

## Information for File #2013-01775-NTD

**Applicant:** City of Marinette

**Corps Contact:** Nick Domer, U. S. Army Corps of Engineers, 211 North Broadway, Suite 221, Green Bay, Wisconsin 54303; [nicholas.t.domer@usace.army.mil](mailto:nicholas.t.domer@usace.army.mil); (920) 448-2824.

**Primary County:** Marinette

**Location:** Section 9, Township 30N, Range 24E

**Information Complete On:** 7-24-2013

**Posting Expires On:** 9-20-2013

**Authorization Type:** Section 10 & 404 Letter of Permission

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, as Lake Michigan is a navigable water of the United States. Our jurisdictional review and final jurisdictional determination could result in modifications to the scope of the project's regulated waterbody/wetland impacts and any compensatory mitigation requirements identified below. An approved jurisdictional determination may be made prior to reaching a permit decision, if an approved determination is made, it will be posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

**PROJECT DESCRIPTION AND PURPOSE:** The City of Marinette has applied for a Department of the Army permit to discharge dredged and fill material into waters of the United States to nourish the beach at Red Arrow Park with sand to improve water quality and to provide a safer, more comfortable bathing experience. The project is located in the City of Marinette, Marinette County, Wisconsin (Figure 1). A grading plan has been developed for the nourishment which will steepen the beach to raise the beach above the shallow groundwater table (Figure 2). The beach sand would also be graded to allow for the infiltration of storm water that flows toward the beach from the adjacent roadway and parking lot.

**NAME, AREA AND TYPES OF WATERS (INCLUDING WETLANDS) SUBJECT TO LOSS:** Beach sand would be discharged into approximately 0.9 acre of Lake Michigan to nourish the existing beach and sand would be excavated from an additional 0.02 acre of Lake Michigan to establish a storm water infiltration swale. Following the

proposed beach nourishment, approximately 480 square feet (0.01 acre) of cordwalk paths would be constructed on the beach area and dune vegetation would be planted (Figure 3). Additional grading work, a crushed limestone path, and a rain garden are planned above the ordinary high water mark (OHWM) of Lake Michigan; however, work occurring landward of the OHWM does not require a Department of the Army permit.

ALTERNATIVES CONSIDERED: The no-action alternative would avoid impacts to waters of the United States; however the alternative was eliminated by the City of Marinette because it failed to address the need and purpose of the project. Due to the site-specific nature of the proposed project, no additional alternatives were assessed by the applicant.

COMPENSATORY MITIGATION: The purpose of the project is to mitigate the adverse effects of both storm water runoff and high bird populations on water quality at Red Arrow Park Beach. No compensatory mitigation has been proposed by the applicant.

RESPONSE TO THIS NOTICE: Interested parties are invited to submit to the Corps contact identified above written facts, arguments, or objections within 15 days of the date of this notice. These statements should bear upon the suitability of the location and the adequacy of the project and should, if appropriate, suggest any changes believed to be desirable. Comments received may be forwarded to the applicant.

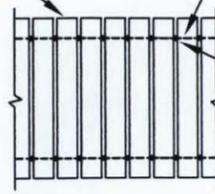
DRAWINGS: See attached.



Figure 2

TREATED 4' LONG  
2"x6", TYP.

3/16" AIRCRAFT  
CABLE STRINGER



PLAN VIEW

TREATED 4' LONG  
2"x6", TYP.

6"  
TYP.



SECTION AT  
STRINGER

CORD WALK DETAIL  
N.T.S.

1" LONG x 3/4" DIA.  
PVC SPACER  
BETWEEN 2x6's, TYP.

DRILL 3/8" DIA. HOLE  
CENTERED IN AND  
THROUGH 2"x6", TYP.

3/16" AIRCRAFT  
CABLE STRINGER

KEY



AREA OF FILL BELOW OHWM  
39,816 ft<sup>2</sup> (0.9 ACRES)



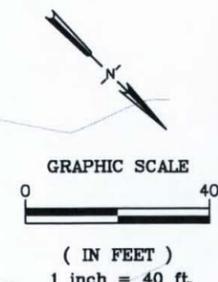
AREA OF CUT BELOW OHWM  
849 ft<sup>2</sup> (0.02 ACRES)



TOTAL AREA OF IMPACT  
52,459 ft<sup>2</sup> (1.2 ACRES)



OHWM (581.5' I.G.L.D.)



SITE LAYOUT

5308 S. 12th Street  
Shaboygan, WI 53081-8099  
Phone 920-458-6164  
Fax 920-458-0389  
www.startribmill.com

**MILLER**  
ENGINEERS  
SCIENTISTS

NO.	DATE	DESCRIPTION	BY

**BAY-LAKE RPC**  
RED ARROW PARK  
LEONARD STREET  
MARINETTE, WISCONSIN

SCALE  
HOR. 1"=40'  
VER.      

DATE  
7-22-2013

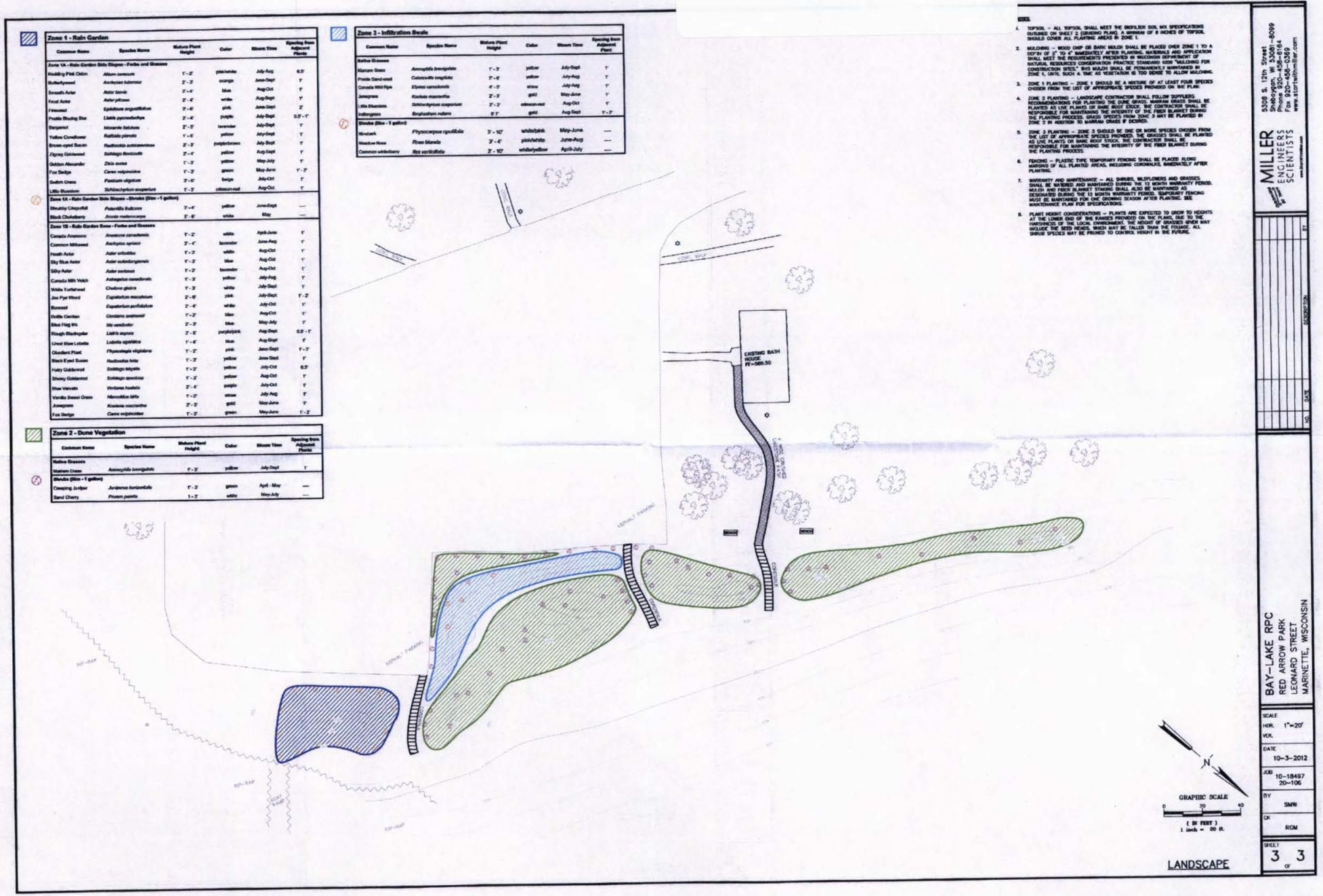
JOB  
10-18497  
20-106

BY  
TRO

CK  
PGP

SHEET  
**1**  
OF  
**1**

Figure 3



**Zone 1 - Rain Garden**

Common Name	Species Name	Mature Plant Height	Color	Bloom Time	Spacing from Adjacent Plant
<b>Zone 1A - Rain Garden Side Slopes - Fuchsias and Grasses</b>					
Healthy Pink Cullen	<i>Morone sp.</i>	1'-2'	pink/white	July-Aug	6-8'
Burkwood	<i>Andropogon scoparius</i>	2'-3'	orange	June-Sept	1'
Smooth Aster	<i>Aster laevis</i>	2'-4'	blue	Aug-Oct	1'
Fraser Aster	<i>Aster pilosus</i>	2'-4'	white	Aug-Sept	1'
Ironweed	<i>Epilobium angustifolium</i>	2'-4'	purple	June-Sept	2'
Prickly Bleeding Star	<i>Liatris pycnostachya</i>	2'-4'	purple	July-Sept	1'
Reynard	<i>Miscanthus sinensis</i>	2'-3'	tan	July-Sept	1'
Yellow Crowfoot	<i>Ranunculus abortivus</i>	1'-4'	yellow	July-Sept	1'
Brown-eyed Susan	<i>Rudbeckia hirta</i>	2'-3'	yellow	July-Sept	1'
Zigzag Goldenrod	<i>Solidago serotina</i>	2'-4'	yellow	Aug-Sept	1'
Golden Alexander	<i>Zizia aurea</i>	1'-2'	yellow	May-July	1'-2'
Fox Sedge	<i>Carex vulpinoidea</i>	1'-2'	green	May-July	1'-2'
Golden Grass	<i>Panicum virginicum</i>	2'-4'	beige	July-Oct	1'
Little Bluestem	<i>Schizachyrium scoparium</i>	2'-3'	blue-tan	Aug-Oct	1'

**Zone 1B - Rain Garden Side Slopes - Shrubs (Blue - 1 gallon)**

Sheepy Chokeberry	<i>Amelanchier canadensis</i>	7'-8'	yellow	June-Sept	---
Black Chokeberry	<i>Azara melanocarpa</i>	3'-6'	white	May	---

**Zone 1C - Rain Garden Edge - Fuchsias and Grasses**

Canada Anemone	<i>Anemone canadensis</i>	1'-2'	white	April-June	1'
Common Milkweed	<i>Asclepias speciosa</i>	2'-4'	lavender	June-Aug	1'
Heath Aster	<i>Aster heptaneus</i>	1'-3'	white	Aug-Oct	1'
Sky Blue Aster	<i>Aster schubertianus</i>	1'-3'	blue	Aug-Oct	1'
Silky Aster	<i>Aster serotinus</i>	1'-2'	lavender	Aug-Oct	1'
Canada Milk Vetch	<i>Astragalus canadensis</i>	1'-3'	yellow	July-Sept	1'
White Yarrow	<i>Chamaemelum nobile</i>	1'-2'	white	July-Sept	1'
Joe-Pye Weed	<i>Eupatorium maculatum</i>	2'-6'	pink	July-Sept	1'-2'
Bonset	<i>Eupatorium purpurascens</i>	2'-4'	white	July-Oct	1'
Orbita Garden	<i>Conium maculatum</i>	1'-2'	blue	Aug-Oct	1'
Blue Flag Iris	<i>Iris versicolor</i>	2'-3'	blue	May-July	1'
Plough Blue Poplar	<i>Larix laricina</i>	2'-6'	purple/pink	Aug-Sept	0.5'-1'
Green Blue Lobelia	<i>Lobelia spicata</i>	1'-4'	blue	Aug-Sept	1'
Quaker Plant	<i>Physocarpus opulifolius</i>	1'-2'	pink	June-Sept	1'-2'
Black-eyed Susan	<i>Rudbeckia hirta</i>	1'-3'	yellow	June-Sept	1'
Hairy Goldenrod	<i>Solidago serotina</i>	1'-2'	yellow	July-Oct	0.5'
Shiny Goldenrod	<i>Solidago canadensis</i>	1'-2'	yellow	Aug-Oct	1'
Blue Veronica	<i>Veronica hastata</i>	2'-4'	purple	July-Oct	1'
Variable Sweet Grass	<i>Habenaria varia</i>	1'-2'	white	July-Aug	1'
Juniper	<i>Juniperus communis</i>	2'-3'	gold	May-June	1'
Fox Sedge	<i>Carex vulpinoidea</i>	1'-2'	green	May-June	1'-2'

**Zone 2 - Dune Vegetation**

Common Name	Species Name	Mature Plant Height	Color	Bloom Time	Spacing from Adjacent Plant
<b>Native Grasses</b>					
Hammond Grass	<i>Ammophila brevigifolia</i>	1'-2'	yellow	July-Sept	1'
<b>Shrubs (Blue - 1 gallon)</b>					
Creeping Juniper	<i>Juniperus horizontalis</i>	1'-2'	green	April-May	---
Sand Cherry	<i>Prunus pennsylvanica</i>	1'-2'	white	May-July	---

**Zone 3 - Infiltration Swale**

Common Name	Species Name	Mature Plant Height	Color	Bloom Time	Spacing from Adjacent Plant
<b>Native Grasses</b>					
Hammond Grass	<i>Ammophila brevigifolia</i>	1'-2'	yellow	July-Sept	1'
Franks Dandelion	<i>Coltsfoot angustifolius</i>	2'-4'	yellow	July-Aug	1'
Canada Milk Vetch	<i>Astragalus canadensis</i>	1'-3'	yellow	July-Aug	1'
Juniper	<i>Juniperus communis</i>	2'-3'	gold	May-June	1'
Little Bluestem	<i>Schizachyrium scoparium</i>	2'-3'	blue-tan	Aug-Oct	1'
Indiangrass	<i>Sorghastrum nutans</i>	6'-7'	gold	Aug-Sept	1'-2'
<b>Shrubs (Blue - 1 gallon)</b>					
Windmill	<i>Physocarpus opulifolius</i>	3'-10'	white/pink	May-June	---
Hammond Grass	<i>Ammophila brevigifolia</i>	2'-4'	yellow	July-Aug	---
Common Aster	<i>Aster multiflorus</i>	2'-10'	white/yellow	April-July	---

- TOPSOIL - ALL TOPSOIL SHALL MEET THE UNIFIED SOIL MIX SPECIFICATIONS OUTLINED ON SHEET 2 (LANDSCAPE PLAN). A MINIMUM OF 6 INCHES OF TOPSOIL SHOULD COVER ALL PLANTING AREAS IN ZONE 1.
- BUILDING - WOOD CHIP OR BARK MULCH SHALL BE PLACED OVER ZONE 1 TO A DEPTH OF 2" TO 4" IMMEDIATELY AFTER PLANTING. MULCHES AND APPLICATION SHALL MEET THE REQUIREMENTS PRESCRIBED BY WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSERVATION PRACTICE STANDARD V004 "MULCHING FOR CONSTRUCTION SITES". THIS MULCH SHALL BE PERMANENTLY MAINTAINED IN ZONE 1, UNLESS SUCH A TIME AS NECESSARY IS TOO NEAR TO ALLOW MULCHING.
- ZONE 1 PLANTING - ZONE 1 SHOULD BE A MIXTURE OF AT LEAST FOUR SPECIES CHOSEN FROM THE LIST OF APPROPRIATE SPECIES PROVIDED ON THE PLAN.
- ZONE 2 PLANTING - LANDSCAPE CONTRACTOR SHALL FOLLOW SUPPLIER RECOMMENDATIONS FOR PLANTING THE SPECIES. MAINTENANCE GRASS SHALL BE PLANTED AS LIVE PLANTS OR BARE ROOT STOCK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE FIBER BASKETS DURING THE PLANTING PROCESS. GRASS SPECIES FROM ZONE 3 MAY BE PLANTED IN ZONE 2 IN ADDITION TO MAINTENANCE GRASS IF DESIRED.
- ZONE 3 PLANTING - ZONE 3 SHOULD BE ONE OR MORE SPECIES CHOSEN FROM THE LIST OF APPROPRIATE SPECIES PROVIDED. THE GRASSES SHALL BE PLANTED AS LIVE PLANTS OR BARE ROOT STOCK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE FIBER BASKETS DURING THE PLANTING PROCESS.
- FINISHING - PLANTS AND TEMPORARY FENCING SHALL BE PLACED ALONG BARRIERS OF ALL PLANTED AREAS, INCLUDING CORNERS, IMMEDIATELY AFTER PLANTING.
- IRRIGATION AND MAINTENANCE - ALL SHRUBS, WILDFLOWERS AND GRASSES SHALL BE WATERED AND MAINTAINED DURING THE 12 MONTH IMMEDIATE PERIOD. MULCH AND FIBER BASKET STAKING SHALL ALSO BE MAINTAINED AS DESCRIBED DURING THE 12 MONTH IMMEDIATE PERIOD. IMMEDIATE FENCING MUST BE MAINTAINED FOR ONE GROWING SEASON AFTER PLANTING. SEE MAINTENANCE PLAN FOR SPECIFICATIONS.
- PLANT HEIGHT CONSIDERATIONS - PLANTS ARE EXPECTED TO GROW TO HEIGHTS AT THE LOWER END OF THE RANGES PROVIDED ON THE PLAN, DUE TO THE IMPACTS OF THE LOCAL ENVIRONMENT. THE HEIGHT OF GRASSES SPECIES MAY INCLUDE THE SEED HEADS, WHICH MAY BE TALLER THAN THE FOLIAGE. ALL SHRUB SPECIES MAY BE PRUNED TO CONTROL HEIGHT IN THE FUTURE.

5508 S. 12th Street  
Shaboygan, WI 53081-4099  
Phone 920-498-6164  
www.millerengineers.com

**MILLER ENGINEERS & SCIENTISTS**

BAY-LAKE RPC  
RED ARROW PARK  
LEONARD STREET  
MARINETTE, WISCONSIN

SCALE  
HOR. 1"=20'  
VER. ---  
DATE  
10-3-2012  
JOB  
10-18487  
20-106  
BY  
SMW  
CK  
RCM  
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OF  
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