition the state as a governmental body and not as a “citizen group”. Tribes should not have to procure 100 signatures to request any form of environmental review.	10
It would be very useful if the EQB could serve as a go between when permits are issued during a prohibition or other process issues arise. EQB could issue advisory opinions that petitioners could use. EQB could provide some sort of redress to petitioners short of bringing a lawsuit. Evaluate What possible role could EQB play to provide independent advisory (only) review for ER challenges, agency actions and/or decisions? The goal being to reduce unnecessary legal challenges, costs, wasted time, resources and divisiveness.	10
Strengthen EQB capacity for oversight and assistance in implementation of environmental review	9
EQB could address this by improving guidance on the cumulative impacts analysis and/or clarifying what is required in rule. Create cumulative impacts standards. Until they exist, reviews must consider pre-existing conditions. Properly consider cumulative environmental impacts of individual projects in context of overall pollution burden in watershed/airshed. Incorporate an analysis of a project’s contribution to cumulative pollution burdens that will occur in concert with other, neighboring industries and sources of emissions and pollution discharge. Consider cumulative pollution burden already existing in a community before allowing additional burdens. Include overall environmental status of area when determining an EAW in reviewing a project’s impact (example: pre-existing conditions like level of use in the area, type of use, waterways, logging roads, etc.) The ER process should determine significant cumulative impacts and consider them in reviews	9
Treaties are the supreme law of the land and should be honored in every project under consideration; Honor treaties and Indigenous sovereign nations’ rights and requests to land use	9
EAW petitions should be automatically granted if 50 or more signees live within 10 miles of the proposed project.	8
The public should also be able to petition for an EIS if 100 or more people who live within 10 miles of the proposed project sign a petition.	8
Create an appeal process that does not involve going to District Court. An administrative appeal process should be established to hear appeals of RGU decisions.	8
The EQB should automatically review all environmental documents—EAWs, EISs, responses to comments—for completeness. Incomplete documents should be returned to RGUs with the	8

Improvements	Total Score
missing items identified and the understanding that the review process will not proceed until the missing information is supplied.	
EQB could clarify further—either through guidance or a regulatory change to the EIS decision criteria—that RGUs should evaluate the significance of greenhouse gas emissions in the context of broader statutory and policy goals.	8
The EQB, in conjunction with the attorney general's office and the PCA, should develop monetary penalties to be applied to project proponents who fail to conduct review when required.	8
Environmental review must require inclusion of an assessment of environmental justice issues. Stricter criteria in the revised ER rule for assessing potential climate effects in EJ defined communities. The EQB should require projects to use tools such as EPA’s EJScreen, MPCA’s MNRisk cumulative pollution modeling, and MDH health data, along with localized community knowledge in assessing and getting a full picture of these impacts. Establish a robust EJ Engagement Strategy for all Environmental Review processes and proposed rule changes. EQB must have a strong definition of Environmental Justice to inform its engagement processes and criteria for EAWs and EISs.	8
Language in the rules regarding the range of alternatives to be examined, the depth of examination, and the format of such analysis should be strengthened.	8
MEPA should be amended to give the EQB the authority to intervene and reverse RGU decisions for all state and local projects it believes are inconsistent with MEPA, EAWs as well as EISs.	8
Hold a public hearing in the county where a project is being proposed to take official public comment and answer questions about the proposal.	7
Now that EAWs consider GHG emissions, add guidance about what level of GHG emissions should require an EIS.	7
Include health impact assessments and prioritize consideration of impacts pollutants that adversely impact existing health issues locally. Health assessments should be included with all environmental reviews	7
Past stages of a project should be counted towards the mandatory threshold. Review is mandatory when the total of past and present phases exceeds the applicable threshold.	7
Modify Minn. R. 4410.1500 to include a mechanism requiring all RGUs to notify local/state agencies when a proposed project will be undergoing environmental review to ensure agencies do not make final governmental decisions on the proposed project until environmental review has been completed.	6
The EQB should continually identify, document, and disseminate define best practices through its website; trainings or workshops for RGUs, project proposers, and consultants; and supporting documents. 4. Encourage RGUs to bring the public into project discussions early in the process and provide guidance for initiating conversations with the public.	6

Improvements	Total Score
EQB staff really help with process but technical assistance on hard environmental issues is not a role EQB staff have been allowed or equipped to do. Having a pool of independent experts available would be very useful.	6
The alternative EAW form for feedlots should be revised to require the same climate change information included in the new EAW form.	6
Eliminate the comparative environmental analysis process for pipeline environmental review.	6
Improved training around the AUAR process and how that provides additional flexibility as LGUs work through their comprehensive and economic development planning while promoting sustainable development and conserving our natural and cultural resources.	5
Train folks with regional reach (universities, extension offices like RSDP, etc.) to be able to help small LGUs effectively complete review	5
work with associations of local governments to 1) identify resources to assist local governments that lack experience or expertise with environmental review, and 2) develop and promote environmental review training for continuing education of association members. Additional training opportunities for LGU's, especially small LGU's that deal infrequently with EAW's especially on how a project does/does not fall into a mandatory category. obtain and grant funding to smaller LGUs to help complete reviews. Provide training and funding for small LGUs to ensure they're in compliance with MN regulations. 4. Provide training for local RGUs to ensure consistent approaches for implementing Minnesota Rules 4410. create and administer cost share options that smaller RGUs could access to ensure they are following MN Rules and that they understand them.	5
The EQB should develop best practices around notification policy, including tribal notification.	5
The EQB should continuously identify, document, and disseminate best practices through its website; trainings for RGUs, project proposers, and consultants; workshops for sharing best practices among practitioners; and supporting documents.	5
Convene a practitioner's group of RGUs, specialized consultants, and other interested parties for recurring meetings to increase information sharing and identification of new and emerging issues.	5
Update definition of Cumulative Environmental Impacts or Effects in EQB guidance and EAW form to comport with the scientific definition rather than the confusing Card Decision. U.S. EPA has just issued guidance for federal environmental review agencies that can now be authoritatively incorporated into EQB guidance and EAW forms. EQB needs to go to a scientific definition on what cumulative effects and impact are. For help you can go to the EPA and the president's council on environmental quality go to these for definitions.	5
Provide guidance to RGUs on how to format documents meeting Section 508 requirements for accessibly and also consider multiple languages as well	5

Improvements	Total Score
<p>The EQB should consider a pilot for a new process for an application for exception to an EAW when an EAW is mandatory pursuant to Minnesota Rules 4410.1000. Instead of an “expedited” process, a new process for an “application for exception” should be created.</p> <ul style="list-style-type: none"> o The process would be similar to the petition process, except that it would be initiated by a project proposer for an exception. o A project proposer could submit an application, with sufficient information that an RGU would be able to use the criteria in Minnesota Rules 4410.1700 to decide whether an EAW must be prepared because the project may have has the potential for significant environmental effects. 	5
<p>Add alternatives analysis to EAWs or [amend] the EAW to require alternatives assessments. EAWs should include analysis of a specified range of alternatives to the project. provide some method of alternatives development in the EAW, that would be scoped and further developed in an EIS, if required. the alternatives and mitigations analysis required for EISes should be incorporated into the EAW as well</p>	5
<p>Please include full lifecycle accounting of greenhouse gas emissions related to all project (EAW, EIS, AUAR) in addition to direct and indirect emissions. For example, without looking at lifecycle emissions, the climate impact of the actual oil in an oil pipeline isn’t counted—only the impact of the electricity to run the pumps that push it through the pipe. I ask that you update the agency guidance and/or the EAW to include a full lifecycle accounting of greenhouse gas emissions related to a project, in addition to the currently required calculation of direct and indirect emissions. Proposed projects requiring environmental review must include an accounting of lifecycle greenhouse gas emissions; Require full lifecycle accounting on EAW guidance</p>	5
<p>Enforce existing law; order EIS for large-scale feedlots.</p>	5
<p>Improve Federal Endangered Species Act Compliance</p> <p>Section 9 of the federal Endangered Species Act ("Act") prohibits ANY PERSON from “taking” an endangered species of fish or wildlife. Note "person" under the Act includes businesses and other corporations. The Section 9 take prohibition applies to federal and non-federal activities, including activities on private property. “Take” is broadly defined under the Act. To take a species is to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect. Harm includes activities that destroy or significantly modify habitat to an extent that it actually kills or injures the endangered species. Harassment includes intentional or negligent act or omission which creates the likelihood of injury by annoying it in a way that disrupts normal behavioral patterns.</p> <p>Despite the Act’s applicability to state and private projects, state EAWs typically fail to adequately discuss effects to federally endangered and threatened species. EAWs also typically fail to address compliance strategies for projects that are reasonably certain to result in “take” under the Act. Absent this information, RGUs are making project approval decisions without taking a hard look at</p>	5

Improvements	Total Score
<p>the proposed project’s effects to species protected by the Act.</p> <p>Note that many proposed projects occurring within the Twin Cities metro are reasonably certain to result in take (i.e., adverse effects) for the federally endangered rusty-patched bumble bee per USFWS guidelines. In greater Minnesota, take of northern long-eared bats is also reasonably certain to occur in many cases.</p>	
<ol style="list-style-type: none"> 1. The EQB should more actively recruit tribal representatives on future panels as the panel observed a lack of representation of tribal voices in the ER process. 2. The ER program should intentionally recruit and engage diverse audiences, with particular emphasis on people who are traditionally underrepresented and underserved. 3. Recommend RGUs to use accepted best practices for public engagement that are appropriate for their project needs. 	5
<p>EQB should provide more guidance on how to incorporate human health impacts into environmental review. Moreover, this guidance should provide a variety of options, including but not limited to how to complete the EAW form with greater human health impacts considered in each question; using EAWs as a screening tool for an HIA; including HIAs in EISs—particularly in scoping of the EIS and any other method that could better integrate a human health perspective into ER.</p>	5
<p>Authorize judicial review of scoping decisions</p>	5
<p>MEPA should be amended to allow that judicial appeals for projects for which a state agency is the RGU be held either in the county where the project is to be located or in the county where the principal office of the RGU is located, at the discretion of the party filing the appeal.</p>	5
<p>Identify best practices of the environmental review process and encourage their widespread use where appropriate.</p>	4
<p>Burning biomass should not be counted as carbon neutral in greenhouse gas emissions calculations. Accordingly, the guidance should be changed to count emissions from biomass regardless of its provenance.</p>	4
<p>Issue clear guidance for how far upstream and downstream a source needs to look at its impact.</p>	4
<p>Construction on a project should not be allowed to begin until all judicial appeals under MEPA or MERA have been decided. Courts should be instructed to give preference to such cases in order to prevent undue delay.</p>	4
<p>Cost Accounting of GHG lifetime emissions with estimations on a yearly basis. Cost Accounting should be standard, including loss of traditional plant medicines and ecological/traditional value as well as the full environmental footprint as determined through life cycle analysis methods. This is important to account for even when it happens outside the State of Minnesota as the climate of the earth as a system will still impact us in Minnesota.</p>	4

Improvements	Total Score
Supplement the EAW form climate question with guidance for project proposers on calculating the social cost of carbon (which can be done with a simple formula—the social cost of carbon is measured in dollars per ton).	4
Automate the notifications to required agencies and public locales when an environmental review document is submitted.	3
The description of projects in the EQB Monitor should succinctly state the project’s major environmental impacts, e.g., type and quantity of air or water pollutants emitted or discharged, acreage of wetlands or forested diminished, etc.	3
Develop a pilot screening tool for EAW development and early coordination process.	3
Require clear language standards and document length limits	3
All projects should provide a short description of the project’s purpose in environmental documents. Further, all projects proposed by public entities should discuss the need the project will address as well as the beneficiaries of the project.	3
Sending a postcard to all Minnesotans who live within a 10-mile radius of a proposed project with details on how they can learn more about the project, how they can provide input, and what the timeline is.	3
<p>Revise language regarding MEPA appeals in Minn. R. 4410.0400 to be consistent with MEPA.</p> <p>MCEA proposes revising language about the format of appeals in Minn. R. 4410.0400, subp. 4 because the Rule is inconsistent with MEPA.</p> <p>The Rule provides that decisions on the need for an EAW, the need for an EIS, the adequacy of an EIS, and the adequacy of an alternative urban areawide review (“AUAR”) document may be reviewed through a declaratory judgment action in district court. This language came from the 1980 version of MEPA, which was enacted before the Court of Appeals was created. However, in 2011, the Minnesota Legislature revised MEPA to authorize review of decisions on the need for an EAW, the need for an EIS, or the adequacy of an EIS pursuant to the Minnesota Administrative Procedure Act in the Court of Appeals. Minn. Stat. 116D.04, subd. 10. Accordingly, the rule is now inconsistent with the statute with regard to the method of obtaining judicial review for such decisions.</p> <p>The Rule should be revised to be consistent with MEPA. This would ensure parties are aware that (1) these decisions are now reviewed in the Court of Appeals and (2) a petition for writ of certiorari must be filed and served within 30 days of notice of the final decision in the EQB Monitor. In addition, because the statutory language does not specifically provide for judicial review of an AUAR, MCEA proposes that the language of the rule be changed to provide for review of an AUAR in the Court of Appeals as well, to ensure that review of all decisions may be</p>	3

Improvements	Total Score
<p>obtained in the same manner. See Final Alternative Urban Areawide Review and Mitigation Plan For the Upper Harbor Terminal Development, 973 N.W.2d 331 (Minn. App. 2022).</p> <p>MCEA proposes the following rule language:</p> <p>Decisions by an RGU on the need for an EAW, the need for an EIS, the adequacy of an EIS, or the need for or adequacy of an AUAR are final decisions and may be reviewed as provided in Minn. Stat. 116D.04, subd. 10.</p>	
<p>Environmental Assessment Worksheets do not consider potential economic or social impacts. These impacts should be considered in EAWs.</p>	3
<p>To truly assess whether water resources are available for appropriation, the EAW should provide sufficient information to determine whether the proposed water appropriation meets the statutory standards. This issue can be resolved by revising EQB’s guidance to state that when DNR requires an aquifer test as part of the water appropriation permit process, the results of that aquifer test must be included in the EAW. When a project requires an aquifer test for a water appropriations permit, the aquifer test must be included in the EAW.</p>	3
<p>Make the standard public comment be 60 days from when notice is given to local communities.</p>	2
<p>EQB should facilitate technical support from state experts for topic areas outside of their permitting authority.</p>	2
<p>The EQB should build capacity among RGUs, project proposers, and consultants to advance effective public engagement.</p>	2
<p>The EAW form should direct RGUs for toxics-related projects to contact the Minnesota Technical Assistance Project re: the existence of feasible pollution prevention measures that would reduce the generation of toxic chemicals.</p>	2
<p>Anaerobic digesters, ethanol, nuclear should be studied</p>	2
<p>Low Frequency Noise from wind turbines causes sickness in people and animals. Assess it.</p>	2
<p>RGU conflict of interests should be resolved. The RGU or acting authority over the MEPA process for projects needs to not have a vested interest, or a real or perceived conflict of interest. For example, a City government should not be the RGU for its own City project. This is a conflict of interest and should be accounted for in the ER rules. The entity that completes the EAW should be unrelated to the proposed project, the project developer and the RGU. The most “disinterested” level of government should be assigned as RGU—not the most local, who are often fully committed to the project. Seek RGU's that can fairly evaluate the public interest</p>	2
<p>Any GHG mitigation plans for projects must have meaningful engagement, transparency, accountability, and benefit to communities where projects are located. A project should be able to quantify and demonstrate that community benefit. Emission reductions/benefit must occur</p>	2

Improvements	Total Score
where the pollution impacts are. Offsets and other mitigative measures in other locations are fundamentally unjust, as they inherently increase the pollution burden within an already impacted community.	
Anti-racism training by state employees and EQB board members working on Environmental Review should be required. State employees and others such as board members working on the environmental review process should be required to take annual and ongoing anti-racism development courses.	2
Assess any actions EQB may take to prevent gaps in federal versus state procedures, specifically to prevent approvals without full environmental reviews (including foreseeable expansions)	2
Streamline review for clean energy projects like wind, solar, energy storage, and transmission lines	1
Remove the administration of the environmental review program from the EQB and place it in the hands of an independent agency for which such administration is the sole function.	1
The definition of what constitutes a “mitigation” under Minnesota Rule 4410.1700, subd. 7 should be modified to include the definition that the Minnesota Supreme Court established in Citizens Advocating Responsible Dev. v. Kandiyohi Cnty. Bd. of Comm'rs, 713 N.W.2d 817, 835 (Minn. 2006) (“CARD”).	1
There should be public transparency in discussions between project proposers and RGUs. Sharing how a project proposer has been willing to change the design of its project to mitigate the project’s possible environmental effects will help build more trust in the environmental review process and in the RGUs that perform it. If this information is never shared with the public, the public can only assume that projects are rarely, if ever, asked by RGUs to change in order to reduce their impacts, leading to pervasive distrust of the environmental review process and the agencies and governments that perform environmental review. If projects are modifying their designs to reduce their impacts, this is something the public should know as part of the environmental review process.	1
Expand the use of Alternative Urban Areawide Review (AUAR) or AUAR-like alternative review processes	1
Revise EQB guidance and EAW form to both reflect and capture the urgency, scope, and scale of the on-going dual Biodiversity/Climate crises. Begin by changing the narrative; use “climate crises or emergency” and “ecosystem dysfunction crises” rather than softer terms like “climate change”	0
Stop Bait & Switch programs where mining companies get a small project environmentally okayed but then can switch it to a much larger project	0
Project proposers should no longer be allowed to fund the preparation of environmental review documents for their own projects	0
Third party contractors should no longer be allowed to draft environmental review documents	0

Improvements	Total Score
The deadline for requests for the EQB to make the EIS adequacy determination should be extended to the end of the draft comment period, or five days after the date of the public hearing, whichever is later	0
MEPA should be amended to direct that the 30-day period for judicial appeals to be filed on the day the RGU's decision is published in the EQB Monitor.	0
Consider addition of a toxics review board	0
Explore why so few EISs are ordered by RGUs and propose changes to guidance or rules that would ensure projects that have the potential to significantly affect the environment undergo an EIS, as required by MEPA.	0

Appendix G: Board Resolution – Approval of CI Process

Note: the resolution below was approved by the Minnesota Environmental Quality Board at the June 21, 2023, board meeting.



Resolution of the Minnesota Environmental Quality Board - Approval of the 2023 continuous improvement process for the environmental review program

Introduction

Minnesota’s Environmental Review Program (ER Program) was created in 1973 to provide usable information to communities, decision makers, and project proposers for a wide variety of projects. Historically, program updates occurred through legislative direction, mandatory category evaluation, and other initiatives – usually in response to a specific issue. EQB wants to ensure that the environmental review program continues to serve the needs of Minnesota well into the future. To this end, EQB has chosen to build a continuous improvement approach to be more proactive and systematic in making necessary changes.

The goal of the continuous improvement process is to identify and prioritize program changes in a strategic, transparent, and efficient manner to support continuous evolution and optimization of the program.

Board authorities

The Board is responsible for monitoring the effectiveness of the state environmental review program and is directed by rule to take appropriate measures to modify and improve the effectiveness (Minn. R. 4410.0400).

Background

The Minnesota Environmental Quality Board (EQB) contracted with Management Analysis and Development (MAD) to help coordinate the development of a continuous improvement process.

MAD consultants conducted research on:

- Recommendations from past EQB evaluations: A review of recommendations from ten reports consisting of past EQB evaluations conducted between 1994 and 2021.
- Notable examples of successes and best practices: Interviews with environmental review program state representatives in California, Massachusetts, Washington, and Wisconsin.
- Best practices in the literature: A focused literature review examining best or emerging practices in environmental review.

Between January and March 2023, MAD and EQB staff gathered input in two main ways:

- A listening session held on Monday, January 30, 2023.
- Written feedback gathered through the online Engagement HQ platform from January through March 2023.

MAD and EQB staff conducted regular meetings to gain feedback from:

- A continuous improvement interagency team.
- Board members at EQB monthly meetings.

This effort culminates in a proposed continuous improvement process, to be executed at least once a biennium, with the following proposed procedural steps:

1. Solicit ideas for program improvements.
The process will begin with a call for suggestions for programmatic improvements from governmental partners, stakeholders, and the public. Ideas for improvements will be collected through multiple channels including, but not limited to an engagement HQ online platform, phone calls, emails, and meetings.
2. Review the scope of the improvements.
All improvements must pertain to EQB's purview or represent ideas that could reasonably fit under EQB purview. Ideas that pertain solely to the authority of other agencies would not move forward in the process. EQB staff will make and document such determinations.
3. Evaluate and score improvements using a program effectiveness prioritization matrix.
EQB staff will run scoped-in improvements through the prioritization matrix, scoring improvement ideas based on how they meet the criteria for program effectiveness. Improvements will be ordered based on how they contribute to overall program effectiveness.
4. Plan for implementation of improvements.
EQB staff will consider logistics and resource needs for undertaking the improvements that met the most criteria for program effectiveness. Staff will present this information to the Environmental Review Implementations Subcommittee (ERIS) and make a recommendation for which improvements to act upon.
5. ERIS completes review of implementation planning.
ERIS will review the improvement ideas, their matrix scoring, and the implementation considerations. ERIS will make a recommendation to the board on which improvement projects the EQB should implement.
6. Board completes review and directs staff to implement selected projects.

The board will review ERIS's recommendation and reach a consensus on which improvements EQB would like to focus on for a time period as determined by the board.

Findings

Regular implementation of this standardized six-step process will provide consistency in assessment and implementation of environmental review program improvement suggestions. The process steps are comprehensive, action-oriented, and inclusive. They are the result of over six months of research, engagement, and board member feedback.

This process will:

- Provide clarity on the board's definition of an effective program, through the criteria in the prioritization matrix;
- Allow the board to clearly identify areas of improvement and maintain knowledge of needed improvements over time;
- Create a standardized way of prioritizing needed improvements; and
- Provide a transparent evaluation process showing why improvements are (or are not) pursued.

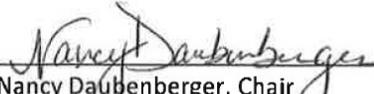
Resolution

The board resolves to adopt and use the following continuous improvement procedural steps at least once a biennium for the environmental review program:

1. EQB staff solicit ideas for program improvements.
2. EQB staff review the scope of the improvements.
3. EQB staff evaluate and score improvements using a program effectiveness prioritization matrix.
4. EQB staff plan for implementation of improvements.
5. ERIS completes review of implementation planning.
6. Board completes review and directs staff to implement selected projects.

These steps will be re-evaluated at least every four years, so the board may make any necessary adjustments.

The board approved and adopted this resolution on June 21, 2023.



Nancy Daubenberger, Chair
Minnesota Environmental Quality Board

Date: 6/21/2023