



# Huron Pines

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## Charity Islands Phragmites Management Project 2016 Partnership Agreement

Between

**Huron Pines**  
**U.S. Fish and Wildlife Service (USFWS)**  
**The Nature Conservancy**  
**Saginaw Bay Cooperative Invasive Species Management Area (CISMA)**  
**Saginaw Valley State University (SVSU)**  
**Au Gres-Sims School District**  
**Great Lakes Stewardship Initiative (GLSI)**  
**Michigan Sea Grant**  
**Michigan Natural Features Inventory (MNFI)**  
**Michigan Department of Natural Resources (Michigan DNR)**  
**Charity Island Transport, Inc.**

### Purpose

This Partnership Agreement outlines a long-term plan for managing non-native *Phragmites australis* at the Charity Islands. The main goal of this project is to restore sensitive wetland habitat and protect native plant and animal species, including the state- and federally-threatened Pitcher's thistle. Other objectives include supporting ongoing university research, providing place-based outdoor education opportunities for local K-12 students, raising public awareness about invasive species, and preserving the scenic and recreational of the Charity Islands.

The Agreement summarizes project activities that have already been completed and clarifies partner roles and responsibilities for the timeframe 2016 through 2018. This Agreement updates and supersedes the 2015 Charity Islands Phragmites Management Partnership Agreement and will be considered valid through the end of 2018, upon which it will be reviewed and updated as necessary to cover anticipated activities and partner roles beyond the end of the 2018 treatment season.

### Project Background

The Charity Islands are located in Saginaw Bay, approximately 12 miles east of the City of Au Gres and 10 miles northwest of the City of Caseville, and are part of Arenac County. Little Charity Island, Gull Island, and most of Big Charity Island are owned and managed by the U.S. Fish and Wildlife Service as part of the Michigan Islands National Wildlife Refuge. Private individuals own a few small parcels along the northern shoreline of Big Charity Island, which at approximately 220 acres is the largest of the three islands.

The Charity Islands provide important habitat for a variety of resident and migratory birds, reptiles and amphibians, and an array of native plant species. The Pitcher's thistle—a federally and state-listed



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threatened species—grows along the sandy perimeter of Big Charity Island, which is also a historical nesting area for the federally endangered piping plover. Many native plant and wildlife species rely on these sensitive coastal habitats but are threatened by the presence of non-native *Phragmites australis*, a rapidly spreading grass that grows in wetland areas, forming dense monocultures that displace native plant species and degrade wildlife habitat. Phragmites can also impede recreation and block scenic views.

Concerned residents of Arenac County brought this issue to the attention of Huron Pines in 2013. These individuals provided boat transportation so that Huron Pines staff could visit Big Charity Island in 2014 to estimate the extent of *Phragmites australis*. Patches of invasive phragmites were found around the shoreline of Big Charity Island, with observed density ranging from sparse to dense. The most severe infestations are located along the southwestern and southeastern shorelines, with isolated patches along the northern half of the island. Due to limited accessibility, Gull Island and Little Charity Island were not evaluated at the time. Based on a GIS analysis, approximately 38 acres of coastal wetland habitat are found at the Charity Islands. Due to the remoteness of the Charity Islands, managing phragmites and conducting monitoring activities is logistically challenging. However, this isolation may also decrease the likelihood of new introductions of phragmites and other invasive species to the islands.

Due to strong community support, the active involvement of many diverse project partners, and the presence of important habitats and rare species threatened by invasive phragmites on the Charity Islands, Huron Pines and partners decided to pursue this project despite the logistical difficulties. The following section highlights project activities and partnership accomplishments through July 2016.

## Summary of Project Activities and Accomplishments

- Partnership Agreement
  - Huron Pines drafted the initial partnership agreement in 2015, which was signed by Huron Pines, U.S. Fish and Wildlife Service, The Nature Conservancy, Saginaw Bay Cooperative Invasive Species Management Area (CISMA), Saginaw Valley State University, Charity Island Transport, Inc., Michigan Department of Natural Resources, Au Gres-Sims School District, Michigan Sea Grant, Great Lakes Stewardship Initiative. The agreement laid out roles, responsibilities, project plans, timelines, and financials related to the Charity Islands Phragmites Management Project for 2015 and 2016.
  - The current Partnership Agreement (this document) was updated and revised by Huron Pines in July 2016 to reflect cumulative partner input, the new funding situation, completed activities and revised plans, timelines and partner roles for completing anticipated activities during the period 2016 through 2018.
- Partnership meetings
  - Huron Pines has coordinated four partnership meetings:
    - April 10, 2015; May 7, 2015; August 13, 2015; and April 12, 2016
    - Attendees have brought diverse perspectives to these meetings, which have led to great collaboration among agencies, nonprofit organizations, schools, businesses and individuals. Future meetings will be held in spring and fall of each project year.



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- Treatment
  - The plan is to complete comprehensive chemical treatment of all phragmites on the Charity Islands using state-approved herbicides and protocols, including use of Best Management Practices to ensure that Pitcher's thistle and other native organisms are protected during the treatment process (and also during monitoring activities). This entails thorough but targeted treatment of approximately 38 coastal acres of wetland habitat potentially affected by the presence of non-native phragmites. Annual followup treatments will also be necessary to ensure that phragmites is not left to regenerate once comprehensive treatment is complete.
  - Phragmites was treated on 25 acres of coastal wetland on the northwestern and western shorelines of Big Charity Island from September 14-18, 2015. This treatment was completed by a crew of six members using backpack sprayers, including Huron Pines and The Nature Conservancy staff and Huron Pines AmeriCorps members. Herbicide was provided by The Nature Conservancy and the transportation and lodging were provided by Charity Island Transport, Inc.
  - Funding from National Fish and Wildlife Foundation—Sustain Our Great Lakes program supported 2015 treatment and that grant period has ended. U.S. Fish and Wildlife Service—Coastal Program funding for future treatment will be available for use during the 2017 and 2018 treatment seasons. No phragmites treatment is planned in 2016 at the Charity Islands.
- Project funding secured and administered by Huron Pines:
  - National Fish and Wildlife Foundation – Sustain Our Great Lakes Program
    - Approximately \$25,000 applied to Charity Islands phragmites treatment in 2015.
    - Applied toward the treatment of 25 coastal wetland acres on Big Charity Island.
  - USFWS Coastal Program
    - \$70,000 for treatment of phragmites on the Charity Islands in 2017 and 2018.
    - All 38 coastal acres of wetland habitat will be treated/retreated using this funding.
  - Gerstacker Foundation
    - \$10,000 for the Charity Islands Phragmites Management Project in 2016 and 2017.
    - Project management, outreach and education, partnership development, signage, coordinate student field trips, treatment of non-federal lands on Big Charity Island.
  - Saginaw Bay WIN Community Action Grant
    - \$1,000 to match outreach and education components of the Charity Islands Phragmites Management Project in 2016.
    - Supporting Huron Pines AmeriCorps members helping coordinate student field trips to Big Charity Island and for design and production of interpretive signage.
- Monitoring
  - October 8, 2015
    - Pitcher's thistle plants were inventoried and invasive phragmites was monitored along the northwestern shoreline of Big Charity Island.
    - Au Gres-Sims School District students learned how to use GPS units, identify plants and collect scientific data to support phragmites treatment efforts and help protect Pitcher's thistle and other native species. Students also collected Pitcher's thistle seeds, which are being propagated by USFWS and will be planted in fall 2016.



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- Au Gres-Sims School District staff, Huron Pines AmeriCorps, Michigan Sea Grant, Michigan State University Extension, Michigan Natural Features Inventory, and the Northeast Michigan Great Lakes Stewardship Initiative, and U.S. Fish and Wildlife Service helped coordinated the trip and assisted students with monitoring activities.
- Transportation to Big Charity Island was provided by Brown's Landing.
- June 7, 2016
  - Au Gres-Sims students returned to Big Charity Island to complete a second Pitcher's thistle inventory and complete post-treatment monitoring of phragmites, including qualitative observations of new growth and stem density analysis along multiple transects. Student also collected clippings of phragmites for genetic analysis in coordination with Saginaw Valley State University researchers.
- Restoration
  - Pitcher's thistle seeds collected on October 8, 2015 are being propagated by the U.S. Fish and Wildlife Service. Partners plan to plant these Pitcher's thistle plants on Big Charity Island during the fall 2016 student field trip.
- Research
  - Saginaw Valley State University is conducting ongoing genetic studies of phragmites in the Saginaw Bay area, including at the Charity Islands. This research helps identify sources of invasive phragmites introductions to the islands (preliminary results suggest it may have arrived via water currents, including the Saginaw River, and possibly alternative avenues). The genetic diversity of phragmites at the Charity Islands can also help inform treatment.
  - Contact Dr. Dave Stanton at Saginaw Valley State University for more information.
- Project outreach
  - Huron Pines staff and AmeriCorps members are designing interpretive signage to educate the public about the unique ecological and cultural features of the Charity Islands and to promote the Charity Island Phragmites Management project and partnership.
  - Several press releases, educational articles and social media posts about this project have been distributed by Huron Pines and partners.

## Specific Project Objectives:

1. Complete initial comprehensive chemical treatment of invasive phragmites at the Charity Islands to protect and restore 38 acres of coastal habitat. Conduct followup treatments annually or as necessary.
2. Inventory Pitcher's Thistle in and adjacent to treatment areas. Implement conservation measures to avoid negative impacts to Pitcher's Thistle during treatment and monitoring activities. Pitcher's thistle plugs will also be planted to help sustain the population of this threatened plant on Big Charity Island.
3. Promote the project to raise awareness and garner support for protecting rare native species and habitat.
4. Expand place-based outdoor education and STEM curriculum opportunities for local K-12 students, Support the research of Saginaw Valley State University, and implement this partnership agreement.



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## Anticipated Project Timeline (2016-2018)

- Fall 2016 – Partnership meeting
- Fall 2016 – Student trip to Big Charity Island; phragmites monitoring; PT inventory; plant PT plugs; install project interpretive signage
  
- Spring 2017 – Partnership meeting
- Spring 2017 – Student trip to Big Charity Island; phragmites monitoring; PT inventory
- Summer 2017 – Plan 2017 treatment; select contractor for treatment via competitive bid process
- Fall 2017 – Comprehensive treatment of phragmites (hired contractor)
- Fall 2017 – Student trip to Big Charity Island; phragmites monitoring; PT inventory
  
- Spring 2018 – Partnership meeting
- Spring 2018 – Student trip to Big Charity Island; phragmites monitoring; PT inventory
- Summer 2018 – Plan 2018 treatment (contractor if necessary; or by Huron Pines field crew)
- Fall 2018 – Partnership meeting
- Fall 2018 – Comprehensive followup treatment of phragmites
  
- Ongoing – Promote the project and partnership through various media outlets. Seek additional funding to support treatment costs and secure funding for project activities beyond 2018 to ensure the long-term protection of wetland habitat and native plants and wildlife at the Charity Islands. Saginaw Valley State University is conducting research on phragmites throughout the Saginaw Bay area, lending insight regarding treatment strategies and practices for preventing the reintroduction of phragmites or introduction of other invasive species to the Charity Islands.

## Roles and Responsibilities

### **Huron Pines**

Huron Pines will continue to coordinate activities related to treatment of invasive phragmites at the Charity Islands. Huron Pines has secured funding for 2017-2018 treatment expenses from the USFWS-Coastal Program and will serve as the fiduciary for the project. Huron Pines will ensure all permissions and permits are in place prior to commencing any on-the-ground treatment. Huron Pines will also seek additional funding to support planned project activities and to help sustain the project beyond 2018.

Huron Pines has also secured funding from the Gerstacker Foundation and Saginaw Bay Watershed Initiative Network (WIN) to support outreach, education and partnership building efforts. Huron Pines will collaborate with project partners to coordinate semi-annual student field trips. Huron Pines will design interpretive signage that highlights the unique physical and cultural features of the Charity Islands as well as this project and partnership. Huron Pines will coordinate semi-annual partnership meetings and will communicate project updates with all members of this partnership agreement. Huron Pines will continue to produce and distribute project updates through various media outlets.



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## **U.S. Fish and Wildlife Service**

The primary landowner at the Charity Islands, the USFWS has invested \$70,000 in Coastal Program funding in support of the Charity Islands Phragmites Management Project. USFWS agrees to allow project partners and approved contractors access to property owned and managed by USFWS to facilitate comprehensive management of invasive phragmites at the Charity Islands. Please keep in mind that all project partners must request access from USFWS prior to accessing Service property.

The USFWS will provide technical guidance related to treatment activities, monitoring strategies, and practices for protecting Pitcher's thistle and other rare species during project activities. The USFWS will propagate Pitcher's thistle from seeds collected at Big Charity Island and provide guidance to project partners on where and how to plant these Pitcher's thistle plugs. To the extent possible, the USFWS will provide equipment toward this project including boat transportation and ATV boom sprayers. USFWS staff are encouraged to participate in all semi-annual project partnership meetings.

## **The Nature Conservancy**

The Nature Conservancy will provide technical input on project activities and agrees to allow project partners to access The Nature Conservancy property on Big Charity Island to facilitate comprehensive management of invasive phragmites at the Charity Islands. When feasible, The Nature Conservancy will contribute herbicide and labor toward treatment and monitoring activities on Big Charity Island. The Nature Conservancy is encouraged to participate in all semi-annual project partnership meetings.

## **Saginaw Bay Cooperative Invasive Species Management Area**

The Saginaw Bay CISMA will participate in project treatment, monitoring and outreach activities in the period 2016-2018 to the greatest extent possible. Saginaw Bay CISMA is encouraged develop technical and financial capacity for leading the Charity Islands Phragmites Treatment Project beyond 2018. The Saginaw Bay CISMA is encouraged to participate in all semi-annual project partnership meetings.

## **Saginaw Valley State University**

Saginaw Valley State University is conducting studies of invasive phragmites in the Saginaw Bay area and will continue to share pertinent results of this research with project partners, which will help inform future treatment and monitoring strategies. SVSU will coordinate with project partners to collect pre- and post-treatment samples of phragmites for genetic analysis. When feasible, SVSU will serve as a venue for Charity Islands Phragmites Management Project partnership meetings. SVSU representatives are encouraged to participate in all semi-annual project partnership meetings.

## **Au Gres-Sims School District**

The Au Gres-Sims School District recognizes the valuable and unique wildlife and habitat found on the Charity Islands. Educational and administrative staff at Au Gres-Sims School District will coordinate with Huron Pines, Michigan Sea Grant, Great Lakes Stewardship Initiative and other project partners to coordinate student field trips to Big Charity Island each spring and fall during the project period. Students will inventory Pitcher's thistle, help plant Pitcher's thistle plugs propagated by the USFWS, complete pre- and post-treatment monitoring of invasive phragmites, and collect phragmites samples



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for genetic analysis by researchers at Saginaw Valley State University. This work allows students to gain experience using GPS technology, identifying plants, and collecting scientific data that is being used for a real-world application. Project partners will coordinate with Au Gres-Sims School District to identify useful activities for students and to arrange transportation to and from Big Charity Island. Staff from Au Gres-Sims are encouraged to participate in all semi-annual project partnership meetings.

## **Great Lakes Stewardship Initiative**

The Great Lakes Stewardship Initiative will coordinate with Au Gres-Sims School District and other project partners to engage local students in place-based outdoor education and STEM curriculum opportunities related to the effort to manage invasive phragmites at the Charity Islands. GLSI will assist with outreach and education elements of the Charity Islands Phragmites Management Project. GLSI representatives are encouraged to participate in all semi-annual project partnership meetings.

## **Michigan Sea Grant**

Michigan Sea Grant will coordinate with Au Gres-Sims School District and other project partners to engage local students in place-based outdoor education and STEM curriculum opportunities related to the effort to manage invasive phragmites at the Charity Islands. Michigan Sea Grant will assist with outreach and education elements of the Charity Islands Phragmites Management Project. Michigan Sea Grant is encouraged to participate in all semi-annual project partnership meetings.

## **Michigan Natural Features Inventory**

The Michigan Natural Features Inventory is invited to provide technical input on treatment, restoration and monitoring activities of the Charity Islands Phragmites Management Project, including advice on propagating and reintroducing Pitcher's thistle plants. MNFI representatives are invited to participate in all semi-annual project partnership meetings.

## **Michigan Department of Natural Resources**

The Michigan DNR administers multiple grant programs that provide funding for the management of priority invasive species. Project partners are encouraged to apply for Michigan DNR grants for which the Charity Island Phragmites Management Project would be a good fit. Michigan DNR will evaluate funding applications and is invited to provide technical input regarding project activities. Michigan DNR staff are encouraged to participate in all semi-annual project partnership meetings.

## **Charity Island Transport, Inc.**

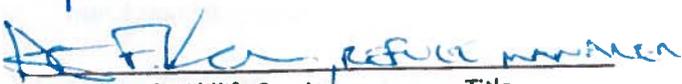
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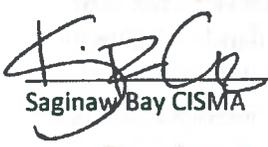


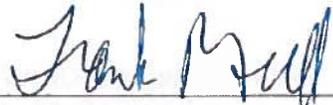
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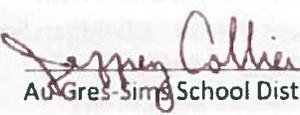
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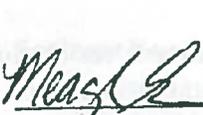
  
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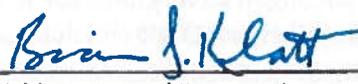
  
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 Saginaw Valley State University Dean-SET Title  
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 Au Gres-Sims School District Superintendent Title  
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 Great Lakes Stewardship Initiative NEMIGLISI Network Coordinator Title  
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 Michigan Sea Grant Sea Grant Extension Educator Title  
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 Michigan Natural Features Inventory DIRECTOR, MNPZ Title  
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 Michigan DNR AIS Biologist Title  
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