Received 11-12-19

ZONING APPEAL APPLICATION

To/From Board of Zoning Appeals
Dept. of Safety & Inspections
Zoning Section
375 Jackson Street, Suite 220
Saint Paul, MN 55101-1806
(651) 266-9008

To / From Planning Commission
Dept. of Planning & Econ. Devt.
Zoning Section
1400 City Hall Annex, 25 W 4th St.
Saint Paul, MN 55102-1634
(651) 266-6583

Zoning Office Use Only
File # 19-101-370
Fee Paid $ 462
Received By / Date AS 11.12.19
Tentative Hearing Date 12.04.19

APPELLANT

Name(s) St. Anthony Park Community Council
Address 2395 University Ave. W. Ste 300 City St. Paul State MN Zip 55114
Email kathryn@sapcc.org Phone 651-649-5992

PROPERTY LOCATION

Project Name Rohn Industries Trailer Parking
Address / Location 2495 Kasota Avenue, St. Paul, MN 55108

TYPE OF APPEAL: Application is hereby made for an appeal to the:

- ☐ **Board of Zoning Appeals,** under provisions of Zoning Code § 61.701(c), of a decision made by the Zoning Administrator.
- ☐ **Planning Commission**, under provisions of Zoning Code § 61.701(c), of a decision made by the Planning Administrator or Zoning Administrator.
- ■ **City Council,** under provisions of Zoning Code § 61.702(a), of a decision made by the Board of Zoning Appeals or the Planning Commission.

Date of decision November 1, 20 19 File Number ZF #19-088-143

GROUNDS FOR APPEAL: Explain why you feel there has been an error in any requirement, permit, decision or refusal made by an administrative official, or an error in fact, procedure or finding made by the Planning Commission or Board of Zoning Appeals. Attach additional sheets if necessary.

The St. Anthony Park Community Council appeals the approval of Resolution 19-54 and the site plan for 2495 Kasota Avenue. In our attached letter, we present errors in requirements, fact, procedure, and findings on seven of the 11 findings of the Planning Commission that were used to support approval of the site plan. It is the considered, opinion of our members — whose full professional and academic credentials are attached — that there are only two sustainable options for the site: remove the polluted material and restore its original wetland condition; or leave it undisturbed. Rohn Industries is a valued neighborhood asset and we support their presence. The SAPCC is willing to work with Rohn to explore other semitrailer storage options in or near our neighborhood. The SAPCC also is committed to identifying long-term strategies and resources to protect these urban ponds and wetlands.

☐ If you are a religious institution you may have certain rights under RLUIPA. Please check this box if you identify as a religious institution.

Appellant's Signature Kathryn Murray **Date** November 12, 2019

Rev 7.4.2019

St. Anthony Park Community Council
2395 University Avenue West, Suite 300E
Saint Paul, MN 55114

ST. ANTHONY PARK COMMUNITY COUNCIL 12 DISTRICT

TO: Yaya Diatta, Zoning Administrator
Department of Safety & Inspections
375 Jackson Street, Suite 220
Saint Paul, MN 55101

DATE: November 12, 2019

RE: 2495 Kasota Avenue, Rohn Industries Site Plan - Denial of Appeal
Zoning File #19-088-143

Dear Mr. Diatta,

The Saint Anthony Park Community Council appeals the Saint Paul Planning Commission's Resolution 19-54 based on numerous errors in requirements, errors in fact, errors in procedure, and errors in findings. We address these according to the stated "findings of fact" in the Resolution. In addition, we attach our original appeal to the Zoning Committee (Appendix 1).

Executive Summary of Errors Within Planning Commission Resolution 19-54

1) **The city's adopted comprehensive plan and development or project plans for sub-areas of the city**
   • The site plan is not consistent with the St. Anthony Park Community Plan in multiple other sections not cited in the resolution.
   • The resolution focuses narrowly on increasing tax base (LU-6) and omits other priorities in the city's comprehensive plan related to land use, such as LU-8.
   • The site plan approval makes no recognition of the Saint Paul Climate Action and Resilience Plan, which recommends reducing impervious surfaces where possible — not adding them.
2) **Applicable ordinances of the City of Saint Paul.**
   • The principle use is states as Outdoor Storage but the Applicant has not established that its intended activities meet the ordinance definition of Outdoor Storage.
3) **Preservation of unique geologic, geographic or historically significant characteristics of the city and environmentally sensitive areas.**
   • Many important documents were overlooked by the Applicant's consultants that detail the historic watershed, cultural, and environmental features of the 2495 Kasota site and its environs.
   • MWMO itself documented that it was a wetland, and summarized this in a 2011 report and map. Soil borings and the type of insect life on the site support this.
4) **Protection of adjacent and neighboring properties through reasonable provision for such matters as surface water drainage, sound and sight buffers, preservation of views,**

light and air, and those aspects of design which may have substantial effects on neighboring land uses.

• This site, used as a dump for decades in the mid-20th century, has not been adequately sampled. The applicant's consultants should have taken more samples, especially when they found levels of lead contamination that rose from acceptable to hazardous within a distance of 8 feet. Therefore, we contend that MPCA has erred in approving plans for this site because the site has not been adequately characterized.

• Additionally, the Applicant's Emergency Construction Contingency Plan is not adequate. Some of the types of contamination known to be on this site (particularly lead, but also mercury, cadmium, and arsenic) cannot be detected by anyone, whether trained professional or not, without analytical equipment. Therefore, much more thorough sampling is required before construction begins.

• SAPCC contends there is unacceptable risk to workers who will be on site and nearby residents, and that the MDH decision was based on the faulty MPCA evaluation described above.

• Condition 3 imposed by the Zoning Commission will be ineffective in decreasing the potential for dangerous outcomes of this construction project. Denying the site plan is the most prudent option, but if it is approved, a condition should be added that requires sampling from appropriate depths from a total of at the very least 20 trenches to meet the published MPCA guidelines.

• Upholding SAPCC's appeal of this site does not set a precedent for every brownfield in Saint Paul, because there is specific evidence that this brownfield contains toxic metals in highly variable locations that cannot be detected by sight or smell during construction.

5) **The arrangement of buildings, uses and facilities of the proposed development in order to assure abutting property and/or its occupants will not be unreasonably affected.**

   • The Planning Commission did not take into consideration the fact that this site is within a wildlife area. The plant choices and fencing are all inappropriate for that reality.

6) **Creation of energy-conserving design through landscaping and location, orientation and elevation of structures.**

   - The addition of an acre of bituminous and concrete will more than offset the effect of planting a few more trees than currently exist on this vegetated site.

7) [none]

8) **The satisfactory availability and capacity of storm and sanitary sewers, including solutions to any drainage problems in the area of the development.**

   - The site plan for stormwater is inadequate, particularly for water storage and retention. Paving an acre will increase runoff to the adjoining ponds and storm sewers. 1000-year storm events have become more common and the plan does not account for these.

The SAPCC concludes that the proposed project should not move forward at this particular site. It is our considered, professional opinion that there are only two sustainable options for the site: remove the polluted material and restore its original wetland condition; or leave it undisturbed. Rohn Industries is a valued neighborhood asset and we support their presence. The SAPCC is willing to work with Rohn to explore other semitrailer storage options in or near our neighborhood. The SAPCC also is committed to identifying long-term strategies and resources to protect these urban ponds and wetlands.

Finding of Errors - Resolution 19-54

1. The city's adopted comprehensive plan and development or project plans for sub-areas of the city.

"The site plan is consistent with the goal in the Saint Anthony Park Community Plan (WSA3) to reduce the input of contaminants to surface waters from Saint Anthony Park. Capping this site with a bituminous surface will limit the amount of water percolating through contaminants underground on the site." (p.2)

The first sentence completely misrepresents the Saint Anthony Park Community Plan by ignoring the Plan's details.

City staff apparently missed the following two statements that more clearly indicate our intentions:

"Our goals are to remediate known hazards and to generally improve the quality of habitat for humans and other species. As temporary stewards of this place, we seek to minimize our damage to the natural environment."

Here is the full listing for the goal referred to in the Resolution:

WSA3. Reduce input of contaminants to surface waters from Saint Anthony Park.

- WSA3.1. With the City and other partners, work to reduce application of environmentally harmful chemicals, including deicing chemicals, on public streets, parking lots, residential areas, and railroad right-of-ways. Work with neighboring areas to include our interconnected airshed and watersheds. (see also Equity Framework)
- WSA3.2. Design and promote approaches to reduce the inflow and concentrations of road salt in Kasota Ponds.
- WSA3.3. With the MWMO and other partners, determine the sources, buffering, and potential removal of contaminants other than salt from Kasota Ponds.
- WSA3.4. Work to reduce the inflow of contaminants to Sarita Wetland.
- WSA3.5. In conjunction with other partners, reduce runoff and suspended solids that carry nitrogen, phosphorus, and other chemicals into the Mississippi River.
- WSA3.6. Work with the City to achieve wide voluntary participation in the "Adopt-A-Drain" program (Adopt-A-Drain.org) to remove leaves and other debris from street gutters.

As evidence of our community's concern about pollution, here is an excerpt from the Community Plan:

"The highest concentration of MPCA-identified harmful sites is in areas where the median household income is between $20,000 and $40,000, and within a half-mile of the Green Line, where rapid population growth is occurring. This area also has a high proportion of young families and adults of child-bearing age, and is home to recent immigrants. More soil pollution likely will be identified as current industrially zoned land is converted to other uses. Essentially no information is available on the presence

or extent of soil contamination in residential areas due to other activities, such as use of lead paint, treated landscape lumber, or arsenic-containing insecticides."

We include a longer excerpt from our Community Plan as an attachment (Appendix 2), which provides context, including identification and remediation of soil pollution, proximity of contaminated sites to residents with low household income, and a fuller picture of our goals.

Why the narrow focus only on increasing the tax base?
DSI Staff claimed the development of this site will increase the taxable value of the site.

"The site plan is consistent with comprehensive plan economic development policies to grow Saint Paul's tax base to maintain and expand City services, amenities and infrastructure... Improvements on this parcel will add to Saint Paul's tax base." (p.2)

It is pointless to invoke LU-6.3. in the City's Comprehensive Plan (Foster equitable and sustainable economic growth by growing Saint Paul's tax base in order to maintain and expand City services, amenities and infrastructure). Virtually every development, even the most polluting and inappropriate, will increase the tax base, since increasing property value is the point of real estate development.

By taking this stance, Staff and Commission demonstrate that they have been too narrowly focused, when it is more appropriate that Policy LU-8 should be applied when evaluating this site plan (Ensure that zoning and infrastructure support environmentally and economically efficient, resilient land use development).

What other effects were missed in the Resolution?
Staff and Commission members did not discuss the relevance of the Saint Paul Climate Action and Resilience Plan to this development, but they should have. A problem we are already facing in the Metro area is the urban heat island effect, which disproportionately affects the poor. One of the actions recommended is to "Reduce impervious surfaces where possible…" Avoiding the addition of another acre of asphalt and concrete certainly supports this Plan.

In addition, we have an ongoing concern about subsidence on this site and how that could affect the integrity of the development. In all the geo-technical soil boring campaigns at this site over the past several decades, the consulting engineering firms have expressed concern about the presence of low-density pockets within the fill that may be compressed by the additional weight of construction, and in this case, filled semitrailers. In the latest report we have, Braun Intertec stated:

As indicated by the soil borings and test pit data, the on-site soils consist of significant amounts of fill materials consisting of variable soils types which are intermixed with miscellaneous debris and organic soils, and the penetration resistances recorded in the soil borings indicate that some of the fill is very soft or loose. Ideally, and to reduce risks of long-term differential settlement, all or a significant portion of the existing fill would have to be removed from beneath the proposed pavements. However, because of the

> environmental concerns associated with the removal of the existing fill and considering that some risk of long-term settlements associated with pavements can typically be tolerated, the significant costs associated with the removal of significant amounts of the existing fill can likely not be tolerated. As such, the recommendations we are providing in this report assumes that the risk of long-term differential settlement to the pavements can be tolerated. (p.43 Final Phase II Report)

If these experts are concerned enough to raise the issue, we are more concerned about "tolerating" the risk of long-term settling and all the impacts that will have on storm water flow and infiltration, stability of the structures, and so on.

2) Applicable ordinances of the City of Saint Paul.

The decision of the Planning Commission must be reversed, and the site plan must be rejected, because the actual activity that the Applicant proposes for the Property does not meet the ordinance definition of Outdoor Storage.

The Applicant has stated that it intends to use the Property for the principal use of "Outdoor Storage," but it has not established that its intended activities actually meet the ordinance definition of Outdoor Storage.

The Zoning Ordinance establishes two different principal uses that include keeping semitrailers on a piece of property: parking and storage. The single factor that distinguishes parking semitrailers from storing them is the length of time that they are kept on the property, as demonstrated by the ordinance definitions of parking and storage:

"Storage" is defined as "[t]he placement of items such as, but not limited to, the following: … semitrailers … or other vehicles **not used for more than five (5) days**." Sec. 60.203. – S (emphasis added).

"Parking" is defined as "[t]he placement of … semitrailers … **for five (5) or fewer days**." Sec. 60.203. – P (emphasis added).

These definitions are mandatory and must be applied. *See* Sec. 60.201 ("For the purposes of this zoning code, the terms defined in article II. 60.200, general definitions, shall have the meanings ascribed to them herein"); Sec. 60.104 (c) ("The word 'shall' is mandatory[.]")

The distinction between parking and storage is critical in this case because Outdoor Storage of semitrailers it a permitted principal use in the I1 district but parking them is not a permitted or conditionally permitted principal use in the I1 district. The list of permitted uses in the I1 district does include "Commercial Parking Facility," but the use proposed by the Applicant does not meet the definition of a commercial parking facility, which is "an off-street parking facility… for which a fee is charged for the privilege of parking." Sec. 65.731.

The burden of demonstrating that the proposed use is a permitted principal use rests with the Applicant. *See* Sec. 61.402(b)(3) ("Application for site plan approval shall include plans with sufficient detail to demonstrate compliance with the provisions of this code[.]") The Applicant has failed to carry that burden here. The Applicant's September 26, 2019, narrative letter indicates that is seeks to develop the Property due to a "serious lack of staging and **parking** space" at its Hersey Street site. The letter goes on to discuss the "proposed development at 2495 Kasota Ave as a trailer **parking**/staging lot." The Staff Report describes the proposed principal use as a "trailer staging area," and references trucks and trailers "queue[ing] on private property." The Staff Report also refers to "a projection of 20 truck movements per day." Considering the site will have space only for 25 trailers, if 20 of trailers will be moved per day, the principal use of the Property is clearly not outdoor storage, with its five-day minimum for vehicles including semi-trailers. The proposed principal use is **parking**, and parking is not a permitted principal use in the I1 district.

The five-day threshold separating the storage of semitrailers and parking them is not just a technical distinction. It has a very real significance for the neighborhood: if the semitrailers were actually stored on the Property, and remained there for more than five days at a time, the neighborhood would experience significantly less truck traffic than if those semitrailers can be moved back and forth on a daily basis from the Applicant's recycling facility, which is located 1.3 miles away at 862 Hersey Street, using a segment of Raymond Avenue that has substantial bicycle use and is part of the Grand Round. *(These facts rebut the Planning Commission's "findings of fact" number 7, also discussed below.)*

3) Preservation of unique geologic, geographic or historically significant characteristics of the city and environmentally sensitive areas.

Several important documents and records were overlooked by the Rohn consultants, which detail the historic watershed, cultural, and environmental features of the 2495 Kasota site and environs:

- The Mississippi Watershed Management Organization (MWMO) commissioned a very comprehensive 2006 study (*The Bridal Veil Creek Subwatershed Desk Study: A Mississippi Watershed Management Organization Watershed Assessment*). www.mwmo.org/?s=bridal+veil
- *What we have lost and what remains: Options for managing and connecting habitat in St. Anthony Park with surrounding communities* (Eckman *et al*., 2001). SAPCC received DNR grants in 1999 and 2000 to support environmental inventories conducted by several UMN and DNR researchers, summarized in this report.
- The 1867 Bennett map of Ramsey County (Empson 1995) and 1876 Winchell map, showing historic wetland boundaries
- *Historic Waters of the Capitol Region Watershed District, Ramsey County, Minnesota*. 2006. Greg Brick and CRWD. (Appendix 3 herein)
- *Minnesota Spring Hunters Anthology*. 2018. Greg Brick.
- In addition, many documents at MPCA and the 1944 maps at the City of Saint Paul Sewer Department were reviewed by SAPCC during the earlier BP Amoco appeal. These are currently unavailable due to storage issues.

- At least a dozen UMN students and faculty have conducted research at the Kasota Pond complex since the 1970s, as described in unpublished student papers and theses.
- See also *The Park Bugle* articles from 2000 and 2003

The 2495 Kasota site is a dump located within the Bridal Veil subwatershed (MWMO 2006). It is adjacent to three natural pond fragments. A fourth small wetland exists on the southwest corner of the property, which hosts the greatest numbers and diversity of aquatic insects of all four ponds (see map in our appeal to the Zoning Committee). The site is also 60 feet east of the historic Skonard Spring, used by local residents until about 1990 as a source of potable water. Dr. Eckman's family collected water at Skonard Spring in the 1950s for coffee. At that time the spring was surrounded by a larger area of saturated soils and aquatic plants including the 2495 Kasota site. The spring recharged Kasota Pond East via a culvert under Kasota Avenue. The spring was capped and piped following remediation of the Valentine Clark superfund site.

The Kasota Pond complex is certainly not pristine, but does host many native species of fish, pill clams, crayfish, fairy shrimp (rare in an urban pond), and three species of turtles (painted, Western spiney soft-shelled, and snapping). Turtles have been observed excavating and laying eggs at the 2495 Kasota site. It is situated on the Mississippi Flyway for migratory waterfowl and other neotropical birds (warblers, thrushes, shorebirds, etc.). Green herons, soras, kingfishers, great blue herons, orioles, numerous warblers, swifts, swallows, finches and other songbirds inhabit and use this unlit, unoccupied site. Notably, about 1/3 of North American birds (three billion in number) have disappeared in the last five decades, according to a 2019 Cornell University study. We have observed a corresponding decline in yellow-headed blackbirds, American bitterns, and whip-poor-wills in thirty years of observation at the site.

Although the ponds have been encroached upon by development, filling, and road construction, they continue to harbor many desirable species and large numbers of migratory waterfowl and warblers. Finally, disturbances from night-time lighting and increased truck traffic will have impacts on surrounding habitat, especially for migratory birds.

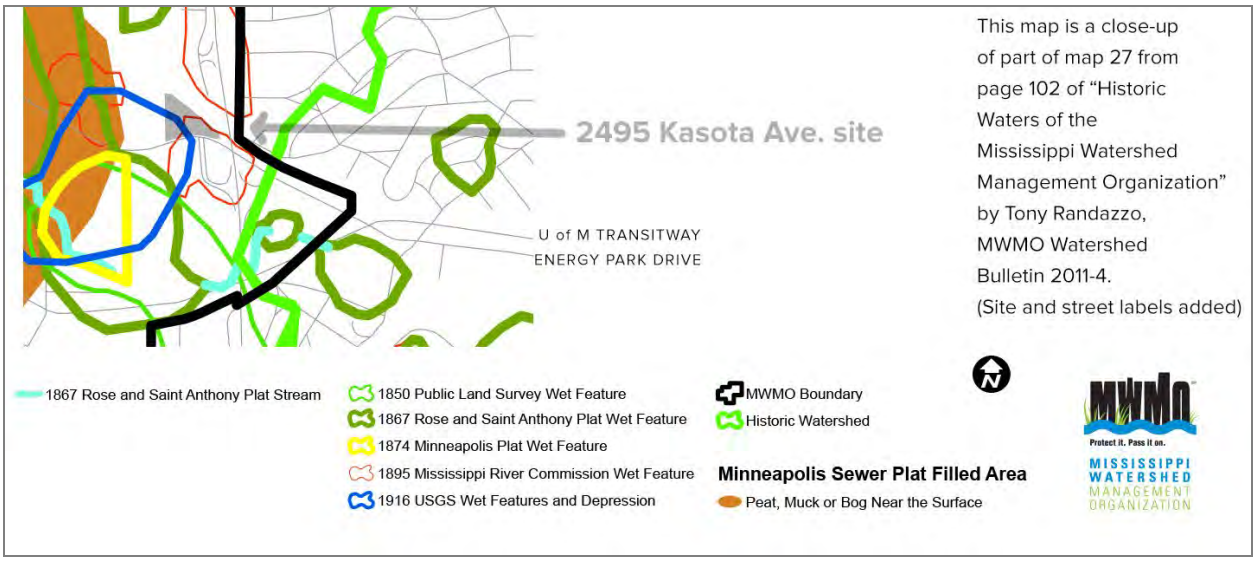
Just a decade ago, Brick concluded that:

"Restoration efforts are best focused on the series of detention ponds (e.g., Burlington Pond, Kasota Pond) historically associated with this stream [Bridal Veil Creek], which provide a true amenity to wildlife in a heavily industrialized area." (p.24 in attached excerpt from *Historic Waters of the Capitol Region Watershed District, Ramsey County, Minnesota,* Appendix 3)

Was this an original wetland?

The 2006 MWMO report and other maps cited above show clearly that the entire surrounding area was marshy. The site lies within a large historic wetland and is less than 50 feet from Skonard Spring. A 1944 City sewer map showed a chain of ponds between Como and University Avenues. The spring in living memory was surrounded by saturated marshy soils. Its outflow was truncated by the construction of railroads and Kasota Avenue. While no known record of fill and deposition at the 2495 Kasota site exists, it is highly likely that the site was once a wetland depression, a low-lying area 20 feet below grade to be conveniently filled with garbage and ash,

as evidenced by old barrels and buried debris. ***If the ash were not there, there would be little or no land at the 2495 Kasota site upon which to build.***



The deep soil borings completed at the site provide indisputable evidence that the original wetlands underlying the fill had been present for an extremely long time. Four examples are provided in Appendix 4. These record the presence of deep layers of peat, formed from dead plants that slowly decomposed under water over thousands of years. EnPro developed two Geologic Cross Sections from soil boring records. These are estimates of buried surfaces, derived by interpolation between the boring sites. The location of the cross sections can be seen on the map in the EnPro attachment. EnPro stated that "up to 4 ft of swamp and lake deposits were present above the till." (p.9) The "till" they refer to is "glacial till," soil materials that had been ground up and laid down the action of glaciers.

If the fill that was deposited in the dump were removed to remediate the site, the presence of this peat would promote rapid redevelopment of wetlands, which would provide carbon sequestration, storm water control, and wildlife habitat.

Further evidence of its wetland origin is found in the high diversity of aquatic insects in the small pond on the site. Despite its appearance, this pond continues to function hydrologically as a natural wetland. As noted by MWMO:

"Despite the division of the Bridal Veil Creek watershed, historical interest and ecological connectivity of natural areas through patches and corridors are important reasons for considering the historic watershed boundaries. For education and management purposes, particularly greenway development, the historic Bridal Veil watershed provides a defined "management unit" and historic context for education purposes (MWMO 2006)."

4. Protection of adjacent and neighboring properties through reasonable provision for such matters as surface water drainage, sound and sight buffers, preservation of views, light and air, and those aspects of design which may have substantial effects on neighboring land uses.

Before we rebut comments by the Planning Commission, we think it is valuable to review the origin of materials and management of this dump site, according to documents from the MPCA:

"The site is located in the heart of the Twin Cities in Minneapolis, but slightly overlaps into St. Paul. It lies just northwe[st] of the intersection of Kasota Avenue and Highway 280….

It is not known when this dump began operating. For many years the land belonged to Burlington Northern Railroad, and it is thought that they might have disposed of a few things in it.

At some point, the City of Minneapolis began using about 37 acres of the vacant land as a place to dump ash and residue from one of their two municipal garbage incinerators. The ash dumped there was probably similar in content to that from the city's other incinerator, which exceeded MPCA standards for cadmium, lead, zinc, selenium and arsenic. Water tests at the Lyndale Dump to which that ash was taken also exceeded allowable levels of cadmium, lead, selenium, and arsenic.…

Access to the site was very easy as it was not fenced, was accessible from all sides, and had no operator on duty. Considering this, and the industrial land use of the area, it seems quite possible that some hazardous wastes could have been disposed of at the site.…

It seems quite possible that the site was never covered over as mentioned above, nor properly closed, because no closure forms for the dump were ever found." (p. 824-827, Final Phase I ESA Kasota and MN280)

The same report concludes:

"<u>Evaluation of the Site</u>

This site was rated 2- moderate to high. It is a large site, located in an industrial area, which probably received hazardous wastes. Ash, the main item dumped there almost certainly had high concentrations of some heavy metals and could therefore contaminate surface and ground water in the area with these metals. The site was used for many years, was poorly managed and was open to dumping at any time. The wide variety of things other than ash found at the site (including several rusty barrels) suggests that it was easy for anyone who wanted to do so to dump there; generators of hazardous waste would have had no trouble dumping there." (p. 834, Final Phase I ESA Kasota and MN280)

This description and subsequent sampling prove that the fill in this dump site contains hazardous metals and organic compounds.

Has the site been adequately sampled?

Although one-half of the voting members of the Zoning Committee and 7 of the 15 members of the Planning Commission doubted the adequacy of the environmental investigations to date at the site, the Resolution emphasizes the decisions made by MPCA and MDH. We have disputed the MPCA's acceptance of the inadequate sampling at this site (see attached justification for our appeal to the Zoning Committee, Appendix 1), upon which their decisions and those of MDH were predicated. Here, we address questions that were raised during both the Committee and Commission meetings that could not be answered at those meetings.

A question raised at both the Zoning Committee and Planning Commission was whether the condition of the site or type of contamination affects MPCA guidance on the number of soil samples to take. One Commissioner stated that no sampling is required on sites without contamination, but this is irrelevant to the question of demonstrably contaminated sites.

"The number of lateral soil sampling locations will be determined by the surface area of a site and the presence of discrete areas of contamination (i.e., source areas). Guidelines for determining the number of sampling locations for sites *with no apparent discrete areas of soil contamination* are listed in Table 5E." (p.24, MPCA Draft Guidelines Risk Based Site Characterization and Sampling Guidance; italics in the original)

The MPCA document continues with:
"More samples, in addition to the numbers listed above, may be required due to site-specific contamination or geologic conditions."

Table 5E, referred to above, is titled "Recommended Minimum Preliminary Soil Sampling Density" and states that for areas less than two acres, six sample locations should be included per 0.5 acre (12/acre). The area of the Kasota Avenue parcel is about 1.7 acres (the stated area varies among the documents). Therefore, for their INITIAL sampling, **Landmark should have taken 20 samples, at the very least. Instead, they dug and sampled only 8 trenches.**

Not only were too few trenches dug at the site, but the trenches were not even uniformly sampled to represent the depths to which construction will disturb the fill. Four trenches were sampled from the top 2 feet (0 to 2 feet), one was sampled from 1 to 2 feet deep, another sampled from 2 to 3 feet, and two from 2 to 4 feet. So, **the Applicant's contention and MPCA's apparent agreement that the site has been adequately characterized are wrong**.

"Eight test trenches, labeled Landmark Test Trench 1 (LTT-1) through LTT-8, were advanced and excavated to investigate the REC and to provide overall spatial coverage across the Property. The test trenches were excavated to an approximate depth of 5 feet bgs [below ground surface] for the collection of soil samples. Soil samples submitted for laboratory analysis **focused on characterizing near surface soil** (approximately 0 to 5 feet bgs) **across the Property for soil that may be disturbed during future redevelopment** (construction of a semi-trailer parking lot), **and to assess the potential for contamination**." (p.8, Final Phase II Report; emphasis added)

There is no doubt that the Applicants failed to characterize the "near surface soil across the Property." Thankfully, despite this lack of rigorous sampling, they were able to confirm that "the potential for contamination" was 100%.

MPCA did not follow its own published guidance in its review of this site, as is apparent in the No Association Determination notice, dated September 10, 2019. In that letter, it was noted that prior investigations had been made. However, at least two of these in-depth sampling campaigns were limited to geotechnical characterization, rather than evaluation of contaminants. In the 1996 EnPro case, which included contaminant analysis, none of the samples that were analyzed for toxic metals were from the near surface, the depth of concern for development of a parking/storage lot.

What Saint Paul City Council members and residents are left with are **only 5 samples from the near-surface across the 1.7-acre site**, plus a few that were analyzed around the only hot spot of lead contamination that was found – just five locations and one happened to land in a hot spot.

This could have been prevented had Landmark Environmental not ignored MPCA recommendations to conduct a more thorough sampling of the site in their Phase I investigation.

> "For a preliminary evaluation of soils, adequate lateral spatial coverage is required. As long as desired DQOs [Data Quality Objectives] are met, it is recommended that field screening or field analytical methods be used (XRF, immunoassay, mobile lab). In conjunction with lab samples, these field methods can provide better spatial coverage of a site at a lower cost." (p.24, MPCA Draft Guidelines Risk Based Site Characterization and Sampling Guidance)

A portable XRF instrument can produce a multielement readout in minutes. At any location where a reading higher than regulations allow occurs, the instrument can be used to delineate the likely area that needs to be remediated. This can be done immediately, without the wait entailed in sample extraction, processing, analysis, and reporting. Therefore, the team could do a thorough screening of the site and have a very good idea of where to take destructive samples to verify areas needing remediation before construction begins.

From the site plan documents, it is clear that, if they are approved, the entire site will be disturbed during construction. The surface area that will be exposed by vegetation removal, excavation, and grading is about 1.67 acres – nearly 73,000 square feet. **The distance between hazardous and nonhazardous samples is no more than 8 feet, yet trenches were no closer than 50 feet apart – at least 6 times the distance we know is relevant to lead contamination at this site.**

After Dr. Russelle's testimony at the Zoning Committee, he was asked how the site *should* be sampled. At that time, the SAPCC had not discussed this topic. Given the extreme variability at the site, he stated that one approach would be to take several grid samples in which a few samples are combined in each small area to seek above average readings. This result helps focus a second sampling campaign to delineate hot spots. This is one approach approved in MPCA

guidelines. He is prepared to suggest a more detailed sampling design as a condition to approving the site plan.

Is the Applicant's Emergency Construction Contingency Plan adequate?
All parties involved recognize that this site is contaminated with toxic metals, volatile organic compounds, including those from petroleum products and others produced by burning. What is not agreed is whether enough has been done to protect workers, nearby residents, wildlife, and the environment.

The Environmental Construction Contingency Plan essentially states that the Applicants will follow MPCA guidance during construction.

"This [plan] will be implemented in the event that indications of contamination, regulated waste, or other items of environmental concern that require special handling are **unexpectedly** encountered during construction." (p. 2, emphasis in the original document)

Committee staff, one of the Applicants, and some members of the Committee stated that this plan is sufficient to avoid release of hazardous materials, particularly because a "trained environmental professional" will be on site. This opinion was stated by several Planning Commission members at their meeting on November 1 and appeared to be influential in determining the final majority vote in favor of the site plan.

The plan states:
"Unexpected environmental conditions potentially consist of encountering one or more of the following during excavation activities: underground storage tanks (USTs), buried debris containing brick, concrete wood and materials with potential ACM [asbestos containing materials] and other hazardous materials or contaminated soils." (p.3)

"If visible or olfactory evidence of contaminated soil, other than previously identified, are observed during earthwork activities related to the project, the following actions will be taken:
1. STOP WORK IMMEDIATELY, SECURE WORKER SAFETY, AND SECURE THE AREA.
2. Contact Landmark—or in their absence—MPCA for further instruction." (p.2)

As we stated during the hearing at the Zoning Committee, we had not had time to review two documents that were posted on the Committee's website only two days before that meeting on October 24. One of these was the Landmark Environmental Construction Contingency Plan, dated July 2019.

We agree that this plan is likely to be helpful if they:
1) uncover underground storage tanks (rather unlikely on this undeveloped site),
2) see construction materials that may contain asbestos (likely, given the types of material already identified at the site), and/or

3) smell or see evidence of petroleum contamination (based on known contamination at the site, smelling the odor of these chemicals is highly likely if personnel are close to the exposed material; it is unlikely if they are operating earthmoving equipment, are positioned upwind, or are some distance away observing other activities).

All of these situations require the presence of a trained professional with authority to stop work and cause other steps to be taken. However, **without analytical equipment, it is impossible for anyone, trained or otherwise, to recognize contamination by other toxic metals, like lead, mercury, cadmium, and arsenic, for example.**

On a following page are photos of four of the eight trenches made during the Phase II Investigation (p. 81-88). All trenches have a variably thin cap of soil, all have dark-colored fill, all exhibit larger pieces of debris, and a couple show water seeping from the side wall. This gives an idea of what will be seen as the site is worked during construction. You have a 25% chance of selecting the contaminated trench by chance alone from this group of four photos – so does Dr. Russelle and every other trained professional. **No one will notice when they expose and move fill material that is contaminated with hazardous amounts of lead.**

Therefore, the contingency plan is demonstrably inadequate to control emission of lead and perhaps other toxic metals once construction begins. **The site plan must not be approved without more thorough sampling and analysis.**

Which one of these trenches contains a hazardous amount of lead?
Which has the least amount of lead contamination?

Is there really little risk to workers and nearby residences?
The Resolution states that:
"…MDH [Minnesota Department of Health] believes the proposed development at 2495 Kasota does not pose a public health hazard, based on review of environmental reports and comparing site contaminant levels to environmental criteria." (p.4)

The MDH made this decision based on the faulty MPCA evaluation described above. Furthermore, the only health hazard identified yet is lead, a powerful neurotoxin, which also affects the cardiovascular system, kidneys, and immune system. As Dr. Russelle described to the Zoning Committee, potential health impacts from soil lead are nearly all due to the fine particles, rather than the bulk sample. Because lead and other toxic metals often are concentrated in the fine particles, it is likely that whole-soil levels of lead grossly underestimate the concentrations that workers and nearby residents will be exposed to in the dust and that organisms in the environment will be exposed to in runoff water.

The Rohn consultants state that the nearest residences are in North Saint Anthony Park, across Highway 280. This is not the case. There are at least two encampments in the immediate vicinity (650 feet), and two more within ¼ mile. The largest encampment, at the south end of Kasota Pond East, has been almost occupied almost continuously since at least 1989, housing up to 17 people at the same time. Occupants have included rail riders, a group of homeless veterans, and other transient small groups. At one point a homeless family with children overwintered at the site. Currently there appear to be two residents that have occupied the site for about three years.

This makes it even more important that 1) other potential lead hot spots are discovered before construction and 2) that all samples be analyzed for lead in the bulk (whole) sample to inform MPCA about the need to remove that soil, and 3) that the fine particulate fraction be analyzed for lead to inform MDH and public health specialists of the risk of both offsite movement in wind and water and of dust exposure to workers on site, especially. As we argued to the Zoning Committee, we would expect that all samples be analyzed for the toxic elements already known to be present at the site (mercury, arsenic, cadmium) and that are likely to be present in higher concentrations in the fine particle fraction.

Condition 3 imposed by the Commission will be ineffective
Most of Condition 3 is simply a restatement of what the MPCA requires of the Applicant during construction. The only new condition is to provide weekly updates to the Commission and DSI during construction. It should be clear from the foregoing arguments that the MPCA requirements will be ineffective in detecting lead at the site. Lead is of primary importance because it was detected in one area at concentrations 1.7 to 2 times the Industrial Soil Reference Value of 700 parts per million.

If you, the Saint Paul City Council, decide to deny this appeal and allow the Applicants to disturb this dump site, **at the very least**, they should be **required to collect samples from a total of 20 trenches** (including those that have been sampled already if the samples represent the depth of disturbance expected during construction) to meet the published MPCA guidelines. If disturbance will be limited to 2 feet, then soil should be sampled from that depth. For all areas of

deeper excavation, such as near the planned stormwater retention pond, multiple samples must include the entire depth of disturbance in 1- to 2-foot thick layers. Alternatively, the Applicants could use an approved field screening method, in which case more locations should be sampled.

As required during their earlier work, additional sampling must occur to delineate the extent of identified contamination, so that proper remediation can occur before land forming.

This is not too much to ask; it is not too much to require. The Applicants have chosen to develop a known, problematic site that others, including the current owners, have considered developing, but abandoned those plans. They and we owe it to our residents, the workers at the site and those in nearby buildings, and to this fragment of ecological diversity.

Will this decision set a precedent to deny development of every brownfield?
Our response to this concern is "No, not if support for this appeal is based on the type of contamination this kind of brownfield represents." We have provided evidence that this former dump has characteristics that should require more and better sampling before approval of the site plan.

Consider a situation of another dump that shows no evidence of toxic metal contamination, but does have petroleum contaminants. In such a case, the Emergency Construction Contingency Plan provided by the Applicant should provide sufficient safeguards, because petroleum and related products can usually be detected by odor or visible darkening of the soil. There is no justification to think that support of the SAPCC appeal in this case will stifle development on any brownfields.

5. The arrangement of buildings, uses and facilities of the proposed development in order to assure abutting property and/or its occupants will not be unreasonably affected.
Here, the Planning Commission focuses only on screening to reduce the visual impact of the lot on members of the public that work nearby or drive by. We suggest that other occupants of the abutting and nearby property be considered.

In our appeal to the Zoning Committee, we argued that planned landscape plantings are both inappropriate and inadequate for this wildlife area. The Resolution misstates our opinion about what should be planted, if this development proceeds. A diversity of native plant species is needed – plantings that support movement, sustenance, and nesting habitat for turtles and birds. The planned chain link fence will prevent turtles from moving to their nesting areas. Even if the base of the chain link were raised to allow turtles to move under it, they would be at risk from frequent tractor trailer movement.

6. Creation of energy-conserving design through landscaping and location, orientation and elevation of structures.

As pointed out in response to Item 4, the addition of an acre of bituminous and concrete will more than offset the effect of planting a few more trees than currently exist on this vegetated site.

8. The satisfactory availability and capacity of storm and sanitary sewers, including solutions to any drainage problems in the area of the development.

The site plan has an inadequate stormwater design, particularly with regard to water storage and retention. Paving the site with impervious material will seal in polluted materials, but will dramatically and rapidly increase runoff into adjoining ponds and storm sewers. The design calls for stormwater retention in the small pond on the property, which is currently functioning hydrologically as a natural pond. The site plan is based upon stormwater capture for a 100-year storm event. However, according to the MN DNR, 1000-year storm events have become more common:

"If we examine the period 1973-2019, Minnesota has seen 14 mega-rains, with a sharp uptick since 2000, despite a small decrease in observer numbers. Of these 14 events, two were in the 1970s, two were in the 1980s, none were in the 1990s, but six occurred in the 2000s, with four more in the 2010s (still underway). Thus, the 20 years from 2000-2019 have seen 2.5 times as many mega-rains as the 27 years spanning 1973-99. Although it is difficult to assess the statistical significance of that rapid increase, we do know that these trends are consistent with the expectation that Minnesota and the Upper Midwest will receive more precipitation, and more precipitation from large events, in response to increasing global temperatures and increased available moisture for passing storm systems" (https://www.dnr.state.mn.us/climate/summaries_and_publications/mega_rain_events.html)

Paving the site will form a barrier to underlying pollutants but will not prevent existing subsurface pollution plumes from migrating toward SE Minneapolis and the Mississippi River, since these are fed by infiltration from an extensive area. Such a large impervious surface will create very significant amounts of stormwater that cannot possibly be contained in the small pond. This pond has a maximum capacity to hold water due to a clay liner and will shed water through evaporation. Any excess will over-top the pond and discharge onto Kasota Avenue and into the larger pond across the street, and ultimately toward the underground stormwater system to the Mississippi River.

Kasota Avenue is routinely treated with de-icing chemicals in winter months. The east and north ponds receive runoff from Highway 280 and are already impacted by road salts as monitored by MWMO Stormwater discharge from the site to the East Pond (across the road) will transport higher amounts of de-icing chemicals and chemicals (antifreeze and petroleum products) to that pond, which is linked hydrologically to the West Pond.

Concluding points

The SAPCC concludes that the proposed project should not move forward at this particular site. It is our considered, professional opinion that there are only two sustainable options for the site: remove the polluted material and restore its original wetland condition; or leave it undisturbed. Rohn Industries is a valued neighborhood asset and we support their presence. The SAPCC is willing to work with Rohn to explore other semitrailer storage options in or near our neighborhood. The SAPCC also is committed to identifying long-term strategies and resources to protect these urban ponds and wetlands.

Appendices

1. SAPCC Appeal of SPR Dile # 19-075478, October 22, 2019

2. Excerpt from the Saint Anthony Park Community Plan

3. Excerpt from Historic Waters of the Capitol Regions Watershed District, Ramsey County, Minnesota

4, Excerpt from EnPro Assessment Corp. report, 1996

5. Detailed argument regarding potential health impacts

Saint Anthony Park Community Council Appeal of SPR File # 19-075478
Proposed Rohn Industries development at 2495 Kasota Avenue
October 22, 2019

The Saint Anthony Park Community Council (SAPCC) appeals the conditional approval granted to this project on procedural, environmental, ecological, and transportation-related grounds. Our understanding is that conditional approval is given to projects that have a few minor details left to work out. We maintain that there are more than "a few minor details" that characterize the proposed Rohn project at 2495 Kasota Avenue and its approval by Saint Paul DSI.

As background: The Environment Committee of the Saint Anthony Park Community Council (SAPCC EC) has a 30+ year history of community engagement in this Kasota Pond area. Many of our current and past members and volunteers are environmental professionals, researchers and educators and include University of Minnesota faculty, a former USDA research soil scientist, a landscape architect, an aquatic entomologist, a hydrologist, a water quality consultant, and other specialists. Two current members and another former member have served as Commissioners representing the City of Saint Paul on the Mississippi Watershed Management Organization (MWMO). *(See appendix for brief bios of members.)*

In the mid-1990s BP Amoco filed to develop this site and was issued a permit by the City of Saint Paul Planning Commission without informing SAPCC. Members of the SAPCC EC, through their professional expertise cited above, undertook a full document review. SAPCC filed an appeal based on multiple environmental concerns, resulting in a well-attended public hearing in Council Chambers. At the hearing, Council voted to revoke the permit and BP Amoco withdrew the permit application. Now, nearly 25 years later, the Department of Safety and Inspections has conditionally approved a permit to develop the same site, without consulting SAPCC. The SAPCC EC has again reviewed available documentation and the site plan, and taking into account neighborhood concerns, opposes this development.

Summary of the grounds for SAPCC's opposition:

1. **Procedural:** This dump site has not been adequately characterized to provide the knowledge needed to determine risk to humans, the environment, and wildlife. The tremendous variability in characteristics of the fill has been highlighted in every set of tests done on the site since the late 1970s, but current sampling has been remarkably inadequate. In addition, it will be impossible for contractors to fulfill MPCA notification requirements because there are no visible characteristics of the fill that indicate presence of excessive amounts of hazardous metal or nonvolatile contaminants, so the risk of moving toxic levels of contaminants is high.

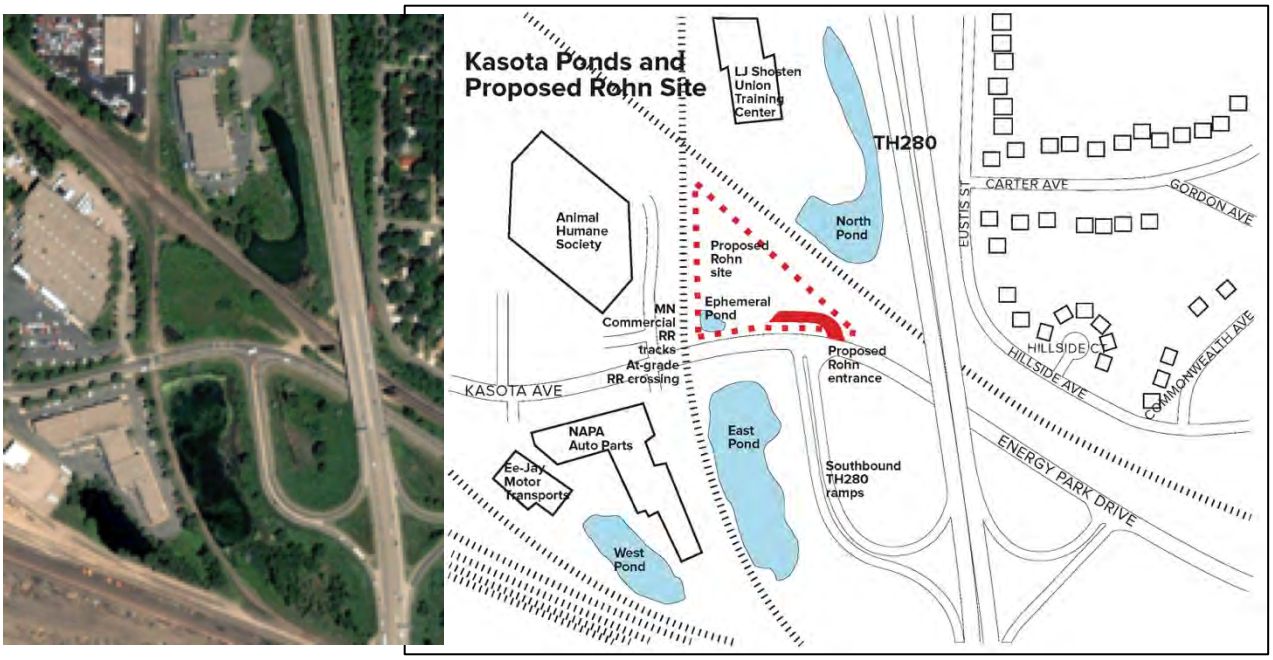
2. **Environmental:** Vegetation removal and soil disturbance greatly increase the risk of pollutant release via wind erosion, increased water leaching to groundwater, and storm water runoff into the ponds or via storm sewers to the Mississippi River. While some agencies have stated that this threat is not a concern, their decisions were based on

inadequate sampling, sample preparation, and sample analysis. Higher frequency of storms with heavy rainfall and high winds increases the risk of pollutants moving off-site.

3. **Ecological**. Development of this site, which is part of the Mississippi Flyway, will reduce and possibly degrade habitat for wildlife. This will be due to loss of vegetated area, night-time lighting, noise, and increased traffic, plus potential contamination of pond water. In addition, disturbance and reconfiguring the wetland in the southwest corner will destroy its current habitat value.

4. **Transportation**. The planned driveway entrance is within the 100-foot distance required by MnDOT for the TH280 ramps across the street and is within 450 feet of a railroad crossing and two opposing parking lot entrances. In its comments, MnDOT recommended the City require a traffic study to understand how the project would affect vehicle movements and road usage. This has not been completed. We are concerned about bicyclist and driver safety on this stretch of road.

The setting



Below is detailed information on each of these summary areas.

1. Procedural grounds

Contamination at the site has not been adequately characterized

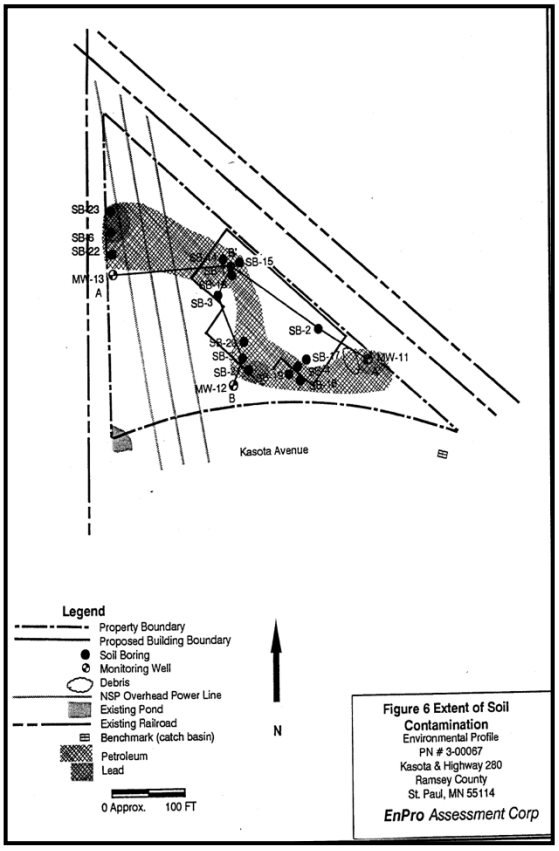
In agricultural situations, soil scientists and agricultural extension agents recommend that farmers or their consultants obtain representative soil samples for nutrient analysis. Based on years of University and Federal research, the Natural Resources and Conservation Service recommends that a large number of samples be taken.

> "A critical step in obtaining accurate soil tests is collecting representative samples in the field. Typically, uniform fields should be sampled in a simple

> random pattern across the field collecting at least 15-20 equal size soil cores… Fields with significant landscape or other differences should be divided into separate sample areas. Differences may include soil types, slope, degree of erosion, drainage, crop and/or manure history, or other factors that may influence soil nutrient levels… More intensive sampling should be used where detailed information about within field nutrient variability is needed." (USDA-NRCS, Sampling Soils for Nutrient Management, MT 04/07).

Natural soils have variable composition due to the factors that influenced their development. As the NRCS realizes, management of the soil can result in much more variable nutrient levels, and this should be considered when fertilizer or manure application rates are being calculated.

In any dump there will be an even wider variation in composition across the area and in depth than in natural soil. Because this site apparently received materials from a variety of uncontrolled sources (municipal incinerator ash—mainly coal ash), material from the railroads, construction debris, barrels and containers with unspecified contents, etc.), the variation in contaminant levels is extremely wide. Much more thorough sampling will be required in this urban area.



This variation was recognized in the Final Phase I ESA report (1977, p. 716):

> "Conditions between and around borings may vary, and interpolation or extrapolation of results is not warranted."

And in the Final Phase I ESA (1996, p.519), Braun Intertec stated:

> "Often, variations occur between these borings, the nature and extent of which do not become evident until additional exploration or construction is conducted."

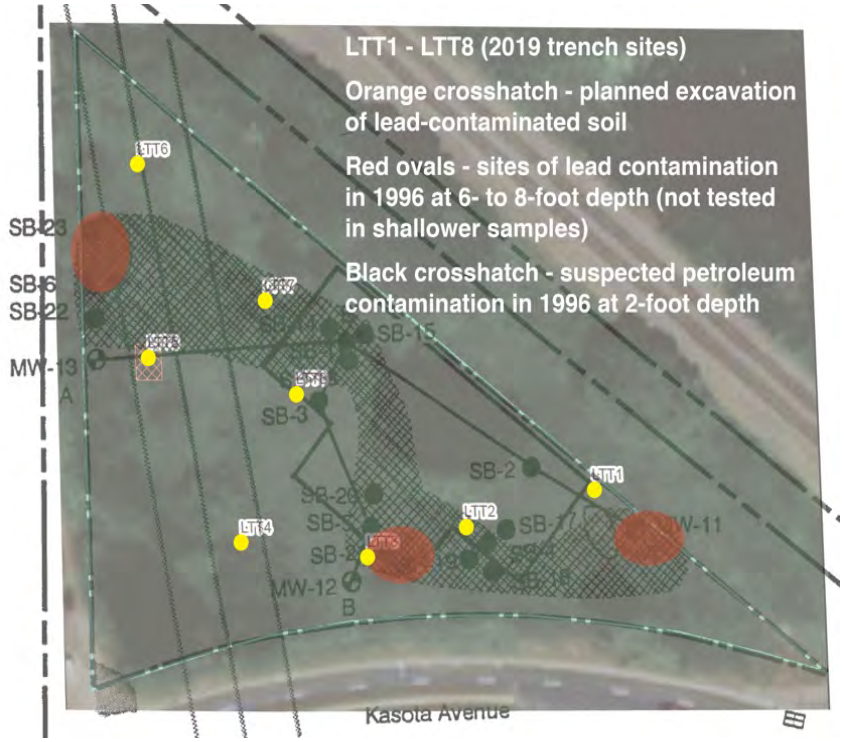
An example is the estimated pattern of petroleum contamination and three distinct sites of lead contamination in this map, submitted in 1996 by EnPro Assessment Corp (p.587, Final Phase I ESA).

During the Limited Phase II Investigation in 2019 (Voluntary Response Action Plan), Braun Intertec had eight trenches (referred to as "test pits" by Braun) dug on the site, no closer than about 50 feet apart, and they also took six soil borings to depths of 25 to 80 feet. Such sampling is appropriate for their stated purpose: "The purpose of our evaluation was *to characterize subsurface geologic conditions at selected exploration locations*, evaluate their impact and provide recommendations for use in the design and construction of the proposed parking lot." (p. 3 of their report; p. 39 of the Limited Phase II Environmental Investigation report; emphasis added by SAPCC).

However, such sampling makes it highly likely that the site was inadequately characterized with regard to the level of contamination at the site. Lead concentration at only one site (LTT5) exceeded the Industrial Soil Reference Value (ISRV), so a second set of hand-augered samples was taken at two distances (roughly 8 and 12 feet away from the trench) in four directions. Lead exceeded the ISRV in only one of five of those borings (surprisingly, three were not analyzed).

One interpretation of these results is that there is only one "Hot Spot" of lead contamination at the site. We disagree with this conclusion, however, because even without the EnPro data mapped above, a more scientifically and statistically valid interpretation is quite the opposite — their sampling design demonstrated that **this one "Hot Spot" <u>would have been missed</u> had the original trench been dug only 8 feet away** to the East, West, or North of the site that the personnel selected.

Similarly, the site identified by Landmark Environmental was not found by EnPro. Therefore,

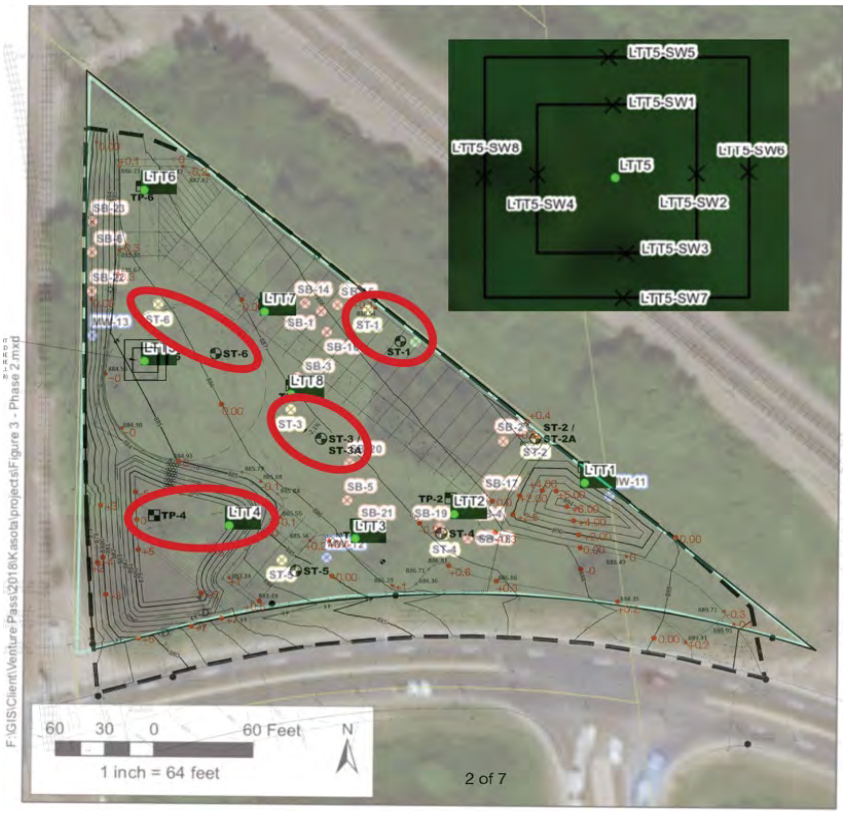


the sampling conducted thus far on this highly variable, demonstrably contaminated site, has been inadequate. In this composite map from the EnPro report and the Final VRAP report by Landmark Environmental, it is clear that Landmark Environmental paid inadequate attention to previous soil coring campaigns, at least with regard to lead contamination. They wrote:

> "Lead impacts to soil exceeded 1996 screening criteria (MPCA Tanks and Emergency Response action limits for land farming of petroleum) at four locations, MW-11, SB-21, SB-6, and SB-23. Only one of these detections, 1,300 mg/kg at MW-11, exceeds current MPCA screening criteria for an industrial setting." (p. 13, Phase I Environmental Site Assessment, 2019).

Why did they not sample the area near MW-11, where they knew lead was present at excessive levels only two decades before?

As we worked with the maps in the various reports, there were discrepancies with the mapped locations of borings and one trench. On the map provided by Braun Intertec (p. 55 of Limited Phase II Environmental Investigation), test pit 4 (TP-4) was positioned about 45 feet to the west of where Landmark Environmental placed trench LTT4 (Figure 2, p. 19 of the same report). There were major discrepancies in the mapped location of the borings, too: ST-6 was mapped by Braun Intertec about 45 feet SE of the location mapped by Landmark, and Braun mapped both ST-1 and ST-3 were mapped about 26 feet SE of the locations shown by Landmark in the same figures cited above. This raises serious questions about the reliability of reports about the site received by the MPCA.



In addition, more samples were collected than were analyzed, both with respect to location on the land surface and depth. Four of the original trenches were sampled at 0 to 2 feet (LTT3, 5, 6, and 8), one at 1 to 2 feet (LTT1), one at 2 to 3 feet (LTT2), and two and 2 to 4 feet (LTT4 and 7). They provided no justification for this variation in sampling depth.

> "The Investigation focused on assessing soil and characterizing fill material across the Property." (p. 8, Limited Phase II Environmental Investigation).

How is this sampling protocol supposed to have met their objective? They also failed to analyze three of the samples collected around the trench with very high lead concentrations—a lost opportunity to gain knowledge of spatial variability at the site.

It is clear that inadequate sampling impairs our knowledge of where lead contamination is of concern, but this inadequacy applies to all toxic compounds of concern to the health of humans and ecological systems. Coal dust and ash are well-recognized as containing elements and compounds hazardous to human health. Because the sources of each element and compound differed, as did the time and location of their addition to the site, the presence and concentration of these toxins cannot be assessed with so few sampling locations.

This lack of appropriate sampling and analysis clearly affects whether MPCA and other agencies, such as the Minnesota Department of Health, could accurately assess the risk of development on this site.

No evaluation of petroleum contamination

Petroleum contamination has been identified at the site. At the end of the third paragraph in the "No Association Determination" letter from Supervisor Amy Hadiaris (September 10, 2019), she stated:

> "For the purpose of this letter the identified release consists of lead, arsenic, mercury, chromium, PAHs, PCBs, and TCE in soil (Identified Release). This letter does not address petroleum-related contaminants. Petroleum contamination detected at the Site is under the oversight of the MPCA's Petroleum Brownfield Program."

We have seen no documentation that the MPCA Petroleum Brownfield Program has taken a position on the plans for this site. The widespread occurrence of diesel range organics in near-surface samples at the site warrant attention by the Program, but again, sampling frequency across the site is inadequate for staff to make informed decisions.

It is impossible for the developers to adhere to MPCA requirements

The "No Association Determination" letter from Supervisor Amy Hadiaris (September 10, 2019), contains this statement:

> "In the event that any suspected hazardous substances are encountered during Site activities (i.e., grading, excavation, etc.), the Parties shall notify the MPCA project staff immediately in order to determine appropriate handling, sampling, analysis, and disposal of such wastes."

Landmark Environmental described the expected response to odors or construction debris that might carry asbestos (Environmental Construction Contingency Plan, 2019), but not lead or other metals. From the descriptions of the borings and trenches, the mixed fill is dark brown to black in color and there were no reports that concentrations of hazardous metals or nonvolatile organics are related in any manner to the presence of visibly recognizable materials (wood, concrete, cinders, plastic, glass, etc.) or to changes in the color, texture, moisture content, or any other characteristic of the fill that would be easy to recognize during earth moving.

How, then, is it possible that the people conducting the "site activities" could recognize that they have encountered subsurface materials containing high concentrations of hazardous metals or organic compounds? Without visible clues to the presence of contaminants, even experts would be stymied. It is clear, then, that the risk that these contaminants will be displaced on site and exposed to loss by wind or water erosion is highly elevated, as is the risk to worker health.

2. Environmental grounds

Designing adequate controls of runoff

In the letter from Hadiaris cited above, MnDOT expressed concern and set requirements about drainage from the Rohn site to adjacent MnDOT land. Given SAPCC EC members' knowledge of the water table in this area and infiltration as it exists presently, we do not see how these MnDOT requirements can be met:

> "A MnDOT drainage permit will be required for this site to ensure that current drainage rates to MnDOT right-of-way will not be increased. Please provide

computations and plans so that MnDOT may verify that the proposed development maintains or reduces drainage rates to the state right-of-way."

MnDOT specifically listed multiple requirements, including "drainage computations for pre- and post-construction conditions during the 2-, 10-, 50-, and 100-year rain events." These should be based on the most recent NOAA ATLAS 14 Point Precipitation Frequency Estimates. The frequency with which these are expected to occur is the same, regardless of previous large rainfall events in the same year. As is generally recognized, two effects of climate change in Minnesota are increased frequency and intensity of large rain events. Larger storms imply stronger winds. Although NOAA and other Federal agencies are examining ways to include the effects of climate change in the estimates, ATLAS estimates currently assume stable climate. Consequently, we recommend the designers consider the upper bound of the 90% confidence interval, rather than the mean precipitation level when designing storm water runoff collection.

These considerations relate both to runoff onto MnDOT right-of-way, and to the likelihood of runoff during site development. Movement of contaminants off-site due to wind and/or water erosion is best controlled by good soil cover, as is currently the case on this site except where disturbance has occurred. If this development proceeds, vegetation on the site will be removed before or during grading and excavation, and it will require at least two years to recover. This heavy traffic will pulverize the soil and expose the surface to sunlight and wind, which dry the soil rapidly. It is these small particles that are most easily moved off-site by water and wind.

Little things can have big impacts

Particles smaller than 100 microns (the typical thickness of photocopy or printer paper) can be suspended in air and travel great distances. When not present in their original waste material, it is well established that toxic metal contaminants are concentrated in clay-sized soil particles. For example, 72% of the lead contaminating soil at a firing range was in particles less than 74 microns in size (2012, p. 15, Interstate Technology & Regulatory Council, bit.ly/ITRCsampling). The USEPA recognized this partitioning of lead to small particles and issued a Directive in 2016 to sieve soil less than 150 microns before analysis to assess the risk of dust adhesion on hands at lead contaminated sites (OLEM Directive 9200.1-128, bit.ly/EPAsieve4lead). Because this site is contaminated by lead, construction activities will elevate the risk of human exposure to lead by inhalation or ingestion at least to workers at the site, if not to people working and living downwind or downgradient.

Applying the results of the ITRC report to this site, let us assume the lead concentration of the entire site is represented by the average of every sample analyzed by Landmark Environmental and reported in Table 2 of their 2019 Voluntary Response Action Plan, (13 samples, 392 mg lead/kg soil – less than the Industrial Soil Reference Value). Applying the 72% figure from the ITRC report above, **if particles smaller than 100 microns represent 10, 15, or 20% of the weight of the fill, they would have lead concentrations of 3210, 2140, or 1610 mg/kg, respectively – all exceeding the Industrial Soil Reference Value by a factor of 2 to more than 4!** Larger particles, less likely to be moved by wind, would contain only 139, 147, or 156 mg/kg, respectively – less than or about one-half the Residential Soil Reference Value. Analysis of the entire sample obscures the hazard to humans and the ecosystem.

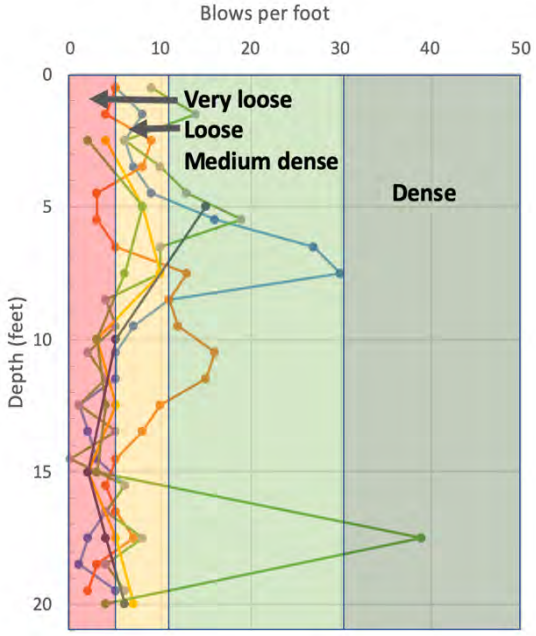
Erosion of soil particles by storm water raises the risk that nearby water bodies will be impacted. As described below, contaminants in such runoff likely would damage these fragile ecosystems. Dissolved constituents move the furthest and the small particles, such as clays or fine ash, move further than silts, which move further than sands. Therefore, concerns about off-site movement of lead and other contaminants is similar as described for wind.

Loss by subsurface flow

In addition, from the time the vegetation is removed before land shaping until the remaining permeable surfaces are revegetated and that vegetation is transpiring significant amounts of water—two or more years— more rainfall will be absorbed by the fill and more will percolate through to the perched water table. This drainage water will carry soluble chemicals and very small organically or mineral-bound contaminants. Contaminants in ground water also can affect surface water. According to our discussions with staff at the MWMO, it is likely that the perched water table contributes water directly to the East and West Ponds. In addition, water collected by storm sewers could carry these contaminants directly to the Mississippi River.

Will the fill at this site provide stable support?

Several proposals have been made to develop this site over the past 40 years, but none has been undertaken. It is remarkable that two separate engineering assessments of the site concluded that the highly variable density of dump materials would require substantial efforts to overcome in developing the site. Braun Intertec's analysis for the proposed development as a semi-trailer parking lot also addressed this issue.



This graph of data from the soil borings reported in the Limited Phase II Environmental Investigation (p. 64-75) shows that, in every sampled location, there are layers or pockets of very loose material that may become compacted over time when additional weight is added above them. This will result in subsidence of the surface that will potentially damage the concrete and asphalt layers. The apparent relative density descriptions in the graph are based on p. 76 of this report. Braun Intertec stated that:

> "…much of the soils on this site are moisture sensitive, and it is likely that some moisture conditioning (wetting or drying) will be necessary to reuse the on-site soils as compacted backfill." (p. 7, Braun Intertec report in the Limited Phase II Environmental Investigation).

Although disturbed materials can be dried or wetted as necessary, it seems unlikely that compaction of underlying material will be adequate if moisture levels are not within the necessary range for optimal compression. In addition, if more fill needs to be removed because it cannot be adequately compressed, the material should be thoroughly tested for contaminants. Because the level of toxic contaminants cannot be assessed without specialized equipment in the field, the contractor should not be allowed to remove it at their discretion.

Given the greater vulnerability during these activities, will the fill continue to settle, causing structural failure of the parking lot surface? Failure would compromise storm water management on the site and increase the threat of contaminant movement.

3. Ecological fragility grounds

Since at least 1985, SAPCC EC has organized annual cleanups, habitat restoration, bird and turtle counts, water-quality monitoring, and other activities at Kasota Ponds. We have been awarded grants from the Minnesota DNR, Saint Anthony Park Foundation, Tree Trust, and MWMO to carry out species inventories, restore shoreline habitat, install nesting boxes, monitor water quality, and do public education. Considerable public and private resources have been invested on the four pond remnants near Kasota Avenue, and many hundreds (perhaps thousands) of local residents have participated in these activities since the 1980s.

The proposed Rohn development rests between the four Kasota pond remnants, fragments of a much larger pond/wetland system spanning Northeast Minneapolis, Lauderdale and Saint Paul before it was drained, filled, and developed. A historic natural spring (Skonard Spring) is adjacent to the southwest corner of the proposed development. The spring once recharged the East Pond, but in recent years has been piped underground and is no longer visible.

The ponds and surrounding land are part of the Mississippi Flyway, which supports millions of migratory birds twice each year. The ponds are a resting point in spring and fall for wading birds, waterfowl, shorebirds, warblers, songbirds, and others. Many birds nest and reproduce there, including warblers, swallows and swifts, herons, and wood ducks. Until recently resident species included yellow-headed blackbirds, whip-poor-wills, kingfishers, American bitterns and others that are very rare today in a fully developed urban core. Of note, a new Cornell University study shows that bird populations have declined by about 30% since the 1970s due to habitat loss and pollution. ("Decline of the North American Avifauna," K. Rosenberg et al., *Science* 366:120-124.)

Other species identified at the site include fish, aquatic insects, pocket mussels, salamanders, fairy shrimp, and three species of turtles (painted, snapping, and western spiny soft-shelled). Local residents from both Minneapolis and Saint Paul highly value the ponds and vicinity for bird watching, cross-country skiing and snowshoeing in winter, nature viewing, photography, and other activities.

On the southwest corner of the proposed development, the ephemeral pond or wetland has the highest aquatic insect diversity of all four Kasota pond fragments and is also a small nesting habitat for neotropical migratory birds. Mechanical disturbance and runoff to this pond will destroy its habitat value. It is crucial that it not be reconfigured. No deep soil borings have been taken near it, so we do not know whether it represents an older landscape feature.

Loss of vegetation from two thirds of the site to asphalt and concrete clearly will reduce food supply and nesting sites for several bird species. If storm water runoff, wind erosion, or subsurface flow of contaminants from this site enter one or more of the ponds, elevated levels of

pollutants may reverse the recover we have seen over the past three decades. We understand that ecological risk assessment usually is not required by MPCA when the intended use of a contaminated site is for parking. This site represents a special case, however, and we request that ecological risk assessment be completed.

Additionally, we are very concerned about increased noise, traffic, and night-time light pollution that will likely impact avian migration and normal activities of terrestrial and aquatic animals, contributing to further decline of species.

4. Transportation grounds

Aside from the site's historical pollution problems and how those would be managed if the site is developed as proposed, it has multiple problems because of its location on Kasota and relative to other properties and thoroughfares. The proposed entrance to the site is located across from on and off ramps to TH280 and is within 450 feet of a railroad crossing and two opposing parking lot entrances to the west.

As identified by Public Works Construction in the conditional approval, the driveway entrance specified in the site plans is well within 100 feet of the intersection with the TH280 ramp terminal, which defies MnDOT parameters. Changing this would, at a minimum, require moving the entrance to the west side of the Rohn project site, but that raises several other potential problems, both spatially within the site and on Kasota, such as trucks stopping on the Minnesota Commercial railroad tracks when queuing left turns from eastbound Kasota. SAPCC believes this combination of problems alone is enough to overturn the conditional approval and go back to the drawing board on the site plan.

MnDOT specifically emphasized this problem with the site in its letter attached to the conditional approval (addressed to Amanda Smith, Zoning Inspector, August 30, 2019). They recommended the city:

> "require a traffic impact study to provide adequate information on the number and distribution of heavy vehicle trips that will be using city, county, and MnDOT roads, as well as the expected ramps and intersections where these heavy vehicles will be accessing the MnDOT highway network…"

This request is similar to that by Public Works to know the frequency of trips that will be generated by the site and how access and departure from the site will work, and whether MnDOT right-of-way will be utilized.

We learned on Monday, October 21, that MnDOT has withdrawn this requirement. We have not seen evidence of the information that satisfied MnDOT's initial concern, and we maintain that there is a need for detailed review of traffic impacts.

The MnDOT letter of August 30 continued,

> "A lead concern is the fact that access is proposed via a single driveway at a skewed angle on the north side of Kasota Avenue that is also offset 20-30 ft to the east from the existing "T" intersection ramps to/from MN 280. Also of concern are potential congestion and backups on Kasota Avenue related to the at-grade

railroad crossing to the east [sic: should be west]."

All of these requirements and problems were ignored in issuing the conditional approval.

And a final question: ***Does the intended use comply with Saint Paul Zoning Code?***

There is an additional question we don't believe was asked during the review process: Will the trailers be parked on the site for at least five days? This is necessary to meet the definition of "outdoor storage" of vehicles under I1 Zoning. If they will be there for less than five days, it does not qualify as outdoor storage. Who will monitor this use?

Thank you for hearing our appeal of the conditional approval of the Rohn Industries project at 2495 Kasota Avenue. We believe we have demonstrated that there is substantial evidence to support overturning this conditional approval.

Appendix: SAPCC presenter bios

Karlyn Eckman, PhD, is an adjunct member of three graduate programs at the University of Minnesota: Water Resources Science, Forest Resources, and Natural Resources Science and Management. She is an educator and researcher with 35 years of experience in natural resources management and research in Africa, Asia, the Caribbean, and North America. Areas of expertise include vulnerability and risk assessment; community forestry; agroforestry; flood hydrology; and evaluation research. A long-time member of the Saint Anthony Park Community Council's Environment Committee, she also served for 10 years as the Saint Paul Commissioner on the Mississippi Watershed Management Organization. Dr. Eckman has worked on improving the terrestrial and aquatic habitat at Kasota Ponds for several decades.

Stephen Mastey, ASLA, CLARB, LEED AP, is an award-winning Landscape Architect with 20 years of wide-ranging public and private sector experience. A driving factor in all of his work is blending ecologically appropriate design solution into a cultured landscape. He is co-chair of the Saint Anthony Park Community Council's Environment Committee and has led several remediation projects at Kasota Ponds.

Michael Russelle, PhD, is an Adjunct Professor in the Department of Soil, Water, and Climate at the University of Minnesota with nearly 40 years of experience in agricultural and environmental research. During much of this time he was a Research Soil Scientist for the USDA-Agricultural Research Service. He is a co-chair of the board of Saint Anthony Park Community Council and co-chair of its Environment Committee.

Betty Wheeler, PG with an MS in groundwater geology, is a former college teacher in environmental science and hydrologist for the Minnesota Department of Health and the Earth Science Department at the University of Minnesota. She has five years of experience reviewing Environmental Assessment Worksheets, Environmental Impact Statements, and County Water Plans. She is a member of the Environment and Transportation Committees of the Saint Anthony Park Community Council. She also was appointed as the Saint Paul Commissioner on the Mississippi Watershed Management Organization.

Appendix 2

Saint Anthony Park Community Plan
Addendum to the Saint Paul Comprehensive Plan

November 2019
Revised Draft based on City review

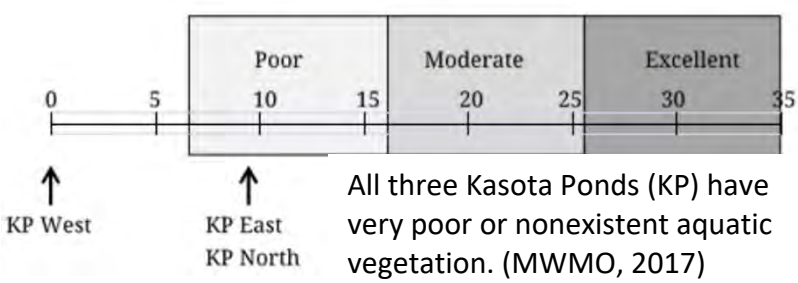





Water, Soil, and Air

We need to adapt our built environment to changes in the natural environment. The frequency of high-intensity rainfall and large snowmelt events has increased. Runoff from impermeable surfaces, such as roofs, streets, alleys, parking lots, sidewalks, and other paved or compacted areas, concentrates the amount of water moving over the landscape. This can result in localized flooding, road and alley washouts, greater damage to basements and foundations, soil erosion, and surface water pollution. In hilly areas especially, runoff from one property can directly impact those downhill.

On average, parks cause only one-fourth as much runoff compared to residential land, whereas religious and government buildings cause twice as much. Runoff can be reduced by improved infiltration, temporary storage, and diversion of water back onto permeable surfaces. Property owners can reduce their Storm Water System Charges by demonstrating significant reductions in runoff. Our vision is that storm water sewers eventually will be necessary only during exceptional rainfall events and for snowmelt when the soil is frozen.



All three Kasota Ponds (KP) have very poor or nonexistent aquatic vegetation. (MWMO, 2017)

Although the original area was home to many permanent and seasonal surface water bodies, only Kasota Ponds, located on both sides of Kasota Avenue west of TH 280, and Sarita wetland, north of Como Avenue and west of the State Fairgrounds, remain. All of these are severely impacted by pollutants, such as road salt and sediment. A large fraction of snowmelt and rain runoff enters the public storm water system, which delivers it to the Mississippi River. The quality of that runoff is improved by keeping our streets clean, reducing the amount of phosphorus and nitrogen applied to our lawns and gardens, and minimizing the application of other chemicals that can move off the landscape on sediment or in the runoff water. Chloride has become one of the most serious contaminants in the Twin Cities, due to its widespread use in salts on roads and sidewalks in winter. It is the major contaminant in Kasota Ponds and is present in concentrations toxic to aquatic organisms. Chloride also damages trees and corrodes vehicles, pavement, parking ramps, and bridges.

The signals of climate change in Minnesota include not only heavier rainfall in thunderstorms, but also more frequent drought. In 2007 and 2012, several Minnesota counties were in drought, whereas others experienced floods; insurance claims for both occurred in several counties! Our public drinking water system was built on the premise of abundant water, but we question the of use drinking-quality water to flush toilets, water lawns, or wash cars, uses for which rainwater from rooftops and wash water from sinks (greywater) are suited.

Drinking water also comes with a cost in electricity use. The EPA estimates the energy cost of letting the faucet run for 5 minutes while washing dishes is about 1 kilowatt-hour! Therefore,

water conservation and reuse can help reduce climate change, while lower storm water runoff and contaminant load can help mitigate the effects of climate change.

Water, Soil, and Air Objectives and Strategies

WSA1. Reduce loss of storm water and melt water via runoff.

WSA1.1. Work to increase standards to reduce storm water runoff from current and new properties, including use of permeable pavers, porous concrete, and synthetic structural mesh materials.

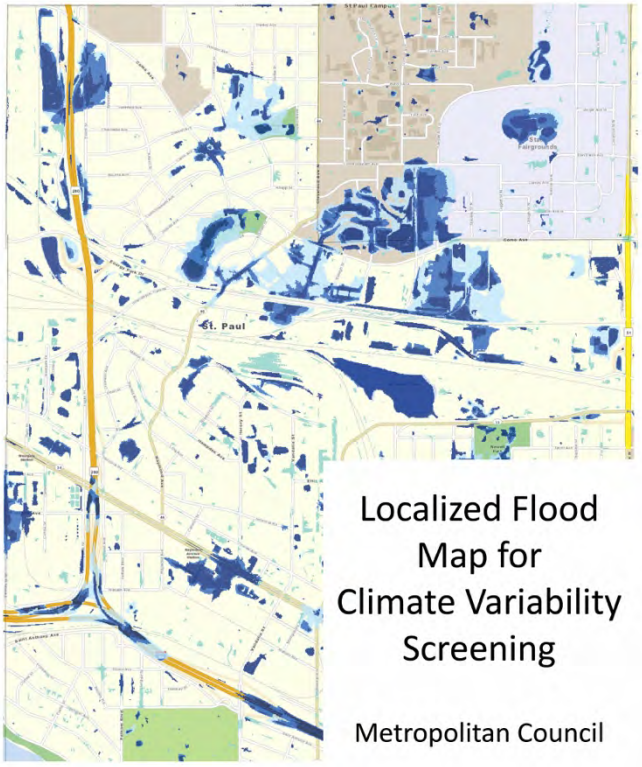
WSA1.2. Inform residents and businesses about the potential for a reduced Storm Sewer System Charge by reducing storm water runoff.

WSA1.3. Determine where water flows and identify areas with potential for localized flooding. (see CC3.5)

WSA1.4. In concert with CC1.2, identify and help remediate properties with wet basements, mold, and bad indoor air quality, with special attention to economically disadvantaged renters and homeowners. (see also Equity Framework)

WSA1.5. Encourage divetsion of downspouts, sump pump discharges, and rain barrel overflows away from foundations or from directly discharging to alleys.

WSA1.6. Promote use of alley gardens and, as technology advances, permeable alley surfaces.



WSA1.7. Promote installation of rain gardens, surface and subsurface infiltration galleries, green roofs, curb cuts to divert water from street gutters, and development of retention ponds and streets for higher rainfall events. (see EBD2.2)

WSA2. **Enhance water conservation and reuse in the neighborhood.**

WSA2.1. Encourage and help develop guidelines for water storage systems, such as cisterns.

WSA2.2. Promote use of proven water-sensor technology for all automated irrigation systems.

WSA2.3. In accord with new findings and ordinances, work to increase opportunities for greywater reuse.

WSA2.4. Work with the City to assess a water-pricing structure that discourages poor water use efficiency.

WSA2.5. Educate the community about water conservation, including low impact landscaping and the water requirement of food and drink choices.

WSA3. Reduce input of contaminants to surface waters from Saint Anthony Park.

WSA3.1. With the City and other partners, work to reduce application of environmentally harmful chemicals, including deicing chemicals, on public streets, parking lots, residential areas, and railroad right-of-ways. Work with neighboring areas to include our interconnected airshed and watersheds. (see also Equity Framework)

WSA3.2. Design and promote approaches to reduce the inflow and concentrations of road salt in Kasota Ponds.

WSA3.3. With the MWMO and other partners, determine the sources, buffering, and potential removal of contaminants other than salt from Kasota Ponds.

WSA3.4. Work to reduce the inflow of contaminants to Sarita Wetland.

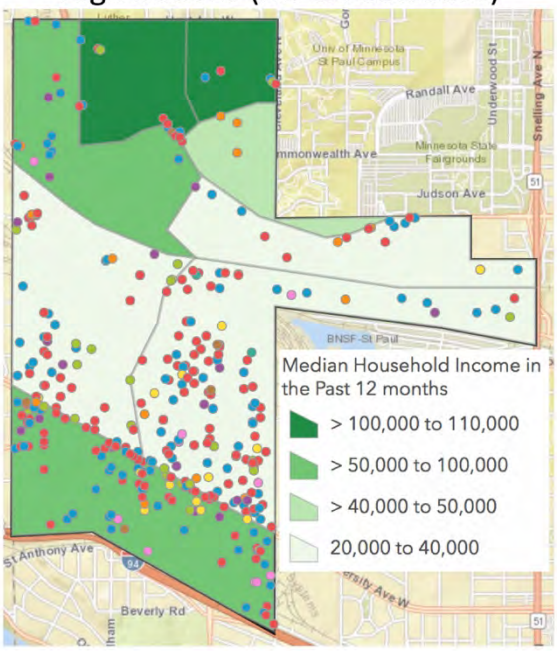
WSA3.5. In conjunction with other partners, reduce runoff and suspended solids that carry nitrogen, phosphorus, and other chemicals into the Mississippi River.

WSA3.6. Work with the City to achieve wide voluntary participation in the "Adopt-A-Drain" program (Adopt-A-Drain.org) to remove leaves and other debris from street gutters.

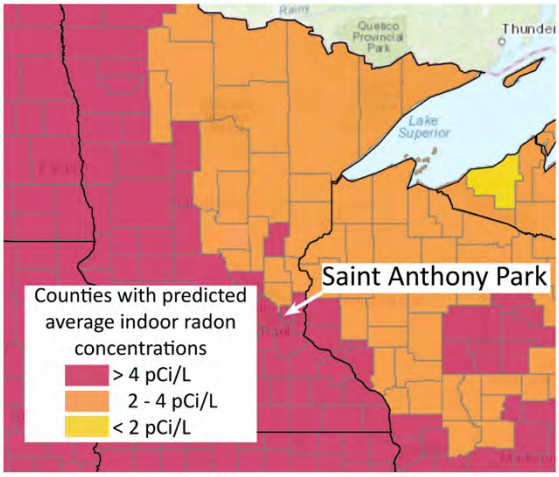
Saint Anthony Park historically has been the site of light and medium industry, wood treatment operations, truck and automobile service stations, major rail lines with loading and offloading, livestock slaughter operations, ash dumps, chemical distributors, and a diversity of other businesses and uses that have left a legacy of soil and water pollution. Many of these operations continue. MPCA has identified scores of sites with significant soil contamination, and their air quality monitoring in South Saint Anthony Park verifies that some elements and compounds are present in concentrations that exceed human health limits. The frequency of days with high concentrations of suspended particulates, ozone, and other compounds present a health threat to people with asthma and other respiratory problems. Redevelopment of contaminated property elevates the risk that chemicals of concern will harm human health and ecosystem function. In addition, noise intrudes and disrupts our lives more frequently. Increased stress and disturbed sleep caused by noise heightens our risk of cardiovascular disease. Excessive and poorly designed lighting also disturbs our sleep and degrades our view of the night sky.

The highest concentration of MPCA-identified harmful sites is in areas where the median household income is between $20,000 and $40,000, and within a half-mile of the Green Line, where rapid population growth is occurring. This area also has a high proportion of young families and adults of child-bearing age, and is home to recent immigrants. More soil pollution likely will be identified as current industrially zoned land is converted to other uses. Essentially no information is available on the presence or extent of soil contamination in residential areas due to other activities, such as use of lead paint, treated landscape lumber, or arsenic-containing insecticides.

Potentially contaminated sites and environmental permits and registrations (MPCA database)



The health of soils, especially in urban environments, is of increasing interest because healthy soils help mitigate climate change and its effects, improve water infiltration capacity, support vigorous gardens, shrubs, and trees, and remediate some types of pollutants. A recent special issue of the *Journal of Environmental Quality* (2016, volume 45, pages 2 through 106) synthesizes research on these beneficial impacts, and reports results of recent work. It also is clear that both high amounts of organic matter and healthy plant communities are critical to provide resilience in beneficial bacterial activity in engineered green infrastructure. During street construction in recent years, soils used in boulevards has been of very poor quality, with construction debris, high clay and stone content, high weed seed content, and very low organic matter. Furthermore, the soils are overly compacted, harming the vigor and persistence of grass and trees replanted on these sites. Poorly designed and maintained green infrastructure lose their beneficial properties rapidly. Given that the property owner must ultimately maintain the boulevards, it puts an unnecessarily difficult burden on that property owner to maintain their new turf, trees, and/or other vegetation.



There is a dearth of information about air pollution in the district, but anecdotal complaints have been received about dust, in particular. Nearly one-third of buildings tested for radon gas have levels above 4 pCi/L, the level at which USEPA recommends mitigation. Furthermore, the MPCA has initiated increased sampling for both tri- and tetrachloroethylene in the metro area; both chemicals have been widely used, are long-

lived in the soil, move easily to groundwater, and generate vapor that is hazardous to health and can enter houses and other buildings like radon does. Our goals are to remediate known hazards and to generally improve the quality of habitat for humans and other species. As temporary stewards of this place, we seek to minimize our damage to the natural environment.

WSA4. Identify and remediate sources of soil and air pollution. (see also Equity Framework)

WSA4.1. Adapt MPCA's What's In My Neighborhood database and interactive map of identified sites of soil pollution for Saint Anthony Park, and identify suspected areas for further investigation.

WSA4.2. Conduct a neighborhood mapping project to identify areas of concern regarding soil contamination (e.g., boulevards and park land that may be used for food production).

WSA4.3. Seek funds for and conduct initial testing of soils in areas identified in WSA4.2.

WSA4.4. Collect and distribute educational materials on how to build and maintain good soil health in yards and gardens.

WSA4.5. Work with City and County personnel to improve the condition and health of soils in green infrastructure and where soils are replaced in boulevards after street or sidewalk construction.

WSA4.6. Recommend to the Mayor that the Public Works Department be provided the resources to add a licensed Professional Soil Scientist to staff, who will develop or update appropriate standards for the subsurface fill and healthy topsoils, in order that new or reconstructed boulevards and green infrastructure will actually support the new vegetation to be planted.

WSA4.7. Recommend to the Street Construction unit of Public Works that a Professional Soil Scientist be part of the Inspections staff to ensure that the quality of the subsurface fill and the topsoil used on boulevards and green infrastructure do, in fact, equal or exceed the established standards.

WSA4.8. Seek opportunities to monitor outdoor and indoor air quality.

WSA4.9. Seek ways to reduce outdoor and indoor burning of wood and other materials that emit particulates and chemicals that adversely affect human health.

WSA4.10. Map the occurrence of elevated radon levels in the neighborhood, encourage testing and seek funding to assist low-income residents, and seek funding to install ventilation in buildings with levels above 4 pCi/L.

WSA4.11. Develop information materials about ways to decrease health impacts of environmental contamination.

WSA4.12. Reduce dust generation by local businesses and rail operations.

WSA5. Improve aesthetics by reducing other environmental problems.

WSA5.1. Reduce litter and illegal dumping through advocacy, education, and engagement with local businesses and organizations. In particular, advocate for reductions in availability and use of plastic containers.

WSA5.2. Promote “Dark Sky” approaches to light pollution on City and county streets and highways, rail lines, and on local businesses and organizations.

WSA5.3. Investigate and promote alternative night-time alley lighting that reduces light pollution.

WSA5.4. Work to reduce noise from compression braking by truck drivers and night-time racing through and near the neighborhood. (see also Equity Framework)

WSA5.5. To reduce tire noise as a major detriment to quality of life near TH 280, seek alternative surface treatments, lower speed limits, and rigorously enforce speed limits on TH 280.

WSA5.6. Through education and other means, work to reduce the impact of metal recycling (dumping, noise, traffic, and aesthetics) on wildlife habitat.

WSA5.7. Encourage use of quieter and less polluting landscape maintenance equipment than two-cycle lawnmowers leaf-blowers, and similar equipment.

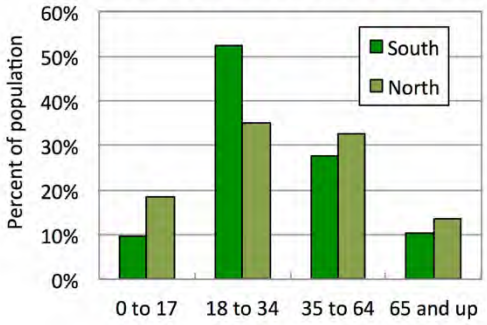
WSA5.8. Advocate for strengthening and enforcing sign restrictions intended to reduce billboards and sign clutter.

WSA5.9. Investigate and promote approaches to reducing the visual clutter and the potential adverse health effects of overhead power lines.

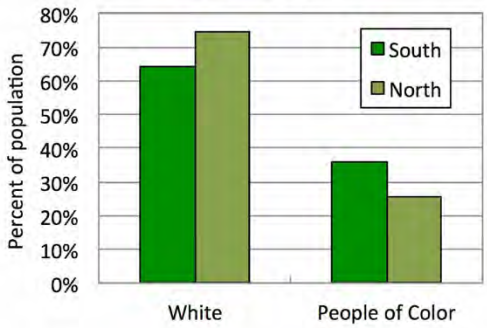
Demographics of Saint Anthony Park

Based on Minnesota Compass reports[1]
(accessed 15 April 2018)

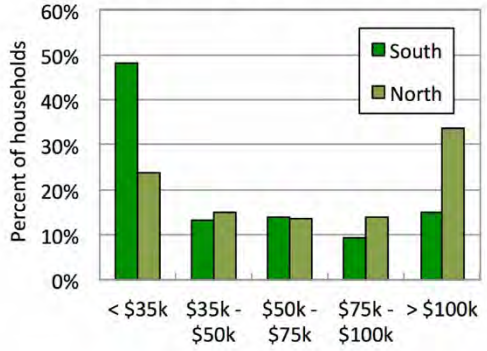
Total population: 8194;
3194 in South and 5000 in North



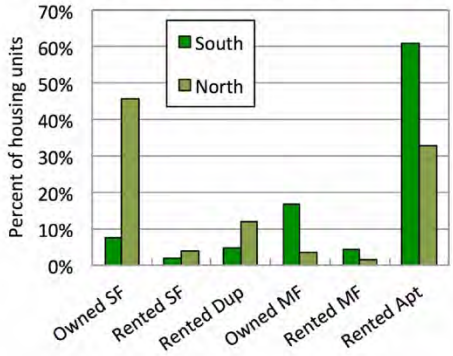
Racial identity



Annual household income
(k stands for 'thousand')

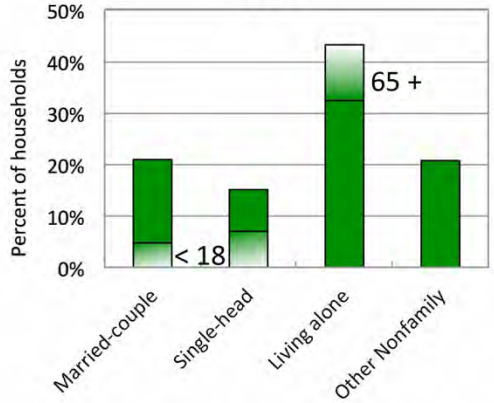


Housing type
S=single; M=multiple; F=family

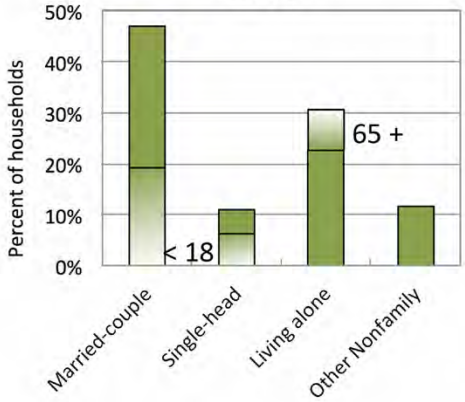


Household makeup
Two columns on left are "Family households." Lower section of each is children.
"Living alone" are single-person households. Top section shows seniors.

South



North



[1]Statistics for North were estimated by the difference between the report for the entire neighborhood and for the 55114 ZIP Code. The latter includes all of South Saint Anthony Park and additional industrial land to the east.

Summary of Community Engagement and Input

The Saint Anthony Park Community Council conducted extensive community engagement to ensure that this document reflected the diverse experiences and visions held by members of our community. We announced the surveys and asked for responses to draft plans through: the SAPCC email list, website, three e-newsletters, and Facebook; the St Anthony Park listserv; Nextdoor; direct emails to four local schools, the SAP Community Foundation, U of MN contacts and the Commonwealth Terrace Co-op, 12 local businesses and organizations, and three multi-unit residential buildings in which SAPCC members live; posted flyers at 25 locations; published notices in the Park Bugle newspaper; and through direct contact.

More than 400 community members responded to an online community survey distributed between June-October 2017. Respondent demographics were compared with the demographics of the neighborhood to increase promotion of the survey to underrepresented populations. To address gaps in representation, the SAPCC Equity Committee led in-person surveying through community events and canvassing in targeted neighborhoods between May and October. The 10-year planning Steering Committee was periodically updated with feedback from these events over the course of the summer and fall, which committees used in the initial drafting of community priorities for each topic area.

In-person survey methods included dotmocracy activities, open-ended questions, tablets with the online survey, and placing post-it comments onto a community map or poster. Feedback was gathered at community events and from partners including: May Fest, Saint Anthony Park Art Fair, three Movie in the Park events, Avalon Charter School, Jennings Community Learning Center, Seal Hi-Rise, Elpis Enterprises, A Walk in the Park, Joy of the People, and visiting with neighbors on the Raymond and Westgate LRT stations, various church services, and walking the block in the South Saint Anthony Park area. Hundreds of community members participated in these events, with over 200 community members providing direct feedback. The Environment and Transportation Committees also used survey results conducted by the Council's subcommittee, Transition Town All Saint Anthony Park. The purpose of that online and hardcopy survey was to learn the visions residents have for a more sustainable community in 2040. More than 200 individuals responded online and in hard copies. The resulting vision statement, Envisioning All Saint Anthony Park, is attached.

Drafts of overall goals were presented at two community forums held in November, in South Saint Anthony Park on a Saturday afternoon and in North Saint Anthony Park on a Wednesday evening. Nearly 100 community members participated in these community forums to respond to the drafts and provide additional feedback. A separate survey was sent to businesses and organizations in Saint Anthony Park between October and December 2017. The additional community feedback and business survey results were used in committee revisions of the drafts in November and December 2017. Survey analyses were performed by staff with intern support and full comments were shared with committees in the drafting process.

Listed below are some overall community trends from this feedback process as divided by committee work areas, with an additional summary from the business survey:

Equity

- More volunteering opportunities within the education system, not only for young students but opportunities for adults.
- It is very important that Saint Anthony Park incorporates affordable and accessible food options that are provided for the community. It's crucial that the affordability and accessibility is heard from all voices of the different populations in this neighborhood so that changes can be made to equalize how people are getting their food.
- Accommodating for people with disabilities and/or special needs.
- Changing the perception of cars ruling the road and making bike lanes and sidewalks safe and accessible to all users.
- Minimizing and addressing the perception of segregation in this neighborhood.
- Bridge the gaps between the physical barriers of the neighborhood and provide more opportunities for residents to get to know one's neighbor.

To improve and support the education system in the community, the survey results showed that it's important to increase volunteer opportunities in local schools. More volunteer opportunities would contribute to building a stronger sense of community and expose the youth to neighbors, different cultures, and careers. Responses also included an interest/need for adult community education opportunities in Saint Anthony Park.

Three-quarters (76%) of respondents report that it is *somewhat easy* or *very easy* for them to access healthy and affordable food, but this rate dropped significantly to 67% among respondents who identify as disabled, and only 56% for respondents of low income. Responses reflected that there is healthy food that is accessible at stores such as the Co-op or Tim and Tom's Speedy Market. However, low-income respondents and students who live in the neighborhood cannot afford to do all their grocery shopping at a place like the Co-op because it's not affordable. The Co-op is an amenity to the neighborhood but does not stock some items that are only available through larger retailers. Many respondents expressed that grocery stores in the neighborhood are not as accessible as desired. If you have a car and can drive, it's easier to get to a grocery store. For those without cars or with low incomes, there is not a convenient shopping location from the southern portion of the neighborhood. Many respondents also recommend hosting a local farmer's market to improve access to healthy and local food. Others did not know where the Community Garden is, showing improved communication is needed.

To accommodate people with disabilities and/or special needs in Saint Anthony Park, there is a need for improved sidewalks, crosswalks, and local businesses. Improved sidewalk networks and bump-outs at intersections would be beneficial for people with disabilities and/or special needs. At intersections, stoplights with verbal or beeping signals could help improve safety. Other improvements to make sidewalks and local businesses more accessible for people with

disabilities include snow and ice removal in the winter, pedestrian ramps, curbs, and improvements such as handrails around stairs and hills.

There was a trend in how respondents saw differences/segregation between parts of the neighborhood. Many respondents identified the physical separation between South Saint Anthony Park and North Saint Anthony Park, specifically the railroad and limited connections of major streets and highways that play a large part in how the neighborhood is segregated. Many viewed segregation in the differences in home affordability – homeowners and renters; high-income and low-income. To improve community unity, many respondents wanted to see a continuation of events in the summer months, such as movies in the park and block parties. It may be beneficial to have community events that get neighbors, and the community as a whole, out to interact with one another throughout the year.

Land Use

- Development of affordable housing and encourage diverse housing developments to meet the needs of maintaining and inviting a diverse culture and population.
- Try and control gentrification instead of threatening to push current residents and businesses out and threatening the opportunity for new residents and businesses to be in this neighborhood.
- Improve bike lane, sidewalks, and intersection infrastructure supporting and encouraging more biking and walking, and creating a safer environment for these activities.

Three-fourths of the respondents said that affordable housing is either *somewhat important* or *very important*. Among households with annual incomes less than $35,000, 93% felt affordable housing was an important concern. The neighborhood is developing quickly, there is a concern of a wave of gentrification all along University that needs to be controlled to maintain affordable housing in the neighborhood. With rising rent, residents are concerned for themselves having to possibly move to a more affordable area, and have a concern for the affordability for others. Many responses relate to the importance and need for diversity in the neighborhood. A suite of medium density mixed-income, mixed-use, and intergenerational housing options are desired in the neighborhood, not just affordable housing for families or students, but also housing for individuals, especially young adults, single workers, and the disabled. There were also many written responses in favor of the development of co-housing communities, and the encouragement of building more shelters for women and youth. Residents of SAP want to see new buildings fit with the human scale, quality, and general character of the neighborhood.

Many respondents suggest that improved economic integration between low and high income households would add to vibrancy of the neighborhood and the economic development of local businesses. Suggestions for supporting economic development that would benefit the neighborhood include a great deal of support for more restaurants in Saint Anthony Park, with additional calls for specific retailers such as a bakery, drug store, and other small businesses that can stay open into the evening, and limiting large franchises. More than 40% of

respondents work from home at least some of the time, and recommend increased co-working space and affordable office or creative spaces. The data reflected an importance of sustainability, preservation and restoration of buildings and other infrastructure within the neighborhood.

Transportation

- Encourage and make it affordable, accessible, and safe for everyone to use different modes of transportation.
- Improve infrastructure for bikers and pedestrians.
- Incorporate more amenities that would benefit and encourage more biking and walking – more benches, bike racks, and traffic calming.
- More car sharing options, especially for older people who may need assistance getting to and from appointments

From the survey results, we received a high response rate of a priority in these modes of transportation: walking, biking, public transit (bus transit and LRT), and personal vehicles. The bus and LRT were somewhat higher for low-income. Walking, bus transit, and metro mobility were higher for disabled users. 20% of respondents reported to using public transportation every day. Approximately 60% of respondents use public transportation *occasionally* and *a few times a month*.

Respondents reported that overall SAP is perceived to be *fairly safe* and *very safe.* Where there was a trend in safety concern, bikers and pedestrians wanted to see improvement where they can benefit from. For predominantly bikers, biking lanes seem to be too narrow on many busy streets, leaving bikers to feel uncomfortable biking on them. On these narrow streets, the traffic speeds are too high for biker safety, and roads do not stand as a safe place to bike with children. Where streets have bike lanes that are too narrow, bikers move to the sidewalk, leaving pedestrians feeling unsafe. Improvement in sidewalks and the sidewalk networks would benefit pedestrians, the disabled and people with special needs. Pedestrians would like more street lights to feel safe walking at night. Another concern for pedestrians was a lack of priority at intersections/crosswalks. At intersections and crosswalks, pedestrians would like to have bump-outs added, and traffic signals that prioritize pedestrians and bikers, where time is given for them to move sooner than vehicles.

Overall, the survey showed major trends in prioritizing safer environments for bikers and pedestrians, and creating more convenient opportunities for people to access public transportation options. Additional suggestions that would help in the improvement of transportation in SAP would be the addition of benches for pedestrians, more bike racks available, and major traffic calming.

Environment

- SAP is home to many great parks that are well maintained and offer great space for people.
- Would like to see improvements in sidewalks and more sidewalks and pathways.

- Work on minimizing noise pollution from traffic on busy roads and events like the State Fair.
- Have more trash cans available.

Green space is highly important to community members throughout Saint Anthony Park. Many respondents agreed that Saint Anthony Park is home to many great parks that are well maintained and offer great spaces for families. Where there was concern about the parks and green space, respondents want to see improvement in sidewalks, even the addition of sidewalks around the parks, to walk on paths and not grass. Respondents also want to see more benches and seating available in the parks. It's important the parks and green space are accessible to young and able families and individuals, but it would also be a nice improvement to make sure these spaces are accessible and enjoyable to people of all ages and abilities.

More than 40% of the respondents reported that there is too much noise pollution coming from the highways, light rail, trucks, and construction. Other major concerns that affect the neighborhood is the local events (e.g. State Fair, car shows, horse shows, even TCF Bank Stadium events), which leave a huge impact in terms of noise, traffic, pollution/litter, parking, etc. It may be beneficial to work with major event organizers (State Fair/fairgrounds, U of M, etc.) to plan ahead, provide information, and implement mediating efforts (e.g. street signage, trash bins, bus routing/detour information). Pollution concerns were even higher among low income respondents, particularly relating to air pollution, access to green space, and impacts of severe weather. Many respondents feel it is important that the city of Saint Paul and Saint Anthony Park do their best for preparing for the future, whether it's climate change or infrastructure change, to do our best to reduce its carbon footprint.

Business and Organization Survey

The online survey of businesses, nonprofits, industry, and sole proprietorships provided responses from 57 organizations that employ an estimated 1,123 full-time, 215 part-time, and 109 seasonal full- and part-time employees. These organizations typified the range of enterprises in the neighborhood, from banking, manufacturing, religious, and education to restaurants, brewing, art, and technology assistance. Nearly one-half require a high school diploma or equivalent, and almost 30% require an Associate Degree or higher. Several indicated that they do not require a specific educational degree, but focus on skills. Nearly one-half provide entry-level jobs.

It's apparent that District 12 is an ideal location for many businesses that have chosen to locate here. Many of the responses reflected that SAP is perceived to be a great location because of the easy access to nearby roads and other transportation options. There are many other organizations in this neighborhood that are complementary to other businesses and organizations. Although property taxes are not low in SAP, other characteristics and amenities of the neighborhood attract businesses to locate here. SAP is a central location that provides a variety of options for local partnerships that many people/businesses in the neighborhood value – the Creative Enterprise Zone, University of Minnesota, Minnesota Council of Nonprofits, and Sunrise Banks are a few of these.

Asked about what type of new housing would be beneficial, most responded that a mixture of affordable, work force, and market rate housing is desired. One respondent wrote: “Area needs more people and a diverse stock of housing that keeps a mix of generations and incomes. Ideally these would be mixed in the same project to avoid polarization / stereotyping of people.” Another stressed “high income condos,” whereas another wrote, “The widest variety of housing will attract the widest possible client base and also the widest possible potential employee collection.”

Over 40% responded that road condition, sidewalk condition, and dedicated bicycle routes as important aspects of transportation for employees, supplies, customers, and clients.

About 87% of respondents indicated an interest in making their organizations more energy-efficient or environmentally sustainable. They are most interested in waste reduction, sustainable landscaping, rooftop solar, and energy conservation.

Historic preservation was viewed as affecting about one-half of the businesses, with many reporting that it adds to the quality of the community, and others saying that it has limited their options or has been an “arduous process” to gain approval for renovation or signage.

A frequent request was that City licensing and inspection should have a more streamlined and coordinated process, to reduce the time required and the stress involved in gaining approvals. Related to this was a concern that the on-site inspector and the person doing plan review are not “on the same page.” One respondent wrote, “It would help immensely if business startup info & licensing/regulations were available in one place and there was somewhere I could walk in and have a conversation with a knowledgeable person…”

The most frequently cited reasons that they may have to move from their current location included high rents and lease costs, lack of space to expand, and high property taxes.

For the opportunities and work that businesses and organizations offer to SAP, various responses reflected how SAPCC could support their businesses and organizations. It’s important that SAPCC supports local businesses by working on marketing this neighborhood to attract specific amenities that are not already here. These amenities include more dining and quality restaurants that could increase food choices, entertainment venues, coffee shops, a grocery store, a pharmacy, creative agencies, fewer industrial companies, and before- and after-school care facilities and programs.

Equity Framework
Saint Anthony Park Community Council (SAPCC)

Origins of the Framework

Saint Anthony Park is a thriving neighborhood that employs careful planning to foster a high quality of life for residents, including a variety of residential and transportation options, a strong small business community, and exceptional green spaces. Since the implementation of the Green Line in 2014, the neighborhood population has both increased and shifted geographically and demographically. As Saint Anthony Park Community Council (or SAPCC, also known as District 12) anticipated and adjusted to the implications of the Green Line, we began to explore ways to interact with a wider proportion of our community members. We increasingly understood that there were community members who had been in residence for decades without having a voice in community development or process. As the neighborhood becomes even more of an entertainment destination and a desirable, centralized living option, our community risks the exclusion of our most diverse neighbors due to changing economic and other factors. Our Equity Framework has developed in response to that shortcoming and is focused on ensuring access and equity for all neighbors in Saint Anthony Park.

SAPCC acknowledges that discrimination affects historically marginalized communities in terms of racial and ethnic discrimination, gender discrimination, economic insecurity and segregation, disproportionate exposure to environmental burdens, and other forms of discrimination that result in disparate opportunities and persistent inequity. Simply talking about or conceptualizing equity does not foster justice; rather, communities that intentionally address existing and future disparities enjoy greater social and economic prosperity to the benefit of all.[1] Our Equity Framework systematically funnels all decisions through the lens of equity, helping the council understand the historical causes of disparities, identify current realities in our communities and institutions, and facilitate equitable outcomes through collective action. Promoting equity means

- using our influence and investments to build a more equitable region;
- creating real choices for all residents, across race, ethnicity, economic means, and ability; and
- engaging a full cross-section of the community in decision-making.

Equity work is never complete. This is a “living” document, which we anticipate revising as we become a more diverse organization, continue to encounter shifting realities and subsequent needs in the neighborhood, and learn more about fostering equity.

Equity Framework: Pillars

Specific ways that the Equity Framework can be applied to different aspects of our work should be constantly evolving and expanding, and the following components are examples of where to begin. Our Equity Framework is constructed of the following pillars:

- **REPRESENTATION:** Commitment to diverse representation on all Council bodies and centering voices of those most impacted in Council activities

- **EDUCATION:** Diversity and awareness training of community council participants to understand equity issues and learn how to utilize an equity framework
- **RESEARCH:** Ongoing collection of data and creative, open solicitation of feedback
- **STANDARDS:** Use of tools such as the Equitable Development Principles & Scorecard in planning to hold projects accountable to equity goals
- **COMMUNITY-MAKING:** Fostering social opportunities for community members to interact across diverse pockets of the neighborhood population in order to increase cohesion and communication

REPRESENTATION

Acknowledge lack of past and present success and commitment to future success. Self-assessment of organization with cultural and practical barriers to participation, with reflection from community on ways that would best enable voices to be heard and guide our programming.

Example - recruiting challenges, meeting times and locations, displacement of board members

EDUCATION

All participants of SAPCC trained in diversity and equity. Council members share a common understanding of how institutional racism impacts our communities and how this equity framework should be used in Council activities.

Example - Board diversity training

RESEARCH

While we acknowledge the many gaps in and limitations of currently-available data, SAPCC relies on data gathering and community feedback to better understand the nature and extent of inequities in District 12. SAPCC identifies and tracks racial, ethnic, environmental, and economic inequalities in the communities it serves, prioritizing research that can influence local governmental support within the neighborhood.

Example - GIS data collection, community surveys

STANDARDS

SAPCC applies external tools for equity policy to our Development Guidelines to ensure that our goals are equitable in both the processes we use for Council activities and the outcomes we seek.

Example - Equitable Development Principles & Scorecard

COMMUNITY-MAKING

Events and activities that foster cohesion across our neighborhood are fundamental to equity, because they enable neighbors to see and treat each other as “we” rather than “me.” SAPCC is working to address socioeconomic and geographic divisions through its partnerships and programming.

Example - Community meals, efforts toward building a Food Resource Center

Definitions

SAPCC focuses on equity across many categorizations these include, but are not limited to:

Race is a classification of people based on skin color, which developed initially from white supremacist notions of biological difference. Although race is now understood to be socially

constructed rather than a biologically meaningful distinction, it remains one of the most impactful forms of discrimination between people. Many disparities are more visible across racial divisions than any other socioeconomic classification.

Ethnicity is a characteristic of a groups that have certain key features in common such as a shared history, memory, tradition, language, religion, geography, or other sense of shared origin. It is distinct from race, in that ethnicity is internally defined and understood. While race is ascribed to groups by a dominant group, ethnicity is self-ascribed by a group.

Gender - The unequal allocation of resources is impacted by the social construction of gender. Patriarchy – the primacy of male perspective, needs, and experiences – marginalizes all people who do not identify as male or who do not neatly fit within traditional notions of masculinity. In addition to the social, political, and economic impact of gender discrimination, gender is an often-overlooked dimension for data collection and social research. Gender disparities greatly influence the division of labor in community leadership and activities.

Disability - Occurs when physical or social barriers impede the ability of a person to control their level of inclusion in society. The Americans with Disabilities Act and subsequent legislation has reduced some of the physical exclusion of certain people from the built environment, but significant barriers persist for people with both apparent and non-apparent physical and mental disabilities. Disability focus on ensuring physically accessible facilities in the built environment, not on the provision of services to people with disabilities or sufficient accommodation of non-physical disabilities.

Age - Young people and older adults are often excluded from meaningful and productive participation in civic and economic life. Data collection must always include age, and analysis must always be multi-generational so that disparities can be identified and remedied.

Class - income, homeownership, public service enrollment, etc. SAPCC currently defines a "low-income" household as those making 185% or less of the Federal Poverty Level relative to household size. As of 2015, 35% of district residents made less than $35,000/year, 20% of residents lived below the poverty line, 10% were unemployed, and of those with jobs, 19% made under $15,000/year.[2]

HOUSING EQUITY: AFFORDABLE, STABLE, AND QUALITY OF HOUSING CHOICES

The housing conditions in which a person is raised are among the strongest social determinants of health, wealth, and future achievement. The impact of housing can affect a person's ability to access quality education, health care, jobs, and transportation. Home ownership remains one of the most important sources of wealth in our country, and creates the kind of durable wealth that is often key to escaping intergenerational cycles of poverty. People of color are disproportionately renters, in part because they face discrimination to home ownership such as high-interest loans or outright denial of their mortgage application. Current research on gentrification highlights the ways in which the displacement of existing low or moderate-income renters negatively impacts their physical and mental health, as well as their ability to cultivate social and economic networks that provide both support and opportunity.

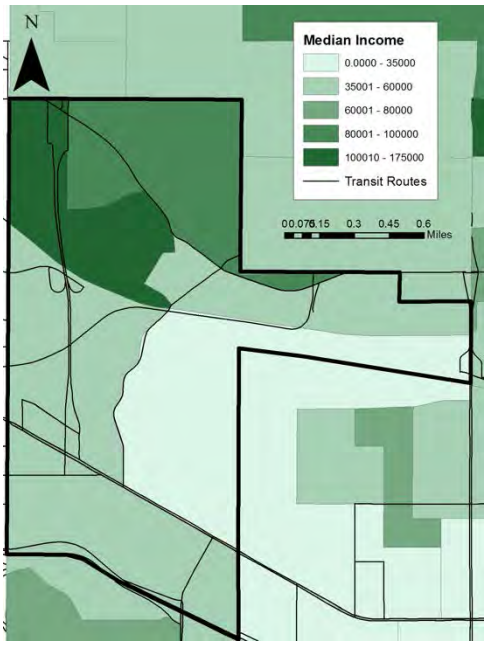
Housing must be affordable to people living on limited incomes, and stable in the sense that new development does not cause residents to be displaced by rising rents or home prices. Housing options must also be diverse and accessible to ensure that families of all sizes and people with disabilities are not significantly limited in their choices.

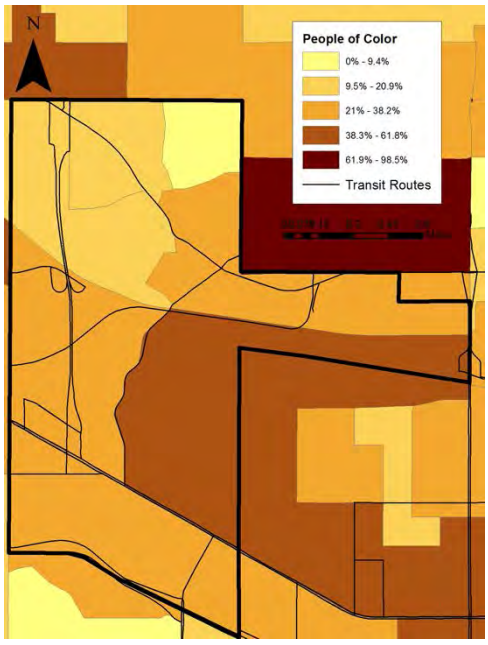
Housing should also be free of structural defects and environmental hazards such as mold and lead. As housing in or near the urban core becomes increasingly expensive as a result of housing, transportation, and land use decisions, many people living on low incomes are forced to relocate to more suburban areas further from education and job opportunities, public transportation, healthy food options, and public gathering spaces. This means that displaced people not only incur the significant costs of relocation, but also face increases in other household expenses, leaving them financially worse off than they were before being forced out of their old neighborhood. The displacement of these communities creates new economic pressures on already disproportionately low-income people and destroys interpersonal networks that are essential for accessing opportunity. Ensuring mixed-income and ethnically diverse communities is an essential part of achieving Vibrant Communities across our region by avoiding concentrated pockets of poverty or deprivation from limiting the potential of our residents.

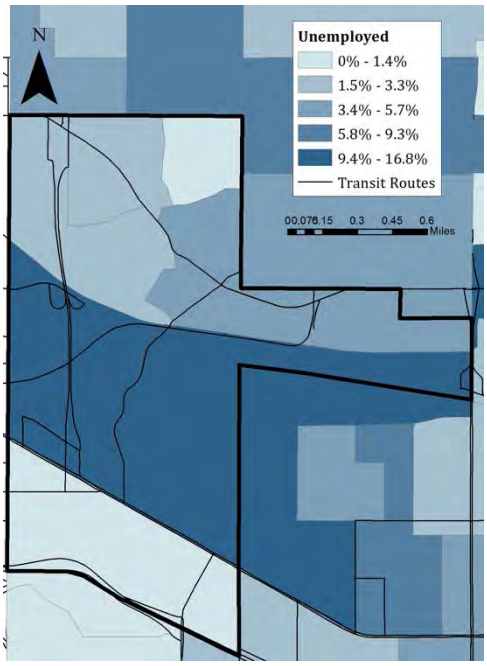
FOOD EQUITY: AFFORDABLE, NUTRITIOUS, AND CULTURALLY APPROPRIATE FOODS

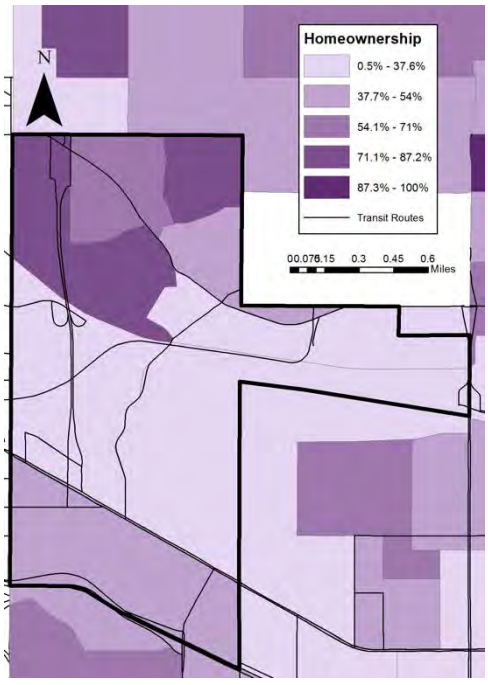
Nutrition is one of the most important causes of community health, which in turn promotes individual health. For many in our district, healthy nutritious food is difficult to access because of location and transportation challenges. In many low-income communities and rural areas, grocery store chains have left or never opened outlets in the first place. Even for those who do live close enough to food markets, many do not have the financial means to afford healthy food. SAPCC recognize the importance of culturally specific foods and traditions, and support immigrant communities in growing or finding access to such foods to support the preservation of an important aspect of their cultural heritage. Healthy foods result in fewer chronic diseases, such as diabetes, provide a health and economic individual, whole through improved productivity and savings on health care. Food equity is an area where further data collection is essential and presents the opportunity to partner with other organizations and companies that collect relevant food related data for other purposes.

The *images below* map the spatial disparities between North and South Saint Anthony Park in terms of income, race, unemployment, homeownership and land use to show how the neighborhood is divided in Saint Anthony Park**.**[2]







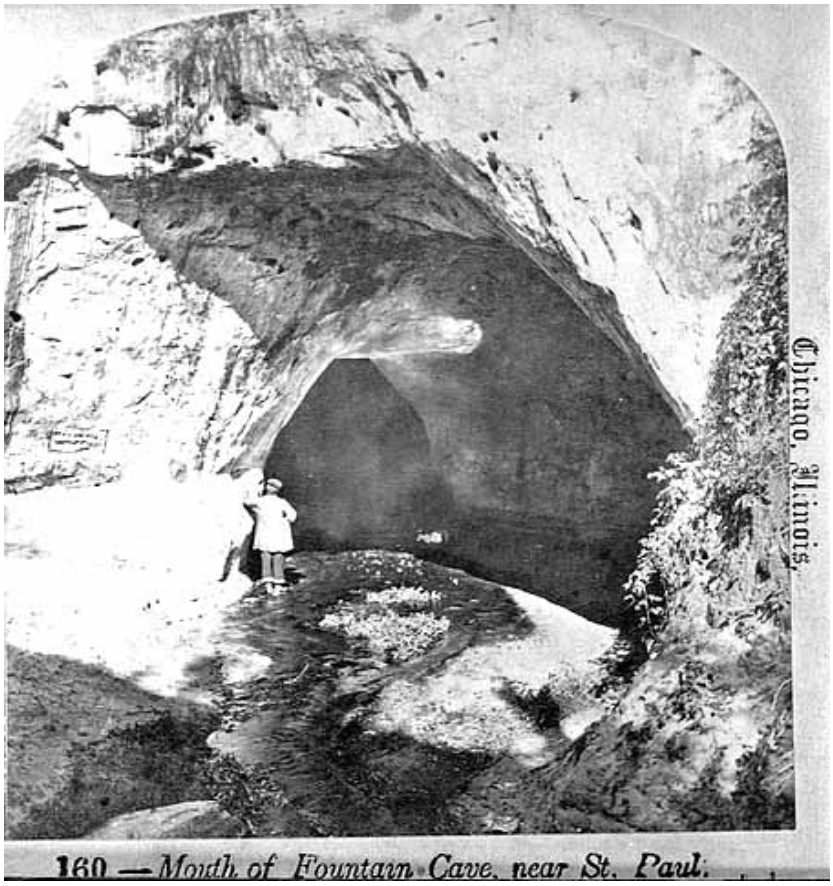


[1] Adopted from the Metropolitan Council's Thrive MSP 2040 - Statement on Equity.
[2] The use of the Federal Poverty Level as a measure of sufficient local income is a well-known and deeply problematic approach, but it does provide a baseline.

The Equity Framework was written by Samantha Hodges, University of Minnesota student and SAPCC intern, Melissa Williams, and other members of SAPCC's Equity Committee, and approved as a living document by the Board.

Appendix 3

Historic Waters of the Capitol Region Watershed District, Ramsey County, Minnesota



Prepared for Emmons & Olivier Resources, Inc.

By Greg Brick, M.S.

November 2008

I. INTRODUCTION

The Capitol Region Watershed District (CRWD), located in southwestern Ramsey County, Minnesota, has within its boundaries some of the most historic hydrological features in the Upper Midwest: Carver's Cave is the first cave to be described in the literature following Jonathan Carver's visits to it in 1766 and 1767, and nearby Fountain Cave was the first commercial show cave in the Upper Midwest, offering torchlight tours to visitors in the 1850s. Some of the pristine surface streams lovingly described by the pioneers and early visitors to our region still exist, flowing as lustily as ever, but through underground conduits. A complete inventory of these historic waters has been long overdue.

The purpose of this report is to describe the historic waters of CRWD, including its natural caves, historic springs, and former surface streams, now buried. In addition to describing physical and historical information for each feature, and how they were formed, suggestions will be offered as to possibilities for potential restoration, where appropriate.

Bridal Veil Creek

The stream gets its name from Bridal Veil Falls, where it pours out of its concrete pipe and plunges over a ledge in the shadow of the Franklin Avenue Bridge, on the east side of the Mississippi River, in Minneapolis (and thus outside the borders of CRWD). Waterfalls with the "bridal veil" moniker (as for example the more famous one in Yosemite National Park) fall from such great heights as to dissipate their waters as a "veil" of mist before reaching the bottom. An odd historical fact about Bridal Veil Falls is that it was once a mineral spa of sorts. Famous under the alternative name of Meeker's Creek, it had iron and sulfur springs, and in 1869 was actually described in the newspapers as a "new watering place." Another fact: groundwater seepage often resembles oil slicks, and another old newspaper clipping actually referred to the stream as "Oil Creek." By 1911, however, it was decided to "box" the creek, putting it underground.

Farther upstream, near the Minneapolis-St. Paul border, Bridal Veil Creek runs through several Superfund sites contaminated with coal-tar products, before emptying into Bridal Veil Pond, along Energy Park Drive, which has been entirely reconstructed as of 2008. The stream has been made to run through a culvert that isolates it from the underlying soil, which should improve water quality in the pond, where wild fowl died from mass poisonings in the early 1990s.

The headwaters of Bridal Veil Creek, however, are within CRWD. Originally, before human interference, the stream probably began at springs on what is now the Les Bolstad Golf Course (see above), whose collected waters flow under the adjoining St. Paul Campus of the University of Minnesota, following the boundary with the State Fairgrounds, until emptying into the Sarita Wetland along Como Avenue. In 1909, the state fair board, seeking a new attraction, excavated the wetland in their efforts to create a lagoon and canal that would carry passenger boats, but gave up on the plan (Empson, 2006). Overflow from the Sarita Wetland now drains to the Eustis Street tunnel, which empties into the Mississippi River just above the Lake Street Bridge.

The author of this report, while employed as an environmental consultant, became quite familiar with the wealth of contaminated properties along the course of Bridal Veil Creek near the Minneapolis-St. Paul border. Given the issues of contaminated soils, which are expensive to deal with, and the industrial character of the land through which the stream still flows, it is questionable whether it would be a wise investment at the present time, to attempt any daylighting projects, despite the stream's nearness to the surface. In any case, the exact course of the stream in its headwaters (i.e., east of Highway 280) is obscure and requires further investigation. Restoration efforts are best focused on the series of detention ponds (e.g., Burlington Pond, Kasota Pond) historically associated with this stream, which provide a true amenity to wildlife in a heavily industrialized area.

Appendix 4

Environmental Profile

Kasota and Highway 280
Saint Paul, Ramsey County,
MN 55114

PN# 3-00067

Prepared for

Stan Koch and Sons Trucking

By

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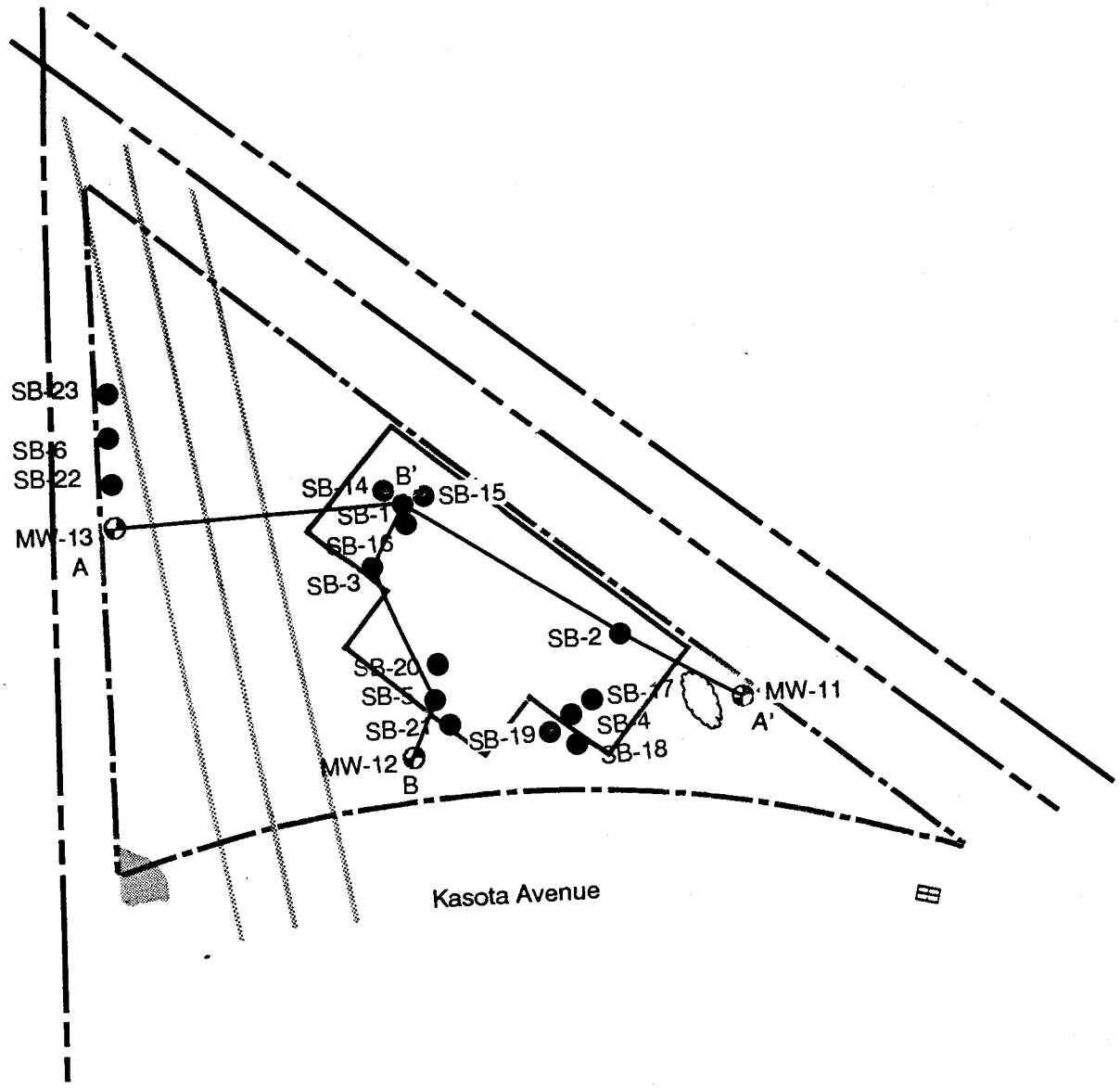
May 21, 1996



Legend

- Property Boundary
- Proposed Building Boundary
- Soil Boring
- Monitoring Well
- Debris
- NSP Overhead Power Line
- Existing Pond
- Existing Railroad
- Benchmark (catch basin)

N

0 Approx. 100 FT

Figure 2 Property Plan View

Environmental Profile
PN # 3-00067
Kasota & Highway 280
Ramsey County
St. Paul, MN 55114

***EnPro** Assessment Corp*

B Project Results

This section presents and summarizes the data collected and reviewed for this project. Section C presents our evaluation of the data. Methods are described on the title page of each addendum.

B.1 Soil Sampling

Soil sampling including earlier sampling is summarized in Table 1, and geologic cross sections (Figures 3 and 4) and the field and drillers logs are attached in Addendum 2.

B.1.1 Locations

Within constraints of the known and inferred positions of utilities, tanks and buildings, the locations of the soil borings (Figure 2) were selected based on triangulating groundwater flow (MW-11, MW-12, and MW-13), previous shallow-petroleum-contaminated borings SB-1 and SB-4, (SB-14 through SB-19), the lead-contaminated boring SB-6, (SB-22 and SB-23), and organic vapor-contaminated boring SB-5 (SB-20 and SB-21).

B.1.2 Profile

The soil profile consisted of 15 to 22 ft of fill underlain by till except in borings MW-12, MW-13, and SB-20 where up to 4 ft of swamp and lake deposits were present above the till. Outwash was encountered at depth in boring MW-13. Groundwater was encountered at 10 to 19½ ft.

TABLE 1
SOIL SAMPLING SUMMARY
(ft)

BORING/AREA	TOTAL DEPTH (FT)	DEPTH TO GROUNDWATER (FT)	DEPTH OF FILL (FT)	VISUAL OR OLFACTORY CONTAMINATION OBSERVATION
SB-1/north	25½	10	22	strong fuel odor at 2 to 4 ft; glass, concrete, brick, wood to 22′
SB-2/NE corner	26	19½	18	brick, wood, metal, and glass to 18′
SB-3/center	25½	≥25½	20	cinders, paper, glass, concrete, brick to 20′
SB-4/SE corner	25½	14	17	strong fuel odor at 2 ft wood, paper, glass, metal to 17′
SB-5/south corner	26	16	16	glass, concrete, wood, metal, brick to 16′
SB-6/NW corner	26	21	22	glass, concrete, wood, metal, brick to 22′
MW-11/NE corner	6	19½	16	glass shards to 14′, fuel odor at 6-8 ft
MW-12/south of SB-5	22	17	16	concrete chips, wood to 8′
MW-13/south of SB-6	24	15	18	glass, concrete to 16′
SB-14/NW of SB-1	8	≥8	≥8	glass to 4′; fuel odor 2-6′
SB-15/NE of SB-1	8	≥8	≥8	glass to 6′; fuel odor 2-6′
SB-16/south of SB-1	8	≥8	≥8	glass, wood to 6′; fuel odor 2-6′
SB-17/NE of SB-4	6	≥6	≥6	plastic, glass to 6′
SB-18/SE of SB-4	6	≥6	≥6	plastic, glass to 4′; fuel odor 2-4′
SB-19/SW of SB-4	6	≥6	≥6	plastic, glass, wood to 6′; fuel odor 2-4′
SB-20/north of SB-5	18	14	15	glass, wood, plastic, clinkers, concrete, ceramics to 12′
SB-21/SE of SB-5	18	10	17½	glass, concrete, wood, ceramic to 12′; fuel odor 2-4′
SB-22/south of SB-6	22	16	≥22	glass, brick, concrete, coal, ceramics to 12′
SB-23/north of SB-6	20	15	≥20	glass, wood, plastic, concret to 18′

[1]no odor, no stain
[2]fuel odor

LOG OF BORING

PROJECT: **BAAX-95-849** **Environmental Borings and** **Monitoring Well Installation** **Northwest of Kasota Avenue and Highway 280** **St. Paul, Minnesota**	BORING: **MW-12** LOCATION: **See attached sketch.**

DRILLER: M. Niesen	METHOD: 4 1/4" HSA	DATE: 3/6/96	SCALE: 1" = 4'

Elev.	Depth	ASTM Symbol	Description of Materials	BPF	WL	Tests or Notes
95.5	0.0	FILL	FILL: mixed Silty Sand, Concrete and glass, black and gray, frozen.	32 60 28		
92.5	3.0	FILL	FILL: Silty Sand, mixed with Organic Clay, Gravel, brown Sand, glass and Concrete, dark brown, wet.	10 6 6 7 13 6 5 WH 2 4 4 5 4		
79.5	16.0	PT	PEAT with SAND, with fibers, black, wet. (Swamp Deposit)	4 4	▽	
77.5	18.0	SM	SILTY SAND, mostly fine-grained, with a trace of fine Gravel and layers of Lean Clay, gray, waterbearing, very loose to loose. (Alluvium)	4 5 3		
75.5	20.0	SC	CLAYEY SAND, with a trace of fine Gravel, gray, wet, soft to rather soft. (Glacial Till)	5		
73.5	22.0		END OF BORING. Water down 17 1/2' with 19' of hollow-stem auger in the ground. Water down 17' with 19' of hollow-stem auger in the ground after 10 minutes. Well installed at 22 feet.			

LOG OF BORING

PROJECT: **BAAX-95-849** **Environmental Borings and** **Monitoring Well Installation** **Northwest of Kasota Avenue and Highway 280** **St. Paul, Minnesota**	BORING: **MW-13** LOCATION: **See attached sketch.**
DRILLER: M. Niesen — METHOD: 4 1/4" HSA	DATE: 3/5/96 — SCALE: 1" = 4'

Elev.	Depth	ASTM Symbol	Description of Materials	BPF	WL	Tests or Notes
95.5	0.0	FILL	FILL: Silty Sand mixed with Gravel, cinders, Peat and glass, dark brown and black, moist to 15' then wet.	5 4 7 10 10 16 22 11 18 11 5 9 15 6 7 6 5 3		
77.5	18.0	PT	PEAT with Sand, black, wet. (Swamp Deposit)	5 4 6		
74.5	21.0	CL	LEAN CLAY, black, wet, medium. (Alluvium)	7		
73.5	22.0	SP-SM	POORLY GRADED SAND with SILT, mostly fine-grained, with layers of Silty Sand, gray, waterbearing, loose. (Alluvium)	5 6	▽	
71.5	24.0		END OF BORING. Water down 24' with 24' of hollow-stem auger in the ground. Well installed at 23'.			

LOG OF BORING

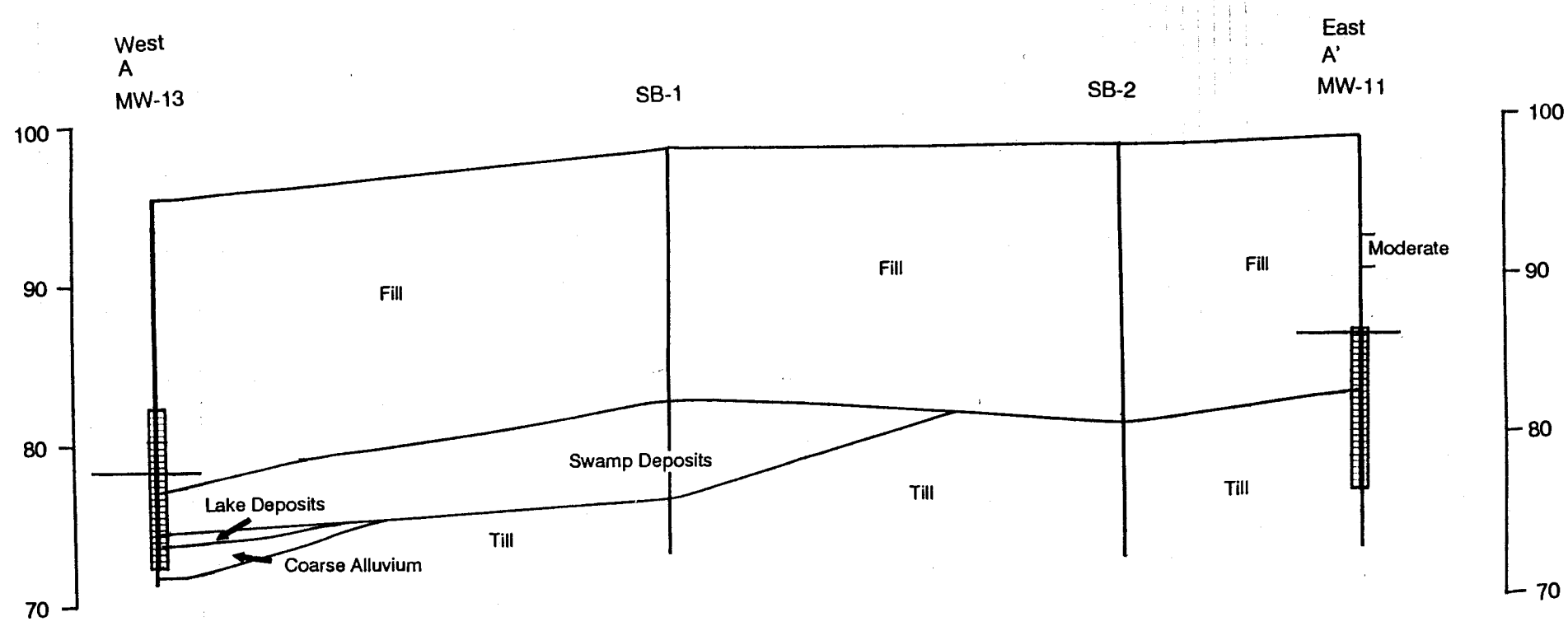
PROJECT: **BABX-95-849** **PRELIMINARY GEOTECHNICAL EVALUATION** **Proposed Manufacturing Building** **Northwest of Kasota Avenue & Minnesota Highway 280** **St. Paul, Minnesota**	BORING: **ST-1** LOCATION: **See attached sketch.**
DRILLER: M. Rowland — METHOD: 3 1/4" HSA	DATE: 10/31/95 — SCALE: 1" = 4'

Elev.	Depth	ASTM Symbol	Description of Materials	BPF	WL	Tests or Notes
98.2	0.0	FILL	FILL: Silty Sand mixed with glass, concrete, Gravel, brick, wood, cinders, paper and peat, black and dark brown, moist to wet.	4		Strong fuel odor.
				8		
				10		
				3		
				5		
84.2	14.0	FILL	FILL: Organic Clay mixed with glass, black and gray, wet.	2		
82.2	16.0	FILL	FILL: Peat mixed with Organic Clay and Silt with a trace of glass, black and gray, wet.	5		
				7		
76.2	22.0	CL	SANDY LEAN CLAY, with a trace of Gravel, brow, wet, medium to rather stiff. (Glacial Till)	7		
72.7	25.5			9		
			END OF BORING. Water not observed with 24' of hollow-stem auger in the ground. Boring grouted to the surface.			Elevation Reference: Top of catch basin on north side of Kasota Avenue east of the southbound highway 280 entrance ramp. Elevation assumed to be 100.0.

LOG OF BORING

PROJECT:	BORING: ST-5
BABX-95-849 **PRELIMINARY GEOTECHNICAL EVALUATION** **Proposed Manufacturing Building** **Northwest of Kasota Avenue & Minnesota Highway 280** **St. Paul, Minnesota**	LOCATION: **See attached sketch.**
DRILLER: M. Niesen — METHOD: 3 1/4" HSA	DATE: 10/30/95 — SCALE: 1" = 4'

Elev.	Depth	ASTM Symbol	Description of Materials	BPF	WL	Tests or Notes
96.5	0.0	FILL	FILL: Silty Sand mixed with Organic Clay, glass, concrete, Gravel, brick, wood, paper and a trace of coal, black and dark brown, moist to wet.	5 8 6 7 9 16 27 30 11 7 5 5 1 2 3 6		
80.5	16.0	OL	ORGANIC CLAY, black, wet. (Swamp Deposit)	4 2 1	▽ ▼	
77.5	19.0	CL	SANDY LEAN CLAY, with a trace of Gravel, and seams and layers of Sand, wet, rather soft to very stiff. (Glacial Till)	5 4 7 14 29		
70.5	26.0		END OF BORING. Water down 16 1/2' with 24' of hollow-stem auger in the ground. Water down 18' immediately after withdrawal of auger with cave-in at 23'.*			Boring then grouted to the surface.



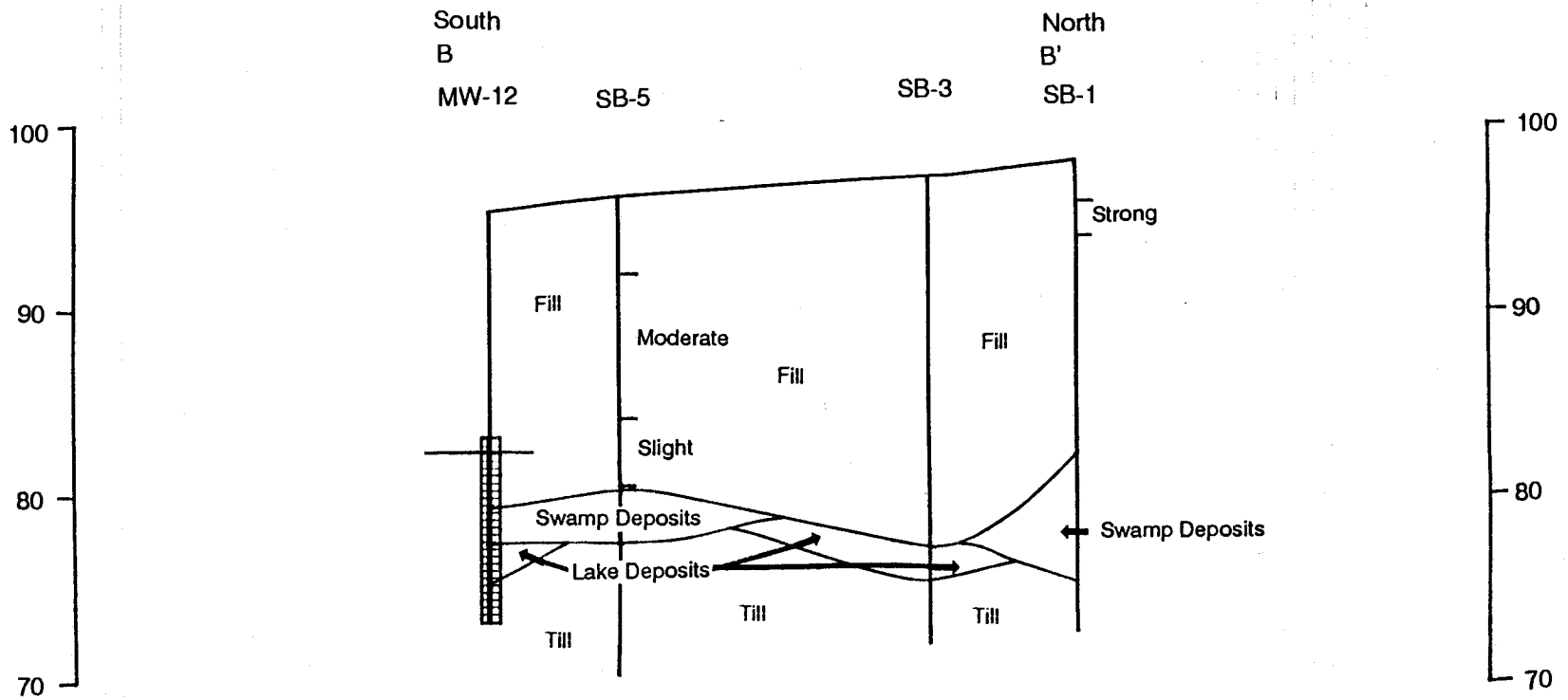
Scale:
Vertical Exaggeration = 5
Horizontal

0 Approx. 50 FT

Figure 3 Geologic Cross Section A-A'

Environmental Profile
PN # 3-00067
Kasota & Highway 280
Ramsey County
St. Paul MN, 55114

***EnPro** Assessment Corp*



Scale:
Vertical Exaggeration = 5
Horizontal

0 Approx. 50 FT

Figure 4 Geologic Cross Section B-B'

Environmental Profile
PN # 3-00067
Kasota & Highway 280
Ramsey County
St. Paul MN, 55114

***EnPro** Assessment Corp*

Appendix 5

Detailed argument regarding potential health impacts

Because of potential health impacts from direct contact and from airborne pollutants, and particularly regarding fine particulate matter, asbestos and lead, the St. Anthony Park Community Council is quite concerned about the health impacts that this project could pose, for several reasons:

1 - Lead. For many decades, it has been known that lead is linked to deleterious brain damage to children in particular, and also to general health impacts even in adults. The National Institute for Occupational Safety and Health (NIOSH) states: "Lead poisoning has occurred in children whose parent(s) accidentally brought home lead dust on their clothing. Neurological effects and mental retardation have also occurred in children whose parent(s) may have job-related lead exposure." (See NIOSH website in Citations below.)

The U.S. Centers for Disease Control and Prevention (CDC) website states: "No safe level of lead exposure in children has been identified. Exposure to lead can seriously harm a child's health and cause well-documented adverse effects such as: 1- damage to the brain and nervous system; 2- slowed growth and development; 3- learning and behavior problems; 4- hearing and speech problems. This can cause: 1- lower IQ; 2- decreased ability to pay attention; [and] 3- underperformance in school." (See USCDC website in Citations below.)

NIOSH continues: "It does not matter if a person breathes-in, swallows, or absorbs lead particles, the health effects are the same…. Within our bodies, lead is absorbed and stored in our bones, blood, and tissues. It does not stay there permanently, rather it is stored there as a source of continual internal exposure…. People with prolonged exposure to lead may also be at risk for high blood pressure, heart disease, kidney disease, and reduced fertility…. Very high lead exposure can cause death." Finally, NIOSH concludes: "The Department of Health and Human Services (DHHS), Environmental Protection Agency (EPA), and the International Agency for Research on Cancer (IARC) have determined that lead is probably cancer-causing in humans." (See website in NIOSH Citations below.)

As has been documented, uncontrolled dumping occurred here from the 1930s-1960s, and the waste included significant amounts of partially incinerated ash, as well as many other health-related contaminants. To illustrate the variety of hazardous wastes at this site, the following is copied from an appendix in the contractor's proposal report. This appendix documents hazardous wastes in an early survey, apparently written in 1981. (Handwriting on the top of the first page says: "From MPCA Files.") The information is copied below from an appendix in the Rohn contractor's proposal report. (These parts of the MPCA report is also reproduced—with text highlighting--as Figure DM-1, attached.) This evidence is therefore an authoritative version from MPCA's files of the entire Elm Street Ash Dump, which includes the entire Elm Street Ash Dump, and includes the Rohn site).

> "The site is located in the heart of the Twin Cities in Minneapolis, but slightly overlaps into St. Paul. It lies just northwe[st] of the intersection of Kasota Avenue and Highway 280….
>
> It is not known when this dump began operating. For many years the land belonged to Burlington Northern Railroad, and it is thought that they might have disposed of a few things in it
>
> At some point, the City of Minneapolis began using about 37 acres of the vacant land as a place to dump ash and residue from one of their two municipal garbage incinterators.[1] The ash dumped there was probably similar in content to that from the city's other incinerator, which exceeded MPCA standards for cadmium, lead, zinc, selenium and arsenic.

> Water tests at the Lyndale Dump to which that ash was taken also exceeded allowable levels of cadmium, lead, selenium, and arsenic.[5]…
>
> Access to the site was very easy as it was not fenced, was accessible from all sides, and had no operator on duty.[1] Considering this, and the industrial land use of the area, it seems quite possible that some hazardous wastes could have been disposed of at the site.…
>
> It seems quite possible that the site was never covered over as mentioned above, nor properly closed, because no closure forms for the dump were ever found." (From appendix in: Ldmk Ph1 ESA, 2019, pp. 824-827.)

Finally, the same report concludes:

> "Evaluation of the Site
> This site was rated 2- moderate to high. It is a large site, located in an industrial area, which probably received hazardous wastes. Ash, the main item dumped there almost certainly had high concentrations of some heavy metals and could therefore contaminate surface and ground water in the area with these metals. The site was used for many years, was poorly managed and was open to dumping at any time. The wide variety of things other than ash found at the site (including several rusty barrels) suggests that it was easy for anyone who wanted to do so to dump there; generators of hazardous waste would have had no trouble dumping there." (Ldmk Ph1 ESA, 2019, p. 834.)

2 - Direct Contact with Lead. Samples from only 7 borings and 1 monitor well were submitted for chemical analyses, out of the total of 23 soil borings performed by the driller and reported in the 1996 studies by Braun Intertec and EnPro Assessment Corporation, according to the manifest and the results tables. The laboratory requests for the soil boring analyses for hazardous metals are found on pages 619-622 of the Ldmk Ph1 ESA, 2019. (See attached Figure HL-1—which is the Chain of Custody manifest from EnPro Assessment Corporation and Braun Intertec, and is a total of 4 pages.) Out of an initial 29 samples submitted for analyses, only 12 analyses (at different depths from only 7 borings total, plus one well sample) were conducted by the lab (Serco Laboratories). There is no explanation in this documentation why the other borings samples, as submitted, were not analyzed. Thus, there is very little chemical analysis of the ash debris on this site.

There are only 4 positive identifications of lead reported in the proposer's narrative in the Ldmk Ph1 ESA plan. These are summarized as follows:

> "Lead impacts to soil exceeded 1996 screening criteria (MPCA Tanks and Emergency Response action limits for land farming of petroleum) at four locations, MW-11, SB-21, SB-6, and SB-23. Only one of these detections, 1,300 mg/kg at MW-11, exceeds current MPCA screening criteria for an industrial setting." (Ldmk Ph1 ESA, 2019, p. 15).

However, that statement downplays the hazards of lead to human health. In the report from EnPro Assessment Corporation, as found in the appendix, the same results are described in a very different way, as follows:

> "The lead contamination was detected above the MPCA Tanks and Emergency Response action limits…at three locations within the fill: MW-11 at the east end, SB-21 along the south border, and SB-6 and SB-23 at the west border. The concentration was elevated as shallow as 6 to 8 ft at SB-21 and as deep as 12 to 14 ft at SB-23." (from: EnPro Assessment Corporation report, 1996, p. 586).

Five additional soil borings were analyzed for lead but were not mentioned in the Ldmk Ph1 ESA narrative. Two of the five also show lead contamination, although at lower concentrations in the bulk samples, com-

pared to the ones mentioned. However, the other 16 borings are not reported to have been even been analyzed for hazardous metals, including lead.

Clearly, there is really very limited knowledge of lead contamination from across the entire site, given the complexity and heterogeneity of the debris. This is particularly true of the waste closest to the land surface, where excavation will begin: out of the total analyses for lead, none were from samples at the land surface (from 0 feet to 2 feet in depth). Thus, it must be concluded that the few samples noted in the proposer's report do not characterize this debris well at all, and we know basically nothing about lead at the land surface from these analyses.

Given this lack of information, it is the position of the SAPCC that the existence of incinerator ash is a better proxy for positive sample results for lead. As previously cited in the 1981 MPCA report, the conclusion states:

> "Ash, the main item dumped there almost certainly had high concentrations of some heavy metals…." (From appendix in: Ldmk Ph1 ESA, 2019, p. 834.)

The only reasonable conclusion, therefore, is that the Rohn proposal site most likely has a significant amount of lead at or very near the ground surface of this old dump site. Thus, there is an extremely high likelihood that digging into the dump waste will cause the workers to encounter lead, due to the significantly widespread existence of ash across the site. It follows, then, that the on-site workers will likely be mucking around in lead wherever they walk. The types of excavation and development activities proposed in this project are also highly likely to cause on-site workers to drag particles of lead into their vehicles and motorized equipment.

The recent experiences of the Minnesota Department of Health (MDH) with the company Water Gremlin, which is on-going and reported in the news, demonstrate that direct contact of workers with lead creates serious risk to children and families of workers. Therefore, it is the position of the SAPCC that there is a significant risk to on-site workers at the Rohn site and their families from the effects of direct contact with lead contamination. We are right now seeing in the news how difficult it is to remove lead from shoes and clothing, and out of vehicles, for workers to avoid taking lead home to their families, even at a plant where training, supervision and showers can be fully implemented. At this open-air site on Kasota Avenue, there could be few or none of those controls.

It is also the position of the SAPCC that fine particles of lead could easily become windblown from excavations or disturbances of any kind at this site. Thus, we believe that neighbors in nearby homes and businesses are also at risk for exposure to lead.

3 - Asbestos. For many decades, it has been known that exposure to fine friable asbestos is a direct cause of asbestosis, lung cancer and mesothelioma. As stated by the U.S. Environmental Protection Agency (EPA): "Three of the major health effects associated with asbestos exposure are: 1- lung cancer; 2- mesothelioma, a rare form of cancer that is found in the thin lining of the lung, chest and the abdomen and heart; and 3- asbestosis, a serious progressive, long-term, non-cancer disease of the lungs." (See USEPA website in Citations below.)

Types of fine friable asbestos were used extensively in building materials and for other uses during the years of the 1930s to 1960s. Therefore, it is highly likely that these types of asbestos could have been dis-

carded in the Rohn site of the Elm Street Ash dump, which is summarized as a 'completely uncontrolled dump'. It is the position of the SAPCC that asbestos is highly likely to be on the proposer's site, and therefore a serious potential hazard to the on-site workers, as well as to neighboring homes and businesses from asbestos becoming airborne.

4 – Evidence of Demolition Debris, as an Indicator of Asbestos on This Site. The previous sampling on the site has documented many items consistent with demolition debris, including glass, wood, rubber, metal, brick, concrete, shingles, old doors, etc. These are all documented in an early survey, apparently written in 1981. (Handwriting on the top of the first page says: "From MPCA Files.") The information is copied below from an appendix in the Rohn contractor's proposal report. (The full first part of this report is also reproduced—with text highlighting--as Figure DM-1, attached.) This evidence is therefore an authoritative version from MPCA's files of the entire Elm Street Ash Dump, which includes the Rohn site.

> "The site is located in the heart of the Twin Cities in Minneapolis, but slightly overlaps into St. Paul. It lies just northwest of the intersection of Kasota Avenue and Highway 280….
>
> It is not known when this dump began operating. For many years the land belonged to Burlington Northern Railroad, and it is thought that they might have disposed of a few things in it. …
>
> At some point, the City of Minneapolis began using about 37 acres of the vacant land as a place to dump ash and residue from one of their two municipal garbage incinterators.[1] The ash dumped there was probably similar in content to that from the city's other incinerator, which exceeded MPCA standards for cadmium, lead, zinc, selenium and arsenic. Water tests at the Lyndale Dump to which that ash was taken also exceeded allowable levels of cadmium, lead, selenium, and arsenic.[5]
>
> The incinerator operated five days per week, 16 hours per day so ash was probably hauled to Elm Street during those time periods….
>
> Dumping was supposedly limited to city incinerator and construction debris plus some combustibles, but soil borings and site visitors both indicated that a much broader range of things was dumped. Soil borings turned up concrete, cinders, peat, rags, wood, ashes, blacktop, metal, glass, slag, boglime, paper, and clinkers. They also indicated that the fill had not been compacted, or had been randomly done.[2] Visitors to the site reported blowing paper, piles of ash, concrete debris and other items:[1] shingles, old doors, tires, etc., incinerator ash, and scrap metal; [6] old auto bodies, tires, ash, refrigerators;[3] bricks, glass, metal scraps, cans, plastic, and rusty barrels: one with a whitish powder in it and two or three others with a hardened brittle material inside.[4]
>
> Access to the site was very easy as it was not fenced, was accessible from all sides, and had no operator on duty.[1] Considering this, and the industrial land use of the area, it seems quite possible that some hazardous wastes could have been disposed of at the site….
>
> It seems quite possible that the site was never covered over as mentioned above, nor properly closed, because no closure forms for the dump were ever found." (From appendix in: Ldmk Ph1 ESA, 2019, pp. 824-827)

However, no analyses have been done for asbestos to date, as documented by the proposer's contractor, as follows:

> "The scope of the Phase I ESA did not involve the collection and analysis of any type of sample or survey with respect to the following: matters of structural engineering; compliance with environmental regulations; compliance with industrial hygiene and/or health and safety programs; asbestos-containing materials (ACM) or lead-based paint (LBP); presence of radon and/or radionuclides; lead in drinking water; presence of wetlands; presence of cultural, historic, and/or ecological resources and/or endangered species; quality of indoor air; biological agents; mold; potential for earthquakes and/or flooding; presence of high voltage powerlines; or regulatory compliance." (Ldmk Ph1 ESA, 2019, p. 6)

Conditions imposed by the MPCA, and attached as part of the Landmark Environmental Construction Contingency Plan, July 2019, p. 7 (hereafter labeled as the: "Ldmk ECCP, 2019") requires that if demolition debris is found, it must be considered as asbestos-containing materials (ACM). Therefore, digging should stop, MPCA needs to be advised, and the proposer must analyze the waste for asbestos. (See specific MPCA language in Appendix B of the Ldmk ECCP language below. The full text of the MPCA's requirements: MPCA, 1999, *Asbestos Guidance on Excavation Projects*, are reproduced from Appendix B as Figure DM-2):

"This excavation guidance document is for excavation/construction projects that involve demolition debris, solid waste or other materials contaminated with asbestos- containing materials (ACM) and/or asbestos- containing waste materials (ACWM) that are excavated or otherwise disturbed during the project. …"

"The excavation of any materials that are contaminated with ACM is governed by 40 Code of Federal Regulations (CFR) pt. 61, subp. M, also known as the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP).

"The regulatory framework of the asbestos NESHAP for excavations is as follows:

1. The definition of a "Facility" includes Inactive Waste Disposal Sites.

2. An Inactive Waste Disposal Site is defined as a site where ACWM has not been added for one year.

3. Renovation means the altering of a "Facility" in any way, which includes the excavation of an inactive waste disposal site.

4. Projects that involve excavation or disturbance of demolition debris, solid waste or other materials contaminated with ACM and/or ACWM in an inactive waste disposal site are renovations and are subject to the asbestos NESHAP. For these projects, the owner(s) and operator(s) of the property and the project should determine the extent of the contamination in relation to the material to be excavated or disturbed in order to assure that the project is conducted in compliance with the asbestos NESHAP.

    a. Thoroughly inspect the area to be excavated or disturbed for the presence of asbestos. In an excavation, this means test pits almost exclusively as soil borings are too limited. Determine what quantity of demolition debris with ACM mixed in is present or expected to be present. This determination can be made from the test pits or other information in connection with physical observations. The sampling and testing of suspect building materials for asbestos must be performed by an Asbestos Hazard Emergency Response Act (AHERA) certified and Minnesota Department of Health (MDH) licensed inspector. The testing of materials for asbestos must be of discrete layers or products. Soil testing for asbestos may need to be performed if friable ACM materials are identified in an area.

    b. Determine the extent of contamination - all demolition debris and ACM is considered Regulated Asbestos-Containing Material (RACM) at this point. …

    c. All types and if possible sources of RACM must be identified….

5. If the project is subject to 40 CFR 61.145, you must now hire a licensed asbestos contractor and follow the asbestos NESHAP renovation regulations…

    a. Waste handling provisions of 40 CFR 61.150 must be met. It includes the following:
        i. adequately wet
        ii. polyethylene lined and covered trucks or containers.
        iii. proper manifesting, waste generator label, and warning signs used.…

d. Disposal at a site operated in accordance with 40 CFR 61.154. An "approved" Landfill that is permitted by the MPCA to accept RACM.

6. The RACM removal project is completed after all the RACM is removed and a visual inspection is performed by the licensed asbestos contractor or an AHERA/MDH certified inspector. In an excavation, this would be for the affected area where RACM was removed." (MPCA, 1999, *Asbestos Guidance on Excavation Projects*).

The samples and historic documentation from the studies contracted by the proposer in 1986, 1995, 1996, etc., already identify items typical of demolition. Demolition debris is also identified in every soil boring from the Rohn site done in the 1996 assessments and fieldwork by the Braun Intertec company and included in the EnPro Assessment Corporation report. (The full table of soil boring results is included on p. 570 of the proposer's Ldmk Ph1 ESA, 2019, and is attached here as Figure DM-2.)

Therefore, it is the position of the SAPCC that the existing sampling results already require sampling for asbestos, based on the MPCA's Asbestos Guidance document, as well as from the proposer's Ldmk ECCP, the latter which acknowledges: "Unexpected environmental conditions potentially consist of encountering one or more of the following during excavation activities: underground storage tanks (USTs), buried debris containing brick, concrete, wood and materials with potential ACM…" In Section 2, it states: "In the event that any suspected hazardous substances or unexpected environmental issues are encountered during the excavation activities, work in the area will cease and the work area will be secured. The excavation contractor shall contact Landmark immediately. A representative of Landmark and/or the contractor will then contact the MPCA." (Ldmk ECCP, 2019, p. 7).

The Ldmk ECCP (p, 3) further states: "This ECCP will be implemented in the event that indications of contamination, regulated waste, or other items of environmental concern that require special handling are unexpectedly encountered during construction." [bolding is theirs]

Because the proposer already knows that demolition has been detected on the site, ACM waste cannot be unexpected. On the basis of this totality of evidence, any excavation will almost certainly encounter asbestos-containing materials. It is the position of the SAPCC that no excavation should be allowed to commence, until a thorough investigation for asbestos is conducted on the site, particularly across all areas to be excavated or disturbed.

Because there has been no reported asbestos analyses within the proposer's documents, the SAPCC disagrees with the city staff's conclusion that the MPCA's letter of "No Association Determination" allows that the project can go forward as proposed, without asbestos analyses. Rather, it is the position of the SAPCC that due to the omission of analyses for asbestos, this is an Error of Fact. Thus, it follows that the Planning Commission decision is an Error of Finding of Fact.

Further, the city staff indicate that the Rohn project proposal should be approved as complete. The SAPCC disagrees on this point as well. It is the position of the SAPCC that, due to the omission of analyses for asbestos, the project proposal is not complete, and the staff's conclusion is an Error of Fact. Again, it follows that the Planning Commission decision is an Error of Finding of Fact.

5 - Remediation Issues of Asbestos. It is common knowledge among homeowners that friable asbestos was used in older homes. But such asbestos was also extensively used in commercial and industrial buildings in those same years. In addition, it is common knowledge that if asbestos is damaged or disturbed by remodeling or by any type of renovation, then an elaborate set of requirements must be followed to contain

and/or remove the asbestos. These requirements include using highly trained contractors with specific skills, clothing (so-called “Haz Mat suits”) and equipment; sealing off areas with asbestos with heavy taped barriers; and containment of all airborne asbestos with positive, high-efficiency air capture systems. None of those requirements could be met on an open-air site like the Rohn site, especially by heavy equipment contractors that will be required to develop this site as proposed.

It is the position of the SAPCC is that extensive sampling across all of areas to be disturbed on this site must be analyzed by a qualified laboratory for the types of fine friable asbestos which are linked to deleterious health impacts prior to beginning any excavation for this project. If such analyses do identify any of these types of asbestos, the SAPCC recommends that the City Council deny this proposed project, because the necessary type of containment of potentially-airborne asbestos would be essentially impossible to perform at this open-air site.

6 - Health Effects of Fine Particles. The sampling documented in the proposer’s plan (Ldmk Ph1 ESA, 2019) has not included analyses of fine particles, which are directly linked to deleterious health effects. So it is not documented whether or not fine particles exist in this waste, but it is logical and highly likely that they do.

Fine particles (in the sizes of 10 μm and 2.5 μm, referred to as: “PM10” and “PM2.5”) are extremely small particles that can lodge in the lungs and become a permanent health burden because such particles cannot be dislodged or otherwise removed from the body. Potential health effects from such fine particles include premature death in people with heart or lung disease, decreased lung function, aggravated asthma, nonfatal heart attacks, increased respiratory symptoms and irregular heartbeat. The EPA also warns that “people with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure.” (From EPA website, in references below.) There are many children and older adults in St. Anthony Park, as well as surrounding nearby communities. The position of the SAPCC is that intensive sampling for such fine particles should be required across all the areas to be excavated or disturbed, because the risks for airborne dust contamination are high to local receptors.

The MPCA’s conditions in the Ldmk ECCP for this proposal basically only suggest 'if you see or smell something hazardous, stop and call someone'. But fine particles, and particularly fine particles of lead and asbestos cannot be seen nor smelled. The only way such items can be identified are by laboratory analyses of samples. Yet, the only criteria required by the MPCA to cause the proposer’s contractors to stop and further examine and sample are extraordinarily weak.

Logically, there is also no way that an excavator, loader or bobcat operator, or even a site inspector, will know when they have encountered these fine particles (of any composition), or fine particles of lead or asbestos, when digging into this dump material, or emptying it from such equipment into dump trucks or for stockpiling. The SAPCC therefore concludes that the MPCA’s requirements are effectively meaningless, for finding these types of hazardous materials during the project development.

6 - Likelihood of Airborne Releases of Hazardous Materials. Dust control measures in the current MPCA requirements (watering by truck) are extraordinarily too lax, as well. It appears that the MPCA requirements do not address what happens when it is dry and windy at night. Based on this minimal requirement, the position of the SAPCC is that the proposer will not be able to control all possible conditions that could allow fine particles (especially, fine particles of lead) or the fine, friable types of asbestos to become airborne.

There are nearby receptors (homes as close as 375 feet, and businesses even much closer). Previous discussions at the city Zoning Appeal of this project suggested that the elevation of Highway 280 provides an effective barrier to airborne contamination to receptors located east of the Rohn site. Actually, the physics of air flow would most likely drop airborne contaminated dust directly on the receptors located east of this project site within SAP, in the same way that snow fences cause snow to drop on the down-gradient side.

Therefore, it is the position of the SAPCC that additional sampling and laboratory analysis for fine particles and for fine, friable asbestos must be conducted prior to development of this site. It is also the position of the SAPCC that the potential for release of these hazardous substances as airborne contaminants is high, and that the proximity of SAP receptors to this project demonstrates that this proposal threatens the health of neighbors in SAP.

Citations:

National Institute for Occupational Safety and Health (NIOSH) website:
https://www.cdc.gov/niosh/topics/lead/health.html (Accessed November 9, 2019)

United States Centers for Disease Control and Prevention website:
https://www.cdc.gov/nceh/lead/prevention/health-effects.htm (Accessed November 9, 2019)

United States Environmental Protection Agency website:
https://www.epa.gov/asbestos/learn-about-asbestos (Accessed November 9, 2019)

United States Environmental Protection Agency website:
https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm
(Accessed November 11, 2019)

HL-1: 4 pgs.

Figure HL1 Metal Analyses Requests p1-620

Figure HL1 Metal Analyses Requests p1-622

Figure HL1 Metal Analyses Requests p3-619

Figure HL1 Metal Analyses Requests p4-621

CHAIN OF CUSTODY

(Label here) PN#: 3-67
Project Name: 200 E Assets
Location:

Laboratory Sent To: Serco

Completed by: Brad Lavold
Date: 3/7/96

Reviewed by:
Date: __/__/__

Sample Location & Depth	Sample ID	Sample Medium	Sample Container/ Number	Preservation	Comments	Analyzed Y	Analyzed N	Analysis Requested
SB-21 2-4	03071415	soil	2-glass	MeOH	petroleum & non-petroleum odors	Y		~~VOCs~~ Pesticides
SB-21 4-6	03071422	soil	2-glass	"	"	Y		DRO VOCs
SB-21 6-8	03071426	"	"	"	"	Y		8 RCRA Metals
SB-21 14-16	03071510	"	"	"	"	N		VOCs
SB-21 16-18	03071518	"	"	"	"	N		"

	Signature/Company/Date	No. of Samples	Signature/Company/Date
Relinquished by:	[illegible] 3/8 1515	3	Received by: D. Ellis/Serco/3/13/96 12:25
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Results to:

EnPro Assessment Corp
821 Raymond Avenue, Ste 330
St. Paul, MN 55114-1525
(612) 645-6330, FAX 645-5747

EnPro

F19 (10/92)
SAFETY FIRST
EnPro Assessment Corp
White:EnPro Original (Lab return to EnPro) Canary:Lab Copy Pink:Office Copy Gold:Field Copy ("F" file)

CHAIN OF CUSTODY

(Label here) PN#: 3-67
Project Name: 280 & Kasota
Location:

Laboratory Sent To: SERCO

Completed by: Brad Layold
Date: 3/7/96

Reviewed by:
Date: __/__/__

Sample Location & Depth	Sample ID	Sample Medium	Sample Container/ Number	Preservation	Comments	Analyzed Y	Analyzed N	Analysis Requested
SB-25 6-8	030711115	soil	1-glass 1-plastic	MeOH			N	VOC,
SB-25 8-10	030711120	↓	↓	↓			N	↓
SB-23 10-12-14'	030711125						Y	Metals & RCRA
SB-23 14-16'	030711134						N	
SB-25 16-18'	030711140						N	
SB-23 18-20	030711147				Fill/Natural		N	
SB-20 0-2	030712150	↓	↓	↓	Fuel odor		N	↓

	Signature/Company/Date	No. of Samples	Signature/Company/Date
Relinquished by:	[illegible]	1	Received by: D. Ellis/SERCO/3/13/96 12:24
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Results to:

EnPro Assessment Corp
821 Raymond Avenue, Ste 330
St. Paul, MN 55114-1525
(612) 645-6330, FAX 645-5747

EnPro

F19 (10/92)
SAFETY FIRST — EnPro Assessment Corp

White:EnPro Original (Lab return to EnPro) Canary:Lab Copy Pink:Office Copy Gold:Field Copy ("F" file)

CHAIN OF CUSTODY

(Label here) PN#: 3-67
Project Name: 280 & Kasota
Location:

Laboratory Sent To: Sasco

Completed by: Brad Lawold
Date: 3/7/96

Reviewed by: _____
Date: __/__/__

Sample Location & Depth	Sample ID	Sample Medium	Sample Container/ Number	Preservation	Comments	Analyzed Y	Analyzed N	Analysis Requested
SB-20 2-4	03071255	soil	4-glass 1-plastic	meOH	Fuel & diesel fuel odor	Y		~~HOCs~~ Pesticides
SB-20 4-6	03071305	↓	↓		"	Y		DRO & VOCs
SB-20 8-10	03071320		1 glass 1 plastic		Fuel odor	Y		8 RCRA ⇒ Metals ~~VOCs~~
SB-20 12-14	03071325				no odor	N		
SB-20 14-16	03071330				moist	N		
SB-20 16-18	03071540				fill/natural (wet)	N		
SB-21 0-2	03071308	↓	↓		none	N		↓

	Signature/Company/Date	No. of Samples	Signature/Company/Date
Relinquished by:	Brad Lawold/EnPro 3-13-96		Received by: D. Gelli/SASCO 3/13/96 12:24
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Results to:

EnPro Assessment Corp
821 Raymond Avenue, Ste 330
St. Paul, MN 55114-1525
(612) 645-6330, FAX 645-5747

EnPro

F19 (10/92)
SAFETY FIRST

EnPro Assessment Corp

White:EnPro Original (Lab return to EnPro) Canary:Lab Copy Pink:Office Copy Gold:Field Copy ("F" file)

CHAIN OF CUSTODY

(Label here) PN#: 3-67
Project Name: 280 & Kasota
Location:

Laboratory Sent To: Seneca

Completed by: Brad Lawold
Date: 3/7/96

Reviewed by:
Date: __/__/__

Sample Location & Depth	Sample ID	Sample Medium	Sample Container/ Number	Preservation	Comments	Analyzed Y N	Analysis Requested
SB-22 0-2'	03070926	Soil	1 glass 1 plastic	MeOH		N	VOCs
SB-22 2-4'	03070930	"	"	"		N	"
SB-22 4-6'	03070928	"	"	"		N	"
SB-22 6-8'	03070935	"	"	"		N	"
SB-22 8-10'	03070945	"	"	"		N	"
SB-22 10-12'	03070951	"	"	"		Y	~~VOCs~~ RCRA Metals
SB-22 12-14'	03070955	"	"	"		N	"

Signature/Company/Date	No. of Samples	Signature/Company/Date
Relinquished by: B. Lawold/EPC/3/13/96		Received by: D. Ellis/SENECO 3/13/96 12:23
Relinquished by:		Received by:
Relinquished by:		Received by:
Relinquished by:		Received by:

Results to:

EnPro Assessment Corp
821 Raymond Avenue, Ste 330
St. Paul, MN 55114-1525
(612) 645-6330, FAX 645-5747

EnPro

F19 (10/92)
SAFETY FIRST
EnPro Assessment Corp

White:EnPro Original (Lab return to EnPro) Canary:Lab Copy Pink:Office Copy Gold:Field Copy ("F" file)

HL-2: 4 pgs.

Figure HL2 Metal Analyses Results p1-643

Figure HL2 Metal Analyses Results p4-645

Figure HL2 Metal Analyses Results p8-652

Figure HL2 Metal Analyses Results p12-656

SERCO Laboratories

1801 West County Road C2, St Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 60682
03/28/96

EnPro Assessment Corporation
821 Raymond Ave.
Suite 330
St. Paul, MN 55114-1525

Attn: Jane M. Willard

DATE COLLECTED: 03/05/96; 03/06/96
DATE RECEIVED: 03/07/96
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : SOIL

CLIENT'S ID: 3-67 280 & Kasota

SERCO SAMPLE NO:	23346	23356	23366	23376
SAMPLE DESCRIPTION:	MW-11 6-8'	SB-14 4-6'	SB-15 4-6'	SB-18 4-6'
ANALYSIS:				
Diesel Range Organics C10-C28, dry weight, mg/kg	480	44	-	100
Analytical Method for MOD DRO	MOD DRO	MOD DRO	-	MOD DRO
Date of Extraction for MOD DRO	03/07/96	03/07/96	-	03/07/96
Date of Analysis for MOD DRO	03/13/96	03/13/96	-	03/13/96
Total Solids, percent	85.6	72.3	85.6	77.8
Arsenic, mg/kg as As	6.7	-	-	-
Barium, mg/kg as Ba	180	-	-	-
Cadmium, mg/kg as Cd	0.90	-	-	-
Total Chromium, mg/kg as Cr	36	-	-	-
Lead, mg/kg as Pb	1300	-	-	-
Mercury, mg/kg as Hg	0.20	-	-	-
Selenium, mg/kg as Se	<0.12	-	-	-
Silver, mg/kg as Ag	<0.60	-	-	-
Notes regarding MOD-DRO analysis	B	-	-	-
Benzene, dry weight, mg/kg	-	-	<0.5 A	-
Ethylbenzene, dry weight, mg/kg	-	-	7.0	-
Methyl tertiary butyl ether, dry weight, mg/kg	-	-	<5.0 A	-
Toluene, dry weight, mg/kg	-	-	0.05	-
Total Xylene, dry weight, mg/kg	-	-	3.7	-
Analytical Method for BETX/MTBE	-	-	8020	-
Date of analysis for BETX/MTBE	-	-	03/12/96	-

RECEIVED ENPRO

< means "not detected at this level". 1 mg = 1000 ug.

SERCO Laboratories

1931 West County Road C2, St. Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 60752

03/28/96

SERCO SAMPLE NO:	26236	26246	26256	26266
SAMPLE DESCRIPTION:	SB-21 2-4	SB-21 4-6	SB-21 6-8	SB-23 12-14
ANALYSIS:				
Methylene chloride, ug/kg (Dichloromethane)	-	<150	-	-
n-Propylbenzene, ug/kg	-	62	-	-
Naphthalene, ug/kg, (volatile method)	-	300	-	-
Styrene, ug/kg	-	<25	-	-
1,1,1,2-Tetrachloroethane, ug/kg	-	<5.0	-	-
1,1,2,2-Tetrachloroethane, ug/kg	-	<15	-	-
Tetrachloroethene, ug/kg	-	<15	-	-
Tetrahydrofuran, ug/kg	-	<1200	-	-
Toluene, ug/kg	-	120	-	-
1,2,3-Trichlorobenzene, ug/kg	-	<10	-	-
1,2,4-Trichlorobenzene, ug/kg	-	<10	-	-
1,1,1-Trichloroethane, ug/kg	-	<15	-	-
1,1,2-Trichloroethane, ug/kg	-	<10	-	-
Trichloroethene, ug/kg	-	280	-	-
Trichlorofluoromethane, ug/kg (Freon 11)	-	<50	-	-
1,2,3-Trichloropropane, ug/kg	-	<25	-	-
1,1,2-Trichlorotrifluoroethane, ug/kg	-	<45	-	-
1,2,4-Trimethylbenzene, ug/kg	-	110	-	-
1,3,5-Trimethylbenzene, ug/kg (Mesitylene)	-	51	-	-
Vinyl chloride, ug/kg	-	<25	-	-
Total Xylene, ug/kg	-	330	-	-
Arsenic, mg/kg as As	-	-	8.5	6.5
Barium, mg/kg as Ba	-	-	230	240
Cadmium, mg/kg as Cd	-	-	0.48	0.80
Total Chromium, mg/kg as Cr	-	-	31	13
Lead, mg/kg as Pb	-	-	400	660
Mercury, mg/kg as Hg	-	-	0.32	0.25
Selenium, mg/kg as Se	-	-	<0.12 A	<0.12 A
Silver, mg/kg as Ag	-	-	8.8	2.2

< means "not detected at this level". 1 mg = 1000 ug.

SERCO Laboratories

1801 West County Road C2, St. Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

SERCO SAMPLE NO:	26276	26286	26296	26306
SAMPLE DESCRIPTION:	SB-20 2-4	SB-20 4-6	SB-20 8-10	SB-22 10-12
ANALYSIS:				
1,1,2,2-Tetrachloroethane, ug/kg	-	<15	-	-
Tetrachloroethene, ug/kg	-	<15	-	-
Tetrahydrofuran, ug/kg	-	<1200	-	-
Toluene, ug/kg	-	370	-	-
1,2,3-Trichlorobenzene, ug/kg	-	<10	-	-
1,2,4-Trichlorobenzene, ug/kg	-	<10	-	-
1,1,1-Trichloroethane, ug/kg	-	<15	-	-
1,1,2-Trichloroethane, ug/kg	-	<10	-	-
Trichloroethene, ug/kg	-	200	-	-
Trichlorofluoromethane, ug/kg (Freon 11)	-	<50	-	-
1,2,3-Trichloropropane, ug/kg	-	<25	-	-
1,1,2-Trichlorotrifluoroethane, ug/kg	-	<45	-	-
1,2,4-Trimethylbenzene, ug/kg	-	370	-	-
1,3,5-Trimethylbenzene, ug/kg (Mesitylene)	-	150	-	-
Vinyl chloride, ug/kg	-	<25	-	-
Total Xylene, ug/kg	-	3500	-	-
Arsenic, mg/kg as As	-	-	5.6	5.0
Barium, mg/kg as Ba	-	-	210	170
Cadmium, mg/kg as Cd	-	-	<0.12	0.31
Total Chromium, mg/kg as Cr	-	-	9.3	9.1
Lead, mg/kg as Pb	-	-	160	150
Mercury, mg/kg as Hg	-	-	0.10	0.13
Selenium, mg/kg as Se	-	-	<0.12 A	<0.12 A
Silver, mg/kg as Ag	-	-	0.79	0.93

< means "not detected at this level". 1 mg = 1000 ug.

SERCO Laboratories

1931 West County Road C2, St. Paul, Minnesota 55113 Phone (612) 636-7173 FAX (612) 636-7178

LABORATORY ANALYSIS REPORT NO: 60752
03/28/96

SERCO SAMPLE NO:	26316	26326
SAMPLE DESCRIPTION:	Detect. Limit- Soil	Method Number
ANALYSIS:		
1,2,4-Trichlorobenzene, ug/kg	10	MDH 465D
1,1,1-Trichloroethane, ug/kg	15	MDH 465D
1,1,2-Trichloroethane, ug/kg	10	MDH 465D
Trichloroethene, ug/kg	20	MDH 465D
Trichlorofluoromethane, ug/kg (Freon 11)	50	MDH 465D
1,2,3-Trichloropropane, ug/kg	25	MDH 465D
1,1,2-Trichlorotrifluoroethane, ug/kg	45	MDH 465D
1,2,4-Trimethylbenzene, ug/kg	20	MDH 465D
1,3,5-Trimethylbenzene, ug/kg (Mesitylene)	10	MDH 465D
Vinyl chloride, ug/kg	25	MDH 465D
Total Xylene, ug/kg	25	MDH 465D
Arsenic, mg/kg as As	0.18	7060
Barium, mg/kg as Ba	12	7080
Cadmium, mg/kg as Cd	0.12	7130
Total Chromium, mg/kg as Cr	1.2	7190
Lead, mg/kg as Pb	2.5	7420
Mercury, mg/kg as Hg	0.02	7471
Selenium, mg/kg as Se	0.12	7740
Silver, mg/kg as Ag	0.25	7760

A: Increased detection limits due to sample matrix.

< means "not detected at this level". 1 mg = 1000 ug.

HL-3: 4 pgs.

Figure HL3 Original MPCA File p824

Figure HL3 Original MPCA File p826

Figure HL3 Original MPCA File p827

Figure HL3 Original MPCA File p834

From MRA Files

ELM STREET ASH DUMP

I. Location

S19, T29N, R23W - Class Map Number H6

The site is located in the heart of the Twin Cities in Minneapolis, but slightly overlaps into St. Paul. It lies just northwest of the intersection of Kasota Avenue and Highway 280.

Please see the next two pages for a sketch and a photograph of the area.

II. History of Operation and Waste Characteristics

It is not known when this dump began operating. For many years, the land belonged to Burlington Northern Railroad, and it is thought that they might have disposed of a few things in it. The area where the site is located was originally marshy and swampy by several accounts,[1,2,3] but this is no longer obvious except for small marshy ponds on either side of Kasota Avenue at the easternmost edge of the site.[4]

At some point, the city of Minneapolis began using about 37 acres of the vacant land as a place to dump ash and residue from one of their two municipal garbage incinerators.[1] The ash dumped there was probably similar in content to that from the city's other incinerator, which exceeded MPCA standards for cadmium, lead, zinc, selenium and arsenic. Water tests at the Lyndale Dump to which that ash was taken also exceeded allowable levels of cadmium, lead, selenium, and arsenic.[5]

The incinerator operated five days per week, 16 hours per day, so ash was probably hauled to Elm Street during those time periods.[5] The incinerator had one vehicle for hauling residue to the dump.

The 37-acre dump site was split into two parts which were separated by a 4-acre section of woods: a northern portion of 20 acres and a southern portion of 17 acres. These were reported to have 7 to 12 feet of fill in them in 1968.[1] Soil borings taken west of the site also indicated fill, however,[7] and it seems likely that any spot in the general area could have been used as a dumping ground.

Dumping was supposedly limited to city incinerator and construction debris plus some combustibles,[1] but soil borings and site visitors both indicated that a much broader range of things was dumped. Soil borings turned up concrete, cinders, peat, rags, wood, ashes, blacktop, metal, glass, slag, boglime, paper, and clinkers.[7] They also indicated that the fill had not been compacted, or had been randomly done.[2] Visitors to the site reported blowing paper, piles of ash, concrete debris, and other items;[1] shingles, old doors, tires, etc., incinerator ash, and scrap metal;[6] old auto bodies, tires, ash, refrigerators;[3] bricks, glass, metal scraps, cans, plastic, and rusty barrels: one with a whitish powder in it and two or three others with a hardened brittle material inside.[4]

Access to the site was very easy as it was not fenced, was accessible from all sides, and had no operator on duty.[1] Considering this, and the industrial land use of the area, it seems quite possible that some hazardous wastes could have been disposed of at the site.

The dump was covered with earth on a quarterly basis,[1] but does not appear to have had a final covering of earth; old debris peeks through everywhere in vacant areas despite a screen of vegetation (ragweed, sunflowers, primroses, and grasses[6]) which appears quite thick from the road.[1,9] A ground-nesting bird was seen at the site,[4] and gophers, squirrels, and rats are believed to live in the area.[10]

It seems quite possible that the site was never covered over as mentioned above, nor properly closed, because no closure forms for the dump were ever found.

III. Land Use

In 1974, the City of Minneapolis bought 60 acres of the land from the railroad with the idea of selling it to private industry for an industrial park. This was done after some soil "correction" (compaction and layering) was completed, and most of the land is now owned by various industries.[2,3]

Some 10 or 15 businesses have located in Kasota Industrial Park;[4] all are supplied with city water.[2,10] A point to note is that several food producers and distributors are among the businesses in the Park.[4] An employee at M & M Development Corporation, which owns property in the Park, estimates that seven buildings are built directly over the old dump site. Building excavations were made through the fill as well as the underlying swamp in order to reach more stable soil.[2,3]

There is some room for future development in the general area, but not much; most of the land has been built upon in the last few years.

Evaluation of the Site

This site was rated 2, moderate to high. It is a large site, located in an industrial area, which probably received hazardous wastes. Ash, the main item dumped there almost certainly had high concentrations of some heavy metals and could therefore contaminate surface and ground water in the area with these metals. The site was used for many years, was poorly managed and was open to dumping at any time. The wide variety of things other than ash found at the site (including several rusty barrels) suggests that it was easy for anyone who wanted to do so to dump there; generators of hazardous waste would have had no trouble dumping there. The geology of the area indicates that contaminants could easily reach aquifers from the Platteville limestone and deeper; fortunately, industries and the nearest residents draw their drinking water from city supplies.

Surface water contamination could affect Bridal Veil Creek (which is posted "no swimming", but does have ducks in it) and the Mississippi, into which it flows. Marshy ponds and their in habitants near the site's eastern edge are also vulnerable.

For the above reasons, and because the old dump lies in the heart of a heavily populated area, it was given the rating of 2.

We recommend that Bridal Veil Creek and the two ponds be monitored periodically for contamination, especially for heavy metals, and that all present and future development in the area receive water from the city supply.

HL-4: 3 pgs.

Figure HL4 MPCA Asbestos Guidelines p36

Figure HL4 MPCA Asbestos Guidelines p37

Figure HL4 MPCA Asbestos Guidelines p38

Minnesota Pollution Control Agency

Metro District, North and South Districts, Regular Facilities Section

Asbestos Guidance on Excavation Projects

Air Quality/Asbestos Program/#4.03/July 1999

This excavation guidance document is for excavation/construction projects that involve demolition debris, solid waste or other materials contaminated with asbestos-containing materials (ACM) and/or asbestos-containing waste materials (ACWM) that are excavated or otherwise disturbed during the project. This document does not address those activities that are related to a demolition project. If you want information related to building or structure demolition please contact the Minnesota Pollution Control Agency (MPCA) asbestos team at the number below.

The excavation of any materials that are contaminated with ACM is governed by 40 Code of Federal Regulations (CFR) pt. 61, subp. M, also known as the asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP).

The regulatory framework of the asbestos NESHAP for excavations is as follows:

1. The definition of a "Facility" includes Inactive Waste Disposal Sites.
2. An Inactive Waste Disposal Site is defined as a site where ACWM has not been added for one year.
3. Renovation means the altering of a "Facility" in any way, which includes the excavation of an inactive waste disposal site.
4. Projects that involve excavation or disturbance of demolition debris, solid waste or other materials contaminated with ACM and/or ACWM in an inactive waste disposal site are renovations and are subject to the asbestos NESHAP. For these projects, the owner(s) and operator(s) of the property and the project should determine the extent of the contamination in relation to the material to be excavated or disturbed in order to assure that the project is conducted in compliance with the asbestos NESHAP.

a. Thoroughly inspect the area to be excavated or disturbed for the presence of asbestos. In an excavation, this means test pits almost exclusively as soil borings are too limited. Determine what quantity of demolition debris with ACM mixed in is present or expected to be present. This determination can be made from the test pits or other information in connection with physical observations. The sampling and testing of suspect building materials for asbestos must be performed by an Asbestos Hazard Emergency Response Act (AHERA) certified and Minnesota Department of Health (MDH) licensed inspector. The testing of materials for asbestos must be of discrete layers or products.

Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194
(651) 296-6300, toll-free (800) 657-3864, TTY (651) 282-5332 or (800) 657-3864

Soil testing for asbestos may need to be performed if friable ACM materials are identified in an area.

b. Determine the extent of contamination - all demolition debris and ACM is considered Regulated Asbestos-Containing Material (RACM) at this point. The contamination may be limited to specific areas of the excavation or of the demolition debris. This will have a significant impact on the controls needed throughout the project and is critical. Non-contaminated areas could potentially be handled much differently than contaminated areas.

c. All types and if possible sources of RACM must be identified. This will impact the types of controls and remediation considered and the level of risk associated with the RACM.

d. Phase I, As-builts, Sanborn Insurance Maps, Aerial Photographs, City Utility or Inspection Records, etc. may all be very helpful in determining the type of structure disposed of, the timeline of the filling operation, the location of foundations, and other information.

5. If the project is subject to 40 CFR 61.145, you must now hire a licensed asbestos contractor and follow the asbestos NESHAP renovation regulations as follows:

   a. Submit a Notification of Intent to Perform an Asbestos Abatement Project (Notice) to the MPCA. The Notice must include Facility information, owner/operator information, emission control procedures, disposal location, and other information. The Notice includes a ten-working day notification period for MPCA review and processing.

   b. Emission Control requirements of 40 CFR 61.145 must be met. Including the adequate wetting of the excavated material and no visible emissions from the RACM. The area where RACM abatement is being performed must be cordoned off and asbestos warning signs must be clearly visible at all entrances or exits.

   c. Waste handling provisions of 40 CFR 61.150 must be met. It includes the following:

      i. adequately wet

      ii. polyethylene lined and covered trucks or containers.

      iii. proper manifesting, waste generator label, and warning signs used.

   d. Disposal at a site operated in accordance with 40 CFR 61.154. An "approved" Landfill that is permitted by the MPCA to accept RACM.

6. The RACM removal project is completed after all the RACM is removed and a visual inspection is performed by the licensed asbestos contractor or an AHERA/MDH certified inspector. In an excavation, this would be for the affected area where RACM was removed. Any RACM not disturbed will not need to be inspected.

If RACM is identified and is not scheduled for excavation, then other portions of the asbestos NESHAP may apply regarding deed recording or cover requirements depending on the information supplied regarding the project and the potential for future RACM exposure. The ability to rework the excavation project to disturb as little RACM as possible will help with disposal and handling costs, avoid the potential for airborne asbestos fibers, and avoid any further liability from the RACM due to handling or off-site disposal. In some instances, institutional controls for the RACM being left in place will be sufficient to ensure that the RACM is safe. These controls may include deed notification or restrictions.

The owner/operator definition of the asbestos NESHAP includes anyone who "... owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition operation or both." This means that any party or person that meets the above definition is potentially liable (responsible) for compliance with the asbestos NESHAP throughout the renovation. On an excavation project an operator could include the general contractor, environmental specialists, or excavation contractor and the property owner.

The experience of the MPCA in asbestos-contaminated demolition debris is that buildings that were demolished years ago did not routinely have the asbestos-containing materials abated and therefore the ACM is mixed in with the demolition debris. The efforts that you make in examining

and delineating the extent of the contamination will facilitate your development of a mutually acceptable work plan for proper handling of the contamination in your excavation or development project. The ability of all parties to be creative, flexible, and consistent, will ensure that the contamination is properly addressed and that any potential release of asbestos fibers into the air will be eliminated.

As part of the MPCA's and the asbestos NESHAP's risk-based, environmental impact approach to site cleanup and remediation, eliminating the potential for asbestos fibers to become airborne during the project should be the guiding factor in deciding which remediation method is used. The project should utilize the least intrusive means to handle the RACM and the best control methods available. These principles should guide you in determining the best remediation approach to your project.

Some examples of creative ideas used to remediate RACM contamination on excavation projects include:

1. Use of a staging area to place suspect contaminated materials for later sorting or disposal which allows the excavation to proceed without constant mobilization for off-site disposal and other asbestos NESHAP requirements.
2. Reworking the project to avoid to the greatest extent possible the disturbance of materials thought to potentially contain RACM.
3. Screening of RACM depending on the use of the screened material, types of RACM, screening test results, condition of the material, etc.
4. Dynamic compaction to get desired engineering of the area for building footings. This would require a deed restriction but avoids any handling and off-site disposal costs.

As a policy, the MPCA wants to avoid wherever possible the creation of inactive asbestos waste disposal sites. The disposal sites would require deed notation and restrictions and are not always a final solution. Alternatives to standard off-site disposal of the RACM must be approved by the MPCA on a case-by-case basis.

This guidance document is not intended as a substitute for reading the rules or regulations and making your own independent determination of its applicability to your excavation project. Examples in this guidance document do not represent an exhaustive listing of types of materials or projects to which the rules or regulations might apply.

MPCA Website: http://www.pca.state.mn.us

HL-5: 1 pg.

Figure HL5 Soils Table p570

TABLE 1
SOIL SAMPLING SUMMARY
(ft)

BORING/AREA	TOTAL DEPTH (FT)	DEPTH TO GROUNDWATER (FT)	DEPTH OF FILL (FT)	VISUAL OR OLFACTORY CONTAMINATION OBSERVATION
SB-1/north	25½	10	22	strong fuel odor at 2 to 4 ft; glass, concrete, brick, wood to 22'
SB-2/NE corner	26	19½	18	brick, wood, metal, and glass to 18'
SB-3/center	25½	≥25½	20	cinders, paper, glass, concrete, brick to 20'
SB-4/SE corner	25½	14	17	strong fuel odor at 2 ft wood, paper, glass, metal to 17'
SB-5/south corner	26	16	16	glass, concrete, wood, metal, brick to 16'
SB-6/NW corner	26	21	22	glass, concrete, wood, metal, brick to 22'
MW-11/NE corner	6	19½	16	glass shards to 14', fuel odor at 6-8 ft
MW-12/south of SB-5	22	17	16	concrete chips, wood to 8'
MW-13/south of SB-6	24	15	18	glass, concrete to 16'
SB-14/NW of SB-1	8	≥8	≥8	glass to 4'; fuel odor 2-6'
SB-15/NE of SB-1	8	≥8	≥8	glass to 6'; fuel odor 2-6'
SB-16/south of SB-1	8	≥8	≥8	glass, wood to 6'; fuel odor 2-6'
SB-17/NE of SB-4	6	≥6	≥6	plastic, glass to 6'
SB-18/SE of SB-4	6	≥6	≥6	plastic, glass to 4'; fuel odor 2-4'
SB-19/SW of SB-4	6	≥6	≥6	plastic, glass, wood to 6'; fuel odor 2-4'
SB-20/north of SB-5	18	14	15	glass, wood, plastic, clinkers, concrete, ceramics to 12'
SB-21/SE of SB-5	18	10	17½	glass, concrete, wood, ceramic to 12'; fuel odor 2-4'
SB-22/south of SB-6	22	16	≥22	glass, brick, concrete, coal, ceramics to 12'
SB-23/north of SB-6	20	15	≥20	glass, wood, plastic, concret to 18'

[1]no odor, no stain
[2]fuel odor