Please note the meeting will be held in the County Board Room at the Carver County Government Center, 600 East 4th Street, Chaska, MN.

LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, October 24, 2018

Agenda Item
Item 6. F. - Project Reviews

Prepared By
Linda Loomis, Administrator

Summary

i. **MN Valley State Trail - EAW (Environmental Assessment Worksheet)**
The DNR has been working on the preliminary design for this trail. Managers may remember that the District was asked to approve an increase in the flood elevation for the trail in order to avoid offsetting increases in velocity that would occur by designing the trail in a way that would not increase the flood elevation.

The DNR has now released the EAW for public comment. Prior to the release of the EAW to the public the DNR asked for input from the LMRWD. LMRWD staff reviewed the draft EAW and our comments, which were provided to the DNR prior to the release for public comments, are attached. Staff will follow up with the DNR to see how they intend to address LMRWD comments.

The EAW can be found by following this link:
http://www.dnr.state.mn.us/input/environmentalreview/mnvalley/index.html

ii. **Hennepin County - CSAH 61 - Flying Cloud Drive**
As was noted at the September Board of Managers meeting, the MPCA conducted an NPDES (National Pollutant Discharge Elimination System) inspection of this project in July. Several violations were noted. After the Board meeting LMRWD staff arranged to meet with the project managers from Hennepin County and the Contractor Ames Construction. LMRWD staff inspected the project on September 27th.

Heavy rain had fallen in the area a week prior to our visit. Staff found that the BMPs that were installed to prevent erosion during the construction were inadequate for the conditions. The degree of the bounce in the elevation of the Minnesota River was not addressed adequately and the highly erodible nature of the soils in the area was underestimated.

Staff has prepared a memo outlining the conditions that were observed and making recommendations for future observation of the project by the District.

iii. **MNDOT - I494/TH 5/TH 55 Mill & Overlay project**
This project will replace storm sewer on the I-494 Bridge (in past reports I mistakenly said the Mendota Bridge) between the Minnesota River and TH 13. Staff has been working with the design engineers. In the most recent communications they have two options they are considering. Staff has reviewed both options and prefers one over the other. Staff has communicated its preference to the engineers.

iv. MNDOT - I35-W Bridge Replacement

MNDOT was recently granted a temporary water appropriation permit to begin construction of the piers for the new I-35W Bridge. MNDOT is reducing the traffic lanes between 106thStreet and Cliff Road. The trail along the north bank will also be closed periodically throughout construction.

v. MNDOT - I-494 from TH 169 to Minnesota River

LMRWD was notified that preliminary design on this project is beginning. Staff is planning to attend a kick-off meeting on October 22nd. to discuss impacts to water resources.

vi. City of Shakopee - Amazon Fulfillment Center drainage

Staff has followed up with Three Rivers Park staff about this, but have not been able to connect.

vii. City of Eagan Stormwater Management Plan, Water Quality & Wetland Management and Comprehensive Plan

LMRWD staff has reviewed the referenced plans for the City Eagan and our comments are attached. Minnesota Statute requires that watershed management organizations approve local water plans. Staff is therefore recommending approval of the Eagan plan with the conditions noted. A resolution is attached for the Board to adopt.

viii. City of Eden Prairie - Aspire Eden Prairie 2040 Draft Plan

LMRWD staff has reviewed the above referenced plan for the City of Eden Prairie. Minnesota Statute requires that cities submit comprehensive plans to watershed management organizations for comment, but does not require them to approve the comp plan. However, elements of the local water plans are being incorporated into the comp plans, so staff is recommending that the Board approve those elements of the comp plan with the conditions noted in the comments submitted to the city. A resolution is attached for the Board to adopt.

ix. City of Lilydale - 2040 Draft Comprehensive Plan

LMRWD staff has reviewed the above referenced plan for the City of Lilydale. Staff is making a similar recommendation for the City of Lilydale as for Eden Prairie. A resolution is attached for the Board to adopt.

x. MAC/LMRWD/MCWD boundary realignment

Staff has followed up with MAC to determine the legal description of the desired boundary changes. Once MAC has determine the legal boundaries, the LMRWD will meet with Minnehaha Creek Watershed District to petition BWSR for the changes.

xi. Fort Snelling - Dominion Housing

This is a housing project that is being planned for Fort Snelling. LMRWD staff is planning to meet with the design engineers to discuss stormwater systems for the site.

xii. USACOE/USFWS - Bass Ponds, Marsh & Wetland

USFWS said they are still gathering information and do not have a timeline for this project yet.

Attachments

MN Valley State Trail EAW comments
Flying Cloud Drive report
LMRWD comments on City of Eagan Stormwater Management Plan, Water Quality & Wetland Management and Comprehensive Plan
Resolution 18-15 - APPROVING THE COMPREHENSIVE GUIDE PLAN UPDATE FOR THE CITY OF EAGAN
LMRWD comments on Aspire Eden Prairie 2040 draft plan
Resolution 18-16 - APPROVING ASPIRE EDEN PRAIRIE 2040 COMPREHENSIVE PLAN UPDATE
LMRWD comments on city of Lilydale 2040 Comprehensive Plan
Resolution 18-17 - CITY OF LILYDATE 2040 COMPREHENSIVE PLAN UPDATE

Recommended Action

Motion to approve LMRWD Staff recommendation for Flying Cloud Drive Inspections
Motion to adopt resolutions 18-15 through 18-17 - separately or collectively

Young Environmental Consulting Group, LLC

Technical Memorandum

To:	Linda Loomis, Administrator Lower Minnesota River Watershed District
From:	Sarah Duke Middleton, Water Resources Scientist Della Schall Young, PMP, CPESC
Date:	September 26, 2018
Re:	Minnesota Valley State Trail, Bloomington Segment—Preliminary Environmental Assessment Worksheet

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The Minnesota Valley State Trail, Bloomington Segment, preliminary environmental assessment worksheet (EAW) was reviewed as requested by the Lower Minnesota River Watershed District (District).

The Minnesota Department of Natural Resources (DNR) proposes to develop 13.5 miles of the Minnesota Valley State Trail from the Bloomington Ferry Bridge to the Minnesota Valley National Wildlife Refuge Visitor Center in the city of Bloomington. The proposed trail will be a 10-foot-wide paved, multiple-use, non-motorized recreational state trail with 2-foot gravel shoulders. The proposed project is in the Minnesota River floodplain and will generate a net increase of approximately 19 acres of impervious surface by converting approximately 2.3 acres of wetland, 11.7 acres of forest/wooded area, and 5 acres of grassland to trails. As a result, the following District standards are triggered: Erosion and Sediment Control, Stormwater Management, and Floodplain and Drainage Alteration standards. The District's Steep Slope, Shoreline and Streambank and Water Crossing standards are also triggered because of natural steep slopes along the trail's alignment and the proposed crossing at Nine Mile Creek. The proposed project does not cross the District's High Value Resources Area (HVRA) Overlay District.

Below are comments on how the EAW addresses or proposes to address the District's standards as presented in Appendix K of the Draft 2018 Watershed Management Plan.

<u>Erosion and Sediment Control Standard</u>

The proposed project will disturb more than an acre of land. The EAW references the DNR's intent to obtain a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater (CSW) permit. Compliance with the CSW permit would satisfy the District's general erosion and sediment control requirements, as they are equivalent.

Comment: **Provide proof of compliance with the NPDES CSW permit.**

Floodplain and Drainage Alteration

Before completing the EAW, the DNR provided the project's floodplain analysis to the District for review. The District reviewed and ultimately approved the analysis during its June 13, 2018, meeting.

Comment: **If significant changes are made to the proposed project, calculations must be updated, and a narrative must be sent to the District explaining how the project will maintain compliance with the Floodplain and Drainage Alteration Standard.**

Stormwater Management Standard

The proposed project will generate more than an acre of impervious surface. The EAW references the DNR's intent to obtain an NPDES CSW permit. Compliance with the CSW permit would satisfy the District's general stormwater management requirement, as they are equivalent.

Comment: **Provide proof of compliance with the NPDES CSW permit.**

Shoreline and Streambank Alternation Standard

This proposed project involves work beneath the ordinary high water level and includes the installation of riprap at the Nine Mile Creek bridge. The EAW states the DNR will design the bridge and support elements in accordance with the Minnesota Department of Transportation State Aid Geometric Design Standards and the DNR Public Waters Work Permit.

Comment: **Provide proof of compliance with the DNR Public Waters Work Permit.**

Steep Slope Standard

The proposed multiuse trail crosses into the city of Bloomington's Bluff Protection Overlay District as well as the District's Steep Slope Overlay District. The EAW indicates the project will comply with the city's Bluff Protection Overlay District, City Code §19.38. Although there are some differences between the District's and the city's slope protection standard, compliance with the city's requirements will suffice.

Comment: **Provide proof of compliance with the City of Bloomington's bluff protection requirements.**

Water Crossing Standard

The proposed project meets the threshold for this District standard and satisfies it through the adoption and implementation of the DNR Public Waters Work Permit.

Comment: **Provide proof of compliance with the DNR Public Waters Work Permit.**

Final comment: **As the DNR moves forward with finalizing the EAW and project plans, the District respectfully requests updates on any changes to the alignment and construction methods that would cause the project to significantly affect water and natural resources.**

Memorandum

Young Environmental Consulting Group, LLC

DATE: October 16, 2018 *(Email transmittal)*

TO: Linda Loomis, Administrator

FROM: Della Schall Young, PMP, CPESC

SUBJECT: CSAH 61- Flying Cloud Drive: Construction Stormwater Inspection
September 27, 2018, 11:40 a.m.–1:25 p.m.
Project Construction Trailer: CSAH 61 and Hwy 61

PRESENT

Hennepin representatives: Daniel Allmaras, Nathan Bren (Ames-Contractor), Don (last name?), and Mark Wagner

Carver County: Greg (last name?)

District representatives: Linda Loomis and Della Schall Young

PURPOSE

- To meet with the County's project team to reiterate the District's concerns with not being included in critical discussions about project stormwater and wetland violations.
- To discuss erosion and sediment control challenges faced by the project team and proposed mitigations measures.
- To visit the project site and view erosion and sediment control best management practices.

DISCUSSION ITEMS

- The exclusion of the District for stormwater discussions was an oversight. Linda Loomis will be included on future stormwater and environmental email updates.
- District staff was encouraged to attend weekly meetings held Tuesdays at 10 a.m. at the field office (construction trailer) located about ¼ mile east of the roundabout intersection of CSAH 101 and 61 on the south side of the road.
- Discussed discharge points seen on the attached maps and visited sites associated with sheets 265, 266, and 267.
- The project team did not anticipate the amount or intensity of the rains nor the stage of the adjacent Minnesota River. They have already exhausted their erosion and sediment control budget for the project.
- The project team is waiting for recommended fixes to sediment discharge into a wetland owned by the U.S. Fish and Wildlife Service.

RECOMMENDATIONS

- District staff should complete biweekly site visits until the site is closed for the winter to make certain the project team has adequately buttoned down the site to keep sediment out of adjacent waterbodies. The site visits should start up again in the spring of 2019.
- The District administrator is encouraged to become a member of the technical evaluation panel (TEP) for the project. This will guarantee the District inclusion in discussions about compliance with stormwater and other environmental permits.
- District staff should attend weekly project meetings at least once per month.


Sheet 267
Sheet 269
Sheet 262
Sheet 271
Sheet 266
Sheet 265
Flying Cloud Dr
Flying Cloud Dr
Flying Cloud Dr
Lakota Ln
Great Plains Blvd
Western Motel
101
Rice Lake
Turnbull Rd
Dell Rd
Frontier Pl
Reeder Ridge
Eden Prairie Rd
Crabapple Ln
Indigo Dr
Prairie Bluff Conservation Area
Lions Tap

LEGEND

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SEE SURCHARGE PLANS FOR SURCHARGE AREAS

SCALE 0' 50' 100'

CONSTRUCTION LIMITS

℄ ERIE LANE

℄ CSAH 61

25 30 35

EC T03

OA T04

IA T21

SB

OA T22

AREAS OF ENVIRONMENTAL SENSITIVITY

RICE LAKE

AREAS OF ENVIRONMENTAL SENSITIVITY

NOTES

SEE SHEET 260 FOR EROSION CONTROL GENERAL NOTES.

③ CONNECT TO EXISTING CULVERT OR STORM SEWER. PAID FOR AS CONNECT TO EXISTING PIPE DRAIN, SPEC. 2502.

Hennepin

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

HUGH ZENG, LICENSED PROFESSIONAL ENGINEER — 24333 — 02/01/2017

HZ UNITED, LLC

DESIGN BY:	MBA
CAD BY:	MBA
CHECKED BY:	HZ
LAST REVISION:	

EROSION AND SEDIMENT CONTROL PLAN

C.S.A.H. 61 / HENNEPIN COUNTY PROJECT 0904
S.A.P. 027-661-048/181-020-031 & S.A.P. 010-661-003/194-020-012
STAGE 1B

SHEET 265 / 297

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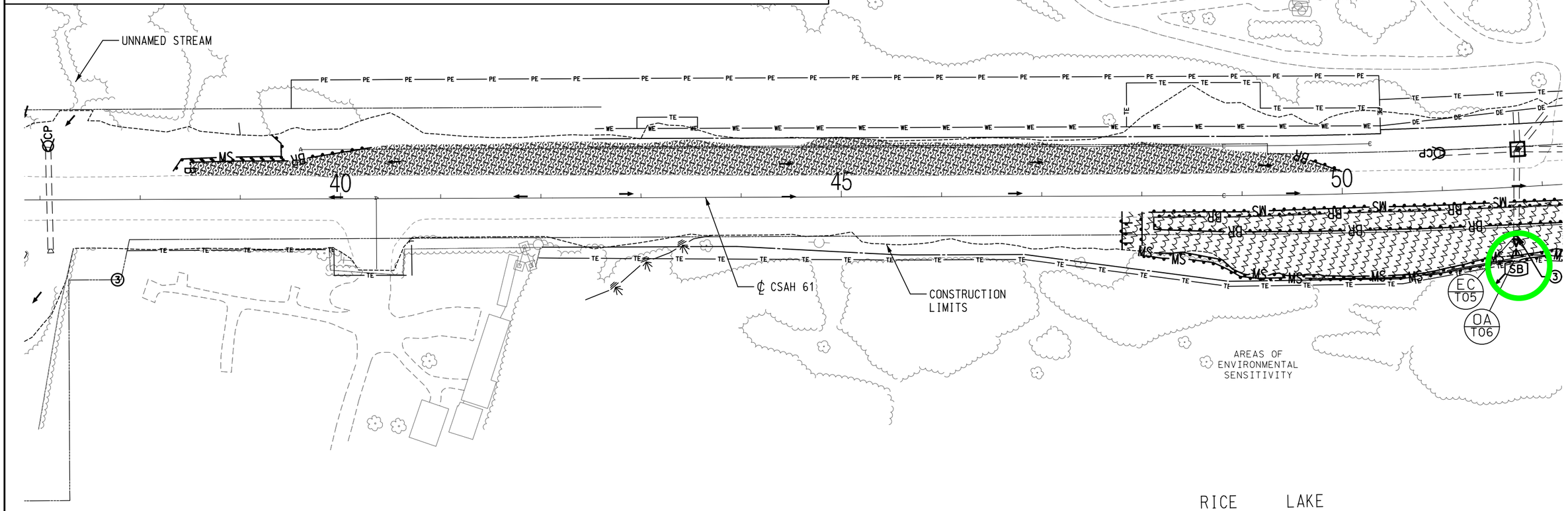
SEE SURCHARGE PLANS FOR SURCHARGE AREAS

SCALE 0' 50' 100'



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STAGE 1B

SHEET 266 / 297

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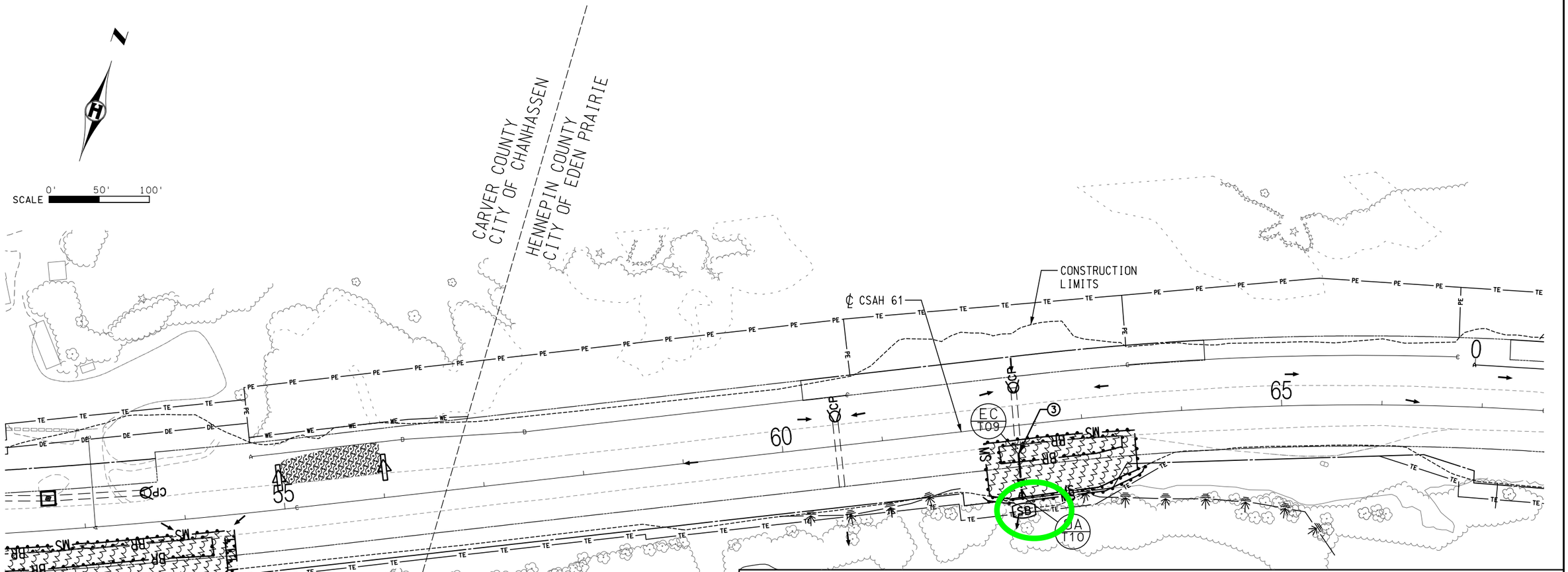

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SEE SURCHARGE PLANS FOR SURCHARGE AREAS

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STAGE 1B

SHEET 267 / 297

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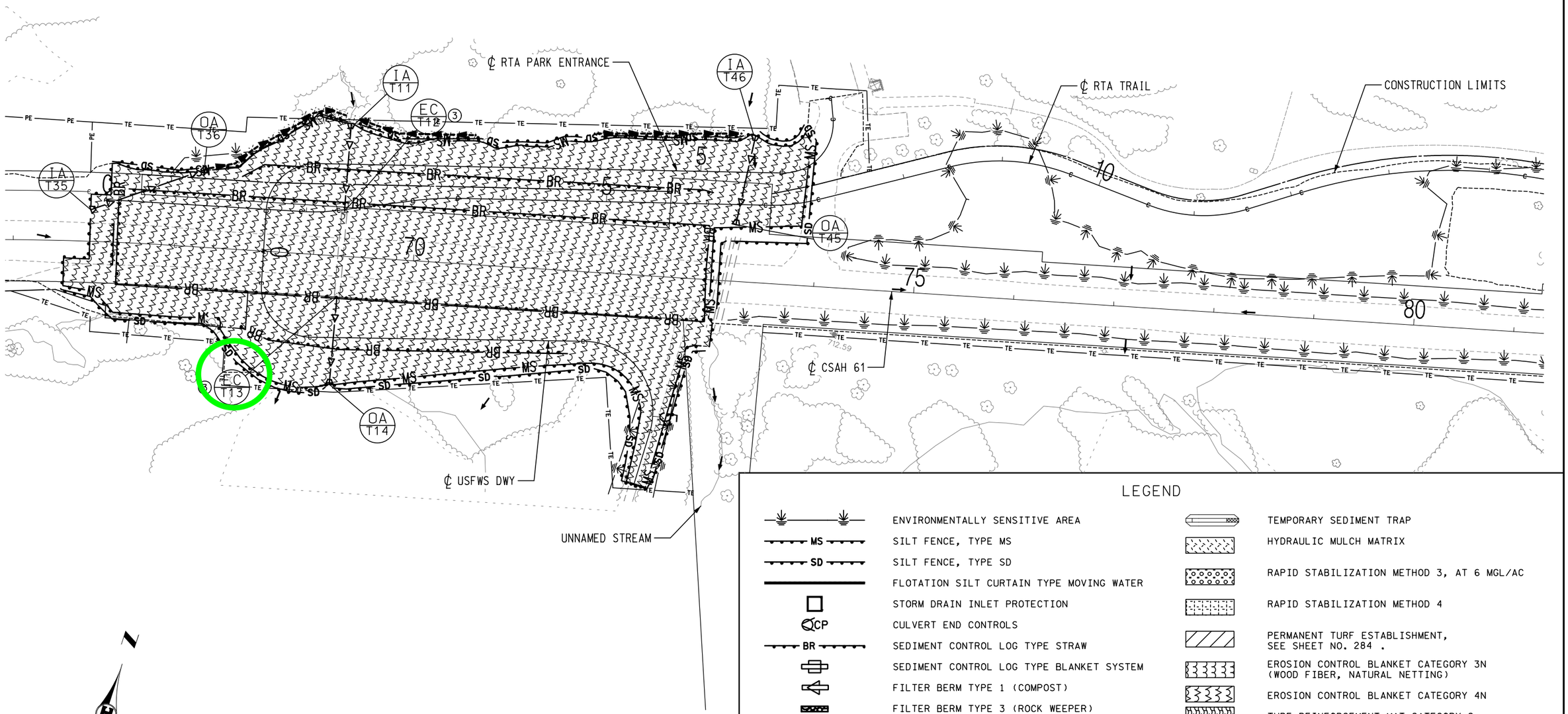

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SCALE 0' 50' 100'

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STAGE 2A (BRIDGE 27C01 SURCHARGE)

SHEET 271 / 297

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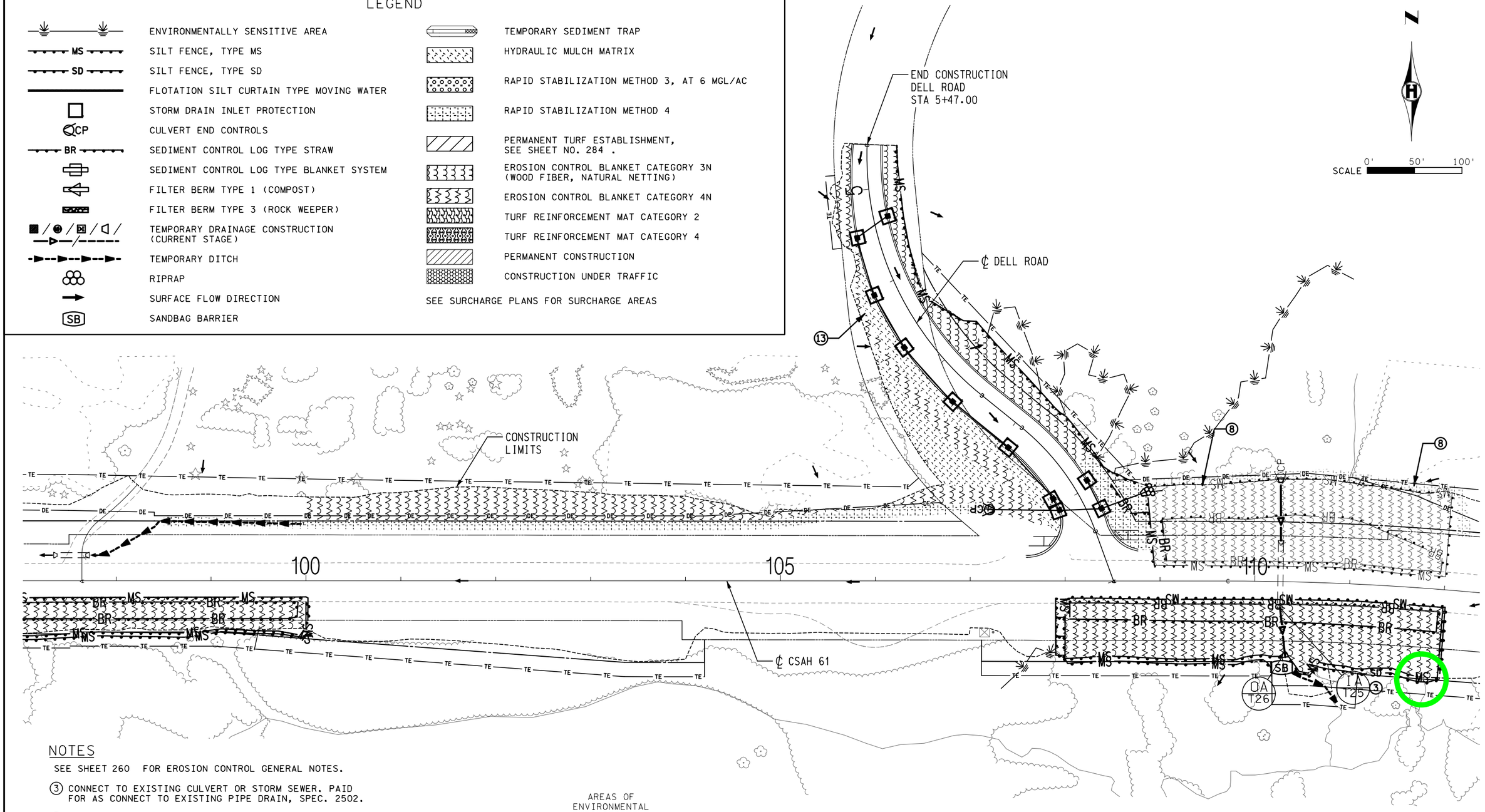

NOTES

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(3) CONNECT TO EXISTING CULVERT OR STORM SEWER. PAID FOR AS CONNECT TO EXISTING PIPE DRAIN, SPEC. 2502.

(8) STABILIZATION OF LAST 200 LINEAL FEET OF DRAINAGE DITCH MUST BE COMPLETED WITHIN 24 HOURS AFTER CONNECTING TO DRAINAGE DITCH.

(13) THIS PORTION OF CONSTRUCTION CAN BE MOVED TO STAGE 2 BASED ON CONTRACTOR OPERATIONS.

AREAS OF ENVIRONMENTAL SENSITIVITY

RICE LAKE

Hennepin

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

HUGH ZENG, LICENSED PROFESSIONAL ENGINEER — 24333 — 02/01/2017

HZ UNITED, LLC

DESIGN BY:	MBA
CAD BY:	MBA
CHECKED BY:	HZ
LAST REVISION:	

EROSION AND SEDIMENT CONTROL PLAN

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S.A.P. 027-661-048/181-020-031 & S.A.P. 010-661-003/194-020-012
STAGE 1B

SHEET 269 / 297

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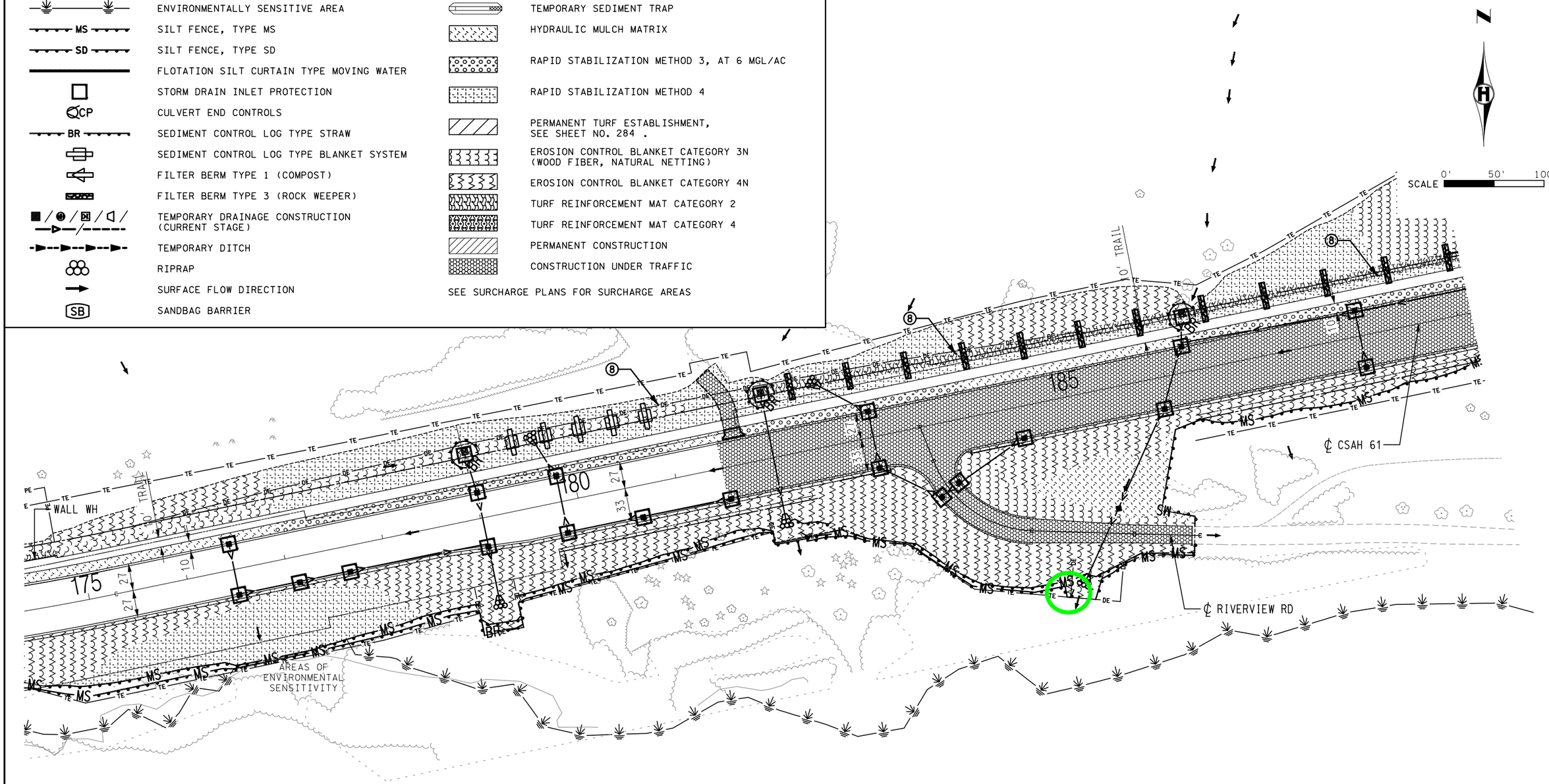

NOTES

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Hennepin

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HUGH ZENG, LICENSED PROFESSIONAL ENGINEER — 24333 — 02/01/2017

HZ UNITED, LLC

DESIGN BY:	MBA
CAD BY:	MBA
CHECKED BY:	HZ
LAST REVISION:	

EROSION AND SEDIMENT CONTROL PLAN

C.S.A.H. 61 / HENNEPIN COUNTY PROJECT 0904
S.A.P. 027-661-048/181-020-031 & S.A.P. 010-661-003/194-020-012
STAGE 1A

SHEET 262 / 297

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Young Environmental Consulting Group, LLC

Technical Memorandum

To:	Linda Loomis, Administrator Lower Minnesota River Watershed District
From:	Sarah Duke Middleton, Water Resources Scientist Della Schall Young, PMP, CPESC
Date:	September 21, 2018
Re:	City of Eagan—Stormwater Management Plan, Water Quality & Wetland Management, and Comprehensive Plan Review

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We have reviewed the City of Eagan's draft Stormwater Management Plan (SWMP), the Water Quality and Wetland Management Plan (WQWMP), and Chapters 6 and 10 of the Comprehensive Plan (CP) for consistency with the District's drafted 2018 Watershed Management Plan (Plan). Drafts of all three plans were made available at the same time, allowing us to review them in conjunction with one another. The City Code was also reviewed to assess consistency. These documents, in combination, detail the city's approach to surface water management and satisfy requirements for Local Surface Water Planning in accordance with Minn. Stats. §103B.235.

We recommend approval of the SWMP, WQWMP, and Chapters 6 and 10 of the CP, contingent on satisfactory responses to the following comments:

Erosion and Sediment Control Standard

General. The city's plans are in alignment with the District's standard for general land-disturbing activity affecting one or more acres. The WQWMP references the city's NPDES/MS4 and Construction Stormwater General Permit, its requirements, and implementation. The NPDES/MS4 and Permit meet the LMRWD's threshold.

High Value Resources Area (HVRA) Overlay District. Activity thresholds within the HVRA Overlay District, of which Eagan is a part, have more stringent requirements and are not addressed in the documents provided by the city.

Projects that result in land-disturbing activities in HVRA areas that involve the displacement or removal of 5,000 square feet or more of surface area or vegetation or the excavation of 50 cubic yards or more of earth must include erosion and sediment control plans and incorporate inspection and maintenance strategies. Requirements specific to HVRA must be incorporated in the city's official controls.

Floodplain and Drainage Alteration

The city's plans do not address the Floodplain and Drainage Alteration Policy outlined by the District; however, City Code §11.66 meets all criteria of the standard. Requirements prohibiting the alteration to or filling of land below the 100-year flood elevation of any wetland, public water, or landlocked subwatershed should be incorporated in the city's plans.

Stormwater Management Standard

General. The city's plans are in alignment with the District's standard threshold for general construction activities that develop, redevelop, or alter drainage, creating impervious areas greater than one acre. The WQWMP cites the city's participation in the NPDES MS4 General Permit program, and its development, implementation, and enforcement of a stormwater pollution prevention plan (SWPPP). The District's requirement for areas outside of HVRA overlay districts are met.

HVRA Overlay District. The HVRA Overlay District has a more stringent threshold for construction activity. This threshold pertains to activities that fall within the HVRA and develop, redevelop, or alter drainage to create new impervious areas greater than 10,000 square feet. The SWMP, WQWMP, and CP documents do not address the HVRA; however, City Code §4.34 meets the HVRA threshold.

Shoreline and Streambank Alternation Standard

Within the WQWMP, shorelines are mentioned related to cost share, aquatic vegetation management, and buffer retention. The CP also covers the regulation of shorelands and streambanks. It details shoreland protection and cites the shoreland zoning regulations in City Code §11.65, and it includes both a narrative and a map highlighting the Shoreland Overlay Districts within the city. The information presented adequately addresses the District's standard.

Steep Slope Standard

Within the SWMP, topography of the city is reviewed, and the range of land slope (5.4% to 80%) is highlighted. The WQWMP also cites steep slopes and features near the Nicols Meadow and Gun Club Lake South fens as part of their Outstanding Resources of Value section. However, neither the SWMP, WQWMP, nor the CP references specific steep slope policy. City Code §11.65, Shoreland Overlay District, fills this gap and satisfies the District's Steep Slope Standard.

Water Appropriations Standard

This standard applies to the HVRA Overlay District, and the temporary withdrawal of groundwater of more than 10,000 gallon of water per day, or 1,000,000 gallons per year. This is in accordance with the DNR Water Use Appropriations Permit. If the city refers applicants to the DNR and District, the District's requirements are met. Nevertheless, it should be confirmed that the city does refer applicants to the DNR for this permit, since none of the documents reviewed mention referrals.

Water Crossing Standard

This standard refers to crossing watercourses and policy prohibiting the use of beds and banks of streams/lakes for placement of roads, driveways, and utilities. We recognize that this requirement is

not within the jurisdiction of the city. If the city refers applicants to the DNR and District, the District's requirements are met. Nevertheless, it should be confirmed that the city does refer applicants to the DNR for this permit, since none of the documents reviewed mention referrals.

We commend the City of Eagan for its efforts to generate strong and inclusive water resource management plans. The District appreciates your participation in the plan amendment process as a member of the Technical Advisory Commission. By incorporating the recommendations outlined above, we believe the city planning and official controls will encompass all necessary components of effective surface and groundwater management.

As the city moves forward with the finalization of the Comprehensive Plan, the District respectfully requests to be kept informed of the development and implementation of capital improvement projects.

_____ introduced the following resolution and moved its adoption:

LOWER MINNESOTA RIVER WATERSHED DISTRICT

RESOLUTION 18-15

RESOLUTION APPROVING THE COMPREHENSIVE GUIDE PLAN UPDATE FOR THE CITY OF EAGAN

WHEREAS, Minnesota Statute Chapter 473.858 requires the Local government units to prepare a Comprehensive Plan and submit their proposed plans to adjacent governmental units, affected special districts lying in whole or in part within the metropolitan area, and affected school districts for review; and

WHEREAS, the Lower Minnesota River Watershed District ("LMRWD") is a special purpose unit of government, established in accordance with Minnesota Statutes Chapter 103D; and

WHEREAS, the City of Eagan (City) lies partially within the LMRWD and therefore must meet the requirements of the LMRWD Plan for those portions of the City lying within the LMRWD; and

WHEREAS, On December 14, 2011, the LMRWD adopted a Watershed Management Plan (LMRWD Plan) under Minnesota Statutes Section 103B.231, subdivision 10, which, as amended, details the existing physical environment, land use and development in the watershed and establishes as plan to manage water resources and regulate water resource use to improve water quality, prevent flooding and otherwise achieve goals of Minnesota Statutes Chapters 103B and 103D; and

WHEREAS, Minnesota Statutes Section 103B.235, Local Water Management Plans, requires that local government units having land use planning and regulatory responsibility for territory within the watershed shall prepare or cause to be prepared a local water management plan, capital improvement program and official controls as necessary to bring local water management into conformance with the LMRWD Plan. Local Plans must meet the requirements of the LMRWD Plan as well as the general requirement of Minnesota Statutes Section 103B.235 and Minnesota Rules Part 8410; and

WHEREAS, on June 7, 2018, the City prepared and submitted a draft Comprehensive Guide Plan Update (CGPU) which contains the city's Stormwater Management Plan (SWMP) and Water Quality & Wetland Management Plan (WQWMP) dated March 20, 2018; and

WHEREAS, Minnesota Statutes Section 103B.235, Subdivision 3 authorizes the LMRWD to review and approve local water management plans and to take other actions necessary to assure that the local plan is in conformance with the LMRWD's plan and standards set forth therein; and

WHEREAS, the LMRWD has reviewed Chapters 6 and 10 of the CGPU, the SWMP, and the WQWMP and hereby determines that the plans have been prepared in accordance with the requirements of Minnesota Statutes Section 103B.235 and Minnesota Rules Parts 840.0160 and 8410.0170, and contains the requirements for local plans.

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the LMRWD that the Eagan draft CPGU, the SWMO and the WQWMP are hereby approved as consistent with the LMRWD Plan, subject to the following:

A. This approval is conditional upon the following:

1. High Value Resource Area (HVRA) Overlay District, Activity thresholds within the HVRA Overlay District are not addressed. Requirements specific to the HVRA must be incorporated into the city's official controls.
2. Floodplain and Drainage Alteration. Requirements prohibiting the alteration to or filling of land below the 100-year flood elevation of any wetland, public water or landlocked sub-watershed should be incorporated into the city's plans.

B. The Lower Minnesota River Watershed Restoration and Protection Strategies (WRAPS) and Total Maximum Daily Load (TMDL) studies are underway. The LMRWD recommends the CGPU, SWMP and WQWMP be updated to reflect the findings and recommendations of the WRAPS and TMDL studies once finalized.
C. In accordance with Minnesota Statutes Section 103B.235, Subdivision 4, the Eagan plan shall be adopted and implemented by the City within 120 days of this action, and the City shall amend its official controls accordingly within 180 days.
D. Pursuant to Minnesota Statutes Section 103B.235, Subdivision 5, and consistent with the LMRWD Plan, the City shall submit amendments to the local water management plan to the LMRWD for review and approval in accordance with State Statutes and Rules.
E. The LMRWD Board of Managers believes that regulation is most properly performed by the local governmental unit (LGU), provided that regulation by the LGU is consistent with the standards, goals and policies of the LMRWD Plan. The City of Eagan shall adopt official controls, to implement water management policies, standards and criteria, as stated in the CGPU, SWMP and WQWMP, at least as strict as those in the LMRWD Plan, as amended, on all projects within the boundaries of the LMRWD in the City of Eagan.
F. For properties within the City that are split between the LMRWD and any other watershed management organization, the most restrictive water management policies, standards and criteria will be implemented.

The Motion was seconded by _____ and adopted by the Board of Managers of the Lower Minnesota River Watershed District this 24th day of October, 2018.

_____
Jesse Hartmann, President

ATTEST:

_____
David Raby, Secretary

Young Environmental Consulting Group, LLC

Technical Memorandum

To: Linda Loomis, Administrator

From: Tusha Devjani Barman, Environmental Engineering Intern
Della Schall Young, CPESC, PMP

Date: September 21, 2018

Re: Aspire Eden Prairie 2040 Draft Plan Review

The Aspire Eden Prairie 2040 Draft Plan (AEP2040) was reviewed on behalf of the Lower Minnesota River Watershed District (District). The AEP2040 was compared to the District's Watershed Management Plan (Plan) to better understand how the District and the City of Eden Prairie (City) can work together to protect, preserve, and manage surface water resources and groundwater within the District.

The sections of the AEP2040 relevant to the District are in chapter 9, Water Resources and Infrastructure. The goals and objectives in chapter 9 are those of the city's Local Water Management Plan (LWMP), and this chapter is intended to describe the corresponding strategies to implement those goals and objectives related to surface water, wastewater, and water supply within the city.

Many of the goals and policies found in chapter 9 of the AEP2040 are similar to those found in the District's Plan, especially those related to the management of surface water resources. According to chapter 9 of the AEP2040, the city relies on chapter 11 of the Eden Prairie City Code Ordinance to implement the goals and policies related to stormwater management, floodplains, and wetlands. After the city's LWMP is approved and adopted, the city plans to review and update the existing ordinance to implement the goals and policies in the AEP2040. The following sections describe how the existing City ordinance compares to the District regulations on topics of shared concern to both entities.

STORMWATER MANAGEMENT

Section 11.55 of the Eden Prairie City Code (Ordinance No. 28-2016) addresses stormwater management performance standards. According to the ordinance, for development plans with land disturbance of greater than or equal to one acre, including projects of less than one acre that are part of a larger common plan of development or sale, the following stormwater management practices must be followed:

1. Water Quality Control Standards:
    a. In case of new development, there must be no net increase from pre-project conditions based on annual average in total phosphorus (TP) or total suspended solids (TSS) annual load.
    b. In case of redevelopment, there must be decrease from pre-project conditions based on annual average in TP or TSS annual load.
2. Volume Control Standards
    a. Development resulting in the creation of impervious surfaces must retain a runoff volume equal to one-inch times the area of the proposed new impervious surfaces on-site.
    b. Pretreatment in the form of sump structure, vegetated filter strip, water quality inlet, or other sediment control method to settle particulates approved by the city will be provided for all infiltration areas.
3. The use of green infrastructure techniques and practices will be the preferred best management practices for accomplishing compliances with water quality and volume control standards.
4. Stormwater Facility Design Standards:
    a. All storm sewer system components, including inlets, outlets, catch basins, piping, and other structures designed to treat or convey stormwater, will be designed for a minimum 10-year frequency event using currently accepted rainfall data with the exception of storm sewer systems near critical topographic features such as steep slopes and bluffs, which will be designed for a 100-year frequency event with a designated overland emergency overflow.
    b. If stormwater facilities are required to include a stormwater pond, then the pond must be based on National Urban Runoff Program design criteria with a calculated water elevation for a 100-year frequency event.

The city's one-inch volume control requirement is more restrictive than the current District requirement of 0.5 inch, but it is in alignment with the District's proposed standard. The city does not have stormwater rate-control requirements. We suggest the city consider incorporating the District's proposed stormwater rate control requirement, which requires a match of pre- and post-construction conditions for the 1-year or 2-year, 10-year, and 100-year 24-hour events using Atlas14 nested distributions.

FLOODPLAIN MANAGEMENT

Section 11.45 of Eden Prairie City Code Ordinance No. 24-2016 addresses floodplain management:

a. The use of floodway must not obstruct flood flows or cause any increase in flood elevations and must not involve structures, obstructions, or storage of materials or equipment.

b. A conditional use of floodway must not cause any increase in the stage of the 1 percent chance of regional flood or cause an increase in flood damages in the reach or reaches affected.

c. All structures, including accessory structures, in the flood fringe must be elevated on fill so that the lowest floor, as defined, is at or above the regulatory flood protection elevation.

d. The finished fill elevation for structures must be no lower than one foot below the regulatory flood protection elevation, and the fill must extend at the same elevation at least 15 feet beyond the outside limits of the structure.

The city's ordinance aligns with the District's Floodplain and Drainage Alteration Standard, which prohibits fill, structures, obstructions, or excavating in the floodway that may cause an increase in the 100-year stage elevation or damages in the reach. Fill and development are allowed in the flood fringe as long as it does not adversely affect the hydraulic capacity of the channel and adjoining floodplain.

BLUFF MANAGEMENT

The City code ordinance defines a bluff as a topographic feature that is located in a shoreland area with an average slope of equal to or more than 18 percent over a distance of 50 feet. The grade of the slope from toe of the bluff to point 25 feet or more above the ordinary high water level averages 30 percent or greater. The bluff impact zone is the land located within 20 feet beyond the top of a bluff.

The Bluff Standards in the City's Code Ordinance No.14-2004 are as follows:

1. A grading and filling permit will be required for the movement of more than ten (10) cubic yards of material within steep slopes and shore and bluff impact zones.

2. The City Manager or designee will require soil erosion protection and must evaluate possible soil erosion impacts, soil protection, and development visibility from public waters before issuing a permit for construction of sewage treatment systems, roads, driveways, structures, or other improvements on steep slopes.

The District's proposed Steep Slopes Standard includes a Steep Slopes Overlay District that is based on slopes greater than 18 percent and doesn't restrict structure location in the overlay zone. The District standard does not explicitly prohibit intensive vegetation

clearing, though it is strongly discouraged. Land-disturbing activities that involve excavation of fifty (50) cubic yards or more in the Steep Slope Overlay District require a qualified professional or a professional engineer registered in the state of Minnesota to certify that the area for the proposed activity, structure, or use is suitable. This same requirement is also included in the proposed District water plan. So it is obvious that the City is following more strict regulations (land disturbance activities that include more than ten (10) cubic yards of materials within steep slope or bluff impact zone) than those in the existing and proposed District plan. To protect the buffer impact zone, the existing District water plan prohibits any kind of land disturbance activities in this zone, whereas the City approves landings and stairways in bluff impact zone. Also, the existing district plan has a minimum set back of fifty (50) feet from the top of the bluff if there is any sewage treatment system within the bluff zone. The City does not have any special setback for the sewage treatment system with respect to the top of the bluff, though it has a general setback for all major structures.

POTENTIAL PROJECTS FOR PARTNERING WITH THE DISTRICT

- **Creek and River Stabilization and Improvement Projects:** Future bank stabilization, stormwater system improvements, or volume control projects identified in the Local Water Management Plan, stormwater system inventory, or future Total Maximum Daily Loads (TMDLs)

- **Water Quality Improvement Projects:** Water quality improvement projects such as those identified in the stormwater inventory and treatment effectiveness reports; projects could include pond dredging, infiltration enhancements, pond expansions, or other miscellaneous water quality improvement projects not currently identified

- **Road Improvement Projects:** For stormwater system improvements to meet NPDES and Watershed District requirements during road construction projects

SUMMARY

The District commends the City for developing a thoughtful and thorough comprehensive Plan update. The City clearly takes pride in its efforts to conserve and protect natural resources. A comparison of the AEP2040 to the District Plan shows that the City and the District share several goals in their efforts to preserve and manage surface water resources and groundwater.

The following recommendations for inclusion in the AEP2040 and the Eden Prairie City Code are suggested to strengthen the City's plan and better align the AEP2040 and the District plan:

- In Section 11.55 of Eden Prairie City Code Ordinance No. 28-2016, include peak flow discharge rates from stormwater runoff for the 1-year or 2-year, 10-year, and

100-year 24-hour events using 14 Atlas 14 nested distributions conditions.

- In Section 11.45 of Eden Prairie City Code Ordinance No. 24-2016) include the lowest ground level of proposed structures at a minimum of 2 feet above the 100-year high water level of nearby surface waters or 1 foot above the emergency overflow elevation, whichever is greater.

The District looks forward to future partnerships with the City as we work to complete potential projects that meet our common goals of reducing pollutant and sediment entering the Minnesota River and protecting, preserving, and managing our shared surface water and groundwater resources.

_____ introduced the following resolution and moved its adoption:

LOWER MINNESOTA RIVER WATERSHED DISTRICT

RESOLUTION 18-16

RESOLUTION APPROVING ASPIRE EDEN PRAIRIE 2040 COMPREHENSIVE PLAN UPDATE
FOR THE CITY OF EDEN PRAIRIE

WHEREAS, Minnesota Statutes Chapter 473.858 requires the Local government units to prepare a Comprehensive Plan and submit their proposed plans to adjacent governmental units, affected special districts lying in whole or in part within the metropolitan area, and affected school districts for review; and

WHEREAS, the Lower Minnesota River Watershed District ("LMRWD") is a special purpose unit of government, established in accordance with Minnesota Statutes Chapter 103D; and

WHEREAS, the City of Eden Prairie (City) lies partially within the LMRWD and therefore must meet the requirements of the LMRWD Plan for those portions of the City lying within the LMRWD; and

WHEREAS, On December 14, 2011, the LMRWD adopted a Watershed Management Plan (LMRWD Plan) under Minnesota Statutes Section 103B.231, subdivision 10, which, as amended, details the existing physical environment, land use and development in the watershed and establishes as plan to manage water resources and regulate water resource use to improve water quality, prevent flooding and otherwise achieve goals of Minnesota Statutes Chapters 103B and 103D; and

WHEREAS, Minnesota Statutes Section 103B.235, Local Water Management Plans, requires that local government units having land use planning and regulatory responsibility for territory within the watershed shall prepare or cause to be prepared a local water management plan, capital improvement program and official controls as necessary to bring local water management into conformance with the LMRWD Plan. Local Plans must meet the requirements of the LMRWD Plan as well as the general requirement of Minnesota Statutes Section 103B.235 and Minnesota Rules Part 8410; and

WHEREAS, on May 30, 2018, the City prepared and submitted the Aspire Eden Prairie 2040 Draft Comprehensive Plan Update (AEP2040); and

WHEREAS, Minnesota Statutes Section 103B.235, Subdivision 3, authorizes the LMRWD to review and approve local water management plans and to take other actions necessary to assure that the local plan is in conformance with the LMRWD's plan and standards set forth therein. The sections of the AEP2040 relevant to the LMRWD are in Chapter 9, Water Resources and Infrastructure. The goals and objectives in Chapter 9 are those of the City's Local Water Management Plan (LWMP); and

WHEREAS, the LMRWD has reviewed AEP2040 and hereby determines that the plan has been prepared in accordance with the requirements of Minnesota Statutes Section 103B.235 and Minnesota Rules Parts 840.0160 and 8410.0170, and contains the requirements for local plans.

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the LMRWD that the Aspire Eden Prairie 2040 Comprehensive Plan Update is hereby approved as consistent with the LMRWD Plan, subject to the following:

A. This approval is conditional upon the following:
    1. In Section 11.55 of Eden Prairie City Code Ordinance No.28-2016, include peak flow discharge rates from stormwater runoff for the 1-year, 2-year 10-year and 100-year 24 hour events using Atlas 14 nested distribution conditions.
    2. In Section 11.45 of Eden Prairie City Code Ordinance No. 24-2016 include the lowest ground level of proposed structures at a minimum of 2 feet above the 100-year high water level of nearby surface waters or 1 foot above the emergency overflow elevation, whichever is greater.
B. The Lower Minnesota River Watershed Restoration and Protection Strategies (WRAPS) and Total Maximum Daily Load (TMDL) studies are underway. The LMRWD recommends the LWMP be updated to reflect the findings and recommendations of the WRAPS and TMDL studies once finalized.
C. Pursuant to Minnesota Statutes Section 103B.235, Subdivision 5, and consistent with the LMRWD Plan, the City shall submit amendments to the LWMP to the LMRWD for review and approval in accordance with State Statutes and Rules.
D. The LMRWD Board of Managers believes that regulation is most properly performed by the local governmental unit (LGU), provided that regulation by the LGU is consistent with the goals and policies of the LMRWD Plan. The city of Eden Prairie shall adopt official controls, to implement water management policies, standards and criteria, as stated in the LWMP, at least as strict as those in the LMRWD Plan, as amended, on all projects within the boundaries of the LMRWD in the City of Eden Prairie.
E. For properties within the City that are split between the LMRWD and any other watershed management organization, the most restrictive water management policies, standards and criteria will be implemented.

The Motion was seconded by _____ and adopted by the Board of Managers of the Lower Minnesota River Watershed District this 24th day of October, 2018.

_____
Jesse Hartmann, President

ATTEST:

_____
David Raby, Secretary

Young Environmental Consulting Group, LLC

Technical Memorandum

To: Linda Loomis, Administrator

From: Tusha Devjani Barman, Environmental Engineering Intern
Della Schall Young, CPESC, PMP

Date: September 21, 2018

Re: Lilydale 2040 Draft Plan Review

The Lilydale 2040 Draft Plan (LD2040) was reviewed on behalf of the Lower Minnesota River Watershed District (District). The LD2040 was compared to the District's Watershed Management Plan (Plan) to better understand how the District and the City of Lilydale (City) can work together to maintain or improve the quality of surface waters and stormwater runoff within the District.

The sections of the LD2040 relevant to the District are in chapter 4, Water Resources; chapter 7, Goals and Policies; and chapter 8, Implementation. The goals and objectives in chapter 7 are those of the City's Local Water Management Plan (LWMP), and chapter 8 is intended to describe the corresponding strategies to implement those goals and objectives related to surface water and groundwater within the City.

The goals and policies found in chapter 7 of the LD2040 are similar to those found in the District's Plan, especially those related to the management of surface water resources. According to chapter 8 of the LD2040, the City relies on the zoning ordinance to implement the goals and policies related to shoreline, drainage routes, floodplains, wetlands, and bluffs. The following sections describe how the existing City ordinance compares to the District's regulations on topics of shared concern to both entities.

STORMWATER MANAGEMENT

The City of Lilydale includes some requirements in sections 5.3 and 5.4 of the Surface Water Management Plan (SWMP) to improve the quality of stormwater runoff reaching the Minnesota River and Mississippi River. Improvement in stormwater quality means reduction in nonpoint source pollution carried in stormwater runoff, stormwater runoff volume, and amount of impervious surface in the developed parts of the City.

1. Water Quality Control Standards:

According to the City's SWMP, the implementation of Best Management Practices (BMPs) is required for new development or redevelopment projects to achieve removal rates consistent with LMRWMO, LMRWD, and National Pollutant Discharge Elimination System (NPDES) standards.

a. In case of new development, BMPs must achieve a minimum 50 percent removal of total phosphorus for runoff from the project site. There must be no net increase of total suspended solids (TSS) or total phosphorus (TP) loading to downstream water bodies.

b. In case of redevelopment, BMPs should result in net reductions of 80 percent for TSS and 50 percent for TP.

2. Volume Control Standards:

   The City strongly discourages the connection of impervious surfaces from new development and redevelopment.

3. Stormwater System Capacity Criteria:

   a. A conveyance system should handle 10-year flows without overtopping and should handle 100-year flows without damage.
   b. Ponds should be designed to accommodate 100-year volumes, with a minimum of one foot of freeboard to overflow.
   c. All structures and permanent improvements should be protected from failure or severe damage for 100-year frequency storms.
   d. A safe pathway for flows in excess of 100-year return frequency should be provided.

Because the City is in a unique setting at the bluffs of the Mississippi River, the City does not encourage infiltration of stormwater for groundwater recharge on top of the bluffs. Contrary to that, the District's current volume control requirement to infiltrate the volume of runoff is equal to a depth of 0.5-inch of runoff over the new impervious surfaces (more than 1-acre). The City has a stormwater rate control requirement that includes the peak stormwater runoff rates not exceeding the existing rate for the 1-year or 2-year, 10-year, and 100-year events. But, according to the proposed district water plan, stormwater runoff rates should be from 24-hour events using Atlas 14 nested distributions.

Section 5.3.2.7 and 5.3.2.8 of the City's SWMP include the following stormwater management prohibitions and restrictions, respectively:

1. The use of infiltration is prohibited in the following areas:

   a. Where industrial facilities are not authorized to infiltrate industrial stormwater under a NPDES or State Disposal System (SDS) Industrial

Stormwater Permit issued by the Minnesota Pollution Control Agency (MPCA)

b. Where vehicle fueling and maintenance occur

c. Where there is less than three (3) feet of separation from the bottom of the infiltration system to the elevation of seasonally saturated soils or the top of bedrock

d. Where there are high levels of contaminants in soil or groundwater that will be mobilized by the infiltrating stormwater

2. The use of infiltration techniques will be restricted in the following sites:

a. Where predominately hydrologic soil group D (clay) soils exist

b. Within 1,000 feet up-gradient or one hundred (100) feet down-gradient of active karst features

c. Within a Drinking Water Supply Management Area as defined in Minn. Rules 4720.5100, subp.13

d. Where soil infiltration rates exceed 8.3 inches per hour

The District standard includes similar restrictions on infiltration practices, with one exception. The District standard does not include items 2.b from the City's ordinance.

FLOODPLAIN MANAGEMENT

Section 905.4 of the Lilydale City Ordinance addresses floodplain management:

a. Fill will be properly compacted, and slopes will be properly protected by the use of riprap, vegetative cover, or another acceptable method.

b. Any use that adversely affects the capacity of the channels or floodways is not permitted.

c. All structures, including accessory structures, shall be constructed on fill so that the basement floor, or first floor if there is no basement, is at or above the Regulatory Flood Protection Elevation defined.

d. The finished fill elevation must be no lower than one (1) foot below the Regulatory Flood Protection Elevation and will extend at such elevation at least fifteen (15) feet beyond the limits of the structure constructed thereon.

The District Floodplain Management Standard align with the City's ordinance that prohibits placing fill, structures, obstructions, or excavations in the floodway that will cause an increase in the 100-year stage elevation or cause an increase in flood damages in the reach. Fill and development is allowed in the flood fringe as long as it does not adversely affect the hydraulic capacity of the channel and adjoining floodplain. According to the District, the lowest ground level of proposed structures must be a minimum of 2 feet above the 100-year high water level of nearby surface waters or 1 foot above the emergency overflow elevation, whichever is greater, unless they have protection through flood proofing or by another approved construction technique. The City's ordinance should adopt the standard during fill and development in the floodplain.

BLUFF AND SHORELAND MANAGEMENT

The City required to meet Mississippi River Critical Area (MRCCA) requirements for protecting the bluffs and the shoreland of the Mississippi River. MRCCA requirements are stricter than the District's current and proposed standards.

POTENTIAL PROJECTS FOR PARTNERING WITH THE DISTRICT

- **Bank and Shoreline Stabilization Project:** Project includes initial and follow-up assessment of streambank and shoreland.

- **Street Sweeping Project:** Project includes street sweeping once annually, recording the annual number of times streets are brush swept, and documentation of any additional activities undertaken during the project.

SUMMARY

The District commends the City for developing a thoughtful, thorough comprehensive Plan update. The City clearly takes pride in its efforts to conserve and protect natural resources. A comparison of the LD2040 to the District Plan shows that the City and the District share several goals in their efforts to preserve and manage surface water resources and groundwater.

The following recommendations for inclusion in the LD2040 and the Lilydale City Code are suggested to strengthen the City's plan and better align the LD2040 and the District plan:

- In Section 5.4.2 of the City's SWMP, include peak flow discharge rates from 24-hour events using Atlas 14 nested distributions.
- In Section 905.4 of the City of Lilydale Ordinance, include the lowest ground level of proposed structures at a minimum of 2 feet above the 100-year high water level of nearby surface waters or 1 foot above the emergency overflow elevation,

whichever is greater.

The District looks forward to future partnerships with the City as we work to complete potential projects that meet our common goals of reducing pollutant and sediment entering the Mississippi River and protecting, preserving, and managing our shared surface water and groundwater resources.

_____ introduced the following resolution and moved its adoption:

LOWER MINNESOTA RIVER WATERSHED DISTRICT

RESOLUTION 18-15

RESOLUTION APPROVING CITY OF LILYDATE 2040 COMPREHENSIVE PLAN UPDATE

WHEREAS, Minnesota Statute Chapter 473.858 requires the Local government units to prepare a Comprehensive Plan and submit their proposed plans to adjacent governmental units, affected special districts lying in whole or in part within the metropolitan area, and affected school districts for review; and

WHEREAS, the Lower Minnesota River Watershed District ("LMRWD") is a special purpose unit of government, established in accordance with Minnesota Statute Chapter 103D; and

WHEREAS, the City of Lilydale (City) lies partially within the LMRWD and therefore must meet the requirements of the LMRWD Plan for those portions of the City lying within the LMRWD; and

WHEREAS, On December 14, 2011, the LMRWD adopted a Watershed Management Plan (LMRWD Plan) under Minnesota Statutes Section 103B.231, subdivision 10, which, as amended, details the existing physical environment, land use and development in the watershed and establishes as plan to manage water resources and regulate water resource use to improve water quality, prevent flooding and otherwise achieve goals of Minnesota Statutes Chapters 103B and 103D; and

WHEREAS, Minnesota Statutes Section 103B.235, Local Water Management Plans, requires that local government units having land use planning and regulatory responsibility for territory within the watershed shall prepare or cause to be prepared a local water management plan, capital improvement program and official controls as necessary to bring local water management into conformance with the LMRWD Plan. Local Plans must meet the requirements of the LMRWD Plan as well as the general requirement of Minnesota Statutes Section 103B.235 and Minnesota Rules Part 8410; and

WHEREAS, on June 22, 2018, the City prepared and submitted the Lilydale 2040 Draft Comprehensive Plan (LD2040); and

WHEREAS, Minnesota Statutes Section 103B.235, Subdivision 3, authorizes the LMRWD to review and approve local water management plans and to take other actions necessary to assure that the local plan is in conformance with the LMRWD's plan and standards set forth therein. The sections of the LD2040 relevant to the LMRWD are in Chapter 4, Water Resources, Chapter 7, Goals and Policies and Chapter 8, Implementation. The goals and objectives in Chapter 7 are those of the City's Local Water Management Plan (LWMP) and Chapter 8 is intended to describe the corresponding strategies to implement those goals and objectives related to surface water and groundwater within the City; and

WHEREAS, the LMRWD has reviewed LD2040 and hereby determines that the plan has been prepared in accordance with the requirements of Minnesota Statutes Section 103B.235 and Minnesota Rules Parts 840.0160 and 8410.0170, and contains the requirements for local plans.

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the LMRWD that LD2040is hereby approved as consistent with the LMRWD Plan, subject to the following:

A. In Section 5.4.2 of City's SWMP, include peak flow discharge rates from 24-hour events using Atlas 14 nested distribution.
B. In Section 905.4 of the Lilydale City Ordinance, include the lowest ground level of proposed structures at a minimum of 2 feet above the 100-year high water level of nearby surface waters or 1 foot above the emergency overflow elevation, whichever is greater.
C. The Lower Minnesota River Watershed Restoration and Protection Strategies (WRAPS) and Total Maximum Daily Load (TMDL) studies are underway. The LMRWD recommends the LWMP be updated to reflect the findings and recommendations of the WRAPS and TMDL studies once finalized.
D. Pursuant to Minnesota Statutes Section 103B.235, Subdivision 5, and consistent with the LMRWD Plan, the City shall submit amendments to its LWMP to the LMRWD for review and approval in accordance with State Statutes and Rules.
E. The LMRWD Board of Managers believes that regulation is most properly performed by the local governmental unit (LGU), provided that regulation by the LGU is consistent with the goals and policies of the LMRWD Plan. The City of Lilydale shall adopt official controls, to implement water management policies, standards and criteria, as stated in the LWMP, at least as strict as those in the LMRWD Plan, as amended, on all projects within the boundaries of the LMRWD in the City of Lilydale.
F. For properties within the City that are split between the LMRWD and any other watershed management organization, the most restrictive water management policies, standards and criteria will be implemented.

The Motion was seconded by _____ and adopted by the Board of Managers of the Lower Minnesota River Watershed District this 24th day of October, 2018.

_____
Jesse Hartmann, President

ATTEST:

_____
David Raby, Secretary