Southport Industrial District Study

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Appendices

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Acknowledgements

Staff from the **Minnesota Pollution Control Agency** made valuable contributions through many staff level and community meetings.Their participation and involvement are gratefully acknowledged.

Neighborhood Involvement - Though no formal taskforce was formed many neighborhood residents attended community meetings to express concerns and ask questions which provided direction for this study. Their time and committment are gratefully acknowledged. The time, effort, and dedication of **Grit Youngquist** deserves special recognition. Thanks also to the staff at **Our Lady of Guadalupe** for providing meeting space.

Introduction

In December 2015 the Saint Paul City Council approved a resolution directing the Saint Paul Planning Commission to undertake a study addressing Southport safety and health issues. See Appendix A for the resolution's text in full. The resolution sprang from concerns raised by the residential community about environment and health issues during the permitting process for a tenant in the Southport Industrial District earlier that year.

Health-related concerns, in particular asthma in children and respiratory disease in older residents, prompted neighborhood action and creation of the **Protect our Riverfront Together (PORT)** community group. The PORT group stated that long term health and safety concerns had been expressed for years by community members working or living near Southport. Community residents were also distressed to learn about air quality monitoring results recorded in spring 2014 near **Our Lady of Guadalupe Church** and **The GAP School**.

Department of **Planning and Economic Development (PED)** staff was assigned to assemble the people, information, and resources needed to address the concerns in the resolution. The recommendations on page 33 of this report provide direction for moving forward and improving the environment and livability for area residents.

AREA BACKGROUND

Southport Industrial District is owned by the **Saint Paul Port Authority** and private businesses, and is an important industrial area in the City. Saint Paul wants Southport Industrial District to be successful but **not at the expense of a good quality of life for those living and working in the area**. The goal of the study is to listen to community concerns and questions, provide information and answers to community questions, and identify next steps to improve the environment and livability for area residents.

At the first community gathering in **summer 2016**, comments from area residents included:

> "Working together to get answers and make positive change will go long way toward changing the long and painful narrative of the area's experience of **environmental neglect**."

> "The actions laid out in the resolution and discussed in detail during the process are a **significant beginning** for transforming the old story into a new one of environmental justice and neighborliness between all who live, work, study, and worship in the Barge Channel Road area."

> "People in the neighborhood feel beaten down, not heard or listened to. They believe there are real environmental justice issues and they want to see that the City hears their concerns and responds in a way that results in a **safer and healthier place**."

From this first community event, a need for further engagement was seen by City staff, and so the planning of three more community conversations around the Southport Industrial Area began. Simultaneously, the **Minnesota Pollution Control Agency** continued air monitoring in the area around Barge Channel Road.

Community Forums

To address the issues highlighted in the City Council's resolution and provide information and an opportunity for area residents to ask questions, a series of community forums were held between the summer 2016 and spring 2017. PED staff were joined at these forums by representatives from the **Minnesota Pollution Control Agency (MPCA)**, **Saint Paul Port Authority**, **Minnesota Department of Health (MDH)**, **Saint Paul Department of Emergency Management**, as well as the **Union Pacific Railroad**. The information gathered at the community forums and research conducted during this period is incorporated into the study.

First Community Forum: Air and Water Quality Concerns

Held in September 2016, this was an informational session about environmental concerns related to air and water quality and contaminated sites. Staff from the MPCA and MDH attended and spoke on the topics and answered attendees' questions. The forum showed positive momentum and progress toward addressing the concerns identified in the resolution. See Appendix B for a summary of questions and responses from the September community forum.

Second Community Forum: Railroad & Emergency Operations

Held in November 2016, this was an informational session providing an overview of Emergency Management and Union Pacific Railroad operations in the Southport area. Staff from the City's Emergency Management Department and Union Pacific Railroad spoke on the topics and answered attendees' questions. See Appendix C for a summary of questions and responses from the November community forum.

Third Community Forum: Air Quality Monitoring Results and Fugitive Dust

Held in May 2017, this session focussed on the air quality monitoring that was conducted in the parking lot of Our Lady Guadalupe Church in 2014 and at Holman Field in 2016. MPCA staff presented study results and City staff led a discussion about fugitive dust, and helped to define this terminology for residents. See Appendix D for a summary of questions and responses from the May community forum.

The Southport District

Southport Industrial District on the Mississippi River is owned by the Saint Paul Port Authority and private businesses. The 99-acre business center, zoned **I2** general industrial, is south of the Saint Paul Municipal Airport in the City's **West Side Neighborhood**. A barge channel was dug in 1964 and is maintained by the Port Authority for river commerce for adjacent Port Authority tenants. In 2010 the Port Authority completed the installation of a new dock wall and a storm water management system at Southport to better position the terminal for river shipping operations. The Port Authority is not the only land owner in the area, but a major one. **Eleven of the fifteen businesses** located along Barge Channel Road are tenants of the Saint Paul Port Authority and four businesses operate on private property. The businesses operating on Barge Channel Road today are listed in **Table 1** and their location is identified on the Saint Paul Port Authority map on the following page.

Many of the businesses operating today on Barge Channel Road were present in the 1970s. These include Great Western/Northern Metals, Mudek Trucking, Krupenny and Sons, Hawkins, and Alter Metal Recycling. Businesses from the 1970s that are no longer present include Proform, auto repair, and a pilot river transportation company.

Barge Channel Road has seen an **increase in truck, barge, and vehicle traffic since the 1970s**. The Saint Paul Port Authority's successful efforts over the past five to ten years to increase river traffic to under utilized areas of the Southport shipping terminal contribute to the recent increase in area traffic. Improvements made during this time include construction of a new dock wall and a licensed off-load/load docking area.

The Saint Paul Port Authority started a **Port Optimization Study in November 2016** and is in the data gathering stages of the study. The study will look at bottlenecks and logistic opportunities for vehicle and river traffic. The study hopes to be completed by the end of 2017.

A report called the **Southport Industrial District Action Strategy** was produced in 2000. While much of the detailed information about tenants and planned projects that have since been completed is out of date, the general policies about the industrial district and working river remain relevant today. The report states commercial navigation is very important to the economic health of the City, region, and state and continued operation of the harbor for barge traffic is critical because river-shipping is the mode of transport most protective of our environment.

It is a Port Authority priority to ensure that tenants with access to the dock wall and loading areas are tenants that need river access and are willing to invest in the site and provide new infrastructure. The newly installed heavy lift pad on the Alter River Terminal site supports loads of up to 250 tons. This opens the harbor to very large and very heavy pieces of equipment and freight such as transformers, engines, and wind turbines that can be moved through the area by barge and train. The cost of the improvements was shared between Alter and the Port Authority.

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Southport Terminal

Site ID	Tenant / User
A	Northern Metals *
B	Midwest Mobile Water Products *
C	Krupenny & Sons *
D	Evergreen Energy
E	Port Authority
F	Mudek Trucking *
G	City of Saint Paul Impound Lot
H	Gerdau
I	City of Saint Paul Impound Lot
J	Alter Metals Recycling
J1	Alter Sublease to ADM
K	Hawkins Chemical
L	Common Area
M	Portable Barge
N	City of Saint Paul / Wetland
O	Common Area / LS Marine
P	Ingredient Transport
Q	U.S. Army Corps Dredge Site
R	Licenced Dockwall Area

* Not Owned by Port Authority

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Table 1: Businesses operating on Barge Channel Road in 2017

Company Name and Activity	*Address*
Alter River Terminal - Site J - Metals recycling, river shipping, commodities transfer of salt, metal, etc. **Archer Daniels Midland - Site J1 (sublease)** - Fertilizer off-loading from barge to truck or to storage for later distribution	801 Barge Channel Road
City of St. Paul Impound Lot - Sites G & I - Storage of Impounded Vehicles	830 Barge Channel Road
District Energy/Evergreen Energy - Site D - Equipment Storage Yard	571 Barge Channel Road
Gerdau Long Steel North America - Site H - Metals Recycling	780 Barge Channel Road
Hawkins Chemical, Inc - Site K - Water treatment chemical storage, barge, rail, and trucks	701 Barge Channel Road
J & J Recycling/Mudek Trucking* - Site F - Disposal Service	607 Barge Channel Road
Krupenny, Keith & Son Disposal Service, Inc.* - Site C - Disposal Servce	565 Barge Channel Road
LS Marine - Site O - Marine Construction, equipment storage, loading of equipment onto barges	637 Barge Channel Road
Midwest Mobile Water Products* - Site B - Mobile waterjet cutting and hydro blasting services	555 Barge Channel Road
Northern Metals/Great Western Recycling* - Site A - Metals Recycling	521 Barge Channel Road
JF Brennen Marine - Site M - Marine Construction, equipment storage, loading of equipment onto barges	637 Barge Channel Road
US Army Corps of Engineers - Site Q - Dredge soil management area	637 Barge Channel Road
Ingredient Transport - Site P - Unloading and storage of fertilizer products and loading of grain	637 Barge Channel Road
Origination - Site R - Direct transfer of fertilizer products from barge to truck	637 Barge Channel Road

* Not located on property owned by the St. Paul Port Authority

Environmental Findings

The Minnesota Pollution Control Agency attended the September 2016 community forum to provide information on air and water quality, contaminated sites, and permitting in the Southport area. The Minnesota Pollution Control Agency sets standards for air, water, and land to keep pollution in check. It also issues licenses and permits. It does not regulate vehicle pollution, garbage, or recycling. MPCA's mission is to protect and improve the environment and enhance human health. It does this by:

- Measuring and assessing pollution
- Cleaning up pollution
- Regulating and inspecting polluters and their facilities
- Educating Minnesotans to help prevent pollution

Air Quality Monitoring - 2014

The Minnesota Pollution Control Agency conducted air quality monitoring in the Southport area as part of the Minnesota legislature funded ***Community Air Monitoring Program***. The program measured air quality in Minnesota communities where low income populations or communities of color might be disproportionately impacted by pollution from highway traffic, air traffic, and industrial sources. Monitoring took place in the spring of 2014 from April 1 to June 30. The monitoring equipment was located in the parking lot of Our Lady of Guadalupe Church. The air pollutants the program was designed to monitor are gaseous air toxics, fine particles (PM2.5), total suspended particulate (PM10), and metals. Fine particles are a complex mixture of extremely small particles and liquid droplets that are created during combustion when coal, gasoline, diesel, wood, and other fuels are burned, and are also created in the air through chemical reactions among other pollutants.

2014 Results: A health benchmark is a level of a pollutant in the air that is *unlikely* to result in a health effect if sensitive populations are exposed at that level for a lifetime. While all average daily fine particles were below the daily allowable amount, average daily values measured were generally higher than those seen at most other monitoring sites for a majority of the monitoring days, but followed a similar daily trend as other sites in the metropolitan area. The average values of formaldehyde at most monitoring sites in the Twin Cities metropolitan area were slightly above health benchmarks. Higher formaldehyde values are expected in warmer months and lower values in winter months. Total suspended particulate was somewhat higher than other monitoring sites but still below standards.

Of the detected metals, average metal values were higher at Southport than at other Twin Cities metropolitan area sites, but all metals were below health benchmarks except for arsenic. To better understand the results relating to arsenic values which were not expected and were not present at other community monitoring locations, the Minnesota Pollution Control Agency conducted follow-up air quality monitoring. The focus of the follow-up monitoring was on total suspended particulate, including arsenic and lead. Minnesota Pollution Control Agency staff emphasized that the initial readings were below standards but still felt the need to follow up. They also noted that there were days when arsenic was detected and other days when it was not detected at all. The Environmental Protection Agency asked the Minnesota Pollution Control Agency to follow up to try to figure out why.

Detailed Results from the 2014 monitoring can be found in Appendix E on page 58

Monitoring at Holman Field - 2016

Follow up monitoring began on January 1, 2016 and continued through December 2016. Monitoring occurred once every six days from midnight to midnight. This way, each day of the week during each season is monitored. Typically, Christmas Day and New Year's Day are the cleanest days of the year.

Monitoring equipment, which is about the size of a vehicle parking space, was relocated from Our Lady of Guadalupe Church to a location at Holman Field. The church location did not meet the Minnesota Pollution Control Agency's siting criteria. To monitor air quality the monitor needs to be beyond a property line of what is being monitored and ideally on public property.

The Holman Field site was chosen as it is in the middle of sources, allowing the Minnesota Pollution Control Agency to separate air sources rather than capturing and monitoring a single process or user. Southport sources are downwind from the church site so readings there were not as useful as desired. The Holman Field site is free of obstacles and trees. In addition, the monitoring equipment was able to be mounted on the top of the building for security and protection purposes. Reliable access to electricity for the equipment was also available at this location.

At the community forum, questions were raised about the selection of the Holman Field site. The main concern was that this site was not close to where West Side residents lived and worked. **MPCA staff responded to these questions and their answer can be found in Appendix B on page 40**.

2016 Results: The year-long follow up monitoring to assess total suspended particulate and metals wrapped up in January 2017. The Minnesota Pollution Control Agency results showed both arsenic and lead levels to be below health benchmarks and standards. Lead levels were similar to other Twin Cities' sites and well below the standard. The amount of PM10 was found to be similar to other Twin Cities locations, however results were higher than other comparable areas during the months of March - October. In the month of March, the amount of Total Suspended Particulate did exceed the secondary daily standard. This standard protects against environmental effects of particulates, however it did not exceed the primary standard which protects against human health effects. No other concentrations of metals were above levels of health concern.

According to MPCA staff none of the businesses along Barge Channel Road have a permit from the MPCA. None of the businesses there have emission stacks. There are no emissions from combustion sources to monitor, only materials handling activities. There was a lot of discussion at the May 2017 community forum about Northern Metals in Minneapolis and how their move in 2019 to Becker Minnesota could impact activity at their operations in Southport. MPCA staff noted that the facility in Minneapolis operated a metal shredder; Southport activity is materials handling and crushing, but not shredding. They also noted that one of the reasons Northern Metals is relocating its Minneapolis facility is that the current site is no longer served by barge since the lock and dam was closed. Since the lock and dam closure all materials are trucked in.

MPCA plans to conduct a third round of air quality monitoring in 2017, and will once again seek to relocate their monitoring systems. They will consult with the community on finding a location that meets MPCA's criteria but also allays community concerns.

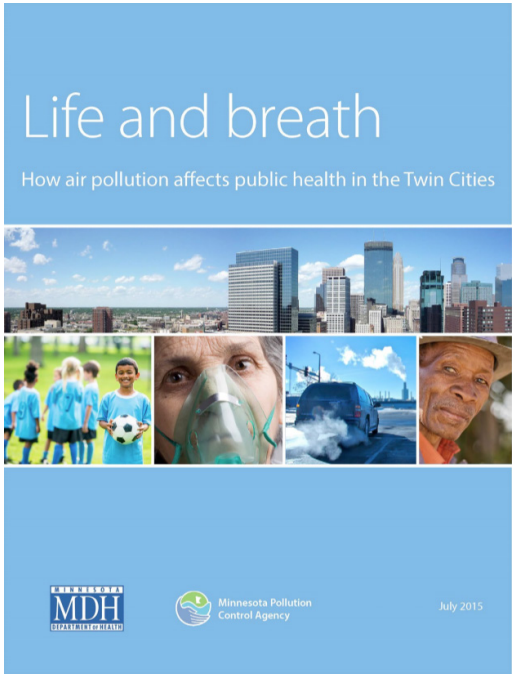
Air Pollution and Public Health

Life and breath: How air pollution affects public health in the Twin Cities is a report issued jointly by the Minnesota Department of Health and Minnesota Pollution Control Agency in July 2015. The report states that air quality in the Twin Cities metropolitan area meets federal ambient air standards, but goes on to note, **"scientists are finding health impacts at air pollution concentrations less than the federal ambient air standards"**. The report also states:

"There is little difference in average air pollution between ZIP codes in the Twin Cities; however ZIP codes with larger populations of people of color and American Indians and residents living in poverty are **more vulnerable to air pollution**. Because these populations already have higher rates of heart and lung conditions, they experience more hospitalizations, asthma emergency department visits, and death related to air pollution."

"The impacts of air pollution fall disproportionately on **the elderly** (65 and older), who have higher rates of heart and lung conditions, and **children under 18**, who have higher rates of asthma."

"Differences in the air pollution-attributable rates of disease and death by poverty and race are largely due to **disparities seen in the underlying rates of disease**."



The take away from the report is that while the Twin Cities metropolitan area meets federal ambient air standards, and pollutant level differences by ZIP code were small, **air pollution still results in hospital emergency department visits and hospitalizations for heart attacks and asthma attacks, and many deaths each year.** Baseline health disparities play a major role in driving intra-urban differences in air pollution-attributable health impacts. Therefore, to decrease air pollution-attributable rates of disease we need to improve chronic disease in the population and address underlying health concerns.

Public health professionals point out that **perceived exposures can be as real as actual exposures**. Both are important whether they are physiological or psychological. When people do not know what they are exposed to, the perception of exposure can be even greater than actual exposure itself.

The Southport area does not stand out among other ZIP codes in the Twin Cities metropolitan area as having a particularly high level of air pollution. Recall the report findings that the area meets the federal ambient air standards and that pollutant level differences by ZIP code were small. This does not mean that we should be dismissive of the community's concerns. **There are steps that can be taken to improve air quality in the Southport area** including reducing fugitive dust and encouraging residents to limit residential wood burning. These are discussed in greater detail later in this study.

Site Contamination

MPCA regulates all publicly and privately owned property. At the September 2016 community forum its staff provided information on the three clean-up sites along Barge Channel Road, noting that there are no superfund sites in the area. The three sites are Gerdau, Alter River Terminal, and Northern Metals.

- Gerdau underwent investigation in 2012-2013 and cleanup of arsenic and lead in soil and arsenic in groundwater in 2014; a "No Further Action Determination" was made on June 6, 2014.

- Alter River Terminal underwent investigation in 2003-2004; found PAHs, styrene, and metals in soil, no groundwater contamination found; a "No Action Determination" was made on April 14, 2005.

- Northern Metals underwent investigation in 2006-2008. The Port Authority stated that cleanup was apparently done but a cleanup implementation report was never submitted to the MPCA Voluntary Investigation and Clean-up Program.

Storm Water Management at the St. Paul Police Impound Lot

The impound lot does not have its own industrial storm water permit. The City has a storm water permit to manage storm water citywide. City ordinance states what is allowed to enter the storm sewer system. The operator of the lot is responsible for storm water management, including good housekeeping to minimize discharge of pollutants off the site. There are no indications that there is an issue with the impound lot at this time. If issues arise, the Department of Safety and Inspections is charged with following up. Storm water from this area discharges to the river through storm sewers, ponding areas, and ditches.

There is nothing currently preventing parking of cars on an unpaved surface at the impound lot. Zoning requirements for commercial parking (and surfacing) are not retroactive and the lot was established before requirements were in place.

Lower Mississippi River Watershed Management Organization

During the first community forum in September 2016 there was a suggestion that a West Side representative be appointed to the Lower Mississippi River Watershed Management Organization. A West Side representative was appointed to the watershed management organization in April 2017.

Fugitive Dust

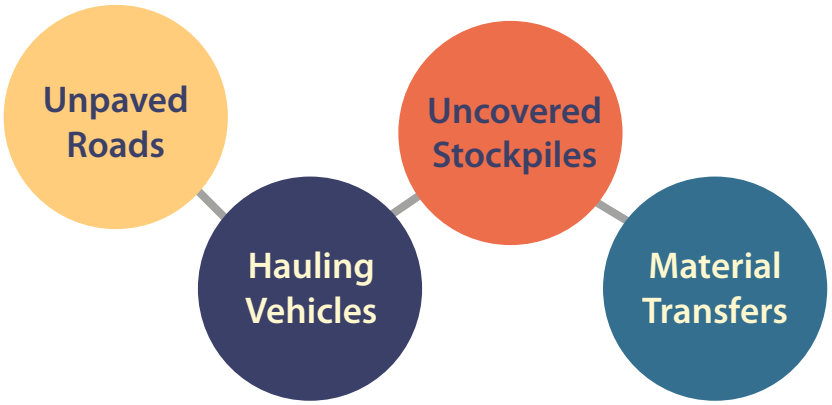
What is it?

Fugitive dust is airborne dust from roads and open surfaces. It is a form of air pollution. It is suspended in the air by wind and human activities. It does not come out of a vent or a stack. Fugitive dust particles are composed mainly of soil minerals.

Why should we be concerned?

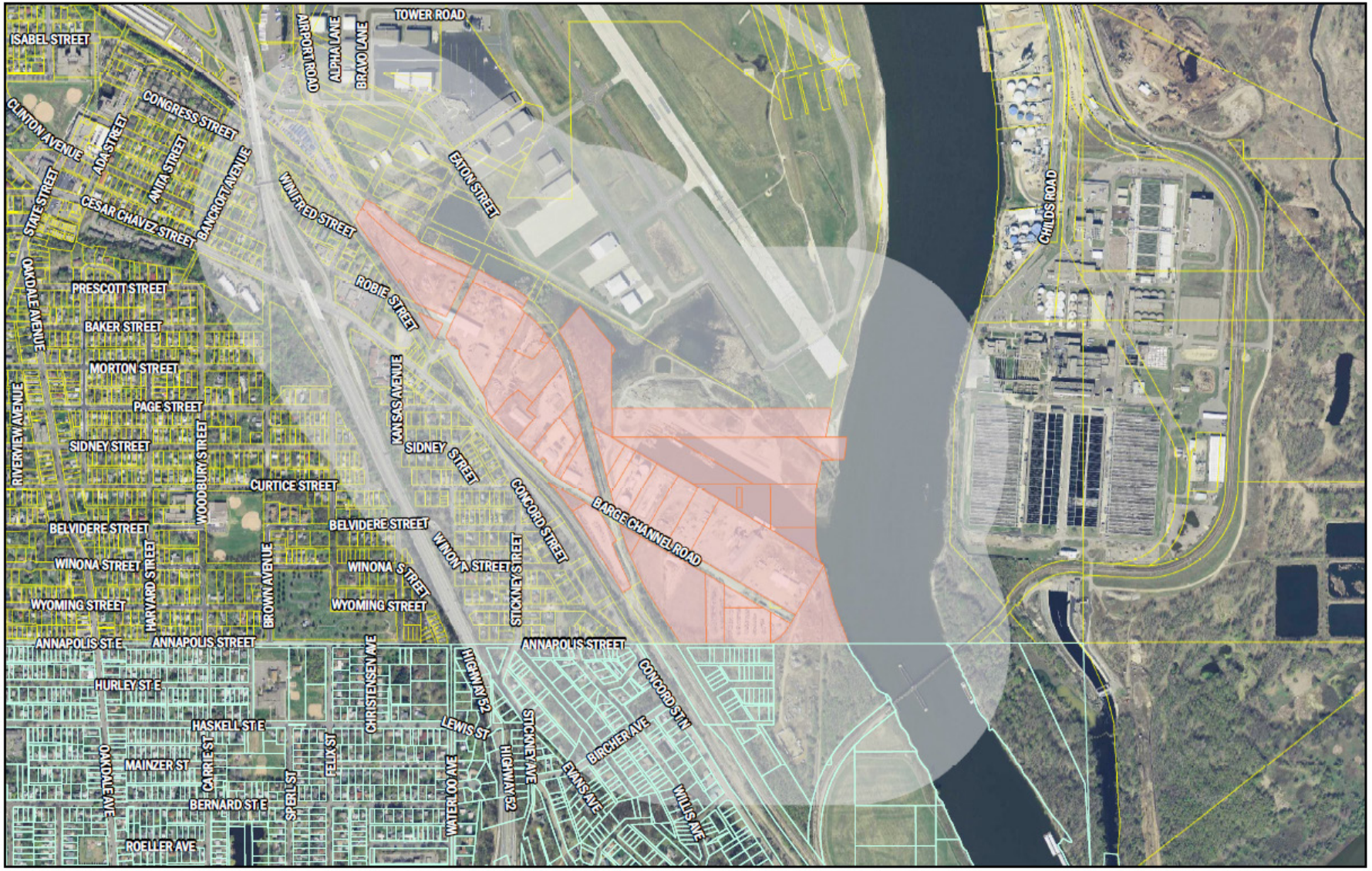
About half of all fugitive dust particles are big particles, larger than 10 microns in diameter. By comparison the average human hair is 70 microns in diameter. These larger particles do not travel far, typically settling within one-quarter mile of the source. **The map on the next page** highlights a one-quarter mile area around Southport where these larger particles may be a concern. It is estimated that there are more than 450 housing units within this area. The other half of fugitive dust particles are 10 microns or smaller (PM10). Due to their small size and weight they can remain airborne for weeks. These particles travel farther, ebbing and flowing on larger air masses within the Twin Cities.

Where does it come from?



While fugitive dust is a concern in the Southport area, the good news is that there are plenty of steps that can be taken to control it. Efforts to control fugitive dust may include:

- Paving unpaved driving surfaces
- Watering dusty surfaces
- Applying dust control treatments
- More frequent road maintenance, cleaning, and sweeping
- Minimizing drop distances at material transfer points
- Reducing vehicle speeds (speed limit on Barge Channel Road is 30 miles per hour)
- Covering open bed trucks in transit
- Installing wind fences, barriers, and planted tree lines
- Installing ground vegetation and plantings
- Covering stockpiles with a tarp, plastic or other material and anchoring it to prevent it from being removed by wind
- Limiting how long materials can remain in stockpiles
- Ensuring cargo compartments are maintained so that no spillage or loss of bulk material occurs from holes or other openings in the floor, side, or tailgate of trucks
- Ceasing dust generating activities when wind speeds exceed 25 mile per hour
- Implementing treatments to prevent trackout and carryout from occurring onto paved roads such as crushed rocks or wheel wash at exits
- Requiring cleanup of trackout and carryout from paved roads
- Creating and implementing dust control plans
- Cleaning up spills as soon as possible



Parcels within a quarter mile of Southport Terminal

- Saint Paul Parcels
- South Saint Paul and West Saint Paul Parcels
- Southport Parcels
- Quarter mile buffer around Southport Parcels

Approximate total housing units within quarter mile buffer:	**474 units**
Within Saint Paul:	**387 units**
Within South Saint Paul:	**87 units**

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How does Saint Paul regulate fugitive dust?

Zoning Code Section 65.812.c - General Outdoor Processing

"The applicant shall provide a site plan showing the location of buildings; areas of outdoor storage, servicing, processing or manufacturing; and fences and walls. A narrative shall accompany the plan stating the measures the applicant will take to contain on the property any ***dust***, odor, noise or other potentially adverse effects."

Section 357.05.c - Solid Waste Regulations

"In connection with mixed municipal solid waste and/or separate waste stream processing or disposal operations licensed under this chapter, the entire operation shall be carried on in a manner that does not create excessive noise, ***dust*** or odors."

Fugitive Dust Example, Credit: Akron Regional Air Quality Management District

How does Minnesota regulate fugitive dust?

Minnesota regulations require any person operating any commercial facility to take appropriate measures to control fugitive dust. In addition to improving air quality in the surrounding area, dust control also protects employee health and reduces employee health care costs, reduces equipment maintenance and depreciation costs, and improves community relations. **Minnesota Administrative Rules, 7011.0150, Preventing Particulate Matter from Becoming Airborne** states,

*No person shall cause or permit the handling, use, transporting, or storage of any material in a manner which **may allow avoidable amounts of particulate matter to become airborne**.*

*No person shall cause or permit a building or its appurtenances or a road, or a driveway, or an open area to be constructed, used, repaired, or demolished without applying all such **reasonable measures as may be required to prevent particulate matter from becoming airborne**. All persons shall take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. The commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne including, but not limited to, paving or frequent clearing of roads, driveways, and parking lots; application of dust-free surfaces; application of water; and the planting and maintenance of vegetative ground cover.*

MPCA staff prefers to seek compliance with the state fugitive dust rule through **voluntary cooperation** than through **enforcement action**. It is often quicker and less adversarial than enforcement. MPCA recommends saving enforcement for those businesses that simply will not comply any other way.

What can the Port Authority do to control fugitive dust?

The close proximity of industry along Barge Channel Road and nearby residential uses is an important reason to be concerned and to act to control fugitive dust. Both area residents and businesses have an interest in reducing fugitive dust.

The Port Authority plays an important role in highlighting the issue of fugitive dust and the concerns it raises. As the largest land owner in the Southport area, the Port Authority is in a position to work with tenants to reduce their contributions to fugitive dust. The Port Authority requires its tenants to operate in compliance with all standards as part of its lease agreements. One of the most important actions the Port Authority has taken is to encourage its tenants to comply voluntarily with the City of Saint Paul nuisance standards and with the Minnesota rule regarding fugitive dust. It has also provided its tenants with information on strategies to reduce fugitive dust.

Barge Channel Road is a paved City street. However, aerial photos show that most of the driving surfaces in the Southport area are unpaved. Vehicles travelling in and out of the area regularly stir up dust. This is a significant source of fugitive dust. Paving driving surfaces is one way to minimize fugitive dust. The Port Authority should encourage its tenants to pave the most heavily used driving surfaces on their properties.

The Port Authority, along with several of its tenants, is making plans to pave a portion of an access road in spring 2018. The access road will serve Hawkins Chemical, Ingredient Transport, Origination, and the dredge spoil management area. In the process of paving the access road, the road will also be widened to improve the turning radius for trucks. This should have the added benefit of reducing back-ups currently caused by trucks needing to turn into the lane of oncoming traffic due to the tight turning radius.

How are area businesses helping to control fugitive dust?

To reduce dust on roadway surfaces Alter Corporation sweeps the portion of Barge Channel Road along its frontage two times a week. Other businesses could take up this practice as well.

Origination currently uses atomized mist technology to suppress fugitive dust during fertilizer loading and transfer. The mist can drive airborne dust particles to the ground.

Sources of Fine Particle Matter

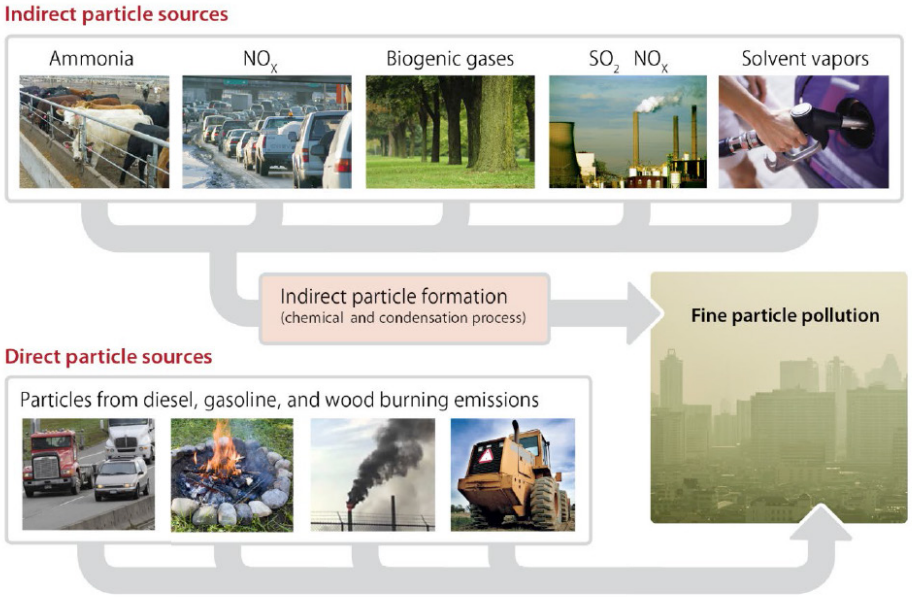


Figure on fine particles courtesy of the *Life and breath* report co-published by MDH and MPCA

April 2017 Site Visit

A site visit to observe fugitive dust conditions in the Southport area and discuss possible actions to improve conditions was conducted in spring of 2017 with staff from the Saint Paul Port Authority, MPCA, and the City's Departments of Safety and Inspections and Planning Economic Development.

MPCA staff emphasized that sweeping as often as possible is the most effective way to control dust and wet sweeping is ideal. The colder months in Minnesota can be a more challenging time of year to control dust than the warmer months since wet sweeping and watering in general to suppress dust is not an option as freezing and ice create unsafe working and driving conditions. Calcium chloride application annually or a few times a year is another option to help to suppress dust but it is expensive.

Creating awareness and educating around the concerns about fugitive dust are important steps in addressing the issue. Having a fugitive dust control plan can help businesses identify dust sources by knowing what to look for. Keeping records and daily logs of observed conditions helps track and address problems. Armed with information staff can then be trained on strategies to mitigate it.

MPCA Staff observations and other possible actions in the Southport area:

1. Scrap metal stockpiles can collect dust. Limiting the length of time that stockpiles can be stored can prevent dust from settling.

2. Speed limits on internal unpaved roads in the Southport area could help reduce dust.

3. Trees can serve as dust and visual barriers. They also enhance the appearance of the area.

4. Small spills can result in dust. Corn spilled on the ground after commodities transfer can get crushed and pulverized by truck tires creating a source of dust. Spills should be cleaned up as soon as possible.

5. The Police impound lot is not a big enough dust generator to justify the cost of paving the lot.

Burning, Fires, and Air Quality

There are a number of factors that contribute to air pollution. Residential wood burning is one of them, and one over which residents can exert some control. Wood burning releases fine particles and chemicals into the air. As increasing numbers of people burn wood at home, backyard recreational fires have become a sizeable source of fine-particle air pollution released into the air, especially in the Twin Cities. Burning wood and breathing the smoke from campfires can be hazardous to health, especially for people with asthma or respiratory disease, children under 5, and the elderly. Therefore, the best way to reduce exposure to wood smoke is to choose not to burn in the first place and to encourage friends, family, and neighbors to do the same. When residents do choose to burn, the website www.beairawaremn.org suggests a number of ways to reduce the amount of pollution released:

- Burn well-seasoned, dry wood. Wet wood burns at lower temperatures and releases more pollution than dry wood.
- If you use your own firewood, split it so it can dry better. Moisture meters are available to determine moisture content; use wood with no more than 20 percent moisture.
- Cover stacked wood with a tarp or store it under cover, with air flowing through it, so it can dry. Split hardwood can take a year or more to adequately dry.
- Convert an existing fire ring or pit to natural gas or propane.
- Refrain from backyard fires on air quality alert days.

Recreational Fires

Recreational fires are allowed in Saint Paul. No permit is required. No burning for disposal purposes is allowed in recreational fires. No rubbish, paper products, or construction materials can be burned.

Open Burning/Disposal Burning

Open burning is allowed in Saint Paul. It requires a permit from the Department of Safety and Inspections and the fire department must be notified prior to ignition. Open burning can be used for disposal, except that paper products and materials that may produce obnoxious smoke and odors cannot be burned. At the September 2016 community forum a resident commented on burning that occurs in the area, often in the evenings after the sun sets. Consequently, the location and fuel source for the burning is unknown. The smell resulting from the burning is described as a very strong unpleasant odor and one that you can almost taste. Residents wishing to report burning should call the Saint Paul Fire Department at **651-224-7371**. The responders will try to identify the source of the burning. This is something they do regularly.

Making Complaints

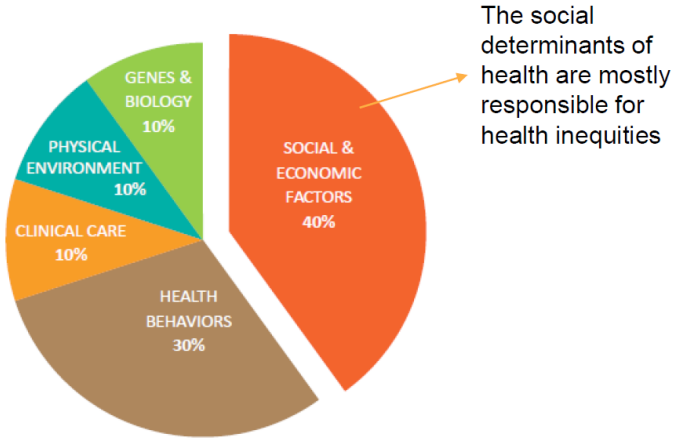
Complaints can be made to the City of Saint Paul, Ramsey County, and the MPCA. If residents are unsure of who is responsible for following up on the complaint they are encouraged to contact both the City and the MPCA. The more detailed information provided with the complaint the better. Details including location, time of day, and wind direction, help pinpoint the problem.

Saint Paul:
Call 651-266-8989, **email** DSIComplaints@ci.stpaul.mn.us or **visit**
https://www.stpaul.gov/departments/safety-inspections/city-information-complaints

MPCA:
Call 651-296-6300, **email** info.pca@state.mn.us or **visit**
https://www.pca.state.mn.us/about-mpca/citizen-complaints

Public Health

Good health is not universal. Many factors influence health. Chief among the influences are social and economic factors as well as health behaviors as shown in the graphic below from a recent presentation by Saint Paul – Ramsey County Public Health.



Determinants of Health Model based on frameworks developed by: Tarlov AR. Ann N Y Acad Sci 1999; 896: 281-93; and Kindig D, Asada Y, Booske B. JAMA 2008; 299(17): 2081-2083.

Saint Paul-Ramsey County Public Health staff stated that the underlying health of residents is a significant factor in health outcomes and is strongly correlated to poverty, lack of regular health screenings, and lack of health insurance. They offered to contribute to the Southport study effort by recommending steps that can be taken to support health and safety of area residents. A series of community meetings was suggested at which public health staff could present the following topics:

- *Small steps to support health and safety*
- *Assessing GAP School emergency safety plan*
- *Family preparedness*
- *Fostering local neighborhood connections and conversations*

Public Health Resources

A great deal of public health information can be obtained from the MN Public Health Data Access Portal. This is a powerful Minnesota Department of Health data resource. Its various programs gather, assimilate, analyze, and disseminate environmental health surveillance data, toward making health, hazard, and exposure info available to a wide range of stakeholders. Most of the data is available at the county level, but they are sometimes able to fulfill custom data requests at the ZIP code level.

Data topics include air quality, asthma, birth defects, cancer, carbon monoxide poisoning, chemicals in people (biomonitoring), childhood lead exposure, chronic obstructive pulmonary disease, developmental disabilities, diabetes, drinking water quality, environmental tobacco smoke, heart attacks, heat-related illness, health insurance, immunizations, Lyme Disease, obesity, oral health, pesticide poisoning, poverty & income, radon, reproductive & birth outcomes, and smoking.

The Minnesota Department of Health provides online access to information about drinking water quality. By searching for System ID 1620026, the measured contaminants for the drinking water system that serves Saint Paul (Saint Paul Regional Water Services) can be viewed. Results of a search for Saint Paul showed measured contaminants (arsenic HAA5, nitrate, radium, and TTHM) for the years 1999 – 2015 were all below the maximum contaminant levels set by the Environmental Protection Agency. This is the most current information available on the website.

Cancer Occurrence

Some residents in the Southport area expressed concern about the occurrence of cancer. The Minnesota Cancer Surveillance System tracks cancer occurrences throughout the state. It also does assessments for communities. PED staff contacted staff at the Minnesota Cancer Surveillance System in November of 2016 asking for information about requesting an assessment for the Southport area, similar to the reports done for North/Northeast Communities of Minneapolis and St. Louis Park that are posted on the system's website. The system's response was quite lengthy and discussed the limitations and perils of an assessment. While they did not discourage the neighborhood from requesting/ accessing public data, they noted that cancer covers so many different diseases that combining them tells one nothing about industrial pollution.

Many factors impact the overall cancer rate of an area such as the age makeup of the population, past smoking rates, ethnic makeup of the population, access to health care, and availability of screening tests. Further they cautioned that there are many reasons why using cancer rates in a community to determine the safety of an environment is not productive and can actually be quite destructive. Invoking the false belief/fear that "elevated" cancer rates are a result of an environmental exposure in the community where citizens have chosen to live, creates unfounded angst that can have far-reaching effects on individuals in a community and the community as a whole.

They go on to say that, "to produce a cancer excess, a carcinogen must affect a huge number of cells in a huge population, over a long period of time. Other than in occupational settings, or in a geographical area where one type of cancer with a single known cause, such as mesothelioma on the Iron Range caused by exposure to asbestos, investigations of suspected cancer excesses do not lead to the identification of an associated environmental contaminant."

"While environmental contaminants are the frequent focus of community cancer concerns, the primary determinants of cancer risk include smoking, obesity, diet, lack of exercise, UV radiation, alcohol, viruses, genetics, reproductive history, medications, and occupation."

- Cancer Occurrence in St. Louis Park 1993-2012, **MCSS**

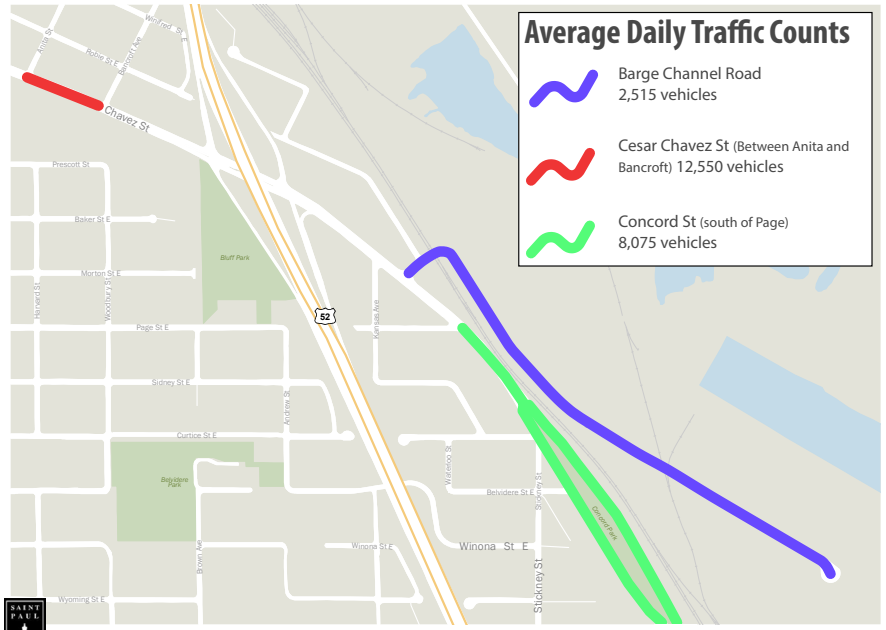
MCSS MINNESOTA CANCER SURVEILLANCE SYSTEM

While under most conditions, environment does not end up playing a major role in cancer occurrence rates, MCSS does see some value in assessing rates in an area. "These analyses of community cancer rates helps place the occurrence of cancer in that community into the context and perspective of cancer occurrence in the county, region, and state. When a community's rates are placed into the larger perspective, they almost always find that nothing unusual is occurring and most communities find this reassuring. Given this information and background, it is up to the community to consider carefully whether it wants to pursue an assessment for the Southport area. If it chooses to do so it can request the assessment through the Minnesota Cancer Surveillance System. "

Traffic Patterns

Barge Channel Road is a city street and the only access point into and out of Southport Industrial District. The speed limit is 30 miles per hour. The table to the right shows traffic counts from July 2016 over a 24-hour period. The average daily traffic is 2,515 vehicles, 1,196 eastbound and 1,319 westbound. Traffic volumes begin to build between 5:00 am and 6:00 am with sustained peak volumes occurring between 11:00 am and 3:00 pm, though volumes are relatively high from 7:00 am to 10:00 am as well. Volumes trail off substantially from 5:00 pm to 9:00 pm. There is very little traffic in and out from 11:00 pm to 4:00 am.

To get an idea of how the traffic volumes on Barge Channel Road compare to volumes on nearby roadways, a count from July 2014 shows Concord Street, just south of Page Street, with 8,075 vehicles per day and a count from July 2013 shows 12,550 vehicles per day on Cesar Chavez between Anita and Bancroft.

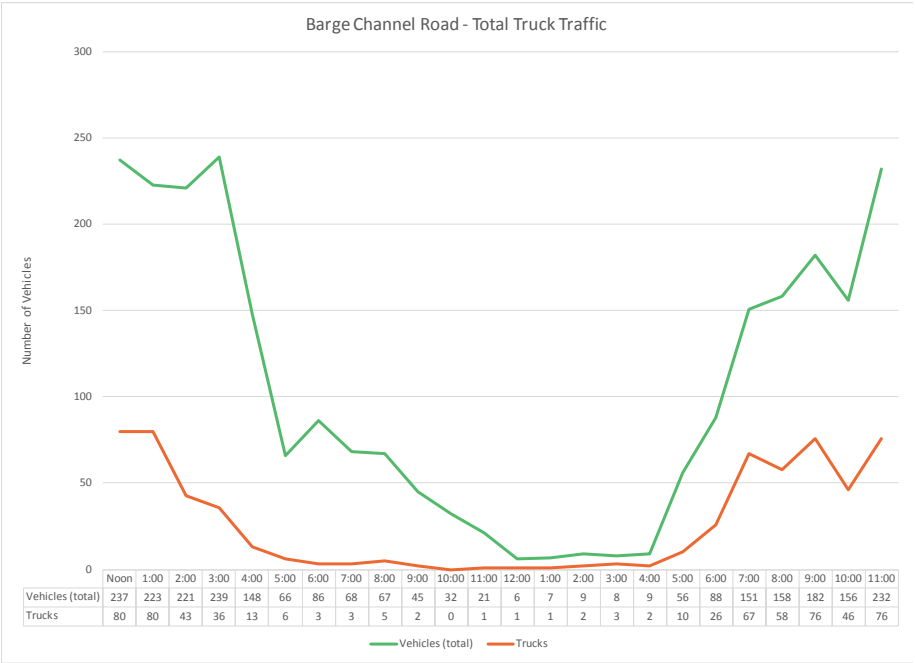


Traffic Counts Near Southport

Date/Time		Vehicles		Total
		Eastbound	Westbound	
July 12, PM	12:00	108	129	237
	1:00	111	112	223
	2:00	97	124	221
	3:00	94	145	239
	4:00	45	103	148
	5:00	27	39	66
	6:00	34	52	86
	7:00	19	49	68
	8:00	30	37	67
	9:00	12	33	45
	10:00	23	9	32
	11:00	10	11	21
July 13, AM	12:00	5	1	6
	1:00	3	4	7
	2:00	5	4	9
	3:00	5	3	8
	4:00	6	3	9
	5:00	42	14	56
	6:00	60	28	88
	7:00	90	61	151
	8:00	87	71	158
	9:00	93	89	182
	10:00	75	81	156
	11:00	115	117	232
Total		**1196**	**1319**	**2515**

Truck Traffic

About 25 percent of the average daily traffic is trucks, 640 of the 2,515 total vehicles each day. Sustained peak truck volumes occur between 11:00 am and 1:00 pm when a bit more than one-third of the daily trucks, 236, make their way into or out of the area. More than 90 percent of truck traffic into and out of the area occurs between 6:00 am and 3:00 pm. During these hours proper fugitive dust management policies would have the greatest impact on air quality nearby.



	Noon	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
Vehicles (total)	237	223	221	239	148	66	86	68	67	45	32	21	6	7	9	8	9	56	88	151	158	182	156	232
Trucks	80	80	43	36	13	6	3	3	5	2	0	1	1	1	2	3	2	10	26	67	58	76	46	76

Date/Time		Trucks		Total
		Eastbound	Westbound	
July 12, PM	12:00	40	40	80
	1:00	42	38	80
	2:00	24	19	43
	3:00	16	20	36
	4:00	5	8	13
	5:00	5	1	6
	6:00	2	1	3
	7:00	1	2	3
	8:00	2	3	5
	9:00	1	1	2
	10:00	0	0	0
	11:00	1	0	1
July 13, AM	12:00	0	1	1
	1:00	1	0	1
	2:00	1	1	2
	3:00	2	1	3
	4:00	2	0	2
	5:00	7	3	10
	6:00	18	8	26
	7:00	38	29	67
	8:00	27	31	58
	9:00	37	39	76
	10:00	20	26	46
	11:00	41	35	76
Total		**333**	**307**	**640**

Train Traffic

Union Pacific owns and operates the railroad tracks through Southport. Occasionally other railroad companies run trains through the area on the Union Pacific tracks. We know that these trains obstruct access on Barge Channel Road throughout the day. Union Pacific staff attended the November 2016 Community Forum to talk about operations in the area and is aware of the safety concerns voiced by the community when trains block Barge Channel Road.

Union Pacific staff explained that trains block Barge Channel Road for a few reasons. First, trains can be very long. A 10,000 foot train is about two miles long. At 10 miles per hour a two mile long train can take 25 minutes to clear the intersection. Second, train operations at the rail yard in South St. Paul can result in delays at Southport. Third, train traffic sometimes conflicts with barge traffic. In these instances barge traffic takes precedence over rail traffic and can result in delays. This occurs when the Hoffmann Swing Bridge is unavailable for trains while barges are travelling in that stretch of the river. Union Pacific noted that recent technological improvements such as radio controlled rail switching have decreased delays in the South St. Paul rail yard.

The traffic count conducted for Barge Channel Road in July 2016 was done by video. The video allowed us to note the time of day and length of time trains blocked Barge Channel Road. In a 24-hour period the road was blocked by trains 14 times. Seven of the 14 times the road was blocked by trains, the blockages lasted 10 minutes or longer. Road blockages occurred from 3:00 am to almost 10:00 pm. Eight of the blockages occurred between 6:00 am and 1:00 pm, when truck volumes in and out of the area are highest. The longest blockage recorded was 19 minutes and occurred from 10:00 am to 10:19 am. The traffic count at 10:00 am was 156 vehicles, including 46 trucks.

Date	Start Time	End Time	Length
July 12, PM	12:11	12:17	6 minutes
	12:19	12:29	10 minutes
	12:34	12:36	2 minutes
	1:08	1:09	1 minute
	4:15	4:20	5 minutes
	9:35	9:46	11 minutes
July 13, AM	3:00	3:10	10 minutes
	3:21	3:36	15 minutes
	4:28	4:36	8 minutes
	6:51	7:07	16 minutes
	8:22	8:31	9 minutes
	8:52	8:56	4 minutes
	8:58	9:09	11 minutes
	10:00	10:19	19 minutes

Despite the fact that these blockages are disruptive to traffic flow and result in truck queueing, idling, and diesel exhaust emissions they do not violate the City ordinance regulating obstruction of streets. To understand why this is, we need to know what the ordinance says.

Traffic Obstruction Ordinance

Saint Paul regulates obstruction of streets by Ordinance 110.01 which states,

No person shall in any manner or at any time obstruct the traffic on any public street or road, except that any railroad company may obstruct or close for traffic any such public street or road by a standing car, train or engine, or other equipment for not longer than ten (10) minutes at any one time.

The law limiting the length of time a train can block a road relates to the amount of time a car, train, or engine is ***standing*** and blocking the road. As long as a train is moving through the intersection it is not considered to be blocking the road. There is no limit to the amount of time a train can take to move through an intersection and as noted earlier, it can take a 10,000 foot train 25 minutes to clear an intersection. In many instances Barge Channel Road is obstructed by a ***moving*** car, train, or engine.

Emergency Response during Obstructions

A concern that arises given these lengthy obstruction times is whether, in the event of an emergency, responders would be able to access the Southport site in a speedy manner. City staff talked with the Fire Chief for the area, Chief Berger, about his experience responding to emergencies on Barge Channel Road when the road is blocked by trains. He reported that he has never responded to a call when Barge Channel Road was blocked by a train. That being said, he did express concern about limited access in this situation. He said if this situation occurred responders would likely contact the railroad to have them move the train as soon as possible to allow responders to get into or out of the area. Union Pacific has a hot line to report road blockages, 1-800-848-8715.

Westbound Canadian Pacific Railway freight train at Robert Street in St. Paul, Minnesota. Photograph by John F. Bjorklund

The Fire Chief stated that they make very few emergency runs to the Barge Channel Road area but noted that when they do, it tends to be for something serious. He said that a fireboat could respond to the area but most of the businesses are located far from the water so he was not sure how effective the fireboat would be. He noted that it is possible for a fireboat to respond to a medical emergency but he was not sure if and how responders could get from the boat to land.

He also offered that responders would seek out alternative access locations in the event the road is blocked by a train suggesting that as a worst case scenario they may try to enter from South St. Paul, driving over grass areas if necessary. He also noted that it might be possible to enter the area on foot (between standing train cars) if needed though he cautioned they would need to make sure the trains would not begin moving. If the train were moving they would need to wait until the train clears the intersection.

Alternative Access Route

The City Council's resolution initiating this study calls for development of "substantive optional or alternative access routes to ensure safe egress from the area for workers and area residents". The single point of access on Barge Channel Road is a significant safety concern because emergency access is restricted when trains block the road and because road blockages result in traffic backups on Barge Channel Road and along Concord Street. Backups can happen several times a day and observers have witnessed trucks backed up all the way to Cesar Chavez Street. Backups result in diesel truck engine idling and vehicle exhaust emissions which can affect air quality.

The Saint Paul Port Authority noted that the single point of access is an issue for its tenants as well and the Port Authority is interested in obtaining grant funding to undertake a feasibility study. Port Authority staff noted that letters of support for grant applications from area residents and businesses are helpful in making the case that there is a safety situation needing attention, not just a traffic situation. Residents and businesses have an interest in solving the access issue and it is something they can advocate for together.

Unfortunately the City does not have funding or staff capacity to undertake a study of the impact of a single point of access and develop alternative routes, nor does it have funding to construct a new route. The current study provides as much information as is available about the area at the present time.

City staff contacted public works staff in South Saint Paul to inquire about any plans they may have for a new access onto Concord Street; they indicated that they have no plans to provide an access onto Concord Street.

Union Pacific staff stated that given Minnesota's interest in improving rail safety, the State may pursue investments in grade separation projects. If this is the case, it could be an impactful source of funding for a future grade separated route. Union Pacific indicated an interest in being a part of the conversation about an alternative access route.

Until a feasibility study can be undertaken and an alternative access built, the following steps can be taken to address issues resulting from a single point of access.

- Encourage Union Pacific to minimize the amount of time standing or moving trains block Barge Channel Road
- Communicate with Union Pacific Railroad to remind them of community concerns around emergency access, vehicle traffic flow, and vehicle queuing, idling, and emissions that occur when trains block Barge Channel Road
- Encourage the Port Authority and Union Pacific to seek out grant opportunities and lobby the State legislature to invest in grade separation projects.
- Communicate with first responders and emergency management to ensure they are aware of potential limitations in accessing the Southport area when an emergency call occurs concurrently with a train blocking Barge Channel Road.
- Encourage first responders to assess the ability to respond to Southport by fireboat, weather permitting.
- Encourage the Saint Paul Port Authority to include provisions addressing diesel emission reductions in future leases or other agreements with lessees to address localized air quality issues. This step was recommended by the Minnesota Pollution Control Agency in a letter to the Port Authority and Hawkins, Inc. in the summer of 2015

Emergency Response

Emergency Management is a City department that reports to the Mayor and is housed in the Saint Paul Police Department. Its director is Rick Larkin. It bills itself as "Hero Support" because it coordinates and supports responders in the field like police, fire, and public works during large events or emergencies from a behind-the-scenes mission control. Whether large planned events like Crashed Ice or St. Patrick's Day parade or emergency situations or disasters, Emergency Management pulls together a team to coordinate the City's response at a central location. This response team can be activated at any time as needed for events such as: severe weather, hazmat incidents, acts of terrorism, or large national events.

During non-emergency times Emergency Management works with first responders to prepare for real life situations through planning, training, and drills. It assesses and anticipates hazards and plans for them. It also works on prevention and how to mitigate impacts when they occur. Plans that are in place include:

- Emergency Operations Plan
- Hazard Mitigation Plan
- Pandemic Flu Plan
- Sara Title III Supplement
- Flood Response Plan
- Flood Recovery Plan
- Snow Response Plan

Everyone plays a role in emergency management. Individuals can prepare and equip themselves for emergencies and be more confident in the face of an emergency. Emergency Management offers a workshop on personal preparedness and technical information, if it would make the community feel safer, and help them learn what they can do to prepare for an event. Information on how to prepare can be found at http://www.stpaul.gov/departments/emergency-management.

In Saint Paul there are no hazards, such as hurricanes, requiring mass evacuation. Wind and tornado events warrant an "after the fact" response. Floods are slow moving so there is adequate time to prepare and respond. Other events that are planned for include chemical releases, spills, derailments, and technological accidents. Police, fire, and response teams have situational awareness which means when they respond to a particular situation or area, they are aware of how to respond and what might come into play in certain areas.

Hazardous Chemical Storage

Three facilities along Barge Channel Road are required to report the presence (storage) of chemicals as required under the Emergency Planning and Community Right-to-Know Act (EPCRA). Emergency Management is aware of the presence of these chemicals and the potential risk they pose. A full data set is available in Appendix G.

Business Facility	Chemical on Site
Alter River Terminal	Dustrol (Hydrocarbon Mixture)
Hawkins Terminal	Ferric Chloride Solution Sodium Chloride Sodium Hydroxide Liquid
Northern Metal Recycling	Hydraulic Oil

Neighborhood Notice

The City recently rolled out an emergency notification system. Details are at www.stpaul.gov/publicsafetyalert. Alerts are sent to people in specific geographic areas when there is a public safety threat. All residents are encouraged to participate. It is an "opt-in" system, alerts are only sent to those who sign up to receive them. Alerts are only available in English though they are working on installing a translation box.

Other methods of reaching people to alert them about preparedness and emergency situations are needed. Beyond the emergency notification system, radio, and newspapers, police and fire have Twitter feeds to provide information; Facebook is another venue. Sometimes emergency response can include a police squad car driving through a neighborhood making announcements on a public address system telling people what to do. The Director of Emergency Management stated that his office can develop a packet of information that can be distributed in the community.

In addition, a mobile phone application called Nextdoor allows people within a geographic area to send out and share information specific to the area. This is a tool that can be used to communicate about many things including nearby emergencies, a missing dog, a block party, free items for give away, and suspicious activity. It is a non-official way for people to connect and stay informed during emergency and non-emergency times.

Emergency Management identifies critical infrastructure or "assets" throughout the City so that in an emergency it knows what potentially could be negatively impacted. Assets in the Southport area include a railroad bridge, sewer locations, the Boys and Girls Club, GAP School, and Our Lady of Guadalupe Church.

Evacuation Measures

There are no evacuation plans for different geographic areas of the City, thus there is no specific evacuation plan for the Southport area or the West Side. Rather, evacuation is decided upon on a case by case basis depending upon the nature of the threat to public safety. Emergency Management stresses that sometimes it is safer to shelter in place until the threat is past than to evacuate. For example, in the event of a chemical release resulting in a cloud it may be better to shelter in place, controlling the building's air intake until the cloud dissipates, than to be outside risking exposure to the cloud.

During the November Community Forum residents stated that it would be helpful to identify the critical infrastructure assets in the area and have the fire department conduct walk-throughs to instruct building operators on what can be done in an emergency to make them shelter-in-place locations.

The Director of Emergency Management stated that certain situations call for the creation of emergency planning zones. A nuclear power plant is an example. He noted this kind of planning could take place for geographic areas in the City but there is not the level of commitment of staff and resources to do it at this time. He estimated that the cost to do a plan for the Southport area at about $70,000. This work would include a cataloging of potential dangers and options for industry and the community in the event of an emergency.

EPA Grant for GAP School

Guadalupe Alternative Programs School applied for an EPA Environmental Justice grant in January 2017, with assistance from the Saint Paul Port Authority staff, to fund the creation of a hazard mitigation plan for the Southport community. Unfortunately the grant application was not successful.

guadalupe alternative programs

Response to Train Accidents

According to the Minnesota Department of Transportation's Office of Freight and Commercial Vehicle Operations website approximately 99.9977% of all rail hazmat shipments reach destination without incident.

In the event of a train related accident, the Emergency Management incident commander coordinates the City's response and communications. Union Pacific would be part of the response team structure. Public safety being the greatest concern, decisions about evacuations or sheltering in place are made first. Then, the response plan for the specific event is carried out. Union Pacific is tied into the local response planning network and specific incident response plans are put into place and resources are mobilized.

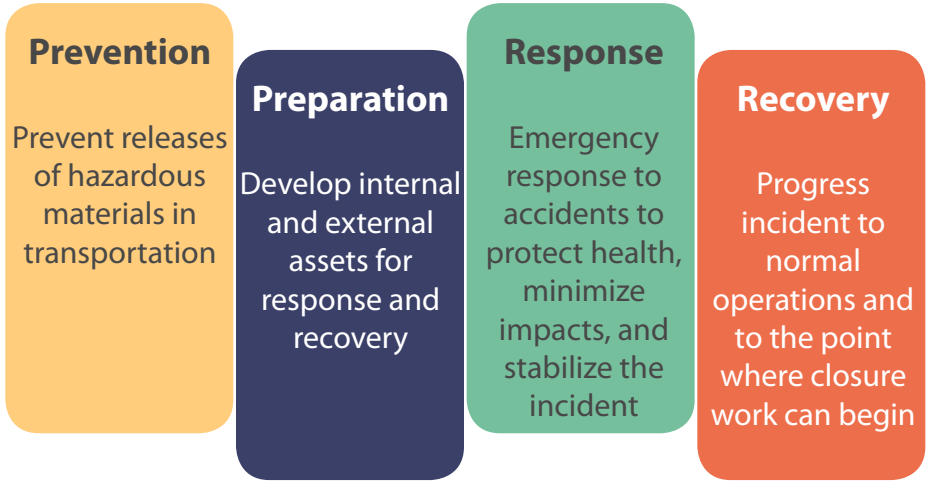
Union Pacific does not know the neighborhood as well as the local responders do, this is why the City takes the lead. Emergency Management knows what notifications are needed and what evacuations are called for in specific situations. The protocol in place to respond is the same regardless of the specific threat to public safety or the location of the incident. The nature of the threat is determined by the specifics of the situation. Emergency Management has teams of experts trained in determining the best protective action for the incident at hand given the conditions and available information.

Ensuring Rail Safety

According to the information provided by Union Pacific Railroad staff at the November Community Forum, rail is a safe, efficient, and environmentally friendly way to ship cargo. One train takes up to 300 trucks off congested highways. Rail is almost four times more fuel efficient than trucks. Union Pacific can haul one ton of freight 471 miles on one gallon of diesel fuel and rail transportation is three times cleaner than trucks on a ton-mile basis.

In Minnesota, Union Pacific trains carry a mix of cargo including automobiles, coal, lumber, grain, fertilizer, chemicals, and industrial products. This includes hazardous materials which the railroad is required by law to ship because rail is the safest method of transport.

Union Pacific states that safety is a top priority. They track commodity flow data, prepare response plans, provide employee training, and conduct drills. They have a hazardous materials team that is focused on prevention and mitigation as well as preparedness. They provide training for the company's hazardous materials teams as well as for local responders. They also engage private contractors in emergency situations. Specific tank car training takes place and tank car "blitzes" are conducted in the rail yard to inspect for leaks, fractures, or faulty valves. The Union Pacific teams work with local response departments to prepare before an event occurs. Regarding hazardous materials management, Union Pacific's mission involves:



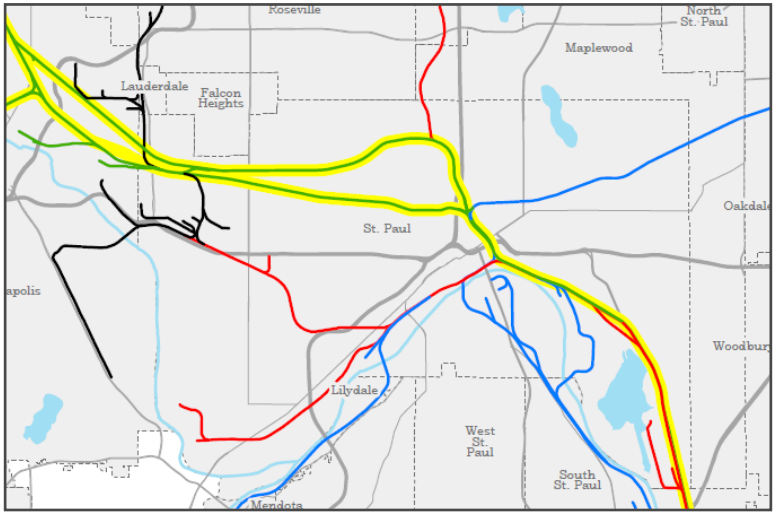
In 2014 the Minnesota Legislature passed new rail safety regulations that include increased oversight of railroad companies, requires more railway inspections, and provides for better emergency response training and preparedness in communities across Minnesota. Specifically the law requires the Department of Public Safety to work with local emergency managers and responders to understand the dangers of oil and other hazardous substances travelling through Minnesota. The Department of Public Safety is also required to assist local governments as they include emergency response information into their emergency operations plans and work with railroad companies and pipeline companies in developing safety protocols and facilitating coordination between these companies and local public safety officials.

Hazardous Railroad Cargo

For public safety reasons Union Pacific is not able to disclose publicly the contents of its shipments. Under community right to know laws, a list of every hazardous material travelling through the area in the past year is available. This information is provided upon request and is used by local responders for training purposes. The Director of Emergency Management has access to this list. Union Pacific noted that the content of hazardous materials shipments does not change dramatically from year to year. Union Pacific staff points out that the average train speed through the Southport area is 10 mph. Consequently a derailment at this speed is very rare. Rail disasters typically occur away from population centers where trains are operating at much higher rates of speed.

The Saint Paul Fire Department is the Hazardous Materials Team (HazMat team) for the entire state and it is among the best in the nation. They are fully trained in railroad safety (both heavy rail and light rail). In fact, if any City in the region has a rail accident involving hazardous materials, Saint Paul is the agency that responds. That said the fear of explosions/fires involving railroads has grown due to concerns over the transport of oil.

On average, seven oil-carrying trains travel through the City on a given day – although that number is currently lower due to the depressed market for oil. Each train carries 3.3 million gallons of oil among 110 loaded cars. Canadian Pacific and Burlington-Northern Santa Fe railroads carry the oil. The trains do not traverse Saint Paul's West Side as shown on the map below.



Crude Oil Route highlighted in yellow/green, source: MNDOT

The City's Director of Emergency Management is aware of the hazard areas in Saint Paul and his office is located in the hazard area on the City's West Side. He stated that there are hazards that travel on railroads that pose a greater risk than oil – and have travelled on railroads throughout history.

While a railroad accident is a very high consequence event, it is a relatively low probability event. A challenge for Saint Paul Emergency Management is the planning and procedures required for a rapid, large area evacuation should a major hazardous material event, rail or otherwise, occur. This is a challenge for all urban communities.

Great River Passage Master Plan

The City Council's resolution initiating this study states, **"… the Great River Passage master plan promised environmental and livability improvements that seem to recess further into the future with every rezoning"**.

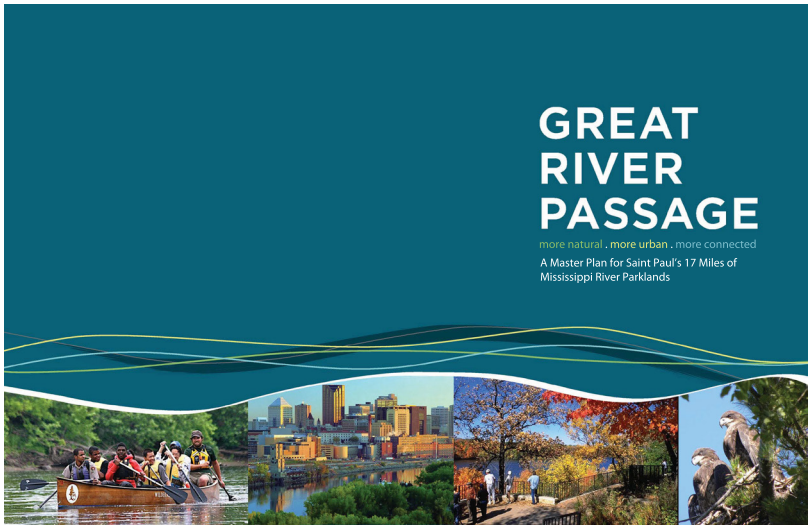
The guiding principles of the Great River Passage Master Plan (2012) - to be more natural, more urban, and more connected – represent a grand vision for unifying the entire length of Saint Paul's riverfront. The goals and recommendations in the plan provide direction for future land uses and development in the river corridor. The Great River Passage Master Plan is primarily a parks plan, but it also incorporates community driven goals for neighborhood areas adjacent to the park. These areas are critical to the desired balance of the natural areas protection, access to recreation, and continued economic development and sustainability.

With regard to the working river and the "more urban" principle, the goals of the plan include:

1) Promote redevelopment that enhances neighborhood livability and accessibility to the river

2) Maintain the working river and balance it with the environmental and recreation needs of the community

The plan states that industrial and commercial land uses will continue to be an important part of the City's economic base. Accommodation of industrial uses, and the operational requirements of commercial river traffic, has been integrated into the plan's goals and recommendations for both recreational uses of the river and redevelopment along it.



The plan also states, review existing City ordinances and evaluate the need to establish new ordinances that will result in the removal of non-essential, non-river related facilities, materials and equipment that are incompatible with the goals and recommendations of the Great River Passage.

The Great River Passage Master Plan references the Mississippi River Corridor Plan (2002) which states that Southport will remain as one of the City's principal river port terminals. This plan says that the City supports the Port Authority's policy of replacing non-river-related businesses at Southport as leases expire and that riverfront industrial sites should be occupied by river-related businesses that meet environmental standards. River-related land uses are those with an economic operational need for a river location. This plan states that new development in the floodplain or within 300 feet of the ordinary high water mark should have relationship to the river, a need for a river location, and/or should enhance the river environment.

New Development Criteria

Specific criteria for approval of new development are listed in the plan. The list is not prioritized, nor do all criteria have to be met for a land use to be considered to have a need for a river location, a relationship to the river, and/or enhance the river environment. However, new development should meet as many of these criteria as possible.

- Having an economic or operational need for a river location
- Supporting the attractiveness of surrounding neighborhoods
- Sustaining the economic vitality of riverfront improvements
- Offering public access to and along the river
- Maintaining views of the river
- Cleaning up polluted areas on the site
- Meeting or exceeding applicable natural resource policies in the plan

Screening/Aesthetic Preservation

The Great River Passage Master Plan states that the Port Authority should encourage the use of walls, fences, vegetation, terrain, or other natural devices to screen industrial buildings and outside storage areas, where such screening will not be detrimental to business operations. While the plan calls for continued industrial and commercial land uses it also recommends improving the aesthetic qualities of industrial and commercial sites that are adjacent to the river or recreation areas.

Photo Credit: Erin Carter

Photo Credit: Chris Juhn

Photo Credit: Erin Carter

Port Development Assistance Program

Ports and terminals in the state are primarily funded by local governments and private sources. The **Minnesota Port Development Assistance Program** was created by the Minnesota Legislature in 1991 recognizing that the physical infrastructure of river and lake port terminals in the state were in need of rehabilitation and expansion. A cornerstone of the program is improved access to waterways transportation that benefits Minnesota industries and the public. The goal is to upgrade facilities and infrastructure as well as rehabilitate and expand port capacity.

The program assists with the funding of public ports, providing a maximum state contribution of 80 percent, with a local match of at least 20 percent, for each public port improvement project. Program funds cannot be used for maintenance. Program funding can be used for

- Facility and infrastructure upgrading and rehabilitation
- Facility expansion
- Capacity expansion
- Systems upgrades

Program funds may be used to fund construction of improved access (alternative access) but not for feasibility or traffic studies, project design, or paving projects. Funds must further the goal of river shipping.

The benefits and impacts of the program include

- New dredging to maximize ship draft at dock areas
- Dock wall construction
- Building, rehabilitating or retrofitting of new technologies for port structures and facilities
- Improving road and rail access to port areas
- Upgrading plumbing and electrical to meet safety codes

It is important to note that not all of the funding needed for port-related improvements come from the program. Often funds are consolidated from a number of sources including local, state, and federal governments as well as private investment. For example, community members commented on an $8 million redevelopment in Winona a couple of years ago. As best as can be determined, about $1.2 million of the funds came from the Port Development Assistance Program and the balance from other sources: local, state, and federal.

The Future of Southport

The City Council's resolution initiating this study states, **"undertake a transparent analysis of the Port Authority's priorities and options, similar to the ones recently undertaken at the Ports of Childs Road and Winona, with the aim of improving the environmental and economic sustainability of Southport."**

The Saint Paul Port Authority is in the process of updating its ***River Action Strategy*** (completion in last quarter of 2017). The draft states that continued operation of the harbor is good for Saint Paul because river shipping is critical for the economic health of the region and state and because it is the mode of transportation/ shipping that is most protective of our environment. A Port Authority goal is to maintain the maximum amount of shipping-related activity possible in this area. It is a Port Authority priority to ensure that tenants with access to the dock wall and loading areas are tenants that need river access and are willing to invest in the site and provide new infrastructure. For sites that do not have access to the dock wall or loading area, the Port Authority does not require its tenants to be river shippers.

The Port Authority is exploring alternative routes and funding for an alternative access. They are pursuing multiple grant opportunities to fund a grade separated entrance into the Southport Terminal from Concord Street. The Port Authority is looking to partner with businesses and Union Pacific with support from the city and residents to put together requests for grant funding.

The Saint Paul Port Authority is also undertaking a Port Optimization Study for its shipping terminals. The study includes Southport and is anticipated to be complete in late 2017. It is expected that the study will provide information on the cost-benefit analysis of addressing some of the bottlenecks and opportunities for Saint Paul. Traffic issues at the Southport terminal are expected to be a key item in this study.

Looking Ahead...

Based on what was learned from the monitoring periods, site visits, publications from the city and other organizations, and the three community forums held from September 2016 to May 2017 PED staff have created a set of 15 recommendations for citizens, businesses, and organizations. These recommendations are meant to serve as initial steps to be taken in order to address concerns in and around the Southport Industrial District. Depending on their adoption and future findings of monitoring studies, further action may be required on the part of businesses in the Industrial District.

Study Recommendations

1. Improve air quality by addressing fugitive dust. This should be a joint effort involving Southport businesses and the Saint Paul Port Authority with guidance and expertise from the Minnesota Pollution Control Agency.

2. Improve air quality by addressing truck idling and diesel emissions. This should be a joint effort between area businesses and the Saint Paul Port Authority, with guidance and expertise from the Minnesota Pollution Control Agency.

3. Encourage individuals to make complaints about outdoor burning when they consider smoke or odor to be a nuisance. Call the Saint Paul Fire Department at 651-224-7371.

4. Inform the community about making complaints to the Minnesota Pollution Control Agency on its website or hotline. It is recommended that the Port Authority conduct an annual check-in with the Minnesota Pollution Control Agency to see what complaints have been made regarding Southport Industrial District to stay abreast of complaint activity in the area.

5. Encourage Union Pacific Railroad to minimize times when its trains block Barge Channel Road, whether from standing or moving trains. Communicate regularly with Union Pacific to remind them of the health and safety concerns resulting from the blocked roadway since it is the single point of access. Main concerns are: 1) diesel emissions from idling trucks impact air quality that affects public health the environment; 2) limited access for first responders in an emergency; and 3) traffic disruption on Concord Street and Barge Channel Road.

6. Inform businesses, residents, and motorists about the ordinance regulating train blockages and encourage them to contact Union Pacific Railroad officials at 1-800-848-8715 when blockages by standing trains exceed 10 minutes.

7. Encourage the community to participate in an Emergency Management workshop on personal preparedness and technical information. It may make the community feel safer, and help them learn what they can do to prepare for an emergency.

8. Encourage the community to participate in the City's new emergency notification system. Alerts are sent to people in specific geographic areas when there is a public safety threat or emergency. It is an "opt-in" system so alerts are only sent to those who sign up to receive them. Go to http://stpaul.gov/publicsafetyalert. Click on "Sign up for alerts" and then sign up for an account. The process takes 5 to 10 minutes.

9. Inform the community about the mobile phone application called Nextdoor. It allows people within a geographic area to send out and share information specific to the area. This is a tool that can be used to communicate about many things including nearby emergencies, a missing dog, a block party, free items for give away, and suspicious activity. It is a non-official way for people to connect and stay informed during emergency and non-emergency times.

10. Encourage the Guadalupe Alternative Programs school administration to request a visit from the Saint Paul Fire Department/Emergency Management to review procedures it should take in an emergency.

11. Encourage the community to take advantage of a series of community meetings offered by Saint Paul-Ramsey County Public Health on the following topics:

- Small steps to support health and safety
- Fostering neighborhood connections and conversations
- City-County Vulnerability Assessment

12. Encourage the community to have a conversation about information that can be requested from the Minnesota Cancer Surveillance System and consider whether it wants to request the information.

13. Consider a speed limit reduction on Barge Channel Road and installation of speed limit signs along the road.

14. Encourage and support research efforts by state/local public health departments or university professor/students to assess and analyze environmental health and the risk that cumulative exposure poses to residents over time.

Port Authority Actions

Regarding the MPCA's denial of the citizen's petition for an EAW for Hawkins, the MPCA made several recommendations. One of these was a suggestion that Hawkins undertake extended outreach and public engagement to enhance the community's understanding of current operations that may affect the community. Hawkins has been an active participant in the community meetings held during development of this study.

The MPCA also recommended that Hawkins and the Port Authority increase community engagement and discussion of spill and emergency response procedures to increase community awareness of the procedures and how the community would be impacted in the event of any emergency. The community meetings held during development of this study addressed emergency response procedures and awareness.

The MPCA also recommended that the Port Authority engage Hawkins and other industry lessees with the community to discuss community health and environmental concerns and identify actions that may help to improve conditions in the area. This has been done through the community meetings held during development of this study.

The MPCA also recommended that the Port Authority include provisions addressing diesel emission reductions in future leases or other agreements with lessees to address the localized air quality issues. The Port Authority has been meeting with Environmental Initiative and MPCA about funding opportunities for diesel retrofits for marine equipment. Project Greenfleet is a program of Environmental Initiative, a voluntary program that provides pollution control equipment for heavy diesel vehicles at low or no cost to participating fleets.

The Port Authority can inform businesses about the Minnesota Rule regarding fugitive dust and the businesses' role in compliance with the rule. The Port Authority plans to pave some unpaved driving surfaces on its property. It should encourage its tenants to pave driving surfaces,require proper maintenance of materials stored outdoors to limit fugitive dust, and encourage businesses to take steps to minimize dust.

The Port Authority needs to take the lead on forecast info and analysis for the future of Southport (how much more truck, rail, and barge traffic can we expect in the future?) "priorities and options for Southport" per the City Council resolution. The Port Authority has prioritized finding funding for a grade separated entrance to the Southport terminal and is actively seeking grant funding.

Dock Wall at the Southport Terminal, Credit: Krech Ojard Associates

Appendices:
Southport Industrial District Study

City of Saint Paul

City Hall and Court House
15 West Kellogg Boulevard
Phone: 651-266-8560

Legislation Details (With Text)

File #:	RES 15-2033	**Version:**	1	**Name:**	
Type:	Resolution			**Status:**	Passed
				In control:	City Council
				Final action:	12/9/2015
Title:	Requesting a Planning Commission study of Southport on the WestSide to address safety and health issues.				
Sponsors:	Dave Thune				
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result
12/16/2015	1	Mayor's Office	Signed	
12/9/2015	1	City Council	Adopted	Pass

Requesting a Planning Commission study of Southport on the WestSide to address safety and health issues.

WHEREAS, a recent zoning application for the Southport area of the West Side brought forth an outpouring of concern from West Side residents, churches, schools, and workers who have grown familiar with pollutants on the riverfront at Southport; and

WHEREAS, there has been little progress in addressing environmental racism; and

WHEREAS, increasing national concern about transport of dangerous chemicals and flammable products thru the nearby neighborhoods, adding to already unacceptable traffic congestion, air and water quality degradation, have increased markedly since opening of the North Dakota Bakken fields; and

WHEREAS, the Great River Passage master plan promised environmental and livability improvements that seem to recess further into the future with every rezoning; and

WHEREAS, new pressures on the Saint Paul riverfront at Southport demand a new comprehensive analysis of the situation; Now Therefore

BE IT RESOLVED, that the Saint Paul City Council requests the Planning Commission to undertake a study limited to Southport and Barge Channel Road on the West Side that will include representatives from District 3 Planning Council (WSCO), Protect Our Riverfront Together (PORT), Neighborhood Development Alliance (NeDA), Planning & Economic Development, Upper Mississippi Waterway Association, Saint Paul Port Authority, Minnesota Pollution Control Agency (MPCA), and the Steelworkers Union to report back to the City Council by September 21, 2016; and

BE IT FURTHER RESOLVED, that this study will address the following Southport safety and health issues:

(a) Develop baseline data on air, soil, and water quality and potential risks for the West Side neighbors that could be affected by wind and particulate matter distribution patterns from Southport businesses. Minnesota Pollution Control Agency (MPCA) historical data, analyses, and personnel resources should, in particular, be fully utilized in the study.

(b) Initiate a detailed traffic study of Barge Channel Road that analyzes both immediate truck, rail, barge and other transportation modes and also forecasts five year patterns.
(c) Develop substantive optional or alternative access routes to ensure safe egress from the area for workers and area residents.
(d) Develop a neighborhood notice and evacuation plan in event of a chemical or other hazardous material release or other emergency.
(e) Undertake a transparent analysis of the Port Authority's priorities and options, similar to ones recently undertaken at the Ports of Childs Road and Winona, with the aim of improving the environmental and economic sustainability of Southport.
(f) Undertake a science-based pilot project in Southport to address issues such as vehicle exhaust, dust, air quality, sources of pollution, etc. with collaboration from MPCA and the Port Authority with the goal of ensuring a healthy Mississippi River and healthy nearby neighborhood.

Appendix B: September 2016 Community Forum Summary

Question 1:

How has the flow of traffic in and out of Barge Channel Road changed since 1975? What was coming in and how and what was going out and how in 1975? What does the picture look like today? How many more trucks, trains, and barges are there through the area now and what are they carrying?

Anecdotal information about how the flow of traffic in and out of Barge Channel Road has changed over time was provided by Hokan Miller who has worked at Upper River Services since 1975. Coal used to come in by rail and out by barge and the barge slip area was used for barge fleeting. The chemical dock used by Hawkins has been in use for a long time and has seen modest truck and rail traffic over time. Scrap metal sorting and storage has been conducted at least since 1975 to the present with scrap coming in by truck and out by train or barge. Salt is brought in by barge and carried out by truck, mostly in the colder months. The biggest changes to traffic and goods is the movement of fertilizer by several businesses in Southport with fertilizer arriving by barge and leaving by truck, with trucks unloading corn, wheat, or soybeans before fertilizer is loaded for a return trip.

Question 2:

Is there a Port Authority policy or discussion about priorities for river traffic that takes place when a new tenant wants to locate in Southport?

It is a Port Authority priority to ensure that tenants with access to the dock wall and loading areas are tenants that need river access and are willing to invest in the site and provide new infrastructure. For sites that do not have access to the dock wall or loading area, the Port Authority does not require its tenants to be river shippers.

Question 3:

MPCA brownfields staff reviews sites for contamination during property transfer. Are there any regular inspections that take place outside of property transfers?

It depends up on the program; there is no set interval for renewal of licenses or permits. Brownfields staff does not have a schedule for inspection of properties. They get involved during property transfers (can include change of tenancy or use), reported spills, and reported complaints. By law spills are to be reported. The MPCA receives a lot of reports of spills. They also take complaints on a phone line and website. Occasionally they will come across information to suggest that something needs to be looked into and they will investigate. Investigations may include site inspections, review of aerial photos and real estate maps for key markers for past uses including storage tanks. Samples of soil and water are taken and analyzed as needed. If a major spill occurs that wasn't reported, the impacts will show up elsewhere in the environment (groundwater, surface water downstream etc.) and they will search for the source of the spill.

Certain programs require regular inspections. Hazardous waste requires an annual inspection. Other programs may have inspections once every year or once every five years. Larger facilities are often on a regular inspection schedule.

Question 4:

Is the MPCA online map of contaminated sites out of date?

MPCA staff explained that the map is up to date, noting that labels given to sites are the original labels when cases were opened. These labels are not changed to reflect existing property owners or businesses.

Question 5:

Was there an inspection when Gerdau recently located on Barge Channel Road? Could contamination at the site have been avoided had there been more frequent testing and investigations?

Port Authority staff explained that there was some investigation and clean up initiated by the Port Authority prior to Gerdau's tenancy as a metals recycler. Contaminated fill used on the site for past grading activities was the source of the contamination. The surface soil was cleaned up. There is documented contamination at a depth of 12 feet on a portion of the site. MPCA staff noted that it is quite common to have contaminated fill (in this case arsenic and lead which can be naturally occurring). The levels were found to be higher than what is typically found and more than the most conservative residential standards. This information is on the land title and would be found in a property search at the MPCA.

Question 6:

Is the MPCA's inspections information available to the public?

MPCA staff said that this information is public and available, unless there is an active enforcement case ongoing

Question 7:

What about the watershed? There is the Schmidt Brewery well to the west.

MPCA staff stated that the Schmidt well is a deep aquifer. The aquifers in the Southport area are much shallower, in the range of 10-15 feet below the surface. There are no more drinking wells. Everyone is on city sewer and water. There may be an occasional well for irrigation.

Question 8:

What is the nature of the typical investigation and what is the process?

MPCA staff stated that in Southport most investigations begin with the Port Authority (for a new tenant or an old land use that raises concerns). An environmental consultant is hired and paid for by the Port Authority. The MPCA provides a lot of guidance for consultants on how to do investigations. The contractual obligation is between the Port Authority and the business, not with the MPCA. The MPCA reviews the consultant's technical reports, lab results, tables, figures, and interpretation to determine what follow up is needed.

Question 9:

Has the river been tested at locations before and after Southport to determine what impacts the uses may be having on water quality in that stretch of the river?

MPCA staff said they are not sure if this testing has been done. They said they do have information on water quality that can be shared.

In a follow-up with PED staff, MPCA shared a hyperlink to their water quality data access portal. This public tool allows citizens to search for assessment and monitoring data on any body of water in the state of Minnesota. At **https://www.pca.state.mn.us/water/water-quality-data** people can search for monitoring data around the Southport area either by text or by using the online map.

Question 10:

If Southport were rezoned would the businesses be relocated? What industrial uses require a separation, screening, or buffer from residential uses and are these in place in Southport?

City staff stated that existing uses would be grandfathered in to protect property rights and the uses would become nonconforming. The City cannot force the businesses out. The property is zoned I2. Staff noted that without a change of use on the property the City cannot retroactively apply the standards for separation, screening, and buffering.

Question 11:

There is a lot of storm water runoff from Highway 52 and there are concerns about the quality of runoff. Does the MPCA work with MnDOT on issues of runoff? Who is paying attention to this? The questioner noted that it may be possible that Southport businesses are being held responsible for problems created perhaps by the highway and bridge or elsewhere.

MPCA staff stated that they regulate construction activities on sites larger than one acre. Therefore, construction of the Highway 52 Bridge required MPCA regulation. MPCA staff added that they regulate both during and after construction activities. The MPCA staff said they would reach out to MnDOT to talk about the comments today on runoff volume and quality.

Question 12:

People do fish in the river. Is the river monitored?

No response was provided at the meeting. Notes from MDH staff state that river quality is monitored to make sure it's safe for people, fish that people eat, and animals and plants. MDH says it's safe to eat fish from the river. The number of fish per month is limited. The river is safe for boating and other recreation.

Question 13:

How is information about MPCA activities provided in other languages?

MPCA staff stated that this is something they struggle with and are working on. They added that some of its educational materials are available in other languages and that they sometimes provide translators for permit-related meetings in neighborhoods where English is not a first language.

Question 14:

There were many questions from the audience about the relocation of the air monitor from the church parking lot to Holman field. Why was this done? Has it affected results? If the air monitoring results show fewer pollutants is this due to the new location of the monitor? Does this invalidate the results recorded at the parking lot? Will there be valid data for the area with the results of monitoring at Holman Field? There are no homes in the area where monitoring is taking place and it is an area with free flowing air. Won't this automatically result in lower levels? This seems to defy common sense for monitoring in a dense urban area. Maybe a special assessment is needed to see what is happening in the neighborhood near residents, schools, churches, and the industrial area. Is the area eligible for more testing?

During the three months of the community air monitoring program (CAMP) phase the equipment was located on the ground in the church parking lot. When they decided to do follow up monitoring to assess for lead over the course of a full year they looked for a location that met established EPA siting criteria for the equipment. The levels recorded during the CAMP phase were below standards (about half the standard for lead) but they wanted to know why they were higher than results at other CAMP locations.

The church parking lot site was too close to trees and streets and did not allow for free flow of air. Sites along Barge Channel Road were ruled out as being too close to sources; monitoring sites should be beyond the property line of any one producer. A lift station site near the church was considered and rejected as was the neighborhood across Concord Street due to the change in topography and trees. Sites on public property are preferred. The site at Holman Field met all of the siting criteria. It is off the ground at least two meters, free of obstructions, there is a free flow of ambient air, on public property, has reliable access to power, and is in the middle of a variety of sources. The new monitor location is further from the church but closer to the sources. Staff noted that there are no emission sources (stacks) in Southport.

Fugitive dust appears to be the main concern in Southport, not fine particles. Fugitive dust usually is a localized issue, contained to an area of about one-quarter mile from the source. Fugitive dust does not typically travel far because the particles are quite large and tend to fallout of the air.

Actions to minimize fugitive dust will go a long way toward easing air quality concerns in the area. Air quality beyond one-quarter mile or more away is likely to be affected by other sources such as gas stations, dry cleaners, vehicle traffic, and auto body shops. MPCA has committed to more monitoring. The decision about where to locate the monitoring equipment is under consideration.

Question 15:

Is burning allowed? Is it regulated? How can residents know when it is going to occur? Is it only wood that they are burning? Sometimes it seems like something else. It gives off an uncomfortable odor that you can almost taste. The questioner was not certain about the origin of the burning, noting that it tends to happen when it's dark so it's hard to figure out the source. You can't see it, just smell it.

MPCA staff stated that they were not aware of any burning activity in the area. Odor complaints are sent to MPCA staff for follow up to figure out the source.

Complaints can also be made to The City of Saint Paul Department of Safety and Inspections. Instances of burning can also be reported to the Saint Paul Fire Department at **651-224-7371**.

Question 12:

Why was formaldehyde dropped from further monitoring? Isn't it a concern worth investigating?

MPCA staff reported that the levels recorded were below standards and similar to levels detected across the Twin Cities. They acknowledge that formaldehyde is a metro wide concern and they are doing more research to determine its impacts.

Comment:

Representation on Lower Mississippi River Water Management Organization

Let's work to get a West Side representative on the Lower Mississippi River Watershed Management Organization so that they can be at the table when decisions are being made that impact the neighborhood. **In spring 2017 a west side representative was appointed to the LMRWMO.**

Appendix C: November 2016 Community Forum Summary

Question 1:

Can the Guadalupe Alternative Programs School be added to the list of assets in the Southport area? If the PORT group provided Emergency Management with a neighborhood boundary could they provide a list of the assets within the boundary?

Rick Larkin, Director of Emergency Management said that the school will be added to the list of assets. He added that he would provide the assets within a boundary set by the PORT group. In addition, the fire department could conduct walk-throughs of assets, including the school, to instruct building operators on what can be done in an emergency to make them shelter-in-place locations.

Question 2:

How does Emergency Management deal with hazardous materials?

The Director of Emergency Management talked about how to think about hazardous materials. He said you can have a bad product, a bad container, and a bad location. If you have a bad product in a good container and a good location the threat is minimal. If you have a bad product in a bad container or a bad location, or both, this poses a much greater risk. Clearly the goal is to have a good container and location.

During non-emergency times Emergency Management works with first responders to prepare for real life situations through planning, training, and drills. It assesses and anticipates hazards and plans for them. It also works on prevention and how to mitigate impacts when they occur. Emergency Management stresses that sometimes it is safer to shelter in place until the threat is past than to evacuate. For example, in the event of a chemical release resulting in a cloud it may be better to shelter in place, controlling the building's air intake until the cloud dissipates, than to be outside risking exposure.

Question 3:

If a new business locates on Barge Channel Road how will Emergency Management know what chemicals they have on site?

If a business uses a chemical that is required to be reported, and has a reportable quantity on site, then Emergency Management will have access to that information. They use this information to prepare for future events. It was noted that fertilizers are not considered extremely hazardous chemicals.

Question 4:

Is there an action plan for the Southport Area?

There are no evacuation plans for different geographic areas of the City, thus there is no specific evacuation plan for the Southport area or the West Side. Rather, evacuation is decided upon on a case by case basis depending upon the nature of the threat to public safety.

The Director of Emergency Management stated that certain situations call for the creation of emergency planning zones. A nuclear power plant is an example. He noted this kind of planning could take place for geographic areas in the City but there is not the level of commitment of staff and resources to do it at this time. He estimated that the cost to do a plan for the Southport area at about $70,000. This work would include a cataloging of potential dangers and options for industry and the community in the event of an emergency.

Question 5:

What would it take to get information to people in a certain radius in the event of an emergency?

The City recently rolled out an emergency notification system. Alerts are sent to people in specific geographic areas when there is a public safety threat or emergency. All residents are encouraged to participate. It is an "opt-in" system so alerts are only sent to those who sign up to receive them. Alerts are only available in English though they are working on installing a translation box to allow alerts to be accessed in other languages.

Other methods of reaching people to alert them about preparedness and emergency situations are needed. Beyond the emergency notification system, radio, and newspapers, police and fire have Twitter feeds to provide information; Facebook is another option. Sometimes emergency response can include a police squad car driving through a neighborhood making announcements on a public address system telling people what to do. The Director of Emergency Management stated that his office can develop a packet of information that can be distributed in the community.

In addition, a mobile phone application called Nextdoor allows people within a geographic area to send out and share information specific to the area. This is a tool that can be used to communicate about many things including nearby emergencies, a missing dog, a block party, free items for give away, and suspicious activity. It is a non-official way for people to connect and stay informed during emergency and non-emergency times.

Question 6:

Can we know what cargo trains travelling through the area are carrying? How likely is a derailment?

For public safety reasons Union Pacific is not able to disclose publicly the contents of its shipments. Under community right to know laws, a list of every hazardous material travelling through the area in the past year is available. This information is provided upon request and is used by local responders for training purposes. The Director of Emergency Management has access to this list. Union Pacific noted that the content of hazardous materials shipments does not change dramatically from year to year. Union Pacific staff points out that the average train speed through the Southport area is 10 mph. Consequently a derailment at this speed is very rare. Rail disasters typically occur away from population centers where trains are operating at much higher rates of speed.

The Saint Paul Fire Department is the Hazardous Materials Team (HazMat team) for the entire state and it is among the best in the nation. They are fully trained in railroad safety (both heavy rail and light rail). In fact, if any City in the region has a rail accident involving hazardous materials, Saint Paul is the agency that responds. That said the fear of explosions/fires involving railroads has grown due to concerns over the transport of oil.

On average, seven oil-carrying trains travel through the City on a given day – although that number is currently lower due to the depressed market for oil. Each train carries 3.3 million gallons of oil among 110 loaded cars. Canadian Pacific and Burlington-Northern Santa Fe railroads carry the oil. The trains do not traverse Saint Paul's West Side.

Question 7:

What is the rule on how long trains can block the road?

Saint Paul regulates obstruction of streets by Ordinance 110.01 which states,

No person shall in any manner or at any time obstruct the traffic on any public street or road, except that any railroad company may obstruct or close for traffic any such public street or road by a standing car, train or engine, or other equipment for not longer than ten (10) minutes at any one time.

The law limiting the length of time a train can block a road relates to the amount of time a car, train, or engine is standing and blocking the road. As long as a train is moving through the intersection it is not considered to be blocking the road. There is no limit to the amount of time a train can take to move through an intersection. It can take a 10,000 foot train 25 minutes to clear an intersection. In many instances Barge Channel Road is obstructed by a *moving* car, train, or engine.

Union Pacific has a hot line to report road blockages. To report emergency grade crossing blockages call 1-800-848-8715. The information is provided to the rail yard operators and they are as responsive as they can be based on conditions in the rail yard.

Question 8:

Is South Saint Paul considering a new access onto Concord Street?

Saint Paul staff contacted public works staff in South Saint Paul to inquire about any plans they may have for a new access onto Concord Street; they indicated that they have no plans to provide an access onto Concord Street.

Question 9:

If there were a train accident who would respond?

In the event of a train accident, the Emergency Management incident commander coordinates the City's response. Union Pacific would be part of the response team. Public safety is the greatest concern, decisions about evacuations or sheltering in place are made first. Then, the response plan for the specific event is carried out. Union Pacific is part of the local response network and specific incident response plans are created and resources are mobilized.

Union Pacific does not know the neighborhood as well as the local responders do, so the City takes the lead. Emergency Management knows what notifications are needed and what evacuations are called for in specific situations. The response protocol is the same regardless of the specific threat to public safety or the location of the incident. The nature of the threat is determined by the specifics of the situation. Emergency Management has teams of experts trained to determine the best protective action for the incident at hand given the conditions and available information.

Question 10:

Is there an evacuation plan for the Southport area?

There are no evacuation plans for different geographic areas of the City, thus no specific evacuation plan for Southport or the West Side. Rather, evacuation is weighed on a case by case basis depending upon the nature of the threat to public safety. Sometimes it is safer to shelter in place until the threat is past than to evacuate. For example, in the event of a chemical release resulting in a toxic cloud it may be better to shelter in place, controlling the building's air intake until the cloud dissipates, than being outside risking exposure to the cloud.

In Saint Paul there are no hazards, such as hurricanes, requiring mass evacuation. Wind and tornado events warrant an "after the fact" response. Floods are slow moving so there is time to prepare and respond. Other events that are planned for include chemical releases, spills, derailments, and technological accidents. Response teams have situational awareness which means when they respond to a particular situation or area, they are aware of how to respond and what might come up in certain areas.

Question 11:

What happens when a train is blocking Barge Channel Road in an emergency?

City staff talked with the Fire Chief for the area, Chief Berger, about his experience responding to emergencies on Barge Channel Road when the road was blocked by trains. He reported that he has never responded to a call when Barge Channel Road was blocked by a train. He said if that situation occurred responders would likely contact the railroad to have them move the train if responders needed to get into or out of the area. Union Pacific has a hot line to report road blockages, 1-800-848-8715 (the Fire Chief noted that first responders would not likely be in direct communication with the railroad unless the emergency call originated with the railroad).

The Fire Chief stated that they make very few emergency runs to the Barge Channel Road area but noted that when they do, it tends to be for something serious. He said that a fireboat could respond to the area but most of the businesses are located far from the water so he was not sure how effective the fireboat would be. He noted that it is possible for a fireboat to respond to a medical emergency but he was not sure if and how responders could get from the boat to land. He also offered that responders would seek out alternative access locations in the event the road is blocked by a train suggesting that as a worst case scenario they may try to enter from South St. Paul, driving over grass areas if necessary.

He also noted that it might be possible to enter the area on foot (between standing train cars) if needed though he cautioned they would need to make sure the trains would not begin moving. He also noted that if they entered on foot and needed to place someone on a stretcher it would be very difficult to get the person on the stretcher back over the tracks between standing train cars. If the train were moving they would need to wait until the train clears the intersection.

Appendix D: May 2017 Community Forum Summary

Question 1:

For further monitoring efforts, could the monitor be placed back closer to where people live and work on the West Side?

MPCA staff said this was a possibility, with the caveat being that the site would need to satisfy site standards which the previous West Side site had not met. Standards include proximity to roadways/parking lots, nearby presence of trees, and other environmental determinants which may have skewed data. An audience member suggested using the roof space of the GAP school. MPCA did not rule out this possibility and said they would look into it further, but did mention that the existence of cellular infrastructure on the roof could impact readings. There also was no internal accessibility available to the roof of the school.

Question 2:

Would airplanes taking off/landing impact air flow around Holman Field and distort monitoring results?

MPCA staff did not believe that airplane traffic would have affected the monitoring results from Homan Field. The monitor itself was purposely placed away from runways, hangars, and other airport infrastructure in order to minimize the impact of the airport facilities on the air quality results. Staff also noted that the concern with air planes would be less about their impact on air patterns and more their emissions. They did note that this is not the first time an air field has been used for community air quality monitoring, as Anoka County Airport in Blaine also had a monitor on location at the same time as Holman field.

Question 3:

Is the metal particulate being measured by the monitor coming from the metal recycling plants at Southport?

MPCA staff reported that without further data analysis, they couldn't say for sure that the recycling plants in Southport were the sources of metal particulate picked up during monitoring. An example they gave of further analysis would be examining if there was any correlation between days with higher particulate levels and days when the wind was blowing from the direction of Southport.

Question 4:

Was arsenic also measured during the second monitoring period at Holman Field?

Arsenic was measured along with the rest of particulate matter types. It was not reported on during the community forum directly because levels were no longer of concern or violating standards like they were at the previous monitoring site.

Question 5:

Are siting standards determined by state or federal authorities? Is there any way to challenge or change these standards?

Standards are set by the EPA and are protected by legislation at the federal level. For that reason, challenging these standards would require that legislation to be repealed/changed.

The point was made that the first round of monitoring at Our Lady of Guadalupe's parking lot technically did not meet these siting standards. But despite this, did lead to further testing because of the measurements showing high particulate matter levels. Then, the second round of monitoring used federal siting standards in order to validate the findings. This would make the data more defensible were it ever used as justification for action to be taken against a business or organization.

Question 6:

When trucks back up at Barge Channel Road, they produce large amounts of exhaust, is that being picked up by the monitor?

Yes, clouds of exhaust include fine particulate matter which is then carried by the wind throughout the Twin Cities. Whereas dust and larger particles could only travel up to around a quarter-mile from their origination, small particles would easily be able to reach the monitor at Holman Field. The measured levels of these particles were not any more or less elevated than at other comparable monitoring locations.

Question 7:

Who can push for more directed monitoring on the Southport Site? As opposed to the current community-level monitoring.

MPCA commented that direct monitoring of a site or business requires pre-existing investigation into a site by MPCA staffers. Community complaints are heard by MPCA though, and if they receive enough complaints about business or area, they usually send a team to investigate the nuisance. If that team discovers violations of environmental standards, more focussed monitoring procedures could be established. This is also true if complaints continue to be received after the first site investigation.

Question 8:

Regarding *Minnesota Administrative Rules, 7011.0150,* when staff visited the industrial district, did they see Northern Metals exercising reasonable precaution with material transfer?

Northern Metals was not examined as closely as other businesses along Barge Channel Road because they are not a tenant of the Port Authority. They were examined from the road however, and MPCA staff commented that it appeared they were trying to control the height from which they dropped recycled metals into trucks and stockpiles. Other businesses along the road also used other mitigation techniques such as sweeping frontages, or spraying stockpiles with a mist to keep particles grounded.

Question 9:

Why is Northern Metals being forced to close their facility in Minneapolis? How will their leaving impact operations in Southport?

Northern Metals' recycling operation in North Minneapolis received around 45 different citations over a decades-long period of operations. These citations had to do with air quality violations, but also storm water and administrative violations as well. The North Minneapolis site was different from the one in Southport in that it had an industrial metal shredder which was used to breakdown scrap into smaller chunks. This shredder was the source for all manner of particulate matter, and a large reason why this site had so many citations.

Northern Metals is required to vacate their Minneapolis site by 2019, and already has secured a new location for their shredding and recycling operations in Becker, Minnesota. Because of the closure of the lock and dam Northern Metals was not using barge traffic to transport materials from their Minneapolis location to the Saint Paul site, and we have no reason to believe that the move to Becker will cause any sort of increase in activity down in Southport. It is also important to note that there is no metal shredder at the Southport location, and no plans to bring one there in the future. The Southport location is primarily a storage and shipping facility.

Question 10:

What organization was responsible for citing Northern Metals? Are citizens able to search for and access these citations, specifically citations or violations at the Southport Northern Metals Facility?

When MPCA monitors show that a federal air quality standard has been violated, staff then go about testing and validating the data. If it turns out to be correct, MPCA then delivers the citation to the business or site in question.

As there is no direct monitoring at the Southport Site, and they do not have an environmental permit, there is no way for citizens to see if the Southport site has been cited by the MPCA. Citations are based on data from active monitoring, which currently is not being conducted at Southport, or failure to meet the conditions of a permit, which they also do not have currently. Businesses with environmental permits can be viewed on the MPCA website.

Summary

Community Air Monitoring Project
St. Paul – West Side

What we monitored

We monitored air quality for fine particles ($PM_{2.5}$) and air toxics (carbonyls, metals and volatile organic compounds-VOCs) in the St. Paul West Side neighborhood.

Why is it important?

People exposed to air pollution are at increased risk for adverse health effects. This can include shortness of breath, asthma, heart attacks or stroke. Studies show that low-income communities might be unfairly affected by pollution from industrial, highway or air traffic sources.

Monitoring in these communities can help us to better understand the community's air quality and how it compares to other monitoring sites.

Highlights & key findings

- We put an air monitoring station in the St. Paul West Side neighborhood. This station monitored air quality for three months from April 1, 2014 to June 30, 2014.
- Although only a three-month study, for comparison purposes, we compared the monitored data with annual air quality health standards. We also compared the data with other air data collected during the same time period at other monitors.
- All average daily $PM_{2.5}$ values were below the daily $PM_{2.5}$ standard of 35 micrograms per cubic meter ($\mu g/m^3$).
- Average daily $PM_{2.5}$ values measured at the St. Paul West Side monitor were generally higher than values seen at most other sites for a majority of the monitoring days but followed a similar daily trend as other metro sites.
- Of the 74 air toxic chemicals measured for this project, the levels of 46 chemicals were so low that they were not detected by the monitor.
- All average VOC and carbonyl values were below health benchmarks except for formaldehyde. The average values of formaldehyde at most monitoring sites in the Twin Cities metro were slightly above health benchmarks. Higher formaldehyde values are expected in warmer months and are lower in winter months.
- Of the detected metals, the three-month average metal values were higher at this site than the other Twin Cities metro sites, but all were below annual health benchmarks except for arsenic. The MPCA is working to better understand these results.

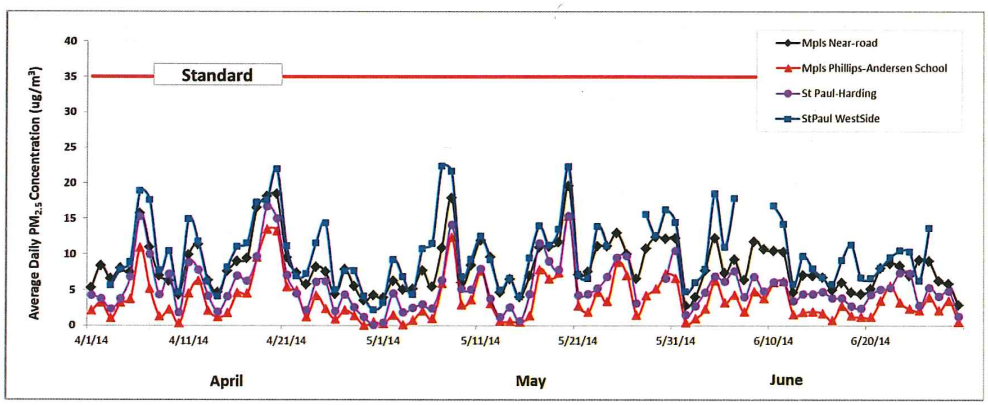
About this study

In 2013, the Minnesota Legislature provided funding for a two-year air monitoring study to measure air quality in Minnesota communities where low income communities might be disproportionately impacted by pollution from highway traffic, air traffic, and industrial sources.

Minnesota Pollution Control Agency

Fine particles ($PM_{2.5}$)

This graph shows the average daily $PM_{2.5}$ values at the St. Paul West Side and other metro air monitors. The average daily trends were similar across the monitors. While all average daily $PM_{2.5}$ values were below the daily $PM_{2.5}$ standard of 35 $\mu g/m^3$, average daily values measured at the St. Paul West Side monitor were generally higher than those seen at most other sites for a majority of the monitoring days.

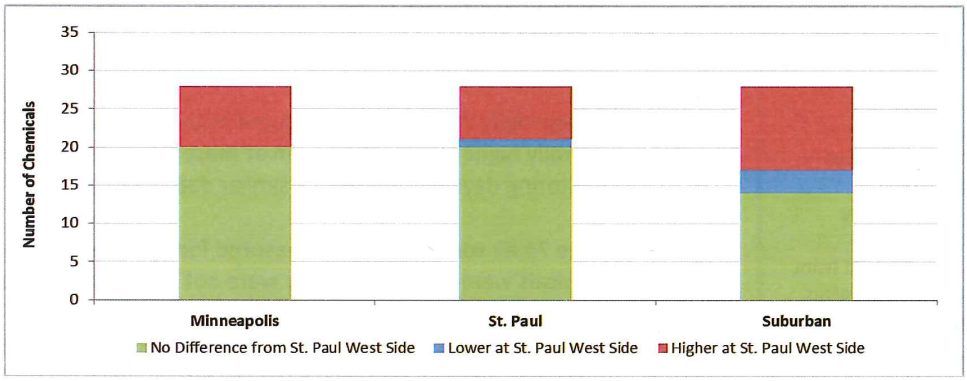


Air toxics

Of the 74 air toxics measured, 28 were detected at the St. Paul West Side monitor.

The majority of air toxics measured were not significantly* different from levels measured at other Twin Cities monitoring sites. With the exception of formaldehyde and arsenic, all other average parameter values were at or below the established health benchmark values. The three-month formaldehyde average* for this monitor (3.5 $\mu g/m^3$) and for most other metro air monitors were above the long-term health benchmark (2 $\mu g/m^3$). The three-month arsenic average* (0.0046 $\mu g/m^3$) was above the long-term health benchmark (0.0023 $\mu g/m^3$).

This graph shows the number of air toxics that differed between the St. Paul West Side monitor and other Twin Cities monitors.



*Kaplan-Meier non-parametric non-detects data analysis

Project website

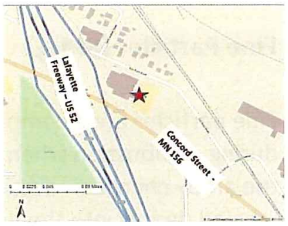
For more information on the community air monitoring project, please visit www.pca.state.mn.us/9xc4ahc or call either 651-296-6300 or 1-800-657-3864 and ask for air data analysis staff.

More information about the MPCA's air monitoring program is available on the web at http://www.pca.state.mn.us/ruu6fhw.

Minnesota Pollution Control Agency

Community Air Monitoring Project

Summary Report – St. Paul West Side Neighborhood



St Paul West Side
Air Monitoring Site

Project overview

In 2013, the Minnesota Legislature funded a two-year air monitoring study to measure air quality in Minnesota communities where low income or communities of color might be disproportionately impacted by pollution from highway traffic, air traffic, and industrial sources. This legislation funds one monitor to be moved to seven locations in a two-year period.

The project began on October 1, 2013 with monitoring in the East Phillips Neighborhood of Minneapolis. The monitor moved to the Thomas-Dale neighborhood, then the St. Paul West Side neighborhood. This area is a mix of residential and business interlaced with heavily used roadways. Monitoring ran from April 1-June 30, 2014.

What we monitored

Air was monitored for specific chemicals that are associated with adverse public health effects (Attachment A). These chemicals are classified as fine particles ($PM_{2.5}$) or air toxic pollutants (carbonyls, metals or volatile organic compounds). Although only a three-month study, for comparison purposes, we compared the average daily PM2.5 monitored data to the daily fine particle standard and the air toxic pollutants to the available long-term health benchmarks. These comparisons are used for informational purposes only and should not be used to determine compliance with standards or health risks. The data were also compared with other data collected in the same time period at other monitors in Minnesota.

Findings at a glance:

- All average daily $PM_{2.5}$ values were below the daily $PM_{2.5}$ standard of 35 micrograms per cubic meter ($\mu g/m^3$) but were generally higher than the values seen at other sites for a majority of the monitoring days.
- Of the 74 air toxic pollutants measured for this project, 46 pollutants were so low that they were not detected by the monitor.
- All average VOC and carbonyl values were below health benchmarks except for formaldehyde. The average values of formaldehyde at most monitoring sites in the Twin Cities metro were slightly above health benchmarks. Higher formaldehyde values are expected in warmer months and are lower in winter months.
- Of the detected metals, average metal values were higher at this site than the other Twin Cities metro sites, but all were below health benchmarks except for arsenic. The MPCA is working to better understand these results.

Summary of Results

Fine Particles ($PM_{2.5}$)

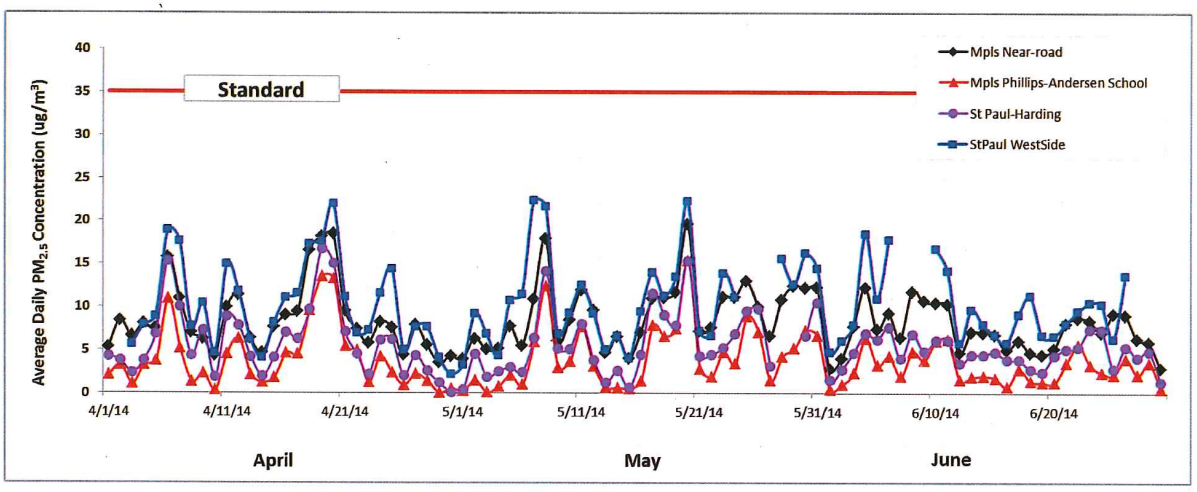
Fine particles are a complex mixture of extremely small particles and liquid droplets that are created during combustion when coal, gasoline, diesel, wood and other fuels are burned, and are also created in the air by chemical reactions among other pollutants. Because of their small size, fine particles can be inhaled deeply into the lungs and can enter the blood stream. Exposure to fine particle pollution can contribute to respiratory and cardiovascular health effects.

Fine particles are regulated on an annual and daily basis to guard against long-term and short-term health effects linked to fine particle exposure. To test compliance with these standards, a minimum of three-years of monitoring data is required. The monitoring period for this project is too short to determine whether the project sites meet the fine particle standards. However, as an informal comparison, we have compared daily fine particle results to the short term fine particle standards of 35 micrograms per cubic meter ($\mu g/m^3$).

U.S. Environmental Protection Agency (EPA) regulations state that a monitored site meets daily $PM_{2.5}$ regulatory requirements if the 98th percentile of the 24-hour $PM_{2.5}$ concentrations in a year, averaged over 3 years, is less than or equal to 35 $\mu g/m^3$. For more information: http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html

The average daily trends (**Figure 1**) over the three month period were similar between the St. Paul West Side monitor and other Twin Cities monitoring sites (locations shown in **Figure 2**). While all average daily $PM_{2.5}$ values were below the daily $PM_{2.5}$ standard of 35 $\mu g/m^3$, average daily values measured at the St. Paul West Side monitor were generally higher than those seen at most other sites for a majority of the monitoring days (**Table 1**) but followed a similar daily trend as other metro sites.

Figure 1. Average daily $PM_{2.5}$ values at several St. Paul-Minneapolis sites from April 1 to June 30, 2014.



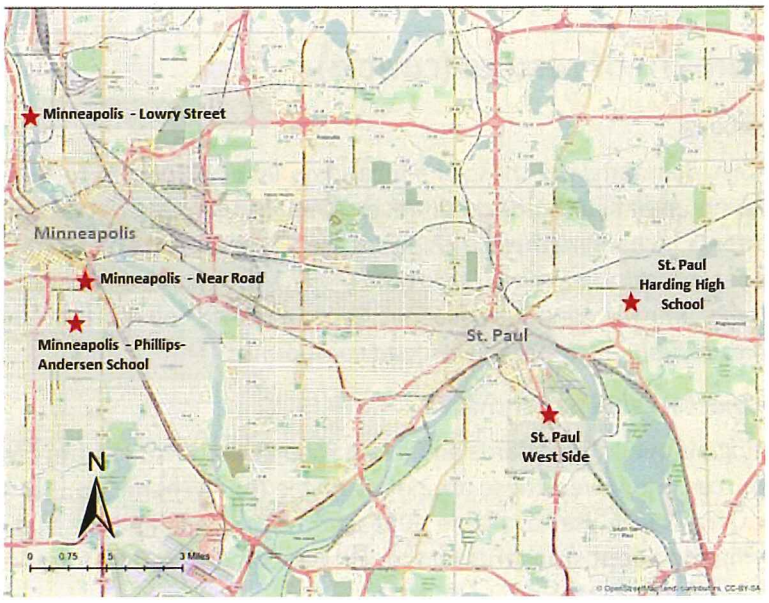


Figure 2. Location of the St. Paul West Side community air monitor in relation to other $PM_{2.5}$ air monitors in the St. Paul - Minneapolis metro area. For more information about the individual sites, please visit the MPCA Air Monitoring Network Plan website (www.pca.state.mn.us/pyrifa3).

Table 1. Summary information describing average daily $PM_{2.5}$ values found at MPCA monitors during the monitoring period of April 1 – June 30, 2014.

Site	Min µg/m³	Max µg/m³	Mean[1] µg/m³	Median[2] µg/m³	Standard Deviation* µg/m³	Number of days that concentration values at St. Paul-West Side were higher	Number of days that concentration values at St. Paul-West Side were lower	Total Number of Comparison Days+
St. Paul-West Side	2.2	22.4	10.4	9.5	4.8			
Mpls NearRoad	2.8	19.6	8.3	7.6	3.6	63	16	79
Mpls Lowry Street	0.0	16.5	5.0	4.2	3.9	75	4	79
Mpls Phillips	0.0	15.4	3.7	2.7	3.2	79	0	79
St. Paul-Harding H.S.	0.1	16.7	5.4	4.5	3.5	77	0	77
Anoka Airport	0.4	15.5	4.5	3.9	2.9	70	0	70
Apple Valley	0.3	18.0	4.7	4.1	3.3	79	0	79
Virginia	5.2	15.6	8.5	7.9	2.1	49	30	79
Rochester	0.7	13.1	5.2	4.6	3.2	73	2	75
Talahi School	0.8	16.8	5.0	4.5	2.8	79	0	79
St Michael	0.2	21.0	5.3	4.5	4.0	74	1	75
Detroit Lakes	2.3	13.5	6.5	6.1	2.1	64	11	75
Marshall	1.8	14.5	5.3	4.8	2.6	68	8	76
Duluth	0.6	16.5	5.0	4.6	3.1	75	4	79
Ely	0.7	9.2	2.8	2.5	1.5	71	0	71
Brainerd Airport	0.0	7.6	1.7	1.0	1.7	79	0	79
Winona	1.0	15.7	6.1	5.3	3.2	72	4	76

[1]Mean value is the arithmetic average value of all of the average daily PM2.5 measurements

[2]Median value is the middle value of the set of average daily PM2.5 measurements

*Standard Deviation of the average daily PM2.5 measurements

+St. Paul West Side monitor had only 79 days of complete data available for comparisons. Other sites had fewer days.

Summary of results (cont'd)

Air toxics

Air toxic pollutants are those chemicals known or suspected to cause serious human health effects or adverse environmental effects. Example pollutants include *methylene chloride*, used as a solvent and paint stripper, *perchloroethylene*, emitted by some dry cleaning facilities and *benzene*, which is found in gasoline. Some air toxic pollutants are metals such as *cadmium*, *chromium*, or *lead* compounds.

MDH

Minnesota Public Health Data can be found at https://apps.health.state.mn.us/mndata/home

This data can be searched by county to help you find public health information relevant to your local area.

Air toxics health benchmarks

Existing air quality standards and health benchmarks come from a variety of sources. However, these are not available for all chemicals. For air toxics, the MPCA uses available published health benchmarks. Specific information about standards and health benchmarks can be found at: http://www.pca.state.mn.us/bkzq4b0.

Of the 74 air toxic pollutants measured (**Attachment A**), there were 28 pollutants detected at the St. Paul West Side monitor. Compared to values at other fixed monitoring sites (sites shown in **Figure 3**), the majority of these chemicals did not significantly* differ in measured values (**Figure 4**).

* Kaplan-Meier non-parametric non-detects data analysis

Figure 3. Location of the community air monitor in relation to other fixed site air toxics monitors in the S. Paul-Minneapolis metropolitan area.

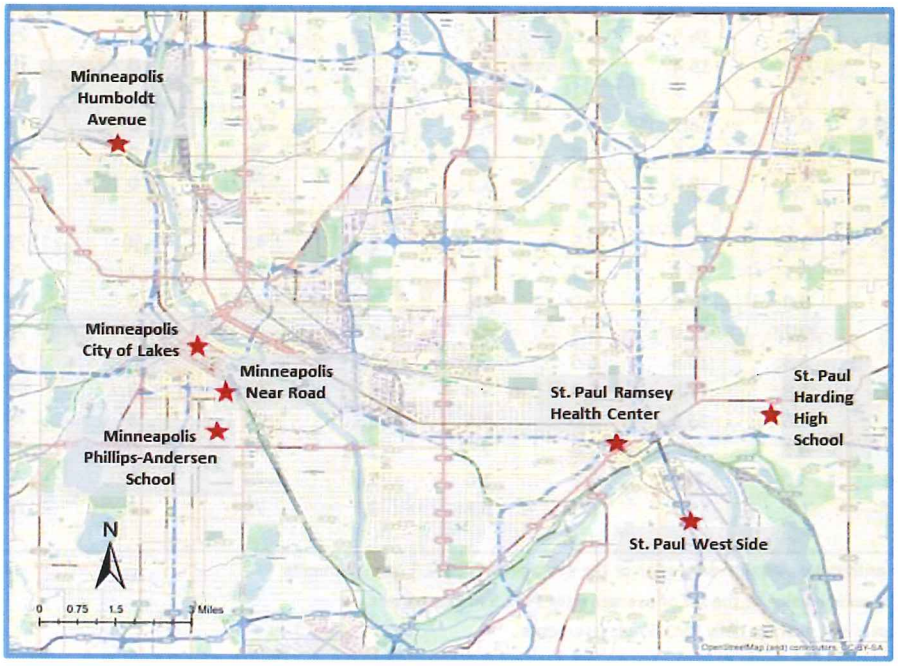
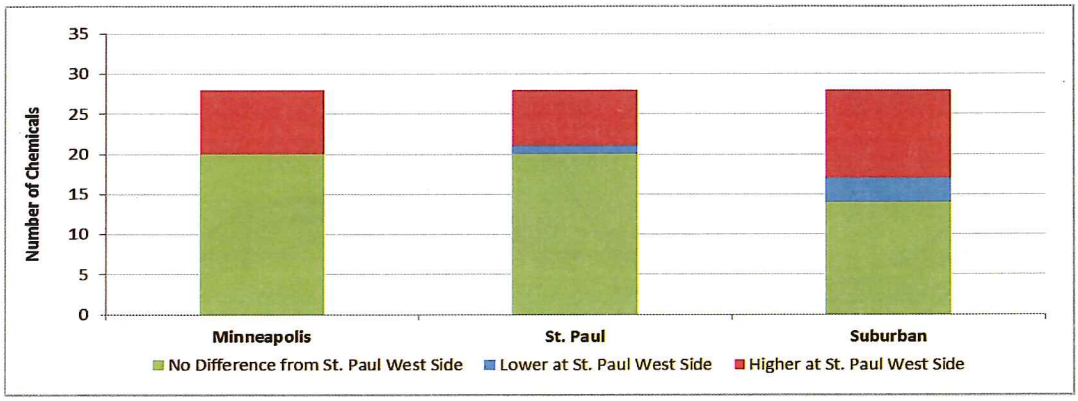


Figure 4. The number of air toxic pollutants that differed from other monitors around the Twin Cities.



Compared to measurements in Minneapolis and St. Paul, most of the pollutants that were higher at the community monitor were metals (**Attachment A**). Of the detected metals, average* metal values were higher at this site than the other Twin Cities metro sites, but all were below health benchmarks except for arsenic.

Compared to measurements from suburban Twin Cities monitors, most of the pollutants that were higher at the community monitor were VOCs (**Attachment A**). Of all of the carbonyls and VOCs monitored, only formaldehyde was found to be above health benchmark.

*Kaplan-Meier non-parametric non-detects data analysis

Formaldehyde

Formaldehyde is produced from human-made and natural sources. A variety of volatile organic compounds also react in the atmosphere to indirectly form formaldehyde. Direct emissions of formaldehyde in Minnesota come primarily from wildfires, prescribed burning, gasoline and diesel burning, highway and off-highway vehicles, residential fuel combustion and industrial processes.

As temperatures increase in the spring and summer, the production of formaldehyde increases and average values of formaldehyde typically go up. The St. Paul West Side community monitor operated from April 1 to June 30, which coincides with the elevated formaldehyde season. This increase in formaldehyde was seen at this community monitor as well as other Twin Cities monitoring sites (**Figure 5**). The 3-month formaldehyde average (3.5 $\mu g/m^3$) was over the long-term health benchmark of 2 $\mu g/m^3$ for the three month monitoring period at most metro sites (**Table 2**). The MPCA is working to better understand the sources of formaldehyde in Twin Cities air.

Figure 5. Formaldehyde values measured during the three month monitoring period.

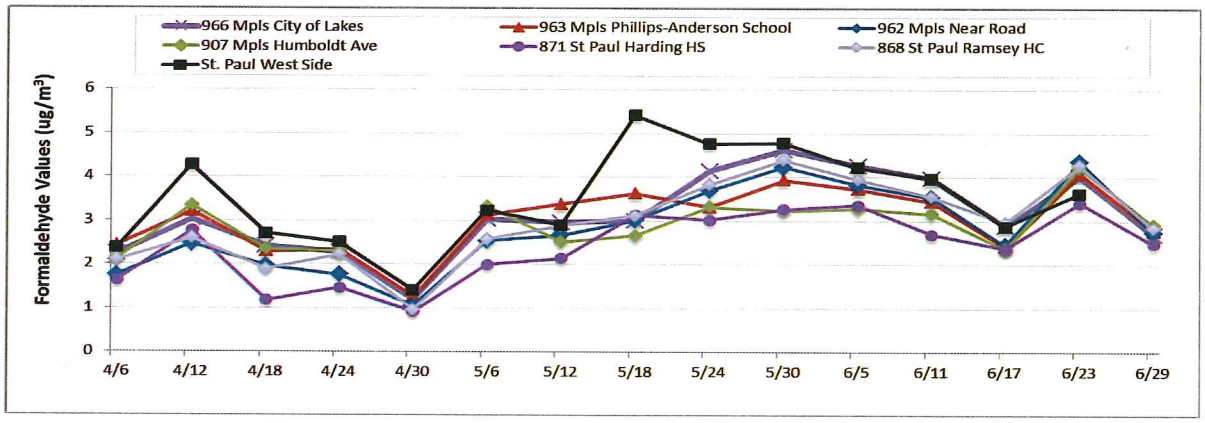


Table 2. Formaldehyde values ($\mu g/m^3$) measured at the St. Paul-West Side community monitor and metro area fixed air monitors during the monitoring period of April 1, 2014 – June 30, 2014.

		St. Paul		Minneapolis			
	St. Paul West Side	Ramsey County Health Center	Harding High School	Humboldt Avenue	Near Road	Phillips-Anderson School	City of Lakes
4/5/2014	2.4	2.1	1.6	2.1	1.7	2.4	2.2
4/11/2014	4.3	2.6	2.8	3.3	2.5	3.2	3.0
4/17/2014	2.7	1.9	1.2	2.3	2.0	2.3	2.4
4/23/2014	2.5	2.2	1.5	2.3	1.8	2.3	2.3
4/29/2014	1.4	1.0	0.9	*	1.0	1.3	1.2
5/5/2014	3.2	2.6	2.0	3.3	2.5	3.1	3.0
5/11/2014	2.9	2.9	2.1	2.5	2.7	3.4	3.0
5/17/2014	5.4	3.1	3.1	2.7	3.0	3.6	3.0
5/23/2014	4.8	3.8	3.0	3.3	3.7	3.3	4.1
5/29/2014	4.8	4.4	3.3	3.2	4.2	3.9	4.6
6/4/2014	4.2	3.9	3.4	3.3	3.8	3.7	4.3
6/10/2014	4.0	3.5	2.7	3.2	3.5	3.4	4.0
6/16/2014	2.9	3.0	2.4	2.4	2.4	2.4	2.9
6/22/2014	3.6	4.3	3.4	4.2	4.4	4.1	4.0
6/28/2014	*	2.8	2.5	2.9	2.7	2.8	2.7
Mean+	3.5	2.9	2.4	2.9	2.8	3.0	3.1

*Data not collected these days

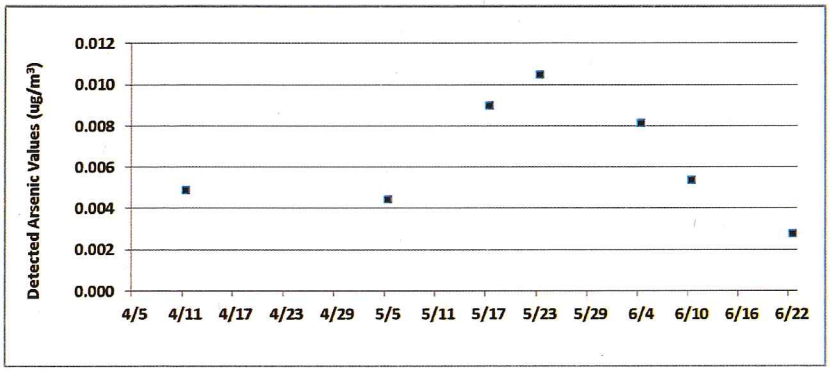
+The mean value is the arithmetic average value of all of the values in the respective column

Arsenic

Arsenic has no discernable odor or taste. It can be present in the physical environment in air, rocks, soil and groundwater, and is known to occur in different areas of Minnesota, most commonly in groundwater.

Out of 14 measurement dates, arsenic values above the long-term health benchmark value (0.00233 µg/m^3) were detected on seven of those dates (**Figure 6; Table 3**). The MPCA is working to better understand these results.

Figure 6. Arsenic measurements at the community air monitor.



33
As
74.9215
Arsenic

Health Benchmarks

A long-term health benchmark – also called a chronic health risk value or chronic HRV – is a level of a pollutant in the air that is unlikely to result in a health effect if sensitive populations are exposed at that level for a lifetime.

Since chronic HRVs reflect a lifetime exposure, they are compared to air measurement summaries from long term studies (generally a year or more). The CAMP project resulted in three-months of measurements; however, we compared the monitored data with these health benchmarks for informational purposes.

For arsenic, the HRV is 0.00233 µg/m^3.

HRV values are set by the Minnesota Department of Health (MDH).

Table 3. Arsenic values (µg/m^3) measured at the St. Paul West Side monitor and other metro area fixed air monitors during the three month monitoring period.

	St. Paul[+]	Minneapolis			
	St Paul West Side	Harding High School	Humboldt Avenue	Near-Road	Phillips-Anderson School	City of Lakes
4/5/2014	*	*	*	*	*	*
4/11/2014	0.0049	*	*	*	*	*
4/17/2014	*	*	*	*	*	*
4/23/2014	*	*	*	*	*	*
4/29/2014	*	*	*	*	*	*
5/5/2014	0.0044	*	*	*	*	*
5/11/2014	*	0.0026	*	*	*	*
5/17/2014	0.0090	0.0054	0.0022	*	0.0021	*
5/23/2014	0.0105	0.0061	*	*	*	*
5/29/2014	*	*	*	*	*	*
6/4/2014	0.0081	0.0028	0.0019	0.0024	0.0019	0.0019
6/10/2014	0.0054	*	0.0022	0.0021	0.0018	*
6/16/2014	*	*	*	*	*	*
6/22/2014	0.0028	0.0025	0.0020	*	0.0020	0.0020
6/28/2014		*	*	*	*	*

[+]Metals are not measured at the St. Paul Ramsey County Health Center

*Value below detection limit (0.00181 µg/m^3)

What you can do to reduce your exposure to air pollutants

To reduce your risk of developing bad health from exposures to air pollution:

- Avoid exposure to tobacco smoke, wood smoke, vehicle exhaust, and other sources of airborne particles.
- Avoid prolonged outdoor exertion near high-traffic areas.
- Stay informed about air pollution alerts and advisories in your area by visiting the MPCA Air Quality Index website (www.pca.state.mn.us/d8dcwpp), calling the AQI Information Line (651-297-1630) or subscribing to the MPCA Air Quality Forecast Alert system (http://mn.enviroflash.info/).
- If you experience respiratory or cardiovascular symptoms (e.g., persistent cough, burning eyes, wheezing, shortness of breath, tightness of chest, or chest pain) on air quality alert days, consult with a health care professional, as needed. Pay particular attention if you are an athlete, or if you or your children have a respiratory or cardiovascular condition.
- Work together with others in your community to improve air quality (see website links below for more information).

Links to other information

Information about other environmental hazards, health outcomes, and socioeconomic indicators is available from the U.S. EPA at http://epamap14.epa.gov/ejmap/entry.html. You can search for information by address at this website.

For tips on how to reduce air pollution, please visit http://epa.gov/oaqps001/peg_caa/reduce.html.

For more information about commonly found air pollutants and their sources, please visit http://epa.gov/airquality/peg_caa/cleanup.html.

For more information on the air monitoring results from the Thomas-Dale monitoring site or other air quality monitoring studies, please call 651-296-6300 or 1-800-657-3864 and ask for air data analysis staff. For more information and to view updates about the Community Air Monitoring Project, please visit www.pca.state.mn.us/9xc4ahc.

More information about the MPCA's air monitoring program is available on the web at http://www.pca.state.mn.us/ruu6fhw.

For more information about arsenic and related health issues, visit the Minnesota Health Department website: http://www.health.state.mn.us/divs/eh/hazardous/topics/arsenic.html

Attachment A. Community Air Monitoring Project - **Monitored Air Quality Pollutants**

Carbonyls
Acetaldehyde[U]
Benzaldehyde
Butyraldehyde
Formaldehyde[A,C]
Propionaldehyde
Trans-Crotonaldehyde[2]

Metals
Antimony
Arsenic
Barium[A,B,U]
Beryllium[1]
Cadmium[1]
Chromium[B]
Cobalt[1]
Iron[A,B,C]
Lead[A,B,C]
Manganese[A,B,C]
Nickel[B]
Selenium[1]
Zinc[A,B,C]

PM2.5 Continuous
PM2.5 Concentration

Volatile Organic Compounds
1,1,2,2-Tetrachloroethane[1]
1,1,2-Trichloroethane[1]
1,1-Dichloroethane[1]
1,1-Dichloroethylene[1]
1,2,4-Trichlorobenzene[1]
1,2,4-Trimethylbenzene[2]
1,2-Dichlorobenzene[1]
1,2-Dichloropropane[1]
1,3,5-Trimethylbenzene[1]
1,3-Butadiene
1,3-Dichlorobenzene[1]
1,4-Dichlorobenzene[1]
Benzene[C]
Benzene, 1-Ethenyl-4-Methyl[1]
Benzyl Chloride[1]
Bromodichloromethane[1]
Bromoform[1]
Bromomethane[1]
Carbon Disulfide[2]
Carbon Tetrachloride
Chlorobenzene[1]
Chloroethane[1]
Chloroform[1]
Chloromethane
Cis-1,2-Dichloroethene[1]
Cis-1,3-Dichloropropene[1]
Cyclohexane[2]
Dibromochloromethane[1]
Dichlorodifluoromethane[U]
Dichloromethane
Ethylbenzene[2]
Ethylene Dibromide[1]
Ethylene Dichloride[1]
Freon 113[T]
Freon 114[2]
Furan, Tetrahydro-[1]
Hexachlorobutadiene[1]
M/P Xylene[C]
Methyl Butyl Ketone[1]
Methyl Chloroform[1]
Methyl Ethyl Ketone[2]
Methyl Tert-Butyl Ether[1]
N-Heptane
N-Hexane[C]
O-Xylene
Propylene[C]
Styrene[1]
Tetrachloroethylene[1]
Toluene[C]
Trans-1,2-Dichloroethylene[1]
Trans-1,3-Dichloropropene[1]
Trichloroethylene[1]
Trichlorofluoromethane[A,B,C]
Vinyl Acetate[2]
Vinyl Chloride[1]

---

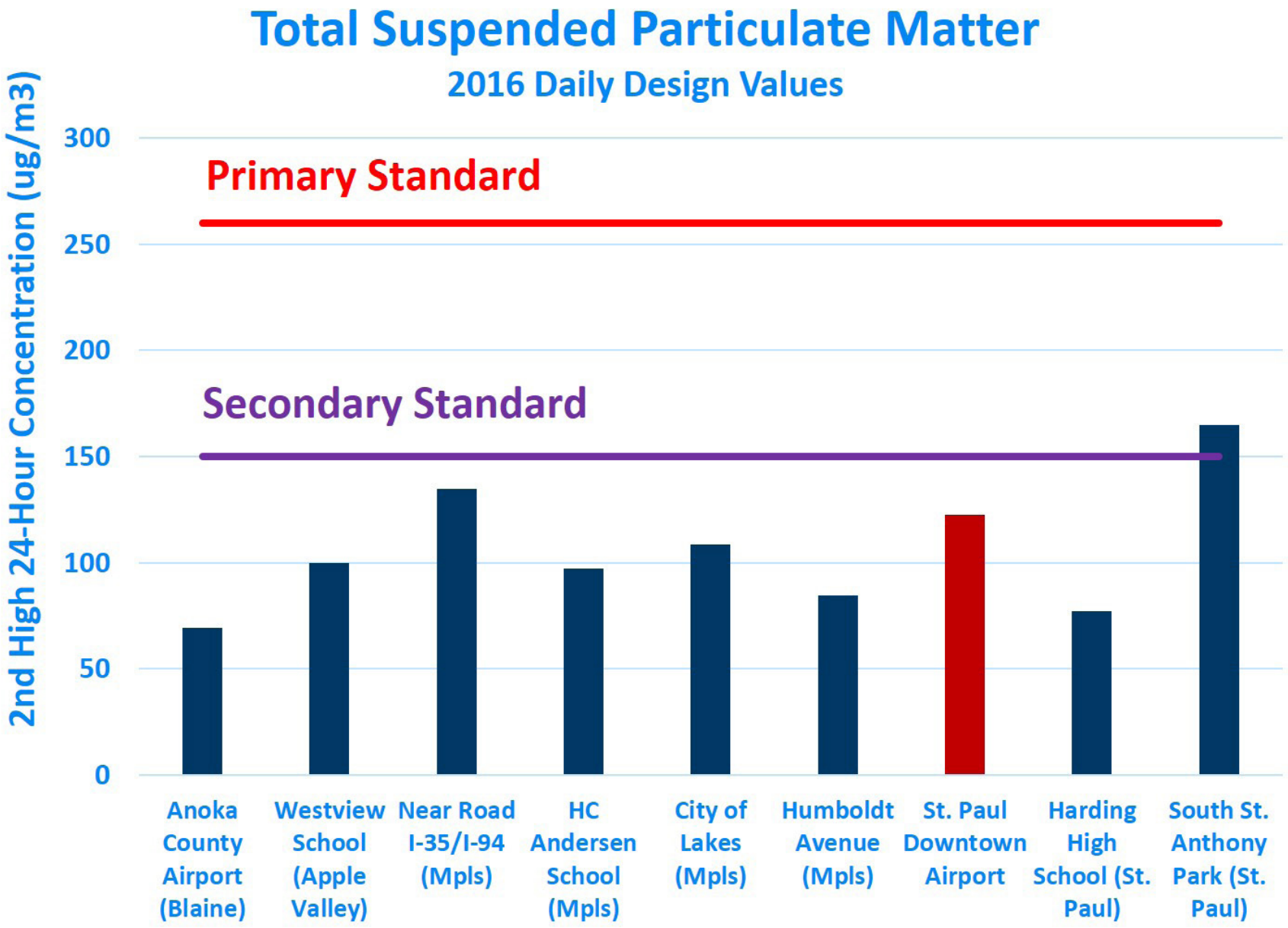
[1]Indicates chemicals that were below detection limits at all monitors in Minnesota, including the St. Paul West Side monitor, for this three month monitoring time.
[2]Indicates chemicals that were below the detection limit at the St. Paul West Side monitor, but were detected at one or more monitoring sites in Minnesota.

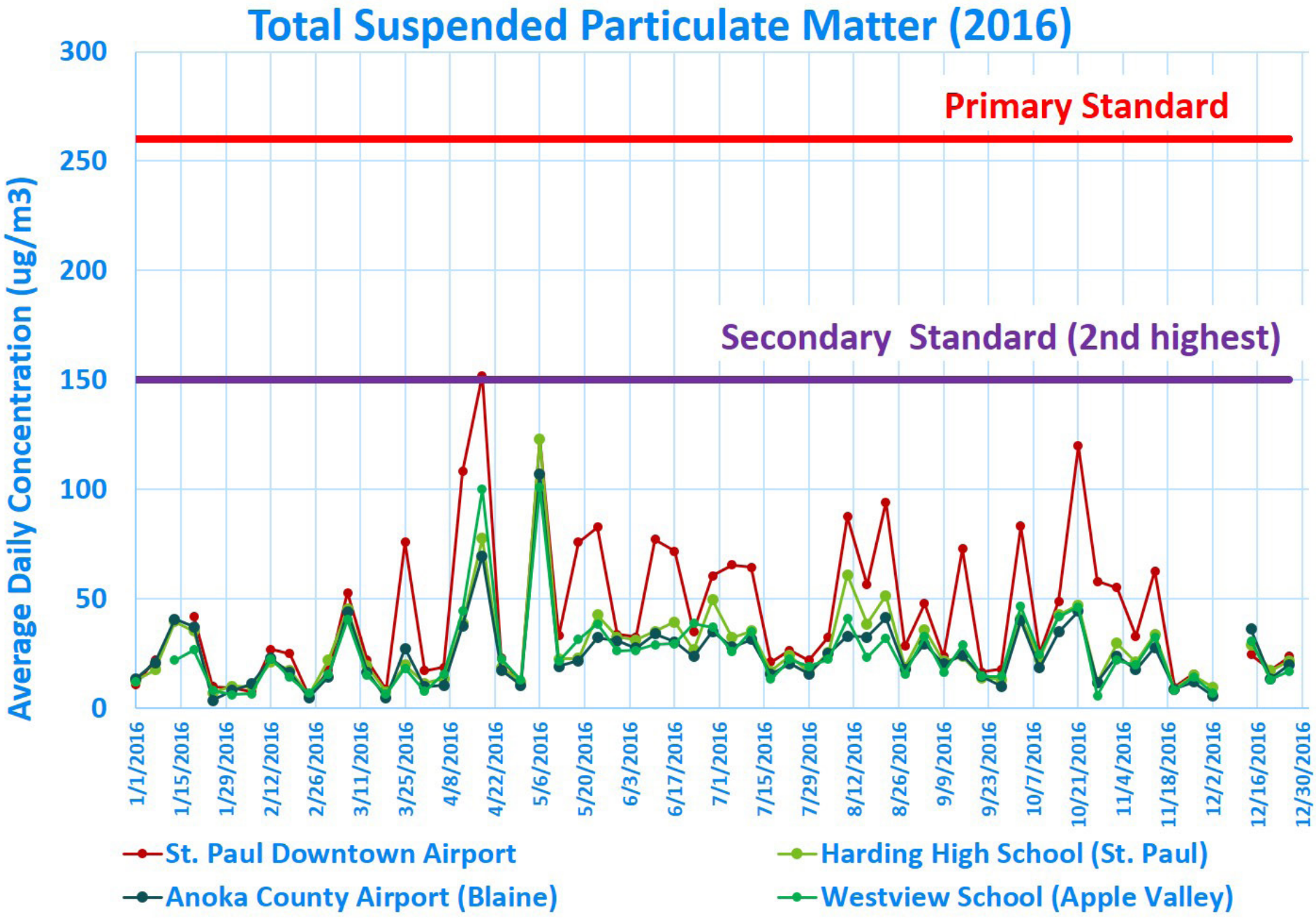
[A]Indicates chemicals that were higher* at the St. Paul West Side monitor than at St. Paul fixed monitors.
(7 chemicals higher: 5 metals, 1 carbonyl, 1 VOC)
[B]Indicates chemicals that were higher* at the St. Paul West Side monitor than at Minneapolis fixed monitors.
(8 chemicals higher: 7 metals, 1 VOC)
[C]Indicates chemicals that were higher* at the St. Paul West Side monitor than at suburban Twin Cities fixed monitors.
(11 chemicals higher: 4 metals, 6 VOCs, 1 carbonyls)

[T]Indicates chemicals that were lower* at the St. Paul West Side monitor than at St. Paul fixed monitors.
(1 chemical lower: 1 metal)
[U]Indicates chemicals that were lower* at the St. Paul West Side monitor than at suburban Twin Cities fixed monitors.
(3 chemicals lower: 1 metal, 1 VOC, 1 carbonyl)

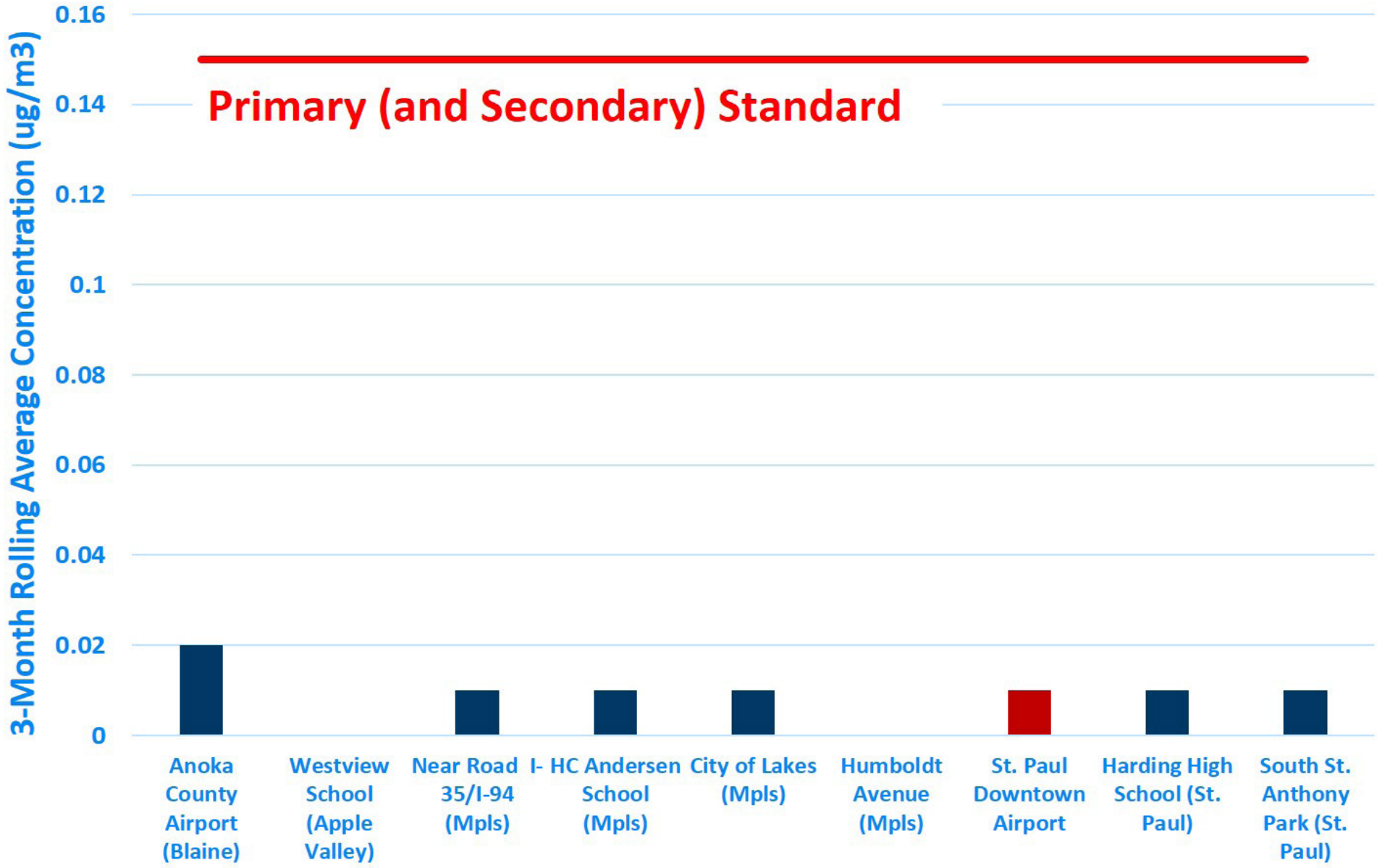
*Kaplan-Meier non-parametric NADA averaged values

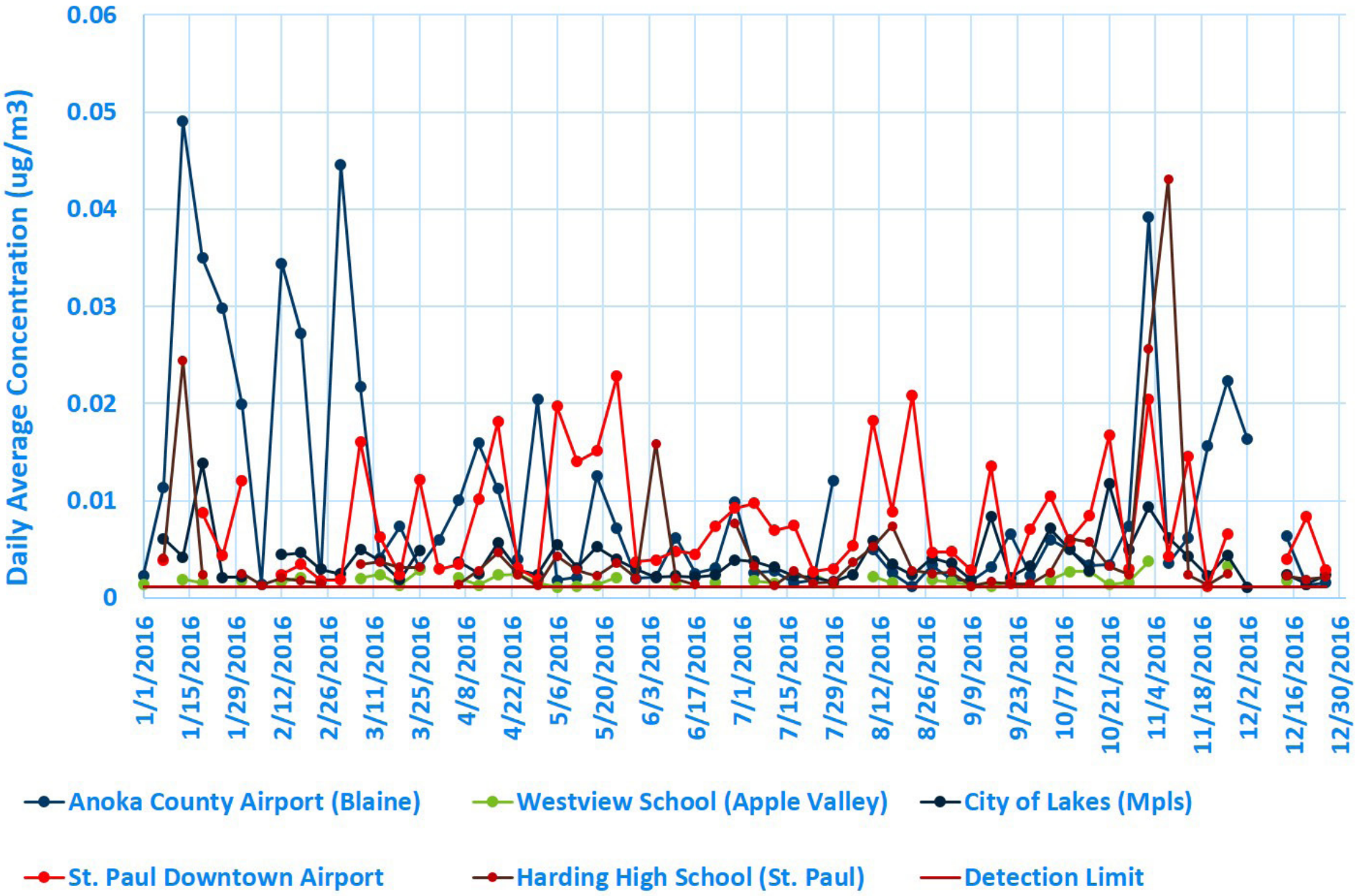
Appendix F: 2016 Community Air Monitoring Results



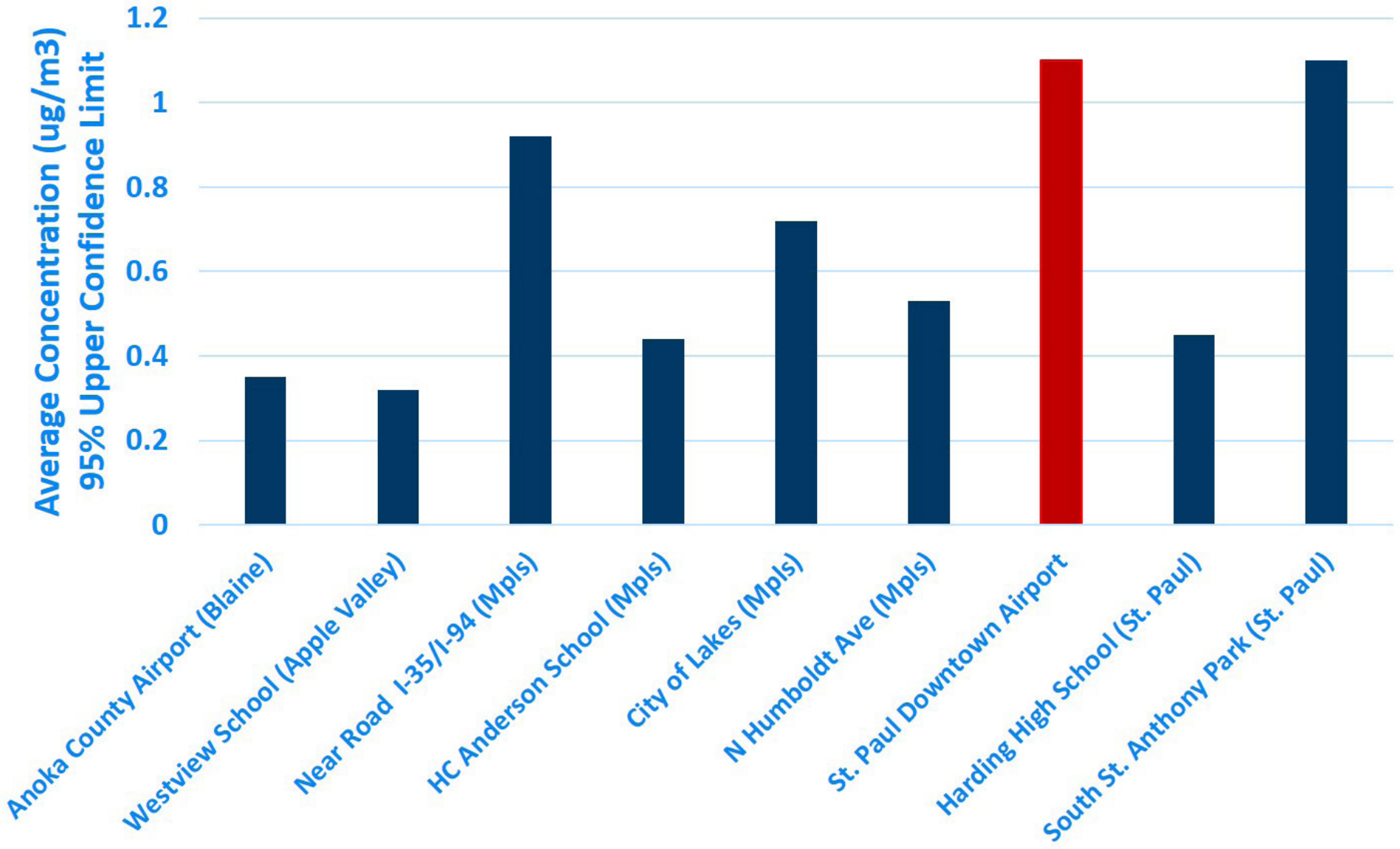

Total Suspended Particulate Matter (2016)
Average Daily Concentration (ug/m3)
300
250
200
150
100
50
0
Primary Standard
Secondary Standard (2nd highest)
1/1/2016
1/15/2016
1/29/2016
2/12/2016
2/26/2016
3/11/2016
3/25/2016
4/8/2016
4/22/2016
5/6/2016
5/20/2016
6/3/2016
6/17/2016
7/1/2016
7/15/2016
7/29/2016
8/12/2016
8/26/2016
9/9/2016
9/23/2016
10/7/2016
10/21/2016
11/4/2016
11/18/2016
12/2/2016
12/16/2016
12/30/2016
St. Paul Downtown Airport
Harding High School (St. Paul)
Anoka County Airport (Blaine)
Westview School (Apple Valley)

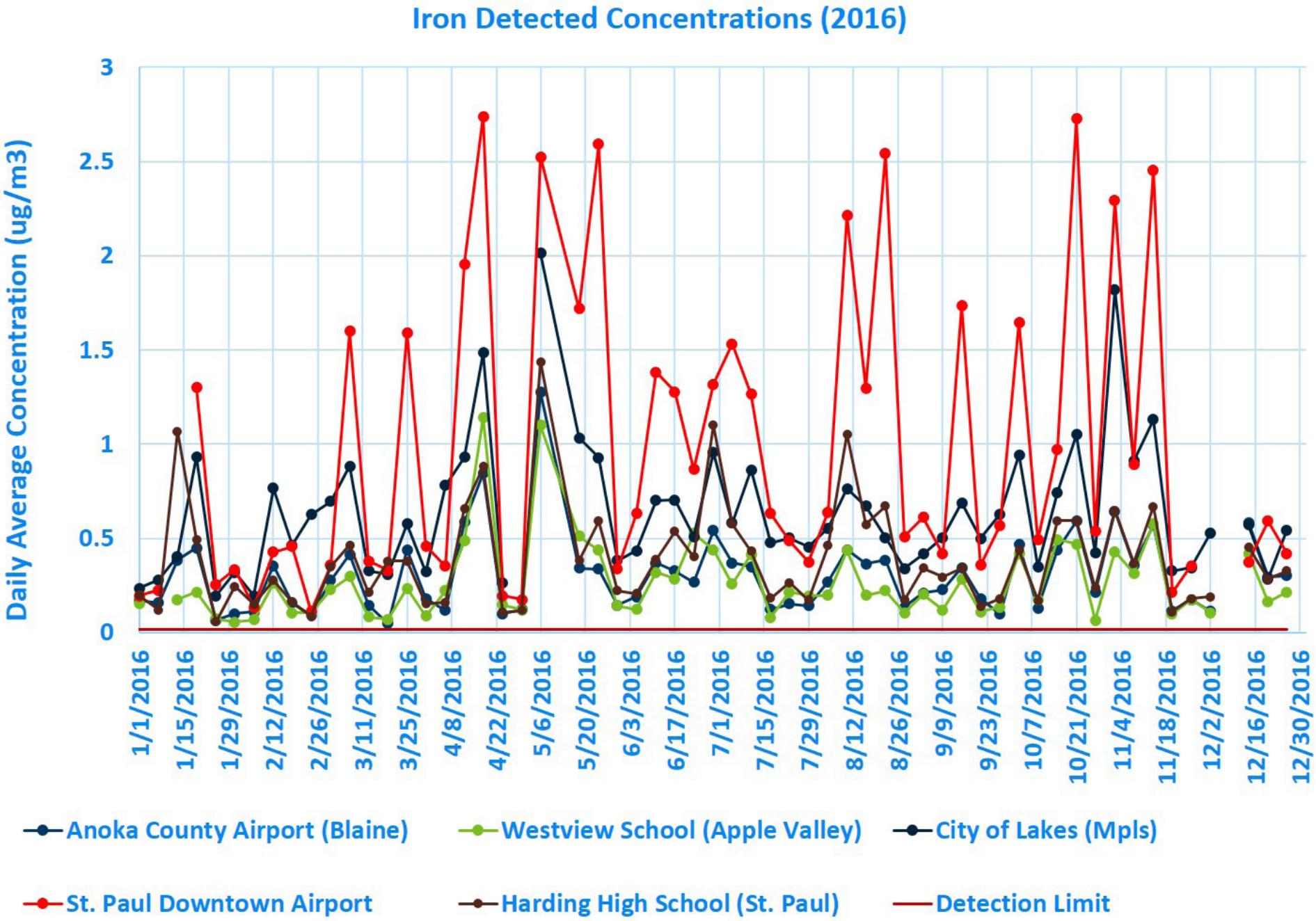
Lead Concentrations (2016 Design Values)



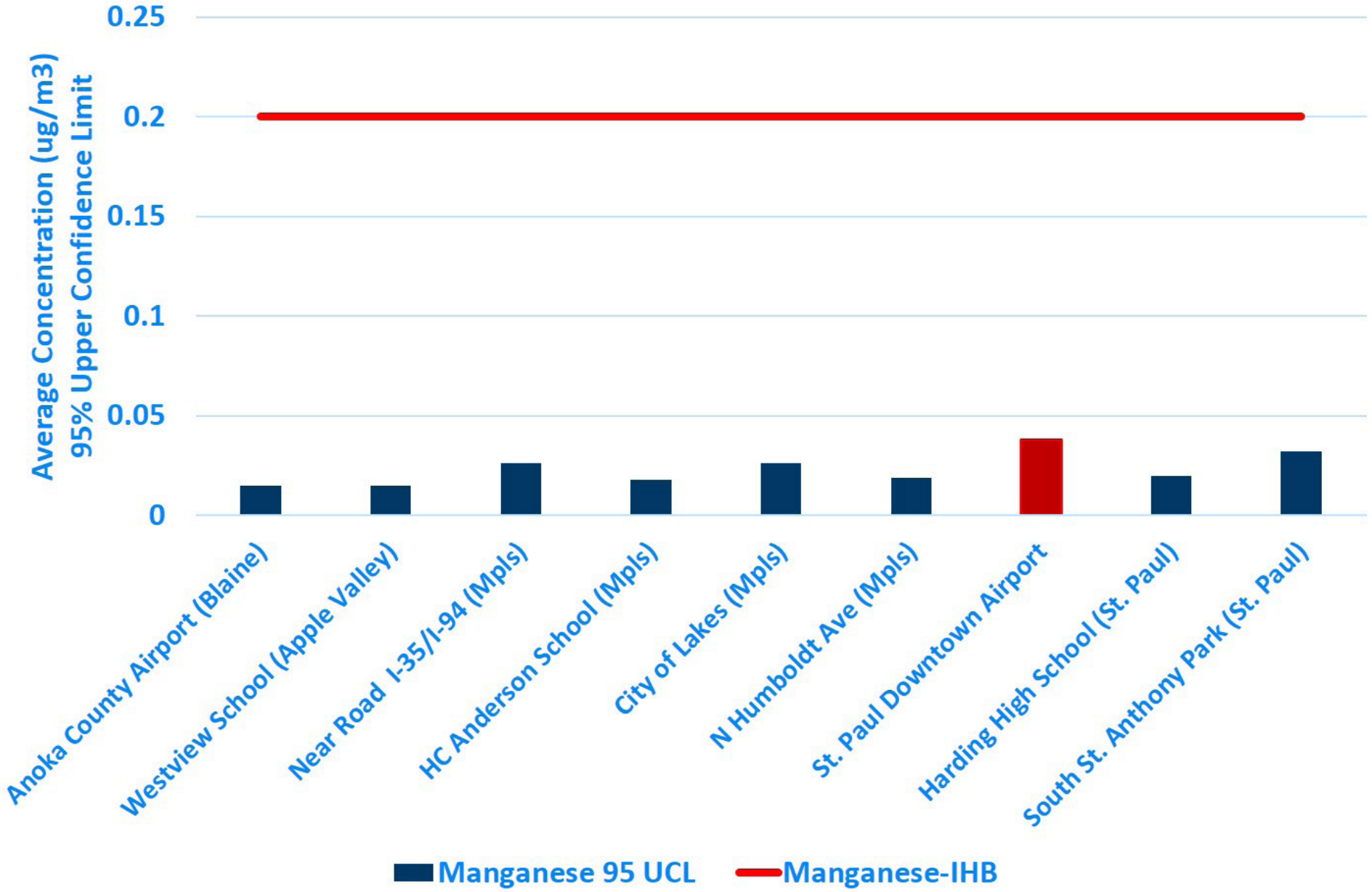

Lead Detected Concentrations (2016)
Daily Average Concentration (ug/m3)
0.06
0.05
0.04
0.03
0.02
0.01
0
1/1/2016
1/15/2016
1/29/2016
2/12/2016
2/26/2016
3/11/2016
3/25/2016
4/8/2016
4/22/2016
5/6/2016
5/20/2016
6/3/2016
6/17/2016
7/1/2016
7/15/2016
7/29/2016
8/12/2016
8/26/2016
9/9/2016
9/23/2016
10/7/2016
10/21/2016
11/4/2016
11/18/2016
12/2/2016
12/16/2016
12/30/2016
Anoka County Airport (Blaine)
Westview School (Apple Valley)
City of Lakes (Mpls)
St. Paul Downtown Airport
Harding High School (St. Paul)
Detection Limit

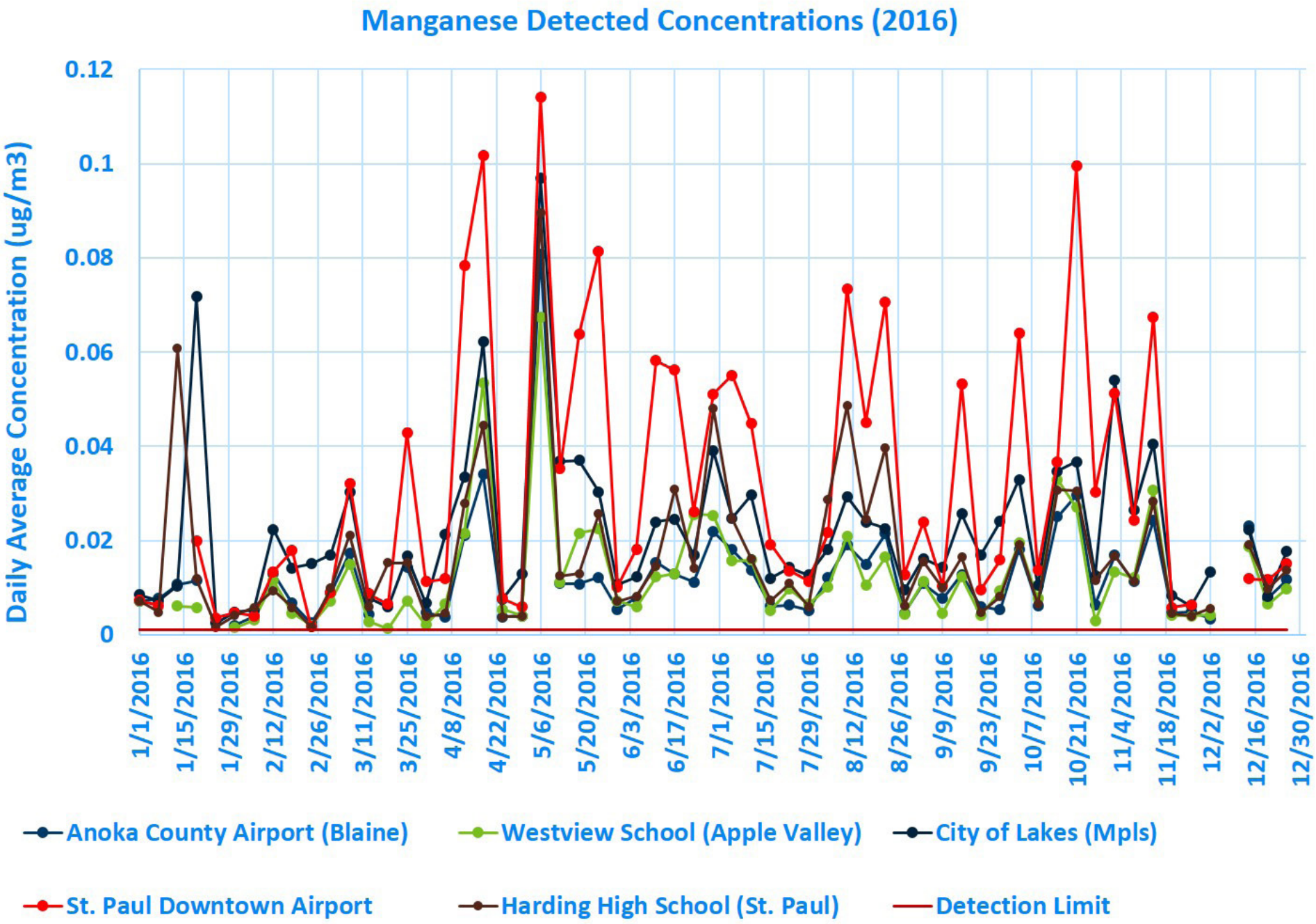
Iron Concentrations (2016)




Iron Detected Concentrations (2016)
Daily Average Concentration (ug/m3)
3
2.5
2
1.5
1
0.5
0
1/1/2016
1/15/2016
1/29/2016
2/12/2016
2/26/2016
3/11/2016
3/25/2016
4/8/2016
4/22/2016
5/6/2016
5/20/2016
6/3/2016
6/17/2016
7/1/2016
7/15/2016
7/29/2016
8/12/2016
8/26/2016
9/9/2016
9/23/2016
10/7/2016
10/21/2016
11/4/2016
11/18/2016
12/2/2016
12/16/2016
12/30/2016
Anoka County Airport (Blaine)
Westview School (Apple Valley)
City of Lakes (Mpls)
St. Paul Downtown Airport
Harding High School (St. Paul)
Detection Limit

Manganese Concentrations (2016)




Manganese Detected Concentrations (2016)
Daily Average Concentration (ug/m3)
0.12
0.1
0.08
0.06
0.04
0.02
0
1/1/2016
1/15/2016
1/29/2016
2/12/2016
2/26/2016
3/11/2016
3/25/2016
4/8/2016
4/22/2016
5/6/2016
5/20/2016
6/3/2016
6/17/2016
7/1/2016
7/15/2016
7/29/2016
8/12/2016
8/26/2016
9/9/2016
9/23/2016
10/7/2016
10/21/2016
11/4/2016
11/18/2016
12/2/2016
12/16/2016
12/30/2016
Anoka County Airport (Blaine)
Westview School (Apple Valley)
City of Lakes (Mpls)
St. Paul Downtown Airport
Harding High School (St. Paul)
Detection Limit

Appendix G: Tier II Emergency and Hazardous Chemical Inventory for Southport Facilities

Tier II Emergency and Hazardous Chemical Inventory

Reporting Period From January 1, 2015 to December 31, 2015

☑ **Annual** ☐ **Update** ☐ **Revised** ☐ **Facility Information has changed from the last submission**

Facility Identification

ERC ID:	620700672	LEPC:	
Facility Name:	Alter River Terminal- St Paul	Lat/Long:	[redacted]
Maximum Occupants:	5		
Physical Location:	751 Barge Channel Road, St. Paul, MN 55107-2437	Nature of Business:	Warehousing bulk commodities
County:	Ramsey	NAICS Code:	483211
Fire Department:	ST PAUL	SIC Code:	4449
Phone:	651-222-2751	Dun and Brad No:	
☑ Manned ☐ Unmanned		EIN ID(Tax Number):	
Email:	doug.reisdorfer@altertrading.com	FTE:	5
		Facility ID:	16717

Subject to EPCRA Section 312 (Annual Inventory)?	☑ Yes ☐ No
Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)?	☐ Yes ☑ No
Subject to Section 112r of Clean Air Act (CAA)?	☐ Yes ☑ No
RMP Facility ID:	
Subject to EPCRA Section 313 (Toxic Release Inventory - TRI)?	☐ Yes ☑ No
TRI Facility ID:	

Owner/Operator Details

Name: Alter Company
Address: 2117 State Street
Bettendorf, IA 52722, United States
Phone: 563-344-5000 Email: darren.engbring@altertrading.com

Parent Company Details

Name: Alter Company
Dun and Brad No:
Address: 2117 State Street
Bettendorf, IA 52722, United States
Phone: 563-344-5000 Email: darren.engbring@altertrading.com

Tier II Information Contact

Name: Darren Engbring
Title: Environmental Manager
Phone: 414-290-6553 24 Hr.Phone: 414-397-0222
Email: darren.engbring@altertrading.com

Mailing Address

Company Name: Alter River Terminal- St Paul
Attention: Doug Reisdorfer
Street Address 1: 751 Barge Channel Road
Street Address 2:
City: St Paul State: MN
Zip: 55107 Phone: 651-222-2751
Country: United States

Facility Emergency Planning Coordinator

Name:
Title:
Phone: 24 Hr.Phone:
Email:

Emergency Contacts

Name	Title	Phone	24 Hr.Phone	Email
Doug Reisdorfer	Facility Manager	651-222-2751	563-940-5676	doug.reisdorfer@altertrading.com
Lars Siverson	Operations Manager	651-222-7589	651-588-1606	lars.Siverson@altertrading.com

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Darren Engbring, Environmental Manager	2/17/2016 8:40:39 AM	414-290-6553	Darren Engbring
Name and official title of owner/operator or authorized representative	Date Signed	Telephone Number	Signature

Optional Attachments

☑ Site Plan
☐ Site Coordinate Abbreviations
☐ Other Safeguard measures
☐ Facility Emergency Response Plan

Tier II Emergency and Hazardous Chemical Inventory

Facility/Site Name: Alter River Terminal- St Paul ERC ID: 620700672

Reporting Period From January 1, 2015 to December 31, 2015

Chemical Description		Physical and Health Hazards	Inventory
Chemical ID:	476560	☑ Fire	Max Daily Amt (lbs): 64499.19
Check if Chemical Information is changed from the last submission:	☐	☐ Pressure	Max Daily Amt Code: 08
CAS #:	**N/A**	☐ Reactivity	Avg Daily Amt (lbs): 22500
Trade Secret:	☐	☐ Immediate	Avg Daily Amt Code: 06
Chemical Name:	**Dustrol (Hydrocarbon Mixture)**	☑ Delayed (Chronic)	Max Amt in Largest Container (lbs): 64499
EHS: ☐ Contains EHS: ☐ Exceeds TPQ: ☐			No of days onsite: 365
EHS Name:			
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas			
Chemical Added On:	Exceed TPQ On:		
Check if the chemical is below reporting threshold:	☐		

Storage Codes and Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[A]Above ground tank	[1]Ambient pressure	[4]Ambient temperature	[redacted]		/	645000

Chemical Amount Range Code & Description

#	Code	Amount Range
1	01	[01] 0-99
2	02	[02] 100-499
3	03	[03] 500-999
4	04	[04] 1,000-4,999
5	05	[05] 5,000-9,999
6	06	[06] 10,000-24,999
7	07	[07] 25,000-49,999
8	08	[08] 50,000-74,999
9	09	[09] 75,000-99,999
10	10	[10] 100,000-499,999
11	11	[11] 500,000-999,999
12	12	[12] 1,000,000-9,999,999
13	13	[13] 10,000,000- Greater than 10 million

Tier II Emergency and Hazardous Chemical Inventory

Reporting Period From January 1, 2015 to December 31, 2015

☑ **Annual** ☐ **Update** ☐ **Revised** ☑ **Facility Information has changed from the last submission**

Facility Identification

ERC ID:	620700087	LEPC:	
Facility Name:	HAWKINS TERMINAL #2	Lat/Long:	[redacted]
Maximum Occupants:	3		
Physical Location:	701 BARGE CHANNEL RD, St. Paul, MN 55107	Nature of Business:	Bulk chemical distribution
County:	Ramsey	NAICS Code:	424690
Fire Department:	ST PAUL	SIC Code:	2899
Phone:	651-224-1903	Dun and Brad No:	156392250
☑ Manned ☐ Unmanned		EIN ID(Tax Number):	
Email:	HSE@hawkinsinc.com	FTE:	2
		Facility ID:	9372

Subject to EPCRA Section 312 (Annual Inventory)?	☑ Yes ☐ No
Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)?	☐ Yes ☑ No
Subject to Section 112r of Clean Air Act (CAA)?	☐ Yes ☑ No
RMP Facility ID:	
Subject to EPCRA Section 313 (Toxic Release Inventory - TRI)?	☐ Yes ☑ No
TRI Facility ID:	

Mailing Address

Company Name:	HAWKINS, INC		
Attention:	HSE Department		
Street Address 1:	2381 Rosegate		
Street Address 2:			
City:	Roseville	State:	MN
Zip:	55113	Phone:	612-617-8556
Country:	United States		

Owner/Operator Details

Name:	Hawkins, Inc.		
Address:	2381 Rosegate Roseville, MN 55113, United States		
Phone:	612-331-6910	Email:	HSE@Hawkinsinc.com

Parent Company Details

Name:			
Dun and Brad No:			
Address:	MN , United States		
Phone:		Email:	

Tier II Information Contact

Name:	Graham Mahal		
Title:	Environmental Compliance Analyst		
Phone:	612-617-8556	24 Hr.Phone:	612-331-6910
Email:	graham.mahal@hawkinsinc.com		

Facility Emergency Planning Coordinator

Name:	Kevin ORourke		
Title:	Operations Manager		
Phone:	612-617-8641	24 Hr.Phone:	612-331-6910
Email:	kevin.orourke@hawkinsinc.com		

Emergency Contacts

Name	Title	Phone	24 Hr.Phone	Email
Kevin ORourke	Operations Manager	612-617-8641	612-331-6910	kevin.orourke@hawkinsinc.com
Mike Donaldson	HSE Manager	612-617-8694	612-331-6910	mike.donaldson@hawkinsinc.com

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 3, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Graham Mahal, Environmental Compliance Analyst	2/24/2016 5:57:44 PM	612-617-8556	Graham Mahal
Name and official title of owner/operator or authorized representative	Date Signed	Telephone Number	Signature

Optional Attachments

- ☐ Site Plan
- ☑ Site Coordinate Abbreviations
- ☐ Other Safeguard measures
- ☐ Facility Emergency Response Plan

Tier II Emergency and Hazardous Chemical Inventory

Facility/Site Name: HAWKINS TERMINAL #2 ERC ID: 620700087

Reporting Period From January 1, 2015 to December 31, 2015

Chemical Description	Physical and Health Hazards	Inventory
Chemical ID: 480928 Check if Chemical Information is changed from the last submission: ☑ **CAS #: 7705-08-0** Trade Secret: ☐ **Chemical Name: FERRIC CHLORIDE SOLUTION** EHS: ☐ Contains EHS: ☐ Exceeds TPQ: ☐ EHS Name: ☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas Chemical Added On: Exceed TPQ On: Check if the chemical is below reporting threshold: ☐	☐ Fire ☐ Pressure ☐ Reactivity ☑ Immediate ☑ Delayed (Chronic)	Max Daily Amt (lbs): 487948 Max Daily Amt Code: 10 Avg Daily Amt (lbs): 101348 Avg Daily Amt Code: 10 Max Amt in Largest Container (lbs): No of days onsite: 185

Storage Codes and Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[Q]Rail car	[1]Ambient pressure	[4]Ambient temperature	[redacted]		/	
[A]Above ground tank	[1]Ambient pressure	[4]Ambient temperature	[redacted]		[redacted]	

Chemical Description	Physical and Health Hazards	Inventory
Chemical ID: 480929 Check if Chemical Information is changed from the last submission: ☑ **CAS #: 7647-14-5** Trade Secret: ☐ **Chemical Name: Sodium chloride** EHS: ☐ Contains EHS: ☐ Exceeds TPQ: ☐ EHS Name: ☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas Chemical Added On: Exceed TPQ On: Check if the chemical is below reporting threshold: ☐	☐ Fire ☐ Pressure ☐ Reactivity ☑ Immediate ☐ Delayed (Chronic)	Max Daily Amt (lbs): 7934403 Max Daily Amt Code: 12 Avg Daily Amt (lbs): 3125670 Avg Daily Amt Code: 12 Max Amt in Largest Container (lbs): No of days onsite: 365

Storage Codes and Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[A]Above ground tank	[1]Ambient pressure	[4]Ambient temperature	[redacted]		/	
[Q]Rail car	[1]Ambient pressure	[4]Ambient temperature	[redacted]		/	

Tier II Emergency and Hazardous Chemical Inventory

Facility/Site Name: HAWKINS TERMINAL #2 ERC ID: 620700087

Reporting Period From January 1, 2015 to December 31, 2015

Chemical Description	Physical and Health Hazards	Inventory
Chemical ID: 480927 Check if Chemical Information is changed from the last submission: ☑ **CAS #: 1310-73-2** Trade Secret: ☐ **Chemical Name: SODIUM HYDROXIDE LIQUID** EHS: ☐ Contains EHS: ☐ Exceeds TPQ: ☐ EHS Name: ☑ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas Chemical Added On: Exceed TPQ On: Check if the chemical is below reporting threshold: ☐	☐ Fire ☐ Pressure ☐ Reactivity ☑ Immediate ☐ Delayed (Chronic)	Max Daily Amt (lbs): 21221761 Max Daily Amt Code: 13 Avg Daily Amt (lbs): 5117991 Avg Daily Amt Code: 12 Max Amt in Largest Container (lbs): No of days onsite: 365

Storage Codes and Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[Q]Rail car	[1]Ambient pressure	[5]Greater than ambient temperature	[redacted]		[redacted]	
[A]Above ground tank	[1]Ambient pressure	[5]Greater than ambient temperature	[redacted]		[redacted]	

Chemical Amount Range Code & Description

#	Code	Amount Range
1	01	[01] 0-99
2	02	[02] 100-499
3	03	[03] 500-999
4	04	[04] 1,000-4,999
5	05	[05] 5,000-9,999
6	06	[06] 10,000-24,999
7	07	[07] 25,000-49,999
8	08	[08] 50,000-74,999
9	09	[09] 75,000-99,999
10	10	[10] 100,000-499,999
11	11	[11] 500,000-999,999
12	12	[12] 1,000,000-9,999,999
13	13	[13] 10,000,000- Greater than 10 million

Tier II Emergency and Hazardous Chemical Inventory

Reporting Period From January 1, 2015 to December 31, 2015

☑ **Annual** ☐ **Update** ☐ **Revised** ☑ **Facility Information has changed from the last submission**

Facility Identification

ERC ID:	620700469	LEPC:	
Facility Name:	Northern Metal Recycling	Lat/Long:	[redacted]
Maximum Occupants:	45		
Physical Location:	521 BARGE CHANNEL RD, St. Paul, MN 55107	Nature of Business:	recycling ferrous and non-ferrous metals
County:	Ramsey	NAICS Code:	423930
Fire Department:	ST PAUL	SIC Code:	5093
Phone:	651-224-4877	Dun and Brad No:	
☑ Manned ☐ Unmanned		EIN ID(Tax Number):	
Email:	Tom.Swafford@emrgroup.com	FTE:	45
		Facility ID:	14405

Subject to EPCRA Section 312 (Annual Inventory)? ☑ Yes ☐ No

Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)? ☐ Yes ☑ No

Subject to Section 112r of Clean Air Act (CAA)? ☐ Yes ☑ No

RMP Facility ID:

Subject to EPCRA Section 313 (Toxic Release Inventory - TRI)? ☐ Yes ☑ No

TRI Facility ID:

Owner/Operator Details

Name: Northern Metal Recycling
Address: 521 BARGE CHANNEL RD
St. Paul, MN 55107, United States
Phone: 651-224-4877 Email: Tom.Swafford@emrgroup.com

Parent Company Details

Name: Northern Metals LLC
Dun and Brad No:
Address: 2800 Pacific ST. N.
Minneapolis, MN 55411, United States
Phone: Email:

Tier II Information Contact

Name: Thomas J. Swafford
Title: Environmental Director
Phone: 651-328-8825 24 Hr.Phone: 612-363-8404
Email: Tom.Swafford@emrgroup.com

Mailing Address

Company Name:	Northern Metal Recycling		
Attention:	THOMAS J SWAFFORD		
Street Address 1:	521 BARGE CHANNEL RD		
Street Address 2:			
City:	St. Paul	State:	MN
Zip:	55107	Phone:	651-224-4877
Country:	United States		

Facility Emergency Planning Coordinator

Name: Thomas J. Swafford
Title: Environmental Director
Phone: 651-328-8825 24 Hr.Phone: 612-363-8404
Email: Tom.Swafford@emrgroup.com

Emergency Contacts

Name	Title	Phone	24 Hr.Phone	Email
Tony White	site Mgr	651-224-4877	320-761-6324	tony.white@emrgroup.com
Jeremey Mills	yard Mgr	651-224-4877	612-719-5145	jeremey.mills@emrgroup.com

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 2, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Thomas J. Swafford, Environmental Director	2/22/2016 11:31:36 AM	651-328-8825	Thomas J. Swafford
Name and official title of owner/operator or authorized representative	Date Signed	Telephone Number	Signature

Optional Attachments

- ☐ Site Plan
- ☐ Site Coordinate Abbreviations
- ☐ Other Safeguard measures
- ☐ Facility Emergency Response Plan

Tier II Emergency and Hazardous Chemical Inventory

Facility/Site Name: Northern Metal Recycling ERC ID: 620700469

Reporting Period From January 1, 2015 to December 31, 2015

Chemical Description	Physical and Health Hazards	Inventory
Chemical ID: 478935 Check if Chemical Information is changed from the last submission: ☐ **CAS #: 64742-52-5** Trade Secret: ☐ **Chemical Name: HYDRAULIC OIL** EHS: ☐ Contains EHS: ☐ Exceeds TPQ: ☐ EHS Name: ☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas Chemical Added On: Exceed TPQ On: Check if the chemical is below reporting threshold: ☐	☑ Fire ☐ Pressure ☐ Reactivity ☑ Immediate ☑ Delayed (Chronic)	Max Daily Amt (lbs): 30730 Max Daily Amt Code: 07 Avg Daily Amt (lbs): 28000 Avg Daily Amt Code: 07 Max Amt in Largest Container (lbs): 9800 No of days onsite: 365

Storage Codes and Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[C]Tank inside building	[1]Ambient pressure	[4]Ambient temperature	[redacted]	two machine inside bld.	/	9800
[A]Above ground tank	[1]Ambient pressure	[4]Ambient temperature	[redacted]	two machine outside in yard	/	18200
[C]Tank inside building	[1]Ambient pressure	[4]Ambient temperature	[redacted]	maintenance bld north east cornner of site	/	2730

Chemical Amount Range Code & Description

#	Code	Amount Range
1	01	[01] 0-99
2	02	[02] 100-499
3	03	[03] 500-999
4	04	[04] 1,000-4,999
5	05	[05] 5,000-9,999
6	06	[06] 10,000-24,999
7	07	[07] 25,000-49,999
8	08	[08] 50,000-74,999
9	09	[09] 75,000-99,999
10	10	[10] 100,000-499,999
11	11	[11] 500,000-999,999
12	12	[12] 1,000,000-9,999,999
13	13	[13] 10,000,000- Greater than 10 million