

## Memo

**Date:** October 7, 2022

**To:** Environmental Review Implementation Subcommittee

**From:** Interagency Climate Technical Team

### **RE: Environmental review and climate pilot program conclusions, recommendations, and implementation summaries**

During the September 2021 meeting, Environmental Quality Board (EQB or Board) members directed staff to implement a pilot program from January through September 2022 to evaluate the use of a draft revised Environmental Assessment Worksheet (EAW) form that includes new questions related to climate change. During the meeting, Board members convened a subcommittee (Subcommittee for Pilot Program Implementation) to design and oversee implementation of the pilot program. The pilot program was not implemented to decide whether climate information should be included in the EAW form, but rather to consider what climate information can be efficiently provided that will effectively result in describing potential climate effects on and from proposed projects.

The SPPI held their final meeting in August 2022 and affirmed the effective implementation of the pilot program design. The pilot program design included recruitment strategies, support activities, and new metrics used to evaluate feedback from pilot program participants and members of the public. As it was previously decided that climate information must be included, the pilot program was implemented to consider what information can be efficiently provided that will effectively result in usable climate information.

### **Conclusions from pilot program and resulting recommendations**

#### **Summary of Conclusions**

Conclusions were developed with consideration of feedback from project proposers, responsible governmental units (RGUs), technical consultants and members of the public that participated in the development and review of published EAWs using the draft revised EAW form. Providing feedback was voluntary and not everyone chose to respond to the survey they received. In total, there weren't sufficient survey responses to validate or disprove effectiveness or efficiency. Therefore, all elements of pilot implementation activities were considered in the following Interagency Climate Technical Team conclusions (more detail provided starting on page 2 below):

1. The pilot program design provided adequate opportunities for participation as well as for providing feedback on the draft revised EAW form.
2. The pilot program included a diverse range of projects that reflect the most frequent EAW project types seen in a typical year; included the most frequent RGU types; and included typical project locations.
3. EAWs published using the draft revised EAW form accurately and consistently provided usable climate information to project proposers, RGUs, and members of the public.

- RGUs were able to comply with the environmental review procedures in a cost effective and timely manner relevant to project-specific need.

**Interagency Climate Technical Team Recommendations**

- Recommend Board approval of the [revised Environmental Assessment Worksheet form](#), as described in the Fall 2021 final Climate Technical Team recommendations.
- Recommend Board direct EQB staff to continue working with member agencies to update the [Environmental Assessment Worksheet \(EAW\) Guidance: Developing a carbon footprint and incorporating climate adaptation and resilience](#).

**Conclusions Detail**

**Conclusion 1: The pilot program design provided adequate opportunities for participation as well as for providing feedback on the draft revised EAW form.**

As shown in Table 1, the pilot program design provided adequate opportunities for RGUs and technical consultants to learn about, and register to participate in, the pilot program as well as opportunities for project proposers, technical consultants, RGUs and members of the public for providing feedback on their experiences with the draft revised EAW form.

During the pilot program, EQB staff hosted a speaker series that was open to the public, and cohort meetings designed to support RGUs and technical consultants that registered for the pilot program and committed to trying out the draft revised EAW form (more information can be found on page 5 below).

**Table 1: Pilot program recruitment, outreach, and engagement**

Registration announcements	Registration outreach	Registered participants	Speaker series	Cohort meetings	Surveys sent
38 pilot program registration announcements in the <i>EQB Monitor Newsletter</i>  (Average 4308 subscribers)	102 direct phone calls to local governments <ul style="list-style-type: none"> <li>Greater MN (66)</li> <li>Metro (36)</li> </ul>	105 total registered participants <ul style="list-style-type: none"> <li>27 local RGUs</li> <li>All (8) state RGUs</li> <li>34 different consulting firms</li> </ul>	309 total participants	164 total participants	<ul style="list-style-type: none"> <li>14 to project proposers</li> <li>14 to RGUs</li> <li>8 to consultants</li> <li>43 to EAW commenters</li> <li>online survey available to all</li> </ul>

**Conclusion 2: The pilot program included a diverse range of projects that reflect the most frequent EAW project types seen in a typical year; included the most frequent RGU types; and included typical project locations.**

Relative to an average year as shown in Table 2, the pilot program:

- evaluated a diverse range of projects that reflect the most frequent EAW project types seen in a typical year,
- included the most frequent RGU types,
- included the typical project locations.

**Table 2: Summary of pilot projects reviewed, compared to a three-year annual average**

<b>Number of EAWs for pilot program period</b>	<b>Project types evaluated using the draft revised EAW form</b>	<b>State RGUs implementing pilot</b>	<b>Local RGUs implementing pilot</b>	<b>Greater MN pilot projects</b>
14 projects (18%) evaluated using the draft revised EAW form  (62 projects (82%) evaluated using the standard EAW form)	<ul style="list-style-type: none"> <li>• Industrial</li> <li>• Wastewater</li> <li>• Residential development</li> <li>• Stream diversion</li> <li>• Wetlands and public waters</li> <li>• Historical places</li> <li>• Mixed residential and industrial-commercial</li> </ul>	43% of EAWs using the draft revised EAW form were evaluated by state RGUs	57% of EAWs using the draft revised EAW form were evaluated by local RGUs <ul style="list-style-type: none"> <li>• 88% local RGUs located in Metro</li> <li>• 12% local RGUs implementing EAWs located in Greater MN</li> </ul>	50% of EAWs using the draft revised EAW form were projects located in Greater MN
<b>3-year annual average</b>	<b>Most frequent EAW project types (80% of all EAWs)</b>	<b>State RGUs</b>	<b>Local RGUs</b>	<b>Greater MN projects</b>
44 projects for pilot period (January to September)	<ul style="list-style-type: none"> <li>• Industrial</li> <li>• Residential development</li> <li>• Wetlands and public waters</li> <li>• Animal feedlots</li> <li>• Highway projects</li> <li>• Mixed residential and industrial-commercial projects</li> </ul>	32% of EAWs were evaluated by state RGUs	68% of EAWs were evaluated by local RGUs <ul style="list-style-type: none"> <li>• 47% local RGUs located in Metro</li> <li>• 53% local RGUs located in Greater MN</li> </ul>	60% of projects located in Greater MN

**Conclusion 3: EAWs published using the draft revised EAW form accurately and consistently provided usable climate information to project proposers, RGUs, and members of the public.**

**Conclusion 4: RGUs were able to comply with the environmental review procedures in a cost effective and timely manner relevant to project-specific need.**

As described in Tables 3 and 4 below, pilot program implementers and members of the public gave the following notable feedback in their review of the published draft revised EAWs:

- Feedback did not conclusively identify concerns with the accuracy and/or consistency of the climate information provided on the draft revised EAW form.
- Project proposers were able to supply data reasonably requested by the RGU.
- RGUs were able to comply with the environmental review procedures to provide complete climate data and analyses, in a cost effective and timely manner relevant to project-specific need.

The following table provides a summary of feedback collected on the effectiveness of climate information on the draft revised EAW form.

**Table 3: Metrics for effectiveness of climate information included on the draft revised EAW form**

	<b>Effectiveness metric</b>	<b>Summary of responses (see appendix on page 7)</b>
1.	Responses to all requested climate information were included on the draft revised EAW form.	EQB staff reviewed all draft revised EAWs submitted for publication and did not observe any unanswered climate-related questions.
2.	New climate questions on the EAW form are clear and unambiguous.	The majority of survey responses did not indicate confusion with the how questions were worded. However, a couple of comments noted concerns that could be resolved with more specific guidance.
3.	The project proposer is able to complete data portions of the EAW and submit to the RGU.	Survey responses did not identify concerns and/or barriers to providing the requested information.
4.	RGUs are able to assess climate impacts accurately and consistently.	The majority of survey responses did not identify concerns with the accuracy or consistency of the climate information.
5.	New climate information helps project proposers, RGUs and members of the public understand potential climate effects from the proposed project.	The survey responses were not conclusively affirmative, and responses tended to be directed toward individual project assessments. The comments provided could be resolved through project-specific guidance and resources.

The following table describes feedback collected on the efficiency of providing climate information requested on the draft revised EAW form.

**Table 4: Metrics for efficiency of climate information included on the draft revised EAW form**

	<b>Efficiency metric</b>	<b>Summary of responses (see appendix on page 7)</b>
1. and 2.	1) The project proposer was able to provide any data reasonably requested by the RGU. 2) The RGU was able to comply with the environmental review procedures in a cost effective and timely manner.	The same feedback was applied to both metrics. Survey responses did not provide sufficient information to conclusively evaluate cost and time.
3.	Tools provided in Guidance (both Section 1 carbon footprint and Section 2 climate impacts) efficiently support timely responses.	Survey responses suggested improvements for guidance was helpful. Once the final decisions made on the EAW questions, EQB staff will update guidance as appropriate.

## Summary of pilot program implementation activities and feedback

The purpose of the recruitment strategy was to ensure designated state agencies, local governments, and technical consultants were aware of the opportunity to participate in the pilot program. As part of the pilot program design, staff developed and implemented a targeted recruitment and outreach strategy.

Not all registered participants shown in Table 5 had active projects during the pilot program. In total, thirty-five state and local government agencies committed to using the draft revised EAW form, if they had a project proposed during the pilot program. Thirty-four technical consulting firms were committed to encouraging their clients to use the draft revised form.

**Table 5: Registered participants**

Who	Role in the pilot program process
<p><b>Designated state agencies (8 agencies)</b></p> <p>State agencies identified in Minnesota rules chapter 4410 as a designated RGU, including Commerce, Natural Resources, Pollution Control, Transportation, Public Utilities Commission, and occasionally Agriculture and Health.</p>	Implement the draft revised EAW form.
<p><b>Local governments (27 local RGUs)</b></p> <p>Local governments that may be designated as an RGU by Minnesota Rules, chapter 4410, including any general or special purpose local unit of government in the state, including watershed districts organized under Minnesota Statutes, chapter 103D, counties, towns, cities, port authorities, housing authorities, and the Metropolitan Council.</p>	Implement the draft revised EAW form.
<p><b>Technical consultants (34 consulting firms)</b></p> <p>Consultants that may be engaged by an RGU and/or a project proposer to prepare draft environmental review documents.</p>	Provide technical services used to complete the draft revised EAW form when hired by project proposers and/or RGUs.

## Support activities during pilot implementation

### Speaker series

To provide support for anyone interested in the pilot program, EQB staff implemented a speaker series from February through June (table 6). Sessions included speakers with expertise in greenhouse gas (GHG) calculators, climate resources and tools, an environmental advocacy organization that routinely review EAWs as well as a panel of legal experts that discussed their consideration when developing administrative records of decision, based on information included on the EAW form.

**Table 6: Speaker sessions**

Topics	Attendance (Total 309 participants)
<ul style="list-style-type: none"> <li>GHG assessment guidance overview</li> <li>MnDOT MICE GHG calculator</li> <li>Environmental Review from the community advocate's perspective</li> <li>Implementing tools for climate adaptation and planning in Minnesota</li> <li>Considerations for creating an administrative record</li> </ul>	<ul style="list-style-type: none"> <li>28% state RGUs</li> <li>21% local RGUs</li> <li>35% technical consultants</li> <li>16% members of the public</li> </ul>

## **Cohort sessions**

To provide support, EQB staff hosted invitation only cohort meetings for registered RGUs, local government units (LGUs), and consultants, from February through June. Participants had the opportunity to attend cohort meetings after each speaker session to:

- Ask more detailed questions of speakers
- Share information about their experiences using the draft revised EAW form
- Request speakers for future topics

There was a total of 164 meeting participants across all cohort meetings. These participants included 30% state RGUs, 30% local RGUs and 40% technical consultants.

## **Metrics for feedback assessment**

Pilot program metrics were developed for use in assessing feedback received through surveys. This project defined effectiveness and efficiency as follows:

- **Effectiveness:** The EAW form accurately and consistently provided usable climate information to project proposers, RGUs, and members of the public.
- **Efficiency:** Project proposers were able to supply data reasonably requested by the RGU, and the RGU was able to comply with the environmental review procedures to provide complete climate data and analyses, in a cost effective and timely manner, relevant to project-specific needs.

## **Limitations to the metrics**

- Feedback gathered was largely qualitative in nature. As with many data sets, it may not provide complete or unambiguous answers to all questions members of the Board may have about changes to the EAW form.
- Nor will it necessarily resolve different underlying viewpoints about the purpose and value of environmental review, since the pilot program only evaluates one piece – questions added to the EAW form. However, the pilot program still represented a valuable opportunity to test the draft revised EAW form and systematically evaluate user experience.

## **Pilot program feedback (see appendix on page 7)**

Surveys were sent to the implementing RGU, project proposer and technical consultant (if identified) for each project that used the draft revised EAW form and submitted a notice for publication in the *EQB Monitor* newsletter. After receiving the record of decision, surveys were sent to any member of the public that submitted comments on that EAW. A survey was also available on the EQB webpage for any member of the public that reviewed an EAW containing climate information but did not submit a comment to the RGU during the public comment period.

## **Summary of feedback**

- All questions were able to be answered by RGUs.
- Most respondents agreed that the new climate questions on the EAW form are clear and unambiguous.
- Project proposers and consultants can complete data portions of the EAW. No suggestions for revisions were provided.

## Appendix: Pilot program feedback

### Effectiveness metrics, survey questions and responses

The feedback below represents responses to survey sent to project proposers, RGUs and technical consultants that used the draft revised EAW form to evaluate a project during the pilot program. The tables also include feedback from members of the public that submitted comments on those EAWs as well as feedback from members of the public completing a survey available on the EQB web project page.

**Effectiveness metric 1 – Responses to all requested climate information were included on the draft revised EAW form.**

	<b>Project Title</b> <b>*Located in Greater MN</b>	<b>EQB Monitor</b> <b>publication</b> <b>date</b>	<b>RGU</b>	<b>All</b> <b>questions</b> <b>answered?</b>
1	*Big 39 and Little 39 Creek Mitigation Project EAW	3/15/22	DNR	Yes
2	East Gateway Redevelopment Scoping EAW	3/15/22	City of Minneapolis	Yes
3	*Perch Lake Habitat Restoration	4/5/22	DNR	Yes
4	Brooklyn Center Opportunity Site #1	4/19/22	City of Brooklyn Park	Yes
5	900 Marquette Development	5/17/22	City of Minneapolis	Yes
6	*Kingsbury Bay Watershed Sediment Reduction	5/17/22	DNR	Yes
7	*Gorman Creek Channel Restoration	5/17/22	DNR	Yes
8	Hennepin Healthcare Purple Parking Ramp	5/24/22	City of Minneapolis	Yes
9	Abbott Northwestern Surgical and Critical Care	6/21/22	City of Minneapolis	Yes
10	South Fork Nine Mile Creek Bank Stabilization Project	6/28/22	Nine Mile Creek Watershed District	Yes
11	*Fox Meadows Development	7/26/22	City of Eagle Lake	Yes
12	*Otsego West Wastewater Treatment Facility Liquids Phase 1	8/23/22	MPCA	Yes
13	*Tenant Farmer’s House Removal, Charles A. Lindbergh State Park	8/23/22	DNR	Yes
14	Youngblood Apartments	9/26/22	City of Minneapolis	Yes

**Effectiveness metric 2 – New climate questions on the EAW form are clear and unambiguous.**

Question	Responses/ surveys sent	Responses
1. I was able to understand the climate questions on the EAW. (Agree/Disagree)	11/22	<b>Consultants:</b> (3) agree <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) agree <b>State RGUs:</b> (3) agree, (1) neutral, (1) disagree
	11/43	<b>EAW commenters:</b> (9) agree, (2) neutral
	6/online survey	<b>Public:</b> (5) agree, (1) disagree
	5/14	<b>Project proposers:</b> (2) agree, (1) neutral, (1) disagree
Disagree: Which specific questions did you find confusing? (Open Ended)	1/22	<b>Consultants:</b> No responses <b>Local RGUs:</b> No responses <b>State RGUs:</b> The response to q7a could either be very succinct, or very long. It's not clear what details are being requested. It's not clear what details are useful. The table for q7b does not seem useful for restoration type projects. For q18, it would be more useful if the question made clear if the information to be provided in the EAW is short tons, or metric tons? And a more clear description of the equations to use.
	0/43	<b>EAW commenters:</b> No responses
	1/Online survey	<b>Public:</b> It's hard to understand their purchased steam GHG numbers in their calculator - they only accounted for 1 ton of Co2-e emissions from HERC, which is too low for district steam.
	1/14	<b>Project proposers:</b> Questions 7a, 7b
Disagree: What would make these questions clearer? (Open Ended)	1/22	<b>Consultants:</b> No responses <b>Local RGUs:</b> No responses <b>State RGUs:</b> We modified the table to better suit the types of restoration projects we see, but I'm not sure the tables are very useful for the purpose of these types of projects.
	0/43	<b>EAW commenters:</b> No responses
	1/Online survey	<b>Public:</b> A calculation of the emissions from the HERC district steam generation. How are they treating the waste-to-energy emissions?
	1/14	<b>Project proposers:</b> The guidance directed us to find location-specific data but MPCA staff guidance had us use more general statements and not show the location specific data from the sources in the guidance. The guidance should be updated to explain the specificity and level of information needed.
2. I was able to understand responses to the climate questions on the EAW that was published for public comment. (Agree/Disagree)	12/43	<b>EAW commenters:</b> (9) agree, (3) neutral
	6/Online survey	<b>Public:</b> (5) agree, (1) disagree



Question	Responses/ surveys sent	Responses
Disagree: What additional support could EQB provide to help understand responses to the climate questions? (Open Ended)	0/43	<b>EAW commenters:</b> No responses
	1/Online survey	<b>Public:</b> Is there another tool other than the 'Cooling Days' tool to allow for more architectural energy efficiency measures that would reduce HVAC needs?

**Effectiveness metric 3 - The Project Proposer and/or their consultant if the Project Proposer utilizes a consultant, can complete data portions of the EAW, and submit to the RGU.**

Question	Responses/ surveys sent	Responses
1. I was able to complete relevant climate data portions of the EAW and submit to the RGU. (Agree/Disagree)	3/8	<b>Consultants:</b> (3) agree
	5/14	<b>Project proposers:</b> (4) agree, (1) neutral
Disagree: What improvements can be made by EQB staff? (Open Ended)	0/8	<b>Consultants:</b> No responses
	0/14	<b>Project proposers:</b> No responses
Disagree: What improvements can be made by the RGU? (Open Ended)	0/8	<b>Consultants:</b> No responses
	0/14	<b>Project proposers:</b> No responses

**Effectiveness metric 4 – RGUs are able to assess climate impacts accurately and the analysis is consistent within project types.**

Question	Responses/ surveys sent	Responses
1. The project proposer provided sufficient information about the proposed project to perform relevant climate assessments. (Agree/Disagree)	8/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (2) agree, (1) neutral <b>State RGUs:</b> (3) agree, (1) neutral, (1) disagree
Disagree: What improvements can be made by EQB staff? (Open Ended)	1/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> No responses <b>State RGUs:</b> This is all brand new. Very few people have this information or know how to get it. Also, the questions ask the project proposer to estimate GHG emissions from equipment that isn't running yet, and which has not yet been chosen because the project has not yet been bid out and contractors selected. There was a lot of unavoidable guesswork.

**Effectiveness metric 5 – New climate information helps Implementing project proposers, RGUs and members of the public understand potential climate effects from the proposed project.**

Question	Responses/ surveys sent	Responses
1. The EAW form included all relevant climate questions. (Agree/Disagree)	11/22	<b>Consultants:</b> (2) agree, (1) neutral <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) agree <b>State RGUs:</b> (3) agree, (2) neutral
	12/43	<b>EAW commenters:</b> (2) agree, (10) neutral
	6/Online survey	<b>Public:</b> (5) agree, (1) disagree
	5/14	<b>Project proposers:</b> (2) agree, (3) neutral
Disagree: What additional questions should be considered? (Open Ended)	0/22	<b>Consultants and local/state RGUs:</b> No responses
	0/43	<b>EAW commenters:</b> No responses
	1/Online survey	<b>Public:</b> Questions related to the GHG emissions or capture from land use conversation. In this EAW, the project eliminates 2 acres of trees and there was no discussion about the GHG impacts from eliminating that source of sequestration. I would like to see questions about land use conversation to ascertain the total amount of GHG emissions from the conversation, and to ask if steps were taken to replant the area or take other steps to offset the emissions from the land-use conversion.
	0/14	<b>Project proposers:</b> No responses

Question	Responses/ surveys sent	Responses
2. The EAW provided climate information that would not have otherwise been known. (Agree/Disagree)	11/22	<b>Consultants:</b> (2) agree, (1) neutral <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) agree <b>State RGUs:</b> (4) agree, (1) neutral
	12/43	<b>EAW commenters:</b> (4) agree, (8) neutral
	6/Online	<b>Public:</b> (6) agree
	5/14	<b>Project proposers:</b> (2) agree, (1) neutral, (2) disagree
Disagree: What other processes include the same climate information?	0/22	<b>Consultants and local/state RGUs:</b> No responses
	0/43	<b>EAW commenters:</b> No responses
	0/Online	<b>Public:</b> No responses
	1/14	<b>Project proposers:</b> While the recommended resources put numbers to the predictions of a warmer, potentially wetter future climate, it didn't bring anything to light that we didn't already know and consider in project planning.  Climate information provided in the EAW included summaries from MN DNR website, including climate trends, climate change in Minnesota and specific to the project location, as well as info from DNR Operation Order #131 regarding climate adaptation and mitigation in natural resource management. (These sources are referenced in the EAW) Some of the information specific to the EAW and project might not have been written or provided elsewhere, but not sure it would have been asked for or of specific interest either
3. The requested climate information was useful to inform project decisions. (Agree/Disagree)	3/8	<b>Consultants:</b> (3) neutral
	5/14	<b>Project proposers:</b> (2) neutral, (3) disagree
Agree: How was it useful?	0/8	<b>Consultants:</b> No responses
	0/14	<b>Project proposers:</b> No responses

Question	Responses/ surveys sent	Responses
Disagree: What information was missing?	0/8	<b>Consultants:</b> No responses
	2/14	<p><b>Project proposers:</b> The climate information was not used to inform project decisions. As an essential service facility, the emissions identified in the climate change process were due to crucial parts of the facility and could not be modified.</p> <p>To my understanding, the requested climate information in the EAW was not used to inform or make project-related decisions known to date. However, if there are specific comments, then it might have a different influence or result (this EAW is currently out for public review, so unaware of any climate-related comments yet). In general, climate factors are taken into consideration, and we follow our department policies, guidance and operational orders whether there is an EAW or not (most of our development projects do not require an EAW). It's not so much about what's missing to help inform project decisions - as it just isn't helpful or useful at this stage of a project (during EAW) or for this scale of a project (very small, localized project).</p>
4. The requested climate information was useful to inform potential climate mitigation and/or adaptation actions. (Agree/Disagree)	11/22	<p><b>Consultants:</b> (1) agree, (2) neutral</p> <p><b>Local RGUs</b></p> <p><b>Greater MN:</b> No responses</p> <p><b>Metro MN:</b> (3) neutral</p> <p><b>State RGUs:</b> (1) agree, (2) neutral, (2) disagree</p>
	12/43	<b>EAW commenters:</b> (11) neutral, (1) disagree
	6/Online survey	<b>Public:</b> (4) agree, (2) disagree
	5/14	<b>Project proposers:</b> (2) neutral, (3) disagree
Agree: How was it useful?	1/22	<p><b>Consultants:</b> Proposer considered sustainable building design elements based on the local climate information.</p> <p><b>Local and state RGUs:</b> No responses</p>
	0/43	<b>EAW commenters:</b> No responses
	4/Online survey	<p><b>Public:</b> It was helpful in the general sense of understanding actions that could mitigate greenhouse gas emissions.</p> <p>It provided useful background information on the need and purpose of this project.</p> <p>It was useful to see the calculations for GHG and where exactly emissions were coming from.</p> <p>Identifying the quantity of GHG emissions from different sources throughout project development helps identify ways to reduce GHG emissions. Here, for example, the majority of the anticipated GHG emissions are from construction vehicles. It helps to know that information to target ways the project can be completed with reduced dependency on construction vehicles or to take steps to reduce emissions from the vehicles, such as less idling.</p>
	0/14	<b>Project proposers:</b> No responses

Question	Responses/surveys sent	Responses
Disagree: What information was missing?	2/22	<p><b>Consultants:</b> No responses</p> <p><b>Local RGUs:</b> No responses</p> <p><b>State RGUs:</b> For this type of a project which was for restoration, no mitigation is proposed. It should be noted if mitigation is required for certain projects, and what agency's have authority in this mitigation.</p> <p>Nothing was missing, but the information wasn't particularly useful for a stream/habitat restoration project which is overall providing increased climate resilience. The forms and tables were not set up in a way to make them useful for this type of project.</p>
	1/43	<p><b>EAW commenters:</b> The template EAW was good, but the project didn't do a detailed job using it, though, in my opinion.</p>
	2/Online survey	<p><b>Public:</b> We noticed a lack of Electric Vehicle charging infrastructure in the plan for the 183 parking stalls in the underground garage and whether or not that was considered. Additionally, could the green roof idea be expanded to show more quantitative data about what it does for climate mitigation?</p> <p>There was no discussion of mitigation possibilities for the tree removal, and in fact, the tree removal was not counted in the GHG emissions at all. The EAW also indicates that no mitigation to reduce the project's emissions is proposed. That does not provide information to the public about how the project could reduce its emissions or the barriers to taking such actions. That information is critical for public understanding and buy-in to environmental review and permitting. There is also no discussion about how the project will affect the NGEA goals, or any explanation of why that discussion was not included.</p>
	2/14	<p><b>Project proposers:</b> The climate information was not useful to the project.</p> <p>We can share project information, climate considerations and potential adaptations being considered specific to a project, but we may not really know specifics until after the EAW process and when we know more about the final designs for a project. At the stage of preparing/completing an EAW, the concepts are still subject to change or adjust as needed. Other factors may include which contractor is awarded the bid and what equipment they recommend or have available to use to complete the job.</p>
5. Was there climate information you needed that was not provided on the EAW? (Yes/No)	10/22	<p><b>Consultants:</b> (1) no opinion, (2) no</p> <p><b>Local RGUs</b></p> <p><b>Greater MN:</b> (2) no opinion</p> <p><b>Metro MN:</b> No responses</p> <p><b>State RGUs:</b> (1) no opinion, (4) no</p>
	12/43	<p><b>EAW commenters:</b> (2) yes, (9) no opinion, (1) no</p>
	6/Online survey	<p><b>Public:</b> (2) yes, (1) no opinion, (3) no</p>
	5/14	<p><b>Project proposers:</b> (1) no opinion, (4) no</p>
Yes: What climate information is missing? (Open Ended)	0/22	<p><b>Consultants and RGUs:</b> No responses</p>

Questions	Responses/surveys sent	Responses
	2/43	<p><b>EAW commenters:</b> The EAW did provide estimates of additional carbon dioxide gases generated due to construction, which was excellent. However, the amount of greenhouse gases generated, due to people having to work to pay for the project (\$7 million) is not included in the analysis. In fact, I have never seen an analysis for any project which includes CO2 generation, due to needed work to pay for the project, which should include both capital and long term interest costs.</p> <p>The template EAW was good, the project didn't do a detailed job using it, though, in my opinion.</p>
	2/Online survey	<p><b>Public:</b> The EAW didn't discuss any of the GHG emissions from the land use change, despite the project including "removal of most of the trees lining Gorman Creek," and a land disturbance of 11.4 acres. The loss of 95% of the mature tree canopy in the project site needs to be accounted for in both the GHG emissions estimate, as well as a discussion of mitigations.</p> <p>Information about GHG emissions from land-use conversion. Eliminating two acres of trees releases CO2 into the atmosphere. It would be helpful to know the tree species and relative density of the acreage to get a sense of the total emissions.</p>
	0/14	<b>Project proposers:</b> No responses

### Efficiency metrics, survey questions and responses

**Efficiency metric 1 – The project proposer was able to provide any data reasonably requested by the RGU.**

**Efficiency metric 2 – The RGU was able to comply with the environmental review procedures in a cost effective and timely manner.**

Question	Responses/surveys sent	Responses
1. Was there climate information requested by the RGU that you were unable to provide? (Yes/No)	3/8	<b>Consultants:</b> (3) no
	5/14	<b>Project proposers:</b> (1) yes, (2) no opinion, (2) no
Yes: Please describe. (Open Ended)	0/8	<b>Consultants:</b> No responses

Question	Responses/ surveys sent	Responses
	1/14	<b>Project proposers:</b> While we provided what we could and to the best of our understanding at the moment, it made several staff uncomfortable with the level of detail requested for estimating greenhouse gas emissions since there are multiple unknowns about equipment, duration and other needs that may occur during the project. The use of specific numbers (with multiple decimal places) seems to give a false sense of accuracy that is not able to be provided at this stage of a proposed project as many items were based upon hypotheticals and assumptions upon assumptions. Overall, the greenhouse gas estimates were time-consuming and difficult tasks for an EAW item that does not inform a permit decision or other project-related decisions. We were not able to have answers to all of the climate items in our first draft for internal review and we requested further guidance from RGU that was difficult to obtain - lots of ambiguity, but also allowed for flexibility to be creative in providing some data estimates - we have no idea if it was useful or helpful yet.
2. Did you track time and cost for completing the EAW? (Yes/No) Yes: Complete questions about time and cost.	11/22	<b>Consultants:</b> (1) yes, (2) no <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no <b>State RGUs:</b> (5) no
	5/14	<b>Project proposers:</b> (1) yes, (4) no
3. What was the total amount of time for preparing the entire EAW? (Open-ended)	1/22	<b>Consultants:</b> 134 hours <b>Local and state RGUs:</b> No responses
	1/14	<b>Project proposers:</b> Hundreds of hours
4. What was the total cost for preparing the entire EAW? (Open-ended)	1/22	<b>Consultants:</b> \$20,250 <b>Local and state RGUs:</b> No responses
	1/14	<b>Project proposers:</b> \$150,000 +/-
5. What was the total amount of time for preparing the climate assessment portion of the EAW, i.e., new sections 7 and 18, and new climate questions included in sections 10, 12 and 14? (Open Ended)	1/22	<b>Consultants:</b> 15 hours (estimated) <b>Local and state RGUs:</b> No responses
	1/14	<b>Project proposers:</b> Unknown
6. What was the total cost for preparing the climate assessment portion of the EAW? (Open Ended)	1/22	<b>Consultants:</b> \$1,700 (estimated) <b>Local and state RGUs:</b> No responses
	1/14	<b>Project proposers:</b> Unknown

Question	Responses/ surveys sent	Responses
7. How did the complexity of the EAW assessments for this project compare to other EAW assessments for similar project types? (Sliding scale, less complex/more complex)	11/22	<b>Consultants:</b> (3) neutral <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (1) much more complex, (2) neutral <b>State RGUs:</b> (1) neutral, (2) somewhat more complex, (2) much more complex
	4/14	<b>Project proposers:</b> (2) neutral, (1) somewhat more complex, (1) much more complex
8. How did the complexity of the climate assessment compare to other environmental assessments on the EAW form for this project? (Sliding scale, less complex/more complex)	9/22	<b>Consultants:</b> (2) neutral <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (2) neutral, (1) much more complex <b>State RGUs:</b> (2) somewhat more complex, (2) much more complex
	4/14	<b>Project proposers:</b> (1) neutral, (1) somewhat more complex, (2) much more complex
9. Was the EAW timeline changed by the assessment of the climate information? (Yes/No)	11/22	<b>Consultants:</b> (1) yes, (2) no <b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no <b>State RGUs:</b> (5) no
	5/14	<b>Project proposers:</b> (3) yes, (2) no
Yes: Describe how the EAW timeline changed. (Open Ended)	1/22	<b>Consultants:</b> Needed more time to finish the greenhouse gas and climate sections <b>Local and state RGUs:</b> No responses
	3/14	<b>Project proposers:</b> I estimate an extra half-day to full day was added to the process. It would've added more time if we didn't have an example to work from that had just gone through the revised EAW. I may have spent more time than necessary on 7a.  The timeline was extended due to the need for multiple revisions of the climate change section.  The overall process/timeline did not change -all went per usual, however, our estimated timing of delivering a draft and complete data took an additional 2-3 weeks (just for obtaining data to complete the climate items). Largely due to getting right people together to discuss and provide acceptable/agreeable data to make calculations - people were uncomfortable with level of assumptions and guesses needed to estimate equipment, duration, etc. for quantification calculations.



**Efficiency metric 3 – Tools provided in Guidance (both Section 1 carbon footprint and Section 2 climate impacts) efficiently support timely and effective responses.**

Question	Responses/ surveys sent	Responses
1. Are the resources and tools identified in the new EQB Guidance ( <i>Developing a carbon footprint and Climate adaptation and resilience</i> ) user-friendly; easily understood and applied?	8/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no opinion <b>State RGUs:</b> (2) yes, (1) no opinion, (2) no
	5/14	<b>Project proposers:</b> (1) yes, (2) no opinion, (2) no
No: What did you find difficult?	2/14	<b>Local RGUs:</b> No responses <b>State RGUs:</b> I found them confusing. The spreadsheet with estimated emissions for various pieces of equipment was extremely detailed in some ways, but also confusing because I was expected to pick the relevant categories for pieces of equipment that had not yet been chosen. I could only guess.  I think it could be more helpful if the equations are more laid out, based on the metric used. Examples would be useful. Be clear on the metric to have the answer in. Most of the information in the guide were not relevant to this EAW, but it was easy to get lost in reading those sections, looking for explanation, even though they were not relevant.
	2/14	<b>Project proposers:</b> The tools and resources did not translate to the information MPCA staff requested be included in the document.  Very difficult to apply and calculate for this specific project - did not develop a carbon footprint for the project site or immediate park/unit.
2. Do the resources and tools provided in Section 1 of the Guidance ( <i>Developing a carbon footprint</i> ) provide consistent and accurate information? (Yes/No)	8/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no opinion <b>State RGUs:</b> (3) yes, (2) no
	5/14	<b>Project proposers:</b> (1) yes, (3) no opinion, (1) no
No: What additional tools would help you in developing the project carbon footprint? (Open Ended)	2/14	<b>Local RGUs:</b> No responses <b>State RGUs:</b> I feel like this is written for people who already know the topic. I don't spend time reading up on greenhouse gas emissions and so I did not find it helpful.  I think it was particularly difficult to follow the units in these calculations. I think an excel based calculator would be helpful to receive the most accurate data.
	0/14	<b>Project proposers:</b> No responses
3. Do the resources and tools provided in Section 2 of the Guidance ( <i>Climate adaptation and resilience</i> ) provide consistent and accurate information? (Yes/No)	8/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no opinion <b>State RGUs:</b> (3) yes, (1) no opinion, (1) no
	5/14	<b>Project proposers:</b> (1) yes, (3) no opinion, (1) no

Question	Responses/ surveys sent	Responses
No: What guidance or tool is missing? (Open Ended)	1/14	<b>Local RGUs:</b> No responses <b>State RGUs:</b> I think the tools were helpful, but there are a lot of them. Are they all supposed to be utilized? That is not clear.
	0/14	<b>Project proposers:</b> No responses
4. Does Step 5 of Section 1 (How to identify and assess mitigation) and Step 2 overall (Climate adaptation and resilience) of the Guidance provide useful resources and tools for understanding climate mitigation and adaptation challenges and opportunities? (Yes/No)	8/14	<b>Local RGUs</b> <b>Greater MN:</b> No responses <b>Metro MN:</b> (3) no opinion <b>State RGUs:</b> (3) yes, (2) no opinion
	5/14	<b>Project proposers:</b> (1) yes, (3) no opinion, (1) no
No: What additional resources or tools could be added?	0/28	<b>Project proposers and local/state RGUs:</b> No responses

Question	Responses/surveys sent	Responses
5. What additional resources and/or tools would be helpful to ensure that you are able to use the climate information provided?	3/22	<p><b>Consultants:</b> The greenhouse gas emissions quantification does not seem to provide much value to the RGU without additional context. There are not any benchmarks to evaluate what level of greenhouse gas emissions is reasonable. From a consultant perspective, it would be helpful if the EAW guidance identified which sources of greenhouse gas emissions were within the scope of the EAW and which were outside of the scope. For example, vehicle trips taken by individuals (employees, residents, visitors, etc.) are not determined by a project proposer; thus these should be identified in the guidance as being outside of the scope of the EAW. It would also be helpful to have additional resources for estimating greenhouse gas emissions from construction activities, such as anticipated fuel usage for construction of a building based on building design and square footage.</p> <p>More training or guidance on estimating GHG emissions related to construction activities and quantifying reductions from selected mitigation would be helpful.</p> <p><b>Local RGUs:</b> No responses</p> <p><b>State RGUs:</b> My major complaint with the new questions is that they are inappropriate for the kind of project that this EAW addressed. They seem to be appropriate for facilities or buildings that already exist, or construction plans that have already been firmly settled on. My project is a stream restoration which has not yet been bid out (because that does not happen until AFTER the EAW is completed and a ROD is issued), so half of the climate change questions were irrelevant to this project and the other half could not be answered with any precision because the necessary decisions had not been made. Many of the projects that I am involved in will also suffer from these problems, because they are environmental restoration types of projects, so answering these questions for those projects seems like a pointless waste of effort. The thought also occurs to me that the environment would be better served if consideration of these questions were addressed by the project proposer at the beginning of the project, to help them make more climate friendly choices, rather than at the EAW stage. Since this is probably outside of EQB's scope, I don't know how you could facilitate that.</p>
	1/43	<p><b>EAW commenters:</b> The EQB &amp; MPCA should have a guideline for CO2 generation, which results from people have to work to pay for the project capital and interest costs. **Money does not grow on trees, unfortunately - We have to work to pay for the work, which generates CO2**</p>

Questions	Responses/surveys sent	Responses
	5/Online survey	<p><b>Public:</b> Resources on emission levels for comparable sized building, and how buildings of those size typically (or in ideal scenarios) can mitigate those emissions, would provide a helpful reference point for comparing EAW proposals to other projects.</p> <p>It would have been useful for more information regarding the reuse methods for the wood material. Also, some more information about how reuse of the wood material acts as a carbon sink. Clarification on the carbon sink math would be useful in the future.</p> <p>More information about possible mitigations would be helpful. I am aware that there are ways to utilize removed trees in some restoration projects, for example, as root wads. This EAW should have discussed the GHG consequences of the tree removal, and whether there were any ways to offset the loss of sequestered carbon from that tree removal.</p> <p>It would be useful to include information such as a traffic study, how many EV stations, and building material used.</p> <p>More information on land-use conversion; links to guidance that RGUs can reference to gather the requested information.</p>
	1/14	<p><b>Project proposers:</b> Not sure what would be helpful or relevant to the types of projects we undertake or are directed to complete that also require an EAW; might be helpful to have a baseline carbon footprint for the agency (DNR) or divisions or individual rec units to consider the actual impacts from a particular project, if able to even calculate or compare at such different scales.</p>