

Heart of the Valley  
METROPOLITAN SEWERAGE DISTRICT

# Water Quality Trading Plan

Prepared by:



FOX - WOLF  
WATERSHED ALLIANCE

In partnership with:



OUTAGAMIE COUNTY

# TABLE OF CONTENTS

## Contents

- 1. EXECUTIVE SUMMARY..... 1**
- 2. GENERAL INFORMATION ..... 1**
  - 2.1. *APPLICANT INFORMATION ..... 1*
  - 2.2. *DISCHARGE INFORMATION..... 1*
  - 2.3. *CREDIT GENERATOR GENERAL INFORMATION..... 2*
  - 2.4. *CREDIT FACILITATOR INFORMATION..... 2*
  - 2.5. *PARAMETER BEING TRADED..... 2*
- 3. WATER QUALITY TRADE BACKGROUND ..... 2**
  - 3.1. *PURPOSE OF WATER QUALITY TRADE ..... 2*
- 4. DESCRIPTION AND LOCATION OF SITES WHERE CREDITS WILL BE GENERATED ..... 4**
  - 4.1. *LOCATION WHERE CREDITS WILL BE GENERATED..... 4*
- 5. METHODS FOR REDUCING NONPOINT SOURCE LOADING ..... 6**
  - 5.1. *METHODS USED TO GENERATE LOAD REDUCTIONS ..... 6*
  - 5.2. *HISTORY OF PROJECT SITE..... 7*
  - 5.3. *MODEL USED TO DERIVE LOAD REDUCTIONS ..... 8*
  - 5.4. *CREDIT THRESHOLD AND METHOD FOR DERIVATION..... 9*
  - 5.5. *ESTABLISHMENT ..... 9*
  - 5.6. *OPERATION AND MAINTENANCE..... 10*
- 6. DERIVATION OF WATER QUALITY TRADING CREDITS ..... 11**
  - 6.1. *INDIVIDUAL TRADE RATIO FACTORS..... 11*
  - 6.2. *INTERIM AND LONG TERM CREDIT..... 13*
- 7. TRADE TIMELINE..... 16**
  - 7.1. *TIMING OF TRADE AGREEMENT, MANAGEMENT PRACTICE INSTALLATION AND CREDIT GENERATION..... 16*
- 8. INSPECTIONS AND REPORTING..... 17**
  - 8.1. *TRACKING PROCEDURES..... 17*
  - 8.2. *INSPECTION ..... 17*
  - 8.3. *MANAGEMENT PRACTICE REGISTRATION FORM..... 19*
  - 8.4. *ANNUAL WATER QUALITY TRADING REPORT SUBMITTAL..... 19*
  - 8.5. *MONTHLY CERTIFICATION OF MANAGEMENT PRACTICES ..... 19*
  - 8.6. *NOTIFICATION OF FAILURE TO GENERATE CREDITS..... 19*
  - 8.7. *CONDITIONS UNDER WHICH MANAGEMENT PRACTICES MAY BE INSPECTED ..... 20*
- 9. CERTIFICATION ..... 21**
  - 9.1. *VERIFICATION OF TRADE AGREEMENT..... 21*

# ATTACHMENTS

---

- 1) Notice of Intent to Conduct Water Quality Trading Submitted by Heart of the Valley (HOV) Metropolitan Sewerage District to WDNR 8/10/16
- 2) HOV's Technology and Historical Discharge
- 3) HOV owned parcels
- 4) NR 151 Agricultural Performance Standards Compliance Letter
- 5) NRCS Technical Standard 350 (Sediment Basin)
- 6) Sediment Basin enhanced with Wetland Vegetation Design, Construction Plan and Justifications
- 7) Sediment Basin Operation and Maintenance Plan
- 8) NRCS Technical Standard 327 (Conservation Cover)
- 9) Conservation Cover Establishment and Operation and Maintenance Plan
- 10) SnapPlus report that shows TSS loss from fields for years 2014-2021 assuming current cropping rotation continues and justifications including crop verification map
- 11) SnapPlus report that shows TSS loss from fields for years 2022-2029 assuming current cropping rotation continues
- 12) SNAP Map showing fields that drain into Sediment Basin enhanced with Wetland Vegetation
- 13) Contour map
- 14) Agreement with upstream landowners
- 15) SnapPlus report that show soil loss with established Conservation Cover
- 16) Credit Generation Calculation Spreadsheet based on SnapPlus model
- 17) WDNR issued permit for Sediment Basin

## 1. Executive Summary

This Water Quality Trading Plan summarizes Heart of the Valley Metropolitan Sewerage District's ("HOV") plan to use water quality trading to comply with its total suspended solids water quality-based effluent limits in its Wisconsin Discharge Elimination System ("WPDES") permit. To assist in complying with HOV's total suspended solids limits, HOV will install and will maintain Conservation Cover on a 3.6 acre field as well as a Sediment Basin enhanced with Wetland Vegetation that is capture sediment from an additional 12.8 acre field within the Plum Creek Sub-watershed. The Plum Creek Sub watershed falls within the same Point of Standard for the Lower Fox River Total Maximum Daily Load as HOV's outfall. To determine the number of credits generated by establishing conservation cover, HOV has used SnapPlus modeling to quantify the amount of TSS loss that would have occurred from the field that will have permanent cover installed assuming current farming practices continued and the amount after establishment of the permanent cover. HOV then applied a ten percent loading factor as directed by WDNR. Using a trade ratio of 1.2:1, HOV calculated the Total Suspended Solids credits available per year based on the change in management practice from farming to permanent vegetative cover on 3.6 acres. To determine the number of credits generated by the Sediment Basin enhanced with Wetland Vegetation, HOV used SnapPlus to determine the TSS loss from the fields that drain to the Sediment Basin, applied a ten percent loading factor to the SnapPlus report and then applied an eighty percent capture rate based on the design of the Sediment Basin. Using a trade ratio of 2:1, HOV calculated the total suspended solids credits available per year based on the addition of the Sediment Basin enhanced with Wetland Vegetation. HOV will use these credits to demonstrate compliance with its total suspended solids limit in its WPDES permit.

## 2. General Information

### 2.1. APPLICANT INFORMATION

Heart of the Valley Metropolitan Sewerage District (HOV)  
801 Thilmany Road  
Kaukauna, WI 54130

Contact: Brian Helminger, District Director  
801 Thilmany Road  
Kaukauna, WI 54140  
(920)766-5731  
[brian.helminger@hvmsd.org](mailto:brian.helminger@hvmsd.org)

### 2.2. DISCHARGE INFORMATION

WPDES Permit: WI-0031232-09-0

HOV discharges directly to the main stem of the Lower Fox River in the Garner's Creek subwatershed (HUC 12: 040302040205) at approximately: latitude 44°17' 12.8" N, longitude 88° 14' 45.4" W. Located within US Canal Parcel A, Private Claim 33, Kaukauna, Outagamie, Wisconsin (HOVMSD) or, south shore of a side channel of the Fox River, downstream from the

Kaukauna Lock # 5. SE ¼ of the SW ¼ of Sec. 18, T21N – R19E, in the City of Kaukauna, Outagamie County (WDNR).

### 2.3. CREDIT GENERATOR GENERAL INFORMATION

HOV owns the land on which the credit generating practices will be built and therefor is also the credit generator. The Parcel ID on which the practices will be located is #030014300, which is located in the NW ¼ of the NE ¼ of Section 28, in Outagamie County.

### 2.4. CREDIT FACILITATOR INFORMATION

HOV has contacted the Fox-Wolf Watershed Alliance to aide in Water Quality Trading facilitation.

Fox-Wolf Watershed Alliance  
1000 N. Ballard Road  
P.O. Box 1861  
Appleton, WI 54911

Contact: Jessica Schultz, Executive Director  
(920)858-4246  
[jessica@fwwa.org](mailto:jessica@fwwa.org)

### 2.5. PARAMETER BEING TRADED

This water quality trading plan has been developed to trade for Total Suspended Solids (TSS) credits. HOV may submit a water quality trading plan in the future for P credits from both the land out of production in conservation cover and the sediment basin. The sediment basin with enhanced with wetland vegetation will be monitored for Phosphorus (P)<sup>1</sup> reduction effectiveness.

## 3. Water Quality Trade Background

### 3.1. PURPOSE OF WATER QUALITY TRADE

The purpose of this Water Quality Trading Plan (“Plan”) is to describe HOV’s use of water quality trading to comply with the total suspended solids limits of WPDES permit WI-0031232-09-0.

HOV will install a Sediment Basin enhanced with Wetland Vegetation to capture sediment from a field upstream as well as establish Conservation Cover on a field owned by the District within the Plum Creek Sub watershed, a watershed which lies within the same Point of Standards Application as HOV’s discharge for the Lower Fox River Total Maximum Daily Load in order to generate TSS credits. HOV will use the TSS credits generated from these management practices to comply with it total suspended solids limits in WPDES permit WI-0031232-09-0. Because HOV is both the credit generator and credit user, HOV is entering into a trade agreement with the Wisconsin Department of Natural Resources (“WDNR”) for this trade.

---

<sup>1</sup> Drain tiles are located on the property adjacent to the sediment basin. The sediment basin is designed to treat dissolved phosphorus and will be monitored to determine the effectiveness of treating P. Based on findings, HOV may claim P credits in the future through another trading plan.

This Water Quality Trading Plan was developed following the Notice of Intent to Conduct Water Quality Trade which was originally dated August 10, 2016.

The Heart of the Valley Metropolitan Sewerage District Wastewater Treatment Facility serves the domestic, commercial and industrial wastewater needs of customers from the communities of; Kaukauna, Kimberly, Little Chute, Combined Locks, and Darboy. Treatment consists of raw wastewater screening and grit removal, Actiflo ballasted sedimentation utilizing chemicals and ballast sand to settle out solids and remove phosphorus, Biostyr up-flow biological aerated filter for BOD removal and nitrification, and chlorine disinfection. Solids are processed in autothermal aerobic digesters which produce class "A" bio-solids which are stored on site until being injected in farm land as fertilizer and soil conditioner.

HOV is located in the City of Kaukauna, Outagamie County, Wisconsin. HOV discharges to the main stem of the Lower Fox River in the Garners Creek Sub watershed. The impact of the inclusion of the Lower Fox River Total Maximum Daily Load on HOV's permit is mass based and more stringent in TSS and P limits.

HOV's actual monthly discharge from 2012-2016 ranged between 181 lbs/tss/day and 1024 lbs/tss/day (actual monthly discharge numbers shown in attachment 2). The discrepancy is due to wet weather events and the amount of effluent that is directed to Fox Energy Center. Given the new restrictive permit requirements, a monthly average of 801 lbs/day, HOV cannot consistently and reliably achieve compliance with the water quality based effluent limits (WQBELs) proposed in the new permit when there are wet weather events, or when the WPS/Fox Energy peaking plant is not drawing water from the HOV effluent.

HOV currently provides a portion of their effluent every month to Fox Energy based upon the water needs at Fox Energy. This agreement between HOV and Fox Energy does not require Fox Energy to pump HOV effluent water. HOV MSD determined they would base their credit need off of what their monthly lbs/day TSS discharge would have been without Fox Energy diverting their effluent. Calculated monthly discharge numbers showing what would have been discharged if effluent had not been pumped by Fox Energy can be found in attachment 2.

To calculate credit need HOV District Director analyzed effluent data from the monthly discharge monitoring reports (DMRs) which have been submitted to Wisconsin DNR for the years 2012-2016. As directed in the WDNR issued "A Water Quality Trading How to Manual," Heart of the Valley MSD calculated the amount of offset needed to comply with their WQBEL using the most restrictive limit for TSS, a monthly average of 801 lbs/day as defined in their draft permit.

The tables below reflect the number of NPDES permit violations HOV would have had in recent years if operating under the new more stringent TSS limits and the number of credits needed to ensure HOV compliance.

CURRENT ACTUAL NEED with effluent withdrawal to Fox Energy		
Year	Monthly violations	Total Credits Needed
2012	0	0
2013	2	496.2
2014	1	223.7
2015	0	0
2016	0	0
<i>Credit Offset Needed (Highest Annual Need)</i>		496.2

WORST CASE NEED no effluent withdrawal to Fox Energy		
Year	Monthly violations	Total Credits Needed
2012	6	836.1
2013	6	1209.5
2014	4	643.8
2015	3	1093.3
2016	5	1088.4
<i>Credit Offset Needed (Highest Annual Need)</i>		1209.5

Based on new monthly average limits of 801 lbs/day, HOV determined they would like to acquire a minimum of 1,210 water quality trading credits annual to serve as insurance in the event that Fox Energies discontinues taking effluent. The credit generating practice this water quality trading plan is based upon generates between 1,517 credits/year and 3,157 credits/year over the 5-year permit cycle.

The permit compliance timelines are different for TSS and P. At this time, HOV is pursuing water quality trading to comply with TSS requirements.

#### 4. Description and Location of Sites where Credits will be Generated

##### 4.1. LOCATION WHERE CREDITS WILL BE GENERATED

HOV discharges directly to the main stem of the Lower Fox River in Kaukauna, between the mid-Appleton Dam and the DePere Dam.

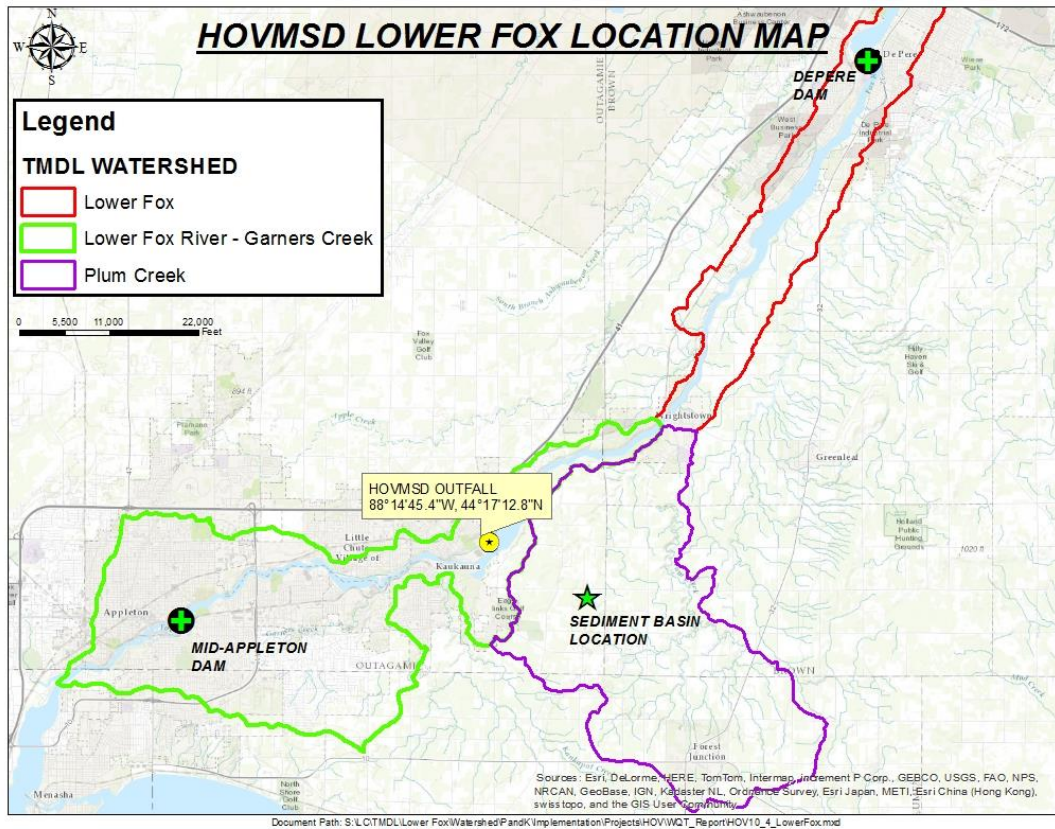


Figure 1: Location of Credit Generating Practices compared to Credit User and the relevant Lower Fox River TMDL Reach.

HOV will implement conservation management practices to generate total suspended solid credits on a field it owns in the Plum Creek Sub-watershed. The field is parcel number 030014300 located in the Town of Buchanan in Outagamie County. This field will have the Sediment Basin enhanced with Wetland Vegetation installed as well as an area of the field taken out of production and put into Conservation Cover to generate credits. The field is 39.32 GIS acres and is labeled number 14 in Attachment 3. The location of the credit generating practices and the credit user can be seen in figure 1 above.



The Plum Creek sub-watershed, where the credit generating practices are located is in the Lower Fox River Watershed. It empties into the main stem of the Lower Fox River between the mid-Appleton dam and the DePere dam.

HOV and the sub-watershed of the credit generating practices both discharge to the main stem of the Lower Fox River between the mid-Appleton dam and the DePere dam. Because the Lower Fox River is a Total Maximum Daily Load watershed, HOV has the flexibility to trade within this TMDL reach. See figure 2 for further explanation.

#### **Flexibility in TMDL Watersheds**

A “TMDL reach” is a waterbody segment used to calculate pollutant allocations for point and nonpoint sources in a TMDL. Typically, TMDL reaches are either impaired themselves or located upstream of an impaired water. Because of how TMDL reaches are delineated TMDL reaches may overlap with HUC 12 watershed boundaries allowing TMDL reaches to be used in lieu of or in addition to the HUC 12 boundary. When trading to meet allocations from a TMDL the trade locations must be hydraulically connected and located upstream of the impaired segment.

Figure 2: Explanation of TMDL reach from WDNR, A Water Quality Trading How to Manual 09/09/13

## 5. Methods for Reducing Nonpoint Source Loading

### 5.1. METHODS USED TO GENERATE LOAD REDUCTIONS

HOV will install and maintain a Sediment Basin consistent with the requirements of NRCS Technical Standard 350 (attachment 5). In particular, HOV will install and maintain the Sediment Basin enhanced with Wetland Vegetation in accordance with the Design Plan included in Attachment 6 and the Operation and Maintenance Plan in Attachment 7. HOV contracted with Jeremy Freund, PE, Project Coordinator for Outagamie County Land Conservation Department<sup>2</sup> to design the Basin and prepare these plans.

As stated in the NRCS technical standard “the Sediment Basin will capture and detain sediment, manure-laden runoff, or other debris for a sufficient length of time to allow it to settle in the basin.”

The Sediment Basin enhanced with Wetland Vegetation is designed to capture 80%. The Design Plan in Attachment 6 shows/describes in detail how the Sediment Basin enhanced with Wetland Vegetation will be built on the Field consistent with NRCS Technical Standard 350.

HOV will also install and maintain Permanent Vegetative Cover on a 3.6 acre field consistent with the requirements of the NRCS Technical Standard 327 (attachment 8). In particular, HOV will install and maintain permanent vegetative cover on the field in accordance with the establishment plan included in Attachment 9 and the Operation and Maintenance Plan in Attachment 9.

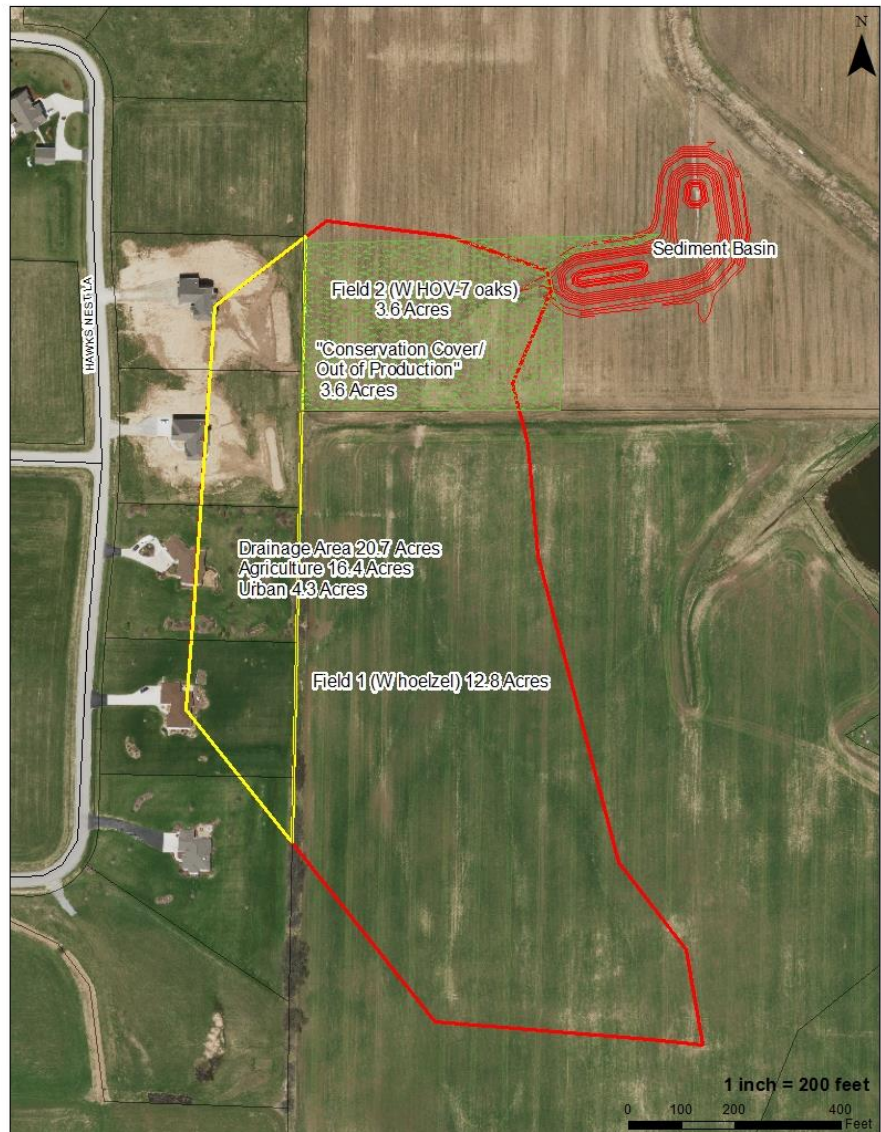
---

<sup>2</sup> Jeremy Freund, PE Project Coordinator, Outagamie County Land Conservation Department (920)832-5076, [jeremy.freund@outagamie.org](mailto:jeremy.freund@outagamie.org)

5.2. HISTORY OF PROJECT SITE

The Sediment Basin site as well as the fields draining into the site, which include the field that will have conservation cover established (See figure 2 below) have been in agricultural production. The past three years (2015-2017) of agricultural activity have been modeled in SnapPlus to determine historical soil loss and are available in Attachment 10.

Figure 2: Map identifying location of credit generating practices; depicting total drainage area, location of fields and associated acreage of fields draining into Sediment Basin.



As identified in Attachment 3 (a comprehensive list of HOV owned parcels), HOV owns approximately 250 acres of agricultural land in the Town of Buchanan within the Plum Creek Watershed. HOV is currently working to ensure all of the 250 acres including the acres generating credits for this trade are in compliance with NR 151 agricultural performance standards and applicable regulations. The land currently meets all 151 requirements except the nutrient management plan requirement. A letter of non-compliance has been issued by Outagamie County Land Conservation Department (Attachment 4). An updated letter of compliance will be added as an addendum to this plan by April 1, 2018 when HOV will have all fields under nutrient management. The upstream field that is not owned by HOV but drains to

the sediment basin is also in compliance with NR151 agricultural performance standards.

### 5.3. MODEL USED TO DERIVE LOAD REDUCTIONS

SnapPlus was used to determine soil loss from the agricultural fields that the conservation cover is being established and the field that drains to the proposed sediment basin enhanced with wetland vegetation. SnapPlus runs for years 2014-2022 can be found in Attachment 10. SnapPlus runs for years 2023-2029 can be found in Attachment 11.

There are two fields that drain into the proposed Sediment Basin enhanced with Wetland Vegetation. The 3.6 acre field that will be generating credits from going from conventional farming to Permanent Vegetative Cover consistent with NRCS Standard 327 is owned by HOV. The second 12.8 acre field is owned by an independent producer. HOV has an agreement (attachment 15) with the landowner upstream of the sediment basin to ensure the land is managed according to the SnapPlus model. Annual photo verification of both crop and tillage practices of the cropland upstream of the sediment basin and the land in conservation cover shall be collected in May of each year. This verification documentation and any revisions to SNAP Plus calculations as a result of field verification will be submitted to WDNR by June of each year.

Not all soil loss from the field is delivered to the stream. WDNR has determined that for this plan we shall assume that 10% of the soil loss is delivered and can be counted as potentially tradable TSS.

The sediment basin meets and exceeds the criteria established in the Sediment Basin 350 Technical Standard (attachment 5). The approach to the design (attachment 6) was conservative to ensure the project is successful based on the following information:

1. The soil texture class the design is based on. The goal of the sediment basin is to trap TSS that is generated in the adjacent field from sheet, rill, and wind erosion (T) of the agricultural topsoil and flows into the basin with runoff. While 56% of the basin topsoil acreage is mapped as a silt loam (soil class 2), the design was based on the topsoil of the basin that is a silty clay loam (soil class 3). Therefore, the settling velocity equation referenced in the hydraulics section assumes the entirety of the runoff contains only the finer sediments, when in reality 56% of the runoff could be settled in a smaller sediment basin. This equation also applies a built in safety factor that increases the required surface area by 20%. The technical standard design requires 14,000 ft of surface area at a depth of 5' and the plans exceed that by providing 14,350 ft<sup>2</sup>.
2. The surface area of the sediment basin was enlarged from a design requirement of 14,000 ft<sup>2</sup> of treatment surface area to a surface area of 33,235 ft<sup>2</sup>. The 240 percent increase includes the construction of a flat, top-soiled area that is designed to be under water for 5-7 days following a precipitation event that fills the basin. These conditions promote the growth of wetland type vegetation and it is expected that this type of vegetation adjacent to the sediment traps within the basin, along with the extended storage time of water in

the basin, will increase the overall removal efficiency of the sediment basin as a standalone practice.

3. The design equations used for settling velocity are the same equation used in WI-DNR Technical Standard 1064, Sediment Basin. Section V. Criteria states that an 80% removal efficiency can be assumed when applying the same methodology.

Based on all of the above, we assume the basin will meet and exceed the 80% sediment trapping efficiency stated in the plan.

A second SnapPlus run was done on the field that will be established with conservation cover. The difference between the first and second run was used to determine load reduction for that practice. The second SnapPlus run showing the impact of the conservation cover is provided as Attachment 15.

#### 5.4. CREDIT THRESHOLD AND METHOD FOR DERIVATION

The WDNR developed a TMDL Baseline for TSS and a TMDL Threshold for TSS in Plum Creek sub-basin 2 based upon the Lower Fox River TMDL. The TMDL Baseline Sediment loss is 0.94788 T/ac/yr or 1,895.76 lbs/ac/yr and the TMDL TSS Threshold with a 10% delivery factor is 0.0245 T/ac/yr or 48.15 lbs/ac/yr.

HOV will claim interim<sup>3</sup> credits for all credits generated that reduce the load from the field to the TMDL TSS threshold and long term<sup>4</sup> credits for all credit generated that reduce the load from TMDL TSS threshold and below for the duration of this plan (5 years). HOV reserves the right to utilize long term credits generated for those that bring the TSS reduction beyond the credit generating threshold in future plans. HOV understands that use of credits in the future will be determined using the current WDNR policy and regulations at that time.

#### 5.5. ESTABLISHMENT

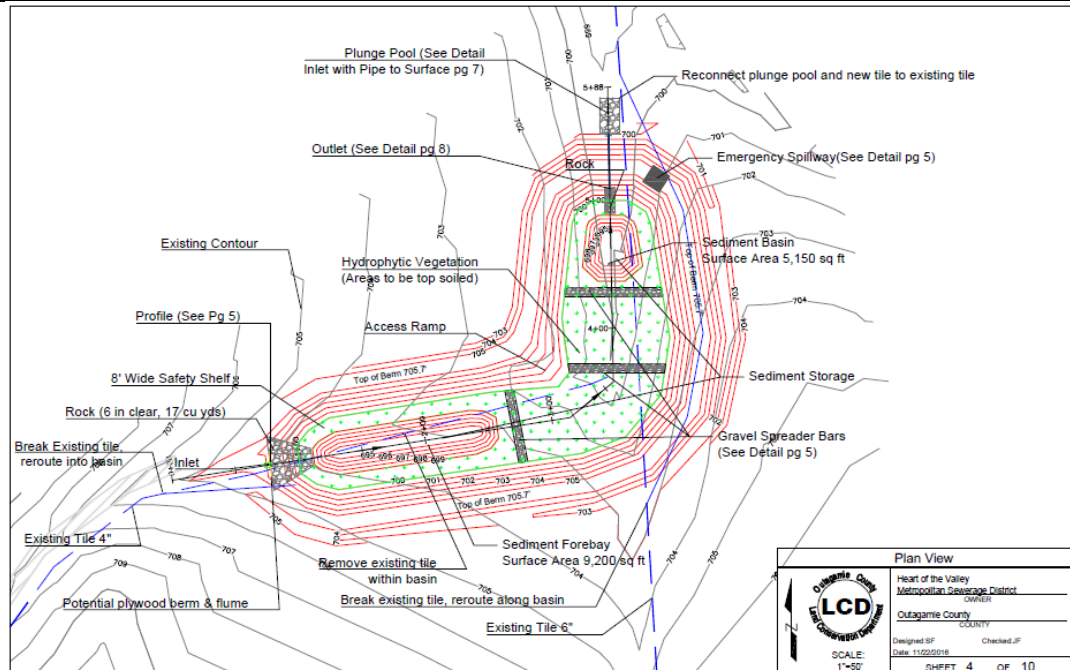
The Design Construction Plan for the Sediment Basin enhanced with Wetland Vegetation (Attachment 6) describes in detail how the practice was engineered and constructed. The Sediment Basin design meets and exceeds the criteria established in the Sediment Basin 250 Technical Standard (Attachment 5). The Basin was enlarged to have a section of wetland vegetation between the sediment bays to further enhance the function of the Basin.

---

<sup>3</sup> WDNR: Guidance for Implementing Water Quality Trading in WPDES Permits (8/21/2013) Section 2.8 “Interim credits are generated by load reductions that achieve the credit threshold and, therefore, can be generated only when the current pollutant load exceeds the applicable LA.”

<sup>4</sup> WDNR: Guidance for Implementing Water Quality Trading in WPDES Permits (8/21/2013) Section 2.8 “Long-term credits are generated by load reductions obtained below the LA credit threshold.”

Figure 3: The Plan View of the Sediment Basin is a part of the overall Design/ Construction Plan found in Attachment 6.



The Establishment Plan for the Conservation Cover (Attachment 9) describes in detail how the 3.6 acres of land, formerly used to grow agricultural crops was taken out of production and planted with a seed mix that includes Smooth Bromegrass, Timothy Grass and Red Clover. The seeding plan was developed using the NRCS Wisconsin Seed Mix Calculator. A minimum plant density of 4-5 plants/ft<sup>2</sup> as set in the NRCS 327 Conservation Cover Technical Standard (Attachment 8) will be used as the threshold to determine stand adequacy.

#### 5.6. OPERATION AND MAINTENANCE

The Operation and Maintenance Plans in Attachment 7 and Attachment 9 describe in detail how the Sediment Basin and Conservation Cover will be inspected and maintained in accordance with NRCS Technical Standards 350 and 327, respectively, particularly to meet the needs of this water quality trading plan.

The Operation and Maintenance Plan for the Sediment Basin requires monthly inspections for removal of litter and debris from the Basin, embankments and outlet structure as well as inspection and maintenance to address weed and invasive vegetation growth and erosion issues.

The Sediment Basin Operation and Maintenance Plan specifically identifies the need for an annual inspection of the permanent pool depth. This inspection shall be certified by a licensed Professional Engineer to ensure that the Basin is functioning as intended in order to meet the requirements of this WQT Plan.

The Operation and Maintenance Plan for the Conservation Cover requires monthly inspections upon establishment verification to observe the permanent vegetative cover, confirm seed

establishment standards remain intact and identify any erosion issues. Monthly inspections shall be certified in monthly DMRs.

Inspection of the Conservation Cover shall be completed by an independent Certified Agronomist familiar with NRCS technical standard 327 at least once per year in August to observe the permanent vegetative cover, confirm seed establishment standards are met and identify an erosion concerns.

As detailed in section 8.2 Inspection, inspection reports generated during each routine (monthly/annually) or after rain event inspection will be included with the Annual Water Quality Trading Report submitted by HOV to WDNR.

## 6. Derivation of Water Quality Trading Credits

### 6.1. INDIVIDUAL TRADE RATIO FACTORS

In order to determine the Total Suspended Solids that would have been delivered to the water from the Soil Loss determined by the SnapPlus model a 10% factor is applied (this factor was provided by WDNR for this trade). The resulting number is the Potential Tradable TSS.

For the Sediment Basin, 80% of the potentially tradable TSS will be captured in the Credit Generating Practice. The applicable trade ratio is then applied to this number to determine the number of credits the credit user can receive for the management practice.

For the Conservation Cover, a second SnapPlus model was run and the 10% delivery factor is applied, the applicable trade ratio is then applied to the difference in Potential Tradable TSS from the first run and the second run to determine the number of credits the credit user can receive for the management practice.

The WDNR “Guidance for Implementing Water Quality Trading in WPDES Permits” which became effective August 21, 2013 identifies individual components of the trade ratio as seen in figure 4.

$$\text{Trade Ratio} = (\text{Delivery} + \text{Downstream} + \text{Equivalency} + \text{Uncertainty} - \text{Habitat Adjustment}):1$$

Figure 4: Trade Ratio WDNR “Guidance for Implementing Water Quality Trading in WPDES Permits”

#### **Delivery Factor**

According to the WDNR Water Quality Trading Guidance “2.11.1 Delivery Factor – When TMDLs do not include fate and transport, pollutant loads are assumed to move through the system in a conservative fashion with no losses due to settling of other processes. This results in downstream allocations being lower with an implicit margin of safety because there are no pollutant losses assumed to have occurred in the system.” The Lower Fox River/ Lower Green Bay TMDL does not have fate and transport factors. Therefore, there is no delivery factor that needs to be accounted for in the trade ratio calculation.

**Downstream Factor**

The Fields where the credits are being generated are located in the Plum Creek Sub-Watershed. The Plum Creek Sub Watershed discharges to the main stem of the Lower Fox River above the Point of Standards below the HOV discharge which is the DePere Dam, eliminating the Downstream Factor.

**Equivalency Factor**

WDNR Water Quality Trading Guidance states “An equivalency factor is not necessary for trading TSS credits at this time.” See WQT Guidance 2.11.3.

**Uncertainty Factor**

The practices generating the Water Quality Trading Total Suspended Solids Credits are a Sediment Basin enhanced with Wetland Vegetation, NRCS Technical Standard 350 and Conservation Cover, NRCS Technical Standard 327. According to Table 4 of the Water Quality Trading Guidance: utilizing the Sediment Basin enhanced with Wetland Vegetation as a conservation practice results in an uncertainty factor of 2, utilizing Conservation Easement by putting land in perennial vegetation has an uncertainty factor of 1.

**Habitat Adjustment Factor**

HOV is not claiming any beneficial habitat, resulting in an adjustment factor of 0.

**TRADE RATIO CALCULATION**

Based on the above factors, the trade ratio for the HOV TSS trade utilizing a Sediment Basin is a trade ratio of 2:1.

**Sediment Basin**

**Trade Ratio = Delivery + Downstream + Equivalency + Uncertainty – Habitat Adjustment**

$$2:1 = 0 + 0 + 0 + 2 - 0$$

Applying the same logic as above, the trade ratio for the HOV TSS trade utilizing Conservation Cover would be 1:1. The WQT guidance, Section 2.11.6 states there is a minimum trade ratio of 1.2:1. Therefore, trade ratio for the conservation cover will be 1.2:1.

**Conservation Cover**

**Trade Ratio = Delivery + Downstream + Equivalency + Uncertainty – Habitat Adjustment**

$$1.2:1 = 0 + 0 + 0 + 1 - 0$$

6.2. INTERIM AND LONG TERM CREDIT

According to WDNR WQT guidance Section 2.8 “NPS (nonpoint source), credit generators... that are located in a watershed with an approved TMDL may generate two types of credits; interim credits and long-term credits. Interim credits are generated by load reduction that achieve the credit threshold and therefore, can be generated only when the current pollutant load excess the applicable LA (load allocation). Long-term credits are generated by load reductions obtained below the LA credit threshold.

The durations of interim credits equals the lifespan of the management practice employees to reduce pollutant loads, or 5 year, whichever is shorter.”

HOV is trading within a TMDL watershed and qualifies to utilize interim credits. The tables below show how interim credits were calculated for this plan.

**Year 2018**

<b>Field 1 (W hoelzel)</b>		
<b>12.8 Acre Field</b>		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Trade Ratio:	2:1 <small>Sediment Control Basin (further justification in plan)</small>
Annual Soil Loss		
Conventional Farming	0.581 tns/ac/yr	1162 lbs/ac/yr
10% Delivery Factor	0.0581 tns/ac/yr	116.2 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.04648 tns/ac/yr	92.96 lbs/ac/yr
Sediment loss after practice	0.01162 tns/ac/yr	23.24 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.04648 tns/ac/yr	92.96 lbs/ac/yr
Total Reductions (*12.8 acres)	0.594944 tns/yr	1189.888 lbs/yr
All reductions qualify as interim credits.		
<b>Trade Ratio 2:1 594.944 credits</b>		
HOV can utilize interim credits for five years (from 2018 - 2022)		
<b>Field 1 - 2018 TSS Credits 594.9 credits</b>		

<b>Field 2 (W HOV - 7 oaks)</b>		
<b>3.6 Acre Field</b>		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Trade Ratio:	1.2:1 <small>Minimum Nonpoint Trade Ratio (further justification in plan)</small>
Annual Soil Loss		
Conventional Farming	1.541 tns/ac/yr	3082 lbs/ac/yr
10% Delivery Factor	0.1541 tns/ac/yr	308.2 lbs/ac/yr
Annual Soil Loss grasslands	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss grasslands with 10% delivery factor)		
	0.1537 tns/ac/yr	307.4 lbs/ac/yr
Total Reductions (*3.6 acres)	0.55332 tns/yr	1106.64 lbs/yr
All reductions qualify as interim credits.		
<b>Trade Ratio 1.2:1 922.2 credits</b>		
HOV can utilize interim credits for five years (from 2018 - 2022)		
<b>Field 2 - 2018 TSS Credits 922.2 credits</b>		

**Total 2018 TSS Credits available: 1517**



Heart of the Valley Metropolitan Sewerage District  
Water Quality Trading Plan – March 14, 2018

**Year 2019**

Field 1 (W hoelzel) 12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
Trade Ratio:	2:1	Sediment Control Basin (further justification in plan)
Annual Soil Loss		
Conventional Farming	0.327 tns/ac/yr	654 lbs/ac/yr
10% Delivery Factor	0.0327 tns/ac/yr	65.4 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.02616 tns/ac/yr	52.32 lbs/ac/yr
Sediment loss after practice	0.00654 tns/ac/yr	13.08 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.02616 tns/ac/yr	52.32 lbs/ac/yr
Total Reductions (*12.8 acres)	0.334848 tns/yr	669.696 lbs/yr
Trade Ratio 2:1 334.848 credits		
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 1 - 2019 TSS Credits 334.8 credits		

Field 2 (W HOV - 7 oaks) 3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
Trade Ratio:	1.2:1	Minimum Point to Nonpoint Trade Ratio (further justification in plan)
Annual Soil Loss		
Conventional Farming	4.708 tns/ac/yr	9416 lbs/ac/yr
10% Delivery Factor	0.4708 tns/ac/yr	941.6 lbs/ac/yr
Annual Soil Loss grasslands	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss grasslands with 10% delivery factor)		
	0.4704 tns/ac/yr	940.8 lbs/ac/yr
Total Reductions (*3.6 acres)	1.69344 tns/yr	3386.88 lbs/yr
Trade Ratio 1.2:1 2822.4 credits		
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 2 - 2019 TSS Credits 2822.4 credits		

**Total 2019 TSS Credits available: 3157**

**Year 2020**

Field 1 (W hoelzel) 12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
Trade Ratio:	2:1	Sediment Control Basin (further justification in plan)
Annual Soil Loss		
Conventional Farming	0.239 tns/ac/yr	478 lbs/ac/yr
10% Delivery Factor	0.0239 tns/ac/yr	47.8 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.01912 tns/ac/yr	38.24 lbs/ac/yr
Sediment loss after practice	0.00478 tns/ac/yr	9.56 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.01912 tns/ac/yr	38.24 lbs/ac/yr
Total Reductions (*12.8 acres)	0.244736 tns/yr	489.472 lbs/yr
Trade Ratio 2:1 244.736 credits		
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 1 - 2020 TSS Credits 244.736 credits		

Field 2 (W HOV - 7 oaks) 3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
Trade Ratio:	1.2:1	Minimum Point to Nonpoint Trade Ratio (further justification in plan)
Annual Soil Loss		
Conventional Farming	4.19 tns/ac/yr	8380 lbs/ac/yr
10% Delivery Factor	0.419 tns/ac/yr	838 lbs/ac/yr
Annual Soil Loss grasslands	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss grasslands with 10% delivery factor)		
	0.4186 tns/ac/yr	837.2 lbs/ac/yr
Total Reductions (*3.6 acres)	1.50696 tns/yr	3013.92 lbs/yr
Trade Ratio 1.2:1 2511.6 credits		
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 2 - 2020 TSS Credits 2511.6 credits		

**Total 2020 TSS Credits available: 2756**

Heart of the Valley Metropolitan Sewerage District  
Water Quality Trading Plan – March 14, 2018

**Year 2021**

Field 1 (W hoelzel) 12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
Trade Ratio:	2:1	Sediment Control Basin (further justification in plan)
Annual Soil Loss		
Conventional Farming	4.86 tns/ac/yr	9720 lbs/ac/yr
10% Delivery Factor	0.486 tns/ac/yr	972 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.3888 tns/ac/yr	777.6 lbs/ac/yr
Sediment loss after practice	0.0972 tns/ac/yr	194.4 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet	No	
TMDL Threshold	No	
Reductions do not qualify to generate credits because TMDL threshold is not met (per guidance)		
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.3888 tns/ac/yr	777.6 lbs/ac/yr
Total Reductions (*12.8 acres)	4.97664 tns/yr	9953.28 lbs/yr
	Trade Ratio 2:1	0 credits
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 1 - 2021 TSS Credits		0 credits

Field 2 (W HOV - 7 oaks) 3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
Trade Ratio:	1.2:1	Minimum Point to Nonpoint Trade Ratio (further justification in plan)
Annual Soil Loss		
Conventional Farming	4.128 tns/ac/yr	8256 lbs/ac/yr
10% Delivery Factor	0.4128 tns/ac/yr	825.6 lbs/ac/yr
Annual Soil Loss grasslands	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet	Yes	
TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss grasslands with 10% delivery factor)		
	0.4124 tns/ac/yr	824.8 lbs/ac/yr
Total Reductions (*3.6 acres)	1.48464 tns/yr	2969.28 lbs/yr
	Trade Ratio 1.2:1	2474.4 credits
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 2 - 2021 TSS Credits		2474.4 credits

**Total 2021 TSS Credits available: 2474**

**Year 2022**

Field 1 (W hoelzel) 12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
Trade Ratio:	2:1	Sediment Control Basin (further justification in plan)
Annual Soil Loss		
Conventional Farming	7.048 tns/ac/yr	14096 lbs/ac/yr
10% Delivery Factor	0.7048 tns/ac/yr	1409.6 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.56384 tns/ac/yr	1127.68 lbs/ac/yr
Sediment loss after practice	0.14096 tns/ac/yr	281.92 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet	No	
TMDL Threshold	No	
Reductions do not qualify to generate credits because TMDL threshold is not met (per guidance)		
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.56384 tns/ac/yr	1127.68 lbs/ac/yr
Total Reductions (*12.8 acres)	7.217152 tns/yr	14434.3 lbs/yr
	Trade Ratio 2:1	0 credits
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 1 - 2022 TSS Credits		0 credits

Field 2 (W HOV - 7 oaks) 3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
Trade Ratio:	1.2:1	Minimum Point to Nonpoint Trade Ratio (further justification in plan)
Annual Soil Loss		
Conventional Farming	3.834 tns/ac/yr	7668 lbs/ac/yr
10% Delivery Factor	0.3834 tns/ac/yr	766.8 lbs/ac/yr
Annual Soil Loss grasslands	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
Plum Creek TMDL Threshold	0.024 tns/ac/yr	48 lbs/ac/yr
Does loss after practice meet	Yes	
TMDL Threshold	Yes	
All reductions qualify as interim credits.		
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss grasslands with 10% delivery factor)		
	0.383 tns/ac/yr	766 lbs/ac/yr
Total Reductions (*3.6 acres)	1.3788 tns/yr	2757.6 lbs/yr
	Trade Ratio 1.2:1	2298 credits
HOV can utilize interim credits for five years (from 2018 - 2022)		
Field 2 - 2022 TSS Credits		2298 credits

**Total 2022 TSS Credits available: 2298**

These practices generate long term credits that extend beyond the timeframe covered by this plan. Attachment 16 contains tables summarizing the credit generated for each year through 2029. Long term credits may be generated beyond 2029 and will be included in future trading plans.

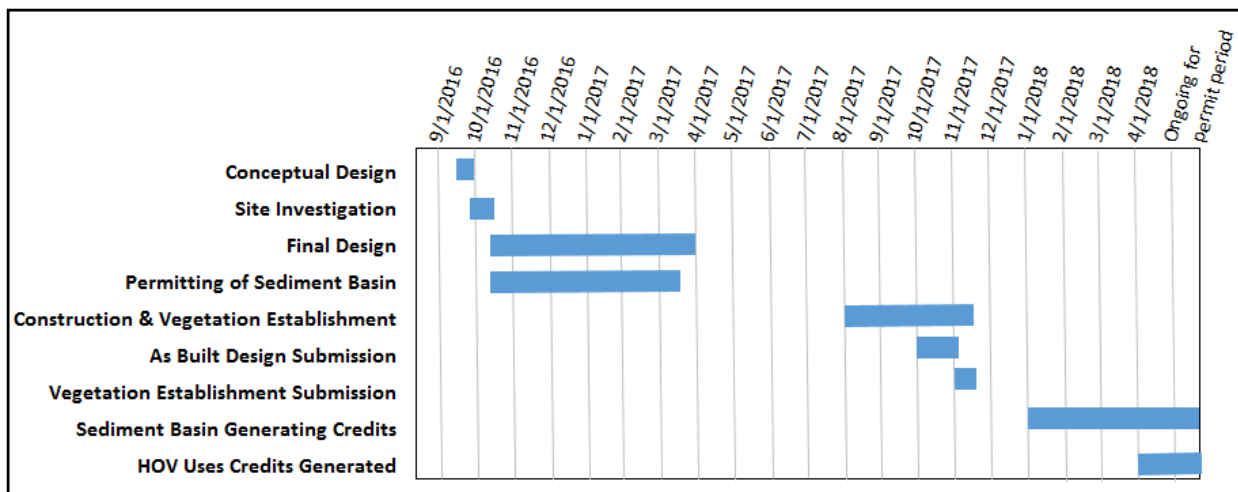
HOV may utilize the credits generated each year as shown in the tables above to comply with the total suspended solids water quality based effluent limits in its WPDES Permit WI 0031232-09-0.

## 7. Trade Timeline

### 7.1. TIMING OF TRADE AGREEMENT, MANAGEMENT PRACTICE INSTALLATION AND CREDIT GENERATION

Schedule for Installation of Sediment Basin enhanced with Wetland Vegetation for Total Suspended Solids Credit Generation for TSS compliance can be seen in figure 5 below.

**Figure 5: Schedule for Installation of Sediment Basin enhanced with Wetland Vegetation**



HOV anticipates credits to be ready to use beginning 4/1/2018. Determination of credit availability will be made by WDNR. Interim credits will expire 3/28/2022. Long term credits continue pending operation and maintenance of practice is followed as outlined in this WQT Plan and practices is still generating credits based on upland land use.

## 8. Inspections and Reporting

### 8.1. TRACKING PROCEDURES

HOV will track credits used monthly on a spreadsheet. HOV will report to WDNR credit usage on a monthly basis in the Discharge Monitoring Reports (DMR - see section 8.4). The annual report will summarize the 12 months of credit usage and credit generation. HOV will report to DNR any concern that they have that may result in a need to modify the trade agreement and/or this trade plan. For example, a need to purchase additional credits based on discharge.

### 8.2. INSPECTION

Inspections of the established conservation cover and of the sediment basin enhanced with wetland vegetation shall occur to ensure HOV remains in compliance.

Inspections of the Basin shall occur (1) routinely, (2) after a large precipitation event and (3) an annual certification by a licensed professional engineer.

The Sediment Basin Operation and Maintenance Plan (attachment 7) **requires** routine monthly inspections and inspections after a rain event of 2" or more to identify issues as they begin to occur and for the removal of litter and debris from the Basin, embankments and outlet structure as well as inspection and maintenance to address weed and invasive vegetation growth, erosion issues, voids, etc.

The inspector will inspect the Sediment Basin generating the water quality trading credits to ensure it is performing as intended.

The inspection reports will include:

- Name and contact information of the inspector
- Inspection Date
- Relevant standards set forth in the Design Plan or Operation and Maintenance Plan
- Issues identified
- When and how any issues identified were addressed
- When and how any issues identified will be addressed in the future

Inspection reports generated during each routine or after rain event inspection will be included with the Annual Water Quality Trading Report submitted by HOV to WDNR.

The Sediment Basin Operation and Maintenance Plan specifically identifies the need for an annual inspection of the permanent pool depth. Annual inspections are used to assess structural integrity of the Basin, inspect sediment depths, assess the overall performance of the Basin and certify that it meets the intent of the original construction plan. This inspection shall be certified by a licensed Professional Engineer to ensure that the Basin is functioning as intended in order to meet the requirements of this WQT Plan. The licensed professional engineer shall be qualified and knowledgeable of sediment basins.

Annual inspections by a professional engineer will typically occur in mid- to late-May. This time of year is ideal so the effects of a Wisconsin winter can be evaluated and enough growing season exists to re-establish any vegetation if needed. Upon inspection, if erosion or bare soil is

identified, the area will be repaired within a week. If forecasted weather or appropriate seeding dates prevent re-establishment of the species specified in this plan, then a temporary planting and/or erosion blanket will be installed on the repaired area until the original species can be planted.

Inspections of the land out of production in Conservation Cover shall occur (1) routinely, (2) after a large precipitation event and (3) an annual certification by an agronomist.

The Conservation Cover Operation and Maintenance Plan (attachment 9) requires routine monthly inspections and inspections after a rain event of 2" or more to identify issues such as undesirable weed and invasive vegetation growth and erosion control issues as they begin to occur and for the removal of litter and debris from the land. The inspections will also document plant density and address any issues that need to be resolved.

The inspector will inspect the land out of production in Conservation Cover that is generating the water quality trading credits to ensure it is performing as intended.

The inspection reports will include:

- Name and contact information of the inspector
- Inspection Date
- Plant density
- Issues identified
- When and how any issues identified were addressed
- When and how any issues identified will be addressed in the future

Inspection reports generated during each routine or after rain event inspection will be included with the Annual Water Quality Trading Report submitted by HOV to WDNR.

The Conservation Cover Operation and Maintenance Plan specifically identifies the need for an annual inspection to be complete by a third party verifier. Annual inspections are used to assess integrity of the conservation cover to ensure it is being maintained as intended to meet the goals of the water quality trade.

Annual inspections by a certified agronomist will occur in August. This time of year is ideal so the agronomist can evaluate the site and if needed, ensure re-establishment of any vegetation prior to the end of the growing season. Upon inspection, if erosion or bare soil is identified, the area will be repaired within a week. If forecasted weather or appropriate seeding dates prevent re-establishment of the species specified in this plan, then a temporary planting and/or erosion blanket will be installed on the repaired area until the original species can be planted.

Annual photo verification of both crop and tillage practices of the cropland upstream of the sediment basin and the land in conservation cover shall be collected in May of each year. This verification documentation and any revisions to SNAP Plus calculations as a result of field verification will be submitted to WDNR by June of each year.

### 8.3. MANAGEMENT PRACTICE REGISTRATION FORM

HOV will file a completed registration form 3400-207 for Water Quality Trading Management Practice Registration separately from this Plan.

### 8.4. ANNUAL WATER QUALITY TRADING REPORT SUBMITTAL

The following shall be submitted to WDNR by January 31 of each year:

- The number of pollutant reduction credits (lbs/month) used each month of the previous year to demonstrate compliance;
- A summary of the annual inspection of the practices that generated any of the pollutant reduction credits used during the previous year. The sediment basin inspection shall be completed by a licensed Professional Engineer, while the inspection of the conservation cover shall be completed by a certified agronomist;
- All monthly inspection reports;
- Identification of noncompliance or failure to implement any terms or conditions of this permit with respect to water quality trading that have not been reported in discharge monitoring reports;
- A list of all noncompliance and the correction measures and timing to address the issues throughout the year (all noncompliance or failure to implement any terms or conditions of this plan should have also followed procedures outlined in Section 8.6); and
- An updated WQT plan if management practices or fields have or will change.

### 8.5. MONTHLY CERTIFICATION OF MANAGEMENT PRACTICES

Each month, HOV will certify that the Sediment Basin enhanced with Wetland Vegetation and the land is Conservation Cover is operated and maintained in a manner consistent with this Water Quality Trading Plan or provide a statement noting noncompliance with this Plan. The monthly Discharge Monitoring Report (DMR) will include the following statement as a certification of compliance when the Credit Generating Practices is operating in a manner consistent with the Plan:

I certify that to the best of my knowledge that the management practices identified in the approved water quality trading plan as the source of total suspended solids credits is installed, established and properly maintained.

### 8.6. NOTIFICATION OF FAILURE TO GENERATE CREDITS

HOV will notify WDNR by telephone call to WDNR's regional wastewater compliance engineer within 24 hours or next business day of becoming aware that total suspended solid credits used or intended for use by HOV are not being generated as outlined in this Water Quality Trading Plan.

HOV will submit a written notification within five days after HOV becomes are that the total suspended solids credits are not being generated as outlined in the Trading Plan. WDNR may waive the requirement for submittal for a written notice within five days and instruct HOV to submit the written notice with the next regularly scheduled monitoring report required by HOV's WPDES Permit.

The written notice will contain a description of how and why the TSS credits are not being generated as outlined in the Water Quality Trading Plan, the steps taken or planned to prevent reoccurrence of the identified problems and the length of time anticipated it will take to address the issue.

HOV will work to rectify the problem as laid out in the Design and Operation and Maintenance Plans.

8.7. CONDITIONS UNDER WHICH MANAGEMENT PRACTICES MAY BE INSPECTED

Any WDNR authorized officer, employee, or representative has the right to access and inspect the credit generating practice so long as HOV's trade agreement with WDNR and this Water Quality Trading Plan remain in effect.

## 9. Certification

### 9.1. VERIFICATION OF TRADE AGREEMENT

The undersigned hereby certifies that this Water Quality Trading Plan is accurate and correct to the best of his knowledge.

Heart of the Valley Metropolitan Sewerage District

By: Brian Helminger 3/14/18

Brian Helminger  
District Director  
Heart of the Valley Metropolitan Sewerage District  
801 Thilmany Road  
Kaukauna, WI 54130  
Telephone: (920)766-5731  
Email: [brian.helminger@hvmsd.org](mailto:brian.helminger@hvmsd.org)