

ENVIRONMENTAL ASSESSMENT WORKSHEET

CHASKA CREEK CORPORATE PARK

Responsible Governmental Unit:

City of Chaska



Project Proposer:

Community Asset Development Group

Prepared by:

City of Chaska
Bonestroo, Inc.

Dated:

March 2010

Figures and Attachments for the EAW:***Figures:***

Figure 1	Project Location
Figure 2	USGS Topographic Map
Figure 3	National Wetland Inventory and FEMA Floodplain
Figure 4	Public Waters Inventory and Shoreland District
Figure 5	Soils

Attachments:

- Attachment 1 Chaska Creek Corporate Park Concept Land Use Plan
- Attachment 2 Minnesota Department of Natural Resources Natural Heritage and Nongame Research Program Response Letter, December 3, 2009
- Attachment 3 Delineated Wetlands map
- Attachment 4 Traffic Impact Study, January 2010
- Attachment 5 Noise Analysis Report, January 2010
- Attachment 6 Minnesota Historical Society State Historic Preservation Office Response to Inquiry, dated November 19, 2009
- Attachment 7 Cultural Resources Investigation Report

6. Description

- a. Provide a project summary of 50 words or less to be published in the EQB Monitor.

Community Asset Development Group is proposing to develop a corporate business park at Engler Blvd and Hwy 212 in Chaska, MN. The project will include ~775,000 sq ft of corporate office, general light industrial, office, and mixed use (office/retail) development.

- b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

Community Asset Development Group is proposing to develop a corporate business park at Engler Blvd and Hwy 212 in Chaska, MN. The project will include ~775,000 sq ft of corporate office, general light industrial, office, and mixed use (office/retail) development. The concept plan for the development is provided in Attachment 1. The project location is shown on Figures 1 and 2.

The vision of the Chaska Creek Corporate Park is to be the premier corporate park in the southwest metro serving new and mature corporate users desiring a quality environment and great access to the metro area.

The property consists of approximately 80 acres located at the southwest corner of the Hwy 212 and Engler Blvd interchange. Particular emphasis will be on attracting high tech, biomedical companies that desire a well educated work force and thrive in a community that provides a unique small town atmosphere with a high quality of life. Given the site's proximity to the new Hwy 212 interchange, the parcels will have outstanding access and be located at the entrance to Chaska's future new employment center. Ultimately, the Chaska Creek Corporate Park will have the capacity to support over 700,000 sq ft of corporate users and will attract upwards of 1,000 new jobs. Consistent with the City's vision, the plan provides for both large corporate campus sites of 20+ acres and smaller 3 to 5 acre office pads. Initially the development will consist of 5 to 6 large parcels. As development proceeds the larger parcels will be subdivided to serve the individual needs of potential corporate clients.

At the northeast corner of the parcel, an 8 acre area is planned for retail/office uses such as a medical office building , restaurant, daycare and drug store.

Construction of the development is anticipated to begin summer of 2010 and be completed over a five to eight year period. The development would be constructed in three phases, occurring approximately every two years. The phases are outlined below and described according to the Concept Plan (Attachment 1):

- Phase 1: North of Chaska Creek - corporate/industrial area (shown in orange); service, retail, small office area (shown in purple);
- Phase 2: North of Chaska Creek – corporate campus area (shown in brown);
- Phase 3: South of Chaska Creek – corporate/industrial area (shown in orange); office area (shown in red).

Phases 1 and 2 would be graded first and stabilized until construction begins. Extension of Clover Ridge Drive from the north is proposed to extend through the middle of the site. Construction of the road would also be phased. The limits of the phases would coincide with adjacent parcel development. Extension of utilities would be coordinated with the roadway construction.

Construction activities would include excavation, backfilling, compacting, grading and re-vegetation. Standard equipment such as trucks, backhoes, bulldozers, bobcats, cranes, loaders, graders, compactors and compressors would be utilized in construction of the development. Sediment and erosion control measures would be in place prior to the start of construction activities and would remain in place until permanent or temporary site stabilization has been completed.

- c. 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 project is proposed by a private developer - Community Asset Development Group. It is a private venture but will also create jobs during construction and operation. Beneficiaries of the project will be those employed and served by the development.

d. 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.

Not applicable.

e. 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.

Not applicable.

7. Project magnitude data

Total project acreage: 85.8 acres

Number of residential units: 0 unattached 0 attached NA maximum units per building

Commercial, industrial or institutional building area (gross floor space): 775,000 total sq ft

Indicate areas of specific uses (in square feet):

Office: 440,000 sq ft

Manufacturing: 0 sq ft

Retail: (see Other commercial)

Other industrial: 0 sq ft

Warehouse: 0 sq ft

Institutional: 0 sq ft

Light industrial: 300,000 sq ft

Agricultural: 0 sq ft

Other commercial (specify): 35,000 sq ft Mixed Use-Office (30,000 sq ft); Retail (5,000 sq ft)

Building height (see below) If over 2 stories, compare to heights of nearby buildings.

Building heights will be one to two stories for retail and industrial buildings. Corporate buildings could be four to six stories in height. These heights are typical of other buildings with similar uses and are consistent with City standards for these land uses. Currently there are no other buildings along the freeway in this area. However, the proposed development is the first in this planned corporate business district. As in other areas along major highway corridors, taller buildings will be constructed adjacent to the highway, with shorter buildings constructed away from the highway.

8. Permits and approvals required. List all known local, state and federal permits, approvals 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.*

<u>Unit of Government</u>	<u>Type of Application</u>	<u>Status</u>
U.S. Army Corps of Engineers	Section 404 Clean Water Act (impacts to waters within the Corps' jurisdiction)	Application to be submitted
Minnesota Pollution Control Agency	National Pollutant Discharge Elimination System (NPDES) Construction Permit (additional SWPPP review also required because more than 50 acres will be disturbed)	Application to be submitted
	Sanitary Sewer Extension Permit	Application to be submitted
Minnesota Department of Natural Resources	Public Waters Work Permit if impacts proposed	Application to be submitted if impacts proposed
	License to Cross Public Lands and Waters (for road/utility crossings of Chaska Creek)	Application to be submitted
Minnesota Department of Transportation	Work within or affecting the TH 212 ROW	Application to be submitted, if necessary
Carver County	Permit for Work within County Road Right-of-Way	Application to be submitted
	County Roadway Access Permit	Application to be submitted
	ROW Utility Permit	Application to be submitted
	Grading and Stormwater Permits review	Application to be submitted
Carver County Watershed Management Organization	Review of grading plans, erosion and sediment plans, stormwater management plans	Application to be submitted
Metropolitan Council	Approval of 2030 Comp Plan	Comp Plan submitted; review expected to be complete March 2010
	Permit to Connect to Regional Sewer System	Application to be submitted
City of Chaska	Wetland Conservation Act - Wetland Impacts	Application to be submitted if impacts proposed
	Zoning Change Approval	Application to be submitted
	Concept Plan Review	Application to be submitted
	Site Plan Review (multiple)	Application to be submitted
	Preliminary Plat Approval (multiple)	Application to be submitted

	Final Plat Approval (multiple)	Application to be submitted
	Grading/Drainage Permits	Application to be submitted
	Sewer and Water Connection	Application to be submitted
	Permits (multiple)	
	Building Permits (multiple)	Application to be submitted
Potential public financial assistance (TIF, Tax Abatement, etc.)	Public assistance, if public funding proposed	Applications to be submitted, if proposed

9. Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

Current land use of the project site is agricultural – most is used for cropland, other than some areas of wetland and woods along the Chaska Creek corridor extending through the site from the northwest corner to the southeast corner. A wooded area in the southeast corner of the site is steeply sloped.

Surrounding land uses include agricultural to the west and south. Agricultural and undeveloped land is located east of TH 212 and the project site. This area is proposed as the Heights of Chaska, a mixed use development with residential and commercial properties. Open space, agricultural land and residential development is present north of the site.

The proposed development is consistent with the City’s comprehensive planning for the area but it includes uses not currently present on adjacent lands. Because of the differing landuses, there may be some minor conflicts. Mitigation measures to minimize potential conflicts are available and could include landscape plantings and/or preservation of some areas as open space to provide buffers between residential properties and the proposed business park. TH 212 and its right-of-way on the east side of the development will provide somewhat of a buffer between the business park uses and residential development to the east.

The Minnesota Pollution Control Agency What’s in My Neighborhood site was searched for potential environmental hazards that might be present in the area. No concerns were identified at the project site by the MPCA database. The nearest sites identified included several construction stormwater permit sites, a few minimal to small quantity hazardous waste generator sites, and an air permit site located northeast and southeast of the project site. In addition a feedlot site was identified to the west. Feedlots can present odor issues at times and their presence nearby should be considered.

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

	Before	After		Before	After
Types 1-8 wetlands	0.9 ac	1.7* ac	Lawn/landscaping	1.3 ac	8.0 ac
Wooded/forest	8.1 ac	6.1 ac	Impervious surfaces	0.2 ac	70.0 ac
Brush/Grassland	1.3 ac	0.0 ac	Stormwater Pond	0.0 ac	TBD
Cropland	74.0 ac	0.0 ac	Other (describe)	0.0 ac	0.0 ac
			TOTAL	85.8 ac	85.8 ac.

*Worst case scenario – assumes Wetlands A, C, and D (see Item 12) are filled for construction of the development and Clover Ridge Drive. Assumes wetland replacement is completed onsite at 2:1 ratio.

If **Before** and **After** totals are not equal, explain why:

11. Fish, wildlife and ecologically sensitive resources

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

Most of the project site is agricultural and used as cropland. Chaska Creek extends through the middle of the site from the northwest corner to the southeast corner. The creek corridor is designated a “greenway corridor” and contains areas of woodland and wetland. Wildlife species at the project site would be typical of agricultural areas such as geese, turkey, pheasant, deer, fox, raccoon, rabbit, birds of prey, songbirds, small rodents and reptiles. The creek corridor would provide habitat for these species as well as others that would not otherwise be present, including amphibians and small fish.

Wooded areas are present along the creek corridor, particularly in the northwestern and southeastern portions of the project site. Tree removal in wooded areas may be subject to the City’s woodland/steep slope policies discussed in the City’s Environmental Protection Plan (Chapter 7 of the 2030 Comprehensive Plan). The City’s policy is to preserve wooded land with an 18 percent slope or greater in its natural state. Figure 5 shows an area in the southeastern portion of the project site as wooded with slopes of 25-40 percent. The concept plan does not show development in this area.

The City’s policies also address preservation of woodlands on areas less than 18% slope. Development in these areas may be permitted but retention of substantial tree stands is encouraged and should be incorporated into the required landscape plans for a development. Preservation of woodlands on steep slopes and in other areas is also addressed in the City’s Zoning Ordinance.

The proposed development would displace wildlife as it will convert the agricultural land to impervious surfaces and landscaped areas. The creek corridor will remain so it is possible that some wildlife species will remain.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources on or near the site? Yes No
If yes, describe the resource and how it would be affected by the project. Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-____) and/or Division of Ecological Resources contact number (ERDB 20100348) from which the data were obtained and attach the response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.

The Minnesota Department of Natural Resources (DNR) Natural Heritage and Nongame Research Program was contacted regarding the potential presence of threatened and endangered species and other sensitive resources. According to the response dated December 3, 2009 (Attachment 2), there are no known occurrences of rare features within an approximate one-mile radius of the project site.

- 12. Physical impacts on water resources.** Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch?
 Yes No
If yes, identify water resource affected and give the DNR Public Waters Inventory number(s) if the water resources affected are on the PWI: (see below) Describe alternatives considered and proposed mitigation measures to minimize impacts.

EXISTING WATER RESOURCES

Hydrologic features in and adjacent to the project area are shown on Figures 3 and 4. These features include Chaska Creek and several wetlands.

DNR Public Waters

The DNR Public Waters and Wetlands Inventory for Hennepin County (Minnesota DNR, 1996) indicates that a public watercourse, Chaska Creek, is located within the project area (see Figure 4).

The DNR has jurisdiction over all activities that take place below the ordinary high water level (OHWL) in Chaska Creek. The OHWL is a reference point that defines the DNR's regulatory authority over development projects that are proposed to alter the course, current, or cross section of public waters and public waters wetlands.

Wetlands

The National Wetland Inventory (Figure 3) identifies wetlands within and adjacent to the project site. Based on the wetland delineation dated November 17, 2009 there are four Type 2, wet meadow wetlands located within the project area (Attachment 3). The delineated wetlands are summarized in Table 12-2. These wetland areas are regulated by the Wetland Conservation Act (WCA) through the City of Chaska as the Local Government Unit (LGU) and may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (CWA).

**Table 12-2
Wetland Summary Table**

Wetland ID	Type	Size (Ac)	Minimum Required Replacement (Ac)
A	2, Fresh (wet) Meadow	0.74 (on-site)	2:1
B	2, Fresh (wet) Meadow	0.070	2:1
C	2, Fresh (wet) Meadow	0.036	2:1
D	2, Fresh (wet) Meadow	0.056	2:1

Any unavoidable impacts to wetlands within the project area and any wetland replacement would need to occur in accordance with the rules of the WCA and CWA.

The U.S. Army Corps of Engineers, St. Paul District, regulates the discharge of fill into waters of the U.S. The jurisdictional status of wetlands under the CWA is dependent on wetlands being adjacent to traditional navigable waters or having a significant nexus to a tributary of navigable waters. In short, the Corps does not regulate isolated wetlands.

The WCA regulates excavation, fill, and drainage in all wetland types on-site.

POTENTIAL IMPACTS ON WATER RESOURCES & MITIGATION SUMMARY

Currently, site plans are not available for individual parcels within the project area. Development of each parcel will need to follow WCA sequencing regarding wetland impacts including avoidance, minimization and mitigation. Should wetland impacts be unavoidable, wetland replacement on-site, within the watershed, or wetland banking options must be explored. Replacement location sequencing should meet the priority siting as identified by the WCA (following these principles in descending order: avoiding, minimizing, rectifying, reducing, and replacing the wetland). Also, wetland replacement should replace, at minimum, the impacted wetland(s) lost functions and values.

Additionally, indirect impacts to the wetlands should be minimized by focusing on the following strategies:

- Protect recharge areas
- Maintain drainage area for wetlands
- Promote infiltration and/or filtration of surface runoff prior to reaching wetlands
- Establish and maintain buffers of native vegetation that meet or exceed the WCA or City standards.

13. Water use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? X Yes No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and

purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

The project will require a connection to the City of Chaska water supply system. While the project properties will place a nominal increase in demand on the City of Chaska's water supply system, the demand is not expected to significantly impact the planned growth of the municipal water supply system. The timing of future well installations to meet anticipated future demands will likely remain unchanged. The City's CIP indicates that Well #10 is planned to be added to the City system in 2010 to accommodate corporate industrial development and the Chaska Heights development in this area.

No wells are known to currently exist within the project boundaries. A search through County Well Index records and a review of aerial photos does not indicate any properties within the project boundary that have (or had) their own water supply wells. However, as County Well Index is not a full accounting of all past and present wells, there exists the possibility that abandoned (or previously unknown) wells may be discovered during the construction of the project. Any old abandoned and unsealed wells that are discovered will be required to be sealed by a licensed well contractor certified to work in the State of Minnesota. One private well is identified just outside the project site boundary at the farmstead off of Creek Road/County Road 110.

- 14. Water-related land use management district.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? Yes No
If yes, identify the district and discuss project compatibility with district land use restrictions.

A portion of the southeast area of the site is located within the 100-year floodplain, as shown on Figure 3. The concept plan identifies pond, wetland and creek within the floodplain boundary, with corporate business/industrial and office landuses on either side of the boundary in this area. As a site plan is developed, and if lots/structures are located within this 100-year floodplain boundary, a detailed study to determine the Base Flood Elevation (BFE) and a submittal to FEMA would be necessary to document that these lots/structures are outside of a modeled BFE.

While not an officially regulated FEMA 100-year floodplain boundary, the extents of the floodplain for Chaska Creek passing through the proposed development would need to be managed to protect adjacent properties. A review of any impacts to the Chaska Creek floodplain would be reviewed at the time of the project plan submittal.

The property adjacent to the creek is located within the Shoreland Management Overlay District. The shoreland protection zone generally includes land within 1,000 feet of a lakeshore or 300 feet of a stream (technically it is 1,000 feet or 300 feet from the ordinary high water level of a lake, pond or flowage) and embodies DNR standards for protection of the lake or stream from development impacts.

The proposed project would be reviewed for consistency with the City of Chaska Shoreland Management Overlay District (Shoreland Ordinance), Section 6 of the Zoning Ordinance. The City of Chaska has design standards for projects located within a shoreland overlay district including minimum lot sizes, structure setbacks, maximum structure heights, maximum impervious surface coverage and stormwater management standards, and designation of open space. Chaska Creek has been classified by the Commissioner of Natural Resources as General Development.

The following table presents some of the design standards for lots that are provided with City sewer service.

**Table 14-1
Shoreland Management Overlay District
Lot Dimensions and Setbacks for Sewered Lots**

Shoreland Management Classification	Lot Width	Lot Area	Setback from OHWL
General Development	75 ft at OHWL/ building line	20,000 sq ft	50 ft

15. Water surface use. Will the project change the number or type of watercraft on any water body? Yes No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

The project will not affect the number of watercraft on any water bodies. It does not add any residents to the area, nor does it provide any new direct access to a water body.

16. Erosion and sedimentation. Give the acreage to be graded or excavated and the cubic yards of soil to be moved: 65 acres ; up to 750,000 cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

Soil types identified in the project corridor indicate that steep slopes (> 12%) and eroded soils are present in some areas. Soils on steep slopes are designated with a “D” or an “F” in their mapping symbol. Two of the soils in the project area exhibit steep slopes: KD2 Lester-Kilkenny loam, 12-18% slopes, eroded and KF Lester-Kilkenny loam, 25-40% slopes. The City requires specific building and grading setbacks from wooded slopes greater than 18%. A 30-foot no grade/no mow zone setback is imposed as well as an additional 20 feet for buildings (i.e., 50-foot building setback). The development will comply with these requirements. The Concept Plan (Attachment 1) shows the area of KF soil to be preserved as open space.

Eroded soils are designated with a “2” in their mapping symbol. Four soils in the project area are identified as eroded: HC2 Estherville-Hawick sandy loam, 6-12% slopes, eroded;

KB2 Lester-Kilkenny loam, 2-6% slopes, eroded; KC2 Lester-Kilkenny loam, 6-12% slopes, eroded; and KD2 Lester-Kilkenny loam, 12-18% slopes, eroded. Soil types are listed in Table 16-1. The locations of the soil types are shown on Figure 5.

Table 16.1 Soil Characteristics

Soil Map Unit Symbol	Soil Name	Soil Erodibility Factor (K-Factor)*	Soil Erodibility Rating	Hydrologic Group**
CO	Cordova clay loam	.28	medium	B/D
CT	Canisteo clay loam	.24	medium	B/D
CW	Cordova-Webster complex	.28	medium	B/D
GL	Glencoe clay loam	.28	medium	B/D
HC2	Estherville-Hawick sandy loam, 6-12% slopes, eroded	.20	medium	B
HM	Hamel loam	.28	medium	B/D
KB	Kilkenny-Lester loam, 2-6% slopes	.28	medium	C
KB2	Lester-Kilkenny loam, 2-6% slopes, eroded	.28	medium	B
KC2	Lester-Kilkenny loam, 6-12% slopes, eroded	.28	medium	B
KD2	Lester-Kilkenny loam, 12-18% slopes, eroded	.28	medium	B
KF	Lester-Kilkenny loam, 25-40% slopes	.28	medium	B
LS	Le Sueur loam	.24	medium	B
MK	Houghton and Muskego soils	.02	low	A/D
PM	Klossner muck	.02	low	A/D

* K-Factor indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69; the higher the value, the more susceptible the soil is to water erosion.

** Hydrologic soil groups are used to estimate runoff from precipitation: A=high infiltration rate, low runoff potential, through D=slow infiltration rate, high runoff potential. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Because construction of the project would disturb more than one acre of land, an application for a National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities would be submitted to the MPCA. This permit requires the applicant to develop a Stormwater Pollution Prevention Plan (SWPPP) which includes both temporary and permanent erosion and sediment control plans; the NPDES permit also requires the applicant to perform inspections and maintain inspection records. Erosion and sediment control plans would also be submitted to the City and the Carver County Watershed Management Organization for review and approval. The City has an agreement with the County regarding erosion and sediment control enforcement.

Erosion control measures to be used during construction are expected to include rock construction entrances, floating silt curtain, silt fence, rock ditch checks, temporary sediment traps, biorolls, riprap, inlet protection, temporary seeding and mulch. Initially, these erosion control devices would be placed at the downstream end of the construction limits; the devices would be installed prior to the start of any land disturbing activity.

Additional devices as noted on the construction drawings may be added as construction progresses. The devices would be maintained as directed under permit requirements to maintain their effectiveness.

Within the timeframes stipulated in approved plans, graded areas would be paved; seeded and mulched; or covered with fiber blankets, stabilization mats, or sod. Erosion control devices would remain in place until site stabilization has been achieved and vegetation has been reestablished.

Permanent strategies to control erosion and manage stormwater would include the direction of runoff to grassy swales, ponds, and, if supported by onsite soils, stormwater infiltration areas where the water can infiltrate.

17. Water quality: surface water runoff

- a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

The existing land use for the proposed project area is characterized as a combination of agricultural and open space. The proposed development of the project area (approximately 80 acres total) would convert roughly 70 acres of the project area from the existing land use to a commercial and industrial land use. The remainder of the project area (approximately 10 acres) would be split between open space, and right-of-way area.

The proposed construction would increase the amount of impervious cover, and this increase in impervious cover would cause an increase in stormwater runoff (both rate and volume). To mitigate for this increase in stormwater runoff, stormwater Best Management Practices (BMPs) are necessary. Proposed stormwater BMPs would be designed to meet the rate control and water quality requirements of both the City of Chaska, per the 2007 Local Surface Water Management Plan (LSWMP), and the Carver County Watershed Management Organization (CCWMO) rules and standards (Ordinance 57-2005). These requirements are as follows:

- **Rate Control – For areas draining to an offsite regional basin:** Post-development discharge rates from the proposed project area for the 2-year, 10-year, 100-year, and 10-day snowmelt events would not exceed existing rates. The existing runoff rate will need to be modeled with a CN value of 65.
- **Water Quality:** Treatment requirements can be met by showing 90% removal of total suspended solids, which can be achieved by limiting discharge to 5.66 cfs per acre of treatment for a 1.25 inch event, or by showing 50% or higher total phosphorus removal for a 2.5-inch event using Walker's Pondnet model. Infiltration/Filtration/Bio-retention can be used to meet these standards.

- **Volume Control:** The City's LSWMP set requirements for runoff abstraction (infiltration, evapotranspiration, capture and reuse). Abstraction of the first ½ inch of runoff from new impervious surfaces is expected for development sites with Hydrologic Soil Group (HSG) type A or B soils. The proposed development does have HSG type B soils and therefore the development will be required to meet the City's volume requirement. The CCWMO Water Management Rules also requires infiltration in new developments but is less stringent than the City's rules.
- **Erosion Control:** Since the project would disturb more than one acre of land, an NPDES General Stormwater Construction Permit would be required. A stormwater pollution prevention plan (SWPPP) would be prepared as part of the NPDES permit. The Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the MPCA at least 30-days before the construction start date for additional review since the project will disturb 50 or more acres of soil and have a stormwater discharge point within 1 mile of an impaired water. In addition, the project would comply with Section 153.55 (Erosion and Sediment Control Design and Operational Standards) in the current Carver County Watershed Management Organization rules and standards (Ordinance 57-2005).

The existing runoff from the agricultural land was untreated prior to discharging into Chaska Creek. Though the development will be adding impervious surfaces, the post-runoff will be meeting the stormwater management requirements identified above, as well as additional measures to address specific waterbody impairments as necessary, the project is not expected to negatively impact the quality of receiving waters.

- b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

Chaska Creek splits the proposed development and will be receiving the majority of runoff from the site. Chaska Creek flows southeasterly through the site and to the confluence with the South Chaska Creek. From there, Chaska Creek continues to drain east and south through the Lower Chaska Creek District and ultimately to the Minnesota River. Prior to reaching the river, the creek is intercepted by the Corps of Engineers diversion channel and routed around the old downtown area.

Protection of Chaska Creek was listed as a priority in the City of Chaska's 1994 Stormwater Quality Management Plan (SWQMP) and in the County's 2006 Water Quality Report which showed Chaska Creek to have poor water quality due to excessive nutrients and fecal coliform. The MPCA in July of 2008 classified Chaska Creek as an impaired water for excessive nutrients and fecal coliform. The impaired water classification set forth certain requirements with regard to phosphorus (nutrient eutrophication biological indicators), turbidity, dissolved oxygen and aquatic biota (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate

bioassessment). Discharges to these waters must incorporate the BMPs outlined in C.1 and C.2 of the MPCA's General Permit to discharge stormwater.

Chaska Creek is defined as a "Greenway Corridor" per the City's 2007 LSWMP through the proposed development. Greenways are defined in "Metro Greenprint, Planning for Nature in the Face of Urban Growth" (MnDNR, December 1997) as: "continuous or patchy areas of vegetation that provide corridors for the movement of humans and (or) wildlife. They often follow natural waterways or land features, and they may connect natural areas or other community resources such as cultural institutions."

The conceptual width of the Greenway Corridors represented in the LSWMP report is approximately 150 feet. The designation of Greenway Corridors is derived from a consideration of factors including natural community quality and location, future land use, ownership of land, degree of slope, ecological restoration, and others. Where corridors cross significantly altered landscapes, such as crop fields or drainage ditches, reconstruction of natural communities is recommended. This includes things such as stream re-meandering, prairie and savanna plantings, reforestation, and other similar activities. It is recommended that these Greenway Corridor alignments be maintained, or shifted only slightly within the proposed development.

By meeting the stormwater management requirements identified above, as well as additional measures to address specific waterbody impairments as necessary, the project is not expected to negatively impact the quality of receiving waters.

18. Water quality: wastewaters

- a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

The 2030 Comprehensive Sewer Plan for the City serves as the basis for quantifying the amount of wastewater that would be generated for the proposed development. The proposed development has a land use that best fits the category of Business Campus, and the total area equal to approximately 70 acres. The average daily wastewater flows generated by the proposed land use within the project area are estimated as follows:

**Table 18-1
Average Daily Wastewater Flows**

Land Use	Area (acres)	Unit Flow Rate (gal/ac/day)	Estimated Average Flow (MGD)
Business Campus	70.0	1500	0.105

- b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

No on-site wastewater treatment would be provided, but rather wastewater flows would be routed via a system of lateral and trunk sanitary sewers. The high ground located in the northeast portion of the site will be served by gravity to the north across Engler Boulevard. The rest of the site (lower elevations) will be served by the City's proposed Southwest Trunk System. Depending on the timing of development, a temporary lift station may be needed to serve the lower elevation portions of the development. The proposed wastewater from the site will discharge into the Metropolitan Council Environmental Services (MCES) L-71 pumping station. MCES L-71 station pumps Chaska's sewage by force main south across the Minnesota River through Shakopee to the Blue Lake Wastewater Treatment Plant.

This plant uses advanced secondary treatment methods with chlorination / dechlorination to treat wastewater flows prior to discharge into the Minnesota River. As this plant has sufficient treatment methods to adequately treat the wastewater generated by the proposed project, impacts to the Minnesota River due to the wastewater from the project site are unlikely.

- c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

No pretreatment of wastewater is proposed on-site. Wastewater generated from the proposed development would be routed to the Metropolitan Council Environmental Services (MCES) L-71 pumping station, ultimately being treated at the Blue Lake Wastewater Treatment Plant.

The Blue Lake Wastewater Treatment Plant averages daily wastewater flows of 28 MGD and has a projected wastewater capacity of 40 Million Gallons per Day (MGD) by the year 2030. Through MCES regional planning, estimated flows from the MCES L-71 pumping station (including flow from the project site) have been accounted for in the wastewater service capacity of the Blue Lake Wastewater Treatment Plant.

19. Geologic hazards and soil conditions

- a. Approximate depth (in feet) to groundwater: 2 feet minimum, 100 feet average;
Approximate depth (in feet) to bedrock: 130 feet minimum, 175 feet average.

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

Groundwater appears to occur in two different layers across the project site. Shallow groundwater is present in some of the soil borings completed on the project site. This appears to be due to water being perched above the clay tills that are present in the surficial geology, resulting in a thin water table. The perched water table might be thin enough to not require dewatering during project construction. However, test pits might be required to better determine water quantities in the perched water table at any sites with planned excavation.

The uppermost aquifer across the project site with significant quantities of water appears to occur at a much greater depth. This was determined from water level data in contained in County Well Index for wells surrounding the project site. The buried sand and gravel aquifer underlying the clay till is confined, with a potentiometric surface that rises above the top of the aquifer. Depth to water in these wells ranges from 75 feet to 120 feet around the perimeter of the project site.

Depth to bedrock was determined using geologic log data from well records in County Well Index. Depth to bedrock ranged from 130 feet to 225 feet in the wells that surround the project site. A gently sloping buried bedrock valley runs in a northwest-southeast direction in the northeast corner of the project site. Depth to bedrock is expected to be the greatest in the northeast corner. In general, however, the depth to bedrock is great enough that it is unlikely to be encountered during the project construction. The first bedrock unit across the majority of the project area is the Prairie du Chien dolomite. Portion of the underlying Jordan sandstone may be the first bedrock unit encountered in the northeast corner of the project site.

While the first bedrock unit underlying the majority of the project site is a carbonate bedrock (the Prairie du Chien dolomite), it is covered by over 100 feet of sediment over the entire project area. Therefore, the area is considered to be “covered karst.” The likelihood of karst features appearing at the land surface, such as sinkholes, is relatively low.

The vulnerability of groundwater to contamination is also relatively low, as the surficial geology contains significant deposits of clay-rich Des Moines lobe glacial till. The first 100 feet of sediment underlying the land surface is predominantly clay-rich till, which can be effective in impeding the vertical infiltration of contaminants down to the aquifers used for local drinking water supplies. While the groundwater contamination potential is relatively low, efforts should still be made to avoid spills onto the land surface which could degrade water quality over time. Such efforts include storing fuels and fuel-containing machinery over impervious surfaces, with secondary containment to prevent the runoff of any spills into local bodies of water.

- b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil texture and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

According to Carver County soils information, the soil types listed in the following table are identified at the project site. Their locations are depicted on Figure 5.

Table 19.1 Soil Map Unit Characteristics

Soil Map Unit Symbol	Soil Name	Landform	Dominant Drainage Condition	Hydrologic Group**	Hydric	Other
CO	Cordova clay loam	drainageways on moraines	poorly drained	B/D	yes	Prime farmland if drained

Soil Map Unit Symbol	Soil Name	Landform	Dominant Drainage Condition	Hydrologic Group**	Hydric	Other
CT	Canisteo clay loam	flats on moraines, swales on moraines	poorly drained	B/D	yes	Prime farmland if drained
CW	Cordova-Webster complex	drainageways on moraines	poorly drained	B/D	yes	Prime farmland if drained
GL	Glencoe clay loam	depressions on moraines	very poorly drained	B/D	yes	Prime farmland if drained
HC2	Estherville-Hawick sandy loam, 6-12% slopes, eroded	stream terraces, moraines	somewhat excessively drained	B	no	--
HM	Hamel loam	drainageways on moraines	poorly drained	B/D	yes	Prime farmland if drained
KB	Kilkenny-Lester loam, 2-6% slopes	moraines	moderately well drained	C	no	Prime farmland
KB2	Lester-Kilkenny loam, 2-6% slopes, eroded	moraines	well drained	B	no	Prime farmland
KC2	Lester-Kilkenny loam, 6-12% slopes, eroded	moraines	well drained	B	no	Farmland soil of statewide importance
KD2	Lester-Kilkenny loam, 12-18% slopes, eroded	moraines	well drained	B	no	Farmland soil of statewide importance
KF	Lester-Kilkenny loam, 25-40% slopes	moraines	well drained	B	no	--
LS	Le Sueur loam	moraines	moderately well drained	B	no	Prime farmland
MK	Houghton and Muskego soils	depressions on moraines	very poorly drained	A/D	yes	Farmland soil of statewide importance
PM	Klossner muck	depressions on moraines	very poorly drained	A/D	yes	Farmland soil of statewide importance

** Hydrologic soil groups are used to estimate runoff from precipitation: A=high infiltration rate, low runoff potential, through D=slow infiltration rate, high runoff potential. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

In general, water moves through coarse textured soils at a faster rate than through medium or fine textured soils. Therefore, potential impacts to ground water from spilled chemicals would be expected to be greater in areas with coarse textured soils. However, many factors in addition to soil granularity can affect infiltration and percolation rates in soils. Some of these factors include: soil water content, soil frost, the temperature of soil and water, surface roughness, the nature of the soil pore openings, vegetative ground cover, and the degree of soil compaction.

Based on the expected business types, use or storage of chemicals or petroleum products in large quantities is not anticipated for the project site. Local, state and federal regulations stipulate requirements for the use and storage of these types of substances. Businesses would be required to comply with these regulations, including those related to

secondary containment, if applicable, and the need for spill response and containment plans.

20. Solid wastes, hazardous wastes, storage tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Construction of the project would result in some waste construction material. Materials would likely include waste concrete, asphalt, lumber, and other materials used in construction of the development. It may also include organic debris such as muck, trees, and plant materials. Specific volumes of general waste materials to be generated during construction are not known at this time. Waste materials would be recycled or disposed of in conformance with applicable local, state, and federal law.

Much of the wastes generated after development would consist of typical office and business type wastes. They would be collected by a licensed hauler once per week. The City collects recyclable materials as a public service.

Specific industrial businesses that will occupy the corporate park are not known at this time. Thus the specific wastes that would be expected from these types of businesses are also not known. All businesses will be required to comply with local, state and federal regulations regarding use, manufacture, storage, handling, and disposal of waste as well as requirements for spill prevention, containment, and emergency response. Businesses will be expected to secure all required permits and to comply with conditions of those permits.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

The proposed development includes corporate office and industrial type uses as well as a small amount of retail and service-oriented uses. Based on the expected business types, use or storage of chemicals or petroleum products in large quantities is not anticipated for the project site. Use and storage of chemicals and petroleum products is subject to local, state and federal regulations. Individual developments at the project site would be expected to comply with all applicable regulations.

During construction, equipment and vehicles utilizing gasoline, diesel fuel, antifreeze, and oil would be used at the project site. Portable storage tanks of fuel may be temporarily located at the site during construction. Fueling of vehicles and equipment would be conducted away from sensitive areas. If an accidental release occurs, attempts

would be made to contain the release and the MPCA state duty officer would be notified, as required.

- c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

As discussed above, portable storage tanks of fuel may be temporarily located at the site during construction. If emergency backup generators (natural gas- and/or diesel-fueled) are installed, fuel storage tanks associated with the generators may also be installed. These tanks would be subject to local, state and federal requirements regarding secondary containment, storage and handling.

- 21. Traffic.** Parking spaces added: 2,763 spaces
 Existing spaces (if project involves expansion): NA
 Estimated total average daily traffic generated: 6,582 daily trips
 Estimated maximum peak hour traffic generated and time of occurrence: PM peak hour – 122 trips entering, 886 trips exiting, 1008 total vehicle trips.
 Indicate source of trip generation rates used in the estimates. ITE Trip Generation Manual
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. Using the format and procedures described in the Minnesota Department of Transportation's Traffic Impact Study Guidance (available at: <http://www.oim.dot.state.mn.us/access/pdfs/Chapter%205.pdf>) or a similar local guidance, provide an estimate of the impact 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.

In January 2010, a Traffic Impact Study was completed for the proposed Chaska Creek Corporate Park project (see Attachment 4). This study examined existing conditions in the area and revealed a deficiency at the existing intersection of Engler Boulevard at Clover Ridge Drive. The southbound left-turning movement currently sees LOS F and experiences high delays in both AM and PM peak hours. Analysis shows that signalized control would work at this intersection with no other geometric improvements.

The development as proposed generates 937 entering and 104 exiting trips in the AM peak hour, and 122 entering and 886 exiting trips in the PM peak hour. Overall, the development would generate 6,582 trips on the external roadway network daily.

Analysis of Build out conditions in Year 2015 (with 25% of Heights of Chaska trips) show no intersection deficiencies in the study area. This analysis assumed a full access signalized intersection at Engler Boulevard at Clover Ridge Drive with the following geometric improvements:

- Eastbound Engler Boulevard: provide left-turn lane with 100 feet of storage and a right-turn lane with 100 feet of storage.
- Westbound Engler Boulevard: provide dual left-turn lanes with 400 feet of storage, and a right-turn lane with 100 feet of storage.

- Southbound Clover Ridge Drive: provide dual left-turn lanes with 150 feet of storage, and provide a shared right-through lane.
- Northbound Clover Ridge Extension: Provide a left-turn lane with 200 feet of storage, a single through lane, and dual channelized right-turn lanes with 200 feet of storage with yield condition at Engler Boulevard. The Extension would be a four-lane roadway between Engler Boulevard and Creek Road. South of the intersection, the right lane would be signed “right lane must turn right”.

Analysis of Year 2030 traffic conditions reveal deficiencies at the US 212/Engler Boulevard interchange. The East ramp intersection is projected to fail in the AM peak, and the West ramp intersection can be expected to fail in the PM peak. The conflicting left-turns, throughs, and off-ramp movements are projected to have high hourly volumes. These conflicting movements compete for green time and are expected to result in high delays and long queues. The existing lane geometry of the bridge and exit ramps are insufficient to handle Year 2030 projected hourly peak volumes.

To achieve acceptable levels of service at these intersections, Heights of Chaska trips must be allowed alternate routes to redirect traffic away from the Engler Boulevard interchange.

22. Vehicle-related air emissions. Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.

The subject area does not currently suffer traffic congestion and the traffic study indicates that the proposed project will not lead to traffic congestion. Since the area is currently designated as “attainment” of the carbon monoxide (and all other) National Ambient Air Quality Standards, and since the project will not contribute to traffic congestion, no significant adverse air quality impacts are expected.

23. Stationary source air emissions. Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

The project plan calls for mostly office/commercial properties, with about one-third of the property devoted to light industrial development. Stationary air emission sources are anticipated to consist primarily of natural gas-fired furnaces for comfort heating. Emergency backup generators (natural gas- and/or diesel-fueled) may also be installed. No outdoor storage piles are planned. All traffic roads will be paved, minimizing generation of fugitive dust.

Combustion emissions are anticipated to include nitrogen oxides, carbon monoxide, and carbon dioxide. Trace amounts of sulfur dioxide, nitrous oxide (a greenhouse gas) and hazardous air pollutants may also be released by natural gas combustion. As a relatively clean-burning fuel, emissions from natural gas combustion are modest and not expected to contribute to exceedance of an ambient air quality standard.

Emissions of the greenhouse gases (carbon dioxide, nitrous oxide, and methane) from natural gas combustion are also modest, compared with other fossil fuels. While the proposed development will not institute property covenants specifying energy efficiency requirements, energy efficiency is increasingly emphasized in new construction, with buildings adopting LEED principals constituting an increasingly significant fraction of the total stock. To the extent corporate park tenants adopt energy efficient designs, greenhouse gas emission intensity is expected to be reduced.

Any more substantial air emission sources that may be considered for construction within the corporate park would likely trigger air permitting and/or environmental review and approval on their own.

24. Odors, noise and dust. Will the project generate odors, noise or dust during construction or during operation? Yes No

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

There is a residential subdivision to the north of the proposed corporate park. Its residents constitute the most sensitive local receptors. The potential impact of the corporate park's development on these neighbors was assessed.

No significant odor emitting corporate park tenants are anticipated. As noted above, the corporate park will not include any unpaved haul roads or outdoor storage piles—thereby minimizing the generation of operational fugitive dust.

Earth moving and other construction activities may generate dust over limited periods of time. Dust emissions will be limited by good site housekeeping, watering dusty areas during adverse dry conditions, and revegetation at the earliest opportunity and/or in accordance with permit conditions.

Construction and operational activities will result in generation of sound levels that will impact both corporate park tenants, as well as portions of the surrounding community. A sound level impact study was conducted by Bonestroo. The complete report is included as Attachment 5. Findings are summarized below.

The proposed development is not expected to contain any significant sound emission sources. It will, however, result in increased traffic on the three adjacent roadways—with an accompanying increase in sound emissions. In addition, construction equipment and

activities will cause a temporary increase in sound emissions and off-site impacts, in the course of construction.

While road traffic may not be subject to the State's noise standards, those standards are useful criteria for assessing the acceptability of the proposed development project. Bonestroo's sound propagation modeling of post-development traffic demonstrates that the State's standards applicable to commercial properties can be met by adopting setbacks of 50 feet for CR110 and Clover Ridge Drive, 100 feet for CR10, and 150 feet for US 212.

The residential standards will generally be met at a distance of 600 feet from CR110 and Clover Ridge Drive, 800 feet from CR10, and 1,800 feet from US 212. Lesser setbacks should be acceptable for structures equipped with year-round climate control systems, provided their construction is such that it attenuates outside sound.

There are currently approximately 25 residences in the subdivision located north of CR10 at Clover Ridge Drive, to the north of the proposed development that would be potentially subject to sound levels in excess of the State's nighttime residential standard, subsequent to development of the proposed corporate park. Current modeled sound levels at most of these residences exceed the nighttime standard at current traffic volumes. The increased traffic that would be attracted by the proposed development is expected to increase nighttime sound pressure levels at these residences by less than one decibel—an amount imperceptible by human hearing.

While traffic associated with the proposed project and related construction activities will impact both Corporate Park tenants and nearby residents, those impacts are expected to be modest—generally in accordance with the Minnesota state noise standards or, as in the case of construction sound emissions, of limited duration.

25. Nearby resources. Are any of the following resources on or in proximity to the site?

- a) Archaeological, historical or architectural resources? Yes No
- b) Prime or unique farmlands or land within an agricultural preserve? Yes No
- c) Designated parks, recreation areas or trails? Yes No
- d) Scenic views and vistas? Yes No
- e) Other unique resources? Yes No

If yes, describe the resource and identify any project-related impacts on the resource.

Describe any measures to minimize or avoid adverse impacts.

a) Archaeological, Historical, or Architectural resources

The Minnesota Historical Society State Historic Preservation Office (SHPO) was contacted regarding the potential presence of cultural resources at or in the vicinity of the project site. The response, provided in Attachment 6, indicates there are 10 sites with historic or architectural value and 4 archaeological sites documented in the vicinity of the project site.

A cultural resources survey was completed at the project site and the findings of the survey are discussed below.

ARCHAEOLOGICAL PHASE I SURVEY FOR THE CHASKA CREEK CORPORATE PARK EAW: SUMMARY REPORT

As an EAW needs to address any environmental impacts likely to be caused by future development within a given area, Bonestroo, on behalf of the City of Chaska, retained Archaeological Research Services (ARS) to conduct a cultural resources survey. During the last week of November 2009, ARS staff conducted a Phase I archaeological assessment of the EAW study area. Records/ literature and field reviews were completed in a manner consistent with state and federal requirements for Phase I (reconnaissance level) survey.

As described elsewhere in this document, this approximately 80 acres large parcel is located in the northern half of Section 6, Township 115 North, Range 23 West, where it is bounded by County Highway 10 (Engler Boulevard), the recently constructed re-route of Trunk Highway 212, County Highway 110 and, on the west, by a fenced property line. The parcel is still completely rural in character and still under cultivation except in the immediate vicinity of Chaska Creek which traverses the area in a southeasterly direction on its way towards the Minnesota River. Most of the creek follows a man-made ditch cut through a fairly wide, drained wetland which is flanked, to the north and south, by rolling uplands. In the southeastern part of the parcel, however, as the uplands close in on the wetland and the creek begins its descent towards the main river valley, it regains its natural, meandering flow flanked, at times, by small, sheltered terraces, at times by quite steep, wooded slope.

Scattered across the lands west and south of the project area are older farms and fields. To the north and east, however, urban development is rapidly encroaching and the City of Chaska's 2020 Comprehensive Plan predicts further industrial, commercial and residential growth in areas adjacent to the Trunk Highway 212 corridor. As also described in more detail elsewhere in this document, the plans for the study area propose to develop most of the acreage for corporate office and light industrial use, with the rest reserved for mixed office and retail space as well as some preservation of green space along the creek.

The records search focused on inventory and survey files maintained at the State Historic Preservation Office as well as on information previously compiled by ARS for the 1988 Phase I review of the Trunk Highway 212 corridor and for the 2004 "Heights of Chaska" AUAR study conducted due east of that corridor. (Both projects are referenced in the appended report). Archaeological evidence was identified in both of those study areas but the records review for the current project did not indicate the presence of any archaeological sites either within or immediately adjacent to the EAW parcel. Other relevant background information about its environmental and historic context is discussed in Section 2.0. of the appended report (see Attachment 7).

The field review involved a combination of visual inspection and shovel testing, all conducted under ideal field conditions, just after the crops had been harvested and

before the first snow and frost. Methodology and results are discussed in Section 3.0. of the appended report (Attachment 7). Briefly summarized:

Except for the low and level drained wetland that flanks the straightened northwestern and central segments of Chaska Creek and also a few small, level terraces along its southeastern segment, the terrain in the EAW parcel is generally quite rolling and much of it too sloping to have archaeological potential.

Except for stretches of drained former marsh along the creek and two wooded areas (a knoll in the northwestern portion of the survey area and the deeply carved Chaska Creek valley in its southeastern part), the EAW parcel has been under cultivation for many decades -- a fact which, in combination with topsoil erosion, has caused plow impact well into sterile subsoil, i.e. disturbance deep enough to bring to the surface at least a sampling of any cultural evidence present in the soil. All the fields had been plowed and seeded again this year and by harvest time, when they had been washed by numerous rains, visibility was good to excellent with anywhere between 50% and 90% of the surface exposed. All of the farmed uplands were visually inspected along transects spaced 15 to 30 feet apart depending on the degree of lateral visibility.

Areas that had not been disturbed by farming, i.e. the wooded knoll in the northwest and the creek valley in the southeast, were visually inspected for cultural surface features, then shovel tested at intervals of thirty feet or less as dictated by the topography and the presence of trees with extensive root systems. Tests measured 35-40 cm in diameter and were taken down by 10 centimeter levels through postglacial soil horizons that could be expected to contain archaeological evidence, with soil contents sifted through quarter-inch screens. Soil profiles were then noted prior to backfilling (Appendix B of report in Attachment 7).

All survey results proved negative. More detailed descriptions are included in Section 3.2. of the appended report (Attachment 7).

Judging by the negative results of this investigation, the proposed development of the area should not impact any archaeological resources.

b) Prime or Unique Farmlands

There is no land within the project site designated as agricultural preserve. However, nearly all the soils types at the project site are identified as important to farming. According to Carver County soils information, three soils in the project area are identified as prime farmland: Kilkenny-Lester loam, 2-6% slopes (KB); Lester-Kilkenny loam, 2-6% slopes, eroded (KB2); and Le Sueur loam (LS). Five other soils are classified as prime farmland if drained: Cordova clay loam (CO); Canisteo clay loam (CT); Cordova-Webster (CW) complex; and Hamel loam (HM). In addition, four soils are classified as farmland of statewide importance: Lester-Kilkenny loam, 6-12% slopes, eroded; (KC2) Lester-Kilkenny loam, 12-18% slopes, eroded (KD2); Houghton and Muskego soils (MK); and Klossner muck (PM). Figure 5 shows the locations of the soils, indicated by their symbol designators (included in

parenthesis above). Although the land is currently used agriculturally, it has been designated a planned growth area in the City's 2030 Comprehensive Plan and is planned for development. Loss of agricultural land is a consequence of growth.

c) Designated Parks, Recreation Areas, or Trails

The 2030 Park and Open Space System Plan (Figure 5.1 of the Comprehensive Plan) indicates there are no existing or future proposed parks at or close to the project site. The 2030 Trail System Plan (Figure 6.1 of the Comprehensive Plan) identifies a proposed regional trail corridor extending north-south through the project site and a proposed county bikeway/linking trail corridor adjacent to the project site along County Road 10/ Engler Boulevard. The Chaska Creek corridor that extends through the site is designated as local open space. Other open space areas are identified nearby.

As there are no existing parks or trails currently located on or adjacent to the project site, their use would not be directly disrupted by the project's construction. Patrons of parks and trails in the area may experience minor impacts of odors, noise and dust during construction of the project. These impacts would be short term and are not expected to be significant. Measures discussed elsewhere (such as in Items 16 and 24) would minimize impacts.

d) Scenic Views and Vistas

There are no views or vistas officially designated as scenic in the project area. However, views of Chaska Creek, the wooded areas and wetlands onsite could be considered scenic by some. In some areas, buffers would be incorporated into the proposed development to protect these features. Trails/sidewalks may also be incorporated through the development to provide viewing opportunities. Tree removal in wooded areas would be subject to the City's woodland/steep slope policies discussed in the City's Environmental Protection Plan (Chapter 7 of the 2030 Comprehensive Plan). The City's policy is to preserve wooded land with an 18 percent slope or greater in its natural state. Figure 5 shows an area in the southeastern portion of the project site as wooded with slopes of 25-40 percent. The concept plan does not show development in this area.

The City's policies also address preservation of woodlands on areas less than 18% slope. Development in these areas may be permitted but retention of substantial tree stands is encouraged and should be incorporated into the required landscape plans for a development. Preservation of woodlands on steep slopes and in other areas is also addressed in the City's Zoning Ordinance.

See Items 11 and 12 for additional discussion of the creek, wetlands and wooded areas.

e) Other Unique Resources

Chaska Creek extends through the site. In the past, a portion of the creek was ditched in this area. With redevelopment of the project site from its current use as cropland,

opportunities exist for the creek to be restored to a more natural waterway with meanders, native vegetation, and wetland areas. As plans for development of the site move forward, restoration opportunities will be considered.

- 26. Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? Yes No
If yes, explain.

While the project would cause none of the impacts listed above, it would result in a visual change to the area. The project would convert agricultural land to a corporate business park with buildings and roads, associated lighting and landscaping. Chaska Creek and most areas of woods and wetland would remain.

Some trees may be removed during construction. The planting of trees will be required as part of the development according to the required landscaping plan but not necessarily as replacement for those lost during construction. The City does not have a tree replacement ordinance.

Landscaping may be used to provide screening for some uses or structures as required by the zoning code or to provide a transition between land uses of differing densities. Wetland impacts would be mitigated onsite at a minimum 2:1 ratio in accordance with the Wetland Conservation Act. Lighting for roads and structures would comply with City ordinances.

- 27. Compatibility with plans and land use regulations.** Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? Yes No
If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

The project is subject to the City of Chaska 2030 Comprehensive Plan (March 2010), which includes a surface water management plan, a water supply and distribution plan, and a sanitary sewer plan. It is also subject to the ordinances of the City of Chaska.

The Existing Land Use 2008 map (Figure 4.1 in the Comprehensive Plan) depicts the project site as agricultural. Currently the project site is zoned R – Rural (Zoning Map, April 2000). The project site would be rezoned concurrent with development approvals. The 2030 City Land Use Plan (Figure 4.6 in the Comprehensive Plan) depicts the project site as Business Park, with the area along Chaska Creek as Open Space. The proposed development is consistent with the City's future plans for the area. The development would be designed to comply with City plans and ordinances.

Figure 4.2 from the Comprehensive Plan (Planned Growth Areas) depicts the project site as part of an area as Planned Growth Area B - Chaska Biotech Center. Specific

businesses that will occupy individual parcels at the site are not known at this time. Some of the businesses may be associated with the biotech industry.

The project is also subject to the Carver County Watershed Management Organization (WMO) Rules. The development is being designed to comply with the WMO Rules and will be submitted to the agency for review and approval.

28. Impact on infrastructure and public services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? Yes No.
If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

Utilities will need to be extended to the project site to serve the proposed development. The extensions would be consistent with the City's 2030 Comprehensive Plan (scheduled for adoption March 2010).

Public Streets

The proposed project would require the construction of a public roadway through the site – Clover Ridge Drive would be extended from the north through the site. Construction would be phased to coincide with the development of adjacent parcels. After construction, the City would be responsible for maintenance of the roadway.

Water, Sanitary Sewer, and Storm Sewer

The existing public water, sanitary sewer, and storm sewer facility systems are adequately sized to serve the proposed development. New water, sanitary sewer, and storm sewer facilities would be extended to connect to and serve the project site.

Water System

The project will require a connection to the City of Chaska water supply system. While the project properties will place a nominal increase in demand on the City of Chaska's water supply system, the demand is not expected to significantly impact the planned growth of the municipal water supply system. The timing of future well installations to meet anticipated future demands will likely remain unchanged. The City's CIP indicates that Well #10 is planned to be added to the City system in 2010 to accommodate corporate industrial development and the Chaska Heights development in this area.

Sanitary Sewer

Wastewater service would be extended into the development and flows would be routed via a system of lateral and trunk sanitary sewers. Estimated average daily flow from the proposed development is 0.105 million gallons per day (MGD). The high ground located in the northeast portion of the site will be served by gravity to the north across Engler Boulevard. The rest of the site (lower elevations) will be served by the City's proposed Southwest Trunk System. Depending on the timing of

development, a temporary lift station may be needed to serve the lower elevation portions of the development. The proposed wastewater from the site will discharge into the Metropolitan Council Environmental Services (MCES) L-71 pumping station. MCES L-71 station pumps Chaska's sewage by force main south across the Minnesota River through Shakopee to the Blue Lake Wastewater Treatment Plant.

The Blue Lake Wastewater Treatment Plant averages daily wastewater flows of 28 MGD and has a projected wastewater capacity of 40 MGD by the year 2030. Through MCES regional planning, estimated flows from the MCES L-71 pumping station (including flow from the project site) have been accounted for in the wastewater service capacity of the Blue Lake Wastewater Treatment Plant.

Stormwater Management

The proposed construction would increase the amount of impervious cover, and this increase in impervious cover would cause an increase in stormwater runoff (both rate and volume). To mitigate for this increase in stormwater runoff, stormwater best management practices (BMPs) are necessary. Proposed stormwater BMPs would be designed to meet the rate control and water quality requirements of both the City of Chaska, per the policies identified in the City's 2007 Surface Water Management Plan (SWMP), and the Carver County Watershed Management Organization (CCWMO) rules and standards (Ordinance 57-2005).

Proposed storm sewer to serve the project would be designed and constructed in accordance with City design standards. Overall stormwater management for the project would be done in accordance with the specific requirements identified in Item 17, utilizing the available regional conveyance and storage system as appropriate. In addition, the proposed development may need to implement measures beyond the requirements identified above to address specific water quality impairments for downstream waterbodies. Protection of Chaska Creek was listed as a priority in the City of Chaska's 1994 Stormwater Quality Management Plan (SWQMP) and in the County's 2006 Water Quality Report which showed Chaska Creek to have poor water quality due to excessive nutrients and fecal coliform. The MPCA in July of 2008 classified Chaska Creek as an impaired water for excessive nutrients and fecal coliform.

Police and Fire

The project would also place additional demands on government services such as police and fire services. Currently, these service departments have adequate capacity to meet the demand. These infrastructure elements and services are considered and planned for as growth is anticipated in the city. Additional demands are periodically reexamined by the City as part of its annual budget and Capital Improvements Program review. Facility needs are also periodically reexamined.

Private Utilities

All necessary utility services would need to be extended and constructed in association with this development. Extension of the utility lines onto the project site would be coordinated with the appropriate utility companies as required.

School System

Chaska is located within Minnesota Public School District #112. Other cities in the District include Chanhassen, Victoria, Carver, and East Union. Currently the District operates four elementary schools, three middle schools, one senior high school, and one special education school. Because no new residences are proposed as part of the development, the proposed project will not impact the school district.

- 29. Cumulative potential effects.** Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative potential effects. (Such future projects would be those that are actually planned or for which a basis of expectation has been laid.) Describe 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 (*or discuss each cumulative potential effect under appropriate item(s) elsewhere on this form*).

There are several projects planned in the area of the proposed Chaska Creek Corporate Park development. These projects include: a 40-acre industrial development north of the project site and Engler Boulevard; a potential collegiate development south of the project site and Creek Road; and the Heights of Chaska mixed use development east and southeast of the project site across Hwy 212. The largest of these three projects is the 1024-acre Heights of Chaska mixed use development. An Alternative Urban Areawide Review (AUAR) was completed for this development in November 2005.

Heights of Chaska

The size and proximity of the proposed Heights of Chaska impacts the project site and the roadway network within the study area.

The proposed Heights of Chaska development encompasses 1,024 acres located east and southeast of the Frey Property. The current concept plan consists of two neighborhood centers with a mix of housing types and densities, an elementary school, small amount of commercial stores and offices, and civic and recreation uses. The AUAR prepared for the development assumed the following uses and sizes for trip generation: 1728 units of single family residential; 482 units of residential townhomes; 1332 residential apartment units; 50,000 square feet of neighborhood retail; 20,000 square feet of office, and elementary school for 600 students. The daily external trips generated by this development are projected to be 24,920 vehicles per day.

The proposed Chaska Creek Corporate Park development, Heights of Chaska development, and other future development in the area would result in increases in traffic, impervious surface areas, and other changes that result from development, as discussed in this EAW. Because the City has planned for orderly development and the infrastructure necessary to serve it, potential cumulative effects would be mitigated. Adverse cumulative impacts are not expected to result from the proposed Chaska Creek Corporate Park project, nor is it expected to conflict with existing or future development.

30. Other potential environmental impacts. If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

Impacts in addition to those discussed previously in this EAW are not anticipated.

31. Summary of issues. *Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW.*

List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

The project proposer must acquire the previously mentioned permits and approvals (Item 8) prior to proceeding with construction. Detailed plans and specifications must be reviewed and approved prior to construction. A summary of the issues identified in this EAW and the mitigation measures proposed to address them are presented in the table below.

Table 31-1 Summary of Issues and Proposed Mitigation

Item	Title	Issue	Mitigation Measures
12	Physical Impacts on Water Resources	Wetland impacts Chaska Creek crossing by Clover Ridge Drive Extension	Any proposed impacts must be authorized by the LGU prior to impacting the wetlands. Approval from the US Army Corps may also be required for wetland impacts. Wetland replacement for any impacts would be required prior to construction. The road crossing will be planned to minimize impacts to Chaska Creek. Erosion and sediment control measures will be implemented and if possible, construction will be planned to occur during a low-flow period. A Public Waters Work permit from the DNR will be needed for construction of the road across the creek. Conditions of the permit must be followed. A permit from the US Army Corps may also be required.

14	Water-Related Land Use Management District	Floodplain	<p>A Baseline Flood Elevation (BFE) study and a submittal to FEMA would be required if lots/structures are proposed within the FEMA Floodplain Zone A boundary which extends onto the southeastern portion of the site. The current concept plan identifies corporate campus and office on either side of the floodplain boundary.</p> <p>Though not an officially regulated FEMA 100-year floodplain boundary, the extents of the floodplain for Chaska Creek would also need to be managed to protect adjacent properties. A review of any impacts to the Chaska Creek floodplain would be reviewed at the time of the project plan submittal.</p>
16	Erosion and Sedimentation	Grading and the potential for erosion	<p>Erosion control measures will be used during construction and will remain in place until site stabilization has been achieved. A SWPPP will be prepared (including temporary and permanent erosion control plans) and an NPDES permit from the MPCA will be obtained. Erosion and sediment control plans are also required to be submitted to the City and the Carver County WMO for review and approval. Regular inspections will ensure compliance with erosion control requirements and the efficacy of the measures implemented.</p>
17	Water Quality: Surface Water Runoff	<p>Increase in impervious surface</p> <p>Impaired waters (Chaska Creek)</p>	<p>Stormwater BMPs to meet the City's and the Carver County WMO requirements regarding rate control, water quality, volume control, erosion control, and floodplain management.</p> <p>Additional measures may be required due to impaired waters. The project will comply with applicable requirements.</p>
21	Traffic	Increase in traffic volumes	<p><u>Under Existing Conditions</u> Engler Boulevard at Clover Ridge Drive: Install a signal.</p> <p><u>By Year 2015</u> Eastbound Engler Boulevard: provide left-turn lane with 100 feet of storage and a right-turn lane with 100 feet of storage.</p> <p>Westbound Engler Boulevard: provide dual left-turn lanes with 400 feet of storage, and a right-turn lane with 100 feet of storage.</p> <p>Southbound Clover Ridge Drive: provide dual left-turn lanes with 150 feet of storage, and provide a shared right-through lane.</p>

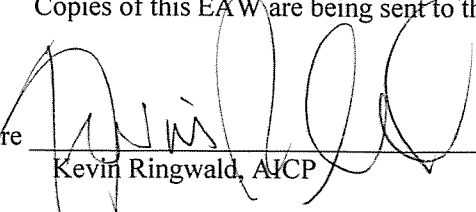
			<p>Northbound Clover Ridge Extension: Provide a left-turn lane with 200 feet of storage, a single through lane, and dual channelized right-turn lanes with 200 feet of storage with yield condition at Engler Boulevard. The Extension would be a four-lane roadway between Engler Boulevard and Creek Road. South of the intersection, the right lane would be signed "right lane must turn right".</p> <p><u>By Year 2030</u> Heights of Chaska trips must be allowed alternate routes to redirect traffic away from the Engler Boulevard/US 212 interchange.</p>
--	--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature


Kevin Ringwald, AICP

Date

3.1.10

Title

Director of Planning and Development, City of Chaska

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at the Minnesota Department of Administration, Office of Geographic and Demographic Analysis. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-201-2492, or <http://www.eqb.state.mn.us>