

EAW Guidelines

Preparing Environmental Assessment Worksheets



EAW Guidelines was prepared by the staff of the Environmental Quality Board to assist units of government and others in preparing Environmental Assessment Worksheets. EAW Guidelines is not intended as a substitute for Environmental Quality Board rules and should be used in conjunction with the EAW rule provisions at parts 4410.1000 to 4410.1700. Copies of the rules are available from Minnesota's Bookstore at 651-297-3000 or 800-657-3757, or at the Revisor of Statutes homepage at www.revisor.mn.gov. Further information about the environmental review process can be found in the Guide to Minnesota Environmental Review Rules, available from the EQB.

The updated guidelines replace the February 2000 edition of EAW Guidelines and correspond to the July 2013 edition of the EAW form. Updates and corrections to the guidelines and EAW form will be posted on the EQB homepage at www.eqb.state.mn.us.

Upon request, the EAW Guidelines will be made available in an alternate format, such as Braille, large print or audiotape. For TTY, contact Minnesota Relay Service at 800-627-3529 and ask for Minnesota Environmental Quality Board.

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For additional information, or copies of the guidelines, contact:

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Environmental Assessment Worksheet Process

EAW Guidelines provides information about preparing an Environmental Assessment Worksheet (EAW) to determine whether an Environmental Impact Statement (EIS) is needed for a project. The EAW is defined by state statute as a “brief document which is designed to set out the basic facts necessary to determine whether an EIS is required for a proposed action.” (Minn. Stat. § 116D.04 Subd. 1a)

The purpose of the EAW process is to disclose information about potential environmental impacts of the project. It is not an approval process. The information disclosed in the EAW process has two functions: to determine whether an EIS is needed and to indicate how the project can be modified to lessen its environmental impacts. Such modifications may be imposed as permit conditions by regulatory agencies. The information comes from three sources: the EAW, comments made on the EAW and responses by the Responsible Governmental Unit (RGU) and project proposer to the comments. All three sources are important, but the EAW generally provides the most significant information.

The EAW process involves four major steps:

Step 1. The project proposer supplies all necessary data to the Responsible Governmental Unit, which is assigned responsibility to conduct the review according to the EQB rules.

Step 2. The RGU prepares the EAW by completing the standard form supplied by the Environmental Quality Board.

Step 3. The EAW is distributed with public notice of its availability for review and comment. The comment period is 30 calendar days. Certain state, federal and local agencies always receive EAWs for review. Any person may review and comment in writing on an EAW. A public meeting to receive oral comments is optional at the discretion of the RGU, but is not commonly held.

Step 4. The RGU responds to the comments received and makes a decision on the need for an EIS based on the EAW, comments received and responses to the comments. The RGU and other units of government may require modifications to the project as part of their permits to mitigate environmental impacts as disclosed through the EAW process.

When an EAW is required

An EAW is required for any project listed in the mandatory EAW categories in Minnesota Rules part 4410.4300. This listing, as well as mandatory EIS and exemption categories, can also be found in the EQB’s *Guide to Minnesota Environmental Review Rules*. An EAW is also required whenever any governmental unit with approval authority over the project determines that available evidence indicates that the project may have the potential for significant environmental effects. This is called a discretionary review and typically occurs in response to a citizen petition.

An EAW is also prepared as the first step in scoping an EIS if required for a project. A different approach is necessary to answering questions on the EAW when it is used for scoping purposes.

Prohibition on governmental approvals and on construction during review

Whenever an EAW is mandatory or has been ordered, or when a petition for an EAW has been properly filed, state law directs that no final governmental decision may be made to grant a permit, approve or begin a project and that construction on the project may not begin until environmental review is completed. When an EAW is required, review is completed when either the RGU determines that no EIS is needed – issuance of a negative declaration – or when the EIS is completed and found adequate. A final governmental decision is one that conveys rights to the project proposer, whether the last or an intermediate decision. Final decisions include preliminary as well as final plat approvals since they convey rights that may be difficult to alter or undo, conditional use permits and zoning decisions if associated with a specific project. *The Guide to Minnesota Environmental Review Rules* provides additional information about prohibited approvals.

How the RGU is determined

Environmental Quality Board rules (Minnesota Rules Chapter 4410.0500) assign the responsibility of preparing EAWs and determining the need for EISs to specific units of government. The specific unit of government determined to have responsibility for the EAW preparation is the RGU. Commonly, the RGU is the unit with the greatest responsibility for approving or supervising the project as a whole. For projects that exceed a threshold which requires a mandatory EAW, the rules that define these categories also identify the designated RGU. For projects where a citizen petition for an EAW was submitted to EQB, the EQB chair or staff designee assigns the RGU consistent with the Rules. If a unit of government orders an EAW or responds to an EAW request of the project proposer, that unit is the RGU. A state agency is always the RGU for projects it will conduct.

Responsibility for EAW preparation and costs

While the RGU prepares the EAW, project proposers are required to supply to the RGU any data or other information in their possession or to which they have reasonable access. Once received, the RGU reviewing the submitted information for completeness. Often, an RGU will hire consultants to prepare all or part of the EAW or to independently review the proposer’s submittal. This topic is covered in detail in the next chapter.

The environmental review statutes do not address the issue of charging for EAW costs, however, some local units of government have enacted ordinances that allow them to recoup

expenses for preparing an EAW. In most cases, the proposer incurs most data costs.

The 30-day comment period

Once the RGU has prepared the EAW, it must be available for public comment for 30 days. The RGU must submit a signed, completed EAW to the Environmental Quality Board staff, (at EQB.monitor@state.mn.us), who publishes a notice of the EAW's availability in the *EQB Monitor*. The *EQB Monitor* is electronically distributed biweekly on Mondays and anyone can receive the *EQB Monitor* via email by signing up at the EQB website. The public comment period begins on the distribution date of the *EQB Monitor* containing the EAW notice. The 30-day comment period usually ends on a Wednesday at 4:30 p.m. unless indicated otherwise by the RGU; comments must reach the RGU by this deadline.

At the same time the EAW is sent to the EQB staff, the RGU must also distribute the EAW to all offices on the EQB's official distribution list. Available online from the EQB, the distribution list includes state, federal, regional and local units of government that have expertise and responsibilities in the environmental area, as well as several libraries that serve as repositories for environmental reports. EAWs may be distributed in electronic form, such as an emailed pdf file or on a mailed CD, however, anyone entitled to receive an EAW must be given a paper copy upon request. Many RGUs now post EAWs on their websites. In addition, copies should be made available locally for public review, at such locations as a local library or the RGU offices. The rules require that a copy be given to any person submitting a written request, although the RGU may charge a copying fee. The RGU should also make extra copies for requests by the public.

Once distributed, the RGU must also announce the availability of the EAW for public review. The RGU must send a press release to, and publish a notice in, at least one newspaper in the project area or an official website for the area. The press release and notice should briefly describe the project, explain that an EAW is available for review and comment, and give details such as when comments are due, a contact person name and address and how to obtain a copy of the EAW for review. If there will be a public meeting for oral comments, it should be announced in this notice or press release as well. The RGU should keep a record documenting that it complied with the requirement of distributing and publishing the press release and the published notice. As of 2012, the law requires not only that a press release be distributed, but that the RGU be responsible for publishing a notice in one of the aforementioned ways as well.

Anyone who wishes may review and comment on the EAW during the comment period. Unless the RGU holds an optional public meeting, all comments must be submitted in writing within the 30 days. Comments on an EAW may be submitted in electronic form if the RGU provides an email address in the EAW. The rules suggest that comments address: the accuracy and completeness of the information, potential impacts that may warrant further investigation before the project is commenced and the need for an EIS on the project. Without draft and final versions of the EAW, minor errors or omissions should be noted only if they bear on larger issues. If a reviewer feels that the process is impeded by a lack of information that could be

reasonably obtained, the reviewer should ask for the information during the comment period rather than issuing a comment letter.

All substantive comments received during the comment period must be given a written response by the RGU. The number of comment letters received by the RGU varies widely. For some projects only one or two letters are received, usually from state agencies. On other projects, dozens of letters may be received from concerned citizens. If the project is controversial and the RGU anticipates many public letters, it may be advantageous to hold a public meeting to hear comments and to answer the public's questions.

RGU decision on the need for an EIS

The rules require most RGUs to make a decision on the need for an EIS between three working days and 30 days after the comment period ends. This time frame applies to all RGUs where the decision is made by a council or board that only meets occasionally. If the decision will be made by a single individual such as by an agency commissioner, then the decision must be made within 15 working days, although a 15 working day extension may be requested from the EQB chair.

Delay of EIS decision due to insufficient information

The RGU may postpone its decision on the need for an EIS for up to 30 additional calendar days if it determines that "information necessary to a reasoned decision about the potential for, or significance of, one or more possible environmental impacts is lacking, but could be reasonably obtained" (part 4410.1700, subpart 2a).

This provision is intended to provide for a postponement only on the basis of important missing information that bears on the question of potential for significant environmental impacts. If the missing information is not critical to the EIS need decision in the opinion of the RGU, the decision should not be delayed. The information can be developed later as part of an appropriate permitting process. In its record of decision, the RGU can describe the information and how it will be obtained and used.

If the project proposer agrees, an RGU can extend the postponement beyond the 30 days stated in the rules. In unusual cases where important information is found to be lacking from the EAW, the RGU may simply withdraw the EAW, revise it and restart the 30-day comment period. This can normally only be justified if the project description information is so incomplete or inaccurate that reviewers are not given a fair chance to review the true project.

RGU response to comments and record of decision

As part of the process of determining if an EIS will be needed, the RGU must respond in writing to all substantive comments received during the comment period. Late comments may be responded to if the RGU chooses to do so. Each person or entity that submitted timely and substantive comments must be sent the RGU's response to those comments. Responses to comments may be distributed electronically, with the proviso that a paper copy must be supplied upon request. Usually the responses are sent along with the notice of the EIS need decision, however, in certain cases, it may be advisable to send out responses in

advance of the decision to solicit comments before the EIS need decision is made. The RGU may ask the proposer to help prepare responses if the comments ask for changes in the project or a commitment to mitigation, or question the purpose or value of the project.

The purpose of the EAW, comments and comment responses is to provide the record on which the RGU can base a decision about whether an EIS needs to be prepared for a project. EIS need is described in the rules: “An EIS shall be ordered for projects that have the potential for significant environmental effects” (Minnesota Rules 4410.1700, subpart 1).

In deciding whether a project has the potential for significant environmental effects, the RGU “shall compare the impacts that may reasonably be expected to occur from the project with the criteria in this rule,” considering the following factors (part 4410.1700, subparts 6 and 7):

- A. Type, extent, and reversibility of environmental effects;
- B. Cumulative potential effects;
- C. The extent to which environmental effects are subject to mitigation by ongoing public regulatory authority provided that the RGU may rely only on mitigation measures that are specific and can reasonably be expected to be effective; and
- D. The extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other Environmental Impact Statements.

The rules also require the RGU to document how it reached a decision: “The RGU shall maintain a record, including specific findings of fact, supporting its decision. The record must include specific responses to all substantive and timely comments on the EAW. This record shall either be a separately prepared document or contained within the records of the governmental unit” (Minnesota Rules 4410.1700, subpart 4).

For most RGUs, the staff or a consultant will draft a proposed or sample record of decision document for consideration and possible adoption by the council or board. This document may be in the form of a resolution or it may be adopted by a resolution. Other RGUs may satisfy the requirements for a decision record through detailed meeting minutes that reflect discussion of the relevant information from the EAW, comments and responses about impacts, mitigation and regulatory oversight.

The record of decision should do more than rely on the absence of adverse comments to justify a decision not to order an EIS. The RGU is obligated to examine the facts, consider the criteria and draw its own conclusions about the significance of potential environmental effects, and it is the purpose of the record of decision to document that the RGU fulfilled this obligation.

Among the four criteria, the first and the third are usually the most relevant. The first deals with the nature and significance of the environmental effects that will or could result from the project. It relies directly on the EAW information and may be augmented by information from the comments and responses. The third criterion is frequently the main justification for why an EIS is not required. Projects often have impacts that could be significant if not for permit conditions and other aspects of public regulatory authority. However, the RGU must be careful to rely on ongoing public regulatory authority to prevent environmental impacts only where it is reasonable to conclude that such authority will adequately handle the potential problem.

The second criterion, cumulative potential effects of related or anticipated further projects, has historically been given little attention but is currently in the forefront. It remains difficult to apply in practice when little is known about other potential projects unless they are also under review at the same time. Nevertheless, the RGU must be alert to the possibility that an EIS could be needed because of cumulative potential effects of multiple projects. The RGU should address the project’s interaction with other past, present and future projects in the vicinity when answering EAW questions. The fourth criterion enters in only where the same information that would be sought in an EIS already is available through past studies, including other impact statements. This situation rarely occurs, in part because the environmental issues are usually quite specific to the project in question.

Appeal of an RGU decision

The decision of the RGU whether to prepare an EIS can be appealed in the State Court of Appeals. The appeal must be filed within 30 days of the date on the appealing party receives the final decision and order of the RGU. There is no administrative appeal of an RGU; the EQB has no jurisdiction to review an RGU’s decision.

EAW Process Steps and Timeline

0. Informal communication between project proposer and RGU in preparation for filing EAW data submission (usually in conjunction with discussions about permit information needs)
1. Proposer submits completed data portions of EAW to RGU
2. RGU reviews data submittal for completeness (within 30 days – extendable with agreement of proposer)
3. If complete, notifies proposer within 5 business days
4. If incomplete, returns for corrections (then steps 1 & 2 repeat)
5. RGU prepares and approves EAW for public comment (within 30 days of notice of completeness sent to proposer)
6. RGU submits notice to EQB for publication in *EQB Monitor* and distributes EAW to official EQB distribution list (within 5 business days of approval of scoping EAW)
7. RGU publishes press release/notice about EAW to at least one newspaper of general circulation in project area or on an official publication website for the political subdivision in which the project is proposed (within 5 business days of submission of notice to EQB)
8. Notice appears in *EQB Monitor* (varies between 7 and 20 days from receipt of notice at EQB, but usually is 7 days)
9. (Optional: RGU may hold public meeting to receive oral comments; if meeting held, information regarding meeting included in *Monitor* notice & in press release)
10. Comment period ends (30 days after *Monitor* notice published)
11. RGU prepares written responses to substantive and timely comments (documented in Record of Decision documents; RGU may request information from proposer as necessary)
12. RGU makes EIS need decision based on whether record (EAW, comments & responses) indicates project has the potential for significant environmental effects (between 3 business and 30 calendar after end of comment period; RGU may postpone decision to gather critical missing information for up to 30 days or a longer period if agreed to by the project proposer; decision must be documented in written record of decision)
13. RGU distributes notice of EIS need decision (within 5 business days to EAW distribution list and anyone else who submitted timely and substantive comments; commenters must receive copy of response to their comments)
14. EQB publishes notice of EIS need decision in *EQB Monitor*

General guidance for preparing an EAW

An official form must be used for all Environmental Assessment Worksheets, unless an alternative is approved in advance by the Environmental Quality Board chair, or a federal Environmental Assessment is prepared for the same project.

The Environmental Quality Board develops and revises the official EAW form as necessary. The current version was revised in 2013. The worksheet and these guidelines are available on the EQB website.

Submitting data for the EAW

Prior to initiating work on an EAW, proposers are advised to contact the appropriate RGU for guidance. RGUs may have specific requirements for individual EAW items, or for specific categories of projects. The project proposer is required to submit the EAW's completed data portions to the RGU to initiate EAW preparation. The RGU must promptly review the proposer's submittal and return the submittal to the proposer if it is found to be incomplete. If the submittal is complete, the RGU must notify the proposer in writing within five working days. Proposers are obligated to supply any relevant information to which they have reasonable access. The proposer usually submits the data portions on a copy of the EAW form. In preparing the submittal the proposer should refrain from offering conclusions. Rather, it should focus on supplying data and other factual information.

The proposer should discuss EAW content requirements with RGU staff before beginning work on the EAW.

Preparing the EAW

The RGU is legally responsible for the accuracy and completeness of the information presented in the EAW. After the RGU notifies the proposer that the submittal is complete, the RGU has 30 days to add additional information, revise the text as necessary and approve the EAW for public distribution. In controversial cases, the RGU governing body—a council or board—often authorizes release of the EAW, but it is not required by the EQB rules.

Even if the proposer's data submittal seems complete and accurate, the RGU must exercise independent judgment about the information. The RGU must be in charge of any conclusion-type responses that discuss the significance of impacts or the adequacy of mitigation. If the RGU fails to exercise independent review of the proposer's information, it could lose a legal challenge and have to repeat the EAW process. If the RGU does not have the necessary expertise on staff, it should consider hiring a consultant to help review information and to assist in the preparation of the EAW. If the RGU has adopted the necessary ordinances, it can charge costs to the proposer. Those that have not yet adopted these ordinances may wish to do so before they are needed.

The statutes define the EAW as “a brief document which is designed to set out the basic facts necessary to determine whether an EIS is required for a proposed action” (Minnesota Statutes, section 116D.04, subdivision 1a). Some EAWs are lengthy, however, rivaling the average EIS in length. Several considerations should be taken into account in preparing an EAW and deciding how much information should be included:

■ **Presenting more information does not necessarily reduce the need for an EIS.** The statutory requirement for an EIS is whether the project has the potential for significant environmental effects – it is not whether the EAW has adequately disclosed information about potential impacts. At a minimum, an EIS would consider reasonable alternatives that might avoid the impacts and could provide additional information about mitigation for the impacts. An EAW is not designed to be a substitute for the EIS, no matter how thick it is.

■ **Information that reduces uncertainties about impacts and their significance belongs in an EAW.** Any information that helps clarify the likelihood or level of significance of a potential impact is useful in an EAW because it helps the RGU make a better determination about the need for an EIS. It could be factual information related to the nature of the impact or its likelihood, or information about how the impact could be mitigated and how that mitigation will be imposed.

■ **Incomplete information in the EAW may lead to a delay in the EIS need decision.** The EQB rules provide that if important information is missing in the EAW record, the RGU may postpone the decision. Failure to include relevant information in the EAW may lead to unnecessary delays. In extreme cases, failure to provide adequate information may cause reviewing agencies to suggest that the EAW be withdrawn and redone or that an EIS be prepared.

Use of a federal Environmental Assessment as a substitute for the EAW form

Rule amendments in 1997 authorize the automatic substitution of a federal Environmental Assessment in place of the EAW form as long as the EA addresses all the environmental effects identified by the EAW form. This avoids the need for two different review documents for projects that require both a state EAW and federal National Environmental Policy Act (NEPA) review.

NOTE: Only the document can be substituted – all procedural aspects of the state EAW process must still be followed.

Alternative Urban Areawide Review in lieu of an EAW

A more comprehensive and often more expeditious review can be accomplished through the Alternative Urban Areawide

Review process. If several different projects in the same area will require preparation of an EAW, or if an RGU has concerns about overall development in an area where some projects require review and others do not, the situation may be best suited for an Alternative Urban Areawide Review. RGUs can find guidance about the AUAR process in Chapter 5 of the Guide to Minnesota Environmental Review Rules or by consulting the EQB staff.

Animal feedlots

A special customized EAW form that applies only to animal feedlots was developed by the EQB in 1999. This customized form should be filled out in preparing feedlot EAWs. Forms and guidance are available at the EQB homepage (www.eqb.state.mn.us), from the EQB staff, the Pollution Control Agency and many county feedlot officers.

Industrial, commercial and institutional facilities

Prior to initiating an EAW, local units should review the other mandatory EAW categories to make sure that the project does not fit into a more specific category assigned to a different RGU such as the Pollution Control Agency or Department of Natural Resources. If the project fits two or more categories, all potential government units must agree on which will serve as RGU for the review before it begins; if they cannot agree, the EQB chair must determine the RGU. In general, it is preferable for the state agency to serve as RGU due to the technical nature of the analysis often needed.

Even when the local unit is assigned as the RGU for an industrial project, the proposer should contact the Pollution Control Agency prior to initiating the EAW to discuss whether special information may be needed for adequate review of air, water or waste issues.

In general, an EAW for an industrial project must give special attention to: air emissions (item 16), water discharges (item 11), contamination/hazardous materials/wastes (item 12), transportation issues (item 18), noise (item 17), and site stormwater issues (item 11b(ii)).

In general, an EAW for a commercial or institutional project must give special attention to: vehicle emissions (item 16b), site stormwater runoff (item 11b(ii)), and impacts due to land use conversions such as loss of wildlife habitat (item 9). Since such development frequently takes place in urbanizing or suburbanizing areas, the EAW should attempt to put the project and its impacts into the context of other nearby development and plans, infrastructure needs, and government plans for the area (items 9, 11, and 18).

Residential development

Generally, any infrastructure improvements intended to serve primarily the project are considered part of the project and must be reviewed in the EAW.

“Connected actions” (Minnesota Rules, part 4410.0200, subpart 9b) occur when one action will induce the other or is a prerequisite for the other, or if neither is justified by itself. The rules require that connected actions must be treated as one

action (part 4410.1000, subpart 4).

Major infrastructure projects intended to serve a number of projects or a wide area, such as a trunk sewer or collector roadway, generally do not require review as part of a residential project EAW but should be listed under the appropriate item. These infrastructural projects may, however, require review on their own.

Item-by-item Guidance

This chapter provides guidance for each item of the Environmental Assessment Worksheet, developed by the Environmental Quality Board (EQB), and revised in 2013. The worksheet is available online from the EQB home page at www.eqb.state.mn.us. The completed EAW Form may be submitted to the EQB in an electronic format.

Note: While the EAW form is standardized to be applicable for all projects, the information included in the EAW document will depend on the project proposed, site location, and features of both. Responsible Government Units (RGUs) must complete each EAW item at a level of detail and complexity that is appropriate for the item as it relates to the project proposed. Project proposers are encouraged to contact RGUs early in the process to ensure an appropriate level of detail is included in EAW data submittals. EAWs should not include very minor effects of the proposed project for each item, and instead it may be appropriate for individual items to be marked as not applicable (N/A). Documentation of why items are considered N/A to the project and why effects are considered by the RGU to be minor should be kept as part of the project record and referenced in the project EAW.

The purpose of an EAW is to identify and assess environmental impacts and mitigation associated with a proposed project. The EAW should not include information that serves only to justify or promote the project but is otherwise irrelevant to the purpose of an EAW.

1. Project title

Provide a descriptive, short title and indicate what kind of project is involved, such as residential subdivision, gravel mine or county road resurfacing; its specific identification and location, including city or county. For example: Joe Smith Gravel Mine, Lincoln Township.

2. Proposer

According to Minnesota Rules 4410.0200 Subpart 68, the proposer means, “the person or governmental unit that proposes to undertake or direct others to undertake a project.” The **proposer** should be the entity that has applied for or would receive the approval for the project or the governmental unit that will undertake the project and not a consultant, attorney, or other entity or person representing the proposer. However, the **contact person** is the person to whom information about the project should be provided, and it may be the proposer, the proposer’s consultant or staff. While the proposer, contact person and permitted entity may be the same in some cases, those with permitting authority should be aware that a permitted entity for the project may be different from the proposer or contact person identified in the EAW.

3. RGU

The Responsible Governmental Unit (RGU) should only give an e-mail address and/or fax number if it intends to accept comments electronically. The contact person should be somebody associated with the RGU who will respond to questions or comments on behalf of the RGU.

4. Reason for EAW preparation

Most EAWs are prepared because of mandatory EAW categories found in Minnesota Rules 4410.4300 or as part of scoping of projects in mandatory EIS categories in 4410.4400, and should be noted accordingly. If the EAW is not mandatory, mark an appropriate option to indicate how the EAW process was initiated. If more than one applies — for instance if a citizen petition was filed but the proposer volunteered for an EAW before the RGU acted on the petition — either mark all that apply or none of the items and explain the situation. EIS scoping should be marked only if an EIS is mandatory or the proposer has voluntarily agreed to initiate an EIS. If an EAW or EIS is mandatory, list the citation for the applicable mandatory category(ies) from the EQB rules. The citation can be found in Minnesota Rules parts 4410.4300 or 4410.4400 or in Chapter 7 of the *Guide to Minnesota Environmental Review Rules*. Also, give the name of the category as listed in the rules after the subpart number.

Preparation of an EAW for scoping an EIS: Before an EIS is done, an EAW is required for “scoping,” which is the decision-making process that determines what alternatives, impacts and issues, and mitigation measures will be assessed and at what level of detail. These decisions are made by the RGU after a period of public and agency input. The function of the scoping EAW is to inform the public and agencies about a project so they can help identify topics and issues that should be addressed in the EIS. The scoping EAW must be accompanied by a draft scoping decision document.

The draft scoping decision document is a draft version of the document that will be adopted by the RGU after the scoping period as the official “blueprint” for the EIS. The scoping EAW focuses on the project, its settings and physical impacts, while the draft scoping decision document focuses on the RGU’s plans for reviewing the project’s impacts, including economic and social impacts, and the impacts of “reasonable alternatives” to the project. For a scoping EAW, mark the box for “EIS Scoping” under this EAW item.

Chapter 5 of *The Guide to Minnesota Environmental Review Rules* provides guidance about completing the EAW when used for scoping.

5. Project location

People reviewing the EAW are not necessarily familiar with the project site and its surroundings. The purpose of this item is to provide information to allow EAW reviewers to locate the project site and environmental features on or near the site. The information and maps listed on the form are the minimum needed to do this. Additional information, maps and project plans should be included as appropriate to identify features discussed in individual items in the EAW. The project location information relates closely with the project description provided in EAW Item 6.

Public Land Survey (PLS) township, range and section numbers are found in property description on deeds, other property documents, U.S. Geological Survey (USGS) topographic maps, site surveys, and some county highway maps. The county assessor will also have this information. All applicable section numbers should be listed. The tax parcel numbers (property identification numbers) can be obtained from assessor or property information offices. Many counties have internet sites that provide the number. Include the number for all project site parcels.

Additional Resources:

- Watershed information can be found on the Minnesota Pollution Control Agency's (MPCA) website at: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/basins-and-watersheds/basins-and-watersheds-in-minnesota.html>
- Geographic Information System (GIS) data on watersheds can be downloaded from the Minnesota Department of Natural Resources (DNR) data deli at: <http://deli.dnr.state.mn.us/>

Category Specific Guidance:

Residential Developments (Subp 19 and 19a): The site plan should be a copy of the plat drawing, reduced to a suitable size and should include all major features of the project. Other drawings should also be attached, if available, for grading, drainage or other plans relating to changes the project would make to the environment.

Recreational Development (Subp 20 and 20a): The site plan should show the layout of all sites as well as support facilities such as sewage lines, stormwater management structures, roads and buildings.

Stream Diversion (Subp 26): The site plan should show the existing and proposed new channel alignments and the location of any spoils disposal.

Maps

The project site must be indicated on the maps. Photocopies of maps are acceptable as long as they are legible. If only a portion of the complete map is included (detail) make sure that the label, and all legend information is included so reviewers can refer to the original map if necessary.

Site plans should show all significant project and natural features. The site plan should provide a graphic “close-up” of the project in sufficient detail to identify the key physical construction features, including roads, utilities, buildings, wells, drainage structures, cut and fill areas, materials or waste storage areas, parking lots and project boundaries. A site plan depicting the conditions prior to the project development, (i.e. current conditions) as well as a site plan depicting post-project conditions should be provided. Provide other exhibits as appropriate to illustrate information about the project. These may include modeling review summaries, additional maps showing nearby residences, wetlands, soil types or pipeline routes, proposed management plans for odor or leachate, etc.

If any of the project lies in a shoreland, include the following features if present: ordinary high water mark; building setback line; shore impact zone boundary; wetlands; bluffs; bluff impact zone boundary; steep slopes; ice ridges; nearshore emergent and submergent vegetation; docks; sand blankets; rip-rap; retaining walls; stairs; patios or platforms; watercraft access; buffers; clearing limits; accessory structures.

Look to specific items later in the EAW to determine what other maps of different types of features should be included. Other exhibits may be included as appropriate to illustrate information about the project. Examples might include:

- Natural Resource Conservation Service (NRCS) Soil maps (Note: not all areas of the state are mapped),
- water features,
- native plant communities and cover types,
- geologic atlases,
- karst features or surficial geology,
- maps showing nearby features, including residences, wetlands, soil types or pipeline routes
- modeling review summaries
- maps of neighboring locations with MPCA air, water, or other permits, and
- conservation lands and easements.

Many maps are available on websites listed for EAW items later in this guidance document. GIS data for many of these features are available for free from the DNR data deli located at <http://deli.dnr.state.mn.us/>.

Additional Resources:

- DNR Aerial photographs of forested areas: <http://www.dnr.state.mn.us/airphotos/index.html>
- Minnesota Department of Transportation county highway maps: <http://www.dot.state.mn.us/maps/index.html>
- Minnesota Geological Survey: <http://www.mnngs.umn.edu/index.html>
- U.S. Geological Survey: <http://www.usgs.gov/pubprod/maps.html>

6. Project description

The project description is the most important item in the EAW. It must be completed thoroughly and accurately. It is best to assume your reader is not familiar with your industry or proposed facility.

Omitting project elements may increase the costs and timeline for the proposed project. Changes made to the project after the EAW is completed but before all approvals have been granted may result in the need for a new EAW, per Minnesota Rules 4410.1000 Subpart 5.

a. Brief summary for publication in the *EQB Monitor*

This should be a concise statement of the project's basic nature, characteristics and location. This summary will be printed verbatim in the *EQB Monitor* to serve as a public notice of the EAW. It should be approximately 50 words.

In addition to including this brief summary here in the EAW, this summary should be submitted separately in an e-mail to the EQB Staff according to the EAW Publication Calendar posted on the EQB website. This facilitates accurate reproduction of the summary in the *EQB Monitor*.

b. Complete description

Clear, complete and detailed project descriptions are essential to understanding the potential for environmental effects. If any portion of the project description is vague or incomplete, reviewers may have difficulty understanding the project and may assume certain environmental considerations have been overlooked.

In some cases, other EAW items may be more appropriate for detailed project components. If this is the case, describe those components generally here in EAW Item 6.b. and refer the reader to the EAW item that contains the more detailed information.

The detailed description should be focused on aspects of the project that may directly or indirectly manipulate, alter or impact the physical or natural environment. This can include: construction methods, especially in regard to site preparation; operational features (ongoing operations), especially in regard to waste production and management; and in some cases such as mining and landfilling activities, project closure actions.

The description should distinguish between construction and operational activities. It should describe scheduling, timing, and locations of the activities as well as the time of year, frequency, and duration of the activities. It should also highlight any special concerns, such as proximity to a significant resource. Typical things to consider as part of detailed project description include:

- Project components and structures
- Permanent and temporary structures
- Construction methods, timing (including when construction would begin), and equipment used
- Size of the main components
- Locations and relationships of project components
- Associated infrastructure including new or expanded public utility services or public works necessary to serve the project such as sewers, storm sewers, streets, water mains, water towers, power lines, gas lines,

If the EAW is in response to a petition, note what issues were raised.

NOTE: Any infrastructure constructed to serve the project and not independent of project must be treated in the EAW as part of the project. For example, a road built to serve a specific project must be treated as

part of the project and its impacts should be included in the EAW. According to Minn. Rules 4410, all “connected actions” are to be reviewed as one project. Connected actions are defined as projects related in any of the three following ways:

- (1) one project would induce the other;
- (2) one project is a prerequisite for another and the prerequisite project is not justified by itself; or
- (3) neither project is justified by itself (4410.0200, subpart 9c).

Additional Resources:

- Guidance regarding connected actions can be found in Chapter 2 of the *Guide to Minnesota Environmental Review Rules*, located here:
<http://www.eqb.state.mn.us/documents/Guide%20to%20MN%20ER%20Rules-May%202010.pdf>.

The EAW description should not include information that serves only to justify or promote the project and is thus irrelevant to the EAW process. The purpose of the EAW is to identify and assess environmental impacts and mitigation.

c. Project Magnitude Data

This item asks for data that help quantify the magnitude of the project. Depending on the type of project, some of the data requested may not be applicable, in which case the item may be left blank.

Total project area or length. Information provided here should also be used in response to Item 7. For linear projects—such as roads, trails, and sewers—the length should be given; for other projects the area should be given. If the total acres involved in a linear project are known, provide both the area and length of the project.

Residential units and types (attached or unattached). Single family, duplex and triplex units are considered unattached while four or more units to a building are defined as attached. Each individual dwelling unit counts as one unit; therefore, a 24-unit apartment building equals 24 attached units.

Commercial, industrial and institutional building areas. The form asks for a total of the gross floor space for any project of a commercial, industrial or institutional nature. Count all floors of all enclosed structures on the site except for any space used for parking. For projects with multiple uses (e.g. retail, office, warehouse, manufacturing), it may be useful to specify the floor space by use type. Analyses such as traffic and parking typically use different requirements depending on the uses.

Structure heights. List at least the maximum height of the buildings. List at least the maximum height of the buildings or other structures (i.e. stacks). Provide more information where appropriate, such as an office complex with two or more towers of varying sizes, or a communications tower. If structure height may result in potential conflicts that involve environmental matters, then the assessment of the potential conflicts and mitigation should be discussed under the appropriate EAW item (e.g., Visual, Wildlife, Historic Properties, etc.).

d. Purpose, need, beneficiaries

For private projects, state the purpose of the project. For public projects, state the purpose and in addition, explain why the project is needed and describe who will benefit from the project. This information assists reviewers in identifying appropriate mitigation. Without a clear idea of the project’s goals, it is difficult to

assess whether changes in process, scale or design that may be environmentally superior would also meet the goals.

e & f. Future and Previous stages of another project

These items identify past or future stages of the project and describe how the present EAW relates to prior or future review. If the answer to either is “yes,” it is possible that the project is related to other developments as a “phased action” or a “connected action” as defined by Minn. Rules 4410.0200, subpart 60 and 9c, respectively. The Rules require that all parts of these actions must be reviewed as a single project. The RGU should consult Minn. Rules 4410.1000, subpart 4 and 4410.2000, subpart 4, as well as Chapter 2 of the *Guide to Minnesota Environmental Review Rules* to ensure that the complete project has been reviewed in the EAW.

If the project is an expansion of an existing project, Minn. Rules 4410.4300, subpart 1 directs the RGU to review the project as inclusive of any construction which has occurred within the previous three years and has not been reviewed under a previously completed EAW or EIS. These cumulative expansions over the previous three years should be compared to the thresholds in Minn. Rules 4410.4300, and is generally referred to as the “three-year look-back rule.”

If the project is a residential project, relevant requirements are at Minn. Rules 4410.4300, subparts 19 and 19a and 4410.4400, subparts 14 and 14a. Also note that the certification at the end of the form requires the RGU to verify that it has complied with the requirements for reviewing the complete project.

For projects such as highways, streets, pipelines, utility lines, or systems where the proposed project is related to a large existing or planned network, the RGU can treat the present proposal as the total proposal or select only some of the future elements for present consideration in the threshold determination and EAW. These selections must be logical in relation to the design of the total system or network and must not be made merely to divide a large system into exempted segments. When review of the total project is separated under this subpart, the components or stages addressed in each EAW must include at least all components or stages for which permits or approvals are being sought from the RGU or other governmental units.” (Minn. Rules 4410.1000, Subp. 4). The key component is the logical relation to total system or network. Dividing a project into smaller exempted segments to avoid preparation of an EAW is not allowed under Minnesota Rules. The intent is that future stages would be subject to future environmental review. Mandatory categories for review apply.

Category Specific Guidance:

Non-metallic Mineral Mining (Subp 12): The site plan and description must include the boundaries, depths, buffer areas, access roads, fixed equipment locations, wells, ponds, discharge points, and any other significant features of the mine. The plan and schedule of development should be indicated. Proposed hours of operation should be indicated. The reclamation and end use plan should be discussed.

Residential Development (Subp 19 and 19a): The project description should include any infrastructure such as streets, permanent stormwater management structures, sewers, water mains or utility lines constructed to serve the residences. In addition, the impacts of any such infrastructure must be described here and addressed throughout the worksheet. The items Future and Previous stages of another project frequently apply to residential projects because projects are often built in stages. The proposer and RGU should be sure that rule provisions regarding “phased actions” are complied with as discussed in Chapter 2 of the Guide to Minnesota Environmental Review Rules.

Highway projects (Subp 22): The description should focus on the physical characteristics of the project rather than programmatic aspects, such as the reasons for the project, and should include information about construction methods and the schedule for construction. Information relating to other alternatives considered can be provided.

Barge fleeting (Subp 23): The project description should include any onshore support facilities. Address the compatibility of any onshore support facilities with shoreland, flood plain, or scenic river zoning.

Marinas (Subp 25): The project description must include all onshore ancillary facilities as well as the marina facility itself. Address the compatibility of the onshore facilities with shoreland, flood plain, or river zoning.

Stream Diversion (Subp 26): An overview of the project should be presented and how it will be constructed. Details of the construction should be presented at item 11.b.iv. If the stream is surrounded by designated shoreland, flood plain, wild or scenic river zones, discuss the project compatibility with the requirements of applicable zoning codes.

Natural Areas (Subp 30): Ensure the compatibility with the management plan for the natural area being affected.

Communication Towers (Subp 33): The description should include information on guy wires, ancillary facilities such as equipment sheds or fuel tanks, and access roads. Describe any measures taken to minimize impacts such as special lighting, modified design or choice of location.

7. Cover types

Estimates of the acres of land cover before and after the project should be provided. One important purpose of this information is to assess the project's impact on wildlife habitat.

Site surveys or recent aerial photos are good sources of information. Additional GIS data sources include USGS Upper Midwest Gap Analysis Program (GAP) Cover Type, Minnesota Land Cover Classification System, and Land-Sat Land Use Land Cover. These data sources, as well as others are all available from the data catalog at the DNR Data Deli located at http://deli.dnr.state.mn.us/data_catalog.html. Of course, the most useful type of information to use will depend on the location and nature of the project.

The total number of acres in the Before and After columns of the table should be equal. If the total number of acres is not equal for the pre-project and post-project conditions, explain why not in the space on the form below the table. In addition, be sure to provide descriptions for any acres listed under "other." Because the cover type categories are broad, it is possible that cover types within a specific project may fall into two categories or there may be two cover types under one category that would seem to warrant a distinction. If this is the case the RGU should make decisions on the best way to complete the acres within the table and then provide additional clarification below the table in paragraph form.

Note that the cover type table does not require a distinction between wetland types, but there may be very good reasons for including this supplemental information below the table. One example is a case where a project isn't going to remove wetland acres, but rather would change wetland type. This is information that is helpful to the RGU and reviewers, but is difficult to capture in the table. In identifying types of wetlands, use the US Fish and Wildlife Service's Circular 39 guidelines. The table also makes a distinction between wetlands and deep water or streams. Deep water and streams are areas that have more than two meters of water during low water conditions. Dedicated stormwater detention ponds constructed in upland areas should not be designated as wetlands. Natural wetland areas that may have been used for stormwater storage in the past are to be designated as wetlands.

The "wooded/forest" category should be applied only to relatively undisturbed wooded areas. "Lawn/landscaping" is the appropriate classification for developments constructed in wooded areas, even if many of the trees are maintained. Similarly, the "brush/grassland" category applies to areas that are undisturbed or infrequently maintained. If an area is to be regularly mowed or maintained, even if in a rural setting, list it under "lawn/landscaping."

Category Specific Guidance:

Historical Places (Subp 31): Describe if any demolition work will disturb or impact any vegetated areas around the property.

8. Permits and approvals required

When an EAW is required or ordered, no final decision to grant any governmental permit or approval (including financial assistance) can be made until either a decision has been made that no EIS is needed or until an EIS has been completed. See Minnesota Rules 4410.3100 or Chapter 2 of the *Guide to Minnesota Environmental Review Rules*.

List the permits, approvals, certifications, reviews and financing required or sought from all government agencies both prior to the beginning of the project and after. Include any necessary regional reviews and approvals from agencies. Though this is not an exhaustive list, typical agencies and permits to consider include:

MPCA	Air Permit: http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/index.html
	NPDES/SDS Permit for stormwater discharges: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/index.html
	NPDES/SDS Permit for wastewater discharges: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/wastewater/index.html
	401 Water Quality Certification: http://www.pca.state.mn.us/index.php/water/water-permits-and-rules/water-permits-and-forms/clean-water-act-section-401-water-quality-certifications.html
MDNR	Work in Public Waters permit: http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/index.html
	Water Appropriations permit: http://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/permits.html
	License to Cross Public Land/Water: http://www.dnr.state.mn.us/permits/utility_crossing/index.html
	Aquatic Plant Management Permit: http://www.dnr.state.mn.us/eco/apm/index.html
	Threatened/Endangered Species Takings Permit: http://www.dnr.state.mn.us/eco/nhnrp/endangered_permits.html
MDH	Food, Beverage, and Lodging licensure: http://www.health.state.mn.us/divs/eh/food/license/
	Well sealing/abandonment: http://www.health.state.mn.us/divs/eh/wells/sealing/abandwel.html
	Well construction: http://www.health.state.mn.us/divs/eh/wells/construction/construct.html
	Monitoring well permit: http://www.health.state.mn.us/divs/eh/wells/lwcinfo/mwpermit.html
	Watermain plan review: http://www.health.state.mn.us/divs/eh/water/planreview/index.html
	Public Water Supply Certification: http://www.health.state.mn.us/divs/eh/water/wateroperator/index.htm
	Asbestos abatement/removal: http://www.health.state.mn.us/divs/eh/asbestos/rules.html
	Health care facility licensure: http://www.health.state.mn.us/divs/fpc/index.html
Mn/DOT	Curb-cutting Permits: http://www.dot.state.mn.us/permits/
U.S. Army Corps of Engineers	Section 404 Permit: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx
	Section 10 Rivers and Harbors
Local Government Units	There are several local government entities that may require various permits or approvals such as local sewer hook-ups, building permits, conditional use permits, plats, etc. Typical entities to consider include: <ul style="list-style-type: none"> • City • Township • County

	<ul style="list-style-type: none">• Soil and Water Conservation Districts• Watershed Districts
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Include approvals already obtained and any modifications of any existing permits. Useful information on environmental protection permits can be obtained from the Minnesota Small Business Assistance Office at: http://www.positivelyminnesota.com/Business/Starting_a_Business/Legal_Regulatory/Environmental_Protection_Programs.aspx

Any public funding applied for and granted must be listed, including Tax Increment Financing, public infrastructure constructed to assist the project, bond guarantees and other forms of public assistance or subsidies.

If a potential environmental impact will or can be addressed by conditions of any required permits or approvals, this should be discussed in the EAW under the appropriate EAW item. Within the appropriate EAW item, explain how potential impacts can be mitigated through permit and approval conditions.

In some cases there may be permits previously issued for activities on or near the project site that are relevant to the review of the proposed project. This is most likely where the proposed project is an expansion of an existing project, but could occur under other conditions as well. Examples of this might include a past dredging project permitted by the Army Corps of Engineers or the Minnesota DNR having placed soil on the proposed project site. These permits should be identified, including the permit number and issuing agency. This information can either be presented under this item or preferably under the items most relevant to the nature of the previously issued permit.

9. Land use

The information provided in this item should give a basic understanding of past, existing and proposed land use, plans, and zoning within and near the project area. This information will be used in other EAW items to understand potential environmental effects such as groundwater/soil contamination, historic properties, noise, odors, dust, and visual effects. The detailed discussion of these environmental effects should occur in the appropriate EAW item. It may be helpful to include a general discussion under this item and refer the reader to the EAW item that contains the detailed discussion.

a. Describe Existing Land Use, Plans, Zoning, Regulations

This sub-item (9.a.) requires a description of the existing land use, current land use plans and zoning, and any special designations—whether the site is used for that designation or not. Discussion of compatibility and potential environmental effects should not be included under this sub-item, but rather should be addressed in the following sub-item (9.b.).

i. Existing land use. This item should provide a basic understanding of the existing land uses—e.g. residential, commercial, industrial, parks, recreation areas, trails, prime or unique farmlands—of the site and areas adjacent to or nearby the proposed project site. Include areas where vulnerable populations live or visit, such as nursing homes, schools, day care centers, water resources, parks, etc. This information will be used to respond to other EAW items to assess any potential conflicts between the proposed project and existing surrounding land uses with environmental aspects that may require mitigation. Indicate the distance and direction to all residential areas or other sensitive receptors surrounding the site. A typical example would be a gravel operation proposed next to a residential area: dust and noise could cause significant conflicts with the residential land use and this conflict should be discussed under EAW Items 16 Air and 17 Noise.

Local government planning or building departments can be a source of information for identifying existing land uses. In the Twin Cities metropolitan area, the Metropolitan Council has an inventory of existing land uses. In many cases you may need to just identify the types of existing land uses that are near the project. Some specific land uses that you should be aware of and include in the description are:

- Prime or unique farm lands and agricultural preserves designations. Information on prime and unique farmlands is available from the Natural Resources Conservation Service. The local unit of government (county or city) often has information on any established agricultural preserves.
- Locations of existing parks, recreational areas or trails. This information may be obtained from the local unit's planning and zoning or recreation office or from the DNR. Some local government units have designated greenways/corridors that should also be identified.
- Conservation lands. Typical land uses that fall in this category include Wildlife Management Areas (WMA), Waterfowl production areas, Scientific and Natural Areas (SNA), wildlife refuges, conservation easements, and potentially other federal, state, and local programs designed to conserve natural resources.

ii. Plans. Discuss whether the project is subject to any official governmental management plans adopted for the area. These could include a local comprehensive plan (land use, transportation, utilities or other plans), which may include specific plans for land use, infrastructure, parks, trails, natural resources, etc.; a local water plan; or management plans specific to resource areas under public management such as parks, watershed districts or rivers. Plans of all levels of government should be considered here: local, regional, state and federal. The local planning and zoning office is probably the best source of this kind of

information. If no such plans exist in the area, the EAW should so indicate. If there is a plan, but the project is not subject to the plan, the EAW should indicate why not.

These plans are typically prepared to address a broad array of issues from any number of projects that could occur within a specific area. One purpose of these plans is to minimize negative environmental effects from potential future conditions. If an individual project is compatible with a plan there may be specific measures or actions in that plan that are meant to mitigate potential cumulative effects. If this is the case, provide a discussion in response to Items 9b or 9c, which assess compatibility with nearby land uses, or Item 19 which discusses cumulative potential effects.

iii. Zoning and other official controls. Zoning is a regulatory measure to ensure compatible land use development. The local government unit with zoning authority can identify the zoning of the project area. Include the current zoning of the project area with a brief description of that zoning district. Determine if the proposed project is an allowed use, a conditional use, or currently not permitted within the zoning district. Other official controls that apply to the project's potential environmental effects should also be described. Examples could be subdivision regulations or ordinances that are separate from the actual zoning ordinance.

The local planning and zoning office should be contacted regarding zoning ordinances that relate to the environment or use of natural resources. For example, shoreland, flood plain and wild or scenic river land use districts are protected by special zoning ordinances designed to protect the resources of such lands. The local planning and zoning office should be contacted regarding local shoreland and flood plain ordinances that may apply. The EAW should discuss whether the project fully complies with all these special zoning requirements. Wild, scenic, and recreational river districts and the Mississippi River Critical Area are special districts that contain additional protections for these resources. Contact the local planning and zoning office or the applicable DNR Regional or Area Hydrologist's office regarding restrictions that apply along these rivers. There may be a specific plan or study that forms the basis of a special zoning ordinance or other protection measures. Such a plan or study should be noted here or in Item 9.a.ii.

Land use permits such as conditional use permits may be required depending on the specific project and the applicable zoning ordinance. These permits should be identified in response to Item 8.

b. Project Compatibility

The point of this question is to identify any potential conflicts between the project and the land uses, plans, and regulatory measures identified in sub-Item 9.a, and in particular, conflicts involving environmental aspects.

If the project is subject to plans or zoning ordinances related to the environment or use of natural resources, the EAW should identify the requirements relevant to the project and discuss how the project complies with the plans and ordinances. The RGU should consult with the government unit responsible for the implementation of the plan regarding provisions that relate to the project and about the consistency of the project with the plans and ordinances. Emphasis in the EAW should be given to any conflicts or incompatibilities between the project and plan or zoning provisions that relate to the environment or use of natural resources.

Note that a perceived land use conflict may or may not involve environmental matters. Minnesota Rules 4410.0200, Subpart 23, define "environment" as "physical conditions existing in the area that may be affected by a proposed project. It includes land, air, water, minerals, flora, fauna, ambient noise, energy resources, and man-made objects or natural features of historic, geologic or aesthetic significance". This definition should be considered for the purposes of an EAW analysis. A public safety issue in and of itself is not necessarily an environmental effect. Analyses of environmental matters in an EAW may well bring to light non-

environmental issues that were not previously recognized and that can be addressed by other means. This may be a useful discovery, but is not the purpose of the EAW.

c. Identify mitigation

Mitigation measures may be needed if the proposed project conflicts with or is incompatible with plans and zoning requirements that involve environmental matters. Discuss mitigation of potential land use conflicts under the appropriate EAW item (i.e. Visual, Air, Noise, etc.). If any mitigation measures have been incorporated into the project to address land use compatibility, identify any regulatory authority that can require these mitigation measures as part of their permitting actions. Contact the local land use authority for regulatory authorities and potential mitigation measures.

Category Specific Guidance:

Non-Metallic Mineral Mining (Subp12): Sand and gravel mining is frequently viewed as a nuisance by nearby residents; therefore, discuss surrounding land uses, including distances to residences and measures to attempt to reduce nuisances. **Also** discuss how the ultimate end use of the mined area compares to the local unit's future plans for the area and discuss the reclamation plan.

Residential Development (Subp 19 and 19a): Discuss the compatibility of the project with any applicable local comprehensive plan and indicate how any inconsistencies will be resolved.

Highway projects (Subp 22): For lengthy projects with a variety of adjoining land uses, provide a general overall description of the land uses and more detail for those areas where there may be conflicts or the land uses are more sensitive.

Barge Fleeting (Subp 23) Address this item with respect to nearby onshore lands. Also address the compatibility of the fleeting with any adopted governmental plans that apply to the river or shoreland.

Natural Areas (Subp 30): One of the primary concerns about a project reviewed under this mandatory category will be its compatibility with the management plan for the natural area being affected.

Sports or entertainment facilities (Subp 34): Particular attention should be paid to compatibility with surrounding land uses.

10. Geology, soils, topography/land forms

This item provides a basic understanding of geology and soils in the project area. This information will be used in other EAW items to understand potential environmental effects from groundwater contamination, erosion, or soil suitability for the proposed project. Other EAW items that may be more appropriate for detailed discussion on environmental effects include Item 11.b.ii. for erosion and Item 12 for groundwater contamination.

a. Geology

Describe the geologic features, including any geologic or landform features of special concern.

Possible sources of information include: site surveys, soil surveys, topographic maps, county sanitation or health departments, the Minnesota Department of Health, USGS, the Minnesota Geological Survey - County Geologic Atlas, or other maps of state bedrock geology, surficial geologic map, or Karst features. The source of information about geologic features should be provided, such as whether geotechnical studies were done or if the information was taken from a geologic atlas.

Once the geologic features are described, discuss potential environmental effects on those features that may result from the project. If any special concern features are present at the site, the EAW should describe measures to prevent potential groundwater contamination or other problems related to such feature or other mitigation efforts the project proposes to address potential environmental effects.

b. Soils & topography

Describe the types of soils present using the Natural Resources Conservation Service (NRCS) classification system. Soil surveys showing this information are available from the county offices of the University of Minnesota Extension Service, and soil and water conservation districts. If several soil types exist on the site, a soils map can be helpful. The NRCS maintains an internet-based application called the Web Soil Survey. If this data is available in the project area, this web tool should be used to identify soils and any limitations of those soils.

Additional Resources:

- The NRCS Web Soil Survey is located at: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- USGS Hydrologic atlases: <http://pubs.usgs.gov/ha/>
- MNGS County geologic atlases: http://www.mngs.umn.edu/county_atlas/countyatlas.htm
- Site-specific soil boring logs.

Discuss the soil suitability as it relates to project features such as erosion, stability, and strength. Soil series information can be used to identify physical properties, engineering features, and limitations. This information should be used to identify potential problem areas and identify measures to address those areas. Detailed discussion of erosion control, stormwater management and effects to water quality should be discussed in response to Item 11.b.ii. NOTE: If the project will grade or otherwise alter one or more acres, an NPDES Construction Stormwater permit is required from the MPCA.

Steep slopes of 12 percent or more and erosion prone soils should be described and shown on the site plan or on a separate grading plan.

If large amounts of soils will be excavated, the EAW should identify the types involved, quantities, to where they will be relocated and how they will be used.

If soil borings have been conducted, it may be necessary for the RGU to have this information, especially if the project may have potential to contaminate the soils or ground water, including projects involving use of on-site sewage treatment by septic tanks and drainfields.

Legislation in 2013 established a new mandatory category for silica sand projects. In addition to the EAW content already required under statute and rule, an environmental assessment worksheet for silica sand projects must include “a hydrogeologic investigation assessing potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water.” There are interrelationships among geology, groundwater and surface water in some areas, particularly where karst conditions exist. Karst is typically found in the southeastern quarter of the state and should be carefully considered when siting a facility or stormwater ponds. EAWs for projects with karst conditions should also include information on shallow ground water, exposed bedrock, or karst conditions that include sinkholes or disappearing streams. It is important that information regarding geology and water in EAW Items 10 and 11 account for those interrelationships.

Category Specific Guidance:

***Highway projects (Subp 22):** For lengthy projects with a variety of adjoining land uses, provide a general overall description of the land uses and more detail for those areas where there may be conflicts or the land uses are more sensitive.*

***Natural areas (Subp 30):** Answer if grading or other erosion-causing activities will occur.*

11. Water Resources

This item is intended to address all water-related aspects of a proposed project, except groundwater contamination from solid or hazardous wastes or substances, which should be addressed in EAW Item 12.

a. Features

This sub-item is meant for a full description of all surface water and groundwater features in the vicinity of the project. This should include all known water features such as lakes, ponds, rivers, streams, wetlands, ditches, intermittent streams, drainageways, aquifers, springs, and seeps. This sub-item is only for description of the features. Sub-Item 11.b. should be used to discuss project related effects and potential mitigation.

- i. **Surface water.** All surface water features should be described and identified on a map of the project area. Include information on any special designations, (e.g. trout streams/tributaries/lakes, wild/scenic/recreational, designated wildlife lakes, calcareous fens, restricted discharges, and prohibited discharges etc.), or water quality impairments. Include the Public Water Inventory number if the water resources are in the inventory.

Additional Resources:

- Public Waters Inventory Maps: http://www.dnr.state.mn.us/waters/watermgmt_section/pwi/maps.html
- National Wetland Inventory data: http://www.dnr.state.mn.us/maps/landview/index.html?layers=lakes+roads+bdry_munipy3
- Calcareous fens: http://files.dnr.state.mn.us/publications/waters/calcareous_fen_list_nov_2009.pdf
- National Park Service: <http://www.nps.gov>
- Trout streams/lakes: http://www.dnr.state.mn.us/fishing/trout_streams/index.html
- Designated Wildlife Lakes: <http://www.dnr.state.mn.us/wildlife/shallowlakes/designation.html>
- Watershed Assessment Tool: http://www.dnr.state.mn.us/watershed_tool/index.html

This item also requires the description of any receiving waters located within 1 mile of the project that have been designated as “impaired” by the MPCA. This information can be found at: www.pca.state.mn.us/water/tmdl/tmdl-303dlist.html. If a receiving water has been so designated, the EAW response must describe the nature of the impairment, the status of a Total Maximum Daily Load (TMDL) plan to address the impairment, and whether the project complies with the plan provisions.

Additional Resources:

- MPCA surface water web page: <http://www.pca.state.mn.us/enzqafb>
- MPCA Impaired waters web page: <http://www.pca.state.mn.us/xgqx950>

Wetlands that will potentially be affected need to be identified. A wetland delineation may be needed for the EAW if there is a large area of wetlands affected. The RGU must make the determination of whether or not the wetland effect is large enough to warrant a wetland delineation. If a wetland delineation has been completed or if wetland information is available, the wetlands must be classified according to U.S. Fish and Wildlife Service, Circular 39, *Wetlands of the United States*, located here: <http://www.fws.gov/policy/660fw2.html>.

ii. Groundwater. This item is meant for a full description of groundwater. Because groundwater is not easily observed, the response to this question needs to use information such as nearby well logs, regional aquifer studies, or other information sources that may or may not be readily available. The effort spent collecting and providing this information should be commensurate with the potential effects from the project. If there have been any aquifer tests or pumping tests, those should be described here.

To locate existing wells, the Minnesota Department of Health (MDH) recommends conducting a field well inventory on properties affected by the project. Special attention should be paid to areas where construction will take place and where any farmsteads, homes or industrial wells may have been located in the past, as well as along boundaries where wells may exist on adjacent properties. Locating existing wells is important to maintain distances between wells and sources of groundwater contamination.

The Unique Well Numbers can be obtained from the County Well Index maintained by the MDH and the Minnesota Geological Survey, which includes all wells constructed since 1975 and some wells constructed earlier. If no wells are believed to exist on the site, your response must indicate how this was determined; for example, by a field survey.

Existing wells cannot be buried during construction without first being properly sealed.

Additional Resources:

- Minnesota Department of Health County Well Index:
<http://www.health.state.mn.us/divs/eh/cwi/index.html>

All wells that will no longer be used must either be sealed by a licensed well contractor according to Minnesota Rules, Chapter 4725, or have a maintenance permit from MDH, or, in the case that there is a delegation agreement for local well regulation, from the local board of health. Currently, this includes Dakota, Blue Earth, Goodhue, LeSueur, Olmsted, Wabasha, Waseca, and Winona counties and the cities of Minneapolis and Bloomington.

Information on shallow groundwater can be particularly useful for some projects. (See above for guidance regarding Item 10.a. Geology for potential groundwater information sources.) In some cases, wetlands hydrology is supported by shallow groundwater. If a project is going to intercept, pump, or change shallow groundwater flow (including infiltration) and there are wetlands in the area, it will be important to understand and describe the shallow groundwater. Depending on the nature of the project and the location and type of wetlands, additional investigation and professional hydrogeological services may be needed.

Additional Resources regarding shallow groundwater:

- Site-Specific Well logs
- DNR's observation well network: http://www.dnr.state.mn.us/waters/groundwater_section/obwell/locations.html
- Lake Level information: <http://www.dnr.state.mn.us/climate/waterlevels/lakes/index.html>
- MPCA groundwater web page: <http://www.pca.state.mn.us/0agx947>

b. Effects of Project Activities and Mitigation

The purpose of sub-Item 11.b. is to identify and discuss potential environmental effects on surface water and groundwater features identified in Item 11.a and mitigation of those effects.

i. Wastewater

For any project that generates wastewater, details of the sources, composition and amounts of these wastewater streams must be provided in the EAW. For normal domestic sewage generation such as toilet wastes or wash water from human occupancy, only the amounts need be given, calculated from the number of occupants at a rate of 100 gallons per person per day unless another figure is justified.

For industrial processes, the sources of all wastewater streams should be identified and a description should be given of how the various potential pollutants enter the stream or are generated within the stream. The anticipated chemical analysis of the various waste streams should be estimated, and the basis for the estimate should be indicated, such as measurements made at an existing similar plant.

Provide sufficient information about the nature of any proposed wastewater treatment system to demonstrate that it will be adequate to treat the wastewaters generated. The level of detail needed will depend on the nature of the wastewaters generated and the proposed system and the degree of treatment that must be achieved; where wastewaters or proposed treatment methods are non-routine, a higher level of detail demonstrating that the system will work will be necessary. For industrial wastewaters, it is advisable to consult with MPCA early in the EAW preparation process.

1) If wastewaters will be treated by an existing publicly owned treatment system, this response should address the adequacy of that system to handle the volume and composition of wastewaters from the project. Information about the system characteristics, existing loads and present treatment performance should be given. Anticipated improvements to handle the new wastes, including their scheduling, should be discussed. Any pretreatment of the wastewater before it is discharged into the public system should be discussed under this section, including the nature of the pre-treatment and the wastewater composition and quantity after pre-treatment. Any sludges or other materials removed from the wastewater during pre-treatment must be discussed under the appropriate sections of EAW Item 12.

2) Where the method proposed is on-site sewage treatment systems such as septic tanks and drainfields or similar soil absorption facilities, this response must address the suitability of the site conditions for the use of such systems, and should be focused on demonstrating that the systems will function adequately. Where there will be on-site systems on separate lots, the discussion should demonstrate that each system can be reasonably expected to function. Where site conditions require special methods to allow on-site systems to work properly, the proposed methods should be discussed, including information about how they will be employed. Note any local restrictions or prohibitions of certain types of on-site treatments systems, and any project details which accommodate these local restrictions.

Additional Resources:

- MPCA web page on Subsurface Sewage Treatment Systems: <http://www.pca.state.mn.us/udgxb09>.

3) This response must include identification of receiving waters for discharges, including tile lines, ditches, streams, lakes, or other surface or ground waters. This includes any downstream waters that may be noticeably influenced by the discharge, especially those more sensitive or more valuable than the waters receiving the direct discharge. An estimate of the impact of the discharge(s) on the quality of the receiving waters should be made. The level of sophistication of this analysis must be guided by the likely magnitude of the impact and the importance of the water body(ies) affected. Where it is clear on the basis of the amounts and quality of the discharge compared to the volume, quality and assimilative capacity of the receiving waters that only a minor degradation of water quality will occur, and no noticeable impairment of uses of the water would result, only a qualitative discussion is generally needed. Where noticeable impairment may occur, however, more quantitative assessment methods should be employed, and predictions should be made about whether any water quality standards will be violated.

In the event that a wastewater discharge may degrade a lake, a numerical nutrient budget analysis may be required. However, it is unlikely that any new discharges to any lake would be permitted by the MPCA. Any nutrient budget should be based on a generally accepted model of a lake's response to increase in phosphorus loading or other critical nutrients if phosphorus is not limiting. The choice of a model should be based on available data, and its expected accuracy based on the likely magnitude of the impact, in addition to the time and costs of using the model. In other words, the greater the likely impact, the greater the need for a more sophisticated model. If insufficient data is available to allow the use of any numerical model, it is necessary to gather the minimally needed data unless the EAW can establish through other analysis that there is no reason to expect noticeable degradation. If the matter is left in doubt in the EAW, it may result in calls for an EIS and a more in-depth analysis.

If receiving water is impaired, identify if the wastewater will contribute to the condition or numeric impairment. If a TMDL has been completed, describe how the discharge relates to the load allocations. If an implementation plan has been developed, describe how the discharge relates to the plan.

ii. Stormwater. The intent of this question is to characterize the effect of the project on the amounts and the composition of stormwater runoff from the site and the techniques planned to minimize adverse impacts from stormwater quantity and quality. Specific erosion and sedimentation control measures for both during and after construction should be described.

If the proposer has not prepared definite plans for these measures, the requirements of the local governmental unit and the MPCA should be described and how those requirements mitigate the impacts. Projects that disturb more than one acre need to apply for and receive coverage under the MPCA Construction Stormwater General NPDES Permit.

Some site features such as highly erodible soils (identified in Item 10), steep slopes, and sensitive receiving waters will require special attention to avoid adverse environmental effects. The MPCA has identified increased Best Management Practices (BMPs) that are required to be used in areas discharging to and within one mile of designated Special or Impaired Waters. If applicable these BMPs should be identified and discussed. These BMPs are included as Appendix A of the Construction Stormwater General Permit. The permit and list of Special Waters and Impaired Waters can be accessed from the MPCA website.

Additional Resources:

- MPCA Construction Stormwater web page: <http://www.pca.state.mn.us/wfhy5b>

An estimate of the stormwater impact on the quality of receiving waters should be made. The level of sophistication of this analysis must be guided by the likely magnitude of the impact and the sensitivity of the water body(ies) affected. Where it is clear that only a minor degradation of water quality and negligible impairment of water use would result, only a general qualitative discussion is needed. Where noticeable impairment may occur, however, more quantitative assessment methods should be employed, and predictions should be made about whether any water quality standards will be violated. Factors to consider when making this decision include: amount of impervious surface proposed, degree and location of excavation activities, proposed activities that could result in exposure of contaminants to stormwater, water quality impairments—especially impairments for turbidity, nutrients, and aquatic life, and trout streams (including the potential for thermal impacts).

A stormwater discharge that may affect a lake is an example of a situation in which the RGU must exercise judgment about the extent of analysis needed. Generally regarded as sensitive and valued resources, the lake may require a numerical nutrient budget analysis to adequately characterize the extent of the potential impact. Any nutrient budget analysis performed should be based on a generally accepted model of a lake's response to an increase in phosphorus loading or other critical nutrients if phosphorus is not the limiting factor. The choice of a model should be based on available data, and its expected accuracy based on the likely magnitude of the impact, in addition to the time and costs of using the model. In other words, the greater likelihood of the impact, the greater the need is for a more sophisticated model. If insufficient data is available to allow the use of any numerical model, it is necessary to gather the minimally needed data unless the EAW can establish through other analysis that there is no reason to expect noticeable degradation. If the matter is left in doubt in the EAW, it may result in requests for an EIS for the project and, associated with that, a more in-depth analysis.

The amount of detail provided about management or treatment methods should befit the significance of the quantities and quality of the runoff. Where it is clear or suspected that the stormwater runoff associated with the project would pose water quality problems if not adequately managed or treated, sufficient detail is needed so that reviewers can judge the adequacy of the proposed system. Locations, dimensions and design capacities of detention or retention basins should be given if they will be used to manage runoff. The EAW should discuss the conformance of the proposed system with any applicable requirements of the local unit of government and any watershed district with jurisdiction over the area, such as ensuring stormwater pipes are designed for larger storm events, and ensuring that projects that impact municipal storm and sewer pipes do not create or exacerbate potential overflow and contamination concerns due to connected storm and sewer pipes. If the project is subject to a Stormwater Pollution Prevention Plan (SWPPP), it should be discussed in the EAW.

iii. Water Appropriation. The EAW should describe any water use such as water supply, dust control, dewatering or pond testing, and give the source and the permit number if there is an existing appropriation. Distinguish between temporary construction water use and ongoing operational water use. Appropriation of water in excess of 10,000 gallons per day or one million gallons per year requires permits from the DNR Division of Waters. If a project requires an appropriation permit it is suggested that the proposer or RGU contact the applicable DNR regional or area hydrologist's offices to determine what information should be provided. In cases of major appropriations (permitted water appropriations in excess of 100 million gallons/year), or where cumulative appropriations are great, it may be necessary to include a quantitative analysis of the impacts on ground water levels.

Environmental effects from water appropriation should focus on the ability of the water source to supply the needed water (drawdown) and the effects to surface water features that are dependent on groundwater. Groundwater appropriations need to consider their effect on groundwater dependent features such as calcareous fens, springs, seeps, and trout streams. These groundwater dependent features can be affected by water appropriations as far away as ten miles depending on the aquifer proposed for groundwater appropriation. Because of this potential, the proposer or RGU should contact the DNR to determine if a pump test should be conducted as part of the EAW data submittal.

Legislation in 2013 created new requirements for EAWs. When an EAW is required for a project with the potential to require a groundwater appropriation permit from the commissioner of natural resources, the EAW must include “an assessment of the water resources available for appropriation.” This subitem regarding water appropriation must describe how water availability was determined.

If a dewatering appropriation is proposed, include a description of proposed treatment of any dewatering discharge in response to EAW Item 11.b.i. Wastewater.

You must have a licensed well contractor and a permit from MDH or the local board of health with delegated authority. Before the construction of any new wells, including monitoring wells and dewatering wells, consult the Well Management Program of MDH for more information about wells and well construction requirements.

Additional Resources:

- MDH Well Management Program <http://www.health.state.mn.us/divs/eh/wells/>

If the project requires the creation, connection or a change to public water supply, it is important to identify wells that will be used as water sources. Plans for the creation, connection or changes to a public water supply may need to be reviewed and approved by MDH. Contact the department’s public water supply program for more information.

iv. Surface Waters**a) Wetland alterations**

Wetlands in Minnesota are regulated under state or federal permit programs. Therefore, proposed modifications of all wetlands should be discussed. Wetlands should be identified as either “public waters wetlands,” which are subject to DNR regulation, or wetlands regulated under the Minnesota Wetland Conservation Act.

Additional Resources:

- Public Waters Permit Program information is available at DNR regional or area hydrologist offices or online at: http://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/requirements.html
- Wetland Conservation Act (Minnesota Rules Chapter 8420) information is available from the county soil and water conservation district office or online at: <http://www.bwsr.state.mn.us/wetlands/regulation.html>

Additional Resources:

- MPCA Wetlands/401 Certification web page is located here: <http://www.pca.state.mn.us/sbizb03>

Any modification to wetlands identified in Item 11.a. should be discussed, including direct effects such as draining, filling, excavating, dredging, or vegetation removal. Indirect effects such as alteration or changes in hydrologic regime also need to be discussed, including changes that would alter the type of vegetation or other characteristics of the wetland. Proposals to convert or use natural wetlands as stormwater management systems and effects of the stormwater on the function of the wetland should also be discussed.

Applicable federal and state wetland protection regulations require impacts to wetlands to be avoided and/or minimized. For proposed wetland impacts that are genuinely considered “unavoidable,” compensatory wetland mitigation, (replacement), is typically required. The response to this item should therefore identify the alternatives that were considered to impacting any wetlands. It should also explain the viability of locating the required compensatory mitigation for unavoidable wetland impacts within the same minor or major watershed. Also, if the proposed project will result in a net loss of wetlands within the same minor or major watershed, the EAW must explain the anticipated effects this will have to the host watershed (e.g., lost function and quality of those wetlands).

b) Other Surface Waters

Physical or hydrologic alteration of any surface water or its shoreline should be discussed in this question unless the hydrologic alteration is due to a water appropriation that was discussed in response to Item 11.d, or a wetland impact that was described just above in 11.iv.a). Examples of proposed activities that should be described here include such things as: placement of rip rap, in-channel work, in-water work, docks, water access, dewatering, dredging, culvert placement, and hydrologic modification. Distinguish between temporary construction effects and permanent changes.

Hydrologic modifications include all actions which alter the existing hydrologic regime, that is, rate of discharge into or out of a water body, frequency and extent of water level fluctuations, and interaction with groundwater. The description of the alteration should address the following: the construction process; volumes of dredged or fill material; the area to be affected; the timing and magnitudes of fluctuations in water surface elevations; spoils disposal sites; and any other relevant information such as geomorphology, limnology, ecology, timing of construction, and changes in surface water area.

Identify the specific in-water BMPs that will be employed during the project to prevent or reduce turbidity/sedimentation from discharging uncontrollably downstream (e.g., dredging activities or the installation/replacement of culverts or bridges in streams or rivers).

Work in public waters below the Ordinary High Water (OHW) level will require a Work in Public Waters permit. Information on permits required for alteration of, or construction in, aquatic areas may be obtained from DNR regional or area hydrologist offices.

Category Specific Guidance:

Residential development (Subp 19 and 19a) For projects along lakes or rivers, discuss the consistency of the project with the applicable shoreland, flood plain and special river management district ordinances, indicating how any inconsistencies will be resolved. Indicate whether the local ordinances have been officially approved by the DNR. For projects along lakes and rivers, address the impact of the project on water surface use. If on-site sewage systems will be used, discuss in Item 11.b.i in detail the suitability of the site conditions such as soils, terrain and lot sizes, and the potential for impacts on the ground water and surface waters, especially any lakes. The discussion should include information about local requirements for such systems.

Recreational development (Subp 20 and 20a): If on-site sewage systems will be used, discuss in detail the suitability of the site conditions – soils, terrain, lot sizes – and the potential for impacts on the ground water and surface waters, especially any lakes. The discussion should include information about local requirements for such systems. If effluent may impact a lake, a nutrient budget analysis should be included.

Airport projects (Subp 21): Discuss stormwater management and deicing management systems.

Barge fleeting (Subp 23): Discuss impacts of construction and operation on the benthic (bottom) and aquatic habitat. Address in detail the potential conflicts between the barges and other watercraft. Discuss the potential for water pollution from spills of any materials carried on or transferred to or from barges, and any mitigation measures to be used.

Marinas (Subp 25): If the project involves any dredging, details should be given about excavation, including construction methods; timing; volumes of dredged material; composition, with special attention to any contaminants which may be present; spoils disposal methods and location; and mitigation measures to minimize impacts of both dredging and spoils disposal, such as treatment of spoils site runoff. Disposal of dredge spoils may require an NPDES/SDS Dredged Disposal permit from the MPCA. Information should be obtained from the DNR or other agencies about existing watercraft use. The number and types of watercraft expected at the marina should be estimated, along with use characteristics: peak and average use, timing and length of season. In regard to over-crowding, provide at least an estimate of the number of acres of water surface per watercraft with and without the marina. Discuss the potential for water pollution from spills, runoff from the onshore facilities or any other sources, and any mitigation measures to be used.

Stream Diversion (Sub 26): Include a detailed explanation of how and when excavation will be done; excavation acreage and cubic yardage; where the spoils will be deposited; measures to be taken to protect the rest of the stream from sedimentation during construction; and measures to stabilize the new channel and spoils to prevent erosion after construction. Disposal of the dredged spoils may require an NPDES/SDS Dredged Disposal permit from the MPCA.

Wetlands and public waters (Subp 27): Describe in detail the physical changes to be made in the wetland or water body, including timing of work; methods of work; volumes, composition and placement of excavated materials or fill materials; and mitigation measures to prevent erosion and sedimentation.

Historical Places (Subp 31): For Item 11.a.ii, discuss if wells will be abandoned.

Sports or entertainment facilities (Subp 34): Discuss in detail surface water runoff issues and mitigations.

12. Contamination/Hazardous Materials /Wastes

This item is divided into four sections: existing contamination, solid waste, hazardous materials, and hazardous wastes. Some of the project features described under this item may relate to items discussed in Items 10.a Geology, 10.b. Soils and Topography, and 11.a.ii. Groundwater.

a. Pre-project site conditions

Include information from the MPCA “What’s in My Neighborhood?” database. Include the result of a Phase I or Phase II Environmental Assessment, if one has been conducted.

Additional Resources:

- The MPCA mapping tool “What’s in My Neighborhood?” is located at the web page: <http://www.pca.state.mn.us/udgx680>
- The MPCA cleanup programs web page is located here: <http://www.pca.state.mn.us/udgx7fa>

b. Project Related Generation/Storage of Solid Waste

All types of solid wastes generated by the project that are not considered wastewaters, air emissions, or hazardous wastes should be identified within this section. This includes all forms of “solid wastes,” any sludges, any ashes from combustion, demolition wastes, construction wastes and asbestos. Estimates of the composition and quantities should be provided. For common types of wastes of fairly uniform composition, such as municipal solid waste, the composition need not be identified other than by the type of waste.

The method and location of disposal of all the solid wastes listed should be provided. This should include information demonstrating that the proposed method and location is environmentally acceptable. If special precautions will be taken to prevent problems, these should be described.

Discuss source separation, recycling, waste minimization and reduction assessment plans as appropriate.

c. Project Related Use/Storage of Hazardous Materials

List any chemicals or other substances that will be on the site for any purpose. The level of detail provided should be commensurate with the likelihood that the materials could enter the groundwater or surface water. Describe the risk associated with the materials and the quantities present or used.

The anticipated contents of all tanks should be specified. It may be useful to show the location of tanks on a site map or plan. If special precautions will be taken to prevent leaks or other problems, these should be indicated, including emergency response containment plans.

d. Project Related Generation/Storage of Hazardous Wastes

If hazardous wastes will be generated by the proposed project, include a chemical analysis of the waste along with how it was determined. Estimates of the composition and quantities should be given.

The method and location of storage and disposal of all the wastes should be provided. This should include information demonstrating that the proposed method and location is environmentally acceptable. If special precautions will be taken to prevent problems, these should be described.

Discuss source separation, recycling, hazardous waste minimization and reduction assessment plans as appropriate.

Category Specific Guidance:

Barge fleeting (Subp 23): Note any onshore tanks.

Marinas (Subp 25): Note any onshore tanks.

Historical Places (Subp 31): Address the disposal of demolition debris. Also discuss any storage tanks or wastes at the site which will require special handling for removal and disposal, including asbestos.

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

This item is divided into four sections, the first two sections are meant to describe fish, wildlife, plant communities, and sensitive ecological resources within or in close proximity to the site. The third section is meant to provide a discussion on how the project will affect these features. The fourth section is meant for identification of measures or mitigations that have been incorporated into the project to avoid or minimize effects to these features.

a. Fish, wildlife, habitat, and vegetation

State and federally designated refuges, trout streams, and other areas dedicated to fish and wildlife habitat are well defined. Examples of designated habitat areas include Wildlife Management Areas, Waterfowl Production Areas, Wildlife Refuge Inventories, Reinvest in Minnesota (RIM) easements, wild rice lakes, migratory waterfowl feeding and resting lakes, Outstanding Resource Value Waters (ORVWs), and identified Regionally Significant Ecological Areas in the seven county Metro Area.

However, fish and wildlife habitat areas exist throughout the state and are not all specifically designated. Nearly all undeveloped land has some wildlife habitat value. The quality and value of the habitat depends on many factors including the degree of disturbance, the nature of the adjoining areas, and the area and type of vegetation or water resources present. The presence of habitats within the project area is to be identified here and any project-related effects described in response to EAW Item 13.c.

Questions about the presence and value of the habitat can be directed to regional offices of the DNR. Keep in mind, however, that it is the responsibility of the RGU to determine the nature and significance of any project-related impacts. It often is necessary to hire a specialist to conduct a field survey of the site. This is especially true if unusually valuable or extensive habitat may be impacted.

Additional Resources:

- Regionally Significant Ecological Areas in the seven county Metro: <http://www.dnr.state.mn.us/rsea/map.html>
- Wildlife Management Areas: <http://www.dnr.state.mn.us/wmas/index.html>
- Trout Streams: http://www.dnr.state.mn.us/fishing/trout_streams/index.html
- Reinvest in Minnesota (RIM) Conservation Easements: <http://maps.bwsr.state.mn.us/rimonline/>
- GIS data for designated habitat areas can be downloaded at: <http://deli.dnr.state.mn.us/>

Another information source for identifying important wildlife habitats is *Tomorrow's Habitat for the Wild & Rare: an Action Plan for MN Wildlife*, DNR, 2006. This comprehensive wildlife conservation strategy can be used to identify the Ecological Classification System Subsection where the project is located. Information also can be found to assist identifying key habitats for wildlife conservation within that subsection.

Additional Resources:

- The report, *Tomorrow's Habitat for the Wild & Rare: an Action Plan for MN Wildlife*, DNR, 2006, is available at: www.dnr.state.mn.us/cwcs/index.html

Determining the presence of key habitats should be done by direct observation and/or by using existing GIS data. Key habitats have not been mapped, but there are other GIS data sources that can assist in identifying potential key habitats. Native plant communities identified as part of the Minnesota County Biological Survey, (MBS), can be used to identify some key habitats. Native plant community data is available on the DNR data deli at.

Additional Resources:

- Information on native plant communities is available at <http://www.dnr.state.mn.us/npc/index.html> or at the DNR data deli at <http://deli.dnr.state.mn.us/>.
- A listing of key habitats to native plant communities is available at: http://files.dnr.state.mn.us/assistance/nrplanning/bigpicture/cwcs/key_habitat_by_subsection.pdf

In some cases land cover type data can be used to identify potential key habitats. GAP data and Metro Area Cover type data is available from the DNR data deli.

b. Rare features

This item refers to unique natural features or features of special significance, including state-listed endangered, threatened and special concern species; native plant communities that are rare statewide such as prairie remnants or virgin timber; locally rare habitats (regionally significant ecological areas); colonial waterbird nesting colonies; Sites of Biodiversity Significance; and high quality wetland complexes. The DNR Division of Ecological and Water Resources maintain the Natural Heritage Information System (NHIS), a collection of databases that provides the most comprehensive information on Minnesota's rare natural features. The NHIS includes Rare Features Data, including MBS sites of Biodiversity Significance and MBS Native Plant Communities.

This information should be incorporated into the EAW, including the correspondence number for reference. If this information was obtained through a license agreement, include the license agreement number. The EAW should also state whether a habitat assessment or other survey work was conducted. Sensitive ecological resources that are not listed in the NHIS, but are known to occur on the project site, should also be identified and described in the EAW. If any MBS sites are within or adjacent to the project area, please provide this map to the DNR when requesting NHIS data. If rare species surveys are going to be completed, coordination for survey methods should occur with the DNR staff prior to the surveys. Potential impacts to identified rare features should be discussed separately in response to EAW Item 13.c.

Additional Resources:

- Minnesota's List of Endangered, Threatened, And Special Concern Species is available at: <http://www.dnr.state.mn.us/ets/index.html>
- Information on how to obtain data from the Natural Heritage Information System (NHIS) is available at: http://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf.
- Minnesota Biological Surveys and Rare Species: <http://www.dnr.state.mn.us/eco/mcbs/maps.html>
- Rare species guide: <http://www.dnr.state.mn.us/rsg/index.html>
- Sites of Biodiversity Significance: http://www.dnr.state.mn.us/eco/mcbs/biodiversity_guidelines.html

c. Discuss project-related effects

This section should include a discussion of any effects to species such as habitat loss, changes in habitat, species avoidance, and fatalities. The presence and potential for the spread or introduction of invasive species should also be discussed in response to this item.

It is important to discuss any effects to fish, wildlife, and habitat in the context of the larger landscape or watershed scale. The project-related effects on important movement corridors, flyways, large intact habitats, nesting areas or habitat complexes will help assess the significance of any effects.

Any potential effects to state-listed threatened, endangered, or special concern species or rare features should be discussed separately. Because these features are rare, any effects have a greater potential for being deemed significant.

Additional Resources:

- DNR Information on Invasive Species: <http://www.dnr.state.mn.us/invasives/index.html>
- Information regarding threatened and endangered species is available at: http://www.dnr.state.mn.us/eco/nhnrp/endangered_permits.html

d. Mitigation measures

This section should identify any measures that are proposed to avoid, minimize, or mitigate potential effects to fish, wildlife, plant communities, and sensitive ecological resources. If the project size, orientation, or dimensions were adjusted to avoid or minimize effects to species or habitats, this should be identified. Other potential mitigation measures to consider include landscaping or revegetation with plant species of value to wildlife, retaining wooded travel corridors (especially along waterways), and construction or restoration of wetlands.

14. Historic properties

The following sources should be checked for information on any listed/designated historic properties in the project area. The response to the question should include a short description of each property and the reason it is important. Inclusion of photos of these properties may be helpful. Also note the locations of these properties on a map.

- a. National Register of Historic Places (NRHP) The State Historic Preservation Office's (SHPO) website lists properties on the NHRP. SHPO's inventory files, which must be accessed in-person at the SHPO offices, provide information on properties which are listed in the NRHP. Types of properties include buildings, structures, sites, objects, and districts.
- b. State Register of Historic Places (SRHP) The SRHP is published in Minnesota Statutes, section 138.664. The SHPO has information on these properties as well.
- c. Local historic property designations. Many local governments have heritage preservation commissions. Many have adopted a heritage preservation ordinance that includes a process for local designation of historic properties (including districts). Contact the local government for information.

The SHPO can provide information about any known resources in the area and may be able to advise the RGU about the potential for undiscovered resources at the site. In cases where such resources are likely on the site, an archaeological survey may need to be completed and reflected in the EAW. An archaeological survey and/or a historical or architectural survey can provide a means to identify historic properties which may be present but which have not been previously identified or evaluated. These surveys may be required by federal, state, or local regulations or review processes, depending on the funding source and/or project review/approval process required for the project. The SHPO web site maintains consultant lists of archaeologists and historians who can complete these surveys.

Discuss any potential effects that the project may have on historic properties. Direct effects and indirect effects (such as visual, auditory, atmospheric, or changes in use) should be considered. Identify any proposed measures to avoid, reduce, and/or mitigate effects.

Additional Resources:

- The main SHPO website: www.mnhs.org/shpo/
- The Inventory Coordinator at the SHPO can be contacted for more information regarding archaeologists and historians: <http://www.mnhs.org/shpo/contact.htm>

Category Specific Guidance:

Natural areas (Subp 30): Describe historical or architectural property values, including any factors which led to its being placed on the National Register. Information should be obtained from the SHPO and any local historic preservation organizations. Explain any measures to be taken to preserve these values if the property is demolished, such as removing portion for preservation, photographing or documenting. Explain any alternatives to demolition also considered, such as restoration, reuses for another purpose or sale to another owner who would have preserved the property.

15. Visual

Scenic views or vistas may include spectacular viewing points along lakes, rivers or bluffs; virgin timber tracts; prairie remnants; geological features; waterfalls; specimen trees; or plots of wildflowers. Many are not officially designated or marked, but because of their local or statewide interest should be considered by the RGU. It may be helpful to refer back to information in EAW Item 9. Land use to inform potential visual effects to surrounding properties. Impacts on the visual quality or integrity of these resources should be addressed as well as the physical impacts.

Describe any non-routine impacts that may be due to the emission of light or a “visual nuisance” caused by the project during construction or operation. An example of an impact of a light emission is an intense light causing a glare problem for passing motorists. Examples of “visual nuisances” include lights on tall communication towers intruding on the visual integrity of a scenic vista, or a large water vapor plume from an exhaust stack or cooling tower.

Category Specific Guidance:

Communication towers (Subp 33): Visual impact of towers is frequently a concern, and is a legitimate environmental concern when it would detract from an otherwise noteworthy view or vista or when it would intrude on a “wilderness” type view or vista, such as from the Boundary Waters Canoe Area. If the project is near any scenic views or vistas or near an area known for a “wilderness” type of experience, note here and give a description of the potential visual impact on the resource in question. This should at least include an analysis of the “viewshed” of the tower.

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.

b. Vehicle emissions

The level of detail needed here depends on the magnitude of the traffic congestion due to the project as described in Item 18. When there is no reason to expect traffic congestion, or that existing congestion will not be noticeably worse due to the project, indicate that it will not cause any significant decrease in air quality. However, if EAW Item 18 indicates that the project will substantially worsen traffic conditions, an estimate of the air quality impact of this congestion must be prepared. In addition, any project with a parking capacity of 2,000 or more parking spaces may have to conduct a detailed air quality analysis. For transportation projects, in certain circumstances, a detailed carbon monoxide air quality modeling analysis may be required. The proposer is advised to consult with MPCA Air Quality staff regarding the need for this analysis.

c. Dust and Odors

This section is meant to address potential health-related conditions as well as nuisance conditions from dust and odors. The distance and relationship between the proposed project and potential receptors is an important aspect of assessing these types of environmental effects.

- i. Dust.** Wind-blown dust from construction, demolition, haul roads and other activities should be described here. Identify minimization or mitigation measures for any generation of dust that is greater than routinely expected during project construction or operation.
- ii. Odors.** Identify any strong or potentially offensive odors and identify the locations and distances

to sensitive receptors. Describe any mitigation measures used on the project site. Discuss both odors which have potential human health effects and also those which may not pose significant health risks but may result in a reduction or loss of quality of life to surrounding neighbors due to nuisance or annoyance conditions.

Category Specific Guidance:

Non-metallic Mineral Mining (Subp 12): If the mine will include facilities for the making of asphalt or concrete, information on air emissions should be included here, including fugitive dust from mining, stockpiles and unpaved haul roads.

Recreational Development (Subp 20 and 20a): Dust should be addressed if the access to the site is via unpaved roads. If the development is large, vehicle emissions and other air quality impacts should be defined due to traffic increases.

Highway projects (Subp 22): Attention should be paid regarding sensitive receptors and mitigation measures.

Natural Areas (Subp 30): Discuss demolition noise and dust and plans for mitigation.

Sports or entertainment facilities (Subp 34): Particular attention should be paid to vehicle emissions and related air quality impacts and numerical analysis of air quality will generally be necessary.

17. Noise

Any major noise should be described, including information on their levels (dBA) and hours of duration. However, construction noise need not be described unless the construction of the project will be unusually noisy (for example, the blasting of rock); prolonged; affect especially sensitive receptors (a hospital, for example); or otherwise can be expected to have unusual noise impacts during construction.

The locations of and distances to sensitive receptors should be given. For projects in the vicinity of major noise sources, such as highways, railroads or airports, noise levels should be estimated using generally accepted noise prediction models, regardless of whether the noise standards are legally enforceable with respect to the project. Mitigation measures should be identified, and their effects assessed.

Local ordinance requirements regarding noise should be reviewed and discussed, and any accommodations made by the project, any variances sought by the project, or other details related to noise issues should be discussed in this item.

Additional Resources:

- General information on Minnesota noise regulations can be found on the MPCA's Noise Program website at: <http://www.pca.state.mn.us/iryp46b>
- For highway projects, additional guidance regarding noise analysis can be found on the Mn/DOT website at: <http://dotapp7.dot.state.mn.us/edms/download?docId=614361>.

Category Specific Guidance:

Non-metallic mineral mining (Subp 12): Give sources of noise, characteristics of noise and distances to receptors. Discuss measures to minimize these impacts; indicate the extent to which local permits can impose conditions to minimize impacts.

Recreational Development (Subp 20 and 20a): Describe noise that may be perceived by neighbors as a nuisance, as well as mitigation measures, such as limiting hours of noisy activities.

Airport Projects (Subp 21): Concerns over runway extensions often relate to additional noise from aircraft. The EAW should include a noise analysis determining the project's potential to meet or exceed noise standards at surrounding land uses. Many airport projects are federally funded and therefore require preparation of a federal Environmental Assessment (EA). This EA may substitute for the EAW form, but additional noise information relating to state standards may be needed.

Sports or entertainment facilities (Subp 34): Noise from amplified music or public address systems should be described and numerical analysis of noise impacts should be included.

18. Transportation

The EAW must provide a reasonable estimate of the impacts on transportation and traffic associated with the proposed project. For projects with only minor traffic generation, it is not necessary to provide the maximum peak hour traffic generated. The trip generation rates used to estimate traffic, (such as trips per household,) and their sources should be identified. It is recommended that the *Institute of Transportation Engineers Trip Generation Manual* be used, unless other numbers are justified for the particular project.

The level of detail of the analysis should be commensurate to the amount of traffic generated and the existing level of traffic congestion. Therefore, the more likely the traffic impacts from the project will contribute to a growing transportation problem, the more detail that should be provided in the EAW. The analysis should consider not only the adjoining roads near the project site, but also other connecting roads that may be adversely impacted. One commonly accepted measure of congestion is the level-of-service and delay times. The EAW must also address the project's potential impact on the regional transportation system.

If a traffic analysis is being prepared because of the requirements of the local unit of government, that analysis should also be used or included in the EAW, provided that it is based on generally accepted principles of traffic analysis. The RGU for the EAW should be consulted before the EAW analysis is prepared. If vehicular air quality impacts are assessed, as described in EAW Item 16.b, the vehicle air quality analysis method used in the EAW should be consistent with the assumptions of the traffic analysis, including mitigation.

Regardless of location, if the peak hour traffic generated by the project 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 Traffic Impact Study Guidance or a similar local guidance.

If the RGU is pursuing a traffic study, they may want to consider including crash data or other traffic safety issues, even though they may not be "environmental" under the definition included in Minnesota Rules 4410.0200 Subp. 23.

Additional Resources:

- Mn/DOT's Traffic Impact Study Guidance is available at:
<http://www.dot.state.mn.us/accessmanagement/pdf/manualchapters/chapter5.pdf>

Category Specific Guidance:

Non-Metallic Mineral Mining (Subp 12): Numbers and routing of truck traffic to and from mines are common concerns for nearby residents.

Residential Development (Subp 19 and 19a): Larger residential projects of 250 units or more should provide detailed information on traffic generation from the project.

Recreational Development (Subp 20 and 20a): Provide information about potential traffic impacts and, if appropriate, indicate planned road improvements to accommodate traffic increases as residents near proposed recreational developments are frequently concerned about increases in traffic and effects on access roads.

Highway Projects (Subp 22): Proposers of highway projects should address anticipated traffic to be carried by the roadway. Also address project impacts on connecting roadways, including an analysis of how the project would affect congestion on roadways, and an identification of any other traffic improvements which may be necessary due to this project.

Marinas (Subp 25): Address traffic and parking including traffic flow into, out of and within the marina. Discuss whether the maneuvering of vehicles with boat trailers at the marina may interfere with normal traffic flow on adjoining roads.

Sports or entertainment facilities (Subp 34): Particular attention should be traffic generation and related impacts. Numerical analysis of traffic may be necessary.

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).

a. Describe Geographic Scales and Timelines

For each environmental effect of the proposed project that may involve CPE, it must be determined if there are any other projects that need to be taken into account. These other projects would be those that may affect the same environmental resources covered by the EAW item as the project under review. One way to think about this is to ask if the “environmental footprints” of the projects overlap. (The definition of CPE refers to other projects in the “environmentally-relevant area.” The EQB staff believes that this area must be determined case-by-case, impact-by-impact; thus, generally it may be preferable to simply think in terms of overlapping footprints.) The definition of CPE specifically states that it makes no difference whether the proposer of the project under review has anything to do with other projects considered by CPE nor whether the RGU has any jurisdiction over other projects. The issue is strictly a technical one, a question of whether similar environmental impacts from multiple projects overlap. The RGU may also consider how small an impact must become before it no longer needs to be analyzed.

b. Past and Future Projects

The definition of CPE gives additional guidance for past and future projects. It states that past projects whose footprints overlap can be treated in terms of their aggregate effects, which in most cases will be the “existing conditions” with respect to the type of impact in question. Typically, there is no need to itemize past projects and their individual contributions; instead the contributions to an environmental impact should be considered as a whole.

For future projects, the CPE definition requires that a future project be considered if it is actually planned or if a basis of expectation for it has been laid. The definition specifies a two-part test in determining whether a project must be considered with five sources of pertinent information.

1. The first half of the test determines whether **the future project is “reasonably likely to occur.”** The definition lists the following as sources of information that should be scrutinized relative to that question:
 - I. whether any applications for permits have been filed with any units of government. Note: This includes units of government other than the RGU and “permit” is a defined term in

- Minnesota Rules 4410.0200, Subp. 58 that includes virtually any form of permission or assistance from any unit of government;
- II. whether detailed plans and specifications have been prepared regarding the future project;
 - III. whether the future development is indicated by any adopted comprehensive plans zoning, or other ordinances;
 - IV. historic or forecasted development trends, and
 - V. any other factors found to be relevant by the RGU, (for example, the status of funding for the project may be relevant).

The EQB staff believes that each of these sources of information is not intended to be a determining factor that by itself necessarily means that a project is or is not “reasonably likely to occur.” However, in some cases a single piece of information may be found to be definitive. In fact, sometimes the different information sources may contradict each other. For example, the adopted local comprehensive plan might not be consistent with the project as proposed, while other factors tend to predict that it is likely to occur, presumably after the local comprehensive plan is amended. In general, the RGU is advised to synthesize available information from all sources to determine the likelihood that the project in question will, in fact, occur.

2. The second half of the test determines whether **“sufficiently detailed information is available about the project to contribute to the understanding of CPE.”** Note: Minnesota Rules state that this part of the test is only applied if the first half is met. This half of the test reflects the fact that identifying CPE is not simply an academic exercise, but is a practical effort to predict potential environmental effects as accurately as possible. If in a given case it appears to the RGU that an identified future project is “reasonably likely to occur” but very little specific information is available about its potential impacts, then that future project fails this half of the test and is not considered to have a basis of expectation laid for it; thus, it would not be considered when CPE are evaluated. The same five sources of information as discussed above are to be used to answer the question of whether sufficiently detailed information is available.

In many cases, the RGU may need to consult with other units of government as part of the process of looking for other projects that need to be considered as part of CPE analysis. It may be useful for the RGU to document any such inquiries to include in its record for the EAW.

c. Determining if CPE could potentially result in significant environmental effects

In order to give proper consideration to the role of CPE in making the EIS need decision, the RGU must have obtained the proper information in EAW preparation. Assuming the RGU has obtained sufficient information about the potential impacts from other past, present and future projects which need to be considered as part of the CPE analyses, Minnesota Rules 4410.0200 11a states that the RGU should examine the information about each of the types of possible CPE with respect to the following factors:

- Factor 1. Whether the cumulative potential effect is significant. This means that the RGU should decide if the sum total of the contributions from all the sources is significant. If the total impact is not significant, then the contribution from the project under review cannot be significant.
- Factor 2. Whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect. If consideration of the first factor results in a determination that the sum total impact is significant, then the RGU must look to the significance of the contribution from the project under review, viewed in connection with the contributions from other sources.
- Factor 3. The degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect. This factor only applies if some governmental unit (or units) has previously developed and put into effect a plan or program of some sort whose purpose is to specifically mitigate the type of cumulative effect under consideration. Comprehensive land use or water plans can contain recommendations that are intended to be applied broadly for the

purpose of avoiding adverse CPE. Another example of such a plan would be a TMDL plan developed by the PCA for cumulative water pollution abatement for impaired waters. In the common situation where there is no plan, the RGU should make this clear in response to this factor. If there is a qualifying plan, then the question becomes whether the project under review will be in compliance with the specific mitigation prescribed in the plan.

- Factor 4. The efforts of the proposer to minimize the contributions from the project. If there is no plan in existence to mitigate a CPE but the proposer has made an effort to avoid or minimize the contribution from the project through design or mitigation, the RGU should take that effort into consideration in determining the significance of the contribution from the project to the cumulative potential effect. For example, has the proposer made only a token effort, or have state-of-the-art measures been incorporated into the analysis? Has the proposer been responsive to suggestions for mitigation from the RGU or from public comments? How do the efforts compare to those of similar projects?

Category Specific Guidance:

Non-Metallic Mineral Mining (Subp 12): If appropriate, discuss how the mine may be expanded in the future, or how the mine relates to past mining in the vicinity with respect to cumulative environmental impacts.

Highway projects (Subp 22): Describe the relationship of the present project to the existing highway network and to anticipated future roadways. ***NOTE:*** Review of highway networks – that is, how the whole is divided up for review purposes – is constrained by Minn. Rules 4410.1000, subp 4, which should be consulted prior to preparing the EAW. Chapter 2 of the *Guide to Minnesota Environmental Review Rules* also provides guidance on defining “the whole project.”

Marinas (Subp 25): Include other marina development up and down the river from the site.

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.

Category Specific Guidance:

Highway projects (Subp 22): Information may be included here about the alternatives considered in the project design; an alternative discussion location is item 6, need for and purpose of the project.

RGU Certification

The worksheet requires the signature of an authorized official of the RGU. The signature represents certification by the RGU that: (1) the information is complete and accurate; (2) the “complete” project is reviewed by the EAW; there are no aspects of the project such as future “phased actions” or other related “connected actions” that have not been taken into account in the EAW; and (3) the EAW has been properly distributed to the official distribution list, available from the EQB home page at <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>, or by contacting the EQB staff. **The EQB will not accept an EAW for publication of the notice of availability without an appropriate signature on the worksheet.**

Category Specific Guidance:

Residential Development (Subp 19 and 19a): The RGU must use caution when certifying that a complete residential project has been reviewed. Residential projects are frequently developed in stages and the EQB rules have special provisions which apply to them. If the project proposer owns any additional contiguous land on which residential development would be allowable, the RGU must comply with the following EQB rule provisions before signing this certification: 4410.1000, subpart 4; 4410.2000, subpart 4; 4410.4300, subpart 19; and 4410.4400, subpart 14. Additional guidance can be found in Chapter 2 of the Guide to Minnesota Environmental Review Rules. If there is any uncertainty about these requirements, the RGU is advised to consult with the EQB staff as early in the EAW process as possible.

Highway Projects (Subp 22): Before signing, the RGU must verify that the review conforms to part 4410.1000, subpart 4, regarding the division of “network” projects into segments for purposes of review; also see discussion at item 29.

Glossary

Where noted, definitions can be found in Minnesota Statutes 116D and Minnesota Rules 4410.0200. Other definitions have been included based on the context of the document to provide guidance on the Environmental Review program.

Alternative Urban Areawide Review

A substitute review process based on review of development scenarios for an entire geographic area rather than for a specific project. (Minn. R. 4410.3610 Subp 1)

Connected actions

Two or more projects that are related, interdependent parts of a larger whole. (Minn. R. 4410.0200 Subp 9c)

Construction

Any activity that directly alters the environment, excluding surveying or mapping. (Minn. R. 4410.0200 Subp 10)

Cumulative potential effects

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 planned or for which a basis of expectation has been laid, regardless of who undertakes the projects or what jurisdictions have authority over the projects. Significant cumulative potential effects can result from individually minor projects taking place over a period of time. In making these determinations, the RGU must consider: whether applications for permits have been filed with any units of government; whether detailed project plans and specifications have been prepared; whether future development is indicated by adopted comprehensive plans or zoning or other ordinances; whether future development is indicated by historic or forecasted trends; and any other relevant factors. (Minn. R. 4410.0200 Subp 11a.)

Day

Either calendar or working day depending on the timeframe listed for a specific event. If the text lists 15 or fewer days, they are working days; calendar days are 16 or more days. The first day of any time period is not counted but the final day is counted. The last day of the time period ends with normal business hours, generally at 4:30 p.m. Working days exclude Saturdays, Sundays and legal state holidays. (Minn. R. 4410.0200 Subp 12)

Discretionary review

Environmental review ordered by any government unit, usually in response to a citizen petition, where review is not mandatory.

Environmental Assessment Worksheet

A document providing basic information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit to determine whether an Environmental Impact Statement should be prepared. (Minn. R. 4410.0200 Subp 24)

Environmental Impact Statement

A thorough study of a project with potential for significant environmental impacts, including evaluation of alternatives and mitigation. (Minn. R. 4410.0200 Subp 26)

Environmental Quality Board

State agency that adopts environmental review rules, monitors their effectiveness and revises as appropriate; provides technical assistance to interpret and apply rules. (Minn. Stat. §116C.04)

EQB Monitor

Biweekly publication of the Environmental Quality Board, lists deadlines for comments on Environmental Assessment Worksheets, Environmental Impact Statements and other notices. (Adapted from Minn. R. 4405.0100 Subp 6)

Expansion

A facility's capability to produce or operate beyond its existing capacity, excluding repairs or renovations that do not increase capacity. (Minn. R. 4410.0200 Subp. 28)

Mandatory review

Legally required review, established by the Environmental Quality Board through rules authorized by the Environmental Policy Act.

Mitigation

A. avoiding impacts altogether;
B. minimizing impacts by limiting the project;
C. rectifying impacts by repairing, rehabilitating, or

restoring the affected environment;

D. reducing or eliminating impacts by preservation and maintenance operations during the life of the project;

E. compensating for impacts by replacing or providing substitute resources or environments; or

F. reducing or avoiding impacts via pollution prevention. (Minn. R. 4410.0200 Subp 51)

Mitigation plan

An action plan developed in an Alternative Urban Areawide Review for how environmental effects will be avoided, including mitigation measures, legal and financial measures and institutional arrangements.

Phased actions

Two or more projects by the same proposer that will

have environmental effects on the same geographic area and will occur sequentially over a limited time period. (Minn. R. 4410.0200 Subp 60)

Responsible Governmental Unit

Government unit responsible for environmental review, usually the unit with the greatest authority over the project as a whole. Using a standardized process, the RGU prepares an EAW or EIS when required by the rules. (Minn. R. 4410.0200 Subp 75)

Scoping

Process to identify what potential environmental impacts, alternatives and other issues will be addressed in the EIS.