

Applicant: Michael Caron; Tiller Corporation  
Consultant: Kristen Pauly; Sunde Engineering  
Project: Asphalt Plant and Recycling Facility Reconstruction  
Location: 6401 Industrial Boulevard: Eden Prairie  
Rule(s): 3,4 and 5  
Reviewer(s): BCO

### **General Background & Comments**

The project proposes the redevelopment of the Tiller Corporation property located at 6401 Industrial Boulevard in Eden Prairie. Tiller operates an asphalt recycling facility operates on the site; previously, Midwest Asphalt operated the facility. The project proposes to relocate the asphalt plant including the processing and stockpile areas which will improve internal circulation, safety, and efficiency, accordingly to the applicant. The site is 13.2 acres with a project area of 9.64 acres (420,300 sq. ft.). The existing site impervious area is to be reduced by 0.86 acres to an area of 8.78 acres (382,604 sq. ft.).

The applicant has provided information that identifies the site within the boundaries of both a well-head protection area and Drinking Water Supply Management Area as identified in the City of Eden Prairie's Wellhead Protection Plan. Based on this, the applicant has requested the site to be considered as a Restricted site as described in subsection 4.3.2 of the District rules. The project narrative provides a discussion of:

- the location of existing municipal wells in proximity to the site,
- a description of the geological formation below the site with the observation that the "presence of substantial thickness of hydraulically confining material" does not exists as stated in the City's Well Head Protection Plan,

as documentation for the site to be considered restricted with volume retention through infiltration not required. In addition, because of the on-going asphalt operation, NMCWD staff requested information regarding past environmental issues on the site. A summary of the information prepared by Wenck, October 30, 2019, identifies the site has been and is operated as a Resource Conservation and Recovery Act (RCRA) site – the site is permitted to handle hazardous materials by the MPCA.

The Wenck Technical memorandum provided a summary of the Phase I Environment Site Assessment and environmental clean-up activities completed for this site. The assessment identified numerous above and below ground tanks that were to be removed and that an on-site spill of mineral spirits occurred in August, 1990. The underground tanks have been removed and the spill clean-up was completed in accordance with the MPCA requirements and the case files were closed.

Additionally, a review of the Minnesota Pollution Control Agency's *What's in my Neighborhood* website reveals that the site has been the subject of several MPCA cleanup activities over the decades of industrial use. The MPCA also maintains a document entitled *Checklist for determining appropriateness of stormwater infiltration* which identifies instances in which infiltration may not be appropriate. Site characteristics included on the checklist, which are applicable and present on the site are stockpiled materials, and the presence of storage tanks.

As stated, the applicant has requested that the site be considered restricted under subsection 4.3.2 of the NMCWD rules. Based on the technical documentation provided by the applicant to support the restricted site request, the engineer concurs that infiltration is precluded because of potential impacts to the underlying water supply aquifers by both surface runoff from the historical industrial uses, on-going asphalt operations and the lack of a sufficient confining layer between the top of the aquifer and the ground surface as identified in the March, 2015 City Wellhead Protection Plan. Correspondence received from the City of Eden Prairie, item 7 in the exhibits, states the City's agreement with the applicant's determination that infiltration would not be appropriate for the site due to potential adverse effect to an aquifer used for drinking water supply

The applicant is however proposing the reuse of approximately 870,000 gallons (116,300 cubic feet) of site runoff retained in the proposed stormwater basins for on-site dust control during the period of April to mid-November. This volume is equivalent to approximately 3.75 inches of runoff from the impervious areas of the site. This use conforms with the priority sequencing of the Restricted sites rule that states if at least 0.55 inches of runoff cannot be provided on-site then the retention of runoff on-site to the maximum extent practical should be provided. The maximum extent practical is the volume retained for dust control on the site. The applicant must still provide rate control and water quality treatment in accordance with Rules 4.3.1b and c, respectively.

The project site information includes the following:

- Total Site Area: 13.2 acres (76,442 square feet)
- Existing Site Impervious Area: 9.64 acres (420,300 square feet)
- Proposed Site Impervious Area: 8.78 acres (382,604 square feet)
- 0.86 acres (37,462 square feet) reduction in the site impervious area
- Total Disturbed and Reconstructed Impervious Area: 8.78 acres (382,604 square feet)

The Nine Mile Creek Watershed District's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on the site or will increase the imperviousness of the site by more than 50%, stormwater management will apply to the entire project site. Otherwise, the stormwater requirements will apply only to the disturbed, replaced and net additional impervious surface on the project site. Since the project will disturb more than 50% of the existing impervious surface on the site, the stormwater management criteria must be met for the entire site.

The District's requirements for both stormwater management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b and 5.2.1a and b.

Stormwater management rate control and water quality management for runoff from the site will be provided by two constructed stormwater management basins located upstream of the existing on-site wetland.

The District is the local governmental unit (LGU) administering the requirement of the wetland conservation Act (WCA) in Eden Prairie. The wetland boundary has been reviewed and approved by the District on September 20, 2017. A MnRAM Assessment submitted on March 1, 2019 has identified the wetland as a medium value wetland requiring a minimum 20 foot and average 40-foot buffer. We agree with the MnRAM findings. The existing and proposed buffer widths totally 6,690 square feet minimum and 13,021 square feet average will not change by the project. The wetland is bounded on the north by the Twin Cities and Western railroad and Indian Chief Road on the west – as shown on the attached figure. The site property line along both the railroad and roadway are within 5 feet of the wetland boundary. The wetland buffers shown in these areas extends to the property boundary in compliance with Rule 3.4.4.

Silt fence at the construction limits, storm inlet protection and a stabilized rock construction entrance will be utilized for temporary erosion and sediment control.

Since on-site volume retention will not be provided, the relationship of groundwater to the bottom of a stormwater facility is not applicable.

The permit decision is before the managers because the applicant has requested that the site be considered 'restricted' for purposes of analysis of NMCWD stormwater-management requirements and the proposed management plan does not provide at least 0.55 inches of volume retention. Determination of such applications exceeds the authority delegated to the administrator.

#### Exhibits

1. Signed Permit Application dated September 17, 2019.
2. Plans dated October 19, 2020 prepared by Sunde Engineering.
3. Stormwater Management Report dated September 27, 2019, most recent revision October 21, 2020, prepared by Sunde Engineering.
4. Technical Memorandum dated October 30, 2019 summarizing the Phase I Environmental Site Assessments dated October 2016 and the Storage Tank Subsurface Assessment dated November 12, 2018, all documents prepared by Wenck Associates.
5. WCA Notice of decision dated September 20, 2017 approving the wetland boundary determination.
6. Most recent MnRAM results dated March 1, 2019 for the on-site wetland.
7. City of Eden Prairie correspondence dated November 2, 2020 stating the City's agreement with the applicant's determination that infiltration would not be appropriate for the site due to potential adverse effects to an aquifer used for drinking water supply.
8. E-mail correspondence dated October 3, 2019 stating that in accordance with District rule 1.2.2 the District will not take action on an application unless the project has received at least preliminary required approval from the relevant city planning or regulatory office or body, if any is required.

9. Documentation of the Eden Prairie City Council approval of the project on October 20, 2020.
10. Stormwater Management Facility Estimate of Cost submitted November 9, 2020 prepared by Sunde Engineering.

The application with the submittal items described above is complete.

### **3.0 Wetland Management**

As previously stated, the District is the local governmental unit (LGU) administering the requirement of the wetland conservation Act (WCA) in Eden Prairie. The on-site wetland boundary has been reviewed and approved by the District on September 20, 2017. A MnRAM Assessment submitted on March 1, 2019 has identified the wetland as a medium value wetland requiring a minimum 20 foot and average 40-foot buffer. Both the existing and proposed buffer widths are to be maintained and be not change by the project. The wetland is bounded on the north by the Twin Cities and Western railroad and Indian Chief Road on the west – as shown on the attached figure. The site property line along both the railroad and roadway are within 5 feet of the wetland boundary. The wetland buffer does not meet the required minimum or average but extends to the property boundary in compliance with 3.4.4 of the rules.

### **4.0 Stormwater Management**

Stormwater management rate control and water quality management for runoff from the site will be provided by two constructed stormwater management basins.

As previously stated, the applicant has requested that the site be considered restricted under subsection 4.3.2 of the NMCWD rules. The engineer has reviewed the documentation submitted and concurs that infiltration is precluded on the site, as infiltration processes could mobilize and/or transport harmful contaminants to the underlying water supply aquifers. The stormwater management basins to be constructed are to be lined to minimize mobilization of contaminants.

For compliance with NMCWD Rule 4.3.1a, the applicant considered a combination of onsite best management practices. Under District Rule 4.3.2, Restricted Sites, retention to the standard identified in subsection 4.3.1a (1.1-inches) is not practicably feasible, and site conditions (as described above) are such that 0.55-inches of retention is not practicable however the harvesting and reuse of site runoff, approximately 870,000 gallons or 116,300 cubic feet, during the period of April to mid-November, is to be used for on-site dust control. The applicant provides rate control and water quality treatment in accordance with paragraphs 4.3.1b and 4.3.1c, respectively, and the project conforms to Rule 4.3.2b.

In order to comply with the rate control criteria, Rule 4.3.1b, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates. The existing and proposed 2-, 10- and 100-year frequency discharges from the site are as follows:

Existing Conditions			
Drainage Area	2-year (c.f.s.)	10-year (c.f.s.)	100-year (c.f.s.)
To City Storm Sewer	5.5	8.4	13.7
To Wetland	32.4	53.0	89.8
To Railroad R-O-W	<1.0	1.3	4.0

Proposed Conditions			
Drainage Area	2-year (c.f.s.)	10-year (c.f.s.)	100-year (c.f.s.)
To City Storm Sewer	<1.0	<1.0	1.0
To Wetland	12.7	22.5	38.2
To Railroad R-O-W	<1.0	<1.0	<1.0

Rule 4.3.1b is met.

The District's water quality criteria requires 60% annual removal efficiency for total phosphorus and 90% annual removal efficiency for total suspended solids. The results from a P8 model provided shows the two storm water basins will provide an annual removal efficiency of 90.3% for total suspended solids (4,725 lbs.) and 61.3% for total phosphorus (10.2 lbs.) for water quality treatment. Rule 4.3.1c is met.

Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that the low floor and low opening is at least two feet above the 100-year high water elevation of a constructed facility. The volume of runoff generated from the site impervious surface will be detained by the two proposed constructed storm water basins. The low floor elevation and low opening elevation of the reconstructed building is 896.7 M.S.L. The highwater elevation of the adjacent basin #1 is 894.6 M.S.L. – a separation of 2.1 feet. The highwater elevation of basin #2 is 889.5 M.S.L. The project conforms to NMCWD Rule 4.3.3.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

Rules 4.5.4d and 4.3.1a (i) and (ii) do not apply to the project, since the onsite treatment system relies entirely on detention of stormwater, not filtration or infiltration.

## **5.0 Erosion and Sediment Control**

The requirements of Rule 5.0 - Erosion and Sediment Control are applicable to the project since land-disturbing activities will involve excavation of more than 50 cubic yards of material and will disturb 5,000 square feet of more of surface area or vegetation, Rules 5.2.1a and b. Erosion control measures include silt fence at the construction limits, a stabilized rock construction entrance and storm drain inlet protection. Permanent stabilization methods include installation of erosion control blanket and seeding. The project contact is Kristen Pauly, Sunde Engineering.

## **11.0 Fees**

Fees for the project are:

Rules 3.0,4.0 and 5.0	\$3,000
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## **12.0 Financial Assurances**

Financial Assurances for the project are:

Rule 4: Stormwater Management Facility:	\$226,250 <sup>1</sup>
Chloride Management:	\$5,000
Rule 5: Perimeter control: 3,718 L.F. x \$2.50/L.F.= \$9,295	
Inlet Control: 5 x \$100/each = \$500	
Site restoration: 9.0 acres x \$2,500/acre = \$22,500	\$32,295
Contingency and Administration	\$111,255

## **Findings**

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. Rules 3, 4 and 5 are met.

The applicant has requested that the site be considered restricted under subsection 4.3.2 of the NMCWD rules. The applicant has provided information that the site is within the boundaries of both a well-head protection area and Drinking Water Supply Management Area as identified in the City of Eden Prairie's Wellhead Protection Plan. The project narrative provides a discussion of:

- the location of existing municipal wells in proximity to the site,
- a description of the geological formation below the site with the observation that the "presence of substantial thickness of hydraulically confining material" does not exists as stated in the City's Well Head Protection Plan,

in addition to past environmental issues on the site resulting from past and on-going land-use activities on the site. While the location of the property within a Drinking Water Supply

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<sup>1</sup> A cost of \$181,000 was provided by Sunde Engineering for the two stormwater management basins. In accordance with Schedule B-Financial Assurance Rates, a cost of \$226,250,125% of the construction costs, is shown.

Management Area on its own does not support a determination that the site is restricted under 4.3.2 of the Nine Mile Rules, the presence of karst under the site in combination with past uses of the site suggesting underground contamination lead the engineer to concur that the site is restricted. The applicant has proposed a reuse of a portion of the site runoff, approximately 116,300 cubic feet, for dust control during the months of April through mid-November.

3. The proposed stormwater management basins will provide rate control and water quality management in accordance with Rules 4.3.1b and 4.3.1c, respectively. Recommendation

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$374,800, \$369,800 for stormwater management, erosion control and site restoration, and \$5,000 for compliance with the chloride management requirements.
3. Per Rule 4.3.5, a receipt showing recordation of a maintenance declaration for the onsite stormwater management facilities and the wetland buffer. A draft of the declaration must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.8, submittal of an as-built drawing of the stormwater management facilities, including a stage volume relationship in tabular form, conforming to the design specifications.
2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.
3. For the release of the \$369,800 financial assurance required, Rule 12.4.1b requires demonstration and confirmation that the stormwater management facilities have been constructed as designed and permitted.

#### Board Action

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve permit application No. 2019-114 with the conditions recommended by staff.



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## TILLER CORPORATION

### Commercial Asphalt Plant 912

Eden Prairie, MN



