Item 5E.
Attachment A
BCWMC 5-19-16

Wetland Investigation Report

Kerby Skurat

1143 South Shore Drive
Medicine Lake, MN

AE Comm. # 14322

May 4, 2016

Anderson Engineering of Minnesota, LLC

13605 1st Avenue North
Plymouth, MN 55441
763-412-4000 Main
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A Service-Disabled Veteran-Owned Small Business

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Contact Information

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Environmental Services Manager

Lucy Kozub
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Plymouth, MN 55441
Phone: (763) 412-4000
Fax: (763) 412-4090

Website: www.ae-mn.com

Executive Summary

Anderson Engineering of Minnesota, LLC was retained to provide professional wetland services to identify those areas meeting wetland criteria utilizing the 1987 United States Army Corps of Engineers (USACE) Wetland Delineation Manual (*Technical Report Y-87-1; January 1987*) and all supplemental guidance documents within the property located at 1143 South Shore Drive in the City of Medicine Lake, Minnesota, within the jurisdictional boundaries of the Bassett Creek Watershed Management Commission. Geographically, the area is located in Section 36, Township 118 North, Range 23 West.

A portion of one Type 3/6, PEM/SS1Cd, shallow marsh/scrub carr wetland was identified and delineated within the project area. The wetland extends off-site to the north, west, and south; the on-site portion is approximately 3.28 acres in size.

Background

As requested by Kerby Skurat, Anderson Engineering of MN, LLC completed a wetland investigation at the specified project area located at 1143 South Shore Drive, in the City of Medicine Lake, Minnesota. Geographically, the site is located in Section 36, Township 118 North, Range 23 West.

The applicant was directed to obtain a wetland delineation after meeting with the Technical Evaluation Panel representatives from the Basset Creek Watershed Management Commission (BCWMC), the Minnesota Department of Natural Resource, the US Army Corps of Engineers (USACE), and the MN Board of Water and Soil Resources regarding the potential filling of a portion of the wetland on this property.

The wetland delineation was completed in accordance with the 1987 United States Army Corps of Engineers Wetland Delineation Manual and the published regional supplement to the Army Corps Wetland Delineation Manual, Midwest Region.

The purpose of this study was to investigate the project area, identify areas meeting the technical criteria for wetlands, delineate the jurisdictional extent of the wetland basins, and classify the wetland habitat.

Fieldwork for this site investigation was completed by Environmental Associates Ben Hodapp and Lucy Kozub on April 21, 2016. The weather was partly cloudy with a temperature of 60 degrees Fahrenheit.

Methodology

United States Geologic Service 7.5" Topographic Quadrangle maps, United States Fish and Wildlife Service National Wetland Inventory maps, United States Department of Agriculture Natural Resources Conservation Service Soil Survey and available aerial photographs were consulted to initially locate potential wetland habitats.

Routine On-site Determination Method was used during this investigation. In this method, the following procedures were used:

1) The vegetative community was sampled in all present strata to determine whether it met hydrophytic vegetation criteria based on the indicators identified in the Midwest Regional Supplement.

2) Soil pits were dug using a Dutch auger to depths of at least 24". Soil profile was noted, in addition to any hydric soil characteristics.

3) Signs of wetland hydrology were noted and compared to field criteria such as depth to shallow water table and depth of soil saturation found in the soil pits.

Data from sample points were recorded on Army Corps of Engineers Midwest Region Wetland Determination Data Forms (*Appendix B*). At least one sample point transect crosses the delineated wetland edge. This transect consist of an upland sample point and a wetland sample point. Other sample points may be located in areas which have one or more of the wetland vegetation, soils, or hydrologic characteristics present; where questionable conditions exist; or to verify the absence of wetland criteria. Photographs are also taken at each sample point, and of the wetland and upland buffer (*Appendix C*).

Sample points were marked in the field with orange flags. The identified wetland boundary was marked with sequentially numbered pink flags. All sample points and the delineated wetland boundary were located utilizing a Trimble Geo XH sub-meter GPS unit.

Resource Review

The following resources were reviewed to supplement the wetland field delineation:

National Wetlands Inventory:

The National Wetlands Inventory (*Appendix A. Figure 2*) identifies one PEM1F wetland within the project area.

USDA - Natural Resources Conservation Service Soil Survey:

The Soil Survey of Hennepin County, MN (*Appendix A. Figure 3*) one hydric soil series, Medo (L30A), within the project area.

Minnesota Department of Natural Resources Public Water Inventory:

The MN DNR PWI for Hennepin County, MN (*Appendix A. Figure 4*) identifies one unnamed public water wetland (ID 27069800) within the project area.

Antecedent Precipitation Data:

An analysis of the University of Minnesota Climatology Working Group's 30 day rolling precipitation data for the previous three months (*Appendix D)* indicate that precipitation totals for previous weeks were below the normal monthly range for this project area, but trending upward toward the normal range. Hydrologic conditions were suitable for completing an accurate wetland determination and boundary delineation.

Field Review

Wetland 1: Wetland 1 is a Type 3/6, PEM/SS1Cd, shallow marsh/scrub carr wetland. The wetland vegetation is dominated by narrow leaf cattail (*Typha angustifolia*), reed canary grass (*Phalaris arundinacea*), and common buckthorn (*Rhamnus cathartica*) shrubs. The underlying soils are mapped as Medo soils (L30A). The investigated soil profile met the hydrogen sulfide (A4) and depleted matrix (F3) hydric soil indicators. Hydrology indicators observed include a high water table at 8 inches (A2), saturation at 6 inches (A3), hydrogen sulfide odor at approximately 8 inches (C1), geomorphic position (D2), and the FAC-Neutral Test (D5). There are no constructed inlets or outlets on the property. The wetland appears to drain off-site to Medicine Lake.

The upland buffer surrounding the wetland is a manicured lawn primarily vegetated with Kentucky bluegrass (*Poa pratensis*) with common buckthorn (*Rhamus cathartica*) shrubs near the wetland boundary. Gentle slopes form the transition between the upland and the wetland.

Conclusion

A portion of one wetland was identified and delineated in accordance with the 1987 United States Army Corps of Engineers Wetland Delineation Manual within the project area located at 1143 South Shore Drive in Medicine Lake, Minnesota.

The wetland in the project area may be regulated by several agencies at the local, State, and/or federal level. Activities which may potentially impact those wetlands identified within this report should be discussed in advance with the appropriate regulating agency in regards to potential permit requirements. The Local Government Unit (LGU) responsible for implementing the Minnesota Wetland Conservation Act at this project location is the Bassett Creek Watershed District.

This wetland investigation meets the standards and criteria described in the 1987 United States Army Corps of Engineers Wetland Delineation Manual all applicable subsequent guidance for an on-site determination and the results reflect the conditions present at the time of the delineation.

I certify that I performed the field analysis and wrote the report for this wetland determination.

Lucy Kozub — 05-04-2016

Lucy Kozub
Environmental Associate
Anderson Engineering of Minnesota, LLC

Date

I certify that I performed the field analysis and/or reviewed work completed by above staff.

Benjamin J Hodapp — 05-04-2016

Benjamin J Hodapp, PWS
Environmental Services Manager
MN Certified Wetland Delineator #1016
Anderson Engineering of Minnesota, LLC

Date

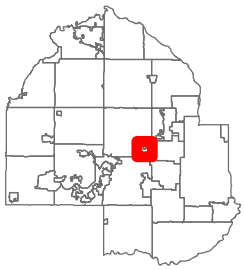
APPENDIX A

Figures

PROJECT LOCATION

SOURCE: MN DNR, USDA, ESRI, TIGER, Bing, Hennepin Co., Anderson Engineering

Hennepin County
State of Minnesota



City of Medicine Lake
Hennepin County, MN

1 in = 0.25 miles

0 0.125 0.25 0.5

Miles

1143 South Shore Drive
Medicine Lake, Hennepin County, MN
PID: 053-3611822220002

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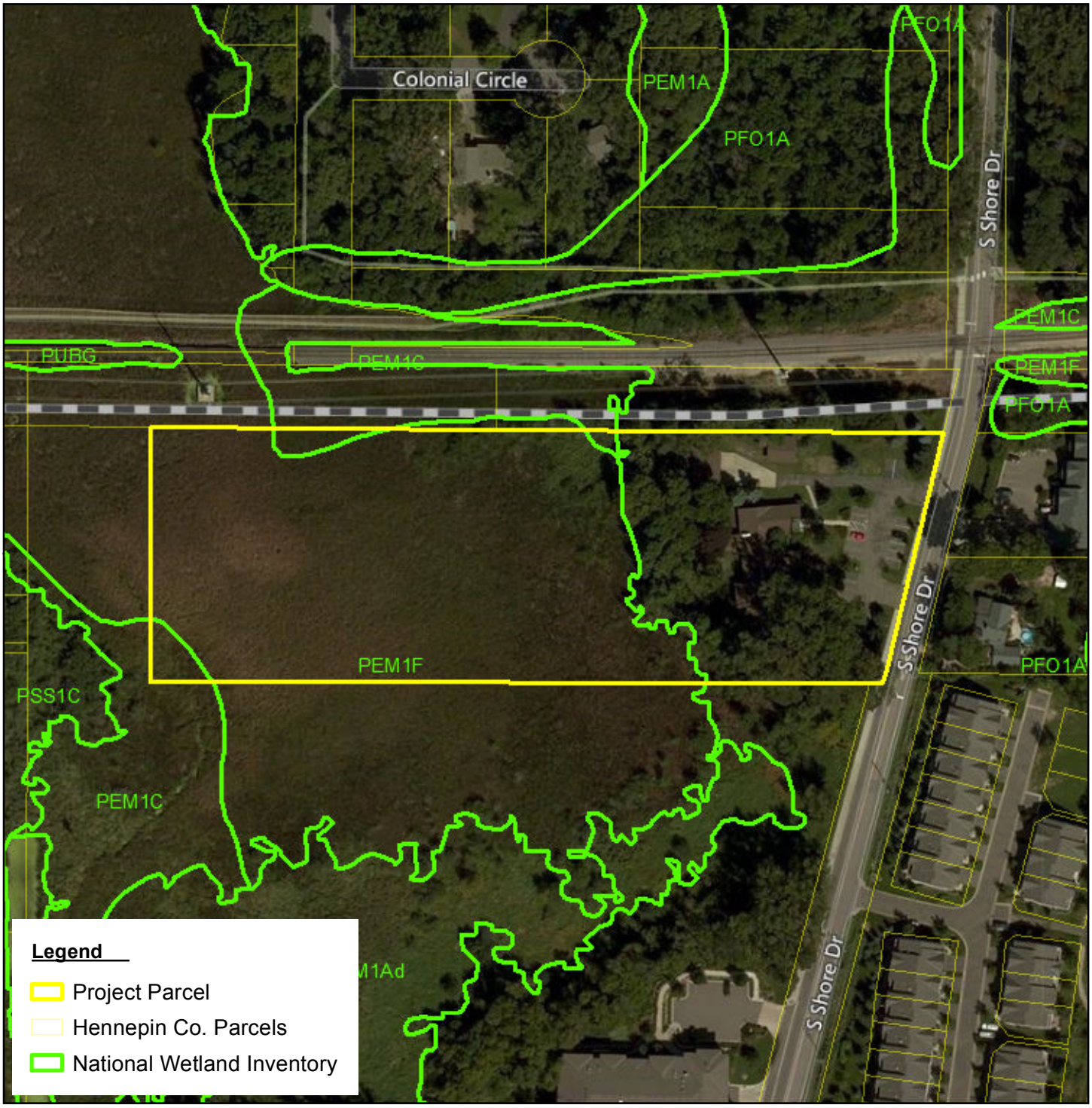
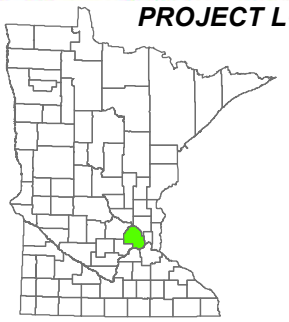
LOCATION - FIGURE 1
SKURAT PROPERTY

AE Comm.# 14322 Date: 4/28/2016 By: JLA



PROJECT LOCATION

SOURCE: MN DNR, USDA, ESRI, TIGER, Bing, Hennepin Co., Anderson Engineering



Hennepin County
State of Minnesota

City of Medicine Lake
Hennepin County, MN

1 in = 150 feet

0 75 150 300

Feet

1143 South Shore Drive
Medicine Lake, Hennepin County, MN
PID: 053-3611822220002

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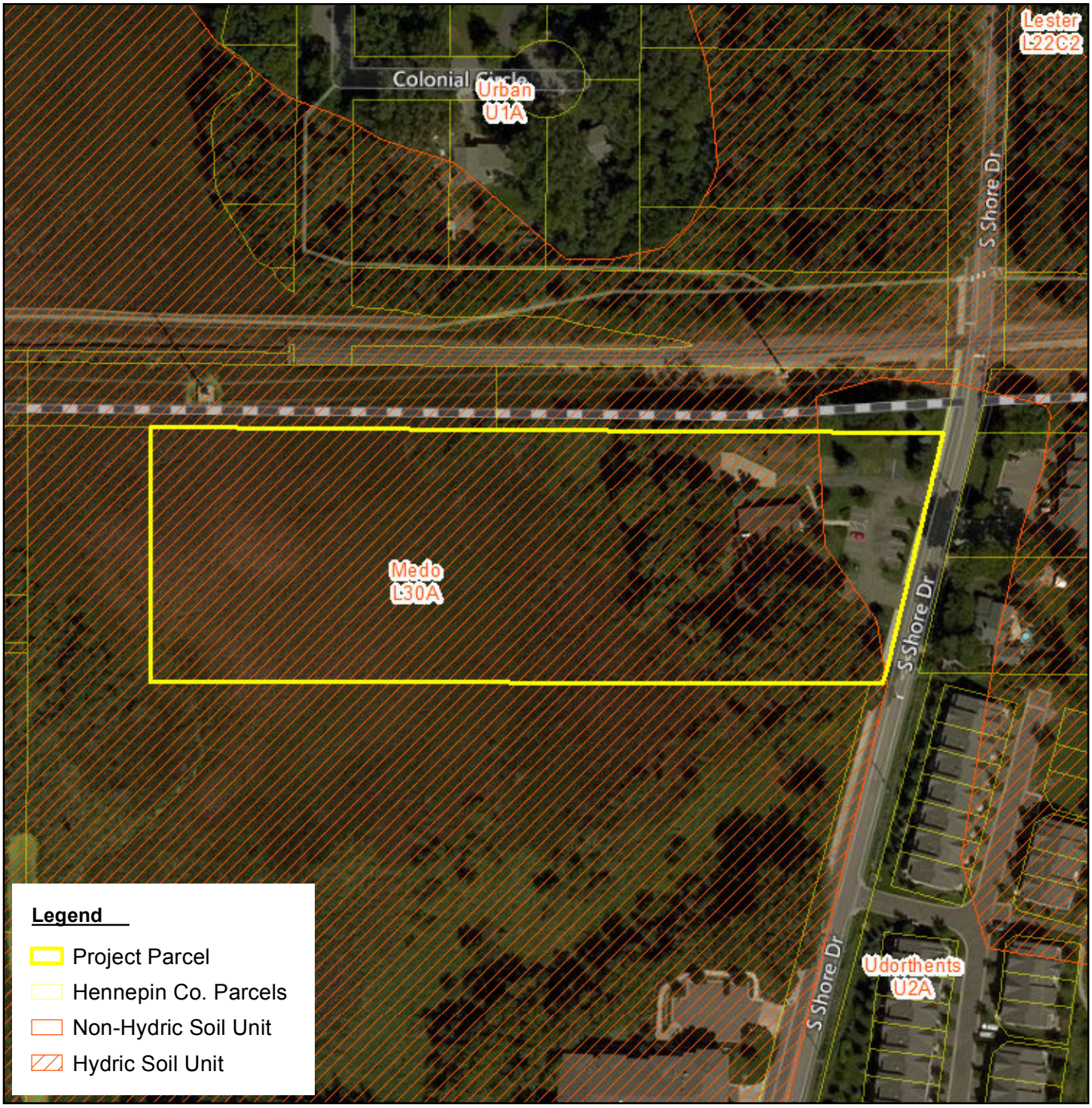
NWI - FIGURE 2
SKURAT PROPERTY

AE Comm.# 14322 Date: 4/28/2016 By: JLA



PROJECT LOCATION

Hennepin County
State of Minnesota

City of Medicine Lake
Hennepin County, MN

SOURCE: MN DNR, USDA, ESRI, TIGER, Bing, Hennepin Co., Anderson Engineering

1 in = 150 feet

0 75 150 300

Feet

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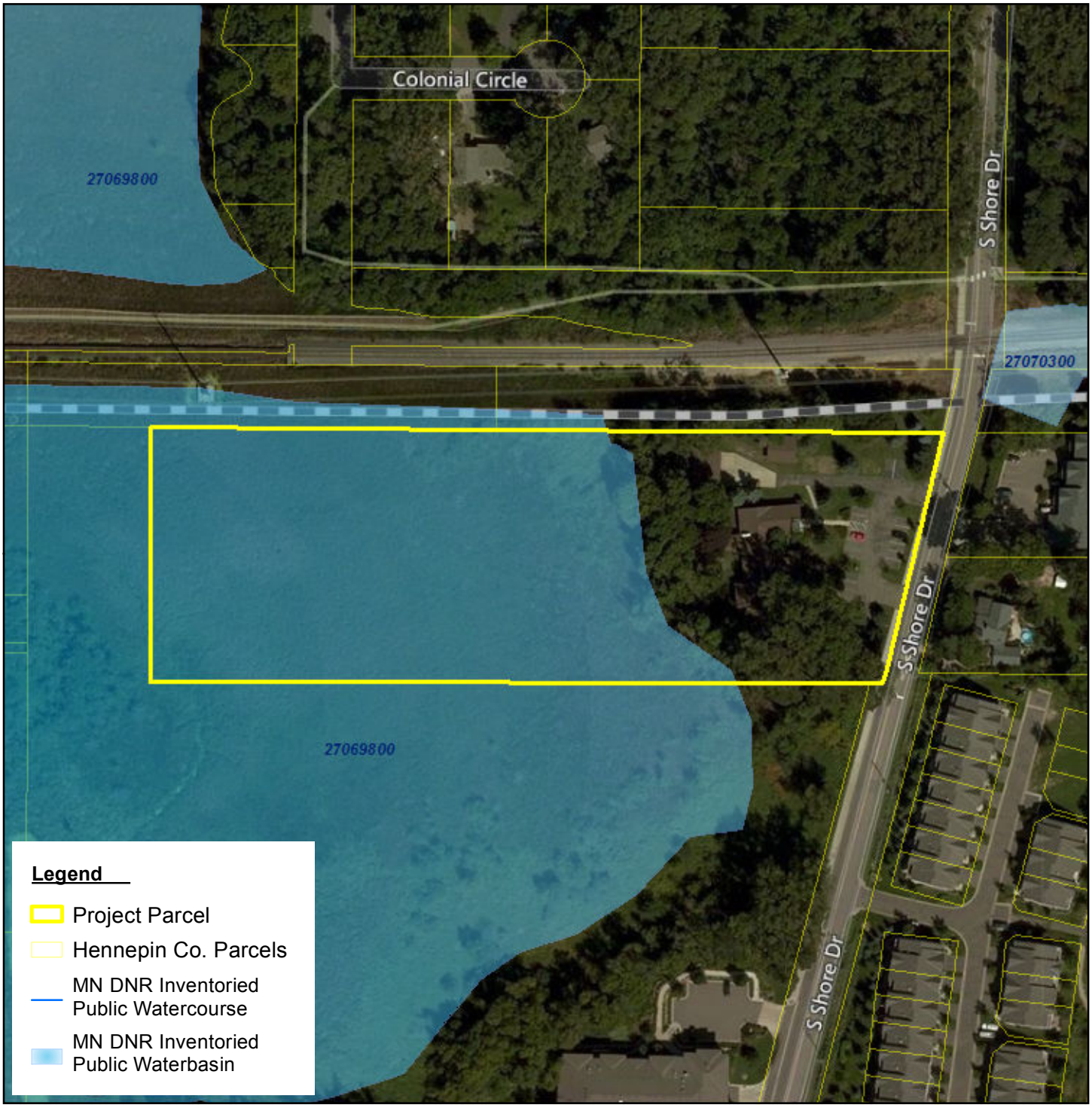
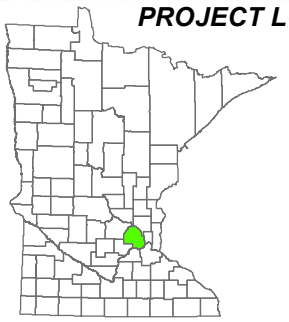
SOILS - FIGURE 3
SKURAT PROPERTY

AE Comm.# 14322 Date: 4/28/2016 By: JLA



PROJECT LOCATION

SOURCE: MN DNR, USDA, ESRI, TIGER, Bing, Hennepin Co., Anderson Engineering



Hennepin County
State of Minnesota

City of Medicine Lake
Hennepin County, MN

1 in = 150 feet

0 75 150 300

Feet

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Medicine Lake, Hennepin County, MN
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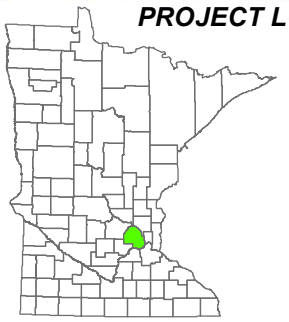
PWI - FIGURE 4
SKURAT PROPERTY

AE Comm.# 14322 Date: 4/28/2016 By: JLA

PROJECT LOCATION



Hennepin County
State of Minnesota

City of Medicine Lake
Hennepin County, MN

SOURCE: MN DNR, USDA, ESRI, TIGER, Bing, Hennepin Co., Anderson Engineering

1 in = 150 feet

0 75 150 300

Feet

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DELINEATION - FIGURE 5
SKURAT PROPERTY

AE Comm.# 14322 Date: 4/28/2016 By: JLA

APPENDIX B

Routine On-site Determination Method Datasheets

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1143 South Shore Drive | City/County: Medicine Lake/Hennepin | Sampling Date: 4/21/2016

Applicant/Owner: Kerby Skurat | State: MN | Sampling Point: A

Investigator(s): Ben Hodapp & Lucy Kozub | Section, Township, Range: S36, T118N, R22W

Landform (hillslope, terrace, etc.): Toeslope | Local relief (concave, convex, none): Cocave

Slope (%): 0-2 | Lat: 44.99261 | Long: 93.41885 | Datum:

Soil Map Unit Name: Medo soils (L30A) | NWI Classification: PEM1F

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic?

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** Y
Hydric soil present? Y	If yes, optional wetland site ID:
Indicators of wetland hydrology present? Y	

Remarks: (Explain alternative procedures here or in a separate report.)

All wetland criteria were met; area is a wetland.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size:)			
1 *Rhamnus cathartica*	20	Y	FAC
2			
3			
4			
5			
	20	= Total Cover	
Herb stratum (Plot size:)			
1 *Phalaris arundinacea*	60	Y	FACW
2 *Typha angustifolia*	20	Y	OBL
3 *Poa pratensis*	10	N	FAC
4 *Urtica dioica*	5	N	FACW
5			
6			
7			
8			
9			
10			
	95	= Total Cover	
Woody vine stratum (Plot size:)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	20	x 1 =	20
FACW species	65	x 2 =	130
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	115 (A)		240 (B)

Prevalence Index = B/A = 2.09

Hydrophytic Vegetation Indicators:

- ____ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ____ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ____ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-9	10YR 3/1	100					CL	
9-15	10YR 5/2	60	10YR 4/6	2	C	M	CL	Distinct redox concentrations
	10YR 6/4	38						
15-19	10YR 2/1	100					L	Start of historic wetland soil
19-30	10YR 2/1	100					Hemic Peat	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Based on the soil profile (starting at 15 inches), it appears that a portion of this property was likely filled prior to the construction of the existing building in 1962.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes	X	No		Depth (inches):	8
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	6

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Hydrogen sulfide odor starting at approximately 8 inches.

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1143 South Shore Drive | City/County: Medicine Lake/Hennepin | Sampling Date: 4/21/2016

Applicant/Owner: Kerby Skurat | State: MN | Sampling Point: B

Investigator(s): Ben Hodapp & Lucy Kozub | Section, Township, Range: S36, T118N, R22W

Landform (hillslope, terrace, etc.): Summit | Local relief (concave, convex, none): None

Slope (%): 0-2 | Lat: 44.99261 | Long: 93.41885 | Datum:

Soil Map Unit Name: Medo Soils (L30A) | NWI Classification: PEM1F

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic?

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** N
Hydric soil present? Y	If yes, optional wetland site ID:
Indicators of wetland hydrology present? N	

Remarks: (Explain alternative procedures here or in a separate report.)

Hydrology criteria not met; area is not a wetland.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size:)			
1 *Rhamnus cathartica*	15	Y	FAC
2			
3			
4			
5			
	15 = Total Cover		
Herb stratum (Plot size:)			
1 *Poa pratensis*	45	Y	FAC
2 *Phalaris arundinacea*	40	Y	FACW
3 *Trifolium pratense*	2	N	FACU
4			
5			
6			
7			
8			
9			
10			
	87 = Total Cover		
Woody vine stratum (Plot size:)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	60	x 3 =	180
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column totals	102 (A)		268 (B)

Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)

SOIL

Sampling Point: B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-5	10YR 3/1	100					CL	
5-24	10YR 5/2	60	10YR 4/6	2	C	M	CL	Distinct redox concentrations
	10YR 6/4	38						

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Based on the soil profile at Sample Point A (historic wetland soils started at 15"), it appears that a portion of this property was likely filled prior to the construction of the existing building in 1962.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes	X	No		Depth (inches):	18
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	16

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX C

Site Photographs

Wetland 1, Viewing Northwest

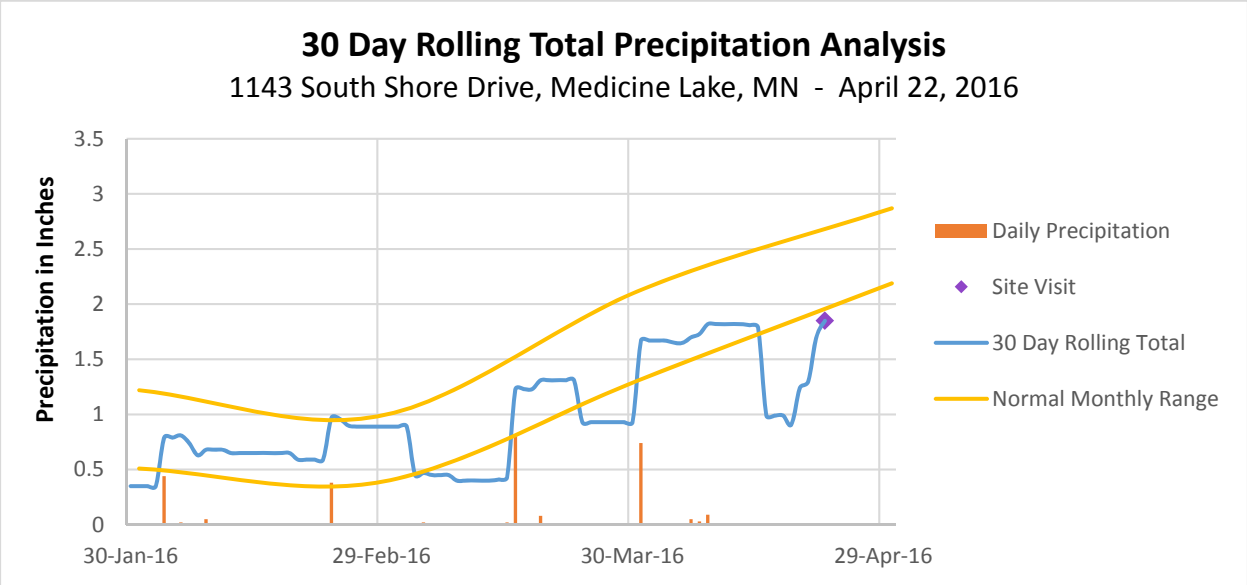
Wetland 1, Viewing Southwest

Wetland 1, Sample Point A, Viewing Southwest

Wetland 1, Sample Point B, Viewing Northeast

APPENDIX D

Precipitation Record



Precipitation Data Source: http://climate.umn.edu

APPENDIX E

Credentials

Anderson Engineering of Minnesota, LLC • 13605 1st Avenue North, Suite 100 • Plymouth, Minnesota 55441 • (763) 412-4000 Main • (763) 412-4090 Fax • www.ae-mn.com

BENJAMIN J. HODAPP, PWS

Environmental Services Manager
Professional Wetland Scientist #1832
MN Certified Wetland Delineator #1016

Education:

MS Water Resources Management
University of Wisconsin-Madison

BS Biology; Ecology
Minnesota State University- Mankato

Specialized Training:

Wetland Delineation & Management Training
Richard Chinn Environmental Training, Inc.

Wetland Plant Identification
Biotic Consultants Inc.

Plant Identification for Wetland Delineation
University of Wisconsin-La Crosse

Watershed Academy Web Certificate
United States Environmental Protection Agency

Professional Associations:

Society of Wetland Scientists
MN Wetland Professionals Association (WPA)
MN WPA President 2010
Wisconsin Wetlands Association
Minnesota Native Plant Society
Ecological Society of America

Total Years of Experience:

15 years

Years with Current Firm:

2004 to Present

Selected Publications:

The Future of Rowan Creek Watershed: Connecting Land Use and Management with Water Quality. 2003. Water resources Management Workshop 2002 Gaylord Nelson Institute for Environmental Studies, University of Wisconsin, Madison.

The Tumultuous World of Drainage Districts: An Analysis of Existing Management Arrangements, with Recommendations. Working Paper Series 2002-1. Water Resources Institutions and Policies, Department of Urban and Regional Planning, University of Wisconsin, Madison.

Experience Summary:

Benjamin Hodapp, a Biologist and Project Manager, brings a broad background of knowledge and experience in the natural resource field to the Anderson Engineering team. Benjamin has a unique combination of biologic training and field skills in addition to working experience at various levels of government (NRCS, FSA, University of MN Extension, Watonwan County Soil and Water Conservation District and Watonwan County Environmental Services).

Benjamin's project experience includes natural resource inventory, wetland determinations, delineations, mitigation design and monitoring, regulatory permit applications, wetland functions and values assessments, flood plain analysis, ordinary high water determinations, aerial photo interpretation. Benjamin has training and experience with Global Positioning Systems (GPS) and Geographic Information Systems (GIS).

Representative Projects:

- **Southwest Light Rail Transit- Metropolitan Council – Minneapolis, MN:** Project manager for wetland and permitting efforts in support of multi-disciplinary consultant team for preparation of Final Environmental Impact Statement for proposed 16 mile light rail alignment. Project tasks included project management oversight, coordinating and facilitating recurring monthly meeting with all federal, state and local permitting agencies, supervising field staff in completion of a wetland investigations, preparation of all federal, state and local wetland permits and wetland mitigation plans, quality assurance and quality control of all deliverable products.

- **NEPA Documentation/Wetland Permitting – Omaha National Cemetery – Omaha, NE (2014):** Services included preparation of an Environmental Assessment (EA) and Findings of No Significant Impact (FONSI), and supplemental permit coordination with the Omaha District U.S. Army Corps of Engineers (USACE) for proposed wetland impacts. Wetland permitting activities included completion of a wetland boundary delineation following the 1987 USACE Wetland Manual and Midwest Regional Supplement, and preparation of a USACE permit application package that included a design for an on-site compensatory wetland mitigation area.

- **Section 401/404 Wetland Permitting – Fort McCoy Commemorative Park Expansion – Fort McCoy, WI:** Provided project management services for Section 401/404 permitting associated with proposed wetland impacts resulting from the Commemorative Park Expansion Project at the Fort McCoy U.S. Army installation. Project tasks included project management of supporting staff, providing point of contact services for the U.S. Army, developing a wetland mitigation strategy in compliance with Section 401/404 and state wetland permitting requirements and oversight and quality control in preparing Section 401/404 permit application

- **Minneapolis VAHCS Parking Ramp EA:** NEPA Environmental Assessment for the proposed 4-level parking garage at Minneapolis VA Health Care System campus in Minneapolis, Minnesota.

- **Willamette National Cemetery Expansion EA:** NEPA Environmental Assessment for the United States Department of Veteran Affairs, National Cemetery Administration proposed acquisition of 38 acres and the expansion of Willamette National Cemetery in Portland, Oregon.

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LUCY D. KOZUB

Environmental Associate

Education:

BA Environmental Science
University of Wisconsin, River Falls

Professional Associations:

MN Wetland Professionals Association (WPA)

Total Experience:

4 years

Years with Current Firm:

2014 to Present

Experience Summary:

Lucy Kozub, an Environmental Associate, brings a variety of knowledge and experience in the natural resource field to the Anderson Engineering team. Prior to her employment with Anderson Engineering of MN, LLC, Lucy worked as a Federal Contractor for the USDA – Natural Resources Conservation Service (NRCS). The skills Lucy has developed through her educational background and work experience make her proficient in analyzing and interpreting data in order to clearly communicate a variety of solutions to clients and regulatory agencies.

Lucy's project experience includes wetland determinations and delineations; collection of wetland data U.S. Army Corps of Engineers (USACE) Regional Supplement(s) data forms; preparation of federal, state and local regulatory permit applications; National Environmental Policy Act (NEPA) report preparation; cultural resource reviews; and technical document preparation. Lucy has experience with Global Positioning Systems (GPS) and Geographic Information Systems (GIS).

Representative Projects:

- **Southwest Light Rail Transit- Metropolitan Council – Minneapolis, MN:** Environmental Scientist for wetland and permitting efforts in support of multi-disciplinary consultant team for preparation of Final Environmental Impact Statement for proposed 16 mile light rail alignment. Project tasks included completing wetland investigations and associated technical reports, participating in recurring monthly meeting with federal, state and local permitting agencies, preparing federal, state, and local wetland permits and wetland replacement plans, coordinating with project engineers regarding the project design and associated environmental impacts, and preparing the Ecosystems and Surface Water Resources sections of the Final Environmental Impact Statement.

- **Farmed Wetland Determination Inventory – USDA NRCS – Ransom County, ND (2014 & 2015):** Services included completion of a farmed wetland determination inventory project within Ransom County, North Dakota. Performed on-site investigation on farmed wetlands on over 4,000 acres of agricultural land. Implemented standard sampling protocols such as standard transect sampling, vegetation identification, quantitative vegetative data collection, completion of standardized data sheets, and completion of scope and effect analysis for previously drained wetland areas.

- **Wetland Determinations – USDA NRCS – Dunn, Pierce, and St. Croix Counties, WI**: Services included assisting the WI NRCS Wetland Specialist in completing requested wetland determinations for farmers participating in USDA Farm Bill programs. Determinations were completed on and off-site as necessary, and maps were developed and added to the existing wetland inventory for each county.

- **Cultural Resource Reviews – USDA NRCS – Dunn, Pierce, and Pepin Counties, WI:** Services included performing preemptive in-office reviews of potential cultural resources impacts resulting from the implementation of various conservation projects and practices. When impacts were impending, the proper paperwork was completed to request a formal archaeological field review of the site in question. Following the formal review, the results were documented within an environmental assessment NEPA document for each respective project.