

Environmental Assessment Worksheet

Mahtomedi Ice Arena Project 8678 75th Street North Grant, Minnesota 55431

July 2018

Prepared for:



City of Grant Minnesota

City of Grant
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Prepared by:



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Bay West Project No. J180088

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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: Mahtomedi Ice Arena Project

2. Proposer: Rinc2

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3. RGU

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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: Washington

City/Township: City of Grant

PLS Location (1/4, 1/4, Section, Township, Range): Southeast Quarter of Northeast Quarter of Section 28 in Township 30 North, Range 21 West

Watershed (81 major watershed scale): Mississippi River and Lower St. Croix

GPS Coordinates: UTM Zone 15: 505249.3, 4989262.5

Tax Parcel Number: 280302113001

The project location is illustrated on **Figures 1 through 4**.

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; 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).

Rinc 2 is seeking to build an indoor hockey rink (ice arena) in the City of Grant on a portion of the Mahtomedi Public School campus, between the Mahtomedi High School and Wildwood Elementary School (Ice Arena Project). The location of the ice arena is currently occupied by vacant land with manicured grass between athletic fields; however, it is the location of a former solid waste disposal site for municipal and industrial waste and demolition debris.

- 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.

The City of Grant previously completed a discretionary EAW for the Ice Arena Project in 2016-2017; the original EAW was issued for public comment and published in the *EQB Monitor* in January 2017. The original project proposed constructing the building and supporting utilities on top of the debris material with driven pilings. The City of Grant received numerous substantive comments on the original project from state and local regulatory bodies as well as the public, primarily related to environmental concerns associated with driving pilings through the surficial aquifer/dump materials and landfill gas mitigation. A copy of the comments associated with the original EAW are included in **Appendix E**. The substantive comments indicated that insufficient information was available for the RGU to make an informed EIS need decision. With the concurrence of the project proposer, the City of Grant elected to postpone the Environmental Impact Statement (EIS) decision pending additional information from the project proposer. The EAW was revised upon receipt of the additional information related to these items and published again for 30-day public comment from June 6, 2018 through July 5, 2018.

This revised project is similar to the original proposed Ice Arena Project; however, there are several significant differences that alter the project description. These significant differences include:

- The proposer has submitted and received MPCA approval of a Voluntary Response Action Plan (VRAP) and Environmental Construction Contingency Plan (ECCP) that will govern construction activities to ensure protection of human health and the environment. The final approved VRAP, ECCP, and MPCA approval letter are included in the Feasibility Study included as **Appendix A** to this EAW.
- The VRAP now includes a plan to (a) initially remove and temporarily store the existing topsoil and clean soil cover materials in separate on-site stockpiles, (b) remove the dump debris and waste from the ice arena building footprint and utility trenches, and their oversize areas, prior to construction, (c) haul the exhumed dump debris and waste to a permitted landfill, and (d) replace the exhumed materials with suitable backfill material consisting of a combination of suitable on-site soils (clean soil cover) and imported sand from a sand and gravel pit, the bulk of which will be sourced from the sand and gravel pit.

- The ice arena will now be constructed on conventional spread footings that bear upon the suitable backfill material consisting of a combination of suitable on-site soil (clean soil cover) and imported sand. Elimination of both dump debris and driven pilings from the construction plan resolves the substantive comments related to landfill gas, soil, and groundwater contaminant migration via piling penetrations through dump waste.

The project includes construction of a 58,000-square foot indoor ice arena including associated supporting infrastructure, utility connections, and access drives. **Figures 5a through 5f** illustrate the proposed ice arena including pre- and post-construction site plans, and elevations and plan views of the proposed building. The ice arena will be operated by a local non-profit entity. The facility is proposed to be constructed on property currently owned by the Mahtomedi School District located at 8678 75th Street North in the City of Grant, Minnesota. The property is located between existing athletic fields, Wildwood Elementary School to the east and Mahtomedi High School to the west.

The building will be located on property that is currently vacant manicured grass fields. The location is a former dump site which contains mixed municipal, industrial, and demolition solid waste. The former dump is currently capped with a 2-foot soil cover and the property is subject to a MPCA-enforced Environmental Covenant with land use restrictions. The activity on the vacant fields occurs on the capped soil cover.

The rink will consist of one single-story structure containing an NHL-size ice rink, seating for up to 1,200 spectators, boys and girls team rooms, concessions, skate changing areas, ticketing, restrooms, and mechanical/refrigeration equipment.

The area of construction disturbance will be approximately 3.4 acres. The rink structure will consist of an approximately 58,000 square foot slab-on-grade structure built using a combination of framing and pre-fabricated concrete panels on conventional spread footings. Construction of the ice arena building will be completed under an MPCA-approved VRAP which includes excavation of dump debris and waste beneath and adjacent to the building footprint and within utility trenches and their oversize areas, installation of a geotextile liner in the excavation, importing and compacting non-impacted fill, construction of the arena with conventional spread footings, and installation of associated utilities. An active landfill gas mitigation system will be installed to mitigate the potential for landfill gas migration into the new structure and utility trenches. The existing stormwater pond on the southern portion of the Site will be expanded. This stormwater pond is located south of the known dump footprint.

Previous environmental assessment work completed on the property suggests a potential risk for methane intrusion into the proposed structure related to the buried waste that will remain at the site. A methane mitigation system will be installed beneath the proposed building. The methane mitigation system will be designed and installed in accordance with applicable MPCA guidelines and is described in the VRAP that has been submitted to and approved by the MPCA (see the feasibility study in **Appendix A**).

Water and sewer utilities supporting the facility will enter the ice arena building near its southwest corner and be trenched south where they will connect to existing utility infrastructure along 75th Street North. Utilities will be installed on compacted clean fill following the excavation and off-site disposal of the waste material along the utility corridors.

The ice arena will utilize an existing surface parking lot located southwest of the proposed rink footprint. The parking lot is currently used by the users of the adjacent athletic fields, and High School students by permit. No additional parking expansion is contemplated for the proposed project. The redevelopment plans also call for an expansion of the current stormwater pond located southeast of the proposed ice arena building. This stormwater pond is located outside the footprint of buried dump waste. All soil excavation activities will be subject to the actions described in the Environmental Construction Contingency Plan (ECCP) submitted and approved by the MPCA (see the feasibility study in **Appendix A**).

The rink may be operated year-round for approximately 19 hours per day from 5:00 a.m. to 12:00 a.m. It is projected that the facility will be occupied by approximately 30 people for 12 hours per day with larger events occurring periodically throughout the year during the hockey season, including 10 events with 1,200 occupants and 20 events with 600 occupants (292 Design Group, 2018).

A feasibility study prepared by 292 Design Group presents the proposed project and includes a geotechnical report, design plans, and summarizes historical environmental data collected at the site. A copy of this Feasibility Study is included in **Appendix A**.

c. Project magnitude:

Total Project Acreage	3.4 acres
Linear project length	Approx. 380 ft x 380 ft
Number and type of residential units	0
Commercial building area (in square feet)	58,000 square feet
Industrial building area (in square feet)	NA
Institutional building area (in square feet)	NA
Other uses – specify (in square feet)	None
Structure height(s)	29 feet

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.

The proposed project is intended to provide a semi-public ice rink facility that will be available to the Mahtomedi School District, local youth athletic associations and the public. The facility will be owned, operated and managed by a non-profit. According to the project proposer, there is a lack of available ice rink and ice time specifically for hockey participants in the local area. The proposed ice rink is intended to primarily meet that need, but will be available for other secondary uses such as school classes, baseball, lacrosse, soccer, and any other appropriate activity.

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	0	0	Lawn/landscaping	3.11	1.16
Deep water/streams	0	0	Impervious surface	0	1.8
Wooded/forest	0	0	Stormwater Pond	0.29	0.44
Brush/Grassland	0	0	Other (describe)	0	0
Cropland	0	0		-	
			TOTAL	3.4	3.4

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
City of Grant	Amended Conditional Use Permit Land Disturbance/Grading Permit	Submitted
Rice Creek Watershed District (RCWD)	Stormwater Management Plan, Erosion and Sediment Control, and Drainage Systems	Submitted
MN Pollution Control Agency /Metropolitan Council	Sanitary Sewer Extension	To be submitted
MN Pollution Control Agency	NPDES Construction Stormwater Permit	To be submitted
MN Pollution Control Agency	Voluntary Response Action Plan (VRAP) and Environmental Construction Contingency Plan (ECCP) to disturb and construct on dump site (required by existing Environmental Covenant).	Completed and approved by the MPCA
MN Dept. of Health	Water Supply Connection	To be submitted
Washington County	Access Permit (Needed due to intensification) and Right-of-Way	To be submitted

	Permit	
Washington County	Construction stormwater permit	To be submitted

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.

The site is currently a manicured grass field that is capping a former dump. A minimum of two feet of soil is present above the dump material. The area is currently unused.

A parking lot and baseball fields are present to the west of the site, and Mahtomedi Middle School and Mahtomedi High School area located just beyond the athletic fields. Athletic fields and Wildwood Elementary school are present to the east of the site. Washington County Road 12 (75th Street North) is present to the south of the site. There are existing stormwater ponds and access drives that run throughout the site and connect to the adjacent Mahtomedi School uses. A wooded and wetland area are present north of the site. Adjacent parcels to the north and south contain large, rural residential lots and estates.

- 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.

According to the City of Grant planning and land use map, the area of the ice arena project is guided A-1, Large Scale Agricultural. The A-1 land use designation is intended to be developed with low-density, large parcels, and agricultural uses. While this land use designation is dominated by large rural estates, there are several conditionally permitted uses which allow for development of uses other than residential/agricultural that support the vision and goals of the community. The planned land use will include continued operation of the school and athletic fields in compliance with the Conditional Use Permit (CUP).

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

The school site, which includes the proposed area of the ice arena project, is Zoned Agricultural Large Scale, A-1 (**Figure 6: City of Grant: Future Land Use and Zoning, December 2008**). This zoning district permits public schools and associated uses such as athletic fields, with a CUP.

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

Presently, there are three CUPs that are associated with the proposed construction and operation of an ice arena facility. There are two CUPs associated with the operation of the school facilities, one for the High School and Middle School and one for Wildwood Elementary School. The third CUP recorded against the property specifically addresses the athletic fields operation. Given the presence of these facilities and the associated CUPs, the proposed ice arena is consistent with and compatible with the current athletic fields on-site. With respect to future planning in the city, the existing CUPs run with the land and are irrevocable unless the operator fails to comply with the conditions within the permits. For the ice arena to be constructed, the project proposer will need to acquire an amendment to

the athletic fields CUP which currently governs the portion of the site on which the proposed project would be constructed. The project proposer currently has a pending application before the City of Grant for an amendment to the athletic fields CUP.

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

Proper mitigation procedures will be implemented through the CUP amendment process for potential incompatibilities encountered during the proposed Project and as outlined in the reviewed VRAP approved by the MPCA.

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.

The uppermost bedrock at the site is the Ordovician age St. Peter Sandstone, which is present approximately 150 feet below ground surface. The St. Peter Sandstone consists of a fine- to medium-grained quartz sandstone and is not susceptible to karst features and based on its depth below existing grade will not interfere or impact the proposed project. The St. Peter Sandstone is underlain by the Ordovician Prairie du Chien dolomite. Surficial and bedrock geology are depicted on **Figures 7 and 8, respectively.**

- 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.

The site is relatively flat with elevations ranging from 1056 to 1059 feet above mean sea level. Surrounding topography slopes gently to the north toward neighboring wetlands. Most of the site including the entire footprint of the proposed Ice Arena Project is on top of a former dump with at least two feet of clean soil cover as required by the Environmental Covenant for the dump site.

The soils underlying the site are classified as 1040 – udorthents. This soil type is characterized as gently sloping to level where the natural soil has been removed or covered and is often associated with reclaimed gravel pits and borrow pits. This soil classification is consistent with the former site use as a dump. Because of their disturbed nature, these soils have a wide range of permeability and physical characteristics. A Geotechnical Report was developed by Braun Intertec dated April 21, 2016 and was amended on January 31, 2018 and is included under Appendix A7 and A23, respectively, of the Feasibility Study (**Appendix A**). **Figure 9** depicts the soil survey information for the site and vicinity.

The design plan for the proposed Ice Arena Project calls for a slab-on-grade building with a finished floor elevation of 1062.0 feet above mean sea level supported by spread footings. Approximately 13,000 cubic yards of topsoil and clean soil cover will be removed, stockpiled (in separate stockpiles), and reused on-site as structural backfill (clean soil cover) and replacement topsoil. Between approximately 35,000 and 40,000 cubic yards of waste material will be excavated and disposed of at a permitted Subtitle D sanitary landfill. Following excavation of clean soil cover and waste material beneath the ice arena building, a geotextile landfill liner will be placed in the excavation between imported, compacted sand fill materials and the native soils and non-excavated waste materials. The total site disturbance will be approximately 3.4 acres with most of the disturbance related to building construction, access drives, and stormwater pond expansion. The facility will utilize the existing parking lot adjacent and southwest of the ice arena building that is used for the adjacent athletic fields and by permitted High School Students.

Standard dust and runoff control measure will be implemented during redevelopment and RA implementation activities. It is likely that shallow groundwater will be encountered during RA implementation and redevelopment. It is also possible that precipitation could collect in the excavations during RA implementation and redevelopment. If shallow groundwater is encountered, or precipitation collects in the excavations, dewatering activities will include discharge to the nearby sanitary sewer following receipt of approval from the Metropolitan Council Environmental Services (MCES).

The MPCA-approved VRAP and ECCP will be implemented during subsurface redevelopment and RA implementation activities (see **A18 and A20 of Appendix A, respectively**).

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.

Wetlands are located approximately 500 feet north and south of the site, and 600 feet west of the site. A freshwater pond is located approximately 1,000 feet northeast of the site. Stormwater ponds are located south and west of the site. There are no MPCA 303d Impaired Waters within 1 mile of the site. **Figure 10** presents National Wetland Inventory data for the project area.

A wetland survey conducted in 2011 prior to construction of Wildwood Elementary School did not indicate the presence of wetlands in the proposed Ice Arena Project area.

- 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.

During previous site investigations, surficial groundwater was encountered at depths as shallow as five feet below grade and as deep as 29.5 feet below grade suggesting the surficial water table is perched and discontinuous. (Landmark 2017). During the 2015 geotechnical investigation completed at the site by Braun, they observed groundwater in four of ten test borings at depths ranging from 19.5 to 29.5 feet below grade. Braun did note, however, that these borings were not allowed to stay open for an extended period and due to the fine-grained nature of the soil at the site, groundwater may have eventually seeped into the boreholes.

The site is located within the City of Mahtomedi municipal wellhead protection area. The boundary of the wellhead area cuts across the site, as depicted on **Figure 11**. The project is proposed to be served by the City of Mahtomedi's municipal water system. The estimated daily demand of the proposed ice rink is 3,110 gallons per day, and if applying the City of Mahtomedi's average peaking factor of 2.6, will result in an increased water demand of 8,086 gallons per day. Based on the existing information available and estimated water demand generated by the proposed project the City has sufficient production capacity to serve the proposed ice rink in the location identified (**see A25 of Appendix A**).

According to the Minnesota Department of Health County Well Index, there are no wells within 1,000 feet of the site. Several private residential wells are located north of the proposed Ice Arena Project with the nearest well approximately 1,200 feet directly to the north. The CWI map is included as **Figure 11**.

Based on a review of well logs conducted by Landmark in preparation of the VRAP, there are five domestic wells (unique numbers 430363, 110501, 775573, 112723, 112502) located within 2,000 feet of the Property to the east (downgradient). These wells were cased through the unconsolidated Quaternary deposits into the underlying St. Peter Sandstone and/or Prairie du Chien dolomite. The wells had static water levels above the bedrock and had a likely upward gradient between the bedrock and unconsolidated deposits (Landmark 2017).

- 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.

Wastewater will be discharged to the sanitary sewer which flows west through the City of Mahtomedi. The existing Mahtomedi School Campus is served by a Joint Powers Agreement between the City of Mahtomedi and the City of Grant. There is an 8-inch

diameter City of Mahtomedi sanitary sewer pipe within the Stillwater Road right-of-way south of the High School, and it is anticipated that the new ice rink will tie into that sanitary sewer line. The City of Mahtomedi's sanitary sewer conveys sewage to the west within the Stillwater Road ROW, and increases in diameter to a 12-inch diameter PVC main near the intersection of Glenmar Avenue and Stillwater Road. The 12-inch pipe then directly connects to the Metropolitan Council (MCES) Interceptor sewer at the intersection of Mahtomedi Avenue and Stillwater Road.

There will be no effects on the stormwater treatment facility serving this site as the facility has planned capacity for this area. Therefore, no pre-treatment measures will be required.

The Conditional Use Permit, submitted to the City of Grant, estimates that the facility will produce 1,135,220 gallons of wastewater per year. The source of wastewater is toilet, sink, and shower use for employees and events, and ice making and resurfacing for the ice rink.

In total, the Applicant has assumed that the proposed ice rink will increase the average daily sanitary sewer flows by 3,110 gallons per day resulting in an average sanitary sewer flow of 0.0519 million gallons per day. Applying the MCES peaking factor of 4 results in a peak day wastewater flow of 145 gallons per minute (0.2088 million gallons per day). The City of Mahtomedi evaluated the anticipated increase in sewage flow that would be generated because of the proposed project and determined that the City of Mahtomedi's infrastructure has capacity to serve the facility without any significant modifications, if the final development plans are consistent with those evaluated in their review.

The 'Ammonia Refrigeration System – Safety Systems, Emergency Planning, Reporting, Training, Operation and Maintenance' document included in Appendix A5 of the Feasibility Study (**Appendix A**) states that an ammonia scrubber system is not required by code but can be installed as additional safety precaution. If a wet scrubber is used, the ammonia contaminated solution generated by the scrubber can either be returned to a water tank or to the sanitary sewer. If a wet scrubber is installed, and discharge of the ammonia contaminated solution to the sanitary sewer is planned, approval must be obtained from the treatment facility (Metropolitan Council). The treatment facility may require treatment before disposal.

- 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.
Not Applicable.
- 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.
Not Applicable.

- 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.

Stormwater treatment is required by the Rice Creek Watershed District (RCWD) rules and per the City of Grant's rules and regulations. Watershed rules require rate control, water quality treatment for partial removal of total suspended solids and phosphorous, and water abstraction where allowed. For rate control, a combination of surface rain gardens and underground storage chambers (both placed outside the dump limits) will be utilized. These systems will be sized so that the water is released at a slow rate, less than or equal to the existing rates for the 2-year, 10-year and 100-year storm events. For water quality treatment, a combination of underground storage and porous pavers will be utilized to allow at least the equivalent volume equal to 1.1-inch of runoff from the new and disturbed impervious areas to be filtered. This will remove approximately 90% TSS and approximately 60% phosphorous from the runoff water. The filtration practices described above will satisfy the RCWD rules for water quality treatment.

- 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.

No appropriation of surface or groundwater is anticipated, other than for localized dewatering because of rain events. Based on the activities proposed in the VRAP it does not appear a water appropriations permit will be required. No well abandonment is proposed. No upsizing of the municipal water supply system is required.

- 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.

Several wetlands are located near the proposed Ice Arena Project (see **Figure 10**); however, wetlands will not be impacted by the construction or operation of this facility.

A wetland survey conducted in 2011 prior to construction of Wildwood Elementary School did not indicate the presence of wetlands in the proposed ice arena development area.

- 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.

Other surface water features are not anticipated to be impacted by the construction of this facility.

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.

Former Bellaire Site History

Beginning in the 1950s through the 1970s, the proposed location of the Ice Arena Project was used for unregulated dumping. The dump accepted mixed municipal and industrial wastes. The former mixed municipal/industrial dump created a 10-acre footprint including portions of the ice arena development. Bellaire, the site owner at the time, also disposed of demolition waste in a 2-acre portion of the site.

The Former Bellaire Site was also used as a transfer station for commercial and household wastes, tires, scrap metal, demolition debris and composting yard wastes. These operations included the use of a maintenance shop, a garage, a truck scale and storage areas for vehicles and a variety of containers, including roll-off boxes and drums. The former transfer station area is the site of a closed leaking underground storage tank (LUST).

Removal of PCB- and lead-contaminated sludge was completed in 1994 and the site was subsequently capped and vegetated. The Mahtomedi School District acquired the property in 2002 for development as an athletic field complex and for construction of Wildwood Elementary School. The school district proposal called for construction of athletic fields near the former dump footprint and construction of a new elementary school east and outside of the dump footprint. Environmental assessments were completed at the site on behalf of the school district by STS Consultants and Landmark Environmental.

To allow for recreational development of the site as athletic fields and construction of Wildwood Elementary School, Landmark recommended excavation and off-site disposal of petroleum, lead, and manganese contaminated soil, and removal and off-site disposal of mixed municipal waste and demolition debris to allow for placement of a 2-foot-thick soil cover over the remaining waste material. In November 2003, Landmark submitted a VRAP to the MPCA to address contaminated soil and waste at the site. Consistent with their previous recommendations, the response actions (RAs) included excavation of soil impacted with contaminants of concern, placing a minimum 2-foot soil cover over the former dump area and filing an Environmental Covenant for the site requiring MPCA approval of any future soil disturbing activities on the site.

Response actions were completed in 2005 and 2006. On May 1, 2007, the MPCA issued an Response Action Implementation Report Approval letter.

A more detailed description of the Former Bellaire Site history is presented in Section 1 of the VRAP (appendix A18 of the Feasibility Study contained in **Appendix A** of this EAW) and Section 2 of the ECCP prepared by Landmark (appendix A20 of the Feasibility Study contained in **Appendix A** of this EAW).

Much of the proposed construction site including the entire footprint of the proposed ice arena building is on top of a previous dump that was utilized for disposal of municipal, industrial, and demolition solid waste. The proposed Ice Arena Project will be located partially over the area formerly used as a demolition solid waste dump which is located on the east side, and the remaining development is over the former mixed municipal dump on the west side. The following table summarizes the previous reports associated with the property. Bay West did not review all the environmental reports associated with the dump site or the work associated with construction of the Wildwood Elementary School. However, Bay West reviewed the applicable reports and studies that addressed the specific Project Site area.

**Summary of Previous Reports
Former Bellaire Transfer Station Property**

Date	Prepared By	Prepared For	Title	RA/comments	Availability
4/1/1981	Soil Exploration Company		Report of Subsurface Exploration Demolition Waste Landfill	Submitted to Met Council for permit	MPCA Archives
1990	Bellaire	Bellaire	Sludge Sampling	Found PCB and lead	MPCA Archives
1991	MPCA	MPCA	Preliminary Assessment/ Sludge Sampling	Required further cleanup	MPCA Archives
11/1/1992	Barr	MPCA	Screening Site Inspection Report	Cleanup of PCB and lead surface soils in the NW corner in 1994	MPCA Archives
9/1/1994	CRA	Bellaire Sanitation	Response Action Plan	Amended by MPCA	MPCA Archives
9/1/1994	CRA	Bellaire Sanitation	Sampling Program for Sludge Disposal Area		MPCA Archives
11/1/1994	Westinghouse Remediation Services, Inc.	Bellaire Sanitation	Amended Response Action Plan	Approved by MPCA	MPCA Archives
1/1/1995	Westinghouse Remediation Services, Inc.	Bellaire Sanitation	Response Action Implementation Report	Approved by MPCA. Documents completed response actions.	MPCA Archives
6/2/2002	STS	MPCA	Phase I Environmental Site Assessment	Identified 3 RECs	School District Website
11/2002	Landmark	Mahtomedi School District	Supplemental Phase II Investigation Report	MPCA Approved; Identified 6 areas of concern in soil	School District Website
11/2003	Landmark	Mahtomedi School District	Voluntary Response Action Plan	Approved by MPCA. Documents response actions required based on Supplemental Phase II.	School District Website
11/2003	Landmark	Mahtomedi School District	Environmental Contingency Plan	Approved by MPCA. Plan for addressing contamination encountered during construction.	School District Website
6/22/2004	Landmark	Mahtomedi School District	Additional Soil Sampling Work Plan	Approved by MPCA	MPCA Archives
1/27/2005	Braum	AJA/ Mahtomedi School District	Geotechnical Evaluation Proposed Athletic Field Expansion		School District Website

**Summary of Previous Reports
Former Bellaire Transfer Station Property**

5/2005	Wenck	Bellaire	Voluntary Response Action Implementation Report	Approved by MPCA. Summarizes completed response actions.	School District Website
6/9/2005	Landmark	Mahtomedi School District	Former Bellaire Transfer Station Property	MPCA Approved. Includes: 1. Additional Soil Sampling Report, 2. Soil Cover Survey Summary	School District Website
10/2005	Landmark	Mahtomedi School District	Methane Gas Supplemental Investigation Report	Approved by MPCA. Additional Methane Gas Investigation	School District Website
8/30/2006	Landmark	Mahtomedi School District	VRAP Implementation Report Addendum	Approved by MPCA. Included summaries of General Solid Waste Disposal, Hot Spot 5 Soil Thickness Verification, Asbestos Abatement, Soil Cover Thickness, Restrictive Covenant.	School District Website
2/20/2007	Landmark	Mahtomedi School District	VRAP Implementation Report Addendum #2	Requested and Approved by MPCA. Includes info from previous investigations concerning soil cover thickness.	School District Website
6/29/2010	Landmark	Mahtomedi School District	Environmental Investigation Report	Approved by MPCA. Soil, groundwater, and soil gas investigation in vicinity of Proposed Wildwood Elementary School	School District Website
7/13/2010	Braun	Mahtomedi School District	Geotechnical Evaluation Report		
1/2011	Landmark	Mahtomedi School District	Construction Contingency Plan	Approved by MPCA. Plan for addressing contamination encountered during construction.	School District Website

Additional Documents Reviewed by Bay West:

8/2015	Landmark	Rinc 2, Corp	Phase I Environmental Site Assessment	1 REC identified	Unknown
3/18/2016	Landmark	Rinc 2, Corp	Soil and Soil Vapor Sampling Report		Unknown
4/21/2016	Braun	Rinc 2, Corp	Geotechnical Evaluation Report		Unknown
9/15/2016	Landmark	City of Grant	Wildwood Surface Water Sampling Report	Semiannual surface water sampling, no contaminants exceeding surface water standards	Unknown
5/12/2017	Landmark	City of Grant	Wildwood Surface Water Sampling Report	Semiannual surface water sampling, no contaminants	A40 of Appendix A

				exceeding surface water standards	
8/29/2017	Landmark	City of Grant	Wildwood Surface Water Sampling Report	Semiannual surface water sampling, no contaminants exceeding surface water standards	A41 of Appendix A
11/2017	Landmark	Rinc 2, Corp	Revised Voluntary Response Action Plan		A18 of Appendix A
12/2017	Landmark	Rinc 2, Corp	Environmental Construction Contingency Plan		A20 of Appendix A
1/31/2018	Braun	Rinc 2, Corp	Geotechnical Evaluation (Amended)	Revaluation of previous geotechnical data with respect to new facility construction plans (waste removal with spread footings)	A23 of Appendix A

Bay West also reviewed the following websites to supplement the existing environmental information:

- MPCA “What’s in My Neighborhood?” (WIMN)
- MPCA Storage Tank Leak Site website.
- Minnesota Department of Health – Minnesota Well Index (<http://www.health.state.mn.us/divs/eh/cwi/>)

A summary of the findings after a review of the websites listed above follows:

Two properties, not associated with historical activities at the Property, were identified on the ‘What’s in My Neighborhood?’ website. Floyd’s Auto Sale and Auto Parts is located approximately 0.4 miles east of the Property and is listed as a Site Assessment Site. Additional information is not available on WIMN. Grant Township 3M Dump Site is located approximately 0.3 miles southeast of the Site and listed as a Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) site. Additional information is not available on WIMN. Neither site appears to present a risk to the Site because the Site will utilize a public drinking water supply and soil contamination would be localized at the site locations.

Five leak sites were identified in Grant, Minnesota at distances ranging from 0.4 to 3.2 miles from the Site. The leak sites do not appear present a risk to the Site because the Site will utilize a public drinking water supply and soil contamination would be localized at the leak site locations.

One tank site was identified 0.4 miles northeast of the Site. The tank site has a leak site associated with it. The risk from the leak site is discussed above.

According to the Minnesota Department of Health Minnesota Well Index, there are no wells within 1,000 feet of the site. Several private residential wells are located north of the proposed ice arena site with the nearest well approximately 1,200 feet directly to the north. The CWI map is included as **Figure 11**.

Bay West reviewed the Amended Mahtomedi Ice Arena Feasibility Study (FS) completed by 292 Design Group and dated March 29, 2018 and included as **Appendix A** to this EAW. Several of the most recently completed environmental reports are included in the FS.

Receptor and Exposure Pathway Analysis

The location of the proposed ice arena building on top of a former dump creates inherent environmental concerns for site workers and the public during construction of the facility and for the future building occupants. Environmental risks are evaluated based on the potential for human exposure to contaminated media, i.e. soil, groundwater, surface water, and air. In the following sections, Bay West presents a summary of these human exposure pathways and assesses the risks posed by the proposed ice arena project.

Groundwater Pathway

According to the Phase I ESA completed by Landmark Environmental LLC in August 2015, groundwater results from previous investigations did not indicate elevated concentrations of hazardous substances or petroleum products to be present in the groundwater beneath and near the former dump at the ice arena site.

- According to the Phase II Supplemental Investigation completed by Landmark Environmental LLC in November 2002, water samples were collected from three private water supply wells located south of the Site across 75th Street. According to the memorandum titled 'Former Bellaire Transfer Station – Groundwater Sampling Results' by Leisch Associates dated March 27, 2000 no VOCs were detected in the private water well samples collected.
- According to the Phase II Supplemental Investigation completed by Landmark Environmental LLC in November 2002, drinking water within a one-mile radius of the Site is supplied by private water wells and municipal well within the service area of the City of Mahtomedi.
- According to the Phase II Supplemental Investigation completed by Landmark Environmental LLC in November 2002, groundwater flow is estimated to be to the southeast based on topographic interpretation.
- According to the Environmental Investigation Report completed by Landmark Environmental LLC on June 29, 2010 groundwater was encountered at depths ranging from 14 to 25 feet bgs. Groundwater samples were collected from four hollow-stem auger probes. VOCs were not detected in any of the groundwater samples.
- Groundwater was measured between 19.5 and 29.5 feet bgs during the Geotechnical Investigation completed by Braun in April 2016.

Historical groundwater samples collected at the dump site from geotechnical borings and from private water wells in the site vicinity did not indicate the presence of contaminants exceeding Minnesota Department of Health - Health Risk Limits.

Several substantive comments to the original EAW expressed concerns regarding the potential to create a conduit to groundwater for contaminant migration from the dump site via pilings driven through the waste. The revised construction plan and associated MPCA-approved VRAP call for complete excavation of waste within and adjacent to the ice arena building and within utility trenches, and construction of the building on spread footings. The new construction plan alleviates concerns associated with contaminant migration in groundwater.

The removal of contaminated soil and waste will also decrease the volume of source material and the potential for groundwater contamination associated with the dump site. The proposed ice arena will be supplied by City of Mahtomedi municipal water.

There does not appear to be significant risk to human health or the environment via the groundwater exposure pathway.

Surface Water Pathway

A freshwater pond is located approximately 1,000 feet northeast of the site. Stormwater ponds are located south and west of the site and expansion of the southern stormwater pond is discussed above and should reduce the amount of runoff to surrounding surface water features. There are no MPCA 303d Impaired Waters within 1 mile of the site. Surface water is not expected to be impacted by the existing dump site.

On behalf of the Mahtomedi School District, as a requirement of the District's existing Conditional Use Permits, Landmark Environmental conducts semiannual surface water sampling events at four surface water features located near the former dump and east of Wildwood Elementary School. Landmark collects surface water samples for analysis of dissolved RCRA metals and volatile organic compounds (VOCs). The most recent sampling event was completed in August 2017 and summarized in a report titled "Wildwood Surface Water Sampling Report" dated August 29, 2017 (A41 of Appendix A). Eight sampling events have been completed since April 2014. No analytical parameters have been found to exceed Class 2D surface water quality standards in any of the six sampling events completed.

Several substantive comments to the original EAW expressed concerns regarding the potential to create a conduit for contaminant migration from the dump site via pilings driven through the waste. The revised construction plan and associated MPCA-approved VRAP call for complete excavation of waste within and adjacent to the ice arena building and within utility trenches, and construction of the building on spread footings. The new construction plan alleviates the concerns associated with driven pilings and continued surface water monitoring in nearby surface water bodies under contract with the Mahtomedi School District will provide ongoing surface water quality data to ensure no impacts associated with the project.

There are inherent risks to nearby surface water bodies associated with excavation of a large volume (35,000 to 40,000 cubic yards) of waste material from the dump site. Tracking of waste by dump trucks, stockpiling of soil, and runoff from the excavation area could potentially impact nearby

surface water bodies. Section 5.1.7 of the Environmental Construction Contingency Plan (ECCP) prepared by Landmark details erosion control measures to be utilized during VRAP implementation. The project will also require construction stormwater pollution prevention plans through the Rice Creek Watershed District and Washington County prior to implementation of the VRAP and project construction activities.

There does not appear to be significant risk to human health or the environment via the surface water exposure pathway.

Air Pathway

Volatile Organics

On November 9, 2015 one soil gas sample was collected at a depth of three feet bgs and analyzed for VOCs. The location of the soil gas samples was in the approximate location of the center of the proposed ice arena building. No compounds were detected at concentrations greater than 10-times their respective Industrial ISVs. The MPCA-approved VRAP includes the installation of an active methane venting system and vapor barrier beneath the building slab, reducing any potential volatiles that may be present to impact the building.

There does not appear to be significant risk of human exposure to VOCs via the air exposure pathway.

Methane

In November 2002 a methane survey was completed by Landmark Environmental LLC during which methane samples were collected in a grid pattern across the former dump footprint at depths of 3-4 feet. Findings of this survey revealed methane concentrations ranging from 53.6 to 69 percent (536,000 to 690,000 parts per million by volume) in or near the proposed ice arena building footprint.

In 2015 two additional soil gas samples were collected beneath the proposed ice arena footprint at three feet below grade and analyzed for methane. The two soil gas samples were collected on either side of the east and west half the of the proposed ice arena building. The methane concentrations in the samples were 190 and 630 parts per million by volume (ppmv).

The MPCA uses a general screening criterion of 13,500 ppmv equal to 1.35% to assess methane concentrations. Methane concentration collected in 2002 were well in excess of this screening criteria, the two samples collected in 2015 were well below these criteria.

Methane Mitigation

Methane gas generated within dumps can vary based on many factors including dump waste composition and depth, moisture content, age of the waste, and temperature. Based on the comprehensive 2002 methane survey conducted over the footprint of the dump (including the ice arena building footprint), it appears there is a potential risk of methane gas migration and intrusion to any future structure constructed on the dump.

The construction plan and MPCA-approved VRAP call for removal of all contaminated soil and dump waste beneath and adjacent the ice arena footprint, reducing the potential methane sources.

An active methane mitigation system will be installed beneath the building, as described in the MPCA-approved VRAP, will include a methane sensor system designed to provide warning if methane gas enters the proposed Property building at concentrations approaching unacceptable levels.

The MPCA-approved VRAP proposes that all contaminated soil and debris discovered within 10 feet of the utility corridor will be excavated and transported off-site to a permitted Subtitle D landfill and imported non-impacted fill material will be backfilled in the trenches. A bentonite collar, or plug, is also proposed to be installed around the utility corridors near areas of potential vapor concern which will reduce potential vapor migration.

There does not appear to be significant risk of human exposure to methane via the air exposure pathway.

Soil Pathway

Contact Pathway

The extent of the former dump has been defined. Soil cover thickness surveys were performed on the dump in 2005 and 2006. As of May 2006, two or more feet of soil cover is present across the top of the dump. A Restrictive Covenant was filed on property in 2007. The Restrictive Covenant states that no soil disturbance or alteration below two feet shall occur without the written approval of the Commissioner of the MPCA or his successor. The Restrictive Covenant also states that two feet of cover *must be maintained*, routine inspections should be performed, and irrigation water should be managed.

The MPCA-approved VRAP proposes excavation of contaminated soil and waste beneath and adjacent to the ice arena building footprint and importing non-impacted fill material. The existing restrictive covenant will be modified to accommodate the post-construction condition of the site, but will retain the 2-foot cover requirement for green space and restrictions on soil disturbance beneath the cover.

Utility Trenches

The nature and extent of soil contamination and dump material has been defined by previous investigations completed at the Site between 1981 and 2016. Based on the proposed ice arena design plan, utility trenches excavated to provide water and sewer service to the ice arena building will pass through areas containing dump waste and contaminated soil.

The MPCA-approved VRAP proposes that all contaminated soil and debris discovered within 10 feet of the utility corridor will be excavated and transported off-site to a permitted Subtitle D landfill and imported non-impacted fill material will be backfilled in the trenches.

Stormwater Features

The nature and extent of soil contamination and dump material has been defined by previous investigations completed at the Site between 1981 and 2016. Current stormwater design plans

include expanding the current stormwater pond to the south approximately 0.15 acre and is outside the identified dump material footprint. In the event stormwater design plans may result in disturbance of soil and waste within the dump footprint, soils will be handled as described in the MPCA-approved ECCP.

There does not appear to be significant risk of human exposure to methane via the air exposure pathway.

- 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.

Construction of an ice arena on the site will involve excavation and off-site disposal of approximately 35,000 and 40,000 cubic yards of waste material at a permitted Subtitle D sanitary landfill. Excavation will take place after installation of erosion control measures to protect nearby wetlands. This material will be excavated using track hoe excavators, and live-loaded to the extent possible for direct transport to the landfill. The material will be transported in covered dump trucks to reduce nuisance dust generation. In the event some of the waste material is not transported directly to the landfill, it will be placed on poly, bermed, and covered with poly until it is transported off-site. Dust monitors and dust suppression will be utilized to inhibit the generation and off-site transport of nuisance dust during response actions.

It is likely that shallow groundwater will be encountered during response action implementation and redevelopment. It is also possible that precipitation could collect in the excavations during RA implementation and redevelopment. In the event that the shallow groundwater is encountered, or precipitation collects in the excavations, dewatering activities will include discharge to the nearby sanitary sewer following receipt of approval from the MCES.

To reduce the need for imported backfill, approximately 13,000 cubic yards of clean topsoil and dump cover material will be removed and stockpiled for reuse during construction and grading of the new building.

Development of the site as an ice arena will generate construction debris. Operation of the site as an ice arena will generate garbage and recycling material. Solid waste and construction debris will be disposed of in accordance with local standards and removed from the site by licensed haulers.

- 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.

Small quantities of hazardous materials associated with construction (e.g. fuel) will be used and stored on site during construction. Hazardous materials will be stored in proper containers and managed in accordance with local requirements.

Ammonia is required to operate the refrigeration system needed for the ice rink. An 'Ammonia Refrigeration System – Safety Systems, Emergency Planning, Reporting, Training, Operation and Maintenance' document was included in Appendix A5 of the Feasibility Study. The suggestions in the document should be followed to ensure safe storage and handling of ammonia. Ammonia will be delivered and managed by trained professionals.

- 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.

Soil and waste material excavated from the dump footprint is not anticipated to be characteristically hazardous. In accordance with the approved VRAP, soil samples will be collected from the generated soil and submitted for laboratory analysis. If laboratory analysis determines that the soil is hazardous the soil must be disposed of in accordance with hazardous waste requirements. If laboratory analysis determines that the soil is non-hazardous the soil will be disposed of in accordance with non-hazardous waste requirements.

Except for potential contaminated soil outlined above, construction activities are not anticipated to generate hazardous waste.

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.

The proposed ice arena will occupy an area of 3.4 acres and be constructed entirely within the footprint of a former dump. The site is located on property owned by the Mahtomedi School District between maintained athletic fields operated by the school district. As such, no significant wildlife habitat or communities are present within the project area of disturbance.

- 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 20170219**) 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.

According to the Minnesota DNR, the Blanding's turtle (*Emydoidea blandingii*), a state-listed threatened species, has been reported near the proposed ice arena project.

The Bell's vireo, (*Vireo bellii*), a state listed bird species of special concern, has been documented near the project.

United States Officially Designated Wilderness Areas or Wildlife Preserves were not identified within one-mile of the site.

- 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.

Blanding's turtles use upland areas up to and over a mile from wetlands for nesting, basking, periods of dormancy, and traveling between wetlands. Any added mortality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels. Other factors believed to contribute to the decline of this species include wetland drainage and degradation, and the development of upland habitat.

In Minnesota, Bell's vireo prefers shrub thickets within or bordering open habitats such as grasslands or wetlands. This bird suspends its nests from forks of low branches of small trees or shrubs in riparian areas. If feasible, tree and shrub removal should be avoided from May 15th through August 15th to avoid disturbance of nesting birds.

Given the limited size of the project area, its former use as dump site, the fact that it is currently maintained and mowed during the growing season, and its location in an area developed for use as manicured athletic fields, it is unlikely that the project area currently serves as viable Blanding's turtle or Bell's vireo habitat.

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

The proposed ice arena development does not call for filling or altering wetland or surface waters near the project or the removal of forest, shrub, or natural habitat.

During construction activities, silt fence will be used to screen the construction area from potential entry by Blanding's turtles and Blanding's turtle identification flyers will be posted in the construction trailer and provided to contractor's working on the site. A copy of this flyer is included in **Appendix B**.

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.

A search of National Register of Historic Places, State Historic Places, and Indian Reservations within 1-mile of the site was conducted. No mapped sites were found within a 1-mile search area of the site. A copy of this database search is provided in **Appendix C**.

The site is currently landscaped athletic fields and a former dump. The soil has been disturbed many times in the past.

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.

No scenic views or vista are present on or near the project site.

No vapor plumes will be generated by site activities. Most the lighting for the site will be indoors, however, some exterior lighting will be necessary to ensure safety for the users of the facility.

The ice arena will share an existing parking lot currently supporting the athletic fields adjacent to the proposed ice arena site. There are existing light fixtures (poles) in the parking lot which are not proposed to change as a result of this project. The facility will have exterior lights at the entrances, service doors, etc., and is also anticipated along walkways. The exterior lighting plan shall be regulated and subject to the City of Grant's exterior lighting standards as identified within the City's Zoning Ordinance. Significant change in the amount of exterior lighting due to the ice arena operations is not anticipated in the project area because the parking lot and school facilities are existing and currently operating on the site.

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.

Air emissions other than traffic, odor sources and construction-phase dust are not anticipated. An ammonia refrigeration system will be present in the building. Ammonia Refrigeration System – Safety Systems, Emergency Planning, Reporting, Training, Operation and Maintenance' document was included in Appendix A5 of the Feasibility Study (**Appendix A**).

- 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.

As part of traffic analysis (**Appendix D**), Synchro software provides vehicle emissions as a Measure of Effectiveness (MOE), but only for signalized intersections. Since the intersection of 75th Street North (CSAH 12) & the project driveway is unsignalized, the software assumes a negligible impact from idling vehicles while at the stop sign.

- 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.

Construction activities will result in dust generation related to soil disturbance and vehicle traffic. The closest, and most sensitive receptor, is Wildwood Elementary School located approximately 900 feet to the east. Dust suppression techniques will be employed during construction activities to minimize dust generation. Dust suppression techniques include wetting the construction areas with water, placement of erosion control matting, and hydroseeding to stabilize disturbed areas immediately upon completion of soil disturbing activities. All soil disturbing activities in and near the dump footprint will be completed under the MPCA-approved VRAP that will include dust monitoring and control methodologies. Perimeter dust monitoring using real-time dust monitoring equipment will be employed to ensure that dust levels generated during construction activities remain below appropriate action levels. Scheduling construction activities during periods when school is not in session may also lessen the impact to nearby receptors.

The construction or operation of the site is not anticipated to generate significant 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.

Vehicle traffic and heavy equipment will generate additional noise in the project vicinity during construction of the ice arena; however, this noise will be limited to week days and normal business hours, and will be relatively short duration concluding upon completion of construction activities.

Once construction is complete, day-to-day noise generation is expected to be minimal since the ice arena activities will occur within the building. Excess noise in the site vicinity will be limited to intermittent noise occurring primarily during the facility's operational hours due to activities such as traffic and occasional horns during hockey games.

The site is located near schools, which are considered sensitive receptors. As most additional noise related to the ice arena will occur after school hours and on weekends noise impacts to the nearby elementary school are anticipated to be minimal.

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.

A traffic study was completed by Traffic Impact Group, LLC and has been included with this EAW as **Appendix D**.

Parking for the proposed ice arena will be served by an existing surface parking lot. The existing lot consists of 195 spaces plus eight handicapped spaces. It currently provides parking for soccer and baseball games during the Spring and Fall, and approximately 120 high school students have parking passes for the lot.

The ITE Parking Generation Manual, 2nd Edition states that 3.9 parking spaces are needed for every thousand square feet of building area for Land Use #465 "Ice Arena". The ice arena is proposed to be 58,000 square feet in size. According to ITE Parking Generation rates, the site would need 226 parking spaces.

Since varsity hockey events will occur in the winter, no spring or fall activities such as baseball or soccer games will impact parking for the proposed ice arena. However, high school students are permitted to use the existing parking lot, and it is reasonable to expect that there would be some overlap between normal student after-school parking and varsity hockey games. For those times, it is recommended to monitor the situation and restrict those student parking passes to prohibit parking at this lot during hockey games.

Based on observations of similar ice arenas in the Twin Cities, the proposed development is expected to generate 214 daily trips on non-event days. The data to determine this number was collected at Hasse Arena in Lakeville. On event days, the proposed arena is expected to see 286 vehicles per hour in the peak hour for Phase I. For Phase II, the site is expected to see 572 vehicles per hour in the peak hour. There is no transit in the area, and the site is located near the Gateway State Trail.

- 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,

A traffic impact study and event management plan was prepared (see **Appendix D**). Based on capacity analysis, no offsite improvements are recommended.

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

The event management plan noted that congestion could occur for vehicles exiting a varsity hockey game or other event in Phase II conditions. The event management plan recommended providing a traffic control officer for the conclusion of events.

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.

The proposed project area is one of the only vacant areas remaining on the Mahtomedi School Campus. The majority of the land owned by the Mahtomedi Public School has been developed for school uses including the High School, Middle School, Wildwood Elementary school and associated athletic facilities. Given the School Campus' current development pattern, the dump footprint is one of the last to be developed. The limited size and scope of the ice arena project in an area not currently used for school district or athletic events it is anticipated to have negligible additional impact, as evaluated throughout this EAW.

The removal of a significant volume of waste and contaminated soil from the dump footprint will have a net positive cumulative potential effect and reduce the potential for contaminant migration from the dump site.

- 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.

There are no other foreseeable projects in this area that would result in cumulative potential effects. Once the dump area is developed for school district/athletic use the geographic area of impact will be near capacity.

- 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.

Not applicable.

- 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.

None noted.

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 Kimberly

Date 8/2/18

Title City of Grant Administrator/Clerk

References

- Landmark Environmental LLC (Landmark). 2010. Environmental Investigation Report, Proposed New Elementary School, Mahtomedi, Minnesota. June 29.
- Braun Intertec Corporation (Braun). 2016. Geotechnical Evaluation, Mahtomedi Indoor Ice Rink Adjacent to 8000 75th Street North, Grant, Minnesota. April 21.
- Landmark. 2015. Phase I Environmental Site Assessment, 8678 75th Street North, Grant, Minnesota. August.
- Landmark. 2016. Wildwood Surface Water Sampling Report, Bellaire Transfer Station #2, 8678 75th Street North, Grant. MPVA Project Number VPI6951. September 15.
- Landmark. 2017. Revised Voluntary Response Action Plan, 8678 75th Street North, Proposed Ice Skating/Hockey Arena, Grant, Minnesota. November.
- Landmark. 2017a. Environmental Construction Contingency Plan, Proposed Ice Skating/Hockey Arena, Former Bellaire Sanitation Site, Grant, Minnesota. December.
- 292 Design Group. 2018. Amended Mahtomedi Ice Arena Feasibility Study, Mahtomedi, MN. March 29.
- Vinar, Kenneth R. 1980. Soil Survey of Washington and Ramsey Counties, Minnesota. April.
- United States Department of Agriculture (USDA). 2016. Custom Soil Resource Report for Washington County, Minnesota. October 13.
- Traffic Impact Group, LLC. 2016. Traffic Impact Study, Mahtomedi Ice Arena, Grant, Minnesota. November 16.

FIGURES

APPENDIX A

**Feasibility Study
(electronic copies only)**

APPENDIX B

Minnesota DNR Natural Heritage Review and Blanding's Turtle Flyer

APPENDIX C
EDR NEPA Report

APPENDIX D

Traffic Impact Study

APPENDIX E

Responses to Public Comments



MEMORANDUM

To: Mayor and City Council
Date: August 2, 2018

CC: Kim Points, City Administrator/Clerk
David Snyder, City Attorney
Rick Van Allen, Bay West
RE: Consideration of Environmental Assessment Worksheet for Rinc2 to construct an Ice Arena at 8678 75th Street North

From: Jennifer Haskamp, City Planner

Background and Application Request

The Applicant, Rinc2, proposes to construct a new ice arena on the Mahtomedi Public School complex located at 8678 75th Street North. The Applicant initiated the request by applying for a Conditional Use Permit to construct and operate the proposed building. Given the location of the proposed building on and/or near a closed dump site, the City Council ordered a discretionary Environmental Assessment Worksheet (EAW) to study the proposed project to further understand potential environmental impacts. To perform the work, the City engaged and hired a third-party environmental consultant, Bay West, to prepare and facilitate the EAW process.

Application Request

The process and EAW background are summarized in the Findings of Fact document prepared by Bay West, which is attached and included as part of this agenda item. Approval of a finding of “no need” for an EIS (Environmental Impact Statement) requires a 3/5 vote of the City Council.

City Discretion in Decision-Making

The City is the RGU (responsible governmental unit) for preparing this EAW and making a determination as to whether the project has the potential for significant environmental impacts.

The purpose of the EAW process is to evaluate the proposed project and determine whether there are any significant environmental impacts that cannot be adequately mitigated, or that require further study through an EIS process. The EAW should identify measures to protect the environmental, which if a “no need” determination is made, are included as conditions within the development review process and permitting.

If the EAW identifies significant environmental effects that cannot be effectively mitigated or reasonably minimized the City Council should order the preparation of an EIS. An EIS will not necessarily identify or disclose any more potential impacts, but instead focuses on examining project alternatives and additional mitigation that may lessen the environmental impacts identified within the EAW. The EIS would not serve



as a means to approve or deny a project and would be used within the decision-making process similarly to the EAW. Very few projects require an EIS because generally the EAW does an adequate job in identifying potential impacts and establishing mitigative measure. Minnesota Statute establishes that an EIS is only required if an EAW establishes and identifies the potential for significant environmental impacts. City Attorney Snyder can discuss this in more detail at the City Council meeting if requested.

To determine whether a project has potential for significant environmental effects the City Council should evaluate the following (Minnesota Environmental Rules Section 4410.1700, Subpart 7):

- Type, extent and reversibility of environmental effects;
- Cumulative potential effects of related or anticipated future projects;
- The extent to which the environmental effects are subject to mitigation by ongoing public regulator authority; and
- 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 EIS documents.

The City Council has three options with respect to the EAW:

1. Make a finding of “no need” for an EIS; or
2. Require additional information to address possible environmental effects not adequate discussed in the EAW. This must include specific identification and must be relevant to the EAW items; or
3. Order an EIS.

Action Requested: Bay West has prepared the EAW and Findings of Fact that includes the Response to Comments. They have concluded and recommend that the City Council determine that there is “no need” for the preparation of an Environmental Impact Statement. Staff has prepared a draft resolution declaring a finding of “no need” which is attached for your review and consideration.

ATTACHMENTS:

Findings of Fact and Record of Decision

EAW Form is attached to FOF, full EAW is available electronically from the City

Resolution 2018-15

**CITY OF GRANT, MINNESOTA
RESOLUTION NO. 2018-15**

**RESOLUTION DECLARING A FINDING OF “NO NEED” FOR AN
ENVIRONEMTNAL IMPACT STATEMENT (EIS) BASED ON THE AMENDED EAW
DATED JULY 2018 FOR THE MAHTOMEDI ICE ARENA PROJECT
PROPOSED AT 8678 75TH STREET NORTH**

WHEREAS, the City Council ordered a discretionary Environmental Assessment Worksheet (EAW) be prepared for the Mahtomedi Ice Arena Project (“Project”) at their regular City Council meeting on September 6, 2016; and

WHEREAS, Rinc2 (Project Proposer) made an application for an EAW as requested by the City Council; and

WHEREAS, pursuant to the Minnesota Environmental Review Program Rules 4410.4300, Subpart 36 the City of Grant is the responsible government unit (“RGU”) submitted an Environmental Assessment Worksheet (EAW) for the Project; and

WHEREAS, the EAW was published in the February 6, 2017 edition of the EQB Monitor, which established the 30-day public comment period that commenced on March 8, 2017; and

WHEREAS, during the comment period substantive comments were submitted to the City of Grant from several agencies and members of the public that required additional and supplemental information be provided by the Project Proposer in order for the City to make an informed EIS need decision; and

WHEREAS, the supplemental information provided by the Applicant changed the EAW Project Description which required that an Amended EAW be prepared to evaluate the supplemental information consistent with the Minnesota Environmental Review Program Rules; and

WHEREAS, the Amended EAW was published in the June 4, 2018 edition of the EQB Monitor, which established the 30-day comment period that commenced on July 5, 2018; and

WHEREAS, the City received eleven comment letters during the comment period of the Amended EAW that are incorporated by reference in the Record of Decision and all comments and recommendations received from the reviewing agencies and other interested parties have been considered; and

WHEREAS, responses were prepared for comment letters received and the response to comments are provided in the Record of Decision; and

WHEREAS, it has been determined that the proposed Project does not present a potential for environmental impacts of such significance that an Environmental Impact Statement would be required; and

WHEREAS, pursuant to Minnesota Rules, Section 4410.1700, the RGU shall base its decision regarding the need for an EIS on the information gathered during the EAW process, the comments received on the EAW, and the criteria established by the EQB to determine whether a Project has the potential for significant environmental effects as provided in the Record of Decision; and

WHEREAS, the City Council has considered the EAW and the Record of Decision at their regular City Council meeting on August 7, 2018.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRANT, WASHINGTON COUNTY, MINNESOTA, that it does hereby make a Negative Declaration on the need for an Environmental Impact Statement (EIS) for the proposed Mahtomedi Ice Arena based on the EAW and Record of Decision, which is hereby approved, adopted and incorporated herein. T

Adopted by the Grant City Council this 7th day of August 2018.

Jeff Huber, Mayor

State of Minnesota)
) ss.