

# Appendix C – Supporting Documents

- **December 7, 2012 Letter** – from BCSRA Unit Manager George Lauinger to Bay County Executive Thomas Hickner.
- **April 29, 2013 Letter** – to Bay City State Recreation Area Stakeholders and Supporters from Michigan DNR Director Keith Creagh, Michigan DEQ Director Dan Wyant and Parks & Recreation Division Chief Ronald A. Olson.
- **Department of Environmental Quality (DEQ) Permit** – a permit issued by the DEQ allowing beach grooming and maintenance as well as implementation of phragmites control for specific areas of the shoreline area.
- **U.S. Army Corps of Engineers Permit** – similar to the DEQ permit, this permit allows beach grooming, maintenance, and phragmites control for specific area of the shoreline at Bay City State Recreation Area.



STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
LANSING



December 7, 2012

The Honorable Thomas Hickner  
County Executive of Bay County  
515 Center Ave., Ste. 401  
Bay City, MI 48708-5125

Dear County Executive Hickner:

The following is a proposal for the beach project at the Bay City State Recreation Area.

1. The Michigan Department of Natural Resources, Parks and Recreation Division (hereafter "DNR") will prepare and submit the necessary USACE and DEQ permit applications for the following:
  - a. A universally accessible boardwalk from the turf grass in front of the spray park to the "foredune", approximately centered in front of the spray park,
  - b. Boardwalk to be five foot wide with one or more required wider areas for passing, approximately 400 feet long, with no impact to surface hydrology and movement of wildlife,
  - c. No mowing of vegetation between the day use turf and the "foredune" will occur, and
  - d. Removal of upland vegetation and grooming to bare sand of a 1000 ft. of the extant "foredune" (500 ft. "north" and 500 ft. "south" of the terminus of the proposed boardwalk – "foredune" is approximately 50 ft. wide). See attached map.
2. Dependent on continued funding and legislative authority, DNR will continue to treat *Phragmites australis* along the day use shoreline as deemed necessary.
3. DNR will not be responsible for purchasing the materials or construction of the boardwalk. "Beach Wellness" funds have been offered. DNR must approve of boardwalk design prior to construction to ensure that state design standards will be met, as well as the requirements of the American's with Disabilities Act.
4. DNR will not be responsible for seasonal installation and removal of the boardwalk.
5. DNR will not be responsible for the cost of future maintenance of the boardwalk. DNR reserves the right to close or remove the boardwalk in the future if it is not maintained to acceptable safety and aesthetic standards.

6. DNR staff will groom the 1,000 ft. of "foredune", but will not be solely responsible for the initial clearing.
7. DNR will move forward with the applications without Phase 2 Management Plan approval. However, this shoreline project will be a topic for consideration in the Phase 2 Management Plan process. DNR will garner additional public input on this shoreline project during in the Phase 2 Management Plan process.

If the County is interested in forming a partnership with the DNR and other entities to pursue this proposal, please contact me. If you believe other responsible stakeholders might have an interest in forming a partnership to pursue this proposal, I encourage you to forward this letter to such parties.

You may contact me at the telephone number below, by sending an e-mail to [lauingerg@michigan.gov](mailto:lauingerg@michigan.gov), or by writing to me at Bay City State Recreation Area, 3582 State Park Drive, Bay City, MI 48706-1356.

Sincerely,



George Lauinger, Unit Manager  
Bay City State Recreation Area  
(989) 684-3020

cc/enc: The Honorable Ernie Krygier, Bay County Commissioner  
The Honorable Kim Coonan, Bay County Commissioner  
The Honorable Terry Watson, Bangor Township Supervisor  
Mr. Greg Rankin, FOBCSRA President  
Ms Cathy Washabaugh, FOBCSRA Board of Directors  
Chief Ronald A. Olson, DNR Parks & Recreation  
Ms Anna Sylvester, Northern Field Coordinator, DNR Parks & Recreation  
Mr. Ray Fahlsing, Stewardship Officer, DNR Parks & Recreation  
Ms Amy Swainston, Unit Supervisor, Bay City State Recreation Area



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
LANSING



KEITH CREAGH  
DIRECTOR

April 29, 2013

Dear Stakeholder/Supporter of the Bay City State Recreation Area:

The Department of Natural Resources (DNR) and the Department of Environmental Quality (DEQ) are pleased to provide an update to the Bay City State Recreation Area community regarding plans to enhance and improve use of the beachfront, improve future recreation potential of the area and enhance tourism. The proposal is outlined below.

**Goal 1: Enhance access to the beach area.**

The DNR Parks and Recreation Division (PRD) will handle the necessary permit applications required by both the U.S. Army Corps of Engineers and the DEQ regarding the following:

- a. Installation of a universally accessible boardwalk extending from the turf grass in front of the spray park to the foredune at/near the water's edge, approximately centered in front of the spray park.
- b. The planned boardwalk, which is at least five feet wide by approximately 500 feet long, with no impact to surface hydrology or movement of wildlife.
- c. Removal of upland vegetation and grooming to bare 1,000 feet of sand of the extant foredune; 500 feet north and 500 feet south of the terminus of the proposed boardwalk, with the foredune approximately 50 feet wide. See enclosed map.
- d. State recreation area staff will groom the 1,000 feet of foredune and the initial clearing will be completed with involvement by the community.

The plan will not involve mowing of the coastal wetland vegetation between the day use turf and the foredune. The boardwalk will be constructed by the community but with the plans being approved by the DNR to insure compliance with the Americans with Disabilities Act (ADA) standards, as well as other state design standards and requirements. "Beach Wellness" funds have been offered. The community has assumed the responsibility for the cost of future maintenance of the boardwalk and will ensure it remains in acceptable safe conditions. The DNR reserves the right to close or remove the boardwalk if it is not maintained to acceptable safety and aesthetic standards.

**Goal 2: Continue to enhance the view of the bay from the land.**

The DNR will continue to treat *Phragmites australis* along the day use shoreline as deemed necessary and based on available funding that has continued for nearly five (5) years.

**Goal 3: Develop a management plan to enhance the vitality of the beach area.**

Bay County has agreed to partner in developing a jointly funded, long-term beachfront enhancement plan. The first phase will involve assessing options that will enhance visitation to the recreation area by diversifying outdoor recreational opportunities. One of the core goals is to ensure there is a balance between natural and cultural resource preservation, while creating vibrant, sustainable recreation opportunities.

STEVENS T. MASON BUILDING • 530 WEST ALLEGAN STREET • P.O. BOX 30028 • LANSING, MICHIGAN 48909-7528  
[www.michigan.gov/dnr](http://www.michigan.gov/dnr) • (517) 373-2329

The process will include significant public input to identify interests and ideas and creatively address the goals. The process will also respect and incorporate the goals and recommendations of the Blue Ribbon Panel report to ensure the enhancements will be relevant to current and future users.

A consultant is already under contract and will begin work as soon as a formal agreement has been signed to memorialize this partnership.

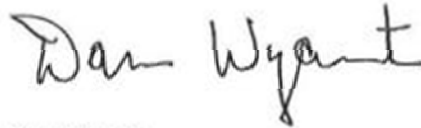
We want to thank all of the community leaders for their passion and collaboration to make the Bay City State Recreation Area a greater asset to the community. For additional information or questions, please contact Mr. George Lauinger, Bay City State Recreation Area Manager, at 989-684-3020 or [lauingerg@michigan.gov](mailto:lauingerg@michigan.gov), or by writing to Bay City State Recreation Area, 3582 State Park Drive, Bay City, Michigan 48706-1356.

Sincerely,



Keith Creagh  
Director  
Department of Natural Resources

Sincerely,



Dan Wyant  
Director  
Department of Environmental Quality

Sincerely,



Ronald A. Olson, Chief  
Parks and Recreation Division  
Department of Natural Resources

Enclosure

cc: Senator Mike Green  
Representative Charles Brunner  
Mr. Jim Sygo, Deputy Director, DEQ  
Ms. Maggie Datema, Director of Legislative Affairs, DEQ  
Dr. William E. Moritz, Natural Resources Deputy, DNR  
Mr. Trevor VanDyke, Legislative Liaison, DNR

bc: Ms. Anna Sylvester, DNR  
Mr. Ray Fahlsing, DNR  
Ms. Amy Swainston, DNR  
Mr. George Lauinger, DNR  
Ms. Vicki Anthes, DNR  
Ms. Deborah Jensen, DNR



**LETTERS MAILED TO:**

Thomas L. Hickner  
Executive for Bay County  
515 Center Avenue, Suite 401  
Bay City, MI 48708-5125

Mr. Greg Rankin, President  
Friends of the Bay City State Recreation Area  
3378 Shane Drive  
Bay City, MI 48706

Mr. Ernie Krygier, Chair  
Bay County Board of Commissioners  
Bay County Building  
515 Center Avenue, Suite 405  
Bay City, MI 48708-5125

Mr. Kim J. Coonan, Bay County Commissioner  
706 Sidney  
Bay City, MI 48706

Mr. Terry Watson, Bangor Township Supervisor  
180 State Park Drive  
Bay City, MI 48706-1763

Ms. Cathy Washabaugh, Board of Directors  
Friends of the Bay City State Recreation Area (FOBCSRA)  
232 Athlone Beach  
Bay City, MI 48706

Ms. Laura Ogar, Director  
Bay County Environmental Affairs and Community Development  
Bay County Building  
515 Center Avenue, Suite 501  
Bay City, MI 48708-5124

DEQ Permit

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY PERMIT

MDNR Parks & Recreation
Bay City State Recreation Area
3582 State Park Drive
Bay City, MI 48706

Permit No. 04-09-0040-P
Issued October 14, 2004
Extended
Revised
Expires October 14, 2007

Under the provisions of the Natural Resources and Environmental Protection Act 451, PA 1994, as amended and specifically:

- Part 301 Inland Lakes and Streams
Part 315 Dam Safety
Part 325 Great Lakes Submerged Lands
Part 323 Shorelands Protection and Management
Part 303 Wetland Protection
Part 353 Sand Dune Protection and Management
Part 31 Floodplain/Water Resources Protection

Permission is hereby granted, based on permittee assurance of adherence to State requirements and permit conditions to:

Permitted Activity:
Mechanically grade, disc, rake and groom approximately 2.9 acres of coastal marsh waterward of the OHWM of Saginaw Bay for expansion of the existing northerly swimming beach (625 feet of lake frontage); construct and annually maintain two sand access paths extending 100 feet waterward of the shoreline by 10 feet wide by 16 inches high; mow to a height of no lower than 18 inches 265 feet of shoreline adjacent to the beach area and up to 450 landward of the shoreline; cease grooming and mowing activities in Area 2 south of the lagoon outlet as authorized by DEQ Permit No. 02-09-0014-P; and, conduct a Phragmites Control and Demonstration Project on the remaining frontage measuring 3500 feet by 300 feet landward of the shoreline.

Water Course Affected: Lake Huron
Property Location: Bay County, Bangor Township, Section 29
Subdivision, Lot Town/Range 15N, 5E Property Tax No. 09-010-032-200-005-00

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee in exercising the authority granted by this permit shall not cause unlawful pollution as defined by Part 31, Floodplain/Water Resources Protection of the Natural Resources and Environmental Protection Act 451, PA 1994, as amended.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the plans and the specifications submitted with the application and/or plans and specifications attached hereto.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. Permittee shall notify the Department of Environmental Quality within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached, preaddressed post card to the office addressed thereon.
J. This permit shall not be assigned or transferred without the written approval of the Department of Environmental Quality.
K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this permit is granted.
L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:



Authority granted by this permit does not waive permit requirements under the Natural Resource and Environmental Protection Act, Part 91 - Soil Erosion and Sedimentation Control, or the need to acquire applicable permits from the County Drain Commission. Contact Mr. Mike Rivard, Bay County Soil Erosion Agent, at 989-895-4128, for more information.

Authority granted by this permit does not waive any jurisdiction of the U.S. Corps of Engineers or the need for a federal permit, if required.

Permitted activities shall be conducted in accordance with the Permittee provided plans, copy attached. Any modification or revision to the approved plans and/or specifications must be approved in writing by the Department of Environmental Quality.

All collected vegetation and debris shall be disposed of properly outside of any wetland or surface water so as to prevent the propagation of non-native vegetation and protect water quality.

All grading/fill material shall be obtained on-site from the beach area unless use of other material is specifically requested and approved by this office.

Activities authorized by Permit No. 02-09-0014-P in areas south of the lagoon outlet are superceded by conditions of this permit upon implementation of any of above listed Permitted Activity.

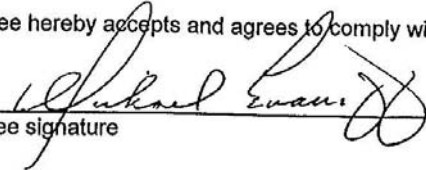
The permittee shall, as a primary condition to the issuance of this permit, mitigate the impacts of grooming and grading 2.9 acres of coastal wetland by implementing a Phragmites Control and Demonstration Project on the southerly 3500 feet of Bay City Recreation Area frontage landward of the shoreline, a 24.1 acre area approximately 300 feet wide. Grooming, tilling or otherwise removing vegetation in this area is prohibited except as prescribed in the Phragmites Control and Demonstration Plan.

A detailed Phragmites Control and Demonstration Plan shall be provided for review and approval by this office within 60 days of acceptance of this permit. The goal of the plan is to restore native wetland plant populations within coastal areas of the Recreation Area and serve as an educational tool to restore native plant populations on private shoreline property. The Plan shall include an existing species inventory (transects that identify species at 250 feet intervals are recommended) and treatment methods to encourage growth of native plant populations. Monitoring and spot treatment as well as broad area herbicide treatment will be used to nurture growth of native species. The approved control plan shall be implemented within the same growing season as permitted activities and continued for the duration of permitted activities or until native plant species are restored with a minimum implementation period of 5 years.

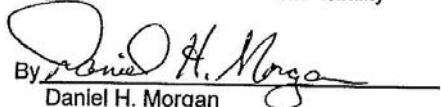
The permittee shall, as a primary condition to the issuance of this permit, submit an annual monitoring report (with photographs of the developing wetland) detailing the development of the restored wetland. Items to be included in the report should include (but are not limited to) plant community development, wildlife use, problems encountered and suggestions for their resolution. For public educational purposes, a minimum of two summary reports (interim and final report) shall be provided of findings and recommended control techniques. This report shall be prepared by a qualified wetland scientist. The report shall be sent to the District Supervisor, Land and Water Management Division, 503 North Euclid Avenue, Suite 1, Bay City, Michigan 48706. Please reference the permit number on the monitoring report.

This permit shall become effective on the date of signature by a Department of Environmental Quality officer. Upon signing by the permittee named herein, this permit must be returned to Land and Water Management Division, Department of Environmental Quality, 503 N. Euclid, Suite 1, Bay City, Michigan, 48706 for final execution.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

  
Permittee signature \_\_\_\_\_ Date 10/13/04

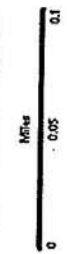
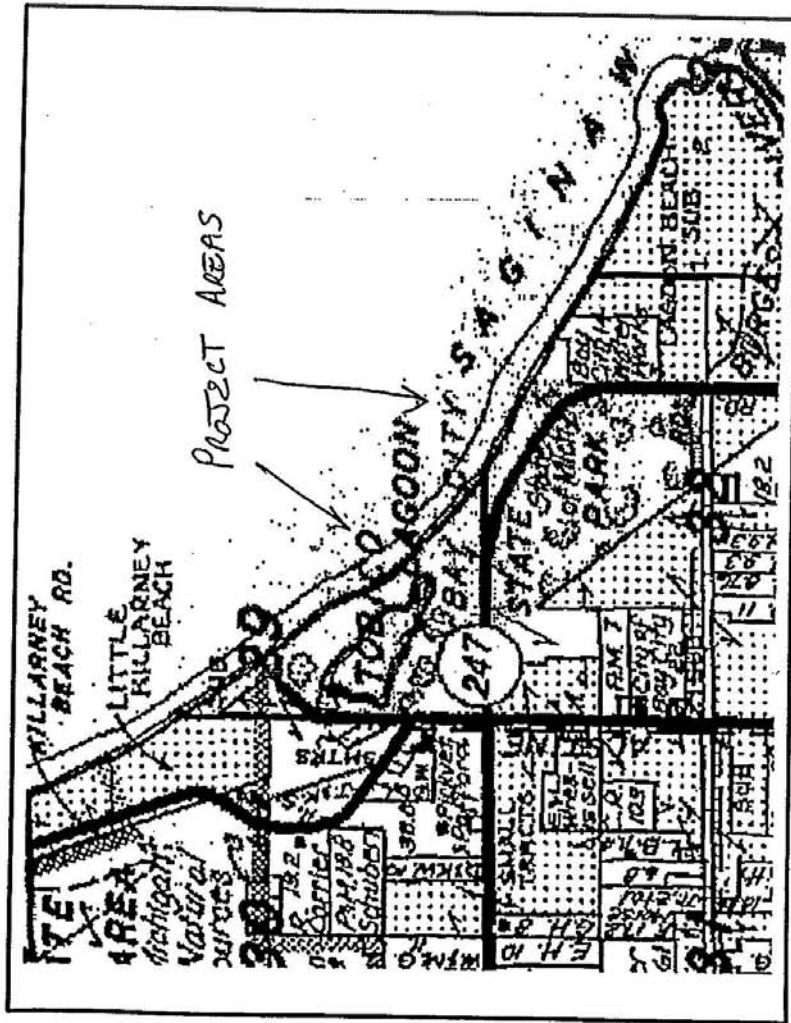
Steven E. Chester, Director  
Department of Environmental Quality

By   
Daniel H. Morgan  
District Supervisor  
Land and Water Management Division

- cc: Bay CEA
- Bangor Township
- Mr. Stanley Cowton, Jr., USACE - Detroit (File 04-016-132-0)
- Mr. Bill Leiteritz, USACE - Saginaw Field Office
- Mr. Martin Janereth, DEQ
- Ms. Kimberly Fish, DEQ

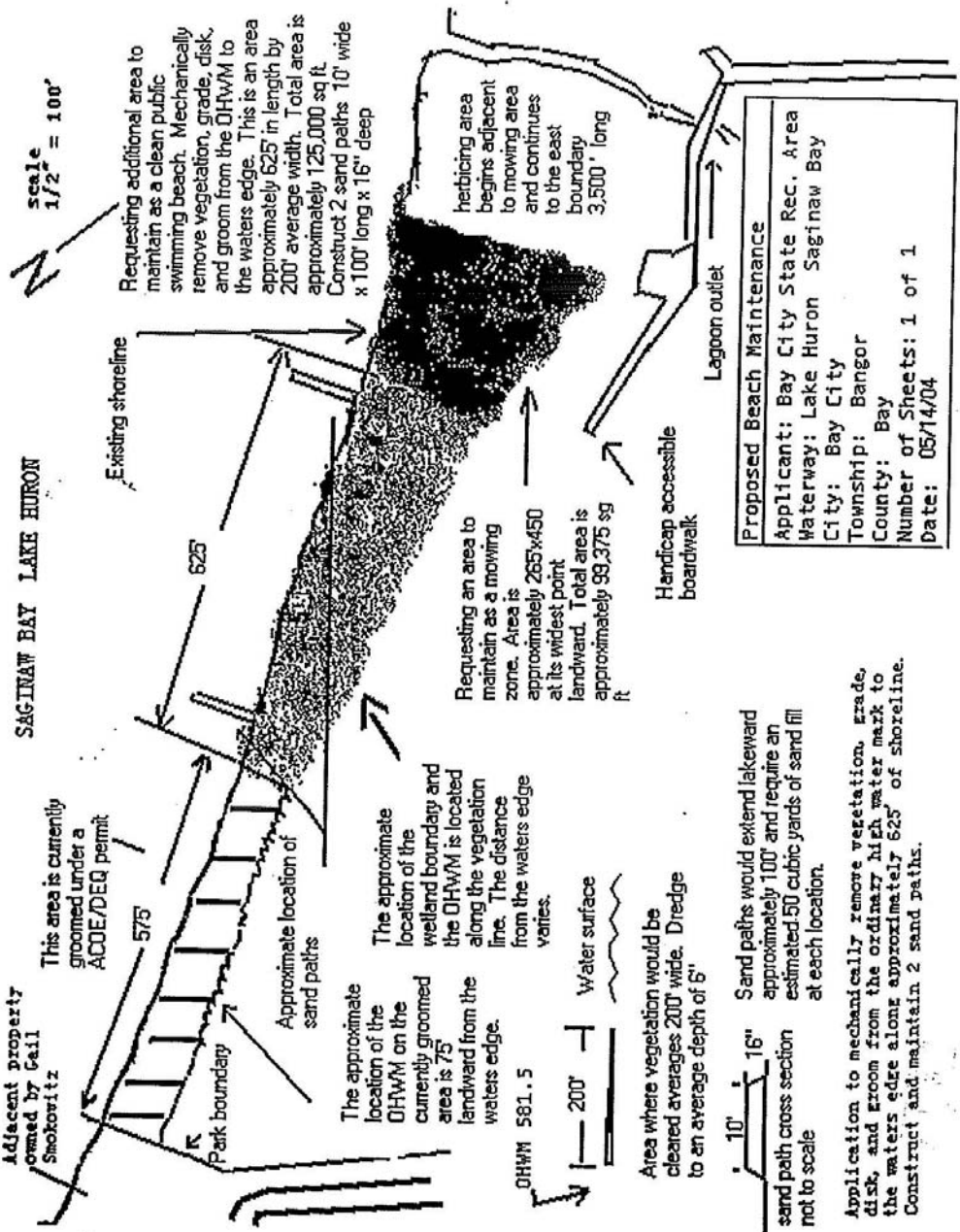
ESRI ArcExplorer 2.0

### Bay City State Recreation Area - Site Location Map



RECEIVED  
MAY 26 2004  
MDEQ-GLMD  
Permit Consolidation Unit

Monday, May 17 2004

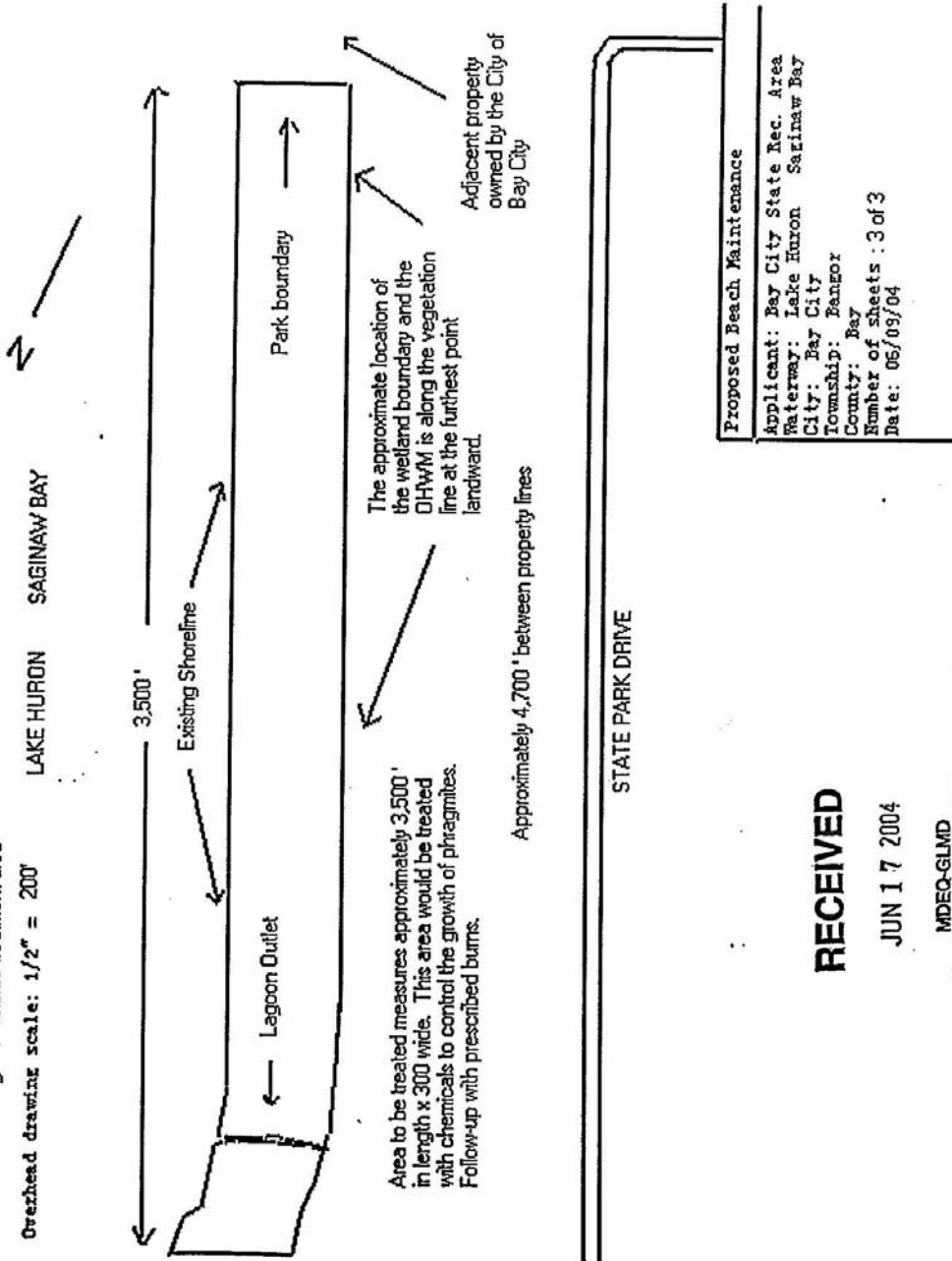


**Proposed Beach Maintenance**  
 Applicant: Bay City State Rec. Area  
 Waterway: Lake Huron Saginaw Bay  
 City: Bay City  
 Township: Bangor  
 County: Bay  
 Number of Sheets: 1 of 1  
 Date: 05/14/04

**RECEIVED**  
 JUN 17 2004  
 MDEQ-GLMD  
 Permit Consolidation Unit

Overhead drawing of herbicide treatment area

Overhead drawing scale: 1/2" = 200'



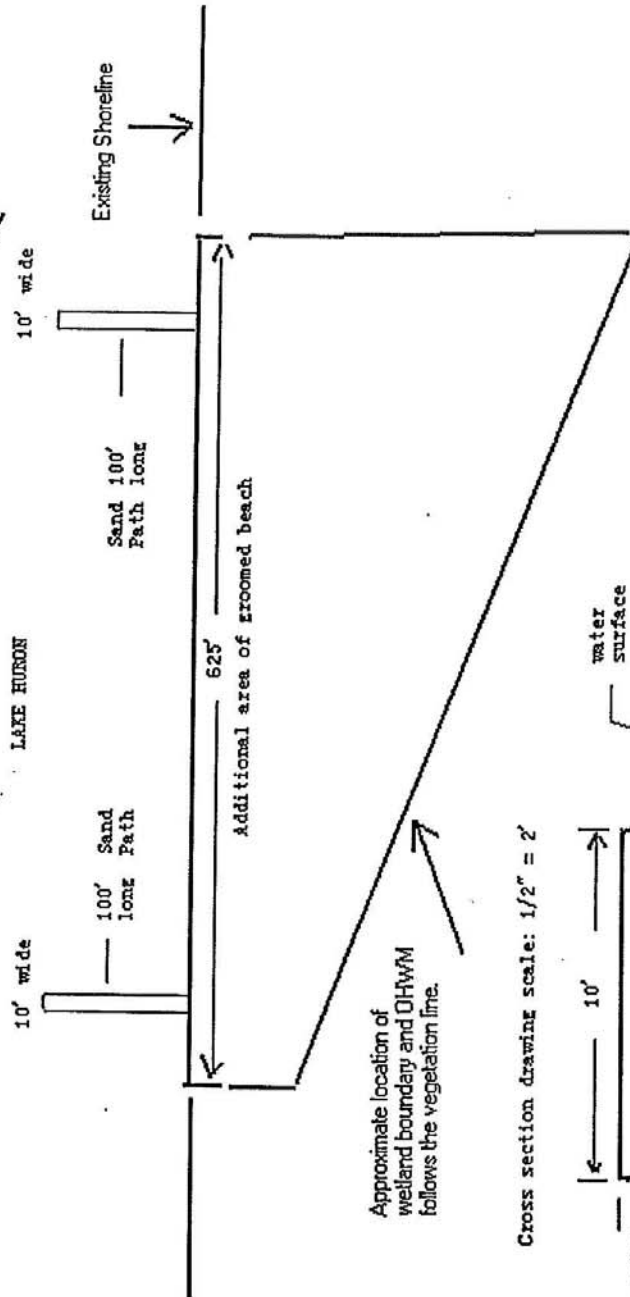
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JUN 17 2004

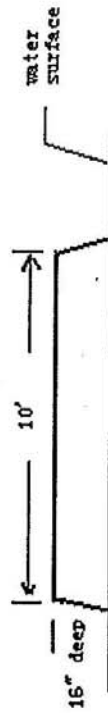
MDEQ-GLMD  
Permit Consolidation Unit

**SAND PATH OVERHEAD AND CROSS SECTION VIEWS**

Overhead drawing scale: 1/2" = 50'



Cross section drawing scale: 1/2" = 2'



**Proposed Beach Maintenance**

Applicant: Bay City State Rec. Area  
 Waterway: Lake Huron Sarinaw Bay  
 City: Bay City  
 Township: Pansor  
 County: Bay  
 Number of sheets: 2 of 2  
 Date: 06/09/04

**RECEIVED**

JUN 17 2004

MDEQ-GLMD  
 Permit Consolidation Unit

## U.S. Army Corps of Engineers Permit

**DEPARTMENT OF THE ARMY**  
DETROIT DISTRICT, CORPS OF ENGINEERS  
BOX 1027  
DETROIT, MICHIGAN 48231-1027

January 31, 2005

IN REPLY REFER TO

Engineering & Technical Services  
Regulatory Office  
File No. 04-016-132-0

Michael Evanoff  
Bay City State Recreation Area  
3582 State Park Drive  
Bay City, Michigan 48706

Dear Mr. Evanoff:

Enclosed is your Department of the Army Permit No. 04-016-132-0. We have reviewed and approved the draft compensation plan, as required in Special Condition #4. You may now proceed with the activities authorized by this permit.

We invite your special attention to Paragraph 2.a. under Further Information, which states that, "This permit does not obviate the requirement to obtain other Federal, state, or local authorizations required by law." We suggest that you contact the Michigan Department of Environmental Quality (MDEQ), Lansing, Michigan, telephone: 517-373-9244.

Please remember the requirement to inform this office immediately upon commencement of construction by calling Robert Tucker, Chief, Enforcement Section, at (313) 226-6812. On completion of the work, fill in and return the enclosed COMPLETION REPORT.

COMPLETION REPORT

CELRE-RG-B

Commander  
U.S. Army Engineer District, Detroit  
ATTN: Regulatory OFFICE  
Box 1027  
Detroit, Michigan 48231-1027

Dear Sir:

You are hereby notified that work under Department of the Army Permit No. 04-016-132-0, issued to the Bay City State Recreation Area to groom additional beach area in Lake Huron (Saginaw Bay) at Kawkawlin, Michigan (Section 24, Township 15N, Range 4E) was completed in accordance with the permit on:

\_\_\_\_\_  
(Date work completed)

\_\_\_\_\_  
(Permittee's Signature)

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**IMPORTANT**

1. This COMPLETION REPORT MUST BE MAILED to the District Engineer within 10 days after completion of work covered by the FEDERAL PERMIT to insure an accurate Government record of data affecting navigation.
2. Where dredging soundings are made of projects which include dredging, a copy of the soundings should accompany this report. If the soundings are measured from the water surface and have not been corrected to International Great Lakes Datum plane, the hour and date soundings was made should be noted on sounding reports.

NOTE: Although permits authorizing structures carry an expiration date, REPAIRS that conform to the permit plans are also within the scope of the authorization. Therefore, it is recommended that expired permits NOT be destroyed, but retained as proof that the work to be repaired has received the Corps of Engineers' approval.

NCE FL 191  
R 3 April 1989

(Edition of 23 July 1981 is obsolete)



You are responsible for assuring that your contractor abides by the conditions of this permit. For that purpose, we are enclosing an unsigned copy of the permit, which you may wish to furnish for their use. If you have any questions, please contact Stanley F. Cowton, Jr. at the above address or telephone (313) 226-2219. Please refer to File Number: 04-016-132-0.

Sincerely,

ORIGINAL SIGNED BY

John Konik  
Chief, Regulatory Office  
Engineering and Technical Services

Enclosures

Copy Furnished

Enforcement Branch  
MDEQ, Saginaw Bay District Office, (04-9-40)  
Bay City Field Office, w/encl. ✓  
NOAA, w/print

## DEPARTMENT OF THE ARMY PERMIT

Permittee Bay City State Recreation Area

Permit No. 04-016-132-0

Issuing Office U.S. Army Engineer District, Detroit

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

### Project Description:

Periodically grade, disc, rake and/or groom, by mechanical means, an area approximately 625 x 200 feet or 2.9 acres of coastal fringe marsh waterward of the Ordinary High Water Mark (OHWM) elevation of 581.5 feet International Great Lakes Datum (IGLD) 1985 of Lake Huron (Saginaw Bay) to a depth of approximately 6 inches. The purpose of the proposed work is to facilitate the expansion/enlargement of and access to an existing swimming beach. Discharge approximately 100 cubic yards of beach sand obtained on-site in two (2) areas 100 x 10 feet as shown on the attached plans waterward of the shoreline to create access paths to open water for swimmers.

Project Location: in Lake Huron (Saginaw Bay), offshore property in Section 24, Township 15N, Range 4E, between 2684 and 2469 River Road Bay City, Michigan.

### Permit Conditions:

#### General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2014. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

ENG FORM 1721, Nov 86

EDITION OF SEP 82 IS OBSOLETE.

(33 CFR 320-330)

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. Your signature, as permittee, indicates that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit.
2. All debris resulting from the permitted activity shall be removed from the shoreline and prevented from entering any waterway or wetland area.
3. The permittee shall control purple loosestrife (*Lythrum salicaria*), should it appear within the improvement area. Control shall be by hand or use of an approved herbicide.
4. a. The permittee shall prepare a compensation plan for the functional improvement of wetlands adjacent to the area to be lost as a result of project construction. The compensation plan shall be submitted to this office for approval within 60 days of the date of issuance of this permit, and must include all elements detailed in the document entitled Guidance to Applicants for Mitigation. This office will review these plans for the appropriateness to replace wetlands lost or offset impacts of the project, the enforceability of the success criteria, and the threshold values for success. If we approve the plan, we will provide you with a written notice that the activities authorized by this permit may proceed. Also, if we approve the plan, we will not accept responsibility for the efficacy of the design or construction to ensure that the efforts will be successful at the end of the monitoring period; these are solely the responsibility of the permittee.  
b. The monitoring period for success will be determined by this office after review of the improvement plan. Once construction of the improvement areas has been completed, should we determine that the improvement efforts are not likely to succeed at some time during the monitoring period, and/or if we determine that the improvement has not been successful at the end of the monitoring period, we will notify you, and it will be your responsibility to design and conduct any remedial efforts, including starting over, to achieve success by the end of an additional monitoring period to be assigned by this office. If we determine that the improvement has been successful, we will notify you that you have fulfilled these permit conditions.  
c. Depending on your response to IX.C. of the Guidance document, this office reserves the right to require establishment of escrow, letter of credit, bond, or other such means to ensure that the improvement is performed initially and that any necessary remediation is conducted so as to achieve a determination of success by this office.
5. The permittee understands and agrees that the area designated as Area 2 in Permit No. 90-016-117-6 will be preserved in its natural state. The permittee has voluntarily agreed to forego this portion of the aforementioned authorization in consideration of this authorization. No attempt shall be made to groom or create a recreational beach in that portion of the Bay City State Recreation Area.
6. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**Further Information:**

1. Congressional Authorities: You have been so authorized to undertake the activity described above pursuant to:  
 Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).  
 Section 404 of the Clean Water Act (33 U.S.C. 1344).  
 Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

ENG FORM 1721, Nov 86

EDITION OF SEP 82 IS OBSOLETE.

(33 CFR 320-330)

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modifications, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance of the information you provided.

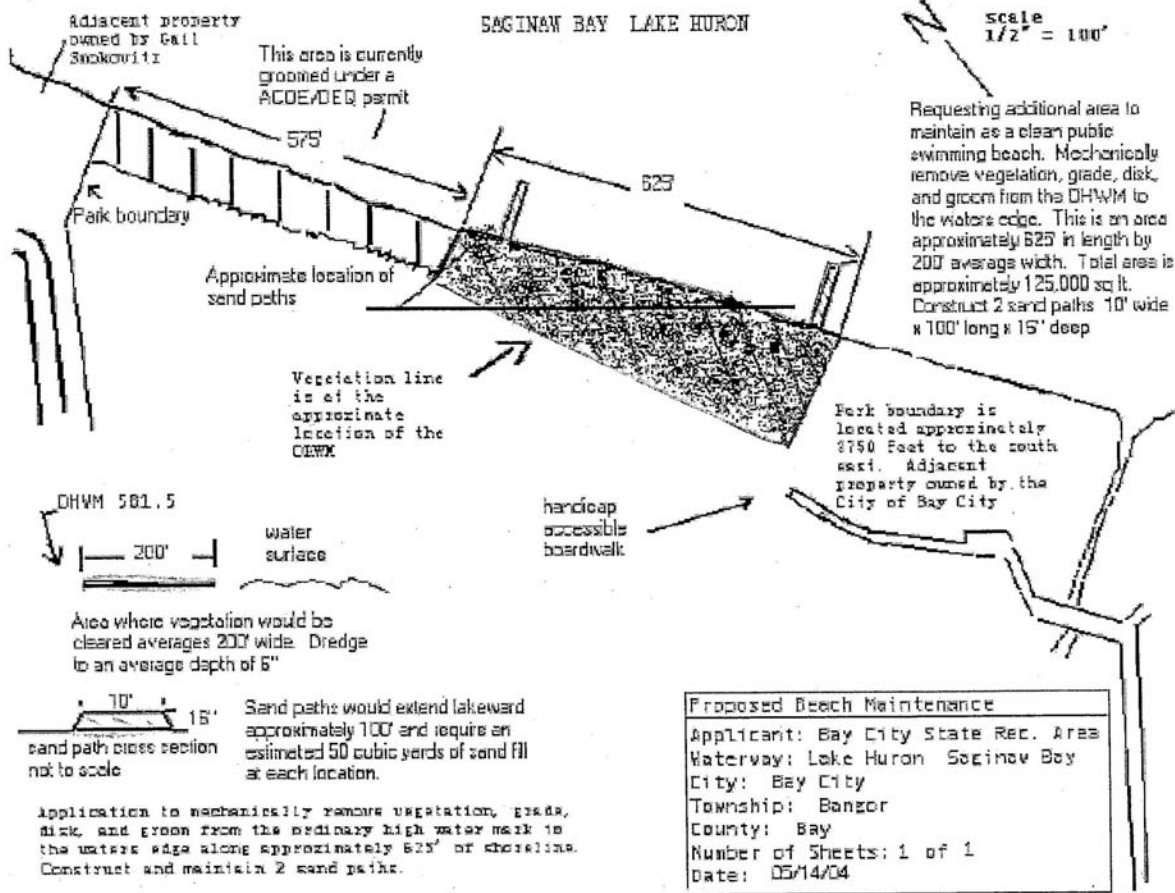
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

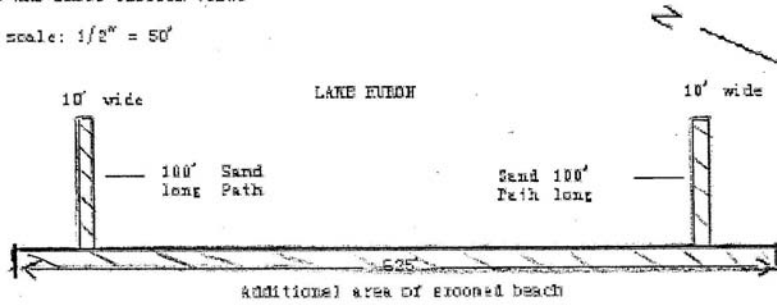




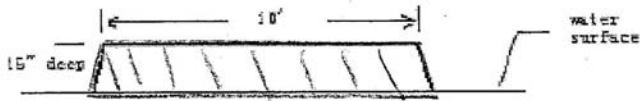
NUMBER: 04-016-132-0/04-9-40  
 BAY CITY STATE REC AREA-NORTH  
 BEACH ADDITIONAL GROOMING  
 BY: MDNR Parks and Recreation  
 Saginaw Bay, Kawkawlin  
 BAY County, MICHIGAN  
 SHEET 2 OF 3

SAND PATH OVERHEAD AND CROSS SECTION VIEWS

Overhead drawing scale: 1/2" = 50'



Cross section drawing scale: 1/2" = 2'



NUMBER: 04-016-132-0/04-9-40  
 BAY CITY STATE REC AREA-NORTH  
 BEACH ADDITIONAL GROOMING  
 BY: MDNR Parks and Recreation  
 Saginaw Bay, Kawkawlin  
 BAY County, MICHIGAN  
 SHEET 3 OF 3

Proposed Beach Maintenance
Applicant: Bay City State Rec. Area
Waterway: Lake Euron Saginaw Bay
City: Bay City
Township: Bangor
County: Bay
Number of sheets: 2 of 2
Date: 06/09/04

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Richard Lauzon  
(PERMITTEE)

10/13/24  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

\_\_\_\_\_  
DISTRICT ENGINEER  
Donald P. Lauzon  
Lieutenant Colonel, U.S. Army

\_\_\_\_\_  
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)

2024 OCT 25 PM 2:17



**Wetland Compensation Plan – Phragmites Control and Demonstration  
Bay City Recreation Area – Day Use Shoreline  
Department of the Army Permit No. 04-016-132-0.**

The following actions will taken by the Department of Natural Resources, Parks and Recreation Bureau as required compensation for actions permitted under Department of the Army Permit No. 04-016-132-0.

**BACKGROUND**

*Phragmites australis* is a large (10-14 ft.) perennial rhizomatous grass. It is found on every continent except Australia. Non-native invasive genotype(s) were introduced to North America. Unlike native phragmites strains, these aggressive non-native genotype(s) invade Michigan wetlands and form near mono-typic stands. Complex and diverse native wetland ecosystems are simplified and diminished.

Recent low water conditions in Saginaw Bay have created a broad wetland shoreline that extends the length of the Bay City Recreation Area day use area. This shoreline area should support a diversity of native wetlands plants, but is currently dominated by near single species stands of phragmites.

**GOALS AND OBJECTIVES**

The primary goals are to restore native wetland plant populations to approximately 35 acres of shoreline wetland (Map Areas C, D, and E) and approximately 8 acres of adjacent wetlands (Map Area F) by means of phragmites control and to serve as a demonstration project for the restoration of native plant populations on private shoreline property. It is important to note that should high water conditions return to Saginaw Bay, much of the compensation area will be underwater and may not support shoreline wetland vegetation during these conditions.

**RESTORATION PLAN - NARRATIVE**

Phragmites will be sprayed in late August or early September of 2005 with an aquatic formulation of glyphosate. (Glyphosate is the active ingredient in Roundup and Rodeo). A DEQ permit will be required to spray over water. Glyphosate provides excellent phragmites control when applied in late summer. It is ineffective at other times of the year.

For dense solid stands of phragmites the herbicide will be applied by means of helicopter. Herbicide can be applied very accurately with a helicopter. Very little herbicide spray contacts non-target vegetation either beneath the solid phragmites or outside the spray block. Areas greater than 0.25 acres with little or scattered phragmites will be avoided and treated by ground based means.

Sparse and isolated phragmites stands will be treated from a ground based marsh vehicle. Scattered individual stems will be treated by hand using techniques that will confine herbicide to only the target species thereby avoiding harm to non-target vegetation.

No sowing or planting will be done as a part of this project. The shoreline area at the Bay City Recreation Area should have a rich and diverse seed bank of native Great Lakes wetland-shoreline vegetation. These native plants are expected to germinate and quickly dominate the site once the phragmites is controlled.

The non-native invasive purple loosestrife and invasive reed canary grass will be treated along with the phragmites.

The winter or spring following the initial herbicide treatment the dead standing phragmites will be burned. The primary purpose of this prescribed burn will be to remove the dense dead phragmites. This will allow increased access to the area for treatment of any re-sprouting phragmites or phragmites missed by the initial herbicide application. Burning significantly increases the effectiveness of follow-up treatments and reduces the cost. In the event that conditions required for the prescribed burn do not materialize. Phragmites stands may be mowed once to reduce dead material and improve access. We do not expect that additional prescribed burning or mowing will be needed after this initial treatment.

Each subsequent year (through 2010), late summer follow up herbicide "spot treatment" will be needed to control re-invading phragmites. Without annual follow-up treatment the phragmites stands may rebound to pre-treatment densities in as little as two to three years.

The native vegetation that will replace the phragmites is much more desirable. It should provide superior wildlife habitat. The expected native vegetation is much shorter than the 12-14 ft. tall phragmites. Improved views of Saginaw bay will be an added benefit of the project.

Should the water level of Lake Huron and Saginaw Bay rise significantly during the project period, much of the project area may be flooded and no longer support shoreline vegetation.

We will notify Mr. Robert Tucker at least 72 hours prior to the start of the initial spraying of glyphosate and the anticipated window for completing the burns associated with the compensation plan. His telephone number is: (313) 226-6812.

#### **EDUCATIONAL OPPORTUNITIES**

The Michigan Department of Natural Resources recognizes the importance of public outreach in gaining understanding of environmental issues and our stewardship efforts.

Various educational programs are held at the Saginaw Bay Visitors Center located within the Bay City State Recreation Area. The theme of the visitor center programming is the ecology of the Great Lakes coastal wetlands of the Tobico Marsh and Saginaw Bay. These programs are instrumental in inspiring awareness and appreciation for the natural resources within the Saginaw Bay Watershed. Programs are conducted that teach visitors about invasive species and what efforts are being undertaken to improve our wetlands. Over 27,000 school children and educators attended these programs this past year. We anticipate that during the course of the project implementation period approximately 25% of children attending these programs will participate in guided field hikes. These hikes will include a tour of the project area and interpretive lecture from a staff tour guide. During the summer months campground programs are conducted by the visitor center staff each week. The parks natural resources and wetland improvement efforts will be included as part of the programming. The park is currently seeking grant funding to construct a Bay Walk Trail in the picnic area that would run parallel to the project area. This trail would include interpretive signage developed by the MDNR Office of Communications staff that would show visitors the reasons for our stewardship efforts and the progression of the project area. Additional graphic panels will be developed for use in visitor center and kiosk displays. The phragmites control and demonstration project will be an excellent educational tool to foster stewardship among private property owners, special interest groups and community leaders.

#### **RESTORATION PLAN - TIME LINE**

July, August 2005

Conduct baseline monitoring

Late August early September 2005

Aerial and ground based herbicide (glyphosate) treatment of phragmites, Areas B, C, D, E, F

Winter 2005 – Spring 2006

Prescribed burn of phragmites stands (Alternatively mowing at 18" height)

Summer 2006, 2007, 2008, 2009, 2010

Monitoring

Late August early September 2006, 2007, 2008, 2009

Ground based herbicide (glyphosate) treatment of phragmites, Areas B, C, D, E, F

#### **MAP OF COMPENSATION AREA**

Area A (1.9 ac) – New groomed beach area

Area B (1.9 ac) – New mowed area

Area C (9.1 ac) – Old mitigation area

Area D (5.6 ac) – Old mowed (18") area

Area E (20.9 ac) – Solid phragmites area

Area F (12.4 ac) – Lagoon scattered phragmites area

## **BASELINE CONDITION**

The compensation area is located within the day use area of the Bay City Recreation Area. The compensation area is wetland shoreline between the Ordinary High Water elevation and the current lake level of Saginaw Bay, and the wetland areas between the encircling hiking trail and the waters of the day use lagoon (see map of compensation area).

Baseline conditions of vegetation species composition and coverage will be documented by means of point intercept transects. Twelve parallel transects will be placed across areas C through E at a systematic spacing of 75 meters (approx. 246 feet) with a random start along a baseline. Three parallel transects will be placed across area B at a spacing of 20 meters (approx. 66 feet). Transects will run perpendicular to a 1,100 meter-long baseline that follows the shoreline on the landward side of Areas B, C, D, and E. Each transect in Area B will be 75 meters long and each transect in Areas C-E will be 130 meters long. In addition, 5, 20-meter long point-intercept transects will be randomly established in Area F. At each 1-meter interval along each transect, all plant species with a vegetative portion of the plant intersecting the point will be tallied. Depth of surface water will be recorded at every tenth point (10-meter intervals) along each transect. These data will be used to estimate percent coverage of plants by species across the site and within each area, and to provide a baseline of surface water depths across the site.

In conjunction with vegetation data collection, all bird, mammal, reptile, and amphibian species observed within areas B-F will be noted.

Five photographic monitoring stations (photo-points) will be installed: one in Area B, one in Area C, one in Area D, and two in Area E. Photo-points will be located at locations that are expected to show vegetation change as a result of this compensation work. At least one color digital photograph (3 million pixel or greater resolution) will be taken at each point.

All baseline data described above will be collected in summer 2005 prior to initiating treatments in the compensation area.

## **MONITORING PLAN**

In summer 2006, 2007, 2008, 2009, and 2010, repeat photography will be taken at each photo-point established in 2005. The point-intercept vegetation transects established in 2005 will be repeated in summer 2006, 2007, 2008, and 2010. This point intercept technique is described in detail in Elzinga et al. (1998, p 182 – 184). Wildlife observations will be recorded during vegetation monitoring activities.

## PERFORMANCE STANDARDS

The compensation project will be considered successful if phragmites coverage is reduced to less than 15% of total vegetative cover as measured by the monitoring protocol.

### COST ESTIMATE (5 yr project)

#### Phragmites Control:

1. Aerial herbicide application 2005	
a. Helicopter application (areas D and E: 26.5 ac)	\$3,300
b. Herbicide & Additives	\$1,000
2. Ground based herbicide application 2005 (Includes chemicals)	\$10,000
3. Prescribed burn	\$3,500
4. Ground based herbicide application years 2006-2010 \$7,000 per year, including chemicals	\$35,000
5. Monitoring (18 days @ \$50/hour + \$1,800 Travel)	\$9,000
6. Staff time (24 days @ \$50/hour)	\$9,600
7. Staff travel (12 trips, round trip from Lansing)	\$875
Subtotal Phragmites Control:	\$72,275

#### Phragmites Education/Outreach:

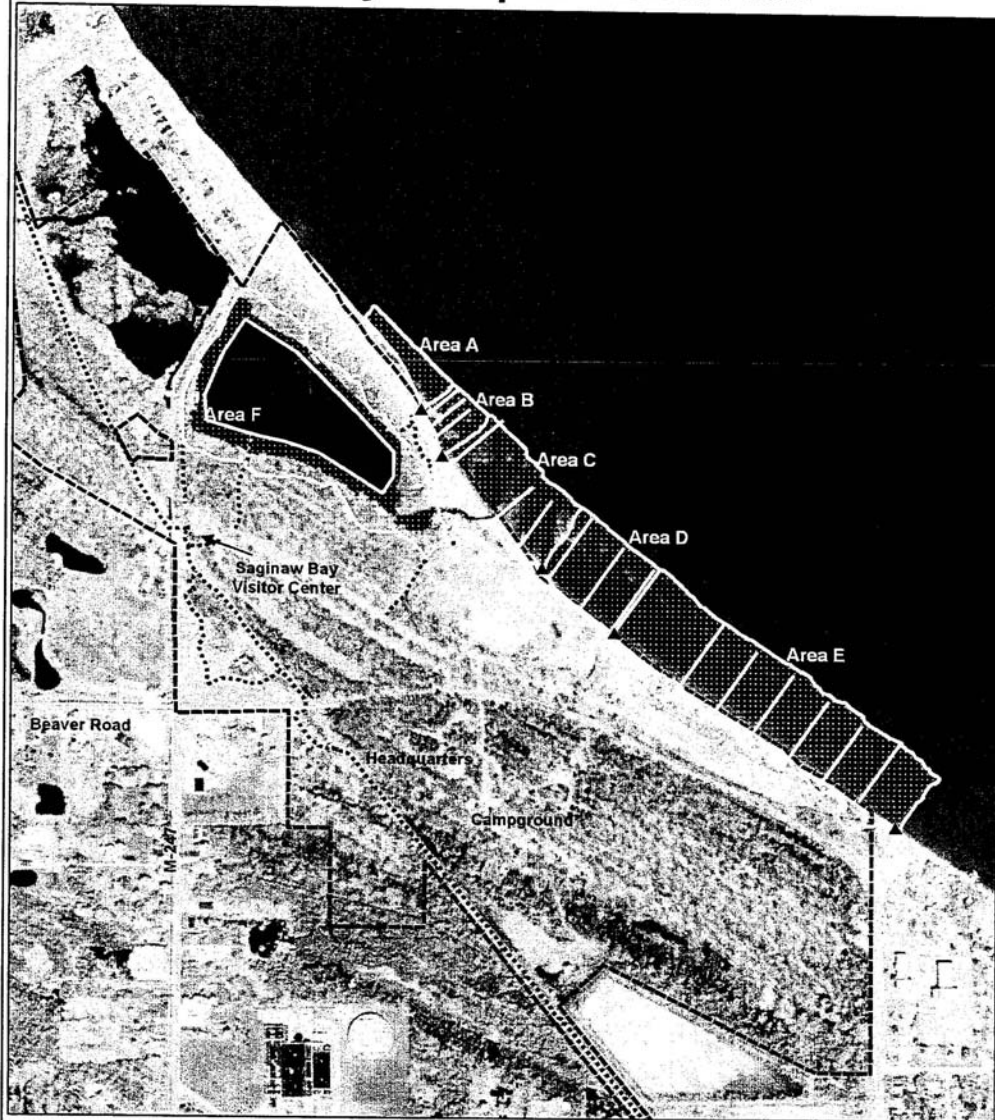
1. 700 hours of field tours each year @ \$10.70 per hour x 5 years	\$37,450
2. 8 hrs program development @ \$32.94 per hour x 5 years	\$1,318
3. 3 – 30"x 48" vinyl site signs (3-5 years life) - \$325 ea.	\$975
4. Visitor center - permanent interpretive panel with plant sample	\$600
5. Permanent 18"x24" outdoor frame style	\$500
6. 24 hours display development @ \$50/hour	\$1,200
Subtotal Phragmites Education/Outreach:	\$42,043

**Total Estimated Value of Compensation: \$114,318**

#### Reference:

Elzinga, C. L., D. W. Salzer, and J. W. Willoughby. 1998. Measuring and Monitoring Plant Populations. BLM Technical Reference 1730-1. U. S. Department of the Interior, Bureau of Land Management, National Applied Resource Science Center: Denver, CO. 477 pp.

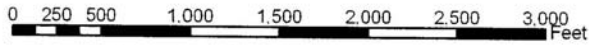
# Bay City Compensation Plan



▲ Area Corner Monuments  
 Monitoring Transects



Areas  
 Recreation Area Boundary



Corner Points & Transect Start Points  
 were set in field and GPS'ed on 12/9/04  
 Prepared: December 10, 2004 (GRP)

## Bay City Recreation Area Compensation Plan

### Vegetation Monitoring Transect Starting Points

Transect ID	Latitude	Longitude
b1	43.67166190690	-83.90690540954
b2	43.67150862317	-83.90677823897
b3	43.67134900739	-83.90667019189
c1	43.67085263771	-83.90649788588
c2	43.66982667037	-83.90588663287
c3	43.66939709391	-83.90518452106
d1	43.66912467872	-83.90433624284
d2	43.66865523804	-83.90367175781
d3	43.66830507105	-83.90302834216
e1	43.66744369835	-83.90157449855
e2	43.66700274847	-83.90087802881
e3	43.66663249533	-83.90010683720
e4	43.66621095032	-83.89937770034
e5	43.66582827763	-83.89867087886
e6	43.66557088106	-83.89783587457
f1	43.67113032849	-83.91073968542
f2	43.67191288248	-83.91177207531
f3	43.67264636647	-83.90932253567
f4	43.67061209542	-83.90697006872
f5	43.67027662629	-83.90791437883

### Inland Corners of Treatment Areas

Corner of	Latitude	Longitude
A and B	43.67178019814	-83.90698376981
B and C	43.67104671550	-83.90655280486
C and D	43.66928872189	-83.90446573214
D and E	43.66826512514	-83.90295297453
South end of E	43.66516795694	-83.89704582080