

Appendix A. Environmental Assessment Worksheet (EAW) EA Reference Table and EA Form

Minnesota EAW (Revised Form July 2013) – FRA Tier 2 EA Reference

Minnesota EAW Form Question	Tier 2 Project Level EA Section Location
1. Project Title	Cover
2. Proposer	Cover
3. RGU	Cover
4. Reason For EAW Preparation	1.3 Project Purpose
5. Project Location	1.1 Project Description
6. Description	1.1 Project Description
7. Cover type estimation	4.1 Land Use and Land Cover
8. Permits and approvals required	5.2.3 Permits and Approvals
9. Land Use	4.1 Land Use and Land Cover
10. Geology, soils and topography	4.1 Land Use and Land Cover; 4.10 Contaminated Properties and Regulated Waste; and 4.12 Farmland and Soils
11. Water Resources	4.5 Wetlands, 4.6 Surface Water, and 4.7 Groundwater
12. Contamination/Hazardous Materials	4.10 Contaminated Properties and Regulated Waste
13. Fish, Wildlife, plant communities and sensitive ecological resources	4.3 Vegetation and Wildlife, and 4.4 Threatened and Endangered Species
14. Historic Properties	4.11 Cultural Resources
15. Visual	4.14 Visual
16. Air Quality	4.8 Air Quality
17. Noise	4.9 Noise and Vibration
18. Transportation	Chapter 3 Transportation
19. Cumulative potential effects	4.18 Indirect and Cumulative Effects

ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at:

<http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>. The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.

Cumulative potential effects can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project title:

2. Proposer:

Contact person:
Title:
Address:
City, State, ZIP:
Phone:
Fax:
Email:

3. RGU

Contact person:
Title:
Address:
City, State, ZIP:
Phone:
Fax:
Email:

4. Reason for EAW Preparation: (check one)

Required:

- EIS Scoping
- Mandatory EAW

Discretionary:

- Citizen petition
- RGU discretion
- Proposer initiated

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

5. Project Location:

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

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

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

6. Project Description:

- a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).
- b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.

c. Project magnitude:

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

- d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.
- e. Are future stages of this development including development on any other property planned or likely to happen? Yes No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.
- f. Is this project a subsequent stage of an earlier project? Yes No
If yes, briefly describe the past development, timeline and any past environmental review.

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

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

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

Unit of government Type of application Status

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

9. **Land use:**

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

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

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

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

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

10. Geology, soils and topography/land forms:

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

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

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

11. Water resources:

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

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

- b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.
 - i. **Wastewater** - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

- 1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.
 - 2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.
 - 3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.
- ii. Stormwater - Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.
- iii. Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.
- iv. Surface Waters
- a) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.
 - b) Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the

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

12. Contamination/Hazardous Materials/Wastes:

- a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.
- b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.
- c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.
- d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

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

- a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.
- b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB _____) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.
- c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

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

14. Historic properties:

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

15. Visual:

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

16. Air:

- a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.
- b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.
- c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

17. Noise

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

18. Transportation

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.
- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW.* Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance,
- c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

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

- a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.
- b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.
- c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

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

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

I hereby certify that:

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

Signature _____

Date _____

Title _____

NLX Sections, Townships and Ranges

Minnesota		
Sections	Township	Range
02, 03, 11, 13, 14, 22, 23	29	24
03, 10, 15, 22, 27, 34	30	24
02, 11, 14, 23, 26, 35, 36	31	24
02, 11, 14, 23, 26, 35	32	24
25, 36	34	24
01, 12, 13, 23, 24, 26, 35	33	24
06, 07, 18, 19, 30	34	23
05, 08, 17, 20, 29, 30, 31	35	23
03, 10, 15, 16, 21, 28, 32, 33	36	23
02, 11, 14, 22, 23, 27, 34	37	23
06, 07	38	22
12, 13, 24, 25, 26, 35	38	23
05, 08, 17, 19, 20, 30, 31	39	22
06	40	21
01, 11, 12, 14, 15, 21, 22, 28, 32, 33	40	22
05, 06, 07, 18	41	20
13, 24, 25, 26, 27, 32, 33, 34	41	21
01, 02, 09, 10, 11, 16, 20, 21, 29, 32	42	20
02, 03, 09, 10, 16, 17, 19, 20, 30, 31	43	19
36	43	20
03, 09, 10, 16, 17, 19, 20, 30	44	18
25, 35, 36	44	19
04, 05, 08, 17, 18, 19	45	17
24, 25, 26, 34, 35	45	18
06	46	15
10, 11, 12, 15, 16, 17, 18, 19	46	16
24, 25, 26, 27, 33, 34	46	17
04, 05, 07, 08, 17, 18, 27, 33, 34	49	14
Wisconsin		
Sections	Township	Range
4, 6	46	15
4, 8, 9, 17, 19, 20	47	14
23, 24, 26, 27, 32, 33, 34	47	15
03, 10, 15, 22, 27, 28, 33	48	14
08, 15, 16, 17, 22, 27, 34	49	14