

Stantec Consulting Services Inc.
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De Pere, Wisconsin 54115

To: Jon Gumtow
Stantec Consulting Services Inc.

From: Melissa Curran
Stantec Consulting Services Inc.

File: 2017 [REDACTED] Surveys, Proposed
Kohler Golf Course Project
Sheboygan County, Wisconsin

Date: August 30, 2017

**REFERENCE: 2017 [REDACTED] Surveys, Proposed Kohler Golf Course Project
Sheboygan County, Wisconsin**

INTRODUCTION

In support of the proposed Kohler Golf Course Project (Project), Stantec Consulting Services Inc. (Stantec) conducted targeted botanical surveys for [REDACTED] within suitable habitat adjacent to Lake Michigan within the Kohler-owned portion of the Project Area, Sheboygan County. [REDACTED] is a [REDACTED] plant species.

Surveys were completed to document the location and number of individual plants within and adjacent to the proposed golf course footprint. This memorandum presents the methods and results of this survey effort.

PROJECT DESCRIPTION

The Project Area consists of a 247-acre parcel located adjacent to Lake Michigan owned by Kohler Company, and a proposed easement area on a parcel owned by the State of Wisconsin. The State-owned parcel is located within Kohler-Andrae State Park and is adjacent to the south limits of the Kohler parcel. No [REDACTED] has been documented on the proposed easement area. The Black River is located along the west limits of the Project Area. Based on the results of the 2014 botanical survey and previous site evaluations, the Project Area consists of a mix of upland habitats including Great Lakes beach, dune, deciduous and coniferous forest, and tree, shrub, and herbaceous-dominated wetlands.

[REDACTED] Therefore, the location, distribution and number of species identified within the Project Area can change from year to year depending on favorable germination conditions.

METHODS

Botanical surveys of the Project Area were completed in 2014 and 2015 to document community types, floristic quality, invasive species, and the presence of rare plant species. Results of the 2014 Botanical Surveys were presented in a memo entitled "Botanical Surveys" dated October 31, 2014, which included detailed plant community descriptions and species lists for the Project Area. The 2015 Botanical Survey focused on target rare plant species with results documented in a September 25, 2015 memo. Both survey events identified [REDACTED] within [REDACTED] communities adjacent to the Lake Michigan shoreline.

The previously documented [REDACTED] locations were used as a guide to focus search efforts, although [REDACTED] surveys were completed within all suitable habitat within the Project Area. Meander surveys were conducted in suitable habitat areas and a sub-meter accuracy GPS was used to record the location and number of plants. Individual GPS points were recorded for single plants or small groups of plants within one-meter of each other. A GPS polygon was used to record a dense population with approximately one-thousand individuals in close proximity to each other. Photographs were taken of representative habitat areas and plant characteristics (Attachment A).

REFERENCE: 2017 [REDACTED] Surveys, Proposed Kohler Golf Course Project
Sheboygan County, Wisconsin**RESULTS**

[REDACTED] surveys within the Kohler-owned parcel were conducted on June 23 and 28, 2017 by Stantec botanists Melissa Curran and Environmental Technician Matt Knickelbine.

[REDACTED] was previously documented from [REDACTED] communities.

[REDACTED] within the Project Area was most abundant in the [REDACTED] community.

[REDACTED] was observed only occasionally in these communities.

[REDACTED] plants which were previously documented in 2014 and 2015 within or adjacent to the [REDACTED] community.

A total of 2,368 [REDACTED] plants were identified and recorded within suitable habitat on the Kohler-owned parcel (Figure 1). Approximately 542 plants are located within the proposed golf course footprint, while approximately 1,826 are located outside, but adjacent to the proposed project footprint. Figure 1 shows the location of [REDACTED] mapped during the target survey in relation to the golf course footprint. Appendix A contains photos illustrating the habitat and plant characteristics.

CONCLUSION

On June 23 and 28, 2017, Stantec conducted targeted botanical surveys within the Kohler-owned portion of the Project Area to document presence of [REDACTED] plant species. Meander surveys of the target area were utilized to locate [REDACTED] occurrences. [REDACTED] is known to commonly occur within the [REDACTED] community, and less commonly the [REDACTED] and [REDACTED] communities. A total of 2,368 plants were identified and the location recorded with a GPS, of which, 542 are located within the proposed golf course footprint.

Numerous course layouts were developed by Kohler to avoid and minimize impacts to wetlands, streams, cultural resources, and rare species. Measures to avoid impacts to rare [REDACTED] and [REDACTED] wetlands influenced the ability of the design to avoid [REDACTED] plants. If impacts to [REDACTED] cannot be avoided, incidental take permits will be required [REDACTED]

If you have any questions, or require any additional information, please call me at (920) 841-1072 or Jon Gumtow at 920-980-2800.

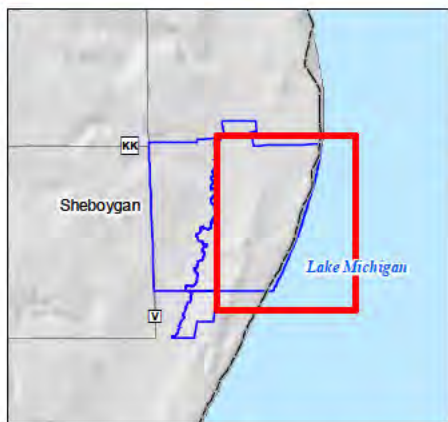
Sincerely,

STANTEC CONSULTING SERVICES INC.







Melissa Curran
Environmental Scientist / Botanist
Melissa.Curran@stantec.com

Attachments: Figure 1 – [REDACTED] Location Overview Map
Attachment A – Photo Log



Legend

-  Approximate Project Boundary
-  Existing Trail
-  Limits of Construction/Silt Fence Line
- 

- Notes**
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
 2. Data Sources Include: Stantec Kohler WDOT
 3. Orthophotography: 2015 NAIP

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Figure No.

1

CONFIDENTIAL

Title

Locations Overview Map

Client/Project

Kohler Company
Proposed Golf Course

Project Location
T14N R23E S11 14
Sheboygan Co WI

193703078
Prepared by MPG on 2017-08-04
Technical Review by MP on 2017-08-04
Independent Review by JG on 2017-08-04

0 200 400 Feet
1:4 800 (At Original document size of 11x17)



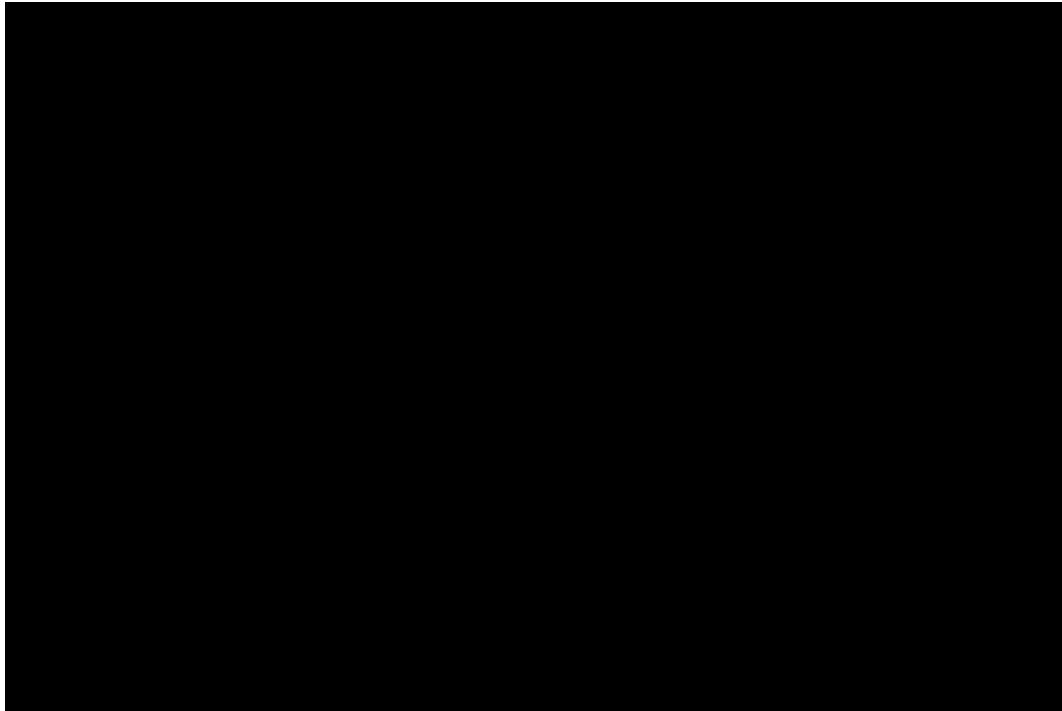


Photo 1. Illustrating [REDACTED] habitat where [REDACTED] occurs

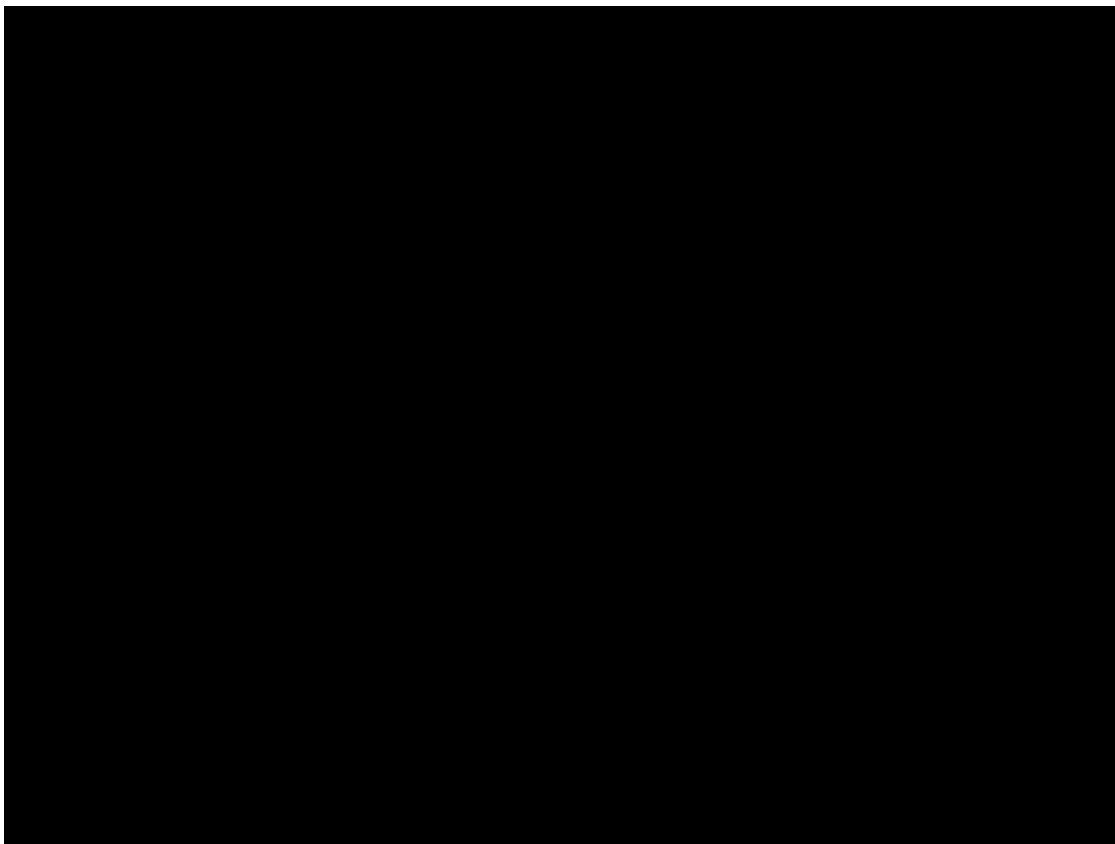


Photo 2. [REDACTED], flowering individual