ADMINISTRATIVE OFFICE: 3235 Fernbrook Lane N • Plymouth, MN 55447 763.553.1144 • Fax: 763.553.9326 • Email: judie@jass.biz **TECHNICAL OFFICE**: 701 Fourth Street South, Suite 700, Minneapolis,

MN 55415-1600 Phone: 612.348.7338 • Fax: 612.348.7338 •

Email: james.kujawa@co.hennepin.mn.us

Watershed Management Commission

Green Acres East (site plan revisions dated October 21, 2019) Greenfield, Project #2019-05

<u>Project Overview:</u> This is a three-lot residential subdivision proposed on a 34-acre agriculture parcel (PID 2411924130004) at Schendel Lake Drive and Pioneer Trail. Future plans propose an additional 3 lots in the eastern portion of the property with the construction of a public street to provide access to said lots. This project will be reviewed for the Commission's Third Generation Watershed Management Plan rules on stormwater standards (Rule D), Erosion and Sediment Control (Rule E), Wetland Alteration (Rule G) and Buffer Strips (Rule I)

Applicant: ManM, LLC, attention Nate Kariniemi, 19927 Larkin Road, Corcoran, MN 55340. Phone: 763-300-6618. Email; natekariniemi@hotmail.com

Agent/Engineer: Anderson Engineering of MN LLC, attention Robert Swanson, 13605 1st Ave. N., Suite 100, Plymouth, MN 55441. Phone: 763-412-4021. Email: rswanson@ae-mn.com

Exhibits:

- 1) PSCWMC Request for Plan Review with fee of \$2,450, received June 5, 2019.
- 2) Wetland Replacement Plan for Green Acres East by Anderson Engineering dated June 3, 2019.
 - a. Applicant signature (part five) and applicant information (part one) received via email June 14, 2019.
 - b. PSCWMC Project File, 2018-05W, Wetland Delineation Review for Bluewater Builders.
 - c. PSCWMC WCA Notice of Application dated June 18, 2019, wetland replacement plan.
 - d. PSCWMC WCA Notice of Application, Addendum 1, dated August 1, 2019.
 - e. PSCWMC WCA Notice of Decision dated September 20, 2019.
- 3) Incomplete application notices (emails) from PSCWMC to applicant dated May 2, 2019 and June 11, 2019. A complete application was received June 14, 2019. Updated plans were received on September 10th, September 13th and October 22nd, 2019.
- 4) Green Acres East Site Plans by Anderson Engineering dated September 10, 2019 with latest revision date of October 21, 2019;
 - a. Sheet 1 of 5, Cover Sheet
 - b. Sheet 2 of 5, Site Grading, Drainage & Erosion Control Plan
 - c. Sheet 3 & 4 of 5 SWPPP
 - d. Sheet 5 of 5, Civil Details

- 5) Final Plat, Green Acres East, undated, unsigned.
- 6) Green Acres East Stormwater Management Plan by Anderson Engineering dated April 4, 2019, revised October 21, 2019.
- 7) Haugo GeoTechnical Services Infiltration tests dated August 7, 2019 on lots 4, 5 and 6.
- 8) Buffer Maintenance Plan for Blue Water Builders Inc., Green Acres East by Anderson Engineering, dated September 12, 2019.

Findings;

- 1) A complete application was received on June 14, 2019. The 60-day decision deadline was extended 60 days by staff from August 13, 2019 to October 12, 2019. A contingent approval decision from the Commission was received on September 19, 2019. The approval was contingent upon;
 - a. An operation and maintenance plan must be developed for the infiltration basins and approved by the City of Greenfield and Commission. The O & M plans must be recorded on the property titles on lots 4, 5 and 6 (unless an HOA will be responsible, then it will be required in the HOA deed documents) and
 - b. No wetland impacts can occur until;
 - i. Wetland replacement credit purchases from BWSR Bank Accounts 1546 and 1542 have been certified by BWSR or,
 - ii. A \$21,500 cash or letter of credit escrow is received by the PSCWMC.
- 2) New site plans received October 22nd eliminated the road construction, wetland impacts and the three lots proposed for the easterly ½ of the site from the original plan.
- 3) The current site area is 34.2 acres zoned as rural residential. Land use is approximately 20 acres of cropland and 14 acres of wetland/grassland/tree farm.
- 4) The 10/22/19 submittal is proposing to subdivide the parcel into three single-family residential lots approximately 5 acres each with a remnant outlot area of 15.6 acre in the east ½ of the site.

Stormwater Management (Rule D)

- 5) This site plan proposes three lots at approximately 5 acres each. Future plans will construct a road for access to east 15 acres in Outlot A. Three additional lots and an infiltration basin is proposed for that area when its developed in the future. Over all, with all six lots and the road work, site development will create 2.19 acres of new impervious areas. The October 21, 2019 stormwater management plan was designed for full development, including all 6 lots, wetland impacts and the new road areas.
- 6) One infiltration basin is proposed to meet the Commission's abstraction, phosphorus and total suspend solids requirements.
 - a. New impervious areas on this site will be 2.19 acres.
 - i. 8,777 cubic feet of abstraction is required for compliance to the Commissions requirements.
 - ii. The total infiltration will be 11,880 cubic feet based on the current design.
 - iii. The one infiltration basin is proposed to handle our abstraction standards.

- iv. The assumed infiltration rate for the soil on site is 0.2"/hour. Actual varied from 0.72 to 3.78'/hour
- v. Water tables were measured at 3.0' separation or greater below the basin bottoms.
- 7) Because true infiltration will be provided on site, phosphorus and suspended solid requirements will be met per the Commission's standards.
- 8) Although the rate controls on this site will meet the Commission's requirements for the 2, 10- and 100-year flows, some higher elevations in the existing ponds/wetlands will occur off of this site. See the following table with highlighted elevation increases.

Pre vs	Post-Deve	lopment Pond	Elevations
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Pond	2 year storm event		10-year storm event		100-year storm event	
Number	Pre-	Post-	Pre-	Post-	Pre-	Post-
	development	development	development	development	development	development
1	1011.13	1011.12	1011.77	1011.75	1013.23	1013.22
2*	1009.76	1009.80	1010.68	1010.72	1013.09	1012.95
3	1014.66	1014.67	1014.76	1015,11	1014.95	1015.56
4	1014.31	1014.51	1014.45	1014.61	1014.67	1014.67
5	1012.77	1012.63	1013.49	1013.38	1013.90	1013.97

XXXX.XX indicates elevation rise of >0.1 feet

9) There is one primary water discharge point from this site. It is at an existing 15" corrugated metal pipe under Pioneer Trail that runs to the west. All of the ponds and runoff from this property eventually get to that pipe. The flow rates out of this pipe are as follows;

	2-yr (cfs)		10-yr (cfs)		100-yr (cfs)	
	Pre- Development	Post- Development	Pre- Development	Post- Development	Pre- Development	Post- Development
15" CMP on Pioneer Trail (23.5 acres)	0.68	0.64	3.06	2.99	5.68	5.67

Note that pond 2 in the middle of this project has 64.9 acres that drains into it before and after development, but there is no discharge from this pond before and after development for the 2, 10 and 100-year rainfall events. The emergency overflow for pond 2 will be ± 1013.5 per the existing elevations shown between Lots 1 and 2, Block 1.

10) An operation and maintenance plan must be developed for the infiltration basins and approved by the City of Greenfield and Commission. The O & M plans must be recorded on the property titles on Outlot A (unless an HOA will be responsible, then it will be required in the HOA deed documents)

Wetland Buffers (Rule I)

11) The buffer maintenance plan dated September 12, 2019; meet the Commission's buffer rule.

^{*}Note; Pond 2 is contained on-site with no runoff for the 2, 10 and 100-year events.

- 12) Buffers are at 10-foot minimum and 25-foot average widths. Final buffer area required is 3.268 acres, actual buffer provided will be 3.364 acres, an excess of 0.096 acres (4,082 sq. ft.)
- 13) Buffer planting and maintenance plans are provided.
- 14) Buffer monumentation is provided.

Wetland Alteration (Rule G)

- 15) In the previous plan sets (prior to the October 21, 2019 update) a wetland replacement plan was received and noticed August 1, 2019. This plan was approved by the Commission with conditions. The decision was noticed per WCA requirements on September 22, 2019.
- 16) In the previous plans, 3,913 sq. ft. of wetland impacts were proposed on wetland 3 from the construction of Schendel Lake Drive.
 - a. Avoidance sequencing analysis based on previous plans (and ultimate buildout);
 - i. The proposed road alignment is necessary due to the city's desire to maintain connection with existing Schendel Lake Drive to the west and preserve the opportunity for future connection to Fern Lane to the east.
 - ii. The proposed access road cannot be sited within existing right-of-way located south of the parcel due to the existing east-west alignment of Great River Energy (GRE) utility line. Permanent excavation is not allowed within 25 feet of GRE power pole unless the utility line is relocated. Relocating the utility line is not practicable due to the costs and engineering complexity associated with maintaining the integrity of the overall utility line. Expected costs would be in excess of \$200,000 for the relocation of the power poles, making this project financially infeasible.
 - iii. Lots are required to be a minimum of five acres each and 4:1 maximum ratio of depth to width, which limit orientation.
 - b. Minimization sequencing analysis based on previous plans (and ultimate buildout);
 - i. See avoidance discussion above.
 - ii. The junction of Pioneer Trail and Schendel Drive was realigned from its original location along the existing ROW on the south edge of this development to the north approximately 200 feet. This avoided approximately 15,000 sq. ft. of impacts to wetland 2 and relocation of the power lines.
 - iii. Match in slopes from the roadway design were steepened to the extent practical for safety and stability requirements.
 - c. Replacement sequencing analysis based on previous plan (and ultimate buildout);
 - i. Applicant proposes to replace wetland impacts at a 2:1 ratio by purchasing wetland banking credits from the MN BWSR wetland bank.
 - ii. 1:1 from bank account 1546 (Ball wetland bank in Greenfield) and 1:1 from bank account 1542 (Imdieke-Stamer bank in Stearns County).
 - iii. An unsigned purchase agreements for the purchase of the wetland credits was provided with the wetland replacement plan.

- d. No comments from the public were received before or after the August 21, 2019 deadline.
- e. To achieve access to Block 1, Lot 1, wetland 1 will be impacted. Site plans do not show this but notes on the plan identifies that the driveway will impact a wetland and this work will require permitting prior to construction.
- f. Easements encompass all the wetlands, buffers, high water (100-year) elevations, and stormwater systems on site.
- g. With the updated plans dated October 21,2019, no wetland impacts will occur at this time.
- h. Future wetland impacts per the previously approve wetland replacement plan may be able to occur only if:
 - i. The LGU in charge of administering the MN WCA re-approves wetland replacement plans per WCA requirements prior to any impacts to the wetland.

Grading and Erosion Controls (Rule E)

17) Grading and erosion controls meet the Commission's standards.

Floodplain Alteration (Rule F)

18) There are no floodplains within this parcel per the FEMA National Flood Layer Maps dated 8/27/18.

<u>Decision:</u> Because of the decrease in the development scope, namely the plat consisting of only 3 lots and the elimination of the wetland impacts and road construction, staff believes the intent of the original approvals (stormwater management, easement and buffer establishment and erosion control compliance) by the Commission are still met. Staff approves the new plan set dated October 21, 2019 with the revisions to original conditions as outlined below;

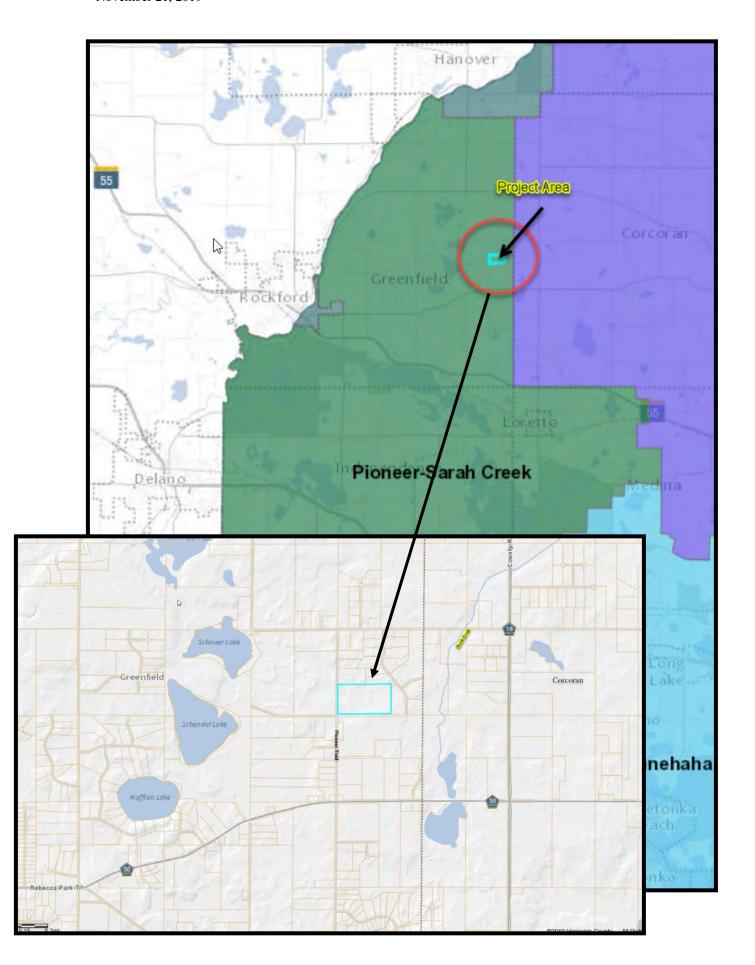
- 1) An operation and maintenance plan must be developed for the infiltration basin and approved by the City of Greenfield and Commission. The O & M plans must be recorded on the property titles on Outlot A (unless an HOA will be responsible, then it will be required in the HOA deed documents) and
- 2) No wetland impacts can occur until;
 - a. The LGU in charge of administering the MN WCA re-approves wetland replacement plans per WCA requirements prior to any impacts to the wetland.

Hennepin County Department of Environmental Services Advisor to the Commission

James C. Kujawa,

November 21, 2019

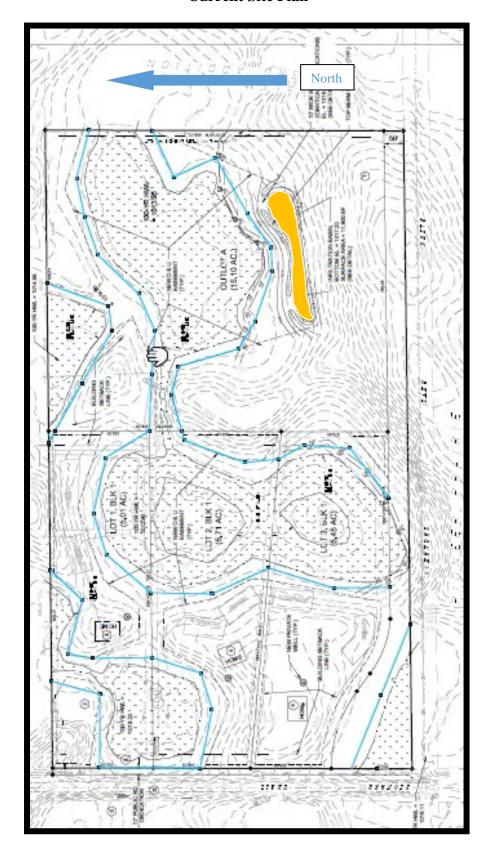
Date



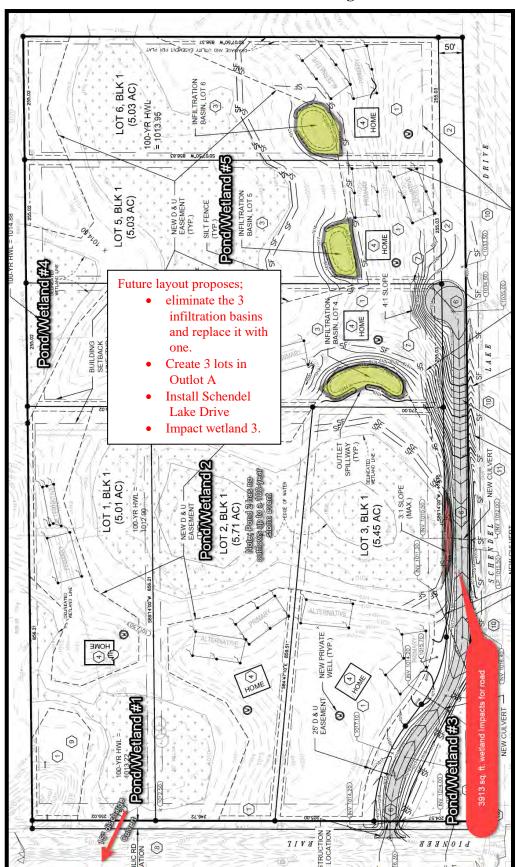


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Current Site Plan



Potential Future Site Plan & Original Site Plan



From: Seth J. Bossert <sbossert@wenck.com> Sent: Tuesday, November 19, 2019 1:14 PM

To: Vlach, Brian <Brian.Vlach@threeriversparks.org>; Judie Anderson <Judie@jass.biz>; James C Kujawa <James.Kujawa@hennepin.us>; Andrew Vistad <andrewv@HAA-inc.com>

Cc: Lucius N. Jonett < ljonett@wenck.com>; Ed A. Matthiesen < ematthiesen@wenck.com>

Subject: RE: Baker Ravine Stabilization Project Update 11-19-2019

• Staking for the project will also be done this week including Construction access, adjacent property lines and wetland line.

Seth Bossert, PLA (MN) Landscape Architect



<u>sbossert@wenck.com</u> D| 763.479.4252 C| 952.393.7486 1800 Pioneer Creek Center | Maple Plain, MN 55359

From: Seth J. Bossert

Sent: Tuesday, November 19, 2019 12:07 PM

To: Vlach, Brian < Brian. Vlach@threeriversparks.org>; Judie Anderson (Judie@JASS.biz)

<<u>Judie@JASS.biz</u>>; James C Kujawa <<u>James.Kujawa@hennepin.us</u>>; Andrew Vistad <<u>andrewv@HAA-inc.com</u>>

Cc: Lucius N. Jonett < ljonett@wenck.com >; Ed A. Matthiesen < ematthiesen@wenck.com >

Subject: Baker Ravine Stabilization Project Update 11-19-2019

Brian, Judie, Jim, and Andrew,

Accomplished since last update:

- Site meeting with Contractor to finalize access decisions, staging locations, and general construction questions 11/19/2019
- Coordination of project start date
- Contractor has begun to mobilize to the site 11/19/19
- Finalized the information in the pre-construction agenda

Will Accomplish this week:

- Decision about Root wads and Logs to Crow-Hassen Dog Park
- First Weekly construction meeting 9:00am 11/21 at the construction trailer at campsite E14

Permit Application Status:

- All required permits are in hand.
- Winning contractor, (MN Native Landscape) will work with Three Rivers Park District (land owner) to complete the MPCA NPDES construction permit.

Tentative Schedule Moving Forward

- 06/21 Wenck delivers revises specifications to Three River's for review (DONE)
- 07/12 Three River's Design Team review of specifications and return to Wenck for final edits
- 07/15 Advertisement for Bid, Wenck posts project to Quest CDN (Uploading the project book as soon as the edits are made but for sure by the 24th allowing time for the manuals to be reviewed before the Prebid meeting)

- 07/30 Pre-Bid meeting at Baker Ravine site 10:00am to 12:00pm
- 08/06 Bid opening at Three River's Park District Administrative Center at 10:00 am
- 08/15 Pioneer & Sarah Watershed Management Commission Awards project at meeting
- Early October Preconstruction meeting held at the site
- 10/20 Campground closes
- 10/21 Construction may start any time after the campground is closed and must start no later than December 20, 2019. Once the contractor starts, the contractor will have 8 weeks to substantially complete the project.
- •—11/11 11/18 Contractor to mobilize and start construction
- 3/15/2020 Construction Substantial Completion Meaning all tree removal, grading, rock installation and erosion controls will need to be complete.
- 5/29/2020 Construction Final Completion Meaning all revegetation work (reseeding, planting shrubs, trees and turf restoration) will need to be complete.

Project Input Needed

Has the contractor worked TRPD on getting the MPCA NPDES construction permits?

Other Issues/Concerns

None.

If anyone has questions on this progress report, please let me or Lucius know.

Thank you,

Seth Bossert, PLA (MN) Landscape Architect



<u>sbossert@wenck.com</u> D| 763.479.4252 C| 952.393.7486 1800 Pioneer Creek Center | Maple Plain, MN 55359



Adam's Pest Control Medina, Project #2019-08

<u>Project Overview:</u> Adam's Pest Control is planning to expand their current Medina facility to a new site. This property is located on the north side of State Highway 55, just west of Willow Drive. The entire parcel is 46-acres, but only the southern portion (Lot 1-26.6 acres) is being proposed for development at this time. The proposed site plan consists an office building and a warehouse/maintenance building with parking. This project will disturb 10.9 acres and create 4.6 acres of new impervious areas. The Commission's stormwater management plan requires compliance for Stormwater Management (Rule D), Erosion Control (Rule E), Floodplain Alteration (Rule F) and Wetland Buffers (Rule I).

Applicant: Adam's Pest/ Jan-Har, LLC Attention Todd Leyse, 922 Highway 55, Suite 100, Medina, MN 55340. Phone; 763-478-9810. Email; tleyse@adamspestcontrol.com

<u>Agent/Engineer:</u> Anderson Engineering of MN, Attention Robert Swanson, 13605 1st Ave. N., Suite 100, Plymouth, MN 55441. Phone: 763-412-4021. Email: rswanson@ae-mn.com

Exhibits:

- 1) PSCWMC Request for Plan Review received September 9, 2019.
- 2) Project review fees for Commercial/industrial development, 21.58 acres in size, \$8,874.00.
- 3) Adam's Pest Control Preliminary Plat Storm Water Management Plan by Anderson Engineering dated September 6, 2019, revised November 18, 2019.
- 4) Electronic copies of Adams Pest Preliminary Plat Application Site Plans by Anderson Engineering dated September 6, 2019, with latest revision date on November 19, 2019.
 - a. Sheet C1.0 to C1.3, Existing Conditions and Tree Survey,
 - b. Sheet C2.0, Preliminary Plat
 - c. Sheet C3.0, Site Grading, Drainage & Erosion Control Plan,
 - d. Sheets C3.1 & C3.1, SWPPP Plan
 - e. Sheet C4.0, Site Utility Plan,
 - f. Sheets C5.0 and C5.1, Civil Detail,
 - g. Sheet C6.0, Tree Preservation Plan
 - h. Sheets L1 & L2, Landscaping Plans and Details

Findings;

 A complete application was received September 9, 2019. The initial 60-day decision period expires on November 8, 2019. Staff extended the decision 60 days to January 7, 2020 providing the applicant time to meet the Commission's standards based on PSCWMC findings dated September 26th and November 14, 2019.

- 2) The current land use on the portion of this property being developed (21.58 acres) is wetland and cropland.
- 3) The applicant proposes to construct an office and warehouse building and its associated parking creating 4.59 acres of new impervious areas within the upland areas. Three filtration basins will be constructed for stormwater management.
- 4) The City of Medina is the LGU in charge of administering the 1991 Wetland Conservation Act on this site.
 - o No wetlands are proposed to be impacted from this project.
- 5) There is one FEMA and ECWMC floodplain on west wetland of the property. It is classified as a FEMA Zone A floodplain that is defined as; *Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.*
 - o A conservative assumed flood elevation for this basin could be determined at 969.0 (1988 datum)
 - o No impacts below 969.0 are proposed.

Stormwater Management (Rule D)

- 6) The water from this site flows into a large wetland on the west side of this property. From there the water flows under Highway 55 into the backwater wetland adjacent to Peter Lake. Peter Lake flows south and west into the Thomas/Winterhalter/Spurzem/Half Moon chain of lakes before flowing into Lake Independence.
- 7) Stormwater is proposed to be managed for rate, nutrient and abstraction controls by constructing three filtration basins on site. These basins will outlet into the existing wetland in the west portion of this property.
- 8) If the City of Medina does not maintain the stormwater basin, a stormwater facilities (filter basins and sump manholes) Operation and Maintenance plan agreement must be approved by the City and the PSCWMC and recorded on this property title. A copy of the recorded document, with the Hennepin County Document Number must be provided to the Commission.
- 9) <u>Rate discharge flows</u> meet the Commission standards. Flows before and after development are as follows;

Drainage area = 10.32 acres to wetland	2-yr (cfs)	10-yr (cfs)	100-yr (cfs)
Pre-Development Rates	11.1	22.1	47.7
Post-Development Rates	3.2	10.5	24.5

- 10) Water Quality; water quality is proposed to be controlled by three sand filtration ponds being constructed on-site. The three basins are designed to filter/infiltrate the full water quality volume (1.1' of abstraction for new impervious areas). These facilities provide adequate treatment to meet the Commission's water quality standards. See water quality summary table below for TP and TSS reductions based on the MPCA MIDS calculator. These reductions will meet the Commissions water quality requirements.
- 11) <u>Abstraction</u>: New impervious surface areas proposed on this site will be 4.6 acres. This equates to 0.42-acre feet (18,368 cubic feet) of abstraction volume required.
 - o Total abstraction (filtration) available from site plans = 23,025 cubic feet.
 - o Pretreatment to the filter basins consists of a combination of upstream 2' deep sump manholes and,3' deep sumped manholes with SAFLE baffle weir and snout attachments. This should be adequate pretreatment to the sand filter basins if maintained properly.
 - o Drawdown in all three of the filter basins for the 1.1" storm event will be less than 48 hours.

Stormwater Management Summary for Water Quality and Abstraction

Condition (6.37 acres)	TP Load (lbs/yr)	TSS Load (lbs/yr)	Abstraction by filtration (cu. ft.)	Annual Volume (ac. ft.)
Pre- development (baseline)	6.64	843	N/A	5.69
Post- development without BMPs	10.4	1896	18,328	12.8
Post- development with BMP	3.62	506	23,025	9.00
Net Change	-3.02	-337	-4,697	+3.31

Erosion and Sediment Controls (Rule E);

12) SWPPP and erosion control plans must provide construction sequencing details on the filter basins during construction to meet the Commissions standards.

Wetland Buffer (Rule I)

- 13) Wetland buffers are required on the large westerly wetland and the two wetlands on the north edge of the construction limits.
 - o Buffer plans and monumentation meet the Commission's standard of 25' average/10' minimum width. Actual buffers range from 25' to 40' wide.
 - o Buffer planting and maintenance plans must be provided for areas not in permanent vegetative cover.

Recommendation: Approval contingent upon;

- 1) An Operation and Maintenance plan agreement for the stormwater facilities (sump manholes and filter basins) must be approved by the City and the PSCWMC and recorded on this property title. A copy of the recorded document, with the Hennepin County Document Number must be provided to the Commission
- 2) Construction sequencing details for the filter basins meeting the Commission's requirements,
- 3) Wetland buffer planting and maintenance plans must be provided for areas not in permanent vegetative cover.

Hennepin County Department of Environment and Energy Advisor to the Commission

Water Quality Specialist

November 21, 2019

Date

