CITY OF PLYMOUTH

RESOLUTION NO. 2014-152

APPROVE SUPPLEMENTAL AGREEMENT AND A FINDING OF "NO-NEED" FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS) BASED UPON REVIEW OF THE ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW), VICKSBURG LANE RECONSTRUCTION AND EXPANSION (16001)

WHEREAS, the Vicksburg Lane Reconstruction and Extension project is listed in the 2014-2018 Capital Improvement Program at an estimated total cost of $19,700,000; and

WHEREAS, the city has an existing contract with SRF Consulting Group for professional engineering services; and

WHEREAS, staff believes it to be in the best interest of the city to amend SRF's scope to include the aesthetic design for the bridge over CP Railroad and Northwest Greenway pedestrian bridge; and

WHEREAS, pursuant to Minnesota Environmental Review Program rules, the City of Plymouth, acting as the responsible governmental unit, prepared and distributed an EAW for the Vicksburg Lane Reconstruction and Expansion Project on March 31, 2014; and

WHEREAS, the 30-day review period expired on April 30, 2014, and all comments and recommendations received from the reviewing agencies and other interested parties have been considered; and

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

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PLYMOUTH, MINNESOTA:

1. That the existing Supplemental Agreement for Professional Engineering Services with SRF Consulting Group is hereby approved to include aesthetic design for the bridge over CP Railroad and the Northwest Greenway pedestrian bridge for an additional cost of $27,900.

2. That the Plymouth City Council makes a negative declaration on the need for an Environmental Impact Statement for the Vicksburg Lane Reconstruction and Expansion Project based on the attached Findings of Fact and Conclusion.

APPROVED this 13th day of May, 2014.

FINDINGS OF FACT
AND
CONCLUSIONS

VICKSBURG LANE RECONSTRUCTION AND EXPANSION PROJECT

Prepared for

City of Plymouth, Minnesota

May 2014

TABLE OF CONTENTS

FINDINGS OF FACT AND CONCLUSIONS

VICKSBURG LANE
CITY PROJECT NO. 15001 AND CITY PROJECT NO. 16001

CITY OF PLYMOUTH
HENNEPIN COUNTY, MINNESOTA

I. ADMINISTRATIVE BACKGROUND

The City of Plymouth is the proposer and Responsible Governmental Unit for this project. An Environmental Assessment Worksheet (EAW) has been prepared for this project in accordance with Minnesota Rules Chapter 4410. The project includes reconstruction of Vicksburg Lane from Old Rockford Road to the Maple Grove border to improve traffic capacity, operations, and safety (see Figure 1, Appendix A – Project Location Map). Additional objectives of the project are to improve pedestrian/bicycle connections and the Vicksburg Lane crossing of the Canadian Pacific (CP) Railway. The EAW was developed to assess the impacts of the project and other circumstances to determine if an Environmental Impact Statement (EIS) is indicated.

The EAW was filed with the Minnesota EQB and circulated for review and comments to the required EAW distribution list. A "Notice of Availability" was published in the EQB Monitor on March 31, 2014. A Notice of Availability was sent to the *Pioneer Patch* and was posted to the City of Plymouth website (http://www.plymouthmn.gov/). This notice provided a brief description of the project and information on where copies of the EAW were available, and invited the public to provide comments that would be used in determining the need for an EIS for the proposed project. The EAW was made available for public review at Plymouth City Hall, the Plymouth Library, and the Vicksburg Lane Project website (http://www.plymouthmn.gov/index.aspx?page=751).

The EAW public comment period concluded April 30, 2014. Ten written comments were received during the EAW comment period. All comments received during the EAW comment period were considered in determining the potential for significant environmental impacts. Comments received during the comment period, and responses to these comments, are provided in Appendix B.

Based upon the information in the record, which consists of the EAW for the proposed project, the comments received during the 30 day public comment period, the responses to the comments, and other supporting documents, the City of Plymouth makes the following Findings of Fact and Conclusions:

II. FINDINGS OF FACT

A. Existing Conditions

Vicksburg Lane is a north/south "A" minor expander route which connects to east/west arterial routes within the City, provides north/south connectivity, and also provides connectivity to neighboring cities. The existing Vicksburg Lane facility between Old Rockford Road and the Maple Grove border consists of a two-lane undivided roadway. Forecast traffic volumes are projected to range from 14,200 vehicles per day (vpd) to 15,200 vpd. The existing roadway does not have adequate capacity to accommodate this volume.

The Vicksburg Lane/Schmidt Lake Road currently operates at level of service (LOS) F during the a.m. and p.m. peak hours. The southbound traffic queue at Schmidt Lake Road can extend approximately one-half mile during the a.m. peak hour. The turning movement from southbound Vicksburg Lane to eastbound Schmidt Lake Road often experiences multiple cycle failures during the a.m. peak hour.[1] The Vicksburg Lane intersections at Old Rockford Road and Schmidt Lake Road are both expected to be over-capacity during the a.m. and p.m. peak hours under future (year 2030) No Build conditions.

Vicksburg Lane is a Municipal State Aid Street (MSAS 156). The existing two-lane roadway does not meet State Aid design standards for an urban design where the design speed is greater than 40 miles per hour (mph). State Aid standards require at least four through traffic lanes for projected volumes greater than 15,000 vpd.

B. Project Description

The project would be constructed in two segments: 1) South Segment (City Project 15001, Old Rockford Road to Schmidt Lake Road) and 2) North Segment (City Project 16001, Schmidt Lake Road to the Maple Grove border) (see Figure 1, Appendix A). Vicksburg Lane would be reconstructed for a length of approximately 2.3 miles with four lanes and dedicated turn lanes at selected intersections. Driveways would be reconstructed and culverts would be replaced. Curb and gutter systems would be constructed to convey stormwater to the existing storm sewer system and stormwater treatment ponds. Some ponds already exist along the corridor and some new ponds would be added as part of the project. The project will also construct eight-foot paved trails along both sides of the road along the North Segment, and a 10 foot trail and five-foot sidewalk along the South Segment. Additionally, bridges will be constructed over the Canadian Pacific (CP) Railway and for the future Northwest Greenway Trail. The proposed North Segment project is illustrated in Figures 2 through 4, Appendix A. The proposed South Segment project is illustrated in Figures 5 and 6, Appendix A.

[1] At least one vehicle must wait through more than one red light before making the turn from southbound Vicksburg Lane to eastbound Schmidt Lake Road.

C. Corrections to the EAW or Changes in the Project Since the EAW was Published

Since the EAW was published, the following project items have changed or been updated:

- A retaining wall has been incorporated into the project design in the northeast quadrant of the Vicksburg Lane crossing over the CP Railway. This retaining wall will minimize impacts to the adjacent wetland, reducing the overall wetland fill impacts associated with the project.
- An access road will not be constructed to residential properties along the north side of the CP Railway east of Vicksburg Lane. These properties have been acquired for future residential development. Access to this area will be provided by new residential streets south of 55th Avenue.
- The residential property in the northwest quadrant of the Vicksburg Lane crossing over the CP Railway may be acquired in conjunction with the project. If acquired, then access to this property would not be constructed from the adjacent residential development to the north.
- The EAW noted that impacts to the farmhouse at 5215 Vicksburg Lane would include reconstruction of driveways. In addition to driveway reconstruction, construction limits from the proposed Vicksburg Lane bridge over the CP Railway will extend into the northeast portion of this parcel adjacent to the railroad.

III. DECISION REGARDING NEED FOR ENVIRONMENTAL IMPACT STATEMENT

A. Type, Extent, and Reversibility of Impacts

The City of Plymouth finds that the analysis completed for the EAW is adequate to determine whether the project has the potential for significant environmental effects.

The EAW described the type and extent of impacts anticipated to result from the proposed project. This document provides clarifications and additional information since the EAW was published. Following are the findings regarding potential environmental impacts of the proposed project and the design features included to avoid, minimize, and mitigate these impacts:

<u>Soils</u>

Construction work in areas with steep slopes or areas classified as highly erodible or potentially highly erodible will utilize best management practices (BMPs) to reduce erosion and sedimentation during and after construction.

The project would grade 28 acres and 15,800 cubic yards of fill. Impacts will be limited to routine grading and soil import for roadway embankment expansion. Minimal soil corrections will occur for retaining wall foundation construction and bridge abutment construction.

Stormwater

North Segment Proposed Stormwater Management

In order to account for the 3.8 acres of additional impervious surface area within the North Segment, roadway runoff will be collected in curb and gutter and pipes and directed to existing and new stormwater ponds. The ponds will provide water quality treatment and rate control to mitigate for the increased in impervious surface. Several existing ponds along the corridor that were constructed when the adjacent land was developed will also be utilized to provide treatment for the North Segment of Vicksburg Lane.

South Segment Proposed Stormwater Management

The South Segment Project would increase impervious surface area by approximately 2.2 acres. A pond at Gateway Park, located at the southwest corner of Vicksburg Lane and Schmidt Lake Road, would be expanded to treat stormwater runoff. The remainder of the storm water runoff would continue south to Old Rockford Road. Stormwater runoff would be conveyed by curb and gutter and discharged to a storm sewer system that includes sump manholes with SAFL baffles. The City will establish a schedule for routine maintenance of the sump manholes (e.g., pollutant and sediment cleaning with a vacuum truck on an annual basis). A porous material for the proposed trail will also be considered during final design.

Stormwater Pollution Prevention Program and Other Permitting

The MPCA will require that a National Pollutant Discharge Elimination System (NPDES) permit be obtained for the North and South segments of the project and all design and construction will follow NPDES permitting requirements. A stormwater pollution prevention plan (SWPPP) will be developed during final design which describes temporary and permanent runoff controls and potential best management practices (BMP) site locations to manage or treat stormwater runoff. Project plans and calculations will be provided to Bassett Creek Watershed Management Commission and Shingle Creek Watershed Management Commission as part of the development review process.

During construction, sediment control and erosion prevention will be required to prevent sediment from leaving the site and adversely impacting surface waters adjacent to the roadway. Erosion control plans for the project will be in conformance with City of Plymouth, NPDES, Bassett Creek Watershed Management Commission, and Shingle Creek Watershed Management Commission requirements, and provided to the watershed management commissions for review during the final design process.

Groundwater

If temporary dewatering is necessary during project construction, the appropriate DNR groundwater appropriation permits would be obtained for temporary dewatering activities. Any dewatering discharges will be managed in accordance with NPDES permit requirements.

Wetlands

The proposed project is anticipated to impact approximately 1.3 acres of wetland including approximately 0.01 acres from the South Segment project. A total of 2.6 acres of mitigation would be required for the approximately 1.3 acres of permanent wetland impacts. Final wetland impacts will be identified during final design as part of the wetland permitting process. The developed areas surrounding the proposed project do not allow for on-site wetland mitigation. Mitigation for impacts that will occur as a result of the proposed project will likely derive from the purchase of private mitigation credits from a suitable bank to be determined during the permitting process.

Contamination

Minnesota Pollution Control Agency (MPCA) information from the "What's in My Neighborhood" website identified one previously contaminated site at the northwest corner of the Vicksburg Lane/County Road (CR) 47 intersection (West View Estates apartment building). The site is a previous leak site and petroleum brownfield cleanup site. The site was issued a site closure letter in 2011. The site was graded as part of the building construction project, including along the east side of Vicksburg Lane where soils would be minimally disturbed as part of project construction. Construction would follow standard procedures to minimize potential impacts related to disturbing contaminated soils. Any contaminated materials encountered during construction would be handled in accordance with state and federal requirements.

Hazardous Materials

Temporary fuel tanks may be stored on the project site for construction machinery use. Appropriate measures would be taken to avoid spills. In the event a leak or spill occurs during construction, it would be responded to in accordance with MPCA containment and remedial action procedures.

Wildlife

No impacts to threatened or endangered species are anticipated as a result of the project. Specifications for wildlife-friendly erosion control mesh will be considered during the final design process. Native seed mixes will be used where appropriate, such as adjacent to proposed stormwater ponds. Turf grass will be planted in boulevard areas between the roadway and proposed trails. During the construction phase of the project, best management practices (BMPs) would be used to reduce the spread of invasive species to or from the project location. Potential BMPs include cleaning equipment from soil and material prior to entering or leaving the site to reduce the spread of invasive species. Disturbed areas will be controlled for erosion and

sedimentation through the project's SWPPP. A vegetation establishment plan will be developed during final design. Rapid establishment of vegetation would reduce the potential for weeds to establishment within disturbed areas or the corridor.

Historic Resources

The Soo Line railroad (now owned by CP Railway) is listed on the SHPO database as eligible for listing on the National Register of Historic Places (NRHP). A bridge for the roadway will be constructed over the railroad. The project will not alter the railroad or change the use of the railroad.

The farmhouse at 5635 Vicksburg Lane is located on a parcel planned for redevelopment and subdivision (proposed Brynwood Development). This farmhouse is anticipated to be razed as part of this future residential development.

The farmhouse at 5215 Vicksburg Lane is located just south of the CP Railway on the west side of Vicksburg Lane. This property is not listed on the NRHP. The project would reconstruct driveways to this parcel. Vicksburg Lane would be widened to a four-lane roadway to the east in front of the farmhouse. Construction limits from the Vicksburg Lane bridge over the CP Railway would extend into the northeast portion of this parcel.

Construction Noise

Elevated noise levels are, to a degree, unavoidable for this type of project. The City of Plymouth would require that construction equipment be properly muffled and in proper working order. In general, the City would require its contractor(s) to comply with applicable local noise restrictions and ordinances to the extent that it is reasonable. Nighttime construction is not anticipated with the proposed project. Construction would be limited to daytime hours as much as possible. The project is anticipated to be under construction for two construction seasons. The staging of construction activities and the need for any nighttime construction would be determined during final design.

Any associated high-impact equipment noise, such as pavement sawing, jack hammering, or pile driving would be unavoidable with construction of the proposed project. Pile-driving noise is typically associated with any bridge construction and sheet piling necessary for retaining wall or other construction activities. Pile-driving equipment results in the highest peak noise levels. Pile driving may be necessary in conjunction with construction of the Vicksburg Lane bridge over the CP Railway and the Northwest Greenway bridge over Vicksburg Lane. The use of pavement sawing equipment, jack hammers, and pile drivers would be prohibited during nighttime hours.

Transit Service

Plymouth Metrolink provides transit service along Vicksburg Lane for the length of the project corridor (route 776) with peak hour service to downtown Minneapolis. Transit service along the corridor would continue during project construction and would be coordinated with Metrolink.

B. Cumulative Potential Effects of Related or Anticipated Future Projects

Potential impacts that were considered as part of the cumulative potential effects evaluation include water-resource issue areas (e.g., wetlands, water quality and quantity, stormwater management). The recently completed and future planned projects noted in the EAW, as well as the Vicksburg Lane Project, have been planned for and are consistent with the City of Plymouth *2030 Comprehensive Plan*. These projects, whether public or private, are subject to site plan review and permitting in accordance with local, state, and federal requirements, including wetland mitigation and stormwater management requirements. As discussed in the EAW, the cumulative potential effect of related or anticipated future development has been considered and the proposed project has low potential for cumulative impacts to the resources directly or indirectly affected by the project.

C. Extent to Which the Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority

The mitigation of environmental impacts will be designed and implemented in coordination with regulatory agencies and will be subject to the plan approval and permitting process. Permits and approvals that have been obtained or may be required prior to project construction include those listed in Table 1.

TABLE 1
PERMITS AND APPROVALS

Unit of government	Type of application	Status
Federal		
U.S. Army Corps of Engineers	Section 404 Permit	To be obtained (only if Corps jurisdictional wetlands)
State		
Minnesota Department of Natural Resources (DNR)	Temporary Water Appropriation Permit	To be obtained (if necessary)
Minnesota Pollution Control Agency (MPCA)	National Pollutant Discharge Elimination System (NPDES) Permit	To be obtained
MPCA	Section 401 Water Quality Certification	To be obtained
Local		
Hennepin County	Permit for work within County right of way	To be obtained
Shingle Creek Watershed Management Commission (WMC)	Stormwater treatment and erosion control review	To be conducted

TABLE 1 continued
PERMITS AND APPROVALS

Unit of government	Type of application	Status
Local		
Bassett Creek WMC	Stormwater treatment and erosion control review	To be conducted
City of Plymouth	Wetland Conservation Act Permit	To be obtained
City of Plymouth	Environmental Impact Statement (EIS) Need Decision	To be completed
City of Plymouth	Stormwater Pollution Prevention Plan (SWPPP)	To be completed

D. Extent to Which Environmental Effects can be Anticipated and Controlled as a Result of Other Environmental Studies

The City of Plymouth and other regulatory agencies have extensive experience with roadway and bridge construction projects. Many similar projects have been designed and constructed throughout the City with similar environmental concerns. No problems are anticipated which the staff of the City of Plymouth have not encountered and successfully solved many times in similar projects in or near the project area. The City of Plymouth finds that the environmental effects of the project can be anticipated and controlled as a result of environmental review and experience on similar projects.

IV. CONCLUSIONS

1. All requirements for environmental review of the proposed project have been met.

2. The EAW and the permit development processes related to the project have generated information which is adequate to determine whether the project has the potential for significant environmental effects.

3. Areas where potential environmental effects have been identified will be addressed during the final design of the project. Mitigation will be provided where impacts are expected to result from project construction, operation, or maintenance. Mitigative measures are incorporated into project design, and have been or will be coordinated with state and federal agencies during the permit process.

4. Based on the criteria in Minnesota Rules part 4410.1700, the project does not have the potential for significant environmental effects.

5. An Environmental Impact Statement is not required for the Vicksburg Lane Reconstruction and Expansion Project.

APPENDICES

Appendix A

Figures

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Consulting Group, Inc.

Job 8253
5/2/2014 - 12:22PM

Vicksburg Lane Reconstruction and Expansion Project

Plymouth, Minnesota
City Project No. 16001

Figure 1

VICKSBURG LANE

55th AVE. NORTH

57th AVE. NORTH

CONSTRUCTION LIMITS

WESTON LN N

LEGEND

- PROPOSED ROADWAY
- PROPOSED BRIDGE & CIP WALL
- PROPOSED TRAIL
- EXISTING R.O.W./PARCEL
- LIMITS OF CONSTRUCTION
- PROPOSED PONDING LOCATION
- WETLANDS

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SRF Consulting Group, Inc.

Job 8253

5/2/2014 - 12:22PM

Vicksburg Lane Reconstruction and Expansion Project

Plymouth, Minnesota

City Project No. 16001

Figure 2

VICKSBURG LANE

CONSTRUCTION LIMITS

60TH AVE. NORTH

COUNTY ROAD 47

LEGEND

- PROPOSED ROADWAY
- PROPOSED BRIDGE & CIP WALL
- PROPOSED TRAIL
- EXISTING R.O.W./PARCEL
- LIMITS OF CONSTRUCTION
- PROPOSED PONDING LOCATION
- WETLANDS

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Consulting Group, Inc.

Job 8253
5/2/2014 - 12:22PM

Vicksburg Lane Reconstruction and Expansion Project

Plymouth, Minnesota
City Project No. 16001

Figure 3

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SRF Consulting Group, Inc.

Job 8253
12/20/2013 - 9:36AM

Vicksburg Lane Reconstruction and Expansion Project

Plymouth, Minnesota
City Project No. 15001

Figure 4

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SRF Consulting Group, Inc.

Job 8253
12/20/2013 - 9:34AM

Vicksburg Lane Reconstruction and Expansion Project

Plymouth, Minnesota
City Project No. 15001

Figure 5

Appendix B

Comments Received and Responses

COMMENT

From: Jim Renneberg <jrenneberg@plymouthmn.gov>
Sent: Wednesday, April 30, 2014 3:10 PM
To: Brett Danner; Mike Mohs
Subject: FW: Vicksburg Lane Reconstruction and Expansion Project EAW

Jim Renneberg, P.E. | Engineering Manager
Phone: 763.509.5541

From: Haworth, Brooke (DNR) [mailto:Brooke.Haworth@state.mn.us]
Sent: Wednesday, April 30, 2014 3:09 PM
To: Jim Renneberg
Subject: Vicksburg Lane Reconstruction and Expansion Project EAW

Mr. Renneberg,

A The Department of Natural Resources has reviewed the EAW for the Vicksburg Lane Reconstruction and Expansion Project. We appreciate the consideration of our comments presented during early coordination, and have no further remarks.

Sincerely,

Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106
Phone: 651-259-5755
Email: Brooke.haworth@state.mn.us

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RESPONSE

Minnesota Department of Natural Resources

A: Comment noted. The City appreciates DNR input provided during early coordination.

COMMENT

From: Sherman, Tod (DOT) <Tod.Sherman@state.mn.us>
Sent: Wednesday, April 02, 2014 8:21 AM
To: Jim Renneberg
Subject: Vicksburg Lane Reconstruction EAW

Jim:

A Thank you for submitting the Vicksburg Lane Reconstruction EAW for MnDOT review and comment. MnDOT has reviewed the plans and has no concerns or comments since the improvements will have minimal impact on MnDOT right-of-way.

Thank You, Tod

Tod Sherman, Planning Supervisor
Mn/DOT Metro District
1500 W. County Road B-2
Roseville, MN 55113
(651) 234-7794
tod.sherman@state.mn.us

1

RESPONSE

Minnesota Department of Transportation

A: Comment noted. The City appreciates the MnDOT review of the Vicksburg Lane Environmental Assessment Worksheet.

COMMENT

Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

April 28, 2014

Mr. Jim Renneberg, Engineer
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

Re: Vicksburg Lane Reconstruction and Expansion Project Environmental Assessment Worksheet

Dear Mr. Renneberg:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Vicksburg Lane Reconstruction and Expansion Project (Project) located in the city of Plymouth, Minnesota. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, the MPCA staff has the following comments for your consideration.

Water Resources

A In part 11a of the EAW, the comment is made that the unnamed tributary will not require a work in water permit from the Minnesota Department of Natural Resources (MDNR). Even though the MDNR permit may not be required, the site will still need to comply with state water quality standards

B 11.b.ii: According to the EAW, the site will not meet the permanent treatment requirements of the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater (CSW) permit. The requirement is that one inch of runoff from the new impervious surfaces created (if over an acre created) must be retained onsite unless infeasible. The EAW provides no documentation of infeasibility, so using existing ponds or expanding a pond, would not meet the permit requirement. Specifically, the permit states that for work on linear projects with lack of right-of-way where the Permittee(s) cannot obtain an easement or other permission for property needed to install treatment systems capable of treating the entire water quality volume on site, the Permittee(s) must maximize the water quality volume that can be treated prior to discharge to surface waters. Treatment can be provided through other methods or a combination of methods such as grassed swales, filtration systems, smaller ponds, or grit chambers, prior to discharge to surface waters. A reasonable attempt must be made to obtain right-of-way during the Project planning process. Documentation of these attempts must be in the Stormwater Pollution Prevention Plan (SWPPP) per Part III.A.5.m. in the section addressing infeasibility.

C The Project will need to make a reasonable attempt to obtain right of way and explore volume reduction practices to meet the permit requirements. If the requirements cannot be met, the infeasibility must be documented.

D 11.b.iii: If dewatering occurs, the site would also need to comply with the NPDES/SDS CSW permit requirements for dewatering (Part IV.D)

RESPONSE

Minnesota Pollution Control Agency

A: As per coordination with the Department of Natural Resources (DNR), a DNR public waters work permit is not required for the proposed culvert extension at the Vicksburg Lane crossing of the unnamed tributary to Bass Lake (also referred to as Upper Bass Creek) as described in the EAW. The project will comply with National Pollutant Discharge Elimination System (NPDES) Construction Stormwater (CSW) permitting requirements regarding water quality.

B: Stormwater BMPs planned for the North Segment of the project corridor include wet basins and filtration basins. These BMPs have been reviewed with the Shingle Creek Watershed Management Commission. Preliminary indications are that soil types along the project corridor consistent of clay soils. This will be confirmed with soil borings collected in spring 2014. Clay soils are not conducive to infiltration. If it is determined that soils along the project corridor could support infiltration, and minimum separation requirements from groundwater can be achieved, then an infiltration basin will be considered for the North Segment of the project corridor.

The majority of the area along the south segment of the project corridor (Old Rockford Road to Schmidt Lake Road) is developed with minimal right of way widths. Proposed BMPs include an expanded pond near the Vicksburg Lane/Schmidt Lake Road intersection, and sump manholes with SAFL baffles. These measures were identified with input from Bassett Creek Watershed Management Commission. In addition, the City plans to apply minimal impact design standards (MIDS) to the project corridor. The City will also pursue other improvements outside of the project corridor as part of its city-wide stormwater management program as described in Item 11.b.ii (Stormwater).

Documentation addressing infeasibility will be provided in the NPDES permit application.

COMMENT

Traffic

E The Project is designed to provide less congested access and improve traffic flow, so increased air pollution due to increased congestion should not be a problem. However, the EAW does not address how traffic would be handled during construction. Traffic flow and access to adjacent development must be maintained throughout the construction period. Please send a copy of the construction traffic plan when it is developed to Amanda.smith@state.mn.us.

NAAQS Criteria Pollutants

F The EAW does not provide the necessary detailed qualitative analysis of NAAQS criteria pollutants: Ozone, PM, SO2, NO2, lead, and CO. The Project is in the Twin Cities CO maintenance area. A detailed qualitative analysis of potential impacts to CO levels in the maintenance area is required.

CO Hot-Spot Analysis

G Project-level CO impact was not addressed using a U. S. Environmental Protection Agency approved hot-spot screening method. The traffic volumes for all the intersections in the affected area do not surpass the 79,400 vehicle-per-day threshold to require a detailed hot-spot analysis; however, the EAW does not address this requirement.

Mobile Source Air Toxics (MSAT)

H The EAW does not provide the required detailed qualitative analysis of mobile sources air toxics.

Transportation Improvement Program (TIP) and Transportation Policy Plan (TPP)

I This Project is not included in the TIP or TPP for the area. If the Project is receiving any federal funding, it will need to be included in the TIP and TPP before construction can begin. The city should contact Minnesota Department of Transportation staff to begin this process.

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and the notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW, please contact me at 651-757-2482.

Sincerely,

Kevin Kain
Planner Principal
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Craig Affeldt, MPCA, St. Paul
Innocent Eyoh, MPCA, St. Paul
Amanda Smith, MPCA, St. Paul
Tyler Hastings, MPCA, St. Paul

RESPONSE

Minnesota Pollution Control Agency

C: Please refer to the response to Comment B.

D: Comment noted. Any dewatering discharges will be managed in accordance with NPDES CSW permit requirements.

E: Traffic during construction was described in Item 6.b of the EAW (Timing and Duration of Construction Activities). The North Segment of Vicksburg Lane will be constructed first, followed by the south segment. Local access will be maintained during construction, although lane will likely be required. Closure of Vicksburg Lane to through traffic is anticipated to accommodate construction of the bridge over the CP Railroad. Traffic will be detoured to parallel routes.

Detailed plans for traffic management during construction will be developed during final design. A copy of the traffic management plans will be provided to the MPCA as requested.

F: It is our understanding the consideration of NAAQS criteria pollutants and consideration of potential impacts to CO levels in the Twin Cities CO maintenance area is a requirement of the Federal Highway Administration (FHWA) as part of the National Environmental Policy Act (NEPA) review process for federally-funded projects. The proposed project is a local action being reviewed through the State of Minnesota environmental review process. As such, a State EAW has been prepared. However, in response to MPCA comments on the EAW, a detailed qualitative analysis of NAAQS criteria pollutants and qualitative analysis of potential impacts to CO levels in the Twin Cities maintenance area was completed following Minnesota Department of Transportation (MnDOT) guidance. Please see the air quality analysis in Appendix C.

COMMENT

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RESPONSE

Minnesota Pollution Control Agency

G: It is our understanding that the project-level CO impact analysis is a requirement of FHWA for federally-funded highway projects as part of the federal NEPA review process. The proposed project is a local action being reviewed through the State of Minnesota environmental review process. However, in response to MPCA comments, a project-level CO impact analysis using the approved hot-spot screening method was completed. Intersections within the study area are below the screening threshold of 79,400 vehicles per day. Please see the air quality analysis in Appendix C.

H: It is our understanding that the consideration of Mobile Source Air Toxics (MSATs) is a requirement of the FHWA in conjunction with the federal NEPA review process. The proposed project is a local action being reviewed through the State of Minnesota environmental review process. However, in response to MPCA concerns, a qualitative MSAT analysis has been prepared following FHWA guidance. The qualitative MSAT analysis can be found in Appendix C.

I: The Metropolitan Council 2014-2017 TIP currently shows $260,000 in federal funding for fiscal year 2016 for the Vicksburg Lane crossing of the CP Railway (i.e., rail safety program, upgrade to gates or contribute to grade separation). It is anticipated that these federal funds will not be utilized on the Vicksburg Lane Project.

COMMENT

Minnesota Historical Society

Using the Power of History to Transform Lives
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STATE HISTORIC PRESERVATION OFFICE

April 23, 2014

Mr. Jim Renneberg
City of Plymouth
3400 Plymouth Blvd
Plymouth, MN 55447

RE: EAW – Vicksburg Lane Reconstruction and Expansion Project
T118 R22 S4, 5, 8, 9, 16, 17
Plymouth, Hennepin County
SHPO Number: 2014-1416

Dear Mr. Renneberg:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

A Based on our review of the project information, we conclude that there are **no properties** listed in the National or State Registers of Historic Places, and no known or suspected archaeological properties in the area that will be affected by this project.

B Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, Procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal permit or license, it should be submitted to our office by the responsible federal agency.

Please contact our Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,

Sarah J. Beimers

Sarah J. Beimers, Manager
Government Programs and Compliance

Minnesota Historical Society, 345 Kellogg Boulevard West, Saint Paul, Minnesota 55102
651-259-3000 • 888-727-8386 • www.mnhs.org

RESPONSE

Minnesota State Historic Preservation Office

A: Comment noted. The City appreciates the State Historic Preservation Office review of the Vicksburg Lane Environmental Assessment Worksheet.

B: If a Section 404 permit is required for the project, the Section 106 process will be completed in cooperation with the U.S. Army Corps of Engineers. The Corps of Engineers would be the lead federal agency for this process.

COMMENT

Metropolitan Council

April 23, 2014

Mr. Jim Renneberg
Assistant City Engineer
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

RE: Vicksburg Lane Reconstruction and Expansion Project –Environmental Assessment Worksheet (EAW)
Metropolitan Council District 2
Metropolitan Council Review File No. 21219-1

Dear Mr. Renneberg:

The Metropolitan Council received the Environmental Assessment Worksheet (EAW) for the Vicksburg Lane Reconstruction and Expansion Project on March 31, 2014. The proposed project involves the reconstruction and expansion of Vicksburg Lane from a two-lane undivided roadway to a four-lane undivided road with dedicated turn lanes from Old Rockford Road to the boundary with Maple Grove north of Hennepin County Road 47.

The staff review finds that the EAW is complete with respect to regional concerns and raises no major issues of consistency with Council policies. An EIS is not necessary for regional purposes. However, we request that you address the follow technical comments in the final EAW.

A **Item 10 - Geology, Soils, and Topography/Land Forms** (Lanya Ross, 651-602-1803)
The EAW does not describe the geology underlying the project area. At a minimum, the bedrock geology beneath the site should be identified. Please verify that the St. Peter Sandstone and Jordan Sandstone are the primary bedrock beneath the site.

B **Item 11 - Water Resources** (Lanya Ross, 651-602-1803)
The EAW states that one Wellhead Protection Area is at the south end of the South Segment near Old Rockford Road. Please provide some information about the vulnerability of this Wellhead Protection Area. If it has been designated as vulnerable to contamination by the City of Plymouth and the Minnesota Department of Health, it may have a bearing on the choice of stormwater best management practices.

Furthermore, staff offers the following comments for your consideration.

C **Item 13d– Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources** (Jim Larsen, 651-602-1159)
The prevalence of wetlands, stormwater treatment basins, and water bodies in close proximity and on each side of the roadway corridor raises the concern for wildlife impacts following completion of the proposed project. Indigenous fauna will likely

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RESPONSE

Metropolitan Council

A: According to the Geologic Atlas for Hennepin County (Atlas C-4, Plate 2 of 9, Bedrock Geology, 1989), the primary bedrock beneath the project site consists of St. Peter Sandstone and Jordan Sandstone.

B: The Minnesota Department of Agriculture's source water protection mapping indicates that the drinking water supply management area (DWSMA) located south of Vicksburg Lane has a low vulnerability for contamination. The DWSMA boundaries correspond to wellhead protection areas (WHPA) boundaries.[2] Moreover, preliminary indications are that soils in the project area consist of primarily clay soils, which are less conducive to infiltration. As such, special considerations for stormwater BMP design are not anticipated.

C: As described in the EAW, wetlands located along the northern portion of the project corridor (Schmidt Lake Road to CR 47) have low vegetative diversity. Dominant vegetation consists of cattails (*Typha* sp.) and reed canary grass (*Phylaris arundinacea*). These wetlands function primarily for stormwater management, and are of low-quality with respect to wildlife habitat. A wetland delineation report as per the State Wetland Conservation Act will be completed to confirm these findings. Larger water bodies and wetland areas are located further out from the project corridor; however, most of the surrounding upland areas have been converted to residential uses.

Terrain within the project area is rolling. Proposed roadway profiles vary, ranging from approximately 0.5% to 6% at the north end of the corridor near 60th Avenue and CR 47. Under these types of conditions (i.e., rolling terrain with relatively steep grades), the B-type curb design is preferred by the City because of its greater capacity for conveying stormwater runoff.

[2] Source: Minnesota Department of Agriculture. 2014. Minnesota Department of Agriculture Source Water Protection Web Mapping Application accessed 01 May 2014 at https://www.mda.state.mn.us/protecting/waterprotection/waterprotectionmapping.aspx

COMMENT

C attempt to remain in the area, in spite of its gradual conversion from rural to urban setting. Council staff requests that the City reconsider its expressed position against utilizing sloping, surmountable curbs anywhere along the project's entire length. The City's concerns expressed in the document regarding their use are noted, but the use of standard, near-vertical B624 or similar curbing for the new roadway can be expected to result in nearly full mortality of the area's turtle population by entrapping them within the roadway as they pass between and to nearby water basins for feeding and nesting. The simple change to a more gently sloping curb, consistent with DNR's recommendation and guidance contained in Appendix B will reduce the area fauna mortality risk without impacts to stormwater flow, driver and pedestrian safety, or maintenance activities. We suggest use of Minnesota Department of Transportation Curb and Gutter Design No. S524 or similar design profile.

This will conclude the Metropolitan Council's review of the EAW. Please note that the Council will take no formal action on the document. Please contact the listed technical reviewer or, Michael Larson, AICP, Principal Reviewer, at 651-602-1407 with any questions.

Sincerely,

LisaBeth Barajas, Manager
Local Planning Assistance

cc: Crystal Sheppeck, MHFA
Tod Sherman, Development Reviews Coordinator, MnDOT - Metro Division
Lona Schreiber, Metropolitan Council District 2
Freya Thamman, AICP, Sector Representative
Michael Larson, AICP, Principal Reviewer
Raya Esmaeili, Reviews Coordinator

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RESPONSE

Metropolitan Council

The City appreciates Metropolitan Council staff comments and suggestions. However, given the considerations summarized above and in the EAW, the City does not intend to construct sloped curbs with the proposed expansion of Vicksburg Lane.

COMMENT

Hennepin County Public Works
Strategic Planning & Resources Department
701 Fourth Avenue South, Suite 700
Minneapolis, Minnesota 55415-1842
www.hennepin.us

April 30, 2014

Mr. Jim Renneberg
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

Re: Comments to the Environmental Assessment Worksheet for the Vicksburg Lane Reconstruction and Expansion Project, Plymouth, Minnesota

Dear Mr. Renneberg:

This letter provides comments to the Environmental Assessment Worksheet (EAW) completed for the Vicksburg Lane Reconstruction and Expansion Project, as published in the EQB Monitor, March 31, 2014. The City of Plymouth is proposing to reconstruct and expand Vicksburg Land from a two-lane undivided roadway to a four-lane undivided roadway with dedicated turn lanes from Old Rockford Road on north to Hennepin County Road 47. Hennepin County's comments are as follows:

A

- From the county's perspective, the project is not anticipated to have significant environmental impacts.
- The county supports the proposed intersection geometrics at the Vicksburg / County Road 47 intersection, including the left-turn lane, two through lanes and a right-turn lane on the northbound and southbound approaches of Vicksburg Lane.
- Vicksburg Lane is currently identified in the Hennepin County Bicycle System Plan. We support the proposed off-road trails on both sides of the north project segment (Schmidt Lake Road to County Road 47).

B

- Page 8: Permits and Approvals Required – one item should be added:
  1) All proposed construction within county right-of-way requires an approved Hennepin County permit prior to beginning construction. This includes, but is not limited to, traffic signal installation/revision, drainage and utility construction, trail development and landscaping.

I appreciate your consideration of Hennepin County comments at this time and look forward to your response. If you have any questions, please contact me at 612-348-5714 or david.jaeger@co.hennepin.mn.us.

Sincerely,

David Jaeger
Manager, Environmental Policy

cc: Jim Grube, Director of Transportation and County Engineer
Tom Johnson, Manager Transportation Planning
Alene Tchourumoff, Director of Strategic Planning and Resources
Debra Brisk, Assistant County Administrator

RESPONSE

Hennepin County

A: Comments noted. With the proposed intersection geometrics, the Vicksburg Lane/CR 47 intersection is anticipated to operate at level of service (LOS) C during the a.m. and p.m. peak hours under future (year 2030) conditions. The project will construct off-road eight-foot trails on both sides of Vicksburg Lane between Schmidt Lake Road and CR 47.

B: A permit will be obtained from Hennepin County prior to construction for work within County right of way. This permit is included in Table 1, Permits and Approvals (see Section III.C, Extent to Which the Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority).

COMMENT

April 30, 2014

Jim Renneberg
Engineering Manager
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

Re: Vicksburg Lane Reconstruction and Expansion
Environmental Assessment Worksheet
BCWMC #2014-11

Dear Mr. Renneberg:

We have reviewed the Environmental Assessment Worksheet (EAW) for the Vicksburg Lane Reconstruction and Expansion project (dated February 2014) and have the following comments regarding the areas that are within the Bassett Creek Watershed.

A

1. **General:** The proposed project will involve reconstructing and expanding the road surface, grading, and the addition of curb and gutter. Within the BCWMC boundary, there will be approximately 0.9 miles of roadway reconstructed and/or expanded. Project plans, the BCWMC application form for development proposals, and the application fee should be submitted to the BCWMC for review and approval. The drainage area to the BCWMC should be delineated and provided as part of the review. If the watershed boundary between Bassett Creek and Elm or Bass Creeks is changed as a result of this project, information regarding the change in drainage area should be provided as part of the BCWMC application. Specific BCWMC requirements, general submittal guidelines and design requirements for several approved BMPs are provided in the document "Requirements for Improvements and Development Proposals," This document and the application form may be downloaded from the BCWMC's website at www.bassettcreekwmo.org.

B

2. **Water Quality & Medicine Lake TMDL:** The portion of the project that is in the Bassett Creek Watershed is tributary to Turtle Lake and Plymouth Creek. Turtle Lake and Plymouth Creek discharge to Medicine Lake, which is an impaired water of the State of Minnesota. The lake is impaired for the nutrient, phosphorus. During design, it is recommended to consider the TMDL requirements regarding discharge allocations to Medicine Lake. The use of BMPs that reduce nutrient loading from the project site is encouraged. One of the most effective ways to reduce pollutant loadings is to reduce the volume of stormwater runoff through infiltration or treat the runoff through filtration. The BCWMC urges the city to implement infiltration and filtration measures, to the extent practicable, within the project area.

   The EAW states that a stormwater pond will be constructed in Gateway Park at the southwest corner of Schmidt Lake Road and Vicksburg Lane North, which will treat runoff from part of

RESPONSE

Bassett Creek Watershed Management Commission

A: Project plans, BCWMC application form for development proposals, and the appropriate application fee will be submitted for review and approval. The drainage area to the BCWMC will be delineated and provided as part of this review as noted.

B: The majority of the area surrounding Vicksburg Lane between Old Rockford Road and Schmidt Lake Road is developed. Adjacent lands include residential uses, parkland, and institutional uses (e.g., Plymouth Covenant Church, Ascension Lutheran Church). Minimal roadway right of way is available. Therefore, the ability to accommodate new stormwater BMPs such as wet ponds, infiltration basins, or filtration basins along the south segment of the project corridor is severely limited. One of the proposed BMPs for the project includes expansion of an existing pond in Gateway Park. This stormwater pond would treat approximately 500 feet of Vicksburg Lane south of Schmidt Lake Road. Stormwater runoff for a majority of the South Segment will be conveyed by curb and gutter to a storm sewer system that includes sump manholes with SAFL baffles.

COMMENT

Vicksburg Lane. Other BMPs include a sump with SAFL baffle and the potential use of porous material for the proposed trail.

3. **Floodplain and Rate Control:** Although the EAW acknowledges that stormwater flows and volume will change as a result of the project, it does not quantify the change in flow volumes and rates. Rate and volume changes due to the project should be quantified and any increases should be mitigated, to the extent practicable. Plymouth Creek has experienced significant erosion and sedimentation and the BCWMC and the city have invested in projects to address these issues. Increased stormwater runoff volumes and rates from this project could undermine the effectiveness of this work and cause damage to the stream and the stormwater management system. The proposed BMPs should minimize flood related impacts and ensure that flood profiles are not increased along the creek.

C

4. **BMP Maintenance:** The EAW does address future maintenance responsibilities for the sump and SAFL baffle. A maintenance plan must be in place for the sump, SAFL baffle, and stormwater pond.

D

5. **Wetland Management:** The City of Plymouth is the Local Governmental Unit for the administration of the Wetland Conservation Act in the portion of the BCWMC impacted by the project.

E

6. **Erosion Control:** The EAW states that the City will follow the NPDES permitting requirements, that a SWPPP will be developed during final design, and that during construction sediment and erosion control BMPs will be utilized. The BCWMC's goal is to prevent erosion and sedimentation to the greatest extent possible to protect water resources from increased water quality problems. The proposed erosion control plan will be reviewed for conformance to the BCWMC requirements during the review process.

F

Thank you for the opportunity to provide comments and for meeting with BCWMC staff on January 27, 2014 to discuss the project. Please contact me or Jim Herbert regarding any questions.

Sincerely,

Rita Weaver, P.E.
Barr Engineering Co.
Engineers for the Bassett Creek Watershed Management Commission (BCWMC)

c: Doran Cote, City of Plymouth
Derek Asche, City of Plymouth
Dan Campbell, City of Plymouth

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RESPONSE

Bassett Creek Watershed Management Commission

C: Rate and volume calculations for the project will be provided to BCWMC as part of the review process. Refer to the response to Comment B for a discussion of limitations along the south segment of the project corridor and proposed BMPs.

D: The City will be responsible for and will establish a schedule for routine maintenance of the sump manholes (e.g., pollutant and sediment cleaning with a vacuum truck on an annual basis). This is noted in Item 11.b.ii (Stormwater) of the EAW.

E: Comment noted. The City will act as the LGU for administration of the Wetland Conservation Act for the project.

F: The erosion control plan for the project will be in conformance with BCWMC requirements, and provided to BCWMC for review during the final design process.

COMMENT

Shingle Creek Watershed Management Commission

3235 Fernbrook Lane N • Plymouth, MN 55447
Phone (763) 553-1144 • Fax (763) 553-9326

www.shinglecreek.org

April 11, 2014

Jim Renneberg via email
Assistant City Engineer
City of Plymouth
3400 Plymouth Boulevard
Plymouth, MN 55447

Re: Vicksburg Lane Reconstruction and Expansion Project, Plymouth Comments

Dear Mr. Renneberg:

Commission staff and Commissioners have reviewed the SRF Consulting's Environmental Assessment/Environmental Assessment Worksheet (EAW) for the proposed project to reconstruct and expand Vicksburg Lane from a two lane undivided roadway to a four lane undivided road with dedicated turn lanes from Old Rockford Road to the boundary with Maple Grove north of Hennepin County Road (CR) 47.

This review letter addresses the Vicksburg Lane reconstruction and its conformance with the Shingle Creek Watershed Management Commission's rules for linear construction projects. This letter outlines the conformance of the project in regards to the Commission's water quality, stormwater runoff control, volume control, and erosion control standards. Additionally, this memo addresses impacts on wetlands, Public Waters, groundwater, and the regulatory floodplain. The findings of this review are addressed below.

Water Quality

A To comply with the Commission's water quality treatment requirement, the site must provide ponding designed to NURP standards with dead storage volume equal to or greater than the volume of runoff from a 2.5" storm event, or BMPs providing a similar level of treatment - 80-85% TSS removal and 50-60% TP removal.

B The three creeks receiving runoff from the project area are Elm Creek, Bass Creek, and Plymouth Creek. Runoff from the North Segment project area (Schmidt Lake Rd. to CR 47) drains to Bass Creek and Elm Creek, while the South Segment (Schmidt Lake Rd. to Old Rockford Rd.) drains to Plymouth Creek. The North Segment will use curb and gutter to direct runoff to one new and five existing stormwater ponds; the new stormwater pond will be located west of Vicksburg Lane and north of 57th Avenue while one of the five existing ponds will be expanded. The South Segment will also use curb and gutter to direct runoff to a new stormwater pond or to a new storm sewer system that includes sump manholes with

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RESPONSE

Shingle Creek Watershed Management Commission

A: Comment noted. The project will provide BMP's to meet Shingle Creek Watershed Management Commission (SCWMC) water quality requirements.

B: Comment noted. It is understood that Bass Lake, while more than one mile from the project area, will receive runoff from the corridor via Upper Bass Creek (Public Watercourse #27029a). Bass Lake is impaired for aquatic recreation, and a nutrient TMDL implementation plan has been developed for Schmidt, Pomerleau, and Bass Lakes. Several BMPs, including a proposed filtration basin, will be constructed along the North Segment of the project corridor to provide treatment of stormwater runoff.

COMMENT

Shingle Creek Watershed Management Commission

3235 Fernbrook Lane N • Plymouth, MN 55447
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B SAFL baffles. Additionally, a porous material for the proposed trail will be considered during the final design to limit new impervious. It should also be noted that, although there are no impaired waters within 1 mile of the project site, Bass Lake will receive runoff from Upper Bass Creek (see Public Waters section).

C The treatment provided by the various ponds and sump manholes should provide the amount of treatment necessary, however, HydroCAD calculations should be provided to determine that show the capacity of the stormwater ponds.

Stormwater Runoff Control
Commission rules require that site runoff be limited to predevelopment rates for the 2-, 10-, and 100-year storm events.

D HydroCAD calculations should be provided to determine that post-development rates are lower than pre-development rates.

Volume Control
Commission rules require the site to infiltrate 1.0" of runoff from new impervious area within 48 hours. The project proposes 6.02 acres of new impervious surface from the addition of trails, sidewalks, and turn lanes. This amount of impervious surface requires 21,853 cu-ft. (0.5 ac-ft.) of infiltrative capacity.

E The current project does not include infiltration or filtration BMPs. With the inclusion of new stormwater ponds in the project, it is recommended that filtration trenches or other filtration BMPs be included in the new pond construction as allows.

F **Erosion Control**
An erosion control and stormwater pollution prevention plan should be developed for the project.

G **Wetland Impacts**
The NWI identifies Type 2 and Type 3 wetlands within the project area. The City of Plymouth is LGU for WCA Administration and will review wetland impacts due to fill and hydrology alterations.

H **Public Waters**
Vicksburg Lane crosses a public watercourse approximately 700 feet south of 55th Avenue. This public watercourse (#27029a) is Upper Bass Creek, a tributary to Bass Lake. There is an exemption from permitting in Public Waters Work Rules for culvert crossings on watercourses with a tributary drainage area of less than five square miles. Since this watercourse meets that requirement, a Public Waters Work Permit is not required and further coordination with DNR for this culvert extension is not required.

I **Floodplain**
There is no regulatory floodplain on the site.

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RESPONSE

Shingle Creek Watershed Management Commission

C: HydroCAD calculations showing the capacity of the proposed stormwater ponds will be provided to SCWMC as part of the design review process.

D: HydroCAD calculations showing post-development rates and pre-development rates will be provided to SCWMC as part of the design review process.

E: The project includes construction of a filtration basin along the west side of Vicksburg Lane north of 57th Avenue near the proposed Northwest Greenway crossing. Please see the response to Comment J for a discussion of infiltration.

F: An erosion control and stormwater pollution prevention plan will be developed for the project and will be designed to meet SCWMC standards. The erosion control and stormwater pollution prevention plan will be provided to SCWMC as part of the review process.

G: The City will act as the LGU for administration of the Wetland Conservation Act for the project.

H: Comment noted. The City has coordinated with DNR staff regarding the public watercourse near Vicksburg Lane and 55th Avenue. The DNR Area Hydrologist has confirmed that a DNR Public Waters Work Permit is not required in conjunction with this crossing.

I: Comment noted. There are no floodplains along the project corridor (FIRM Map 27053C0190E and Map 27053C0178E).

COMMENT

Shingle Creek Watershed Management Commission

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Additional Information Needed:

J

1. HydroCAD calculations showing the amount of storage and to demonstrate that the project meets the Commission's;
   a. Water quality standards,
   b. Rate control standards.
2. Provide infiltration BMPs to meet the Commission's Volume control standards;
   a. Provide an abstraction volume equivalent to 1" of runoff from new impervious surfaces (21,853 cu-ft.).
3. Create erosion control and stormwater pollution prevention plans to meet the Commission's Erosion control standards.
4. Complete necessary WCA documentation.

For further information or to discuss this comment letter please give me a call.

Sincerely,

Ed Matthiesen, P.E.
Commission Engineer

Brooklyn Center • Brooklyn Park • Crystal • Maple Grove • Minneapolis • New Hope • Osseo • Plymouth • Robbinsdale

RESPONSE

Shingle Creek Watershed Management Commission

J: HydroCAD calculations showing the amount of storage, and to demonstrate that the project meets SCWMC water quality and rate control standards will be provided as part of the design review process.

Preliminary indications are that the project corridor is characterized by clay soils. These soil types are not conducive to infiltration. Soil borings will be collected to confirm the soil types along the project corridor. A copy of the soils report will be provided to SCWMC with the design review. A filtration basin is currently planned along the west side of the project corridor near the proposed Northwest Greenway crossing. If soils permit, and minimum groundwater separation requirements can be met, an infiltration basin would be considered at this location.

Erosion control and stormwater pollution prevention plans will be designed to meet SCWMC standards.

The necessary wetland conservation act documentation will be completed for any wetland impacts as a result of the project and provided to SCWMC with the design review.

COMMENT

From: Judith Olson <wonderwomantoo@msn.com>
Sent: Thursday, April 24, 2014 6:57 PM
To: Jim Renneberg
Subject: Vicksburg Project EAW - Comments / Questions

Jim,

My name is Judith Olson and I live at 4605 Weston Lane North just one block West of the 46th Avenue North and Vicksburg intersection. I'm the original owner of the house having moved into the neighborhood in 1984 - 30 years ago - to be in a quieter location.

Last week I spent time at the Plymouth Library reading through the Vicksburg EAW that is available in their reference area.

In various parts of the document, it talks about how the current configuration of Vicksburg will not be able to handle the future traffic and that the City of Plymouth needs to expand the road to four (4) lanes in order to accommodate the growth that the city anticipates in the area from Old Rockford Road to Country Road 47.

The Oxbow, Fawn Creek and Autumn Hills neighborhoods have their only exit out of their neighborhoods onto Vicksburg at three (3) locations: 43rd Avenue North, 46th Avenue North and Xene Lane.

I did not see any traffic control signals or acceleration lanes along the stretch from Old Rockford Road to Schmidt Lake Road that would allow the above residents to safely enter the Vicksburg Lane traffic flow which will now be four (4) lanes wide.

A **Question 1:** What is the plan to provide the above neighborhoods easy access into and out of their residences?

Due to the increased traffic, we are going to be experiencing increased road noise levels closer to the residences due to the four (4) lane project including two (2) walking paths on both sides of Vicksburg. It appears that several trees are going to be in the way of the project which currently add some noise reduction. There needs to be serious consideration given to some way to mitigate the increased road noise for the benefit of the residents of that area and all areas along the Vicksburg Lane corridor. We would all like to enjoy our properties without having to stay indoors with the windows shut.

B **Question 2:** What is the plan for the much needed noise abatement? What are the options?

In the EAW it talks about the bridge going over the railroad crossing and that the train speed is going to increase from 40 mph to 60 mph. The train's rail noise can be heard quite aways away from the actual track - another reason for factoring in some noise mitigation strategy options.

C **Question 3:** What is the plan for train rail noise abatement? What are the options?

In the EAW there was some mention of providing proper curbing so that turtles can navigate the roadway where we have split their habitat. What about the frogs in the wetland next to Gateway Park?

1

RESPONSE

Judith Olson (4605 Weston Lane North)

A: Traffic control is not warranted at the three intersections with Vicksburg Lane between Old Rockford Road and Schmidt Lake Road. These intersections will operate as side-street stop control intersections. It is acknowledged that some motorists on side streets may experience delays during peak periods; however, traffic signals at Old Rockford Road and Schmidt Lake Road are anticipated to meter traffic, allowing for turning movements between vehicle platoons.

B: There are no plans for the construction of noise abatement in conjunction with the project. While some tree loss will likely occur along the corridor in order to accommodate construction of the roadway, this vegetation does not provide a noise abatement function. In general, vegetation is only effective for reducing noise levels if it is 100-200 feet deep and breaks the line of sight to the roadway.

C: The purpose of the proposed project is to increase capacity and improve traffic operations and safety along Vicksburg Lane between Old Rockford Road and CR 47. A future upgrade to the railroad is a separate action planned by the Canadian Pacific (CP) Railway Company. The timing of any future potential upgrades to the railroad is unknown at this time.

COMMENT

When I was at Gateway Park on a sunny day, the children all noticed the active voices of the frogs in the nearby wetland.

D **Question 4:** Since that wetland is scheduled to undergo a makeover, what is the plan to relocate the frogs during construction?

Sincerely,

Judith M. Olson
Vicksburg Area Resident

2

RESPONSE

Judith Olson (4605 Weston Lane North)

D: There are no plans to relocate wildlife in conjunction with the project.

Appendix C

Air Quality Analysis

Vicksburg Lane Project
Air Quality Analysis

Motorized vehicles affect air quality by emitting airborne pollutants. Changes in traffic volumes, travel patterns, and roadway locations affect air quality by changing the number of vehicles in an area and the congestion levels. The air quality impacts from the project are analyzed by addressing criteria pollutants, a group of common air pollutants regulated by the Environmental Protection Agency (EPA) on the basis of criteria (information on health and/or environmental effects of pollution). The criteria pollutants identified by the EPA are ozone, particulate matter, carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide. Potential impacts resulting from these pollutants are assessed by comparing projected concentrations to National Ambient Air Quality Standards (NAAQS).

In addition to the criteria air pollutants described above, the EPA also regulates air toxics. The Federal Highway Administration (FHWA) provides guidance for the assessment of Mobile Source Air Toxic (MSAT) effects for transportation projects in the National Environmental Policy Act (NEPA) process. The proposed project is being reviewed through the State of Minnesota environmental review process. There is no federal funding or approval through FHWA. A qualitative evaluation of MSATs has been performed for this project as documented below in response to Minnesota Pollution Control Agency (MCPA) comments on the EAW. The scope and methods of the analysis performed were developed in collaboration with the Minnesota Department of Transportation (MnDOT) and MPCA.

Ozone

Ground-level ozone is a primary constituent of smog and is a pollution problem throughout many areas of the United States. Exposures to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate preexisting respiratory diseases such as asthma. Ozone is not emitted directly from vehicles but is formed as volatile organic compounds (VOCs) and nitrogen oxides (NOx) react in the presence of sunlight. Transportation sources emit NOx and VOCs and can therefore affect ozone concentrations. However, due to the phenomenon of atmospheric formation of ozone from chemical precursors, concentrations are not expected to be elevated near a particular roadway.

The MPCA, in cooperation with various other agencies, industries, and groups, has encouraged voluntary control measures for ozone and has begun developing a regional ozone modeling effort. Ozone concentrations in the lower atmosphere are influenced by a complex relationship of precursor concentrations, meteorological conditions, and regional influences on background concentrations. MPCA states in *Air Quality in Minnesota: 2013 Report to the Legislature* (January 2013) that:

> *All areas of Minnesota currently meet the federal ambient 8-hour standard for ozone but Minnesota is at risk for being out of compliance. In 2008, EPA tightened the federal eight-hour ambient air standard for ozone to 75 parts per billion (ppb). EPA plans to propose a revised ozone standard in September 2013, with a final standard planned for 2014. Preliminary documents indicate that EPA*

believes the scientific evidence on the health impacts of ozone shows that the current ambient standard is insufficient to protect public health. EPA's Clean Air Scientific Advisory Committee has recommended that a new ambient standard be set in the range of 60-70 ppb to ensure public health protection with an adequate margin of safety. In 2010, EPA proposed a revised ozone standard in the range of 60-70 ppb but withdrew the proposal in fall 2011. Many areas of Minnesota would not meet the revised standard if the EPA sets the standard at the lowest end of the advisory committee's recommended range.

Additionally, the State of Minnesota is classified by the EPA as an "ozone attainment area," which means that Minnesota has been identified as a geographic area that meets the national health-based standards for ozone levels. Because of these factors, a quantitative ozone analysis was not conducted for this project.

Particulate Matter

Particulate matter (PM) is the term for particles and liquid droplets suspended in the air. Particles come in a wide variety of sizes and have been historically assessed based on size, typically measured by the diameter of the particle in micrometers. $PM_{2.5}$ or fine particulate matter refers to particles that are 2.5 micrometers or less in diameter. PM_{10} refers to particulate matter that is 10 micrometers or less in diameter.

Motor vehicles (i.e., cars, trucks, and buses) emit direct PM from their tailpipes, as well as from normal brake and tire wear. Vehicle dust from paved and unpaved roads may be re-entrained, or re-suspended, in the atmosphere. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds. $PM_{2.5}$ can penetrate the human respiratory system's natural defenses and damage the respiratory tract when inhaled. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including:

- Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing for example;
- Decreased lung function;
- Aggravated asthma;
- Development of chronic bronchitis;
- Irregular heartbeat;
- Nonfatal heart attacks; and
- Premature death in people with heart or lung disease.

(Source: http://www.epa.gov/air/particlepollution/health.html)

On December 14, 2012, the EPA issued a final rule revising the annual health NAAQS for fine particles ($PM_{2.5}$). The EPA website states:

With regard to primary (health-based) standards for fine particles (generally referring to particles less than or equal to 2.5 micrometers (mm) in diameter,

> *$PM_{2.5}$), the EPA is strengthening the annual $PM_{2.5}$ standard by lowering the level to 12.0 micrograms per cubic meter ($\mu g/m^3$). The existing annual standard, 15.0 $\mu g/m^3$, was set in 1997. The EPA is revising the annual $PM_{2.5}$ standard to 12.0 $\mu g/m^3$ so as to provide increased protection against health effects associated with long- and short-term exposures (including premature mortality, increased hospital admissions and emergency department visits, and development of chronic respiratory disease), and to retain the 24-hour $PM_{2.5}$ standard at a level of 35 $\mu g/m^3$ (the EPA issued the 24-hour standard in 2006). The EPA is revising the Air Quality Index (AQI) for $PM_{2.5}$ to be consistent with the revised primary $PM_{2.5}$ standards.*
>
> Source: http://www.epa.gov/pm/actions.html

The agency also retained the existing standards for coarse particle pollution (PM_{10}). The NAAQS 24-hour standard for PM_{10} is 150 µg / m^3, which is not to be exceeded more than once per year on average over three years.

The Clean Air Act conformity requirements include the assessment of localized air quality impacts of federally-funded or federally-approved transportation projects that are deemed to be projects of air quality concern located within $PM_{2.5}$ nonattainment and maintenance areas. This project is not considered one of air quality concern. This is supported, in part, by the designation of the State of Minnesota as an unclassifiable/ attainment area for PM. This means that Minnesota has been identified as a geographic area that meets or exceeds the national standards for the reduction of PM levels, and therefore is exempt from performing PM qualitative hot-spot analyses.

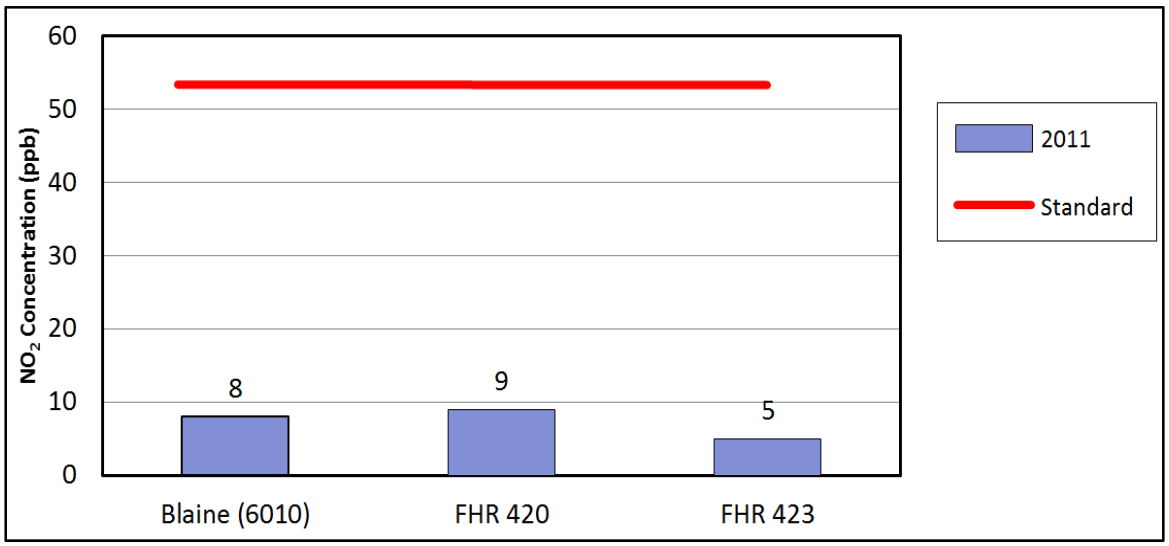
Nitrogen Dioxide (Nitrogen Oxides)

Nitrogen oxides, or NO_x, are the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process. The primary sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels. The MPCA's *Air Quality in Minnesota: 2013 Report to the Legislature* (January 2013) indicates that:

> *On road gasoline vehicles and diesel vehicles account for 44% of NO_x emissions in Minnesota. In additions to being a precursor to ozone, NO_x can worsen respiratory irritation, and increase risk of premature death from heart or lung disease.*

Minnesota currently meets federal nitrogen dioxide standards, as shown in Exhibit 1 from *2013 Annual Air Monitoring Network Plan* (July 2012). This document states: "A monitoring site meets the annual NAAQS for NO_2 if the annual average is less than or equal to 53 ppb. The 2011 Minnesota averages ranged from 5 ppb at FHR 423 to 9 ppb at FHR 420; therefore, Minnesota currently meets the annual NAAQS for NO_2."

Exhibit 1: 1-hour NO_2 concentrations compared to the NAAQS



The EPA's regulatory announcement, EPA420-F-99-051 (December 1999), describes the Tier 2 standards for tailpipe emissions, and states:

> *The new tailpipe standards are set at an average standard of 0.07 grams per mile for nitrogen oxides for all classes of passenger vehicles beginning in 2004. This includes all light-duty trucks, as well as the largest SUVs. Vehicles weighing less than 6000 pounds will be phased-in to this standard between 2004 and 2007.*
>
> *As newer, cleaner cars enter the national fleet, the new tailpipe standards will significantly reduce emissions of nitrogen oxides from vehicles by about 74 percent by 2030. The standards also will reduce emissions by more than 2 million tons per year by 2020 and nearly 3 million tons annually by 2030.*

Within the project area, it is unlikely that NO_2 standards will be approached or exceeded based on the relatively low ambient concentrations of NO_2 in Minnesota and on the long-term trend toward reduction of NO_x emissions. Because of these factors, a specific analysis of NO_2 was not conducted for this project.

Sulfur Dioxide

Sulfur dioxide (SO_2) and other sulfur oxide gases (SO_x) are formed when fuel containing sulfur, such as coal, oil, and diesel fuel is burned. Sulfur dioxide is a heavy, pungent, colorless gas. Elevated levels can impair breathing, lead to other respiratory symptoms, and at very high levels aggravate heart disease. People with asthma are most at risk when SO_2 levels increase. Once emitted into the atmosphere, SO_2 can be further oxidized to sulfuric acid, a component of acid rain.

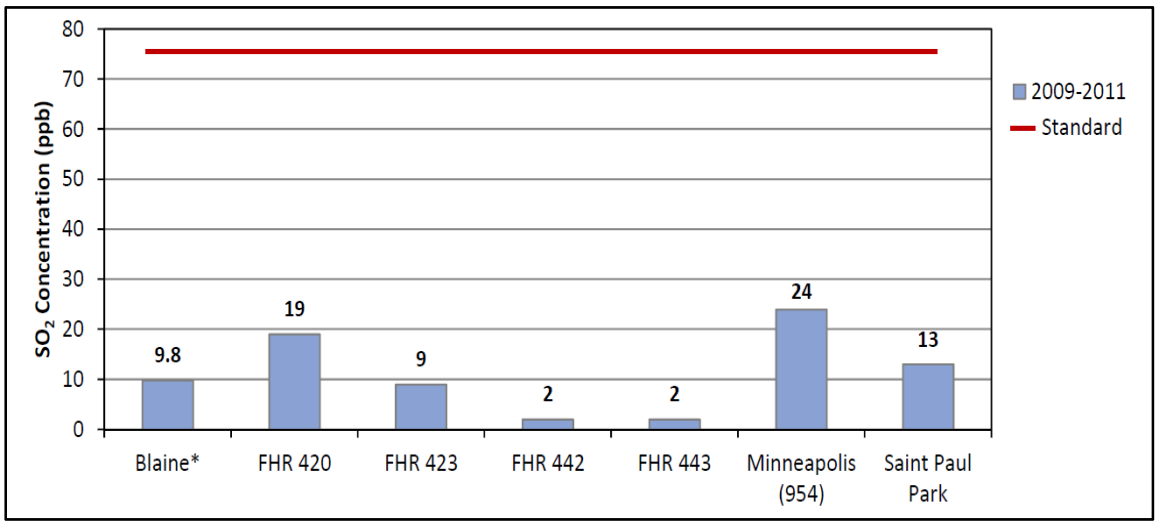
MPCA monitoring shows that ambient SO_2 concentrations were at 32 percent of federal standards in 2011, in other words consistently below state and federal standards. (Source: *Air*

Quality in Minnesota: 2013 Report to the Legislature, January 2013.) MPCA also states that about 70 percent of SO_2 released into the air comes from electric power generation. Therefore a much smaller proportion is attributable to on-road mobile sources. The MPCA has concluded that long-term trends in both ambient air concentrations and total SO_2 emissions in Minnesota indicate steady improvement.

In the "Annual Air Monitoring Network Plan for Minnesota, 2013", it states the following with regard to SO_2:

> *On June 2, 2010, the EPA finalized revisions to the primary SO_2 NAAQS. EPA established a new 1-hour standard which is met if the three-year average of the annual 99th percentile daily maximum 1-hour SO_2 concentration is less than 75 ppb. In addition to creating the new 1-hour standard, the EPA revoked the existing 24-hour and annual standards. Exhibit 2 describes the 2009 -2011 average 99th percentile 1-hour SO_2 concentration and compares them to the 1-hour standard. Minnesota averages ranged from 2 ppb at FHR 442 and FHR 443 to 24 ppb in Minneapolis (954); therefore, all Minnesota sites currently meet the1-hour NAAQS for SO_2.*

Exhibit 2: 1-hour SO_2 concentrations compared to the NAAQS



* The monitoring site did not meet the minimum completeness criteria for design value calculations. A site meets the completeness requirement if 75% of required sampling days are valid for each calendar quarter included in the design value calculation. SO_2 at Duluth was part of a one year assessment and not intended to collect 3 years of data for design value calculations.

Emissions of sulfur oxides from transportation sources are a small component of overall emissions and continue to decline due to the desulphurization of fuels. Additionally, the project area is classified by the EPA as a "sulfur dioxide attainment area," which means that the project area has been identified as a geographic area that meets the national health-based standards for sulfur dioxide levels. Because of these factors, a quantitative analysis for sulfur dioxide was not conducted for this project.

Lead

Due to the phase out of leaded gasoline, lead is no longer a pollutant associated with vehicular emissions.

Carbon Monoxide

Carbon monoxide (CO) is the traffic-related pollutant that has been of concern in the Twin Cities Metropolitan area. In 1999, the EPA re-designated all of Hennepin, Ramsey, Anoka, and portions of Carver, Scott, Dakota, Washington, and Wright counties as a maintenance area for CO. This means the area was previously classified as a nonattainment area but has now been found to be in attainment. This area includes the project area, which is located in Hennepin County. Evaluation of CO for assessment of air quality impacts is required for environmental approval in NEPA documents.

Air Quality Conformity

The EPA issued final rules on transportation conformity (40 CFR 93, Subpart A) which describe the methods required to demonstrate State Implementation Plan (SIP) compliance for transportation projects. It requires that transportation projects meeting criteria to be classified as regionally significant be included in a regional emissions analysis approved as part of a conforming Long Range Transportation Policy Plan (LRTPP) and four-year Transportation Improvement Program (TIP). This project will not be receiving any federal funding and will not be included in the TIP or TPP for the area; therefore, a conformity determination is not required.

Hot-Spot Analysis

CO evaluation is performed by evaluating the worst-operating (hot-spot) intersections in the project area. The EPA has approved a screening method to determine which intersections need hot-spot analysis. The hot-spot screening method uses a traffic volume threshold of 79,400 entering vehicle per day. Entering traffic volumes at all intersections in the project area are forecast to be less than this threshold, as shown in Table C-1. The City of Plymouth demonstrates by the results of the screening procedure that the intersections do not require hot-spot analysis.

TABLE C-1
YEAR 2030 INTERSECTION VOLUMES FOR VICKSBUG LANE
(VEHICLES PER DAY)

Vicksburg Lane Intersections	North	East	South	West	Total Entering
Old Rockford Road	7,100	2,750	7,050	3,250	20,150
Schmidt Lake Road	7,600	5,000	7,100	3,650	23,350
County Road (CR) 47	5,200 (1)	6,550	7,600	4,150	23,500

Source: Figure 6A-6. Forecasted 2030 Annual Average Daily Traffic. City of Plymouth Comprehensive Plan. April 14, 2009.
(1) Assumed volume for Vicksburg Lane north of CR 47 based on future (year 2030) p.m. peak hour turning movement volumes.

Improvements in vehicle technology and in motor fuel regulations continue to result in reductions in vehicle emission rates. The EPA MOVES 2010b emissions model estimates that emission rates will continue to fall from existing rates through year 2030. Consequently, year 2030 vehicle-related CO concentrations in the study area are likely to be lower than existing concentrations even considering the increase in development-related and background traffic.

Mobile Source Air Toxics

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the EPA regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (http://www.epa.gov/iris/). In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) (http://www.epa.gov/ttn/atw/nata1999/). These are acrolein, benzene, 1,3-butidiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

Motor Vehicle Emissions Simulator (MOVES)

According to EPA, MOVES improves upon the previous MOBILE model in several key aspects: MOVES is based on a vast amount of in-use vehicle data collected and analyzed since the latest release of MOBILE, including millions of emissions measurements from light-duty vehicles. Analysis of this data enhanced EPA's understanding of how mobile sources contribute to emissions inventories and the relative effectiveness of various control strategies. In addition, MOVES accounts for the significant effects that vehicle speed and temperature have on PM

emissions estimates, whereas MOBILE did not. MOVES2010b includes all air toxic pollutants in NATA that are emitted by mobile sources. EPA has incorporated more recent data into MOVES2010b to update and enhance the quality of MSAT emission estimates. These data reflect advanced emission control technology and modern fuels, plus additional data for older technology vehicles.

Based on an FHWA analysis using EPA's MOVES2010b model, as shown in Exhibit 3, even if vehicle-miles travelled (VMT) increases by 102 percent as assumed from 2010 to 2050, a combined reduction of 83 percent in the total annual emissions for the priority MSAT is projected for the same time period.

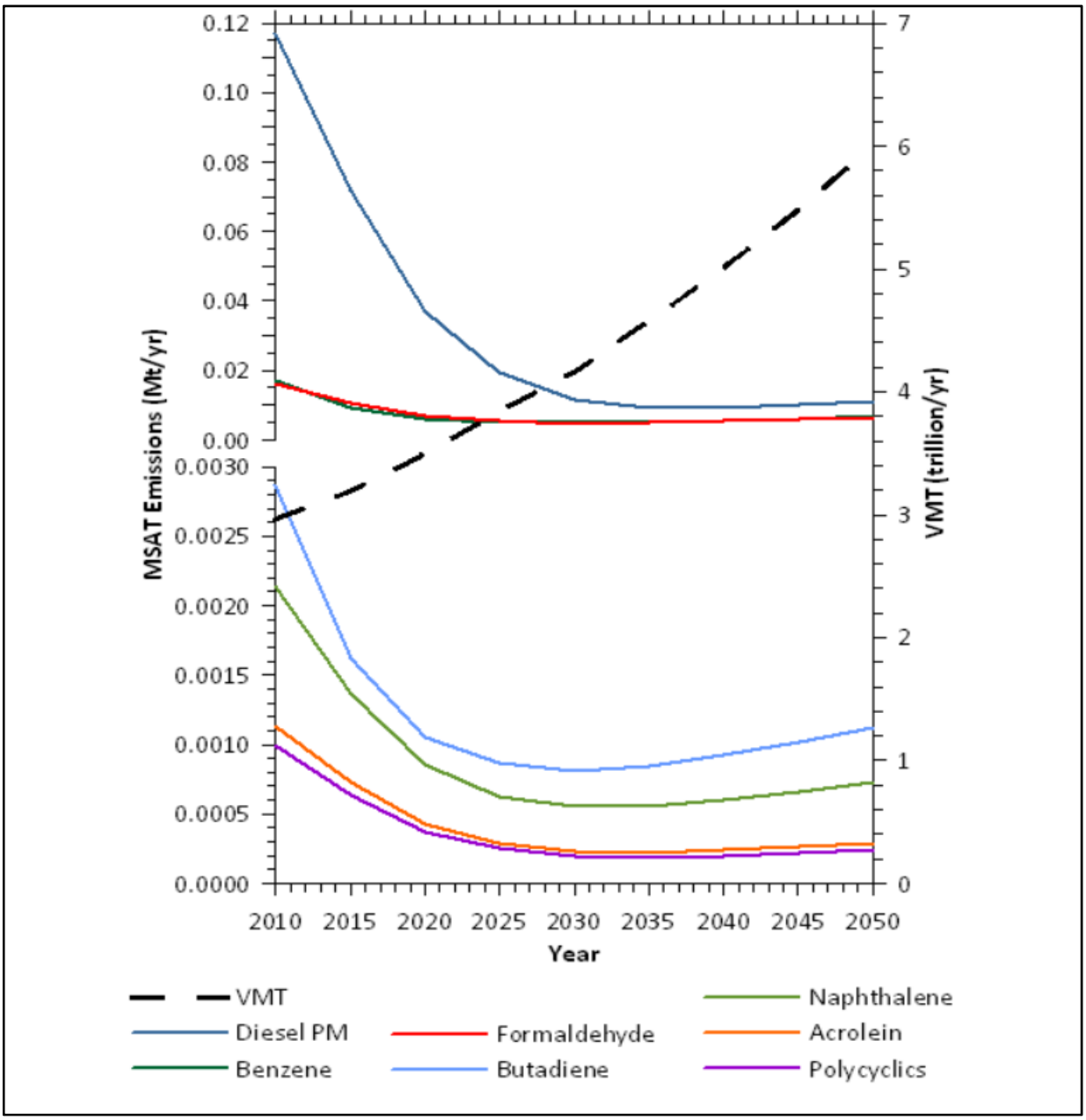
The implications of MOVES on MSAT emissions estimates compared to MOBILE are: lower estimates of total MSAT emissions; significantly lower benzene emissions; significantly higher diesel PM emissions, especially for lower speeds. Consequently, diesel PM is projected to be the dominant component of the emissions total.
(Source:http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/aqintguidmem.cfm)

MSAT Research

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how potential public health risks posed by MSAT exposure should be factored into project-level decision-making within the context of NEPA.

Nonetheless, air toxics concerns continue to be raised on highway projects during the NEPA process. Even as the science emerges, we are duly expected by the public and other agencies to address MSAT impacts in our environmental documents. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this field.

Exhibit 3
National MSAT Emission Trends 1999 - 2050 For Vehicles Operating On Roadways Using EPA's MOVES2010b Model



Source: EPA MOVES2010b model runs conducted during May - June 2012 by FHWA.
http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/nmsatetrends.cfm
Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors.

NEPA Context

The NEPA requires, to the fullest extent possible, that the policies, regulations, and laws of the Federal Government be interpreted and administered in accordance with its environmental protection goals. The NEPA also requires Federal agencies to use an interdisciplinary approach in planning and decision-making for any action that adversely impacts the environment. The NEPA requires and FHWA is committed to the examination and avoidance of potential impacts to the natural and human environment when considering approval of proposed transportation projects. In addition to evaluating the potential environmental effects, we must also take into account the need for safe and efficient transportation in reaching a decision that is in the best overall public interest. The FHWA policies and procedures for implementing NEPA are contained in regulation at 23 CFR Part 771.

Incomplete or Unavailable Information for Project Specific MSAT Health Impacts Analysis

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking. The FHWA has prepared the following summary to demonstrate current limitations in evaluating MSAT effects.

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/iris/). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile Source Air Toxic analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI,

http://pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.healtheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (http://pubs.healtheffects.org/view.php?id=282). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (http:// www.epa.gov/risk/basicinformation.htm#g) and the HEI (http://pubs.health effects.org/getfile.php?u=395) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such

assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Qualitative Analysis

For each alternative in the EAW, the amount of MSAT emitted would be proportional to the average daily traffic, or ADT, assuming that other variables such as fleet mix are the same for each alternative. The ADT estimated for the Build Alternative does not differ from that for the No Build Alternative, because the proposed project is intended to improve traffic flow and congestion between Old Rockford Road and CR 47 and not affect regional traffic patterns. Because no changes in ADT are expected along the project corridor or parallel routes, no changes in MSAT emissions are expected compared to the No Build Alternative. There is a potential for lower MSAT emission rates due to increased speeds; according to EPA's MOVES2010b model, emissions of all of the priority MSAT decrease as speed increases. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, ADT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for ADT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools and businesses; therefore, under the Build Alternative there may be localized areas where ambient concentrations of MSAT would be higher than No Build Alternative. The localized differences in MSAT concentrations would likely be most pronounced along the expanded section of Vicksburg Lane between Old Rockford Road and CR 47 under the Build Alternative. However, the magnitude and the duration of these potential increases compared to the No Build Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.