PLANNING COMMISSION
DATE: 6/23/14
AGENDA ITEM: 4C – PUBLIC HEARING
CASE # 2014-33

ITEM: Hammes Estates Shoreland Variance – PID 34.029.21.13.0001

SUBMITTED BY: Nick Johnson, City Planner

REVIEWED BY: Kyle Klatt, Community Development Director
MN DNR
Stephen Mastey, Landscape Architecture, Inc.

SUMMARY AND ACTION REQUESTED:

The Planning Commission is being asked to consider a request from Hammes West, LLC for a variance that would allow for a reduced riparian dedication and setback to the southern channel of Goose Lake. This request is connected to the review of a proposed 163-unit single family subdivision on the Hammes property in the I-94 Corridor Planning Area.

GENERAL INFORMATION

Applicant: Hammes West, LLC, 36 Moonlight Bay, Stillwater, MN

Property Owners: Ellie Hammes, 1187 Forest Ave., Maplewood, MN 55109, and Dorothy Lyons, 10105 10th Street North, Lake Elmo, MN 55042.

Location: Part of Section 34 in Lake Elmo, immediately west of Keats Avenue (CSAH 19), approximately 1,300 feet south of 10th Street (CSAH 10), and immediately south of Goose Lake. PID Number 34.029.21.13.0001.

Request: Variance – Shoreland Ordinance- Request for reduced riparian dedication.

Existing Land Use: Active mining and gravel operation and other vacant land.

Existing Zoning: RT – Rural Development Transitional District

Surrounding Land Use: North –Goose Lake and Stonegate Residential Estates (RE) subdivision; west – Stonegate RE subdivision; south – Lennar Savona Urban Low Density Residential (LDR) subdivision.

Surrounding Zoning: Residential Estates (RE), Urban Low Density Residential (LDR)

Comprehensive Plan: Urban Low Density Residential (2.5 - less than 4 units/acre)

Proposed Zoning: Urban Low Density Residential (LDR)

History: The site has been historically used as a gravel mining operation. The City received a Preliminary Plat application for a proposed 163-unit single family subdivision. The Planning Commission reviewed the preliminary plat and held a public hearing on 5/12/14. Consideration of the preliminary plat was postponed until

additional/updated plans were submitted. The applicants have submitted updated plans, which will be reviewed at the meeting on 6/23/14.

Deadline for Action: Application Complete – 6/6/14
60 Day Deadline – 8/5/14
Extension Letter Mailed – No
120 Day Deadline – 10/4/14

Applicable Regulations: 154.450 – Urban Low Density Residential (LDR) Zoning District
154.109 – Variances (Administration and Enforcement)
154.800 – Shoreland Management Overlay District

REQUEST DETAILS

The City of Lake Elmo has received a request from Hammes West, LLC for a variance to allow for reduced riparian dedication around the southern channel or finger (Wetland G) of Goose Lake. The man-made extension of Goose Lake appears to have been dredged in connection with the historic use of the site as a gravel mine. Whereas the applicants and the City originally determined that Wetland G was a man-made incidental wetland, governed under the jurisdiction of the Wetland Conservation Act (WCA), the DNR has submitted a review letter to the City requesting that the 150-foot required riparian dedication apply to the southern channel of Goose Lake. Due to this change in course and jurisdiction, the landowner and applicants have now requested a variance to allow for a reduced riparian dedication around the man-made channel portion of Goose Lake, as shown on the Hammes Estates Preliminary Plat.

BACKGROUND

Hammes West, LLC has submitted a Preliminary Plat application for a proposed 163-unit single family residential subdivision for an approximately 80 acre site in Section 34 of the I-94 Corridor Planning Area. As part of preparing a plat application for this site, the applicants have completed a wetland delineation and report, identifying all the wetlands by size, type, vegetation and other characteristics. In relation to the requested variance, the wetland of consequence in this case is Wetland G, the man-made southern channel of Goose Lake. In the preliminary plans submitted, the applicants have provided the required amount of wetland buffering as determined under the Wetland Conservation Act (WCA) and Valley Branch Watershed District (VBWD) rules. However, the change in jurisdiction from the WCA and VBWD to the Shoreland Ordinance would significantly impact the Preliminary Plat as submitted, as the required riparian dedication would extend around the southern channel of Goose Lake. As shown in the Riparian Dedication Sketch (Attachment #5), riparian dedication around the southern channel would impact 13 lots (Lots 1-6, Block 10 and Lots 1-5 and 11-12, Block 9) of the proposed Hammes Estates Preliminary Plat. In requesting the variance, the applicants are proposing to proceed with the proposed buffering as determined under the WCA and Valley Branch Watershed District rules.

It should be noted that the City updated its shoreland ordinance (Ord. 08-111) on 5/20/14. As part of the shoreland ordinance update, the concept of riparian dedication was introduced. In areas where cities are accommodating sewered growth within shoreland areas, riparian dedications or buffers have been used to ensure natural vegetative buffers for the water body while at the same time allowing for sewered growth with the minimum standards of the base zoning district. As part of the shoreland ordinance update, Goose Lake was identified as a lake requiring riparian dedication for the

previously stated purpose. Providing a riparian dedication will allow the applicant to proceed with planned development, but at the same time provide the protection to protect the natural resource. As part of the Preliminary Plat, riparian dedication is being provided for the southern shore of Goose Lake, but not the southern channel. The applicants are proposing wetland buffering that is consistent with the Valley Branch rules and WCA.

Regarding the historical use of the site as a gravel mining operation, it should be noted that there are challenges, mostly related to depressions and wetlands, present on the subject property that are unique compared to other properties guided for development. In terms of how the channel was created, based on historical aerial photography and submitted testimony and evidence, it appears that the channel was originally created to support the mining activities on the site sometime in the late 1960s or early 70s. Over time, it also appears that the channel was likely expanded. For the purpose of reviewing the variance, the important characteristic to consider regarding the channel (Wetland G) is that it is man-made and not a natural part of the original water body. In addition, it should be noted that in staff's judgment there are positive benefits in transitioning this property from a mining operation to single family residential development.

It should be noted that the proposed variance was sent out for review to the DNR and Valley Branch Watershed District (VBWD). While the VBWD did not provide review comments, the DNR has reviewed the variance request and recommended denial of the variance. The DNR's review letter and follow-up email are found in Attachment #10. According to the DNR letter and email, the southern channel of Goose Lake is now considered part of the water body and therefore is subject to the same shoreland rules as the rest of the lake. According to the applicant, this decision represents a change in direction or guidance from the DNR as they were working to prepare their plat application. The applicant has provided email correspondence between their environmental consultant, Kelly Bopray, and the Area Hydrologist, Molly Shodeen to provide background information regarding these discussions. The applicant has consistently stated to staff that the DNR originally indicated that they would waive their jurisdiction of the southern channel to the local watershed district. While the email correspondence does provide background of these discussion, it should be noted that it is difficult to make conclusive determinations on this point based upon the correspondence. Finally, it should be highlighted that in the DNR's email to the City, they suggest that as an alternative to the variance, the southern channel could be blocked off via a berm to restore Goose Lake to its original boundary. As the DNR indicates, this process would require a DNR permit and would be considered a restoration.

PLANNING AND ZONING ISSUES

In reviewing the applicable codes that apply to the subject property, Staff would like the Planning Commission to consider the following as it reviews this request:

- **Comprehensive Plan.** The City's Comprehensive Plan guides the Hammes site (PID 34.029.21.13.0001) as Urban Low Density Residential. Within this district, single family residential land uses are permitted at a density of 2.5 to less than 4 units per acre. One of the key arguments presented by the applicant is that if the area surrounding the channel is set aside for riparian dedication, the proposed subdivision would fall below the required density level of 2.5 units per net acre. If the proposed subdivision were reduced by 13 lots, as 13 lots are impacted by the riparian dedication as demonstrated by the applicant, and the net developable acreage remained the same, the density would be reduced to 2.37 units per acre. When removing the acreage of land in the riparian dedication that is considered unbuildable in addition to the land already in wetland buffers, the resulting net density calculation is 2.46

units per acre. No matter how it is calculated, the applicants are correct in that the proposed project would no longer be technically consistent with the Comprehensive Plan.

- **Access to Keats Ave. N. (CSAH 19)**. As the applicants prepared multiple iterations of the Sketch Plan for Hammes Estates, one of the critical points of review was the location of the proposed access to Keats Ave. N. (CSAH 19). In reviewing the various iterations of the Sketch Plan, Washington County required the applicants to move the proposed access to Keats Ave. to the north to account for access spacing considerations from the future minor collector road 5th Street. In addition, when the access was proposed more to the south, the increased grade in that area also presented a concern for the County, necessitating the northern access location near the northern property boundary. The reason that this component of the development review is critical in the consideration of the variance request is that the northern access location requires that the nearby street (Street 1 in the Preliminary Plat) be located within proximity or parallel to the southern channel of Goose Lake. The applicant notes in the provided narrative that shifting the entrance street further to the south would have significant impacts on the plat, either leading to a long stretches of roads (Street 1 and Street 4) with lots on only one side of the road, or likely lot loss in other areas of the proposed plat. The applicants have presented access road location as a unique circumstance not created by the landowner. In reviewing this aspect of the variance application, staff has found merit in the access location fulfilling the requirement of unique circumstances for the granting of a variance.
- **Wetland Buffering**. As shown on the plat and described in the wetland delineation report, Wetland G requires an average buffer of 75 feet per Valley Branch Watershed District rules. Per the Preliminary Wetland Buffer Plan (Attachment #2), the applicants are proposing to increase the existing wetland buffer from 92,054 square feet to 95,313 square feet, with an average buffer width of 85.3 linear feet. While not meeting the 150-foot riparian dedication, it should be noted that the applicants are providing buffering that meets the watershed's requirements per wetland type/classification. In addition, if the variance is granted, staff is recommending that the applicants install and maintain additional vegetation and/or prairie mix to prevent or mitigate any potential erosion or surface runoff into the southern channel. The recommended planting schedule is outlined in the memorandum from the City's landscape architect consultant (Attachment #9). Staff would recommend that if the variance moves forward, the recommendations of the City's landscape architect consultant are incorporated into the updated Landscape Plan for the Hammes Estates development.
- **Shoreland Setbacks**. The newly adopted shoreland ordinance requires a 200-foot structure setback for areas subject to riparian dedication requirements. Given the request for a reduced riparian dedication, a request for a reduced structure setback would also be included. Per the newly adopted ordinance, the structure setback for a sewered property without riparian dedication would be 100 feet. In reviewing the 13 lots impacted by riparian dedication, 8 would be able to meet a 100-foot structure setback in staff's judgment, while the other 5 (Lots 3, 4, 5 and 6, Block 10 and Lot 3, Block 9) may have difficulty meeting a 100-foot setback to Ordinary High Water Level (OHWL). However, it should be noted that without a riparian dedication, the minimum lot sizes would need to be larger to be eligible for the reduced setback.
- **Infrastructure and Planning Efforts.** One additional aspect for consideration of the variance application relates to the significant efforts of the City to plan and install the current infrastructure that will serve the site. Currently, water and sewer has already been extended

to the northeast corner of the site just to the north of the access road (Street 1), and a lift station has been installed in this location as well. In addition to the City expending significant resources planning and bonding for these improvements, the landowners are being assessed for the sewer and water improvements. Staff offers these points of consideration to highlight the fact that significant efforts have been made to plan for these improvements, the location of which was selected to serve the proposed development on the Hammes site, including the areas around the southern channel. Finally, it should be noted that the City has planned for growth on this site since the adoption of the 2005 Comprehensive Plan. Staff offers these considerations to the Planning Commission as they weigh their recommended action.

REVIEW AND ANALYSIS

An applicant must establish and demonstrate compliance with the variance criteria set forth in Lake Elmo City Code Section 154.017 before an exception or modification to city code requirements can be granted. These criteria are listed below, along with comments from Staff regarding applicability of these criteria to the applicant's request.

1) **Practical Difficulties**. A variance to the provision of this chapter may be granted by the Board of Adjustment upon the application by the owner of the affected property where the strict enforcement of this chapter would cause practical difficulties because of circumstances unique to the individual property under consideration and then only when it is demonstrated that such actions will be in keeping with the spirit and intent of this chapter. Definition of practical difficulties - "Practical difficulties" as used in connection with the granting of a variance, means that the property owner proposes to use the property in a reasonable manner not permitted by an official control.

Under this standard, the City would need to find that allowance for a reduced riparian dedication or buffering around the man-made channel of Goose Lake is a reasonable use of the property not otherwise permitted under an official control. Proposed findings related to this criterion are as follows:

***FINDINGS**: That the proposed use of thirteen single family residential lots with a reduced riparian dedication and structure setback to Ordinary High Water Level around the southern channel is reasonable because the applicants are planning for a significant riparian dedication along the southern shore of Goose Lake to meet the intent of the City's shoreland ordinance. In addition, the access location to Keats Ave. N. as required by Washington County represents a unique circumstance to the individual property. Finally, the Comprehensive Plan guides the Hammes site as Urban Low Density Residential, and the variance would meet the intent of the Comprehensive Plan.*

2) **Unique Circumstances**. The plight of the landowner is due to circumstances unique to the property not created by the landowner.

In order to demonstrate compliance with this standard, the Planning Commission would need to identify those aspects of the applicant's property that are unique and not created by the landowner. In this case, staff has identified two circumstances related to the required location of the access road to Keats Ave. N. (CSAH 19) that are not created by the landowner. Again, Staff is suggesting some findings that could be considered by the Planning Commission as follows:

***FINDINGS**: That the applicant's property is unique in that the required access road to Keats Ave. N. needed to serve the proposed development must be located at the northern boundary of the*

property. The access location circumstance is not created by the landowners, as 1) the access must meet County access spacing guidelines to 5th Street, the location of which was not selected by the landowner, and 2) the steeper grades along Keats Ave. N. to the south of the proposed access also prevents a more southerly access location. The access location to Keats Ave. N. has been directed and approved by Washington County.

3) **Character of Locality**. The proposed variance will not alter the essential character of the locality in which the property in question is located.

Compared to other water bodies in urban sections of other communities, the vast majority of the land uses around Goose Lake are a residential estates subdivision, an Open Space Preservation (OP) subdivision, and other open/agricultural land. If the City were to grant the variance application, the vast majority of the land around Goose Lake will remain low impact rural land uses. In the judgment of staff, the proposed variance will not alter the essential character of the locality. Proposed findings related to this standard is suggested as follows:

***FINDINGS**: As the subject parcel is planned for Urban Low Density Residential (LDR) development, and the provided wetland buffering consistent with Valley Branch Watershed District rules should protect the southern made-man channel of Goose Lake, the proposed variance will not alter the essential character of the locality.*

4) **Adjacent Properties and Traffic**. The proposed variance will not impair an adequate supply of light and air to property adjacent to the property in question or substantially increase the congestion of the public streets or substantially diminish or impair property values within the neighborhood.

Proposed findings for this criterion are as follows:

***FINDINGS**. No impacts to the adequate supply of light and air to adjacent properties would be expected should the variance be granted. In addition, the proposed variance would not substantially increase congestion of public streets or substantially diminish property values within the neighborhood.*

Please note that the applicant has also provided a set of findings as part of the attached narrative and supporting documentation included with the application.

Considering the potential findings of fact as suggested in the preceding section, Staff is recommending approval of the variance request based on the findings noted in items 1-4 above and with conditions of approval related to the continued protection, preservation and maintenance of the southern man-made channel (Wetland G).

DRAFT FINDINGS

Please refer to the comments in the previous section. Staff will be reviewing these findings with the Commission at its meeting.

RECCOMENDATION:

Staff recommends that the Planning Commission recommend approval of the request from Hammes West, LLC for a variance to allow a reduced riparian dedication and reduced structure setback from the Ordinary High Water Level (OHWL) around the southern channel of Goose Lake for Lots 1-6,

Block 10 and Lots 1-5 and 11-12, Block 9 of the Hammes Plat. This recommendation includes the following conditions of approval:

1) The applicant shall provide the required wetland buffering for the southern channel (Wetland G) per the rules Valley Branch Watershed District and Wetland Conservation Act.
2) Any and all buffering around the southern channel of Goose Lake shall be marked and monumented to prevent encroachment of the channel (Wetland G), as recommended by the DNR.
3) The applicant shall landscape the buffer area around the southern channel as specified in the review memorandum by the City's landscape architect consultant (Attachment #9). The recommended treatments and plantings for the southern channel buffer area shall be incorporated into the updated Landscape Plan for the Hammes Estates development.

The suggestion motion for taking action on the Staff recommendation is as follows:

"Move to recommend approval of the request for a variance to allow a reduced riparian dedication around the southern channel of Goose Lake and reduced structure setbacks from OHWL for Lots 1-6, Block 10 and Lots 1-5 and 11-12, Block 9 of the Hammes Estates Plat based on the findings of fact outlined in the Staff Report, and subject to the conditions of approval as recommended by Staff."

ATTACHMENTS:

1. Location Map
2. Application and Project Narrative
3. Wetland Delineation Report
4. Historical Aerial Photography
5. Riparian Dedication Sketch
6. Applicant Email Correspondence w/DNR
7. Hammes Estates Preliminary Plat and Preliminary Wetland Buffer Plan
8. Site Visit Photos, 6/18/14
9. Landscape Architect Review Memorandum
10. DNR Review Letter and Email

ORDER OF BUSINESS:

- Introduction.....Community Development Director
- Report by Staff.....Community Development Director
- Questions from the Commission..... Chair & Commission Members
- Open the Public Hearing.....Chair
- Close the Public Hearing.....Chair
- Discussion by the Commission..... Chair & Commission Members
- Action by the Commission..... Chair & Commission Members

Location Map: Hammes Estates Plat (PID: 34.029.21.13.0001)

THE CITY OF LAKE ELMO

Data Source: Washington County, MN
5-9-2014

Hammes Property

0 250 500 1,000 Feet

1"=500'

N

Date Received:_____
Received By:_____
Permit #:_____

THE CITY OF LAKE ELMO

651-747-3900
3800 Laverne Avenue North
Lake Elmo, MN 55042

RECEIVED
JUN 6 2014
CITY OF LAKE ELMO

LAND USE APPLICATION

☐ Comprehensive Plan ☐ Zoning District Amend ☐ Zoning Text Amend ☐ Variance*(see below) ☐ Zoning Appeal

☐ Conditional Use Permit (C.U.P.) ☐ Flood Plain C.U.P. ☐ Interim Use Permit (I.U.P.) ☐ Excavating/Grading

☐ Lot Line Adjustment ☐ Minor Subdivision ☐ Residential Subdivision Sketch/Concept Plan

☐ PUD Concept Plan ☐ PUD Preliminary Plan ☐ PUD Final Plan

Applicant: Hammes West, LLC
Address: 36 Moonlight Bay, Stillwater, MN 55082
Phone #
Email Address: brianjmcgoldrick@hotmail.com

Fee Owner: The Hammes Family
Address: c/o Eleanor Hammes, 1187 Frost Avenue, Maplewood, MN 55109
Phone # 651-774-1761
Email Address: jbg@aftonlaw.net

Property Location (Address and Complete (long) Legal Description: South 1/2 of the NE 1/4, Section 34, Township 29, Range 21, except the East 60 feet of the North 967 feet and except Parcel 3 of Washington County Highway Right of Way Plat 49-19B, Washington County, Minnesota

Detailed Reason for Request: A variance to the Shoreland Ordinance, and the DNR request, of a 150-foot buffer around the man-made channel (wetland G) off the southern portion of Goose Lake.

*Variance Requests: As outlined in Section 301.060 C. of the Lake Elmo Municipal Code, the applicant must demonstrate practical difficulties before a variance can be granted. The practical difficulties related to this application are as follows:
See Variance Narrative (f and g) previously submitted

In signing this application, I hereby acknowledge that I have read and fully understand the applicable provisions of the Zoning ordinance and current administrative procedures. I further acknowledge the fee explanation as outlined in the application procedures and hereby agree to pay all statements received from the City pertaining to additional application expense.

Signature of applicant: B J. McGoldrick Date: 6/6/14

Signature of fee owner: Eleanor Hammes Date: 6/6/14

HAMMES ESTATES VARIANCE NARRATIVE

a. **Contact Information**:

Owner: Hammes West, LLC
c/o Brian McGoldrick
36 Moonlight Bay
Stillwater, MN 55082
651-387-1000

Owner: Eleanor Hammes
1187 Frost Avenue
Maplewood, MN 55109

With Copy to:
The Afton Law Office
3121 St. Croix Trail South
Afton, MN 55001
651-436-8656

Owner: Dorothy Lyons
10105 – 10th Street
Lake Elmo, MN 55042

With Copy to:
Brian D. Chmielewski
6043 Hudson Road, Suite 340
Woodbury, MN 55125
651-330-7191

Engineer: Westwood Professional Services
Attention: Ryan Bluhm, PE, LEED, AP
7699 Anagram Drive
Eden Prairie, MN 55344
952-906-7432

b. **Site Data**.

Parcel Size:	The parcel size is 78 acres (3,397,680 square feet)
PID:	34.029.21.13.0001
Zoning:	Rural Development Transitional District and guided Low Density Residential in the Comprehensive Plan, Planned Use section
Legal Description:	South ½ of the Northeast Quarter, Section 34, Township 29, Range 21, except the East 60 feet of the North 967 feet, and except Parcel 3 of Washington County Highway Right of Way Plat 49-19B, Washington County, Minnesota.

c. **Variance Request**: Hammes Estates would like a variance to the Shoreland Ordinance, and the DNR request, of a 150-foot buffer around the manmade channel (wetland G) off the southern portion of Goose Lake.

d. **Proposal.** To provide a 75-foot average buffer around the manmade channel in Goose Lake as required by Valley Branch watershed.

e. **Pre-Application Discussions with Staff**. On June 3rd, 2014, we met with staff to discuss the 150-foot buffer requested by the DNR, and how it would impact the project. Our site plan has always intended a buffer from the existing southern shoreline of the lake, but the channel, being as it is manmade (see attached Wetland Delineation report), was believed to be held to alternate buffer requirements. After reviewing the impact of the 150-foot buffer to the proposed site plan (see attached DNR buffer sketch), and based on our discussions with city staff, it was agreed that a variance of shoreland ordinance would be appropriate in this case.

f and g. **Practical Difficulties of this site/Circumstances Unique to the property**

The buffer would impact approximately 13 lots, which will limit the overall density of the project to levels below what was required by the Met Council. Due to the presence of additional onsite wetlands, required wetland buffers, and a 100-foot green space buffer, the additional density cannot be made up onsite. Additionally, the location of the project entrance along Keats Avenue was required by Washington County. The proximity of this entrance location to that of the proposed buffer creates further difficulties. Street 1 would need to be redesigned to be shifted further south, and a number of streets would no longer have lots on both sides of the street. The resulting design would no longer have the neighborhood feel that was intended. Please refer to the attached DNR Setback sketch shows the proposed impact of the 150' foot buffer for additional information.

h. **Granting of this Variance.** By granting this variance, we would be able to design this project to the concept plan supported by city staff. The project would not change from what has previously been reviewed.

i. The proposed project does not conflict with any of the nearby land uses. Significant efforts have been made to minimize disturbance to the adjoining development to the north and west. By granting this variance, we would be able to comply with the density requirements of the city and met council of this parcel. We are only hoping to preserve our project density, not increase it beyond what has been previously proposed. A 75' foot average buffer would be placed around the man-made channel. The buffer would be planted with native grasses, and would comply with Valley Branch watershed district. Our project would provide a 150-foot buffer from the southern shoreline of Goose Lake, excluding the man made channel.

Wetland Delineation Report

Hammes Sand & Gravel Site

Lake Elmo, Minnesota

Prepared for: FFE and Hammes Sand & Gravel

September 4, 2013

Bopray Environmental
N7831 920th St. River Falls, WI 54022
715-307-4577 kjbopray@yahoo.com

BES Project No. 2013.024

Wetland Delineation Report

Hammes Sand & Gravel Site

Lake Elmo, Minnesota

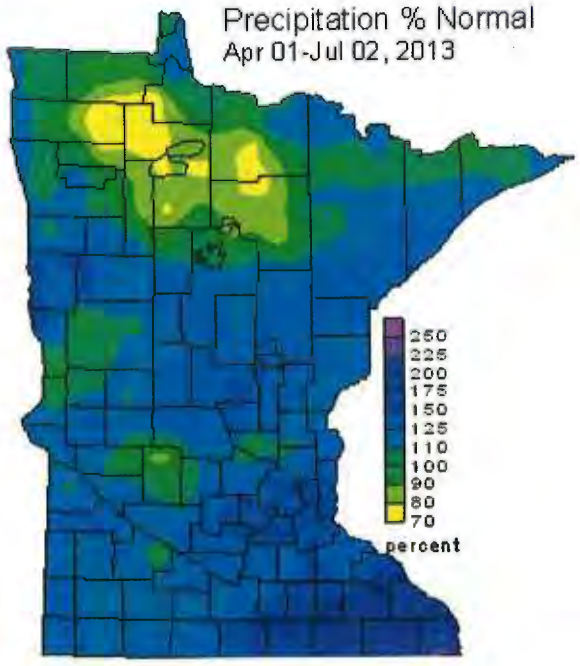
September 4, 2013

Background

Bopray Environmental Services LLC (BES) has completed a wetland delineation on the an approximately 80 acre site located in the S ½, NE ¼, of Section 34, T29N, R21W, Lake Elmo, Washington County, Minnesota (**Figure 1**). The site consists of active and inactive aggregate mining pits and stockpiles, agricultural fields, woodlands, and wetlands. The topography of the site is rolling to steeply sloping with about 220 feet of elevation change according to the U.S.G.S. quadrangle topographic map **(Figure 2**). On July 3rd and 4th, 2013 BES completed a delineated of the wetland boundaries on 13 wetlands on the site. The approximate site and wetland boundaries are shown on an aerial photo in **Figure 3**. The surveyed wetland boundaries will be incorporated in to the final plat plans by Folz, Freeman, Erickson Inc (**Appendix A**). The purpose of this delineation was to identify wetlands on the site for site planning and wetland regulatory purposes.

Methodologies

The site was evaluated for wetlands based on the methods contained in the Level 2, "Routine Determinations" section of the U.S. Army Corps of Engineers "Wetland Delineation Manual" (Technical Report Y87-1, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. This is the methodology currently used to determine wetlands by both the U.S. Army Corps of Engineers for implementation of Section 404 of the Clean Water Act and by the Minnesota Wetland Conservation Act. Historical aerial photographs were reviewed to establish the extent of historical mining on the



site and the location of pre-mining wetlands. Soil colors described herein follow "Munsell Soil color Charts". According to the Climatology Working Groups' webpage, the area was at 150-175% of normal year to date precipitation at the time of the site visit.

Results

Wetland A

Wetland A is an isolated depression in the northwest part of the site. This wetland is a seasonally Flooded, Forested basin. The dominant vegetation in the basin is eastern cottonwood (*Populus deltoides*), box elder (*Acer negundo*) and reed canary grass (*Phalaris arundinacea*). Wetland A is a Palustrine, Broadleaf Deciduous, Seasonally flooded, (PFO1C) wetland. Soils in the basin consisted of ten inches of 10YR 4/2 loam, over 10YR 4/1 loam with 2% 10YR 4/3 iron concentrations (F3). Up to six inches of surface water (A1) was observed in the basin at the time of the site visit. Free water was observed at a depth of 16 inches and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin included water marks (A3), sediment deposits (B2), drift deposits (B3), sparsely vegetated concave surface (B8), drainage patterns (B10), and a positive FAC-neutral test (D5). Most of the adjacent upland was cultivated and planted to corn (*Zea maze*). In the undisturbed upland the vegetation is dominated by black cherry (*Prunus serotina*), box elder, red-panicle dogwood (*Cornus racemosa*), Virginia creeper (*Parthenocissus quinquefolia*), brome grass (*Bromus inermis*), timothy grass (*Phleum pretense*) and white clover (*Trifolium repens*). The upland soils consisted of 20 inches of 10YR 3/2 silt loam, over 10YR 4/3 silt loam. Free water and saturated soil was not observed with 24 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland B

Wetland B is an isolated depression in the northwest part of the site and just south of Wetland A. Wetland B is a small shallow marsh surrounded by cultivated cropland planted to corn. The dominant vegetation in the basin is reed canary grass. Wetland B is a Palustrine, Emergent, Seasonally flooded, (PEMC) basin. Soils in the basin consisted of eight inches of 10YR 3/2 loam, over 10YR 4/2 loam with 3% 10YR 5/1 iron depletions (F3). Up to eight inches of surface water (A1) was observed in the basin at the time of the site visit. Free water was observed at a depth of 5 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include inundation visible on aerial imagery (B7) and a positive FAC-neutral test (D5). Most of the adjacent upland was cultivated and planted to corn. In the undisturbed upland the vegetation is dominated by reed canary grass, Canada thistle (*Cirsium arvense*), and annual ragweed (*Ambrosia artemisiifolia*). The upland soils consisted of eight inches of 10YR 3/3 sandy loam, over ten inches of 10YR 3/3 loam, over 10YR 3/3 loam with 10% 10YR 5/2 iron depletions. Free water was at 21 inches and saturated soil

was observed at 18 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetlands C and D

These wetlands are isolated depressions in the edge of a wooded area just south of Wetland B. Wetlands C and D shallow marshes with a fringe of temporally flooded hardwood swamp. The dominant vegetation in the basins is box elder, and reed canary grass. These wetlands are Palustrine, Emergent/Broadleaved Deciduous Forest, Seasonally flooded, (PEM/FO1C) basins. Soils in the basin consisted of eight inches of 10YR 3/2 loam with 3% 10YR 4/4 iron concentrations, over 10YR 3/2 loam with 5% 10YR 4/4 iron concentrations (F6). Up to eight inches of surface water (A1) was observed in the basins at the time of the site visit. Free water was observed at a depth of 6 inches (A2) and saturation was at 3 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basins included water marks (B1), inundation visible on aerial imagery (B7) and a positive FAC-neutral test (D5). The adjacent upland the vegetation is dominated by red oak (*Quercus rubra*), box elder, Canada goldenrod (*Solidago canadensis*), Kentucky bluegrass (*Poa pratensis*) and giant goldenrod (*Solidago gigantea*). The upland soils consisted of eight inches of 10YR 3/3 loam, over eight inches of 10YR 3/3 loam, over 2.5Y 5/3 sandy loam. Free water was at 18 inches and saturated soil was observed at 14 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland E

Wetland E is an isolated depression near the center of the site. Wetland E is a small shallow marsh surrounded by cultivated cropland planted to corn. The dominant vegetation in the basin is reed canary grass. Wetland E is a Palustrine, Emergent, Seasonally flooded, (PEMC) basin. Soils in the basin consisted of more than 12 inches of 10YR 4/1 silt loam with 15% 10YR 4/4 iron concentrations (F3). Up to 12 inches of surface water (A1) was observed in the basin at the time of the site visit. Free water was observed at a depth of 2 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include inundation visible on aerial imagery (B7) and a positive FAC-neutral test (D5). Most of the adjacent upland was cultivated and planted to corn. In the undisturbed upland the vegetation is dominated by black cherry, mossy cup oak (*Quercus macrocarpa*), common buckthorn (*Rhamnus cathartica*), and Canada goldenrod. The upland soils consisted of eight inches of 10YR 3/2 loam, over seven inches of 10YR 3/2 silt loam, over five inches of 10YR 2/1 loam, over 2.5Y 5/3 loam with 4% 10YR 4/4 iron concentrations. Free water was at 18 inches and saturated soil was observed at 17 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland F

This wetland is an isolated depression just north of Wetland E. Wetland F is a shallow marsh surrounded by steep slopes that have not been cultivated and do not appear to be a result of

the gravel mining operation. The dominant vegetation in the basin is red-panicle dogwood, common buckthorn, reed canary grass and bearded sedge (*Carex comosa*). Wetland F is a Palustrine, Emergent, Seasonally flooded, (PEMC) basin. Soils in the basin consisted of five inches of 10YR 4/1 loam, over six inches of 10YR 4/2 sandy loam with 5% 10YR 4/4 iron concentrations, over 10YR 5/2 sandy loam with 5% 10YR 4/4 iron concentrations (F3). Up to 18 inches of surface water (A1) was observed in the basin at the time of the site visit. Free water was observed at a depth of 2 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include inundation visible on aerial imagery (B7) and a positive FAC-neutral test (D5). The adjacent upland the vegetation is dominated by white oak (*Quercus alba*), red-panicle dogwood, amur maple (*Acer ginnala*), Kentucky bluegrass, and brome grass. The upland soils consisted of eight inches of 10YR 3/2 loam, over seven inches of 10YR 3/2 sandy loam, over 10YR 4/2 sandy loam with 5% 10YR 3/4 iron concentrations. Free water was at 26 inches and saturated soil was observed at 25 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland G

Wetland G consists of a man-made channel between Goose Lake to the north of the site and the remnants of a wetland in the gravel mining area. Goose lake, the channel and wetland area are all within an isolated depression. On site Wetland G is a shallow marsh surrounded by steep slopes that have appear to be a result of the gravel mining operation. The dominant vegetation in the basin is white willow (*Salix alba*), eastern cottonwood, green ash (*Fraxinus pennsylvanica*), reed canary grass and Kentucky bluegrass. Wetland G is a Palustrine, Emergent, Semi Permanently flooded, excavated, (PEM/UBFx) basin. Soils in the basin consisted of three inches of 10YR 2/2 sandy loam, over 2.5Y 4/2 gravelly sandy loam with 5% 10YR 4/4 iron concentrations (F3). More than 36 inches of surface water (A1) was observed in the channel area at the time of the site visit. Free water was observed at a depth of 3 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include inundation visible on aerial imagery (B7), geomorphic position (D2) and a positive FAC-neutral test (D5). The adjacent upland the vegetation is dominated by eastern cottonwood, paper birch (*Betula papyrifera*), green ash, red oak, brome grass and Kentucky bluegrass. The upland soils consisted of more than 14 inches of 10YR 4/3 gravelly coarse sand. Free water and saturated soil was not observed within 14 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland H

This wetland is a small isolated depression to the east of Wetland E. Wetland H is a shallow marsh surrounded by steep slopes that appear to be a result of the gravel mining operation. The basin shape is clearly a result of excavation and rutting. The dominant vegetation in the basin is eastern cottonwood, green bulrush (*Scirpus atrovirens*), and hummock sedge (*Carex stricta*).

Wetland H is a Palustrine, Emergent, Temporarily flooded, (PEMAx) basin. Soils in the basin consisted of three inches of 10YR 4/2 gravelly sand with 2% 10YR 4/4 iron concentrations, over 10YR 4/3 gravelly sandy loam with 2% 10YR 4/4 iron concentrations (F8). Up to 16 inches of surface water (A1) was observed in the basin at the time of the site visit. Free water was observed at a depth of 3 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include inundation sediment deposits (B2) and a positive FAC-neutral test (D5). The adjacent upland the vegetation is dominated by red oak, brome grass, Kentucky bluegrass, and timothy grass. The upland soils consisted of more than 14 inches of 10YR 4/3 sandy clay loam. Free water saturated soil was not observed within 14 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland I

This wetland is a man-made sedimentation basin east of Wetland G in the gravel mining area. The basin is an isolated basin. Wetland I is a seasonally flooded basin that appears to be a result of the gravel mining operation. The dominant vegetation in the basin is narrow leaf cattail (*Typha angustifolia*), and Pennsylvania smartweed (*Persicaria pensylvanica*). Wetland I is a Palustrine, Emergent, Temporarily flooded, excavated, (PEMAx) basin. Soils in the basin consisted of six inches of stratified 10YR 2/2 clay loam, 10YR 2/1 sandy loam and 10YR 4/2 sandy clay loam with 3% 10YR 4/1 iron depletions, over 10YR 5/3 sandy loam (A5). Free water and saturation soil was not observed within a depth of 12 inches in the soil pit. The wetland hydrology indicators observed in the basin include water marks (B1), sediment deposits (B2), sparsely vegetated concave surface (B8), water stained leaves (B9), surface soil cracks (B6) and a positive FAC-neutral test (D5). The adjacent upland the vegetation is dominated by box elder, sandbar willow (*Salix interior*), tartan honeysuckle (*Lonicera tatarica*), and common vetch (*Vicia sativa*). The upland soils consisted of more than 12 inches of 10YR 4/4 clay loam. Free water and saturated soil was not observed within 12 inches in the upland soil pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland J

Wetland J developed in an area graded flat for an equipment storage yard/parking lot in front of the old mining office in the gravel mining area. The basin is a small isolated basin. Wetland I is a seasonally flooded basin that appears to be a result of the gravel mining operation. The dominant vegetation in the basin is bearded sedge, creeping spikerush, (*Eleocharis palustris*), narrow leaf cattail. Wetland J is a Palustrine, Emergent, Seasonally flooded, excavated, (PEMCx) basin. Soils in the basin consisted of six inches of 10YR 4/2 clay with 5% 10YR 5/2 iron depletions and 2% 10YR 4/4 iron concentrations, over four inches of compacted 10YR 2/2 sandy loam with 15% 10YR 4/1 iron depletions and 5% 10YR 4/4 iron concentration, over compacted 10YR 4/2 sandy loam (F3, F6, F7). Free water and saturation soil was not observed within a depth of 16 inches in the soil pit. The wetland hydrology indicators observed in the basin include algal mat or crust (B4), moss trim lines (B16) and a positive FAC-neutral test (D5).

The adjacent upland the vegetation is dominated by trembling aspen (*Populus tremuloides*), sumac (*Rhus trilobata*), Kentucky bluegrass, birds' foot trefoil (*Lotus corniculatus*), prickly lettuce (*Lactuca serriola*) and brome grass. The upland soils consisted of more than 12 inches of 10YR 4/3 clay loam. Free water and saturated soil was not observed within 12 inches in the upland soil pit. The wetland boundary was generally staked along a slight break in topography and vegetation community.

Wetlands K and L

These wetlands are man-made wetlands in the bottom of the active mining area which have revegetated. These areas are connected by temporally flooded, unvegetated areas as well as surrounded by aggregate stock piles. The active mining area is the lowest point on the site and is an isolated basin. Wetlands K and L are seasonally flooded basins that appear to be a result of the gravel mining operation. The dominant vegetation in the basins is sandbar willow, eastern cottonwood, reed canary grass, and Kentucky bluegrass. Wetlands K and L are Palustrine, Scrub-Shrub, Temporarily flooded, excavated, (PEMAx) basins. Soils in the basin consisted of two inches of 10YR 3/2 sandy loam, over 10YR 4/2 stratified fine and coarse sand with 3% 10YR 5/1 iron depletions, and 2% 10YR 4/4 iron concentrations (A5). Surface water (A1) up to 36" deep was observed in the unvegetated area. In the two days on site the water level in the mining pit dropped at least eight inches. Free water was observed at a depth of 10 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include water marks (B1), sediment deposits (B2), drainage patterns (B10) and a positive FAC-neutral test (D5). Most of the adjacent uplands consist of unvegetated aggregate stock piles. The adjacent vegetated upland is dominated by sandbar willow, eastern cottonwood, red clover (Trifolium pretense), white clover and alfalfa (Medicago sativa). The upland soils consisted of three inches of 10YR 3/2 sandy loam, over six inches of 10YR 4/3 fine sandy loam, over 10YR 4/4 coarse sand. Free water was not observed in the soil pit but saturated soil was at 14 inches in the upland soil pit. Sediment Deposits (B2) were observed in the upland where water flowed through on its way to the bottom of the mine pit. The wetland boundary was generally staked along a break in topography and vegetation community.

Wetland M

Wetland M is a man-made wetlands ponding area on top of the aggregate stock pile along the south east part of the site. Wetland M shallow marsh to shallow open water basin created by the gravel mining operation. The basin is perched at the edge of the stockpile approximately 40 to 50 feet above and on a 40%+ slope down to the surrounding landscape. The dominant vegetation in the basin is eastern cottonwood, sandbar willow, black willow (*Salix nigra*), crack willow, narrow leaf cattail, and lesser duckweed *(Lemna minor*). The east end of the basin is an open water pond with submergent vegetation. Wetland M is a Palustrine, Emergent, Seasonally to Semi Permanently flooded and Palustrine, Unconsolidated Bottom, Permanently Flooded, excavated (PEMC/Fx & PUBGx) basin. Soils in the basin consisted of one inch of N 2/0 mucky

sand, over 10YR 4/2 coarse sand (A10). Surface water (A1) up to 72" deep was observed in the east end of the basin. Free water was observed at a depth of 4 inches (A2) and saturation was at 0 inches (A3) in the soil pit. The other wetland hydrology indicators observed in the basin include water marks (B1), sediment deposits (B2), drift deposits (B3), algal mat or crust (B4), inundation visible on aerial imagery (B7), water-stained leaves (B9), aquatic fauna (B13), and a positive FAC-neutral test (D5). The adjacent upland vegetation is dominated by sandbar willow, eastern cottonwood, Kentucky bluegrass, purple milkweed (*Asclepias purpurascens*) and Canada goldenrod. The upland soils consisted of five inches of mixed 10YR 2/2 and 10YR 4/2 gravelly sandy loam fill material, over mixed 10YR 4/2 and 10YR 4/4 gravelly sandy loam fill material. Free water and saturated soil was not observed within a depth of 14 inches in the upland soil pit. The wetland boundary was generally staked along a steep break in topography and vegetation community.

Other areas noted

There were a few unvegetated areas where water was temporarily ponded on mining roads, active mine pits, or behind earth berms used to block access to the site. These areas were not delineated or documented as wetlands because they were clearly incidental wet areas in actively used locations that did not and will not have vegetation as long as the current land use continues.

The National Wetlands Inventory (NWI) (**Figure 4**) identifies seven wetlands on the site in the general vicinity of Wetlands A, B, E, F, G and I as determined during the site visit. The DNR Protected Waters Inventory map (**Figure 5**) does identify Goose Lake (113W) north of the site as a public waters wetlands. Wetland G is directly connected to Goose Lake. The Washington County Soils Survey (**Figure 6**) shows the site is primarily mapped as Santiago silt loam (153B, 153C), Chetek sandy loam (155C, 155D), Kingsley sandy loam (342C, 342D) and gravel pits (1029) fine sandy loam (132B) with minor areas of Freon silt loam (264). The Freon silt loam soil map unit is identified as a partially hydric soil. All of the other soil map units are listed as a not-hydric soil map units.

Historic Wetlands and Mining Activities

Aggregate mining activities began on this site in late 1950's to early 1960's. Representative historical photographs are included in **Appendix B**. The extent of mining activity was compiled from the 1964 to the 2012 aerial photographs and plotted on the 1957 pre-mining photo. Pre-mining wetlands and potential wetlands were compiled from the 1936 through 1957 aerial photos and plotted on the 1957 photo. Wetlands A, B, C, D, E and F appear to be outside the mined area and appear to be present prior to the beginning of mining activity. These wetlands have been subject to farming activities to some extent over the 80 years. Wetland G was

present in the mining area before mining began but the size and shape of the basin has been significantly altered as a result of mining. Wetlands H, I, J, K, L and M were not present prior to mining activity and these wetlands were apparently created as a result of the mining activities. Mining activity has eliminated any evidence of the pre-mining potential wetland along the south side of the site. Areas where water ponded in the active mining area, and that had no vegetation (**Cover photo and Figure 14**) were not delineated as wetlands.

Wetland Classification

BES' classification of the wetlands is based on observations of the site and is include in Table 1 below.

Table 1. Summary of Wetland Characteristics

Basin	Class	Circ. 39 Type	Isolated Y/N	Comments
Wetland A	Seasonally Flooded Basin, (PFO1C)	1	Y	Wetland A is a small, isolated forested depression within the agricultural field.
Wetland B	Shallow marsh, (PEMC)	3	Y	Wetland B is a small, isolated depression within the agricultural field.
Wetland C	Shallow Marsh, (PEMC) with a Forested fringe (PFO1A)	3/1	Y	Wetland C is a small, isolated depression between the agricultural field and woods in near the center of the site.
Wetland D	Shallow Marsh, (PEMC) with a Forested fringe (PFO1A)	3/1	Y	Wetland D is an isolated depression in the woods in near the center of the site.
Wetland E	Shallow marsh, (PEMC)	3	Y	Wetland F is a small, isolated depression within the agricultural field.

Wetland F	Shallow marsh, (PEMC)	3	Y	Wetland F is an isolated depression with steep slopes that do not appear to be created by mining activites.
Wetland G	Shallow marsh, (PEM/UBFx)	3/4	Y	Wetland G is connected to Goose Lake via an excavated channel. Much of this historical wetland has been filled by the mining operation.
Wetland H	Seasonally flooded basin, (PEMAx)	1	Y	Wetland H is a tiny, isolated depression that appears to have formed in an abandon part of the mining area.
Wetland I	Seasonally flooded basin, (PEMAx)	1	Y	Wetland I is the remnants of a man-made settling basin constructed as part of the mining operation.
Wetland J	Seasonally flooded basin, (PEMCx)	1	Y	Wetland J has developed on the overgrown, compacted parking area in front of the old mining office.
Wetland K	Shrub-Carr, (PSS1Ax)	6	Y	Wetland K is a willow thicket that has developed between aggregate stockpiles. The majority of the south part of the site drains through this area to the low point in the active mining area.
Wetland L	Shrub-Carr, (PSS1Ax)	6	Y	Wetland L is a ponded area trapped between an aggregate stock pile and the adjacent steep slopes.
Wetland M	Shallow marsh, (PEMCx) and open water pond (PUBGx)	3/4	Y	Wetland M is a ponding area constructed on top of the stockpile in the southeast part of the site.

Jurisdiction

Table 1 indicates whether the wetlands are isolated or not for purposes of U.S. Army Corps of Engineers (COE) jurisdiction under Section 404 of the Clean Water Act. This determination is made by BES in the field at the time of the delineation and is essentially our best professional opinion based on the portion of the particular wetland we observed. In some cases, only a small portion of the wetland edge that is present on the property being delineated is evaluated. If no inlets or outlets are observed in the evaluated area, and none are evident on topographic maps or aerial photos, we are inclined to determine the wetland is isolated. However, since the entire wetland is sometimes not assessed, it is possible that inlets and/or outlets do exist and that the wetland has a surface connection to a federal "navigable" water and, thus, falls within the jurisdiction of Section 404. Therefore, a determination by BES of whether a particular wetland is isolated or not should not be considered a final determination with regard to COE jurisdiction until the COE concurs with the determination. All of the wetlands on the site appear to be isolated basins with no surface water connection to other wetlands or water bodies. The exception is Wetland G which is connected to Goose Lake to the north. Goose Lake itself is also an isolated basin. Per the Valley Branch Watershed District management plan the normal water level for Goose lake is 921. The OHW is 924. The 100 year flood elevation is 932. The overland outlet at the north end of the basin is at 931.7. The recorded water levels in the basin range from 917.85 to 921.82 and the water level measured on 5/3/13 during an exceptionally wet spring was 920.12. There are no stream channels or wetlands identified at the Lake outlet. Therefore the Corps should make an isolated/no jurisdiction determination for all of the wetlands on this site.

Wetland G is connected to Goose Lake to the north which is identified by the Minnesota Department of Natural Resources (DNR) as public water wetland #113 on the protected waters inventory. The DNR has jurisdiction up to the Ordinary High Water (OHW) elevation on Goose Lake. The OHW has been established as 924.4 and if that contour extends in to Wetland G, the DNR will likely take jurisdiction over the wetland. Wetlands A, B, C, D, E, F and G (above the OHW) will be regulated under the Minnesota Wetland Conservation Act (WCA) which is administered by the City of Lake Elmo and the Valley Branch Watershed District. Wetlands H, I, J, K, L and M are incidental wetlands created by the mining activities on the site and as such would not be subject to regulation under the WCA.

A copy of this report should be submitted to the Corps of Engineers and the LGU responsible for administering the WCA. Supplying these agencies with reports will serve the dual purpose of determining which agencies have jurisdiction and beginning the process of obtaining concurrence with the delineated wetland boundaries. If the on-site wetland may be affected during site construction, all necessary permits should be obtained prior to construction.

Additional information regarding the wetlands' vegetation, soils and hydrology and the site survey is included in **Appendix C**. Ground level photos of the wetlands are included in **Figure 7 through 14.**

The information contained herein represents the findings of BES during wetland evaluation activities conducted on July 3rd and 4th, 2013 at the referenced site.

Respectfully,

Bopray Environmental Services LLC

_____ _____

Kelly J. Bopray
Professional Soil Scientist
Certified Wetland Delineator

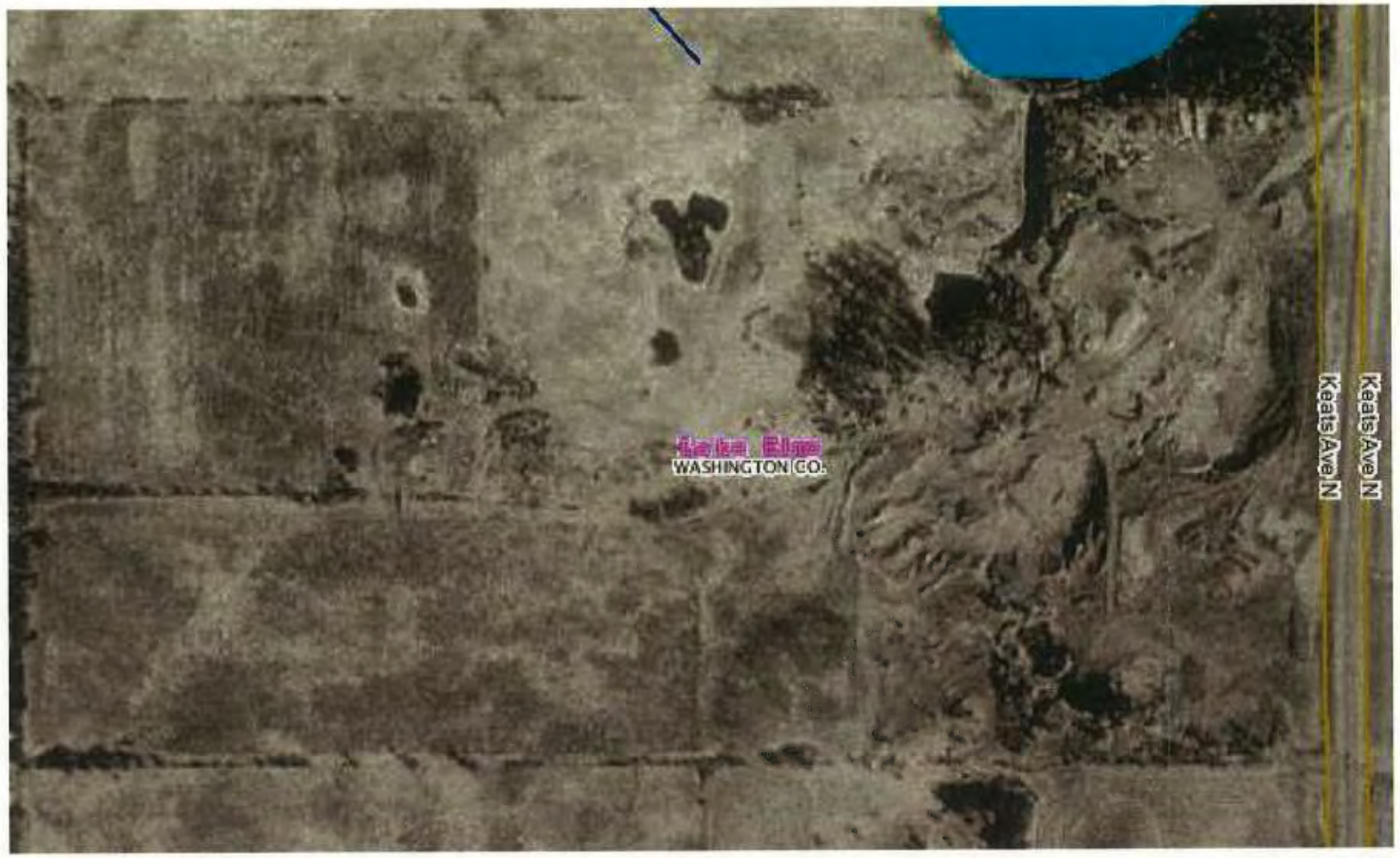
Date

Enclosures

Bopray
Environmental
N7831 920th St. River Falls, WI 54022
715-307-4577 kjbopray@yahoo.com

N
Not to Scale

2010



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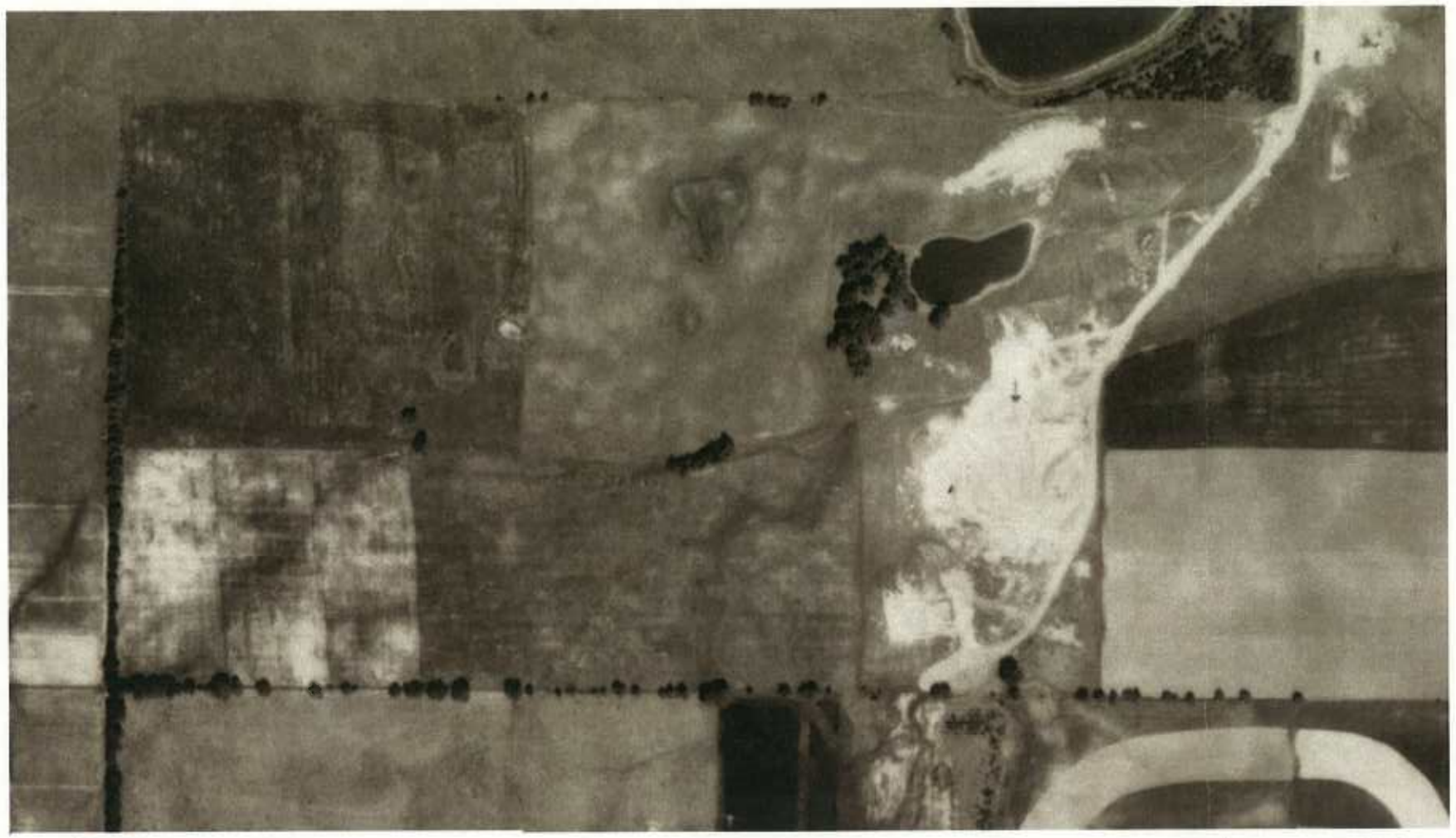
N
Not to Scale

1991



Bopray
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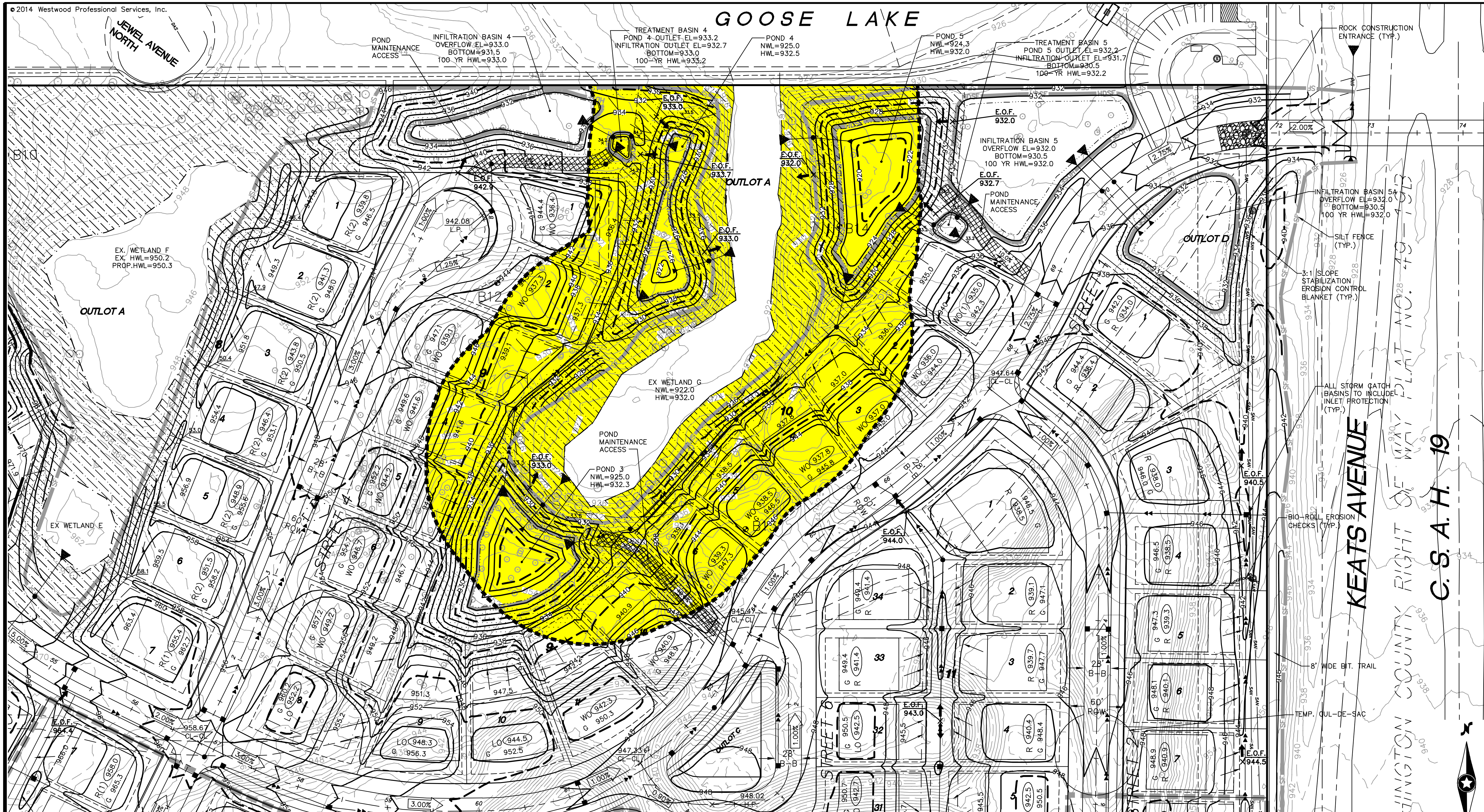
N
Not to Scale

1964



Legend:

⊕	DENOTES SOIL BORING	■—▸▸—■	DENOTES FUTURE STORM SEWER	︵︵︵	DENOTES BIO–ROLL EROSION CHECKS
—SF—	DENOTES SILT FENCE	□—▹▹—□	DENOTES EXISTING STORM SEWER	E.O.F.	DENOTES EMERGENCY OVERFLOW ELEVATION
—HDSF—	DENOTES HEAVY DUTY SILT FENCE	■—▸▸—■	DENOTES PROPOSED STORM SEWER	▨	3:1 SLOPE STABILIZATION EROSION CONTROL BLANKET
—980—	DENOTES EXISTING CONTOURS	⌒⌒⌒	DENOTES EXISTING TREE LINE	—·—·—	DENOTES WETLANDS
—980—	DENOTES PROPOSED CONTOURS	x 856.3	DENOTES EXISTING SPOT ELEVATION		
--980--	DENOTES PROPOSED INTERIM CONTOURS	x 66.30	DENOTES PROPOSED SPOT ELEVATION		

0' 50' 100' 150'

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

NOT FOR CONSTRUCTION

0002905SKP04.dwg

Date: 06/05/14 Sheet: 1 OF 1

Westwood
Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
TOLL FREE 1-888-937-5150
www.westwoodps.com

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.

Date: ______ License No. ______

Revisions:

Designed: CLJ
Checked: RMB
Drawn: HW
Record Drawing by/date:

Prepared for:

Ryland Homes
7599 Anagram Drive
Eden Prairie, Minnesota 55344

Hammes Property
Lake Elmo, Minnesota

DNR Setback Sketch

From: Kelly Bopray
To: Ryan M. Bluhm
Subject: Fw: Hammes Sand & Gravel Site wetland delineation
Date: Friday, May 30, 2014 3:28:30 PM

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

----- Forwarded Message -----
From: "Shodeen, Molly (DNR)" <molly.shodeen@state.mn.us>
To: Kelly Bopray <kjbopray@yahoo.com>
Sent: Monday, September 30, 2013 3:05 PM
Subject: RE: Hammes Sand & Gravel Site wetland delineation

Kelly, do we have any idea when the channel was excavated? I can't believe we would issue a permit for it

From: Kelly Bopray [mailto:kjbopray@yahoo.com]
Sent: Sunday, September 29, 2013 8:16 PM
To: Shodeen, Molly (DNR)
Cc: Kevin Wold
Subject: Fw: Hammes Sand & Gravel Site wetland delineation

Molly,
Karen Wold copied you on the NOA for the Hammes site in Lake Elmo that I'm working on. Karen's email includes a link to where you can down load the whole wetland report if you want it. I've attached a couple of the pertinent documents for you to review.

Wetland G on the site includes a man-made channel that connects Goose Lake to a preexisting wetland in a gravel mined area of the site. For WCA purposes wetlands created by mining are not regulated. But the channel area was created below the OHW of Goose Lake so that would be under DNR regulations unless you are inclined to defer jurisdiction to the LGU. The engineer is starting to work on site designs and one thought was to cut the channel off from the lake again as one way to improve water quality of the lake by protecting it from stormwater run off the development of the site. I'd like to have a discussion with you at your earliest convenience about how you like to proceed with jurisdiction and and if the DNR keeps jurisdiction how this man-made channel might be treated in the permitting process.

When you can could you give me a call or respond to this email?
Thanks

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com <mailto:kjbopray@yahoo.com>
715-307-4577

----- Forwarded Message -----
From: Karen Wold <KWold@barr.com <mailto:KWold@barr.com> >
To: 'Jed Chesnut' <jchesnut@mnwcd.org <mailto:jchesnut@mnwcd.org> >; "'Rodacker, Dennis (BWSR)'" <Dennis.Rodacker@state.mn.us <mailto:Dennis.Rodacker@state.mn.us> >; "Kelly Bopray (kjbopray@yahoo.com

<mailto:kjbopray@yahoo.com>)" <kjbopray@yahoo.com <mailto:kjbopray@yahoo.com> >; "'Shodeen, Molly (DNR)'" <molly.shodeen@state.mn.us <mailto:molly.shodeen@state.mn.us> >; "'Hingsberger, Thomas J MVP'" <thomas.j.hingsberger@usace.army.mil <mailto:thomas.j.hingsberger@usace.army.mil> >
Cc: John P. Hanson <JHanson@barr.com <mailto:JHanson@barr.com> >; "'jbg@aftonlaw.net'" <jbg@aftonlaw.net <mailto:jbg@aftonlaw.net> >
Sent: Wednesday, September 18, 2013 2:28 PM
Subject: Hammes Sand & Gravel Site wetland delineation

Attached is the Notice of Application for the Hammes Sand & Gravel Site wetland delineation within Valley Branch Watershed District in Lake Elmo, Washington County. The site location map is also attached. The wetland delineation report is too large to send through email. It is available on my ftp site at:
ftp://user.barr.com/
user name: ksw
password: ftpksw
in the Hammes Site wetland delineation folder
If you would like a paper copy of the report, please contact Kelly Bopray at kjbopray@yahoo.com <mailto:kjbopray@yahoo.com>

Please contact me if you are interested in participating in a site review of the delineation. Let me know when you are available within the next couple of weeks.

Karen Wold
Senior Environmental Scientist
Barr Engineering Co.
4700 West 77th Street
Minneapolis, MN 55435
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office: 952.832.2707
toll-free: 800.632.2277
cell: 651.307.4394
---
kwold@barr.com <mailto:kwold@barr.com>
www.barr.com <http://www.barr.com/>

From: Kelly Bopray
To: Ryan M. Bluhm
Subject: Fw: Hammes sand and gravel
Date: Friday, May 30, 2014 3:28:48 PM

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2 of 5

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

----- Forwarded Message -----
From: Kelly Bopray <kjbopray@yahoo.com>
To: molly.shodeen@state.mn.us
Sent: Monday, September 30, 2013 4:03 PM
Subject: Hammes sand and gravel

Molly,
I'm not sure on when the channel was excavated. I think in the mid to late 60's. I included some historical aerials in my last email, and you can clearly see it's not there in 57 and 64. I 'm in the field and don't recall what year the channel shows up.
Sent from my Verizon Wireless 4G LTE smartphone

From:	Kelly Bopray
To:	Ryan M. Bluhm
Subject:	Fw: Hammes gravell mine
Date:	Friday, May 30, 2014 3:26:17 PM
Attachments:	3 figure 1.doc 7 figure 5.doc

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3 of 5

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

----- Forwarded Message -----
From: Kelly Bopray <kjbopray@yahoo.com>
To: "molly.shodeen@state.mn.us" <molly.shodeen@state.mn.us>
Sent: Tuesday, October 8, 2013 1:56 PM
Subject: Hammes gravell mine

Molly,
Aattached are a couple more maps. The Figure 1 shows the general location of the site and Goose lake to the north in Lake Elmo, just north of I94 and near the intersection of Keats Ave and 10th St. The DNR number is 113w.

At this point they are beginning concept planning for the development of the site. They would like to separate the excavated channel from Goose lake so that stormwater ponding could be done in the area before the water discharges to Goose Lake. If the DNR retaines jurisdiction and takes the position that fill can not be placed below the OHW obviously the property owner will have to make other plans. If the DNR waves jurisdiction of the channel to the LGU then part of the channel would be incidental and a berm could be built across the channel and the surrounding uplands would be excavated for ponding purposes.

I'll try to call you tomorrow morning.

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

From: Kelly Bopray
To: Ryan M. Bluhm
Subject: Fw: Hammes gravell mine
Date: Friday, May 30, 2014 3:31:04 PM

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4 of 5

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

----- Forwarded Message -----
From: "Shodeen, Molly (DNR)" <molly.shodeen@state.mn.us>
To: Kelly Bopray <kjbopray@yahoo.com>
Sent: Tuesday, October 8, 2013 2:02 PM
Subject: RE: Hammes gravell mine

Let's talk tomorrow, I have a meeting now

From: Kelly Bopray [mailto:kjbopray@yahoo.com]
Sent: Tuesday, October 08, 2013 1:56 PM
To: Shodeen, Molly (DNR)
Subject: Hammes gravell mine

Molly,
Aattached are a couple more maps. The Figure 1 shows the general location of the site and Goose lake to the north in Lake Elmo, just north of I94 and near the intersection of Keats Ave and 10th St. The DNR number is 113w.

At this point they are beginning concept planning for the development of the site. They would like to separate the excavated channel from Goose lake so that stormwater ponding could be done in the area before the water discharges to Goose Lake. If the DNR retaines jurisdiction and takes the position that fill can not be placed below the OHW obviously the property owner will have to make other plans. If the DNR waves jurisdiction of the channel to the LGU then part of the channel would be incidental and a berm could be built across the channel and the surrounding uplands would be excavated for ponding purposes.

I'll try to call you tomorrow morning.

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com <mailto:kjbopray@yahoo.com>
715-307-4577

From: Kelly Bopray
To: Ryan M. Bluhm
Subject: Fw: Hammes Gravel Site
Date: Friday, May 30, 2014 3:31:13 PM

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5 of 5

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

----- Forwarded Message -----
From: Kelly Bopray <kjbopray@yahoo.com>
To: "jbg@aftonlaw.net" <jbg@aftonlaw.net>; Todd Erickson <terickson@ffe-inc.com>
Cc: "kwold@barr.com" <kwold@barr.com>; "molly.shodeen@state.mn.us" <molly.shodeen@state.mn.us>
Sent: Wednesday, October 9, 2013 1:20 PM
Subject: Hammes Gravel Site

Jim, Todd,
After playing phone tag for a week or so, I was finally able to talk to Molly Shodeen (DNR Area Hydrologist) about the Hammes site and specifically the excavated channel from Goose Lake to Wetland G. I said we did not have any firm plans yet but we were forming our development strategy for the site. Ideally we would like to isolate the channel from Goose Lake for as part of the stormwater management when the site is developed. We believe this will help improve water qualtity for the lake as opposed to preserving the channel and it's direct discharge to the lake.

As we discussed, Molly indicated the DNR would likely waive their jurisdiction over the channel to the WCA LGU. That would allow the opportunity to impact the incidental portions of Wetland G (the excavated channel) to achieve the site development water management goals.

Kelly Bopray
Bopray Environmental Services, LLC
kjbopray@yahoo.com
715-307-4577

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

Development Data:

Gross Site Area:	78.08 ac
Existing Wetlands:	2.80 ac
Greenway Buffer Open Space:	8.15 ac
100' corridor on West & North, net existing wetlands	
Wetland Buffers:	4.10 ac
Proposed wetland buffers; within Outlot areas only & excluding 100' greenway buffer	
Net Developed Area:	63.03 ac
Park Dedication (buffer w/trail)	4.20 ac
Proposed Single Family Lots:	163 lots
75' wide x 140' deep typical:	110 lots
81' wide x 140' deep typical:	16 lots
85' wide x 140' deep typical:	37 lots
Overall Gross Density:	2.09 un/ac
(163 un/78.08 gross ac.)	
Overall Net Density:	2.59 un/ac
(163 un/63.03 net developable ac.)	

Proposed Single Family Development Standards:

Front Setback:	25'
Side Setback: (See Note 6)	7.5'/7.5' (15' total)
Side Setback: (Corner Lots):	15'
Rear Setback:	20'
Minimum Lot Area:	9,302 sf
Average Lot Area:	12,282± sf

Outlot Table:

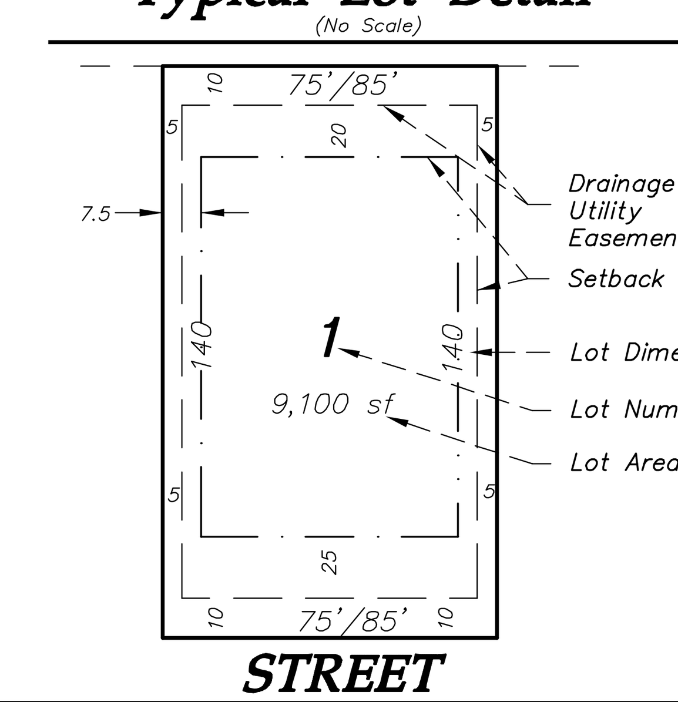
Name	Use	Ownership	Size
Outlot A	Park, Wetland, Ponding	City	13.99 ac.
Outlot B	Wetland, Ponding	City	4.65 ac.
Outlot C	Open Space	City	0.11 ac.
Outlot D	Ponding	City	0.59 ac.
Outlot E	Open Space	City	0.10 ac.

Property Description:

That part of the South Half of the Northeast Quarter of Section 34, Township 29 North, Range 21 West, Washington County, Minnesota, EXCEPT the East 60.00 feet of the North 967 feet of said South half of the Northeast Quarter thereof. AND EXCEPT Parcel 3 of Washington County Highway Right of Way Plat 49-19B, recorded September 18, 1985 as Doc. No. 492530.

Typical Lot Detail

(No Scale)



Development Notes

1. ALL LOT DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT.
2. ALL AREAS ARE ROUNDED TO THE NEAREST SQUARE FOOT.
3. STREET NAMES ARE SUBJECT TO APPROVAL BY THE CITY.
4. DRAINAGE AND UTILITY EASEMENTS SHALL BE PROVIDED AS REQUIRED. DRAINAGE AND UTILITY EASEMENTS WILL BE PROVIDED OVER ALL PUBLIC UTILITIES. BLANKET DRAINAGE AND UTILITY EASEMENTS OVER THE ENTIRE OUTLOT TO BE PROVIDED ON FINAL PLAT FOR ALL OF OUTLOT A THROUGH OUTLOT D.
5. STREET WIDTHS SHOWN ARE FROM BACK OF CURB TO BACK OF CURB.
6. SIDE SETBACKS OF 7.5' & 7.5' (15' TOTAL) REPRESENTS THE AVERAGE OF CODE REQUIRED 5' & 10' (15' TOTAL) SETBACKS.

0' 100' 200' 300'

0002905PPP01.dwg

Date: 02/20/14 Sheet: 3 OF 25

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
TOLL FREE 1-888-937-5150
www.westwoodps.com

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed LAND SURVEYOR under the laws of the State of Minnesota.

Craig W. Morse, RLS
Date: 06/06/14 License No. 23021

Revisions:
04/08/14 CITY COMMENTS
05/02/14 CITY COMMENTS
06/06/14 CITY COMMENTS

Designed:
Checked:
Drawn:
Record Drawing by/date:

Prepared for:

Ryland Homes
7599 Anagram Drive
Eden Prairie, Minnesota 55344

Hammes Property

Lake Elmo, Minnesota

Preliminary Plat Plan

Call 48 Hours before digging:
811 or call811.com
Common Ground Alliance

LEGEND:

- DENOTES SOIL BORING
- SF — DENOTES SILT FENCE
- HDSF — DENOTES HEAVY DUTY SILT FENCE
- 980 — DENOTES EXISTING CONTOURS
- 980 — DENOTES PROPOSED CONTOURS
- DENOTES EXISTING STORM SEWER
- DENOTES PROPOSED STORM SEWER
- DENOTES EXISTING TREE LINE
- DENOTES APPROXIMATE TREE REMOVAL LIMITS
- × 856.3 — DENOTES EXISTING SPOT ELEVATION
- 66.30 — DENOTES PROPOSED SPOT ELEVATION
- DENOTES BIO-ROLL EROSION CHECKS
- E.O.F. — DENOTES EMERGENCY OVERFLOW ELEVATION
- PROPOSED WETLAND BUFFER AREA

Wetland	Existing Buffer	Proposed Buffer	Average Buffer Width
G	92,054 SF	95,313 SF	85.3 LF

N

0' 50' 100' 150'

NOT FOR CONSTRUCTION

0002905WTP02.dwg

Date: 02/20/14 Sheet: 12 OF 25

Hammes Property

Lake Elmo, Minnesota

Preliminary Wetland Buffer Plan

Westwood

Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344

PHONE 952-937-5150
FAX 952-937-5822
TOLL FREE 1-888-937-5150

www.westwoodps.com

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.

Ryan M. Bluhm
Date: 06/06/14 License No. 41257

Revisions:
04/08/14 CITY COMMENTS
05/02/14 CITY COMMENTS
06/06/14 CITY COMMENTS

Designed: CLJ
Checked: RMB
Drawn: HW
Record Drawing by/date:

Prepared for:

Ryland Homes
7599 Anagram Drive
Eden Prairie, Minnesota 55344

Goose Lake Southern Channel: Site Visit, 6/18/14

Looking west across southern channel

Looking south down southern channel

Looking north up southern channel into towards Goose Lake

Southern tip of southern channel (Wetland G)

LANDSCAPE ARCHITECTURE INCORPORATED
WWW.LANDARCINC.COM

HAMMES PROPERTY – DESIGN REVIEW REPORT
LAKE ELMO, MN

LANDSCAPE ARCHITECTURAL DESIGN REVIEW DATED JUNE 19TH, 2014

SITE VISIT DATED JUNE 18TH, 2014

Landscape Architect's Recommendations:

To maximize benefit of remaining natural space or prescribed water quality buffer area the following directive should be followed:

- Preserve whatever ecologically appropriate vegetation remains.
- Remove all non-native trees, shrubs and herbaceous vegetation as a step to work towards establishing a sustainable and healthy water quality buffer.
- Enhance all ecologically appropriate species with other layers of native trees, shrubs and herbaceous vegetation to create a complex layering of native plant community that is planted in a manner that appears to have occurred naturally.
- Restore all remaining disturbed areas that have been graded or had non-native species removed with a complex layer of ecologically appropriate trees, shrubs and herbaceous vegetation.
- Reduce or eliminate the use of turf sod along the water quality buffer and replace with ecologically appropriate native shrubs or native herbaceous plantings at the rear of the adjoining lots and spaces.

SINCERELY,

LANDSCAPE ARCHITECTURE, INC.

STEPHEN MASTEY, ASLA, CLARB, LEED AP BD+C
DIRECTOR OF DESIGN

856 RAYMOND AVENUE SUITE C • ST. PAUL, MN • 55114
PHONE: 651.646.1020 • EMAIL: STEPHEN@LANDARCINC.COM

Minnesota Department of Natural Resources
Division of Ecological and Water Resources
1200 Warner Road
Saint Paul, MN 55106-6793

May 28, 2014

Nick Johnson
City of Lake Elmo
3800 Laverne Ave. N.
Lake Elmo, MN 55042

RE: Shoreland Ordinance Revisions/Hammes Plat

Dear Mr. Johnson:

I have taken a preliminary look at the proposed revisions to your shoreland ordinance. It will take me more time to complete a thorough review without a redline version to compare to your old ordinance. It is also extremely time consuming to have to look in other parts of the ordinance for some of the standards. I may need to meet with you again so that you can highlight the changes.

The revision you are most interested in I think, is the riparian dedication so that you can apply it to the Hammes plat to increase density. You also mentioned that there may be other developments coming up. That is the section I will comment on at this time. Riparian buffers do have value when applied to undeveloped lakes so that the buffer functions to protect the riparian zone from individual property owner alterations that effect water quality and habitat. The city really only has 1 partially developed and one mostly undeveloped water body that these would be applicable to. The other water bodies are fully developed.

If approved, the riparian dedications areas must remain largely undeveloped and free of impervious surfaces. It seems like the standards for use contained in the ordinance would allow significant alteration for common spaces. For the Hammes Plat, the riparian dedication is small compared to the size of the lake. Such uses should be clustered for minimal impact and restricted to the greatest extent possible. Facilities and alterations must be setback the greatest amount possible to keep the buffer nearest the lake intact. It is also extremely important that the buffer areas be marked with monuments and signs to prevent yard creep. There should be deed restrictions and clear rules and enforcement.

Regarding the Hammes plat, we noticed that the riparian dedication does not cover the southern-most extension of the lake. As this is part of Goose Lake, the riparian dedication should also extend to protect the entire south end of the lake, including the extension. It is unknown to me whether this was natural or manmade, but at this point, it is considered part of the lake. It is unlikely that we could approve a flexibility request by the city to allow a riparian dedication of a 150' buffer without including the whole portion of the lake contained within the proposed plat.

Another consideration for flexibility approval will be to evaluate the section of the ordinance regarding water oriented structures. We would still like to receive a written response to our letter regarding the Leonard structure. We appreciate that the city has revised the height to conform to the state standard in the new ordinance, but if our interpretations differ, we need to assure that we are on the same page going forward. This may involve inserting some additional language.

We likely need additional conversations regarding the steps forward in order to implement and approve flexibility for reduced standards. Unfortunately our time is very limited for land use related activities, but we are sensitive to the fact that the city needs to move forward and will try to prioritize reaching a conclusion of these issues.

Please contact me at (651) 259-5845 or molly.shodeen@state.mn.us to discuss your thoughts.

Sincerely,

Molly Shodeen

Molly Shodeen
Area Hydrologist

ec: Kyle Klatt, City Planning Director
Dan Petrik, DNR EWR Land Use Unit

From: Shodeen, Molly (DNR)
To: Nick Johnson
Cc: Kyle Klatt; Dean Zuleger; Petrik, Daniel (DNR)
Subject: RE: June Land Use Review
Date: Monday, June 16, 2014 12:07:19 PM
Attachments: image002.jpg

Thanks Nick, as I said in my last letter, we believe that the 150' riparian dedication must be applied to the manmade channel/southern extension of the lake. DNR permit rules consider anything that is dredged and attached to the lake to be part of the lake, and as such must meet any setback requirements, as well as in this case, the 150' buffer requirement. We do not see that there are practical difficulties beyond financial for issuing the variance and we recommend that the variance be denied. We consider the Met Council argument to be a bit weak as there are other developments coming up that will get you to your projections.

As an alternative, we would request that a berm be placed across the access channel to restore the Goose Lake basin to what it was. The photos show that it was excavated sometime between the 60's and 90's without any DNR permits. A permit would be needed to close it off, but we would consider it to be a restoration. The photos also show that originally in 1991 there was a very narrow connection which was again illegally widened since 1991 to its current configuration.

As far as the ordinance goes, we need to meet to discuss any and all changes that you have made unless you have a strike through version to show the changes. I need to discuss your reaction to my suggested changes that were not made in the final ordinance. For any buffer implementation, we request that it be marked and monumented to prevent encroachment over time. As previously stated, we would like to see that right in the ordinance.

You also need to request implementation flexibility as part of the request to approve the ordinance. It is a letter asking that we consider allowing flexibility for the city to deviate from the statewide standards. The letter needs to detail what the request is, and how it will afford additional protection for the resources to justify the flexibility.

From: Nick Johnson [mailto:NJohnson@lakeelmo.org <mailto:NJohnson@lakeelmo.org>]
Sent: Tuesday, June 10, 2014 12:07 PM
To: Shodeen, Molly (DNR); John Hanson (jhanson@barr.com <mailto:jhanson@barr.com>)
Cc: Kyle Klatt; Dean Zuleger
Subject: June Land Use Review

Molly and John,

Please see the attached land use review for the June 23rd Planning Commission meeting. If possible, please send review comments by Wednesday, June 18th. Hard copies are being placed in the mail today to your office.

Thanks for your attention to this matter.

Nick M. Johnson | City Planner

City of Lake Elmo, Minnesota

njohnson@lakeelmo.org <mailto:njohnson@lakeelmo.org>

(w) 651-747-3912 | (f) 651-747-3901

www.lakeelmo.org <http://www.lakeelmo.org>