July 2013 version

ENVIRONMENTAL ASSESSMENT WORKSHEET

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

1. **Project title: Summerland Place**

2. **Proposer:**
Contact person: Casey Wollschlager
Title: Summergate Companies Chief Operating Officer
Address: 17305 Cedar Ave #200
City, State, ZIP: Lakeville, MN 55044
Phone: 952-898-3461
Fax:
Email: casey@summer-gate.com

3. **RGU**
Contact person: Mark Noble
Title: Senior Planner
Address: 485 Gorman St.
City, State, ZIP: Shakopee, MN 55379
Phone: 952-233-9348
Fax:
Email: mnoble@shakopeemn.gov

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

Required:	Discretionary:
☐ EIS Scoping	☐ Citizen petition
X Mandatory EAW	☐ RGU discretion
	☐ Proposer initiated

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

Subpart 19(D) (Residential Development)

5. **Project Location:**
County: Scott
City/Township: Shakopee
PLS Location (¼, ¼, Section, Township, Range): SE ¼ Section 8 and SW ¼ Section 9 of Township 115 and Range 22
Watershed (81 major watershed scale): Minnesota River – Shakopee (33)
GPS Coordinates: 44.777896, -93.482982
Tax Parcel Number: 279080021, 279080030, 279080690, 270470330, 270470320, 270470310, 270470340, 270470300, 270470350, 270470290

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).

Summergate is proposing a phased residential development on 115 acres in the City of Shakopee. The project includes developing 300 apartment units, 68 townhome units, and 222 detached unit lots totaling 590 housing units over five phases. The project also includes associated utilities, stormwater basins, parking lots, internal roads, an apartment office building, and an apartment community building.

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.

Summergate is proposing the Summerland Place residential development (project/site) within the City of Shakopee, located north of 17th Avenue East, west of Canterbury Road S, and south of US Highway 169 (US 169) (**Figures 1-3, Appendix A**). The site is comprised of ten parcels totaling 115 acres and will be developed to include 105 50-foot villa lots, 117 65-foot single family lots, 68 townhome units, and 300 apartment units (**Figure 4, Appendix A**). The project will include new infrastructure such as curb and gutter stormwater routing and treatment, watermain connection, sanitary sewer connection, and other utilities typical of a residential development. Construction will occur in five phases, with the central single-family home lots and villa lots, as well as the townhome units to the north built during the first phase. The second phase would then construct the single-family lots, villa lots, and townhomes to the east and west of the central phase one area. Phase three and four would continue to expand east and west from Phase two. Phase five would construct the apartments. The project schedule is as follows:

- February 2020 – City Council EAW Review
- Approximately May 2020 – PUD application approval by City
- May 1, 2020 – Phase 1 Construction Start
- December 1, 2020 – Phase 1 Construction End
- Subsequent phases will be developed to support the housing demand.

Site Preparation and Grading – Approximately 115 acres of agricultural fields will be graded for development and removed from crop production. All grading and soil disturbance activities will occur in accordance with the National Pollutant Discharge Elimination System Construction Stormwater Permit (NPDES permit) issued by the Minnesota Pollution Control Agency (MPCA) as well as project specific measures outlined in the project's Stormwater Pollution Prevention Plan (SWPPP). The site will be graded in phases as the development occurs to prevent unnecessary soil erosion. Typical subgrade preparation is expected and includes removing existing vegetation, topsoil or organic soil, soft clay and unsuitable soils, along with proper compaction of soils. Seven stormwater basins will be constructed at depths ranging between 4-10 feet below grade to allow for stormwater treatment. Along the north side of the site, three areas will also be constructed as one-acre gardens and an area of enhanced landscape will be constructed north of the apartments.

Utilities –

- Watermain: The development will connect to the municipal water supply at the north and south/southwest portions of the development. The Shakopee Public Utilities Commission (SPUC) will be the service provider.
- Sanitary Sewer: The generated wastewater will be collected on site through a network of gravity sanitary sewer pipes and will be discharged to MCES Interceptor 9206-1. It will be treated at the MCES Blue Lake Wastewater Treatment Plant (WWTP) in Shakopee. Further detail regarding the wastewater needs of the project are discussed under Item 11.
- Gas Pipeline: an existing gas pipeline extends from the west side of the site to the southeast and then crosses 17th Avenue. This easement will remain through the development. Another gas pipeline is located at the north side of the site where the one-acre gardens are proposed. This easement will also remain in place.
- Stormwater: an existing stormwater pipe extends from the south side of the site just west of Philipp Way to the stormwater basin located at the north side of the site. Seven stormwater basins will treat and hold water from the development. Curb and gutter will be constructed along new internal streets.
- Overhead Powerlines: Existing overhead powerlines run east to west across the northern side of the project site. Three stormwater basins are located under these powerlines and no residential units are proposed at this location.

Building Construction – Building construction includes 105 50-foot villas, 117 65-foot single family homes, 68 townhome units, and 300 apartment units. The houses and townhouses will have partial- or full-depth basements, or no basements depending on site conditions.

Roads/Paving – The development will include internal roads with curb and gutter, sidewalk, and trails. The project will include the construction of four new east-west streets throughout the development connecting to Downing Avenue and Tyrone Drive South. Two small side streets will also be added to access townhome units. England Way and Philipp Way will both be extended to the north. An entrance to the apartments will be accessed from 17th Avenue. A trail will be constructed at the north end of the site near the stormwater basins. The trail will connect to Killarney Hills Park located east of the development near Tyrone Drive.

c. Project magnitude:

Table 1. Project magnitude of the Summerland Place Development.

Total Project Acreage	115 acres
Linear project length	NA
Number and type of residential units	300 Apartment Units, 68 Townhome Units, 222 Detached Units
Commercial building area (in square feet)	0
Industrial building area (in square feet)	0
Institutional building area (in square feet)	0
Other uses – specify (in square feet)	0
Structure height(s)	1-3 stories

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 Summerland Place development is proposed by private developers. The project will provide housing to meet the needs for increased housing in the City of Shakopee and Scott County per the guided land uses.

e. Are future stages of this development including development on any other property planned or likely to happen? ☐ *Yes* X *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* X *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:*

Cover types within the project site are shown below in **Table 2** and in **Figure 5, Appendix A.**

Table 2. Existing and proposed cover types for Summerland Place.

	Before	**After**		**Before**	**After**
Wetlands	0	0	Lawn/landscaping	0	62
Deep water/streams	0	0	Impervious surface	0	46
Wooded/forest	0	0	Stormwater Pond	0	7
Brush/Grassland	0	0	Other (describe)	0	0
Cropland	115	0			
			TOTAL	**115**	**115**

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.*

Table 3. Approvals and Permits Required.

Unit of Government	**Type of Application**	**Status**
State		
Department of Natural Resources	Water Appropriation Permit	To be obtained, if needed
Pollution Control Agency	NPDES/SDS Stormwater Permit	To be obtained
	Sanitary Sewer Extension	To be obtained
Department of Health	Watermain Plan Review	To be obtained, if needed

Unit of Government	Type of Application	Status
Metropolitan Council Environmental Services	Sanitary Sewer Extension Concurrence	To be obtained
	Direct Connection Permit	To be obtained
County		
Scott County	Final Plat Approval	To be obtained
Local		
City of Shakopee	Development Application/Land Disturbance Plan	To be obtained
	Planned Unit Development Application Approval	To be obtained
	Preliminary and Final Plat Approval	To be obtained
	Zoning Map Amendment	To be obtained

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.

Existing Land Use

Existing land use of the site is agricultural. The project contains both prime and unique farmlands. The central portion of the project site is mapped as prime farmland based on the Scott County Soil Survey (**Figure 10, Appendix A**). The northern part of the site adjacent to US 169 is identified as farmland of statewide importance. **Table 4** shows which farmland classifications occur within the project site based on soil type:

Table 4. Farmland Classification at Summerland Place.

Soil Type Map Unit	Farmland Classification
DaB	All areas are prime farmland
WaA	All areas are prime farmland
DaA	All areas are prime farmland
DaB2	All areas are prime farmland
EaB2	Farmland of statewide importance
DbA	Farmland of statewide importance
EaA	Farmland of statewide importance
DbC2	Not prime farmland
HeA	Not prime farmland

Surrounding Land Use

Land use to the west, southwest, and northeast of the site is residential, with a combination of townhomes and single-family homes. Immediately east of the site is additional agricultural land, then slightly farther east are commercial buildings comprised of retail stores. The Shakopee Gravel, Inc. gravel mine is located to the southeast of the site across

17th Avenue but is guided for Single Family Residential. US 169 borders the site to the north. Northwest of US 169 is a residential area consisting of single-family homes, the Evergreen Heights Townhomes, Shakopee Fire Department, and the King of Glory Lutheran Church. Northeast of US 169 is Seagate Technology and Canterbury Park. Killarney Park is located to the east of the project site between Sharon Parkway and Tyrone Drive South.

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.*

The planned land use for the site is guided Medium Density Residential for the western portion and Single Family Residential for the eastern portion based on the 2030 Comprehensive Plan (**Figure 6, Appendix A**). The Proposed Unit Development (PUD) land use is Medium Density Residential for the entire project site.

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

Current zoning of the site is R2 - Medium Residential for the western portion and RR - Rural Residential for the eastern part (**Figure 7, Appendix A**)**.** The site is not located within a special district or overlay. Proposed zoning for the site will be defined by the PUD.

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

The properties to the north and west are guided Medium Density Residential, the properties to the south and east are guided Single Family Residential, and the properties farther to the east are guided Commercial. These guided uses and the existing residential developments around the project site are all compatible with the proposed development. The existing neighborhood to the northeast contains an open space area, between Sharon Parkway and Tyrone Drive South, that will be the site of the future Killarney Hills Park. Killarney Hills Park will serve as the local park for Summerland Place and the trail system proposed within the development will provide connection to this park. US 169 is located directly north of the project site and the properties north of US 169 are guided Medium Density Residential and Single Family Residential, consistent with the proposed site.

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

The project site is zoned as R2 – Medium Residential and RR - Rural Residential. The project will need to be rezoned as a Planned Unit Development (PUD) to meet the community density and land use goals for this site prior to construction.

10. Geology, soils and topography/landforms:

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.

Surface geology at the project area consists of lower terrace alluvium deposits of the Holocene and Pleistocene Epcoh (**Figure 8, Appendix A**). These lower terrace deposits are located 30 to 50 feet above the present flood plain, are less than 50 feet in thickness, and consist of wind and stream deposited sand and silt.

According to the Minnesota Geologic Survey, bedrock at the project area is less than 50 feet below grade and consists of sandy dolomite with thin beds of quartzose sandstone of the Prairie du Chien Group (**Figure 9, Appendix A**). Additionally, the Minnesota Department of Health (MDH) Minnesota Well Index identified multiple domestic wells at the east adjacent residential development that encountered limestone bedrock less than 50 feet below grade.

The Minnesota DNR Aggregate Resource Web Map did not identify any gravel pits at the project area and the sand and gravel quality is identified as good to moderate with a water table greater than 20 feet below the land surface. A sand and gravel mine is located to the southeast of the property.

According to the Minnesota Karst Land Map, the project area is located in a region that is prone to surface karst feature development. Due to the shallow and soluble bedrock (limestone and dolomite) identified at the project area, there is a potential for karst conditions to be problematic for future development of the site, if present. Stormwater basins overlying karst features have the potential of creating sinkholes as a result of the additional weight of water. The use of infiltration stormwater basins in combination with soluble bedrock conditions can lead to erosion of bedrock and may allow pollutants to rapidly pass through the subsurface into the groundwater creating a greater risk of ground water contamination.

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.

Table 5 lists the soils in the project area (**Figure 10, Appendix A**). The soils on the site are all generally well drained or somewhat excessively drained and non-hydric with a hydric rating of 10 percent or less. The geotechnical evaluation indicated that sand and silt samples from soil boings showed moisture content generally below optimum moisture contents. The clay soil samples were likely wetter than their optimum moisture content. The existing site topography is relatively flat across the portion of the site with proposed housing, ranging from 814 ft to 818 ft above mean sea

level (AMSL). The northern part of the site slopes slightly downhill to the north to an elevation of 794 ft AMSL, but slopes are generally less than 12% with low erosion risk. According to the Web Soil Survey, erosion hazard for the majority of the site is slight with an area of moderate erosion hazard located near the north end of the site where the proposed storm basins will be located. Limitations from soil stability are not anticipated within the project site. Approximately 115 acres of land will be graded for this project and 432,000 cubic yards of material will be moved, with the majority of excavation occurring in the stormwater basin locations. Excavated materials will be reused onsite. Based on the geotechnical report, on-site soils free of organic materials are suitable for reuse onsite as fill. Silty or clayey soils are present onsite, and if disturbed, may require additional moisture conditioning and compacting to stabilize if disturbed.

As noted in the geology section, this site is located in an area that is prone to surface karst features which may have implications during excavation. The project will be required to prevent erosion and control sedimentation per the NPDES/SDS stormwater construction permit.

Table 5. Scott County Soil Survey

Map Unit Symbol	Soil Name	Percent Slope
DaA	Dakota loam	0% to 2%
DaB	Dakota loam	2% to 6%
DaB2	Dakota loam	2% to 6%, moderately eroded
DbA	Dickman sandy loam	0% to 2%
DbB	Dickman sandy loam	2% to 6%
DbC2	Dickman sandy loam	6% to 12%, moderately eroded
EaA	Estherville loam and sandy loam	0% to 2%
EaB2	Estherville loam and sandy loam	2% to 6%, moderately eroded
HdB2	Sparta fine sand	2% to 6%
HeA	Sparta loamy fine sand	0% to 2%
HeB2	Sparta loamy fine sand	2% to 6%
Ta	Terrace escarpments	N/A
TcB	Terril loam	2% to 6%
WaA	Waukegan silt loam	0% to 2%

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.

The DNR National Wetlands Inventory depicts one wetland within the project site (**Figure 11, Appendix A**). The wetland is depicted as a PEM1Af freshwater emergent wetland within the agricultural field; however, an official wetland delineation has been conducted for the site and it was determined that no wetlands are present. No DNR Public Water basins or watercourses, intermittent channels, or county/judicial ditches are located within the site. The Minnesota River (DNR PWI No. 104280) is located 1.8 miles to the north and Deans Lake (DNR PWI No. 70007401) is located 0.75 miles to the east of the site. No MPCA 303d impaired waters are located within one mile of the site.

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.

The City of Shakopee pulls water from the Jordan, Mt. Simon, and Franconia/Ironton-Galesville aquifers at varying depths below the surface. The Jordan aquifer generally supplies wells near the project site. According to the DNR Spring Inventory, no natural springs or seeps are located within the project site. The Minnesota Hydrogeology Atlas HG-03 shows the groundwater to be more than 10-20 ft below the surface in the west part of the site, more than 20-30 ft below the surface in the east part of the site, and more than 30-40 ft below the surface at the far east edge of the site. The geotechnical evaluation of the site reported that groundwater was not encountered in any soil borings to depths of 14 ½ feet below existing grade, but seasonal fluctuations of groundwater should be anticipated. According to the Minnesota Well Index, no wells are located within the project area. The nearest wells to the site are private domestic wells located at the homes along Sharon Parkway and Tyrone Drive to the northeast of the site. The well logs at the residences along Sharon Parkway show the static water level between 65 and 75 feet below the surface. If unknown wells are encountered during construction, they will be properly sealed per Minn. R. ch. 4725.

The project is located within the Shakopee wellhead protection area (ID No. 48201) and within the Shakopee drinking water supply management area (ID No. 482). Because the site is located within a “High Vulnerability” Drinking Water Supply Management Area (DWSMA) and also within a DNR Wellhead Protection Area, stormwater BMP design must follow the process for determining applicability of infiltration onsite.

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.

Municipal/domestic wastewater generated from the project will be treated at the MCES Blue Lake WWTP in Shakopee and the Blue Lake WWTP has adequate capacity to treat the additional flow.

The generated wastewater will be collected on site through a network of gravity sanitary sewer pipes and will be discharged to MCES Interceptor 9206-1 at one of two locations:

1) An estimated 105 residential units will ultimately be connected to an existing 15-inch sanitary sewer main owned by the City of Shakopee. The 15-inch City sewer main connects to MCES Interceptor 9206-1 near the northwestern corner of the proposed development.
2) An estimated 485 residential units will be directly connected to the MCES Interceptor through a new 8-inch connection about 1200 feet west of Eagle Creek Boulevard.

Table 6. Summary of the estimated wastewater flows anticipated from the project.

MCES Connection	No. of Units	Average Flow (gpd)	Peak Flow (gpd)	Connection Size (in)
Existing (west)	105	25,020	100,080	8
New (east)	485	78,110	312,440	8
Totals	590	103,130	412,520	

According to MCES staff, with the City's recent adoption of its 2040 Comprehensive Plan, development of the service area south of Interceptor 9206-1 can begin and the Interceptor has adequate capacity to convey flows from the proposed project.

3) 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.

Wastewater will not discharge to a subsurface sewage treatment system.

4) *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.*

Wastewater will not discharge to a surface water.

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.*

Existing Conditions

Under existing conditions, the site contains primarily agricultural crop land with a small wetland identified by the National Wetland Inventory (NWI) shown in **Figure 11.** The total site size is approximately 115 acres. According to the FEMA's Flood Insurance Rate Map (FIRM), the site is located in a Zone X and is not in the 100-year floodplain.

The western half of the site drains to the north into an existing stormwater pond within MnDOT right-of-way just south of US 169. An existing 48-inch diameter storm pipe is shown through the western area of the site to direct drainage from the residential development to the south into the stormwater pond. The eastern half of the site drains to the northeast into the storm sewer system along Eagle Creek Boulevard where it eventually flows to Blue Lake via the Prior Lake Outlet Channel.

The Natural Resources Conservation Service (NRCS), formerly Soil Conservation Service (SCS) publishes soil data for Scott County, available on the Web Soil Survey. The soils are generally characterized as hydrologic soil group (HSG) A and B based on the Web Soil Survey. Conservatively, curve numbers used for modeling purposes for this EAW were defined using the HSG B classification for both existing and proposed conditions.

A HydroCAD model was created to evaluate existing discharge rates for the site. The model was based on current site conditions. Atlas 14 MSE3 storm event depths that were simulated in the model are provided in **Table 7** below. Rate control will be required for the 2-year, 10-year, and 100-year 24-hour rainfall events.

Table 7: Atlas 14 MSE3 Storm Events

Storm Event	Rainfall Depth (in)
2-Year, 24-hour	2.86
10-Year, 24-hour	4.24
100-Year, 24-hour	7.39

Existing peak discharge rates for the site are provided in **Table 8**.

Table 8: Existing Peak Discharge Rates Leaving the Site

Storm	North Discharge Rate (cfs)	Northeast Discharge Rate (cfs)
2-Year	64.8	35.5
10-Year	127.0	74.1
100-Year	280.1	172.1

Relevant Regulations and Considerations

The City of Shakopee regulates stormwater runoff rate, volume and water quality. These regulations are detailed in the City of Shakopee Design Criteria, dated October 2017 and City of Shakopee Chapter 54 Ordinance: Water Resources Management. The site is located within the Lower Minnesota Watershed District. This watershed district has adopted standards that must be implemented by the City of Shakopee but does not currently have a permitting program of their own.

The site must meet the following criteria:

- Capture and retain on site 1.0 inches of runoff from the new impervious surfaces in post-construction conditions.
- Maintain existing flow rates for the 2, 10, and 100-year 24-hour Atlas 14 storm events.
- It is required to have a no net increase from pre-project conditions of TSS and TP. The water quality control standards shall be considered satisfied if the volume control standard has been satisfied.
- If ponding is used, a permanent pool pond volume equal to 2.5 inches of rainfall over the entire contributing drainage area, assuming full development.
- Pretreatment must be provided if infiltration or filtration is used.

The site is located within a “High Vulnerability” Drinking Water Supply Management Area (DWSMA) and also within a DNR Wellhead Protection Area. Stormwater BMP design must follow the process for determining applicability of infiltration onsite.

This project will disturb more than one acre of land and will need to obtain an NPDES Construction Stormwater General permit from the MPCA. Following the rules and

regulations in this permit, the project will utilize best management practices (BMPs) to prevent erosion and control sedimentation. The location and maintenance of all BMPs used on this project will be described in the project Stormwater Pollution Prevention Plan (SWPPP). Changes to BMPs during construction will also be documented in the SWPPP.

All grading and erosion control plans shall also conform to the most recent editions of the Minnesota Stormwater Manual, the National Urban Runoff Program (NURP), MPCA Minimal Impact Design Standards (MIDS), the City of Shakopee Surface Water Management Plan, and City Standard Detail Plates.

Proposed Conditions

The proposed concept plan shows a mixture of single-family homes, townhomes and apartment buildings (**Figure 4, Appendix A**). The estimated total amount of impervious for this development is 46.3 acres. Retaining 1.0-inch from the total new impervious requires a total of 3.9 acre-feet or approximately 168,000 cubic feet of stormwater to be retained on site if using infiltration.

A HydroCAD model was used to approximate the proposed discharge rates for the site. The proposed model was based on the preliminary concept development design and it was assumed that existing drainage patterns will be maintained post-project. **Table 9** below shows the approximate proposed discharge rates prior to any stormwater management BMPs.

Table 9: Proposed Peak Discharge Rates Leaving the Site

Storm	North Discharge Rate (cfs)	Northeast Discharge Rate (cfs)
2-Year	72.4	48.3
10-Year	141.7	94.4
100-Year	312.3	207.3

Proposed stormwater discharge rates for both the north and northeast point will be required to be less than existing.

A geotechnical evaluation, including soil borings, was completed for the site in April 2019. Soil boring results indicate poorly graded sand and silty sand is most prevalent. Groundwater was not observed in any soil boring. The soil type indicates that infiltration could be evaluated as a possible stormwater BMP to meet volume control, pending approval of infiltration within a “High Vulnerability” DWSMA.

If infiltration is not recommended, the development might utilize alternative volume reduction BMPs, filtration BMPS, or stormwater ponds. The current concept plan shows approximately 7.5 acres of stormwater ponds. The proposed storm sewer system for the site will be routed to the stormwater ponds or other proposed onsite BMPs. The proposed ponding areas shown in the concept plan will need to be further evaluated as the project moves forward. Existing drainage patterns will need to be maintained along with following the requirements outlined in the previous section. The design plans and

stormwater management report need to be submitted for review prior to the City issuing a grading permit.

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.*

Water appropriation may be needed during construction in locations that may have a shallow water table or perched water table. Summergate will apply for a permit through the DNR if appropriation is in excess of 10,000 gallons per day or one million gallons per year. The quantity and duration of pumping will depend on the needs at the time of construction. Pump inlets and outlets will be protected with BMPs to prevent transport of latent sediments from the construction dewatering operation. There are no groundwater-dependent natural features in the project area and water will generally remain within its source. No environmental effects from construction-related water appropriation are anticipated.

No known wells are located within the project area and well abandonment is not anticipated (**Figure 12, Appendix A**). The western two-thirds of the proposed development is within the 2030 and 2040 Metropolitan Urban Service Area (MUSA) and the remaining portion of the project site is undesignated. According to the MPCA, the undesignated areas of the MUSA are areas where an agreed upon acreage of urban sewer service can be added.

The development will connect to Shakopee Public Utilities (SPU). This connection will provide a positive impact to the water system infrastructure by improving the looping system in this area of the community with connections from the east and the south/southwest.

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.

The DNR Wetlands Inventory shows one mapped wetland within the project area (**Figure 11, Appendix A**). The wetland is described as a palustrine emergent persistent temporarily flooded farmed wetland (PEM1Af). The site was further investigated, and a wetland delineation was conducted within the project area which found that there are no wetlands located within the site. The Local Government Unit (LGU), the City of Shakopee, administering the Wetland Conservation Act (WCA) approved this decision. Therefore, no wetlands are located within the project and impacts to wetlands will not occur.

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.*

No surface water features are located within the project area. Stormwater runoff from the site will be directed to seven stormwater basins for treatment and retention onsite. This project will not affect surface water features.

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.

Publicly available data from the MPCA database was reviewed to identify verified or potentially contaminated sites that may be encountered during the proposed development (**Figure 13, Appendix A**). The following database listings were reviewed:

- MPCA "What's in my neighborhood?" website

- MPCA Storage Tank Leak Site website
- US Department of Agriculture "What's in my neighborhood?" website

No listings are located within the project area according to the "What's in my neighborhood?" mapping application.

Within 1,000 feet of the project area, there are eight records:

1. Prairie Village 4th & 5th Addition (Site ID 5671) – Construction stormwater permit
2. Sun Path Elementary School (Site ID 131017) – Underground tanks
3. Shakopee Area Catholic School (Site ID 69747) – Construction stormwater permit
4. Dublin Square (Site ID 49648) – Construction stormwater permit
5. Danny's Construction Co Inc (Site ID 21260) – Hazardous waste, very small quantity generator
6. Formerly Distribution Construction Co (Site ID 105672) – Underground tanks
7. St. Francis Radiology Therapy Center Inc (Site ID 27584) – Hazardous waste, very small quantity generator
8. Shakopee Tire & Auto (Site ID 97395) – Hazardous waste, very small quantity generator

These records will have no adverse effect or potential for contamination to the project site. If any contaminated soil/groundwater or hazardous material is encountered during construction, necessary steps to remediate will be taken.

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.

No known solid wastes are located on the site prior to development. If any petroleum tanks or other chemical tanks are encountered during construction, they will be accounted for and properly disposed of.

Solid wastes and construction debris generated will be those typical of construction of residential development. Solid wastes and construction debris will be disposed of in conformance with state standards.

The proposed development includes residential housing. No manufacturing or industrial facilities are planned for the site. Solid wastes typical of a residential development will be generated by this site after construction is completed. Homeowners will be required to dispose of solid wastes through a licensed hauler, consistent with the City's policies.

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 amounts of hazardous materials typical of a construction site (e.g. fuel, oil, paint, hydraulic fluid, etc.) will be stored in approved, sealed containers and proper storage conditions. As required by the NPDES permit pollution prevention measures (Minn. R. ch. 7090), containers will have secondary containment where applicable.

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.*

Construction of this project will not involve the generation of significant amounts of hazardous waste beyond those typical of a construction site. All hazardous materials and/or toxic wastes generated during construction will be disposed of in compliance with the Minn. R. ch. 7045. No adverse effects to the site will occur with the minimal generation of hazardous wastes. Contamination from construction materials will be minimized by following the pollution prevention measures of the NPDES permit.

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 project site consists of cropland and is surrounded by impervious surfaces (residential and industrial development) and a sand/gravel mine. Few natural habitats such as forests, native grass meadows, or water resources are located within the project area or the surrounding vicinity that would benefit wildlife. A few mixed trees are located at the eastern edge of the project as a farm wind break, but do not form a large enough area to provide substantial wildlife habitat. These trees also do not provide connectivity to other natural resources.

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-789) and/or correspondence number (ERDB 20200177) 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.

A Natural Heritage Information System (NHIS) database search (LA-789) did not show any state-listed rare features within the project site or nearby. An official NHIS request was also sent to the DNR, who determined that the project would not negatively affect any known occurrences of rare features (**Appendix B**).

According to the Fish and Wildlife Service's Information for Planning and Consultation tool (IPaC), the northern long-eared bat (*Myotis septentrionalis*) is a federally threatened species that may be found in Scott County. The site has limited to no habitat available for this species. Tree removal will consist of 15-18 trees along the southwest side of the site adjacent to 2530-2590 Queen Drive. The project proposer will be required to incorporate these removals into their tree management and landscaping plan to be approved by the City. According to the DNR hibernacula/roost site map, the project is not listed within a township of concern. A known roost site is located in the township to the west, but this project will not affect that area. No other federally listed species are located within the project location's county.

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 know threatened and endangered species.

The existing conditions at the site are cropland with limited and unsuitable natural habitats for fish, wildlife, plant communities, and rare features. Agricultural landcover, such as plowed open space or crop thatch, may be used as a landing area for birds such as geese or sandhill cranes, or by other species typical of an agricultural area such as deer, coyotes, raccoons, squirrels, etc., but these types of wildlife species are generally well adapted to agricultural, disturbed, and suburban environments outside of preferred natural habitats. This project will involve grading and excavation within the project site, construction of internal roads, and development of residential lots, townhomes, and apartments. The development of this site will not impact any existing natural resources that benefit wildlife. After development of the site is complete, it is likely that the site will no longer be used as a landing area for geese and cranes, if currently used. Other species well adapted to suburban environments may still be found at the site post-construction. Given that the existing conditions are

unsuitable wildlife habitat, no effects to fish, wildlife, plant communities, or rare features are expected.

Invasive species may occur within or near the edges of the site due to the frequent soil disturbance from agricultural activities. No site-specific information regarding the presence of invasive species has been collected. The US Department of Agriculture National Invasive Species Information Center, Minnesota Department of Agriculture (MDA), and the DNR provide information regarding BMPs to prevent the spread of noxious weeds and invasive species. Appropriate actions such as cleaning equipment, destroying existing invasive species, and limiting soil disturbance in areas of known invasive species will limit the spread and contamination of other areas of the project site. If necessary, spraying invasive species with an herbicide may be necessary for control, especially in locations of soil grading and stockpiling between project phases.

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

Development will convert agricultural land to residential housing and will not have adverse effects to fish, wildlife, plant communities or sensitive ecological resources. While there are not high-quality plant or wildlife resources, some impact to wildlife resources could be anticipated from the conversion of open space to housing. BMPs, active management, and project phasing will be used to prevent the spread of any possible invasive species onsite.

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 database search request was sent to the State Historic Preservation Office (SHPO) on October 21, 2019 for any known listings of historical properties or archaeological sites within the project area (**Appendix B**). The response from SHPO dated October 22, 2019 indicated that there are no listings within the project area.

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.

There are no scenic views or vistas on or near the project site. The site is located within relatively flat terrain and is located in a highly developed suburban area. The development will be similar to other developments in the area and will not generate vapor plumes or intense lights when complete. Therefore, no visual impacts are anticipated.

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.

No stationary source of emissions is anticipated with the development of this area.

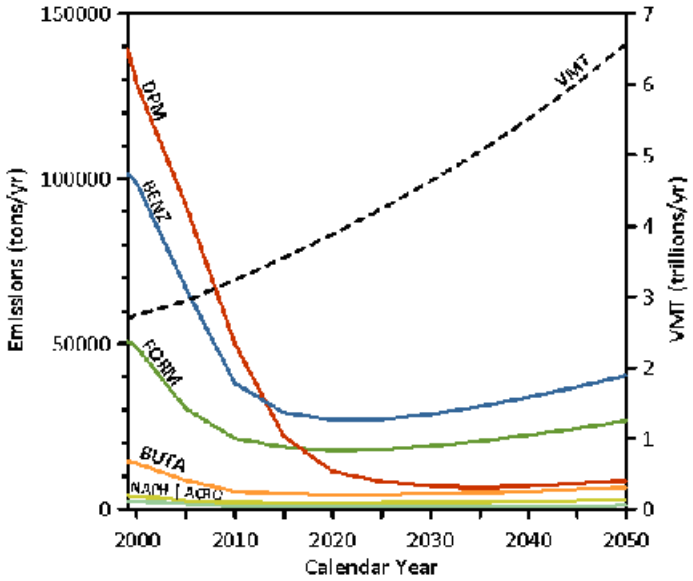
b. *Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate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

The EPA has identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS). In addition, the EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers. These are acrolein, benzene, 1, 3-butadiene, diesel particulate matter, plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While Federal Highway Administration (FHWA) considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules. EPA rule requires controls that will dramatically decrease Mobile Source Air Toxin (MSAT) emissions through cleaner fuels and cleaner engines.

For this EAW, the amount of MSAT emitted would be proportional to the average daily traffic (ADT). The ADT estimated for the proposed site development is higher than that for the no build condition, because the project involves new development that produces additional trips. This increase in ADT means MSAT under the build scenarios would probably be higher than the no build condition in the project area. There could also be localized differences in MSAT from indirect effects of the project such as associated access traffic, emissions of evaporative MSAT (e.g., benzene) from parked cars, and emissions of diesel particulate matter from delivery trucks. Travel to other destinations would be reduced with subsequent decreases in emissions at those locations.

For the proposed site development, emissions are virtually certain to be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent from 1999 to 2050, as shown in the following graph. The magnitude of the EPA-projected reductions is so great (even after accounting for ADT growth) that MSAT emissions in the project area are likely to be lower in the future than they are today.

NATIONAL MSAT EMISSION TRENDS 1999 - 2050
FOR VEHICLES OPERATING ON ROADWAYS
USING EPA's MOBILE6.2 MODEL



Note:
(1) Annual emissions of polycyclic organic matter are projected to be 561 tons/yr for 1999, decreasing to 373 tons/yr for 2050.
(2) Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors
Source: U.S. Environmental Protection Agency. MOBILE6.2 Model run 20 August 2009.

The U.S. Environmental Protection Agency (EPA) has designated all of Hennepin, Ramsey, Anoka, and portions of Carver, Scott, Dakota, Washington, and Wright Counties as a maintenance area for carbon monoxide. The EAW project area is in Scott County in the City of Shakopee which is in this carbon monoxide maintenance area.

In summary, it is expected there will be slightly higher MSAT emissions in the project area with the project relative to the no build condition due to increased ADT. There also could be increases in MSAT levels in a few localized areas where ADT increases. However, the EPA's vehicle and fuel regulations will bring about lower MSAT levels in the future when compared to today.

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.*

During construction, particulate emissions will temporarily increase due to generation of fugitive dust. The nearest and most sensitive receptors to the construction activity are the residential properties that immediately surround the property. Construction dust control is required to be in conformance with City ordinances and the NPDES Construction Stormwater permit. The

construction and operation of the proposed site development is not anticipated to involve processes that would generate 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.

Construction noise levels and types typical of construction equipment will occur because of this project. Construction noise will be limited to daytime hours consistent with the City's construction and noise ordinances. Construction equipment will be fitted with mufflers that will be maintained throughout the construction process. **Table 10** below summarizes the peak noise levels of common types of construction equipment.

Table 10: Typical Roadway Construction Equipment Noise Levels at 50 Feet.

Equipment Type	Manufacturers Sampled	Total Number of Models in Sample	Peak Noise Level (dba)	
			Range	Average
Backhoe	5	6	74-92	83
Front Loader	5	30	75-96	85
Dozer	8	41	65-95	85
Grader	3	15	72-92	84
Scraper	2	27	76-98	87
Pile Driver	N/A	N/A	95-105	101

Source: United States Environmental Protection Agency and Federal Highway Administration

The proposed development is located immediately south of US 169. Noise levels are expected to increase in the future, as additional traffic is added to the roadway from development to the west. The MPCA enforces the State's noise rules. For residential locations, the limits are L_{10} = 65 decibels (dBA) and L_{50} = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.). This means that during a 1-hour period the daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time and cannot exceed 60 dBA for more than 50 percent of the time. Nighttime (10:00 p.m. – 7:00 a.m.) noise limits are L_{10} = 55 dBA and L_{50} = 50 dBA.

The Minnesota Department of Transportation (MnDOT) evaluates the need for noise barriers when they have a reconstruction project that would expand a roadway with additional lanes for 1 or more miles. Noise barriers are constructed in areas where the noise limits are exceeded only when they are determined to be feasible and reasonable. No noise barriers are proposed at this location at this time.

Noise levels at this location were not measured as part of this project, but efforts have been made to minimize noise coming from the roadway, including:

- US 169 in this location is constructed approximately 20 feet in elevation below the proposed grade of the homes.
- Three 1-acre gardens and four stormwater basins line create an approximately 700-foot buffer between the development and US 169.

Additional noise mitigation, if necessary or desired, will be the responsibly of the developer.

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.

No parking spaces exist currently at the project site. Parking demand for the single-family homes will include on-street parking and parking in the driveways and garages. The townhomes have 46 additional parking spots available for guests in addition to a two-car garage and allowance for two cars to park in the driveway. Parking for the apartment building is anticipated to be between 1.5-1.7 parking spots per unit. The final number of parking spaces will be determined upon final design.

A traffic study was completed for this project and is included in **Appendix C.** The current development proposal consists of a total of 590 residential units; which includes 222-units of single-family housing, 68-units of townhomes, and a 300-unit apartment building. Several existing access locations are provided to the single-family and townhome components. Two full-access locations along CR 16 are planned for the apartment building.

Traffic forecasts were developed for the study area to help determine short- and long-term transportation infrastructure needs within the study area. The forecasts were developed using a combination of general area historical growth trends, trip generation estimates based on the proposed development and data within the Scott County Regional Travel Demand Model. The proposed development is expected to generate approximately 303 a.m. peak hour, 389 p.m. peak hour, and 4,226 daily site trips. Additional development may occur east of the Summerland development, which may account for more daily trips, especially retail and non-retail trips.

Park and Ride stations are located east of the project site, near the intersection of Eagle Creek Boulevard and CSAH 21 as well as west of the project near the intersection of 17th Avenue and Marschall Road. Both provide alternative transportation modes for the area.

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,

The proposed development will connect to the following existing roadways:

- Tyrone Drive South
- Downing Avenue
- England Way
- Phillip Way
- Phillip Drive

Traffic from the development will enter CR 16 (17th Avenue) via either England Way or Phillip Drive. No direct access to 17th Avenue is proposed. Nearby major intersections include 17th Avenue/Eagle Creek Blvd and CR 83 (Canterbury Road) to the east and CR 17 (Marschall Road)/CR 16 to the west. A traffic study was completed to evaluate the potential for traffic impacts and recommended mitigation. Results of the year 2025 no build condition intersection capacity analysis indicates that the lane utilization and queuing issues identified under existing conditions is expected to degrade. The CR 83/Eagle Creek Blvd intersection is expected to operate at a LOS E, and northbound queues from the intersection are expected to impact operations at the CR 83/CR 16 intersection.

Results of the year 2025 build condition intersection capacity analysis indicate that operational issues identified under the year 2025 no build condition are expected to degrade as development occurs. In addition to the issues identified under the year 2025 no build condition, the northbound left-turn movement at the CR 16/Independence Drive intersection is expected to operate near the LOS E/LOS F range during the p.m. peak hour.

Potential mitigation measures are discussed below and are further outlined in the traffic study (**Appendix C**).

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

To address the future capacity and/or queuing issues identified, the following improvements are recommended:

1) CR 83/Eagle Creek Boulevard Intersection
    a. Construct an advanced turn-lane from the US 169 South Ramp intersection through the CR 83/Eagle Creek Boulevard intersection. The advanced turn-lane is provided by extending the inside northbound right-turn lane at the US 169 South Ramp intersection to Eagle Creek Boulevard and constructing an additional northbound thru lane at Eagle Creek Boulevard that feeds into the extended northbound right-turn lane. Note that this improvement was previously identified in the Canterbury Commons Areawide Transportation Assessment. This improvement will be assumed to be completed under the year 2040 intersection capacity analysis.
2) CR 16/Independence Drive
    a. Monitor the CR 16/Independence Drive intersection to determine if/when a traffic signal should be considered.

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.

Development of Summergate is expected to begin in 2020. The only other development project currently in planning for the surrounding area, Shakopee Gravel as described below, is not expected to begin prior to development of the Summergate development. Given the separate

timeframes and current condition of the Shakopee Gravel site, it's not expected that the projects would combine to cause 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.

The City is reviewing a mixed-use concept plan for the Shakopee Gravel site which is located to the southeast of the site across 17th Avenue. The concept plan for this site includes 338 single family and townhome lots as well as one smaller commercial site and two larger industrial buildings. This project will require an EAW if they proceed beyond the PUD concept review. Given the land uses surrounding the Summergate site and the current condition of the Shakopee Gravel site, the proposed mixed-use development at Shakopee Gravel is not anticipated to cause cumulative environmental effects in combination with the proposed Summergate Development.

A variety of projects are also continually reviewed near the Canterbury Park area, but not in the immediate vicinity of the proposed development.

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.

The project will not cause any known or reasonably expected cumulative potential 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.*

The project will not cause any known or reasonably expected cumulative potential 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 02/05/2020

Title SENIOR PLANNER