

# Minimizing the Spread of Invasive Plant Species While Working With Swamp Mats



Presented by: Alison Milliman, POWER Engineers

# Minimizing the Spread of Invasive Plant Species While Working with Swamp Mats

## Presentation Overview

- Invasive Species Overview
- U.S. Army Corps of Engineers (USACE) Requirements for Control of Invasive Species
- Pre-Construction Invasive Species Control
- Methods to Control Invasive Plants During Swamp Mat Operations

# Invasive Species Overview

# Invasive Species Overview

---

## Definition

An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. A species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Department of the Army U.S. Army Corps of Engineers, June 2, 2009)

# Invasive Species Overview

- For those wetlands where invasive species are already prevalent, construction disturbance could promote additional colonization or the spread of invasives to nearby wetlands
- Seed/ plant matter in soil transferring from one work area to another





# Invasive Species Overview

---

## Common Wetland Invasive Species



# Invasive Species Overview

---

## Common Wetland Invasive Species





# Invasive Species Overview

---

## Common Wetland Invasive Species





# Invasive Species Overview

## Useful Resources

- “Invasive and Other Unacceptable Plant Species” - USACE Compensatory Wetland Mitigation Plan Appendix D
- Invasive Plant Atlas of New England (IPANE) – online database/ Smartphone App
- Natural Resource Conservation Service (NRCS) Connecticut Invasive Species Identification Sheets – online
- A Guide to Selected Non-Native Invasive Aquatic Species in Massachusetts – online

# **USACE Requirements for Control of Invasive Species**

# USACE Requirements for Control of Invasive Species

## USACE Regulatory Authority

- Permitting
  - » A USACE permit may include special conditions to require the permittee to control the introduction or spread of invasive species
  - » Individual Permits- Compensatory Wetland Mitigation Plan is generally required for work filling wetlands and an Invasive Species Control Plan (ISCP) is typically part of that plan.
  - » Permittee to prepare and submit an ISCP for USACE approval

# USACE Requirements for Control of Invasive Species

- Level of Effort
  - » Commensurate with the impacts and risks associated with your Project.
  - » State or local requirements.





# **Methods to Control Invasive Species While Working With Swamp Mats**

# Methods to Control Invasive Species While Working With Swamp Mats

## Pre-Construction

- Prepare an ISCP
  - Identify and document invasive species on Project
- Provide Environmental Training to all contractors, inspectors and work crews responsible for implementing the ISCP



# Methods to Control Invasive Species While Working With Swamp Mats

## Pre-Construction

- Ensure all construction vehicles and swamp mats arrive on site clean and free of excess soil, debris, and vegetation
- Contractor certification form



# Methods to Control Invasive Species While Working With Swamp Mats

---

## During Construction

- Use of swamp mats minimize the spread of invasive species in wetlands
  - Reduced soil disturbance
  - Reduced equipment contact with vegetation
- Clean equipment and swamp mats prior to relocating to another work site
  - Drop mats on top of another to loosen sediment and debris
  - Brooms
  - Shovels
  - Compressed air



# Methods to Control Invasive Species While Working With Swamp Mats

## During Construction

- Designated swamp mat cleaning areas
  - Stone work areas
  - Upland areas
  - On top of non-woven geotextile fabric in wetlands





**Cleaning Swamp Mats with Power Broom During Forestry Operations**





**Stacking swamp mats to be brought to designated cleaning area**



**Cleaning Swamp Mats with Power Broom in Upland Staging Area**



# Questions?

# Thank You

Alison Milliman

[Alison.milliman@powereng.com](mailto:Alison.milliman@powereng.com)

[www.powereng.com](http://www.powereng.com)

