

# WATER QUALITY TRADE UPDATE

Prepared for:



**Heart of the Valley**  
METROPOLITAN SEWERAGE DISTRICT

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## WATER QUALITY TRADE UPDATE

Date	Action
9/13/16	HOV Commission approved exploration of WQT, with a budget up to \$40,000 upon approval of a WQT plan that met the facilities needs for 5 year TSS compliance.
9/30/16	1st Draft of WQT Plan submitted by FWWA on behalf of HOV to WDNR for review - plan was to install a sediment basin with enhanced wetland vegetation on land owned by HOV to drain upland farm fields. 1st draft had HOV utilizing credits already in 2017 and generating over 1000 credits/year for the first five years with the practice.
10/25/16	Meeting with WDNR. WDNR moved timeline for compliance for HOV to allow more time to advance WQT. Credits would not be needed to be used until Spring 2018. Minor modifications to the plan were requested. WDNR announced they were working on a credit generating threshold (WQT guidance states credit threshold must be met in order to generate credits, for the draft plan we assumed TMDL % reduction from current state as credit generating threshold).
12/01/16	2nd Draft of WQT Plan submitted by FWWA on behalf of HOV to WDNR for review—plan included requested modifications and included updated modeling and credit generation tables to reflect new permit compliance period, now 2018-2022.
03/06/17	WDNR provides comments via email and include the new TMDL baseline and threshold numbers for agricultural acres in the Plum Creek sub watershed.
3/20/17— 4/10/17	FWWA recalculates the credits possibly generated by the sediment basin using the new threshold. Using the new threshold, there were many years where our fields did not generate credits even though reductions were high. We talked with WDNR multiple times for better understanding of threshold and worked with county land conservation on scenarios to increase credits generated. Most favorable scenario is to take the 3.6 acres owned by HOV out of production at the end of 2017 and put it into prairie.
04/13/17	Met with HOV Staff to discuss new credit generation threshold and the impact on the trading plan. It was decided to run the numbers to determine if enough credits could be generated by taking the 3.6 acres out of production. Current rental agreement ends at the end of 2017.
04/17/17 - 05/04/17	FWWA worked with County Land Conservation Departments (LCD) to rerun SNAP Plus model, generated new numbers for credits generated by field out of production and field draining to sediment basin and worked with WDNR to obtain initial agreement for calculation process.  WDNR requested justification for 80% reduction from sediment basin, which Outagamie County (OC) LCD is compiling. They will also need to complete another thorough review of the modeling and credit calculation, prior to official approval but preliminary numbers, (attached) show a significant number of credits being able to be generated with the lowest credit generating year (2018) over the five year period generating 1517 credits.  We can also anticipate a minimum of 141.6 TSS credits annual long term from these practices should be they be maintained.
Next Steps	Once WDNR approves the credit generation spreadsheets, FWWA and OC LCD will update the WQT Plan to incorporate the new practice and the additional information requested by WDNR. OC LCD will move forward with the construction of the project in the coming month. (Remember HOV will not be responsible for any cost if the WQT does not go through, then the basin will be a grant funded research project)  Things for HOV Commission to consider: The updated plan includes the Sediment Basin as originally designed. The costs remain the same even though the system does not generate as many credits as anticipated. We will still be conducting monitoring on the practice to determine it's potential for Phosphorus reductions for HOV in the future. This could be a valuable long term investment for the district but it is uncertain at this time. An additional cost to HOV will be the loss of rental income from the 3.6 acres that will be taken out of production. HOV will also be responsible for the seed necessary to meet the requirements of permanent vegetative cover, NRCS Standard 327. While this is anticipated to be minimal it is an additional cost.

**Year 2018**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
<b>Trade Ratio:</b>	1.2:1	Minimum Nonpoint Trade Ratio (further justification in plan)
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 Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
<b>Sediment delivery reduced from practice =</b> (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	0.1537 tns/ac/yr	307.4 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.55332 tns/yr</b>	<b>1106.64 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b> (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>Reductions that qualify for Interim credits</b> (soil delivery reduced to bring acre to TMDL threshold) = Sediment deliver reduced from practice - Reductions that qualify for long term credits		
	0.1301 tns/ac/yr	260.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.46836 tns/yr</b>	<b>936.72 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>780.6 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2018 TSS Credits</b>	<b>922.2 credits</b>

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
<b>Trade Ratio:</b>	2:1	Sediment Control Basin (further justification in plan)
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
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
<b>Total sediment delivery reduced from practice =</b> (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.04648 tns/ac/yr	92.96 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.594944 tns/yr</b>	<b>1189.888 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b> (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01238 tns/ac/yr	24.76 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.158464 tns/yr</b>	<b>316.928 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>158.464 credits</b>
<b>Reductions that qualify for Interim credits</b> (soil delivery reduced to bring acre to TMDL threshold) = Sediment delivery reduced from practice - Reductions that qualify for long term credits		
	0.0341 tns/ac/yr	68.2 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.43648 tns/yr</b>	<b>872.96 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>436.48 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2018 TSS Credits</b>	<b>594.944 credits</b>

**Total 2018 TSS Credits available: 1517**

**Year 2019**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
<b>Trade Ratio:</b>	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 Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
Yes		
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	0.4704 tns/ac/yr	940.8 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.69344 tns/yr</b>	<b>3386.88 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
<b>Trade Ratio 1.2:1 141.6 credits</b>		
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment deliver reduced from practice - Reductions that qualify for long term credits		
	0.4468 tns/ac/yr	893.6 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.60848 tns/yr</b>	<b>3216.96 lbs/yr</b>
<b>Trade Ratio 1.2:1 2680.8 credits</b>		
HOV can utilize interim credits for five years (from 2018 - 2022)		
<b>2019 TSS Credits 2822.4 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
<b>Trade Ratio:</b>	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
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
Yes		
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
<b>Total Reductions (*12.8 acres)</b>	<b>0.334848 tns/yr</b>	<b>669.696 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01746 tns/ac/yr	34.92 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.223488 tns/yr</b>	<b>446.976 lbs/yr</b>
<b>Trade Ratio 2:1 223.488 credits</b>		
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment delivery reduced from practice - Reductions that qualify for long term credits		
	0.0087 tns/ac/yr	17.4 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.11136 tns/yr</b>	<b>222.72 lbs/yr</b>
<b>Trade Ratio 1.2:1 111.36 credits</b>		
HOV can utilize interim credits for five years (from 2018 - 2022)		
<b>2019 TSS Credits 334.848 credits</b>		

**Total 2019 TSS Credits available: 3157**



**Year 2020**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
<b>Trade Ratio:</b>	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 Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	0.4186 tns/ac/yr	837.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.50696 tns/yr</b>	<b>3013.92 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment deliver reduced from practice - Reductions that qualify for long term credits		
	0.395 tns/ac/yr	790 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.422 tns/yr</b>	<b>2844 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>2370 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2020 TSS Credits</b>	<b>2511.6 credits</b>

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
<b>Trade Ratio:</b>	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
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
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
<b>Total Reductions (*12.8 acres)</b>	<b>0.244736 tns/yr</b>	<b>489.472 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01912 tns/ac/yr	38.24 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.244736 tns/yr</b>	<b>489.472 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>244.736 credits</b>
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment delivery reduced from practice - Reductions that qualify for long term credits		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>0 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2020 TSS Credits</b>	<b>244.736 credits</b>

**Total 2020 TSS Credits available: 2756**

**Year 2021**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
<b>Trade Ratio:</b>	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 Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	<b>Yes</b>	
<b>Sediment delivery reduced from practice =</b> (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	<b>0.4124 tns/ac/yr</b>	<b>824.8 lbs/ac/yr</b>
<b>Total Reductions (*3.6 acres)</b>	<b>1.48464 tns/yr</b>	<b>2969.28 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b> (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	<b>0.0236 tns/ac/yr</b>	<b>47.2 lbs/ac/yr</b>
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>Reductions that qualify for Interim credits</b> (soil delivery reduced to bring acre to TMDL threshold) = Sediment deliver reduced from practice - Reductions that qualify for long term credits		
	<b>0.3888 tns/ac/yr</b>	<b>777.6 lbs/ac/yr</b>
<b>Total Reductions (*3.6 acres)</b>	<b>1.39968 tns/yr</b>	<b>2799.36 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>2332.8 credits</b>
<b>HOV can utilize interim credits for five years (from 2018 - 2022)</b>		
	<b>2021 TSS Credits</b>	<b>2474.4 credits</b>

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
<b>Trade Ratio:</b>	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
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	<b>No</b>	
<b>Total sediment delivery reduced from practice =</b> (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	<b>0.3888 tns/ac/yr</b>	<b>777.6 lbs/ac/yr</b>
<b>Total Reductions (*12.8 acres)</b>	<b>4.97664 tns/yr</b>	<b>9953.28 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b> (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	<b>0 tns/ac/yr</b>	<b>0 lbs/ac/yr</b>
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>0 credits</b>
<b>Reductions that qualify for Interim credits</b> (soil delivery reduced to bring acre to TMDL threshold) = Sediment delivery reduced from practice - Reductions that qualify for long term credits		
	<b>0 tns/ac/yr</b>	<b>0 lbs/ac/yr</b>
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>0 credits</b>
<b>HOV can utilize interim credits for five years (from 2018 - 2022)</b>		
	<b>2021 TSS Credits</b>	<b>0 credits</b>

**Total 2021 TSS Credits available: 2474**

**Year 2022**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
<b>Trade Ratio:</b>	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 Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	0.383 tns/ac/yr	766 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.3788 tns/yr</b>	<b>2757.6 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment deliver reduced from practice - Reductions that qualify for long term credits		
	0.3594 tns/ac/yr	718.8 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.29384 tns/yr</b>	<b>2587.68 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>2156.4 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2022 TSS Credits</b>	<b>2298 credits</b>

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
<b>Trade Ratio:</b>	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
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	No	
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
<b>Total Reductions (*12.8 acres)</b>	<b>7.217152 tns/yr</b>	<b>14434.3 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>0 credits</b>
Reductions that qualify for Interim credits (soil delivery reduced to bring acre to TMDL threshold) = Sediment delivery reduced from practice - Reductions that qualify for long term credits		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>0 credits</b>
HOV can utilize interim credits for five years (from 2018 - 2022)		
	<b>2022 TSS Credits</b>	<b>0 credits</b>

**Total 2022 TSS Credits available: 2298**

**Year 2023**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	1.379 tns/ac/yr	2758 lbs/ac/yr
10% Delivery Factor	0.1379 tns/ac/yr	275.8 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.004 tns/ac/yr	8 lbs/ac/yr
	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	<b>Yes</b>	
<b>Sediment delivery reduced from practice =</b>		
(annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	<b>0.1375 tns/ac/yr</b>	<b>275 lbs/ac/yr</b>
<b>Total Reductions (*3.6 acres)</b>	<b>0.495 tns/yr</b>	<b>990 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b>		
(soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	<b>0.0236 tns/ac/yr</b>	<b>47.2 lbs/ac/yr</b>
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2023 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	3.923 tns/ac/yr	7846 lbs/ac/yr
10% Delivery Factor	0.3923 tns/ac/yr	784.6 lbs/ac/yr
80% Reduction (captured in Sediment Basin)		
Sediment loss after practice	0.31384 tns/ac/yr	627.68 lbs/ac/yr
	0.07846 tns/ac/yr	156.92 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	<b>No</b>	
<b>Total sediment delivery reduced from practice =</b>		
(annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	<b>0 tns/ac/yr</b>	<b>0 lbs/ac/yr</b>
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
<b>Reductions that qualify for Long Term credits</b>		
(soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	<b>0 tns/ac/yr</b>	<b>0 lbs/ac/yr</b>
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>0 credits</b>
<b>2023 TSS Credits 0 credits</b>		

**Total 2023 TSS Credits available: 141.6**

**Year 2024**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	0.874 tns/ac/yr	1748 lbs/ac/yr
10% Delivery Factor	0.0874 tns/ac/yr	174.8 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.004 tns/ac/yr	8 lbs/ac/yr
	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	Yes	
Sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - annual soil loss prairie with 10% delivery factor)		
	0.087 tns/ac/yr	174 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.3132 tns/yr</b>	<b>626.4 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2024 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	1.279 tns/ac/yr	2558 lbs/ac/yr
10% Delivery Factor	0.1279 tns/ac/yr	255.8 lbs/ac/yr
80% Reduction (captured in Sediment Basin)		
	0.10232 tns/ac/yr	204.64 lbs/ac/yr
Sediment loss after practice	0.02558 tns/ac/yr	51.16 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
<b>Does loss after practice meet TMDL Threshold</b>		
	No	
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>0 credits</b>
<b>2024 TSS Credits 0 credits</b>		

**Total 2024 TSS Credits available: 141.6**



**Year 2025**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	0.607 tns/ac/yr	1214 lbs/ac/yr
10% Delivery Factor	0.0607 tns/ac/yr	121.4 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.004 tns/ac/yr	8 lbs/ac/yr
	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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 prairie with 10% delivery factor)		
	0.0603 tns/ac/yr	120.6 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.21708 tns/yr</b>	<b>434.16 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2025 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	0.903 tns/ac/yr	1806 lbs/ac/yr
10% Delivery Factor	0.0903 tns/ac/yr	180.6 lbs/ac/yr
80% Reduction (captured in Sediment Basin)		
	0.07224 tns/ac/yr	144.48 lbs/ac/yr
Sediment loss after practice	0.01806 tns/ac/yr	36.12 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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)		
	0.07224 tns/ac/yr	144.48 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.924672 tns/yr</b>	<b>1849.344 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.00594 tns/ac/yr	11.88 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.076032 tns/yr</b>	<b>152.064 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>76.032 credits</b>
<b>2025 TSS Credits 76.032 credits</b>		

**Total 2025 TSS Credits available: 217.6**

Year ~~2025~~ 2026

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		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	2.894 tns/ac/yr	5788 lbs/ac/yr
10% Delivery Factor	0.2894 tns/ac/yr	578.8 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.004 tns/ac/yr	8 lbs/ac/yr
	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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 prairie with 10% delivery factor)		
	0.289 tns/ac/yr	578 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.0404 tns/yr</b>	<b>2080.8 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2026 TSS Credits 141.6 credits</b>		

Field 1 (W hoelzel)		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	0.582 tns/ac/yr	1164 lbs/ac/yr
10% Delivery Factor	0.0582 tns/ac/yr	116.4 lbs/ac/yr
80% Reduction (captured in Sediment Basin)		
	0.04656 tns/ac/yr	93.12 lbs/ac/yr
Sediment loss after practice	0.01164 tns/ac/yr	23.28 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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)		
	0.04656 tns/ac/yr	93.12 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.595968 tns/yr</b>	<b>1191.936 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01236 tns/ac/yr	24.72 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.158208 tns/yr</b>	<b>316.416 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>158.208 credits</b>
<b>2026 TSS Credits 158.208 credits</b>		

**Total 2026 TSS Credits available: 299.8**

**Year 2027**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	5.349 tns/ac/yr	10698 lbs/ac/yr
10% Delivery Factor	0.5349 tns/ac/yr	1069.8 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.004 tns/ac/yr	8 lbs/ac/yr
	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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 prairie with 10% delivery factor)		
	0.5345 tns/ac/yr	1069 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.9242 tns/yr</b>	<b>3848.4 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2027 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
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)		
Sediment loss after practice	0.02616 tns/ac/yr	52.32 lbs/ac/yr
	0.00654 tns/ac/yr	13.08 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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)		
	0.02616 tns/ac/yr	52.32 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.334848 tns/yr</b>	<b>669.696 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01746 tns/ac/yr	34.92 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.223488 tns/yr</b>	<b>446.976 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>223.488 credits</b>
<b>2027 TSS Credits 223.488 credits</b>		

**Total 2027 TSS Credits available: 365.1**

**Year 2028**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	4.237 tns/ac/yr	8474 lbs/ac/yr
10% Delivery Factor	0.4237 tns/ac/yr	847.4 lbs/ac/yr
Annual Soil Loss Prairie	0.004 tns/ac/yr	8 lbs/ac/yr
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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 prairie with 10% delivery factor)		
	0.4233 tns/ac/yr	846.6 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.52388 tns/yr</b>	<b>3047.76 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2028 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	0.292 tns/ac/yr	584 lbs/ac/yr
10% Delivery Factor	0.0292 tns/ac/yr	58.4 lbs/ac/yr
80% Reduction (captured in Sediment Basin)	0.02336 tns/ac/yr	46.72 lbs/ac/yr
Sediment loss after practice	0.00584 tns/ac/yr	11.68 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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)		
	0.02336 tns/ac/yr	46.72 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.299008 tns/yr</b>	<b>598.016 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.01816 tns/ac/yr	36.32 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0.232448 tns/yr</b>	<b>464.896 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>232.448 credits</b>
<b>2028 TSS Credits 232.448 credits</b>		

**Total 2028 TSS Credits available: 374.0**

**Year 2029**

<b>Field 2 (W HOV - 7 oaks)</b>		
3.6 Acre Field		
Credits generated from going from Conventional Farming to Permanent Vegetative Cover consistent with NRCS Standard 327		
	Minimum Point to Nonpoint Trade Ratio	
<b>Trade Ratio:</b>	1.2:1	(further justification in plan)
Annual Soil Loss		
Conventional Farming	4.126 tns/ac/yr	8252 lbs/ac/yr
10% Delivery Factor	0.4126 tns/ac/yr	825.2 lbs/ac/yr
Annual Soil Loss Prairie		
10% Delivery Factor	0.0004 tns/ac/yr	0.8 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
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 prairie with 10% delivery factor)		
	0.4122 tns/ac/yr	824.4 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>1.48392 tns/yr</b>	<b>2967.84 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0.0236 tns/ac/yr	47.2 lbs/ac/yr
<b>Total Reductions (*3.6 acres)</b>	<b>0.08496 tns/yr</b>	<b>169.92 lbs/yr</b>
	<b>Trade Ratio 1.2:1</b>	<b>141.6 credits</b>
<b>2029 TSS Credits 141.6 credits</b>		

<b>Field 1 (W hoelzel)</b>		
12.8 Acre Field		
Credits being generated from Conventional Farming with drainage entering a Sediment Basin enhanced with Wetland Vegetation		
	Sediment Control Basin (further justification in plan)	
<b>Trade Ratio:</b>	2:1	
Annual Soil Loss		
Conventional Farming	5.134 tns/ac/yr	10268 lbs/ac/yr
10% Delivery Factor	0.5134 tns/ac/yr	1026.8 lbs/ac/yr
80% Reduction (captured in Sediment Basin)		
Sediment loss after practice	0.41072 tns/ac/yr	821.44 lbs/ac/yr
	0.10268 tns/ac/yr	205.36 lbs/ac/yr
<b>Plum Creek TMDL Threshold</b>	<b>0.024 tns/ac/yr</b>	<b>48 lbs/ac/yr</b>
Does loss after practice meet TMDL Threshold		
	No	
Total sediment delivery reduced from practice = (annual soil loss conventional farming with 10% delivery factor - Sediment loss after practice)		
	0.41072 tns/ac/yr	821.44 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>5.257216 tns/yr</b>	<b>10514.43 lbs/yr</b>
Reductions that qualify for Long Term credits (soil delivery reduced above and beyond TMDL threshold) = Plum Creek TMDL Threshold - annual soil loss prairie with 10% delivery factor		
	0 tns/ac/yr	0 lbs/ac/yr
<b>Total Reductions (*12.8 acres)</b>	<b>0 tns/yr</b>	<b>0 lbs/yr</b>
	<b>Trade Ratio 2:1</b>	<b>0 credits</b>
<b>2029 TSS Credits 0 credits</b>		

**Total 2029 TSS Credits available: 141.6**