Environmental Review Program: Board Authorities for Implementing Change

Rulemaking	EAW Forms		Generic EIS	Alternative Review	Training and Outreach	Guidance
MS 116D.04 subd. 2a(a) and 5a;116.045	MS 116D.04 subd. 14 and MR 4410.1300		MR 4410.3800	MS 116D.04 subd. 4a and MR 4410.3600	Board and Staff Directed	Board and Staff Directed
Used to create regulations for Environmental Review Program Implementation	Standard EAW Form that includes required information for all project types	Custom Form for a specific category of projects to focus on applicable issues related to that project type.	Used to study types of projects not adequately reviewed on a case-by-case basis. A means of providing a more comprehensive analysis of a given region, issue or type of activity.	For categories of projects which undergo environmental review under other governmental processes. The governmental processes must address substantially the same issues as the EAW and EIS process and use procedures similar in effect to those of the EAW and EIS process.	· EQB staff provides technical assistance to improve performance with the rules. · EQB staff responds to requests for presentations from groups interacting with the Environmental Review Program. · RGU input on Mandatory Categories	Written explanations of a rule or a requirement. Guidance is neither enforceable nor intended to replace rules.
Examples: 2019 Rulemaking	Example: Standard EAW Form used for EAWs and Scoping an EIS	Example: Alternative EAW form for Animal Feedlots	Examples: · Forestry GEIS: 1989-1994 · Animal Agriculture GEIS: 1998-2002	Examples: · Comparative Environmental Analysis for pipeline routing · DOT Highway Projects · Alternative Urban Areawide Review	Examples: · EQB call-in line: 651-757-2873 · EQB email: Env.Review@state.mn.us · Mandatory Categories Report	Example: · 2010 Guide to the ER Rules · EQB Web pages · Videos

Quick Reference: Environmental Assessment Worksheet (EAW)

Updated July 2017

Environmental Assessment Worksheet Overview

The EAW is a brief document designed to lay out the basic facts of a project necessary to determine if an Environmental Impact Statement (EIS) is required for the proposed project. The EAW form consists of 20 questions that provide the information needed to determine if the project will have significant environmental impacts. In addition to the legal purpose of the EAW in determining the need for an EIS, the EAW also provides permit information, informs the public about the project, and helps identify ways to protect the environment. The EAW is not meant to approve or deny a project, but instead act as a source of information to guide other approvals and permitting decisions. The EAW is completed by the Responsible Governmental Unit (RGU) designated according to Minnesota Rules 4410.

Please note that this quick reference guide is not intended to substitute for Minnesota Rules 4410. It is designed to help RGUs and others implement the environmental review process more effectively and efficiently. The guide does not alter the rules or change their meaning; if any inconsistencies arise between this guide and the rules, the rules take precedent. Please contact EQB Staff with any questions at Env.Review@state.mn.us or 651-757-2873.

Environmental Review Exemptions

Some projects of a specific size and nature are exempted from the environmental review process as indicated in Minnesota Rules 4410.4600. If a project is identified as exempt, then it is not required to go through environmental review in order to move forward.

Mandatory Environmental Review

Projects that meet or exceed the thresholds described in Minnesota Rules 4410.4300 are required to complete an EAW. If a project meets or exceeds the thresholds described in Minnesota Rules 4410.4400, then an EIS is required. When determining if a project meets a mandatory environmental review category threshold, it is important to keep in mind any connected actions, phased actions, or project expansions within the last three years that cumulatively may trigger mandatory environmental review. These provisions are described in Minnesota Rules 4410.1000, Subpart 4, and Minnesota Rules 4410.4300, Subpart 1 respectively.

Discretionary Environmental Review

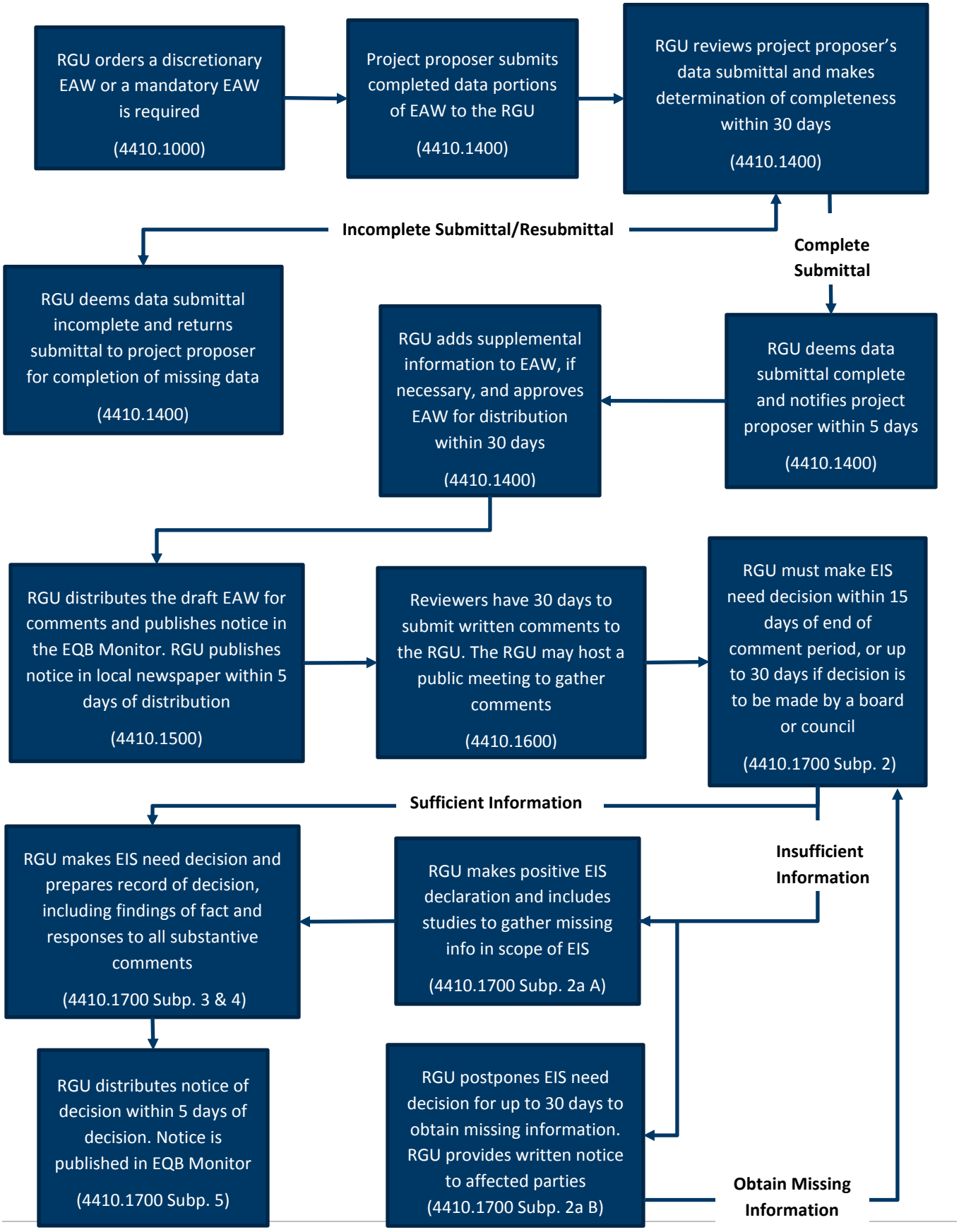
Projects that are not exempt nor require a mandatory environmental review can still go through the EAW process according to Minnesota Rules 4410.1000, Subpart 3. A government unit with approval authority over a project can order a discretionary EAW if it determines that the project may have the potential for significant environmental effects. A discretionary EAW can be particularly appropriate for projects with some possibility of significant adverse environmental impacts or the perception of such. A discretionary EAW can help the RGU identify the adverse environmental impacts of a project and their severity. Additionally, discretionary environmental review may be ordered by a RGU in response to a citizen petition or if the project proposer

wishes to initiate environmental review to determine if the project has the potential for significant environmental impacts.

Steps in the EAW Process

(Minnesota Rules 4410.1000 – 1700)

The EAW should be prepared as early as practicable in the project development process. The RGU as designated in Minnesota Rules 4410 is responsible for preparing the EAW based on data submitted by the project proposer. The EAW process includes a comment period and the option for an RGU to host a public meeting to gather additional comments. Once the EAW process is completed, the RGU must make a decision on the need for an EIS. Minnesota Rules 4410.1700, Subpart 1 specifies that a positive EIS decision shall be made for projects that "have the potential for significant environmental effects". If a project does not have the potential for significant environmental effects, then the RGU shall issue a negative EIS decision, and the project can move forward


RGU orders a discretionary EAW or a mandatory EAW is required
(4410.1000)
Project proposer submits completed data portions of EAW to the RGU
(4410.1400)
RGU reviews project proposer's data submittal and makes determination of completeness within 30 days
(4410.1400)
Incomplete Submittal/Resubmittal
Complete Submittal
RGU deems data submittal incomplete and returns submittal to project proposer for completion of missing data
(4410.1400)
RGU adds supplemental information to EAW, if necessary, and approves EAW for distribution within 30 days
(4410.1400)
RGU deems data submittal complete and notifies project proposer within 5 days
(4410.1400)
RGU distributes the draft EAW for comments and publishes notice in the EQB Monitor. RGU publishes notice in local newspaper within 5 days of distribution
(4410.1500)
Reviewers have 30 days to submit written comments to the RGU. The RGU may host a public meeting to gather comments
(4410.1600)
RGU must make EIS need decision within 15 days of end of comment period, or up to 30 days if decision is to be made by a board or council
(4410.1700 Subp. 2)
Sufficient Information
Insufficient Information
RGU makes EIS need decision and prepares record of decision, including findings of fact and responses to all substantive comments
(4410.1700 Subp. 3 & 4)
RGU makes positive EIS declaration and includes studies to gather missing info in scope of EIS
(4410.1700 Subp. 2a A)
RGU distributes notice of decision within 5 days of decision. Notice is published in EQB Monitor
(4410.1700 Subp. 5)
RGU postpones EIS need decision for up to 30 days to obtain missing information. RGU provides written notice to affected parties
(4410.1700 Subp. 2a B)
Obtain Missing Information

Environmental Review Program Rules

Minnesota Rules, Chapter 4410

Amendment of Part 4410.4300, subpart 15, Mandatory EAW Category regarding Air Pollution, with respect to Greenhouse Gas Emissions

Statement of Need and Reasonableness

Rulemaking Authorized November 18, 2010

INTRODUCTION

This proposed rulemaking would amend one mandatory Environmental Assessment Worksheet (EAW) category of the Environmental Review program rules in chapter 4410, specifically the "air pollution" category at part 4410.4300, subpart 15. The purpose of this amendment is to provide an explicit threshold level to apply to Greenhouse Gas emissions that is different from the threshold level that applies to all other air pollutants. The need to establish a threshold specific to Greenhouse Gas emissions is due to changes in their status as air pollutants under the federal Clean Air Act.

This document explains the need for and reasonableness of this proposed amendment. It summarizes the evidence and arguments that the Board is relying upon to justify the proposed amendments. It has been prepared to satisfy the requirements of Minnesota Statutes, section 14.131 and Minnesota Rules, part 1400.2070.

The Minnesota Environmental Review Program, established by the Minnesota Environmental Policy Act of 1973, has been in existence since 1974. The program operates under rules adopted by the Environmental Quality Board, which are binding upon all state agencies and political subdivisions of the state. The rules contain two basic parts: the procedures and standards for review under this program and listings of types of projects either for which review is mandatory or which are exempted entirely from review under this program. Mandatory review can either be in the form of an Environmental Assessment Worksheet or an Environmental Impact Statement (EIS). The lists of types of projects subject to those requirements are generally referred to as the "mandatory categories." The lists of exempt projects are referred to as "exemptions categories" or sometimes just "exemptions." The list of mandatory EAWs is found at Minnesota Rules, part 4410.4300, mandatory EISs, at 4410.4400, and exemptions, at 4410.4600.

BACKGROUND

The EQB) proposes to amend the "Air Pollution" mandatory EAW category, at part 4410.4300, subpart 15, to clarify how Greenhouse Gases (GHGs) are to be treated. This subpart now requires preparation of an EAW "for construction of a stationary source facility that generates 250 tons or more per year, or modification of a stationary source facility that increases generation by 250 tons

or more per year, of any single air pollutant after installation of air pollution control equipment." The Pollution Control Agency (MPCA) is assigned responsibility for preparing all EAWs under this category.

The Environmental Review program rules do not define "air pollutant." In practice the MPCA has applied this mandatory category to substances regulated as air pollutants under the federal Clean Air Act. (The MPCA issues Clean Air Act permits for facilities in Minnesota.) In the past, GHGs have not been issued permits. However, in response to a U.S. Supreme Court ruling in a lawsuit in 2007, the U.S. Environmental Protection Agency (EPA) issued a regulation in 2010 under which GHG emissions will be covered by Clean Air Act permits under certain circumstances beginning in January 2011. For Minnesota, the permits will be issued by the MPCA. The permits will cover GHG emissions of at least 75,000 tons per year or 100,000 tons per year, depending on other factors, of carbon dioxide equivalents (carbon dioxide equivalents is a way of accounting for the differing potencies of the various GHGs). These levels are much higher than the permitting thresholds that apply to other air pollutants, which are 100 or 250 tons per year, depending on circumstances, and are intended to cover only the largest types of GHG emitting facilities, such as power plants and refineries.

Because "air pollutant" is not defined and has historically been taken to mean substances regulated under the Clean Air Act, the fact that GHGs will be regulated under the Clean Air Act beginning in 2011 raises the question of whether GHG emissions that exceed the existing 250 tons per year mandatory EAW threshold will require preparation of an EAW. The EQB believes that the 250 tons per year threshold is too low with respect to GHGs. Consequently, the EQB proposes to adopt a separate mandatory EAW threshold specific to GHGs which is consistent with the new regulatory scheme for GHGs under the Clean Air Act.

ALTERNATIVE FORMAT

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, Braille, or cassette tape. To make a request, contact the EQB secretary, at Environmental Quality Board, 300 Centennial Building, 658 Cedar Street, St. Paul, MN 55155; telephone: 651/201-2464; fax: 651/296-3698. TTY users may call the Department of Administration at 800-627-3529.

STATUTORY AUTHORITY

The Board's statutory authority to adopt the rule amendments is given in the Environmental Policy Act, Minn. Stat. 116D.04, subds. 2a(a), 4a & 5a and 116D.045, subd. 1. Under these provisions, the Board has the necessary statutory authority to adopt the proposed rules amendments. In particular, subdivision 2a(a) directs the Board to establish mandatory categories for EAWs, EISs, and Exemptions by rule.

REGULATORY ANALYSIS

Minnesota Statutes, section 14.131, sets out seven factors for a regulatory analysis that must be included in the SONAR. Paragraphs (1) through (7) below quote these factors and then give the EQB's response

"(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule"

The proposed amendment will directly affect proposers of new or expansion projects with emissions of GHGs of more than 100,000 tons per year, expressed as carbon dioxide equivalents. Only a few types of projects are likely to have such high GHG emissions; EPA lists power plants, petroleum refineries, and cement manufacturing plants as the likely examples. In Minnesota, MPCA reports that its inventory of existing emission sources contains about 100 sources that now exceed 100,000 tons per year of carbon dioxide. Because these existing sources have been built over decades, it is apparent that in any given year there are not likely to be more than a handful of new or expanded sources that would exceed the proposed 100,000 ton threshold for an EAW. Not only would few such projects occur, but many of them that do would already require EAWs due to other existing EAW mandatory categories in part 4410.4300. For example, under subpart 3, electric power generation of 25 or more megawatts requires an EAW. Under subpart 4, expansion of a petroleum refinery by 10,000 or more barrels per day requires an EAW and a new refinery requires a mandatory EIS. Other potential major air emission sources, such as fuel conversion facilities (including ethanol plants) have their own mandatory EAW categories, and many sources of GHG emissions might also exceed the existing air pollutant threshold of 250 tons per year. Thus overall, there would be few project proposers required to do an EAW by the adoption of this amendment.

The main beneficiaries of the proposed amendment would be proposers of development projects with GHG emissions over 250 but less than 100,000 tons per year carbon dioxide equivalents. This group would include a great many types of projects since relatively small projects emit at least 250 tons per year of carbon dioxide itself due to combustion of fuel for heating alone. The MPCA staff informed EQB that even an office of 8,000 square feet would likely exceed this limit. Thus proposers of many commercial, industrial, residential and other common forms of development would benefit from this amendment in that they would not be required to prepare EAWs for their projects if the threshold is adjusted upward as proposed.

"(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues"

The EQB will itself experience negligible costs due to the adoption of the proposed amendment; the only costs will result from editing guidance materials to reflect the amendment. However, since the MPCA will be the RGU for EAWs prepared under the amendment, there will be increased staff costs for MPCA. As explained in section (5) below, EQB assumes 5 additional EAWs will be required per year due to the amendment. Based on data submitted by MPCA for the 2006 SONAR that amended the air pollution EAW category (2006 SONAR, page 7), an additional 5 EAWs per year would represent about an additional year's worth of staff costs to MPCA. (Note that these

costs to the MPCA would be far less if the amendment is adopted than if it is not, as described in section (6).)

The rule amendment would have an effect on state revenues because the fee charged by MPCA to an air permit applicant is increased by about $20,000 if an EAW is required for the project under the air pollutant mandatory EAW category. Using the estimate of 5 additional EAWs per year and the $20,000 fee increment for each project reviewed results in an estimate of about $100,000 per year in increased state revenues.

"(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule"
The purpose of the proposed amendment is to require preparation of EAWs for large sources of GHG emissions without requiring review of too many smaller sources. The only straightforward method for doing that is to establish an appropriate mandatory threshold for GHGs.

"(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule"
There were two alternative methods of achieving the same results as the proposed rule considered by EQB. The first was to amend the rule to exclude GHGs from coverage by the air pollution category. That most likely would have been done by amending the category to state that it did not apply to GHGs, although it could have also been accomplished by defining "air pollutant" in a manner that excluded GHGs. The second alternative method considered was to set a different numerical threshold for GHGs.

The EQB rejected the first alternative because it believes that GHGs should be covered by the rules at some appropriate threshold. Greenhouse gas emissions are now recognized as contributing to important environmental impacts and it is therefore appropriate to bring under review through the Environmental Review program. With respect to the second alternative, the EQB decided to follow the precedent set for the existing air pollutant threshold, i.e., to set the threshold at the higher of EPA's air permitting thresholds. For GHGs, that level is 100,000 tons per year. This threshold choice is described more fully in the Analysis of Proposed Rule section below.

"(5) the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals"
As described in section (1) above, the EQB anticipates that only a few new or expanding projects per year will exceed the proposed 100,000 tons threshold. In order to make cost estimates, EQB will use a figure of 5 such projects per year. This number probably overestimates the number of additional EAWs due to the GHG threshold because of the likely overlap of other existing categories as described in section (1). These projects are likely to be somewhat technically complex, which implies that the cost of these EAWs would be toward the high end of the range of EAW costs, so for these purposes EQB will use a cost range of $25,000 to $50,000 on average. Using these assumptions, the total likely cost of the proposed threshold is from $250,000 to

$500,000 per year. Most of this cost would be borne by the proposers of the projects. (Note that these costs will be far less if the amendment is adopted than if it is not, as described in the next section.)

"(6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals"

If the proposed rule amendments are not adopted, there could be costs and consequences due to preparing EAWs that would not be mandatory if the amendments are adopted. This assumes that without an amendment to the subpart in question, GHG emissions would be subject to the existing 250 tons per year threshold. The result would be the potential need to prepare hundreds of additional EAWs every year. For example, estimates made by MPCA staff show that an office building of only about 8,000 square feet of floor space may generate over 250 tons per year of carbon dioxide from burning natural gas for heating. By comparison, under the commercial-industrial development mandatory EAW category, no office building of less than 100,000 square feet of floor space requires preparation of an EAW (and the threshold is even higher in most locations).

The EPA made an estimate as part of its rulemaking for GHGs that applying the 250 tons per year permitting threshold to new or expanding facilities would result in a 140-fold increase in permit applications per year. EQB records indicate that over the past decade that the annual average number of EAWs required at the 250 tons per year threshold is only about 2. However, applying the 140-fold increase factor gives an estimate that an additional 280 EAWs could be required per year if GHGs were covered by the 250 tons per year threshold. This compares to a typical annual average of 150 EAWs prepared for all types of projects by all RGUs. At a typical cost of $5,000 to $15,000, the total costs of those extra EAWs would equal $1.4 to $4.2 million. These additional costs would be borne largely by the proposers of the projects.

Also, the MPCA, as assigned RGU, would face added costs for preparing the additional EAWs. Based on estimates given by MPCA for the 2006 rule amendment process (2006 SONAR, page 7), each additional EAW could be expected to cost about $9,400 in staff time. Multiplying by 280 additional EAWs results in an increase in staff costs of over $2.6 million dollars, or about 42 additional staff.

"(7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference"

It is possible for a given project to require review of its environmental impacts under requirements of the National Environmental Policy Act as well as the Minnesota Environmental Policy Act. The federal process prescribes environmental documents similar to state EAWs and EISs and uses processes similar in general outline although different in details to the Minnesota process under chapter 4410. Almost always, it is public projects such as highways, water resources projects, or wastewater collection and treatment that require such dual review. In the few cases where dual review is needed, specific provisions in the Environmental Review rules provide for joint state-federal review with one set of environmental documents to avoid duplication of effort. These

provisions are: part 4410.1300, which provides that a federal Environmental Assessment document can be directly substituted for a state EAW document and part 4410.3900, which provides for joint state and federal review in general. Neither or these provisions will be affected by the proposed amendments.

PERFORMANCE-BASED RULES

Minnesota Statutes, sections 14.002 and 14.131, require that the SONAR describe how the agency, in developing the rules, considered and implemented performance-based standards that emphasize superior achievement in meeting the agency's regulatory objectives and maximum flexibility for the regulated party and the agency in meeting those goals.

The present rulemaking does not alter the procedures of Environmental Review, but rather alters one of the thresholds at which review is required. Consequently, this rulemaking does not offer the opportunity for adopting performance-based rules or providing procedural flexibility. Furthermore, Environmental Review is not a regulatory program, and hence the EQB has no "regulatory objectives" in this rulemaking.

ADDITIONAL NOTICE

Minnesota Statutes, sections 14.131 and 14.23, require that the SONAR contain a description of the agency's efforts to provide additional notice to persons who may be affected by the proposed rules or explain why these efforts were not made. The EQB is using the following elements to provide additional notice in this rulemaking:

- Posting on the EQB Website. The rulemaking notices, the proposed rule amendments, and the SONAR will be posted at the EQB website.
- Publication of the rulemaking information in the *EQB Monitor*. The Monitor is a bi-weekly electronic publication of the EQB concerning events in the environmental review program and is routinely examined by many persons and organizations with a potential interest in environmental review activities.
- Press Release to Major Circulation Newspapers. We will send a press release about the rulemaking to newspapers throughout the state.

Our Notice Plan also includes giving notice required by statute. We will mail the rules and rulemaking notice to everyone who has registered to be on the EQB's rulemaking mailing list under Minnesota Statutes, section 14.14, subdivision 1a. We will also give notice to the Legislature per Minnesota Statutes, section 14.116.

Our Notice Plan did not include notifying the Commissioner of Agriculture because the rules do not affect farming operations per Minnesota Statutes, section 14.111. (However, because the present Chair of the EQB happens to also be the Commissioner of Agriculture, the Commissioner did receive notice of this rulemaking.)

CONSULTATION WITH MMB ON LOCAL GOVERNMENT IMPACT

As required by Minnesota Statutes, section 14.131, the EQB will consult with Minnesota Management and Budget (MMB)). We will do this by sending MMB copies of the documents that we send to the Governor's Office for review and approval on the same day we send them to the Governor's office. We will do this before the EQB's publishing the Notice of Intent to Adopt. The documents will include: the Governor's Office Proposed Rule and SONAR Form; the proposed rules; and the SONAR. The Department will submit a copy of the cover correspondence and any response received from Minnesota Management and Budget to OAH at the hearing or with the documents it submits for ALJ review.

DETERMINATION ABOUT RULES REQUIRING LOCAL IMPLEMENTATION

As required by Minnesota Statutes, section 14.128, subdivision 1, the Board has considered whether this proposed rule amendment will require a local government to adopt or amend any ordinance or other regulation in order to comply with these rules. The Board has determined that they will not, because only the state Pollution Control Agency will be required to perform any additional environmental review due to the amendment.

COST OF COMPLYING FOR SMALL BUSINESS OR CITY

As required by Minnesota Statutes, section 14.127, the Board has considered whether the cost of complying with the proposed rule amendment in the first year after the rules take effect will exceed $25,000 for any small business or small city. The Board has determined that the cost of complying with the proposed rules in the first year after the rules take effect will not exceed $25,000 for any small business or small city. The Board has made this determination based on the probable costs of complying with the proposed rule, as described in the Regulatory Analysis section of this SONAR.

LIST OF WITNESSES

If these rules go to a public hearing, the EQB anticipates that Mr. Jon Larsen and Mr. Gregg Downing, EQB staff, will testify in support of the need for and reasonableness of the rules. Also, the EQB anticipates that one or more MPCA staff familiar with environmental review and permitting of air emission projects will be available to help answer questions about the background for this rule amendment and about the relationship to air permitting.

ANALYSIS OF PROPOSED RULE AMENDMENT

The EQB proposes to amend Minnesota Rules, Part 4410.4300, Subpart 15, the mandatory EAW category captioned "air pollution" by dividing it into two items, A and B, in which item A would retain the current thresholds and continue to apply to air pollutants other than greenhouse gases and in which item B would establish a new, separate threshold to apply only to greenhouse gases (GHGs). The types of GHGs covered under the rule amendment are the same gases as now regulated under the federal Clean Air Act: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6). The threshold proposed to apply to these GHGs is 100,000 tons per year of combined emissions of the six GHGs expressed as carbon dioxide equivalents (explained below).

Unless a new threshold for GHG emissions is adopted, arguably the existing threshold of 250 tons per year "of any single air pollutant" will apply to GHGs and a great number of projects would be required to prepare EAWs due to their GHG emissions. The vast majority of these cases would be due to carbon dioxide emissions from fuel combustion for heating or energy generation. For example, estimates made by MPCA staff show that an office building of only about 8,000 square feet of floor space may generate over 250 tons per year of carbon dioxide from burning natural gas for heating.

Using 250 tons per year as the EAW threshold for GHGs would create an unmanageable administrative burden on MPCA to prepare hundreds of additional EAWs, with very little environmental benefit. One possible option considered by EQB (and listed in the Request for Comments) was to amend the rule to declare that GHGs were not considered "air pollutants" and therefore not subject to this EAW category at all. However, that option would ignore the increasing concerns over human emissions of GHGs and their potential environmental impact. Now that GHGs are being brought into the regulatory fold under the Clean Air Act, it seems an appropriate time to establish an EAW threshold for GHGs.

To determine an appropriate threshold level for GHGs, the EQB used the same rationale as it has in the past to establish the existing air pollution EAW threshold. The existing threshold is set at the higher of the two basic emission levels used under the Clean Air Act to trigger permit requirements. Under the federal air permitting programs, new or expanding facilities can require permits if they have a potential to emit either 100 or 250 tons per year of a single air pollutant, depending on circumstances. Between 1982 and 2006, the air pollution EAW category used a threshold of 100 tons per year of any single air pollutant. In amendments adopted in 2006, the Board revised the threshold upwards to 250 tons per year. Thus, the EAW threshold has long been based on permitting thresholds under the Clean Air Act. Therefore, the Board believes it is reasonable to similarly choose a federal permitting threshold as the basis of a new EAW threshold specific to GHGs.

In its newly promulgated regulations (May 13, 2010) for GHG permitting (referred to as the "GHG tailoring rule"), the U.S. EPA sets two GHG emission levels at which permits will now be required: 75,000 and 100,000 tons per year of combined GHG emissions expressed as carbon dioxide equivalents. The 75,000 ton per year threshold will apply until June 30, 2011 only to facilities already requiring a Prevention of Significant Deterioration permit due to emissions of other than GHGs; if they exceed the 75,000 ton per year threshold they will be required to go through additional analysis of GHG emission controls. After June 30, 2011, expanding facilities that increase GHG emission by at least 75,000 tons per year will require PSD permits even if their increased emissions of other air pollutants would not otherwise require PSD review. The 100,000 ton per year threshold will apply to newly constructed projects with GHG emissions above that figure and to operating permits for existing facilities. Thus, the higher number, 100,000 tons per year, will be the more generally applicable permitting threshold for GHGs, at least for the early phases of the regulation of GHG under the Clean Air Act. (EPA indicates that it intends to further consider changes and that lower thresholds for certain facilities could be adopted in a few years.)

While the EQB could adopt a dual-tier threshold similar to EPA's system, the Board has chosen to adopt a simpler scheme using just one threshold, the more generally-applicable 100,000 tons per year threshold. Having multiple threshold makes the rule more complicated to apply and can lead to confusion. At this early stage of taking GHGs into account in environmental review, it does not seem beneficial to try to establish multiple thresholds. Perhaps as experience is gained and more data become available from EAWs prepared reasons for refining the threshold will become evident, in which case the threshold can be amended.

The proposed 100,000 tons per year threshold is intended to apply to the combined GHG emissions from a facility; i.e., if more than one type of GHG is emitted, the total quantity must be considered. However, before adding the quantities of each GHG together, the amendment will require each to be converted into its "carbon dioxide equivalent." This refers to a way to take into account the fact that different GHGs have differing capacities to heat the atmosphere due to their chemical differences. E.g., a molecule of sulfur hexafluoride has almost 23,000 times the effect as a molecule of carbon dioxide. For each GHG there is a factor like this to use to multiply the raw tons of gas emitted to get its equivalent mass of carbon dioxide. To apply the 100,000 ton per year threshold, for each GHG emitted the actual number of tons emitted is multiplied by its carbon dioxide equivalence factor, then the equivalent tons are added and compared to 100,000. The equivalence factors are taken from values published by the U.S. EPA.

An additional complication is that the tons of each GHG to be emitted must be determined as the "potential to emit," rather than the actual number expected to be emitted. The difference is that under the potential to emit concept, it is assumed that the emitting source is run at 100% capacity all the time ("24/7"). This may or may not be how it will be operated in practice, but this is the method used by EPA and MPCA to determine whether permit thresholds are exceeded. As the rule states, it is assumed also that the designed in pollution control equipment is operating when the potential to emit is calculated. These assumptions are used in applying the existing 250 tons per year emission threshold under the current rule; it is proposed that the GHG emissions be treated in the same way.

CONCLUSION

Based on the foregoing, the proposed rules are both needed and reasonable.

12-6-10

Gene Hugoson
Chair

MINNESOTA
ENVIRONMENTAL QUALITY BOARD

*Guidelines Preparing Environmental Assessment Worksheets**

(2013)

**Excerpts of EQB Guidance for responding to EAW Form questions related to climate impact assessment*

Question 16. Air

This item is divided into three sections: stationary source emissions, vehicle emissions, and dust/odors. The regulatory authorities for these three types of air emissions are different so measures to control or mitigate environmental effects may be different in each section.

a. Stationary source emissions: This response should cover **all sources of air emissions other than traffic, odor sources and construction-phase dust.** The most common sources of such emissions are boilers and industrial processes. The level of detail and the degree of sophistication of the analysis should be commensurate with the magnitude of the emissions and their likely impacts on air quality. Where emissions will be great or contain several or specific regulated air pollutants, quantitative estimates derived from generally accepted air quality models may be necessary.

Any hazardous or criteria air pollutants as well as greenhouse gases must be specifically addressed. Proposers are advised to contact the MPCA Air Quality staff to determine which specific air pollutants need to be included as part of the EAW. Judgment must be exercised in determining the level of information needed for the pollutants carbon dioxide, methane and nitrous oxide from the project in question.

This item includes fugitive dust except construction-phase dust, which is addressed in response to Item 16.c. Fugitive dust is defined as “particulate matter uncontaminated with industrial emissions that becomes airborne due either to the force of wind or man’s activity,” such as dust generated by traffic on unpaved roads or parking areas, or dust from storage piles. The locations of, and distances to, sensitive receptors should be given. Proposed mitigation measures should be identified.

Air emission sources frequently require air quality permits from the MPCA and applications for such permits may require extensive information. In these cases, information in the EAW may be based on information being developed for the air permit. Proposers are advised to consult with the MPCA Air Quality staff regarding air permit requirements prior to preparing the EAW data.

Question 19. Cumulative Potential Effects (CPE)

The EAW form requires an analysis of impacts that are not only those of the project under review but also other projects that could contribute similar effects, resulting in a "cumulative potential effect," which will be referred to as "CPE" throughout the remainder of this section. The definition of CPE is found at Minn. Rules 4410.0200, Subp. 11a, and reads, in part, "Cumulative potential effects" means the effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects**." If the RGU is considering effects on the project or adaptive planning due to climate change, this information can be described either as part of the Cumulative Potential Effects analysis in response to this item or as part of the previous items**. The following guidance should be followed by the project proposer, RGU, and any of their agents involved in completing an EAW form; however, the RGU must control decisions about what gets left out or included.

As noted on the EAW Form, CPE can be addressed under each of the previous items or CPE can be addressed in response to EAW Item 19. It is not necessary to address CPE in both locations on the form. However, the same information and level of assessment is needed regardless of where an RGU chooses to place the information in the EAW. If the RGU believes that the item-by-item responses have adequately presented this information, this item may be answered by stating that all necessary cumulative potential effects analysis information has been presented item-by-item (unless the RGU chooses to summarize information under Item 19).

Question 20. Other potential environmental effects

This item is provided in case there are environmental issues and effects from the project which are not specifically discussed under any other items in the EAW. Describe the pre-project resources, the project-related environmental effects, and any proposed mitigation measures.

July 2013 version

ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at:
http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm. The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.
Cumulative potential effects can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.
Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title:**

2. **Proposer:**
   Contact person:
   Title:
   Address:
   City, State, ZIP:
   Phone:
   Fax:
   Email:

3. **RGU**
   Contact person:
   Title:
   Address:
   City, State, ZIP:
   Phone:
   Fax:
   Email:

4. **Reason for EAW Preparation:** (check one)

   Required:
   - ☐ EIS Scoping
   - ☐ Mandatory EAW

   Discretionary:
   - ☐ Citizen petition
   - ☐ RGU discretion
   - ☐ Proposer initiated

   If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

5. **Project Location:**
   County:
   City/Township:
   PLS Location (¼, ¼, Section, Township, Range):
   Watershed (81 major watershed scale):
   GPS Coordinates:
   Tax Parcel Number:

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project;
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan.

6. Project Description:

a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.

c. Project magnitude:

Total Project Acreage	
Linear project length	
Number and type of residential units	
Commercial building area (in square feet)	
Industrial building area (in square feet)	
Institutional building area (in square feet)	
Other uses – specify (in square feet)	
Structure height(s)	

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

e. Are future stages of this development including development on any other property planned or likely to happen? □ Yes □ No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

f. Is this project a subsequent stage of an earlier project? □ Yes □ No
If yes, briefly describe the past development, timeline and any past environmental review.

7. **Cover types:** Estimate the acreage of the site with each of the following cover types before and after development:

	Before	**After**		**Before**	**After**
Wetlands			Lawn/landscaping		
Deep water/streams			Impervious surface		
Wooded/forest			Stormwater Pond		
Brush/Grassland			Other (describe)		
Cropland					
			TOTAL		

8. **Permits and approvals required:** List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. *All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.*

   Unit of government Type of application Status

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19

9. **Land use:**
   a. Describe:
      i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

      ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

      iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

   b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

   c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

10. Geology, soils and topography/land forms:

a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 10.

11. Water resources:

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.
2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.
3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.

ii. Stormwater - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

iii. Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

iv. Surface Waters

a) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

b) Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the

water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

12. Contamination/Hazardous Materials/Wastes:

a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):

a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB _____) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

14. Historic properties:

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

15. Visual:

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

16. Air:

a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

17. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

18. Transportation

a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW.* Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 *(available at: http://www.dot.state.mn.us/accessmanagement/resources.html)* or a similar local guidance,

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

19. Cumulative potential effects: (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

20. Other potential environmental effects: If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

RGU CERTIFICATION. *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature _____ Date _____

Title _____