

Invasive Species Management Community of Practice

Program Management Plan (PgMP)

FOR: Invasive Species CoP Webinar

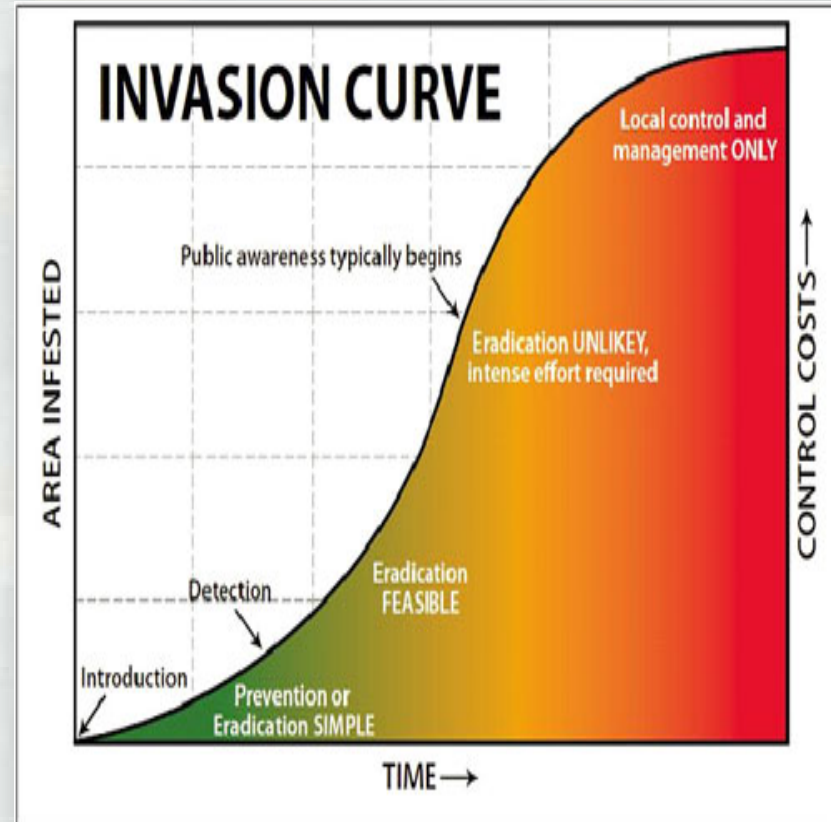
October 8, 2014

**Tim Toplisek
CECW-CO-N**



Why are Invasive Species a Problem

1. We are re-active
2. Lack of awareness
3. Insufficient coordination with other agencies
4. Tools to combat the problems
5. Often low priority
6. Inconsistent mapping and monitoring
7. Lack of Resources
8. Policy and Guidance?

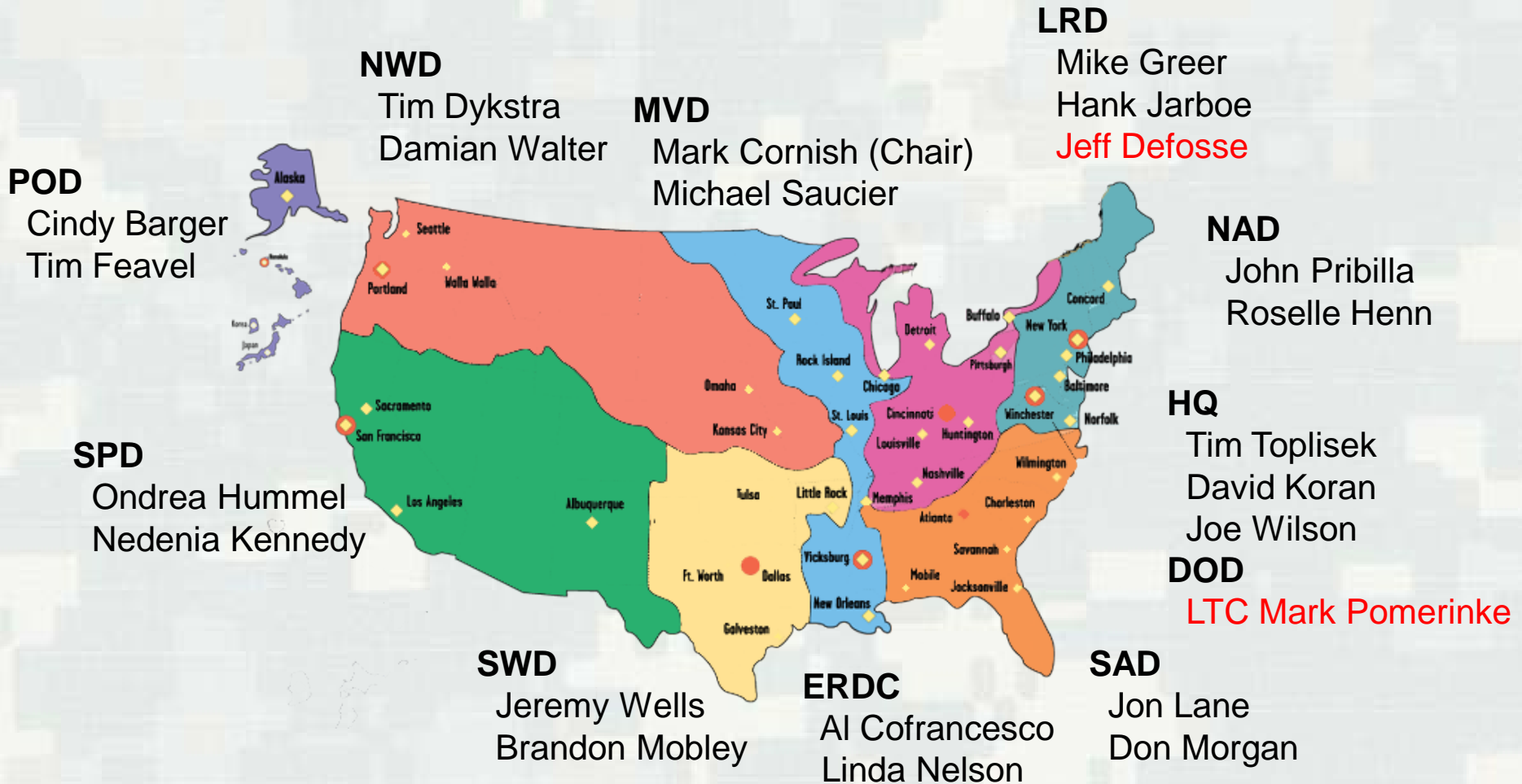


Purpose of the PgMP

- **Invasive Species Leadership Team- 20 Member team formed in 2005**
- **Provide Information to Corps Chain of Command and Business Lines About ISLT**
 - ▶ Focus on minimizing the introduction and spread of invasives
 - ▶ Focus on providing information and POC's to the field concerning invasive species
 - ▶ Prudent use of funds and resources
 - ▶ ISCP to E-CoP
- Corps spends 140 M per year
- Impact **ALL** of Civil Works and Military Prog.



Invasive Species Leadership Team



Red indicates a new member

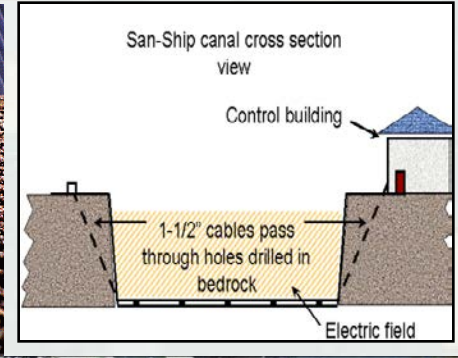
Purpose of the PgMP

- **Provide Strategy**

- ▶ Education
- ▶ Implementation of new regulations
- ▶ 5 Year plan
- ▶ In tune with National Invasive Species Management Plan (EO 13112 and National Invasive Species Management Act)



Corps Missions Impacted By Invasive Species

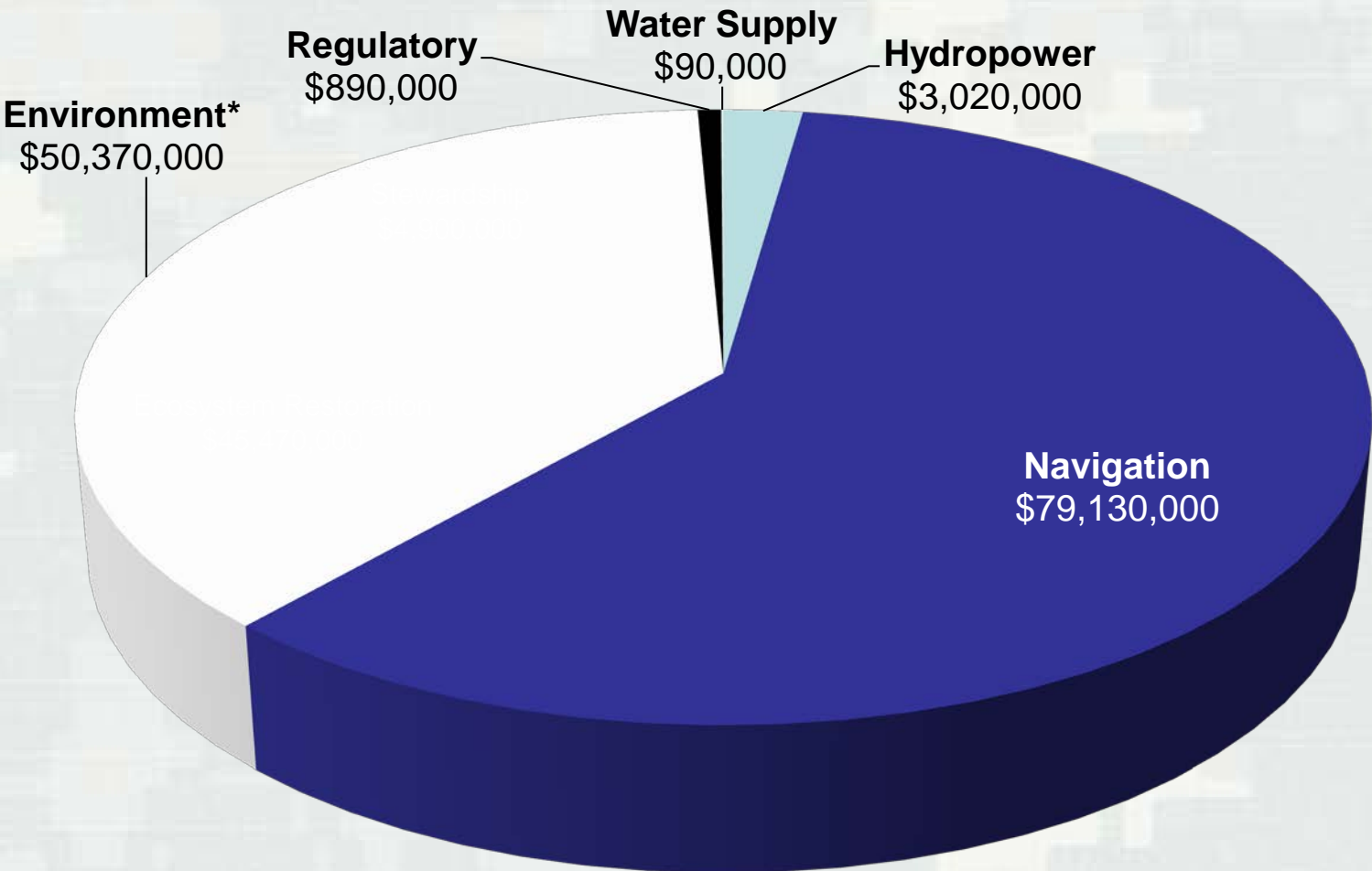


Navigation Flood Control
 Environment Hydropower
 Regulatory Recreation
 Planning Engineering



USACE FY 15 Invasive Species Costs Estimates

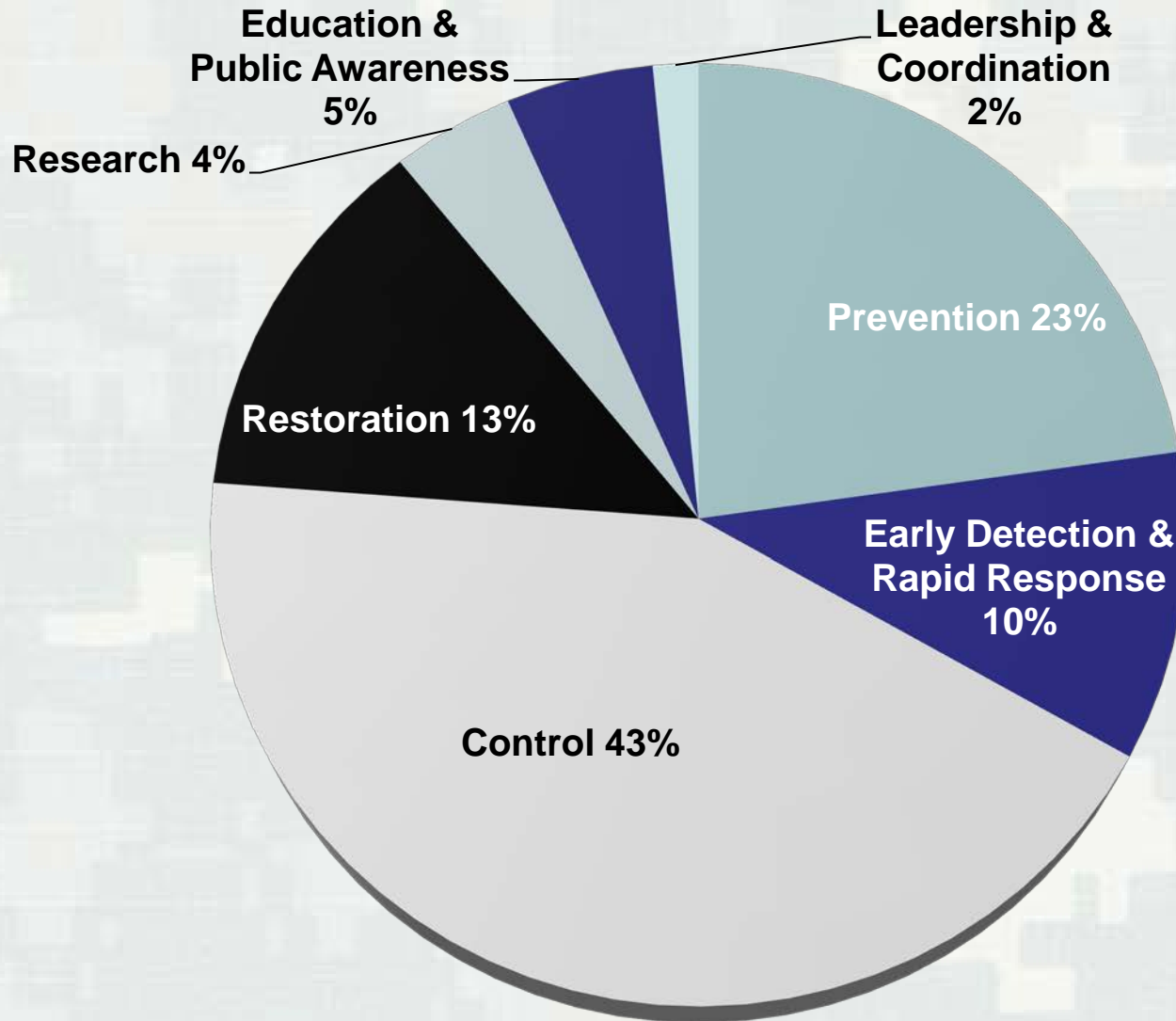
\$133,500,000



*Environment includes: CAP, ANSRP, CSSC Dispersal Barrier, GLMRIS

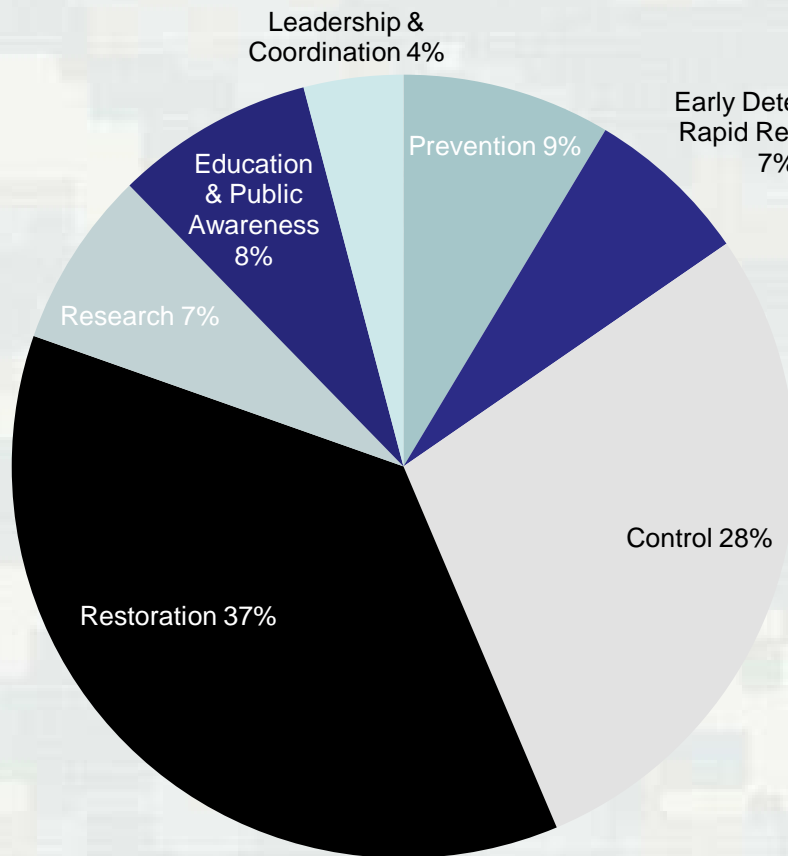


USACE FY 15 Invasive Species Cost Estimates By Spending Category

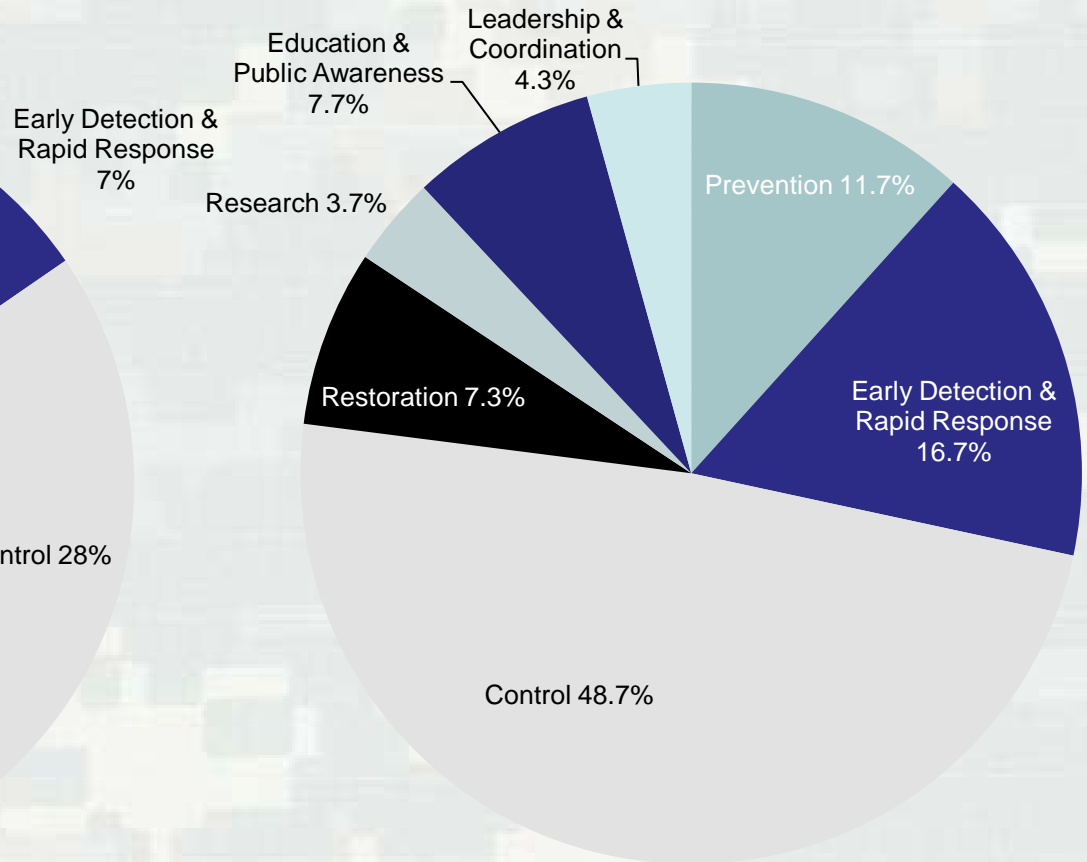


USACE FY 15 Business Line Breakdowns in Invasive Species Spending

Ecosystem Restoration



Stewardship



Categories established by
National Invasive Species Leadership Council (NISC)



BUILDING STRONG®

PgMP-Purpose, Visions, Scope, Goals, Constraints

- **Purpose**

- ▶ Efficient use of funds and resources
- ▶ Define objectives and direction

- **Vision**

- ▶ Integrate goals and objectives of invasive species policy into all CW projects/policy to prevent their introduction, spread, and establishment
- ▶ Provide to Military Programs as requested

- **Scope**

- ▶ Framework by which USACE is applying invasive species policies to all of its business lines, missions, projects, and activities



PgMP-Purpose, Visions, Scope, Goals, Constraints-Continued

- **Goals**

- ▶ Leadership/Coordination
- ▶ Prevention/identify pathways
- ▶ Identification/communication
- ▶ Early detection/rapid response
- ▶ Control/management/restoration
- ▶ Research
- ▶ Information management
- ▶ Education and public awareness

- **Constraints**

- ▶ Availability of resources
- ▶ Management decisions concerning budgets
- ▶ Corps may not be lead agency
- ▶ Plan an appropriation of need requiring periodic adjustments



PgMP-Organizational Responsibilities

- **Compliance**

- ▶ E.O. 13112
- ▶ National Invasive Species Act
- ▶ Compliance with National Invasive Species Council Management Plan Goals
- ▶ **Corps Invasive Species Policy Memo 2009**

- **ISLT/Invasive Species Cop**

- ▶ Provide community of specialized knowledge to chain of command
- ▶ Implement and build the community
- ▶ Energize Commanders to support knowledge sharing
- ▶ Subject matter experts/community of champions
- ▶ Identify stakeholders
- ▶ Create informational references/opportunities/communication resources



PgMP-Organizational Responsibilities-Continued

- **MSC Responsibilities**

- ▶ Set up teams of ISLT members from all business lines/Ops/Eng/Plng. and included District and project representatives
- ▶ Support staffing and funding

- **District Responsibilities**

- ▶ Incorporate invasive species considerations into funding and decision making processes
- ▶ Define invasive species responsibilities and roles
- ▶ Incorporate invasive species considerations into Quality Management Plans and Program Risk Assessments
- ▶ Consideration for restoration/mitigation planning efforts
- ▶ Consideration into O&M management to safeguard missions
- ▶ Consideration into master plans and operational management plans
- ▶ Incorporate requirements into Real Estate Outgrants



PgMP-Schedule

- **Five year timeframe**
- **Update regulations to incorporate invasive species considerations**
- **Information web pages**
- **Training**
- **Early detection/rapid response**
- **Identify R&D needs**
- **Implementation of Invasive Species Policy**
- **Annual reporting to National Invasive Species council**



We are your team!



Learn more about the Invasive Species Leadership Team on our Gateway site at:

<http://corpslakes.usace.army.mil/employees/invasive/invasive.cfm>

Join the Invasive Species Management Community of Practice at:

<https://eko.usace.army.mil/usacecop/environmental/subcops/invasive/>

Learn more about Corps of Engineers invasive species management at:

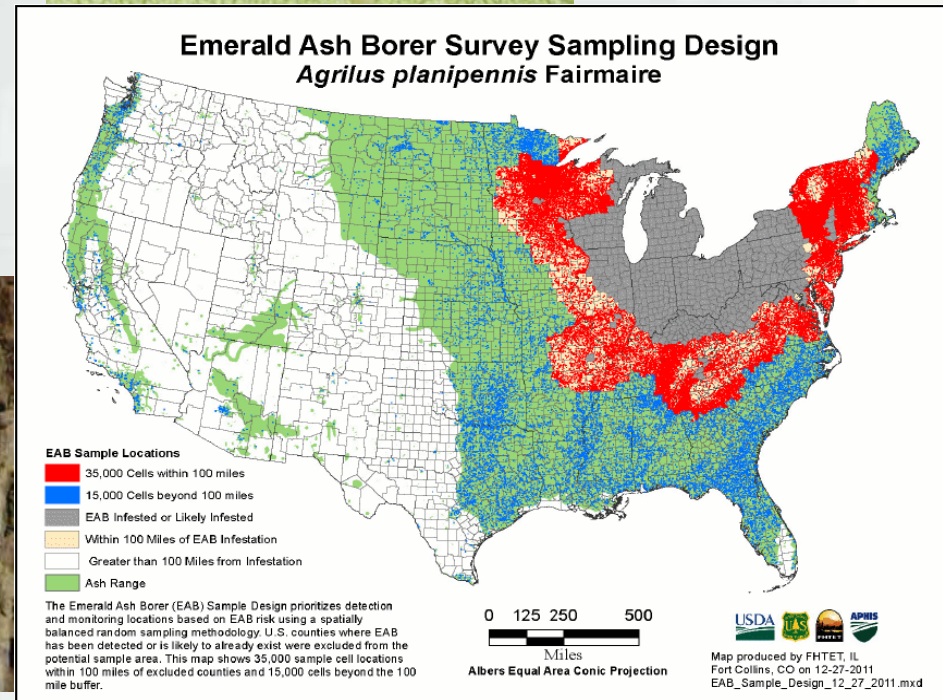
<http://www.usace.army.mil/Missions/Environmental/InvasiveSpeciesManagement.aspx>



BUILDING STRONG®

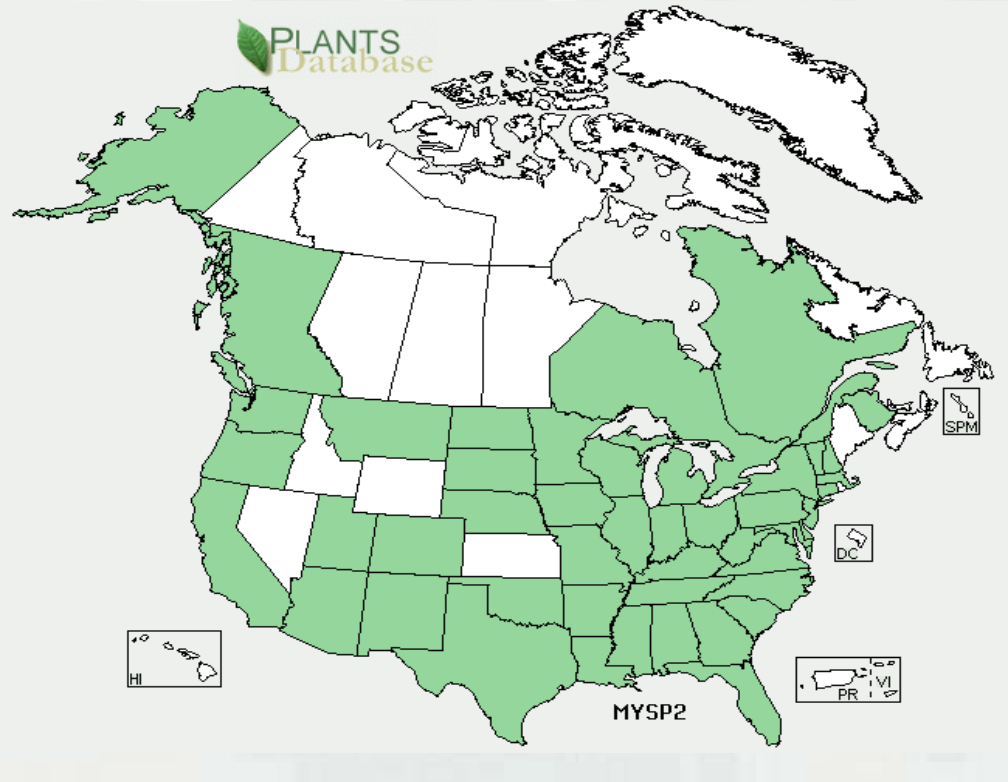
Emerald Ash Borer

Emerald ash borer (EAB), *Agrilus planipennis* Fairmaire, is an exotic beetle that was discovered in southeastern Michigan near Detroit in the summer of 2002. The adult beetles nibble on ash foliage but cause little damage. The larvae (the immature stage) feed on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients. Emerald ash borer probably arrived in the United States on solid wood packing material carried in cargo ships or airplanes originating in its native Asia. Emerald ash borer is also established in Windsor, Ontario, was found in Ohio in 2003, northern Indiana in 2004, northern Illinois and Maryland in 2006, western Pennsylvania and West Virginia in 2007, Wisconsin, Missouri and Virginia in the summer of 2008, Minnesota, New York, Kentucky in the spring of 2009, Iowa in the spring of 2010, Tennessee in the summer of 2010, Connecticut, Kansas, and Massachusetts in the summer of 2012, New Hampshire in the spring of 2013, North Carolina and Georgia in the summer of 2013, and Colorado in the fall of 2013.



EURASIAN WATERMILFOIL

(*Myriophyllum spicatum*) An aggressive plant, this exotic milfoil can grow nearly 10 feet in length forming dense mats at the water's surface. Growing in muck, sand, or rock, it has become a nuisance plant in many lakes and ponds by quickly outcompeting native species. Identifying features include a pattern of 4 leaves whorled around a hollow stem. Feathery in appearance, each leaf consists of 10-21 pairs of closely packed leaflets. Out of the water the leaves become limp, compressing against the stem. Recent hybridization with native milfoil species is common.



HYDRILLA

(*Hydrilla verticillata*) This extremely invasive submersed plant contains oppositely arranged leaves with whorls of 3 to 8 leaves. The leaf has distinctive toothed margins, with pointed spines on the underside mid-rib. It is easily confused with native elodea, which has 3 leaves per whorl and lacking evident toothed leaf margins. Reproduces through turion formation and fragmentation. Hhydrilla was recently confirmed in the Ohio River and the Erie Canal. Hydrilla is a perennial plant that forms dense colonies and can grow to the surface in water over 20 feet deep. Hydrilla branches profusely and after reaching the surface it extends across it forming thick mats.

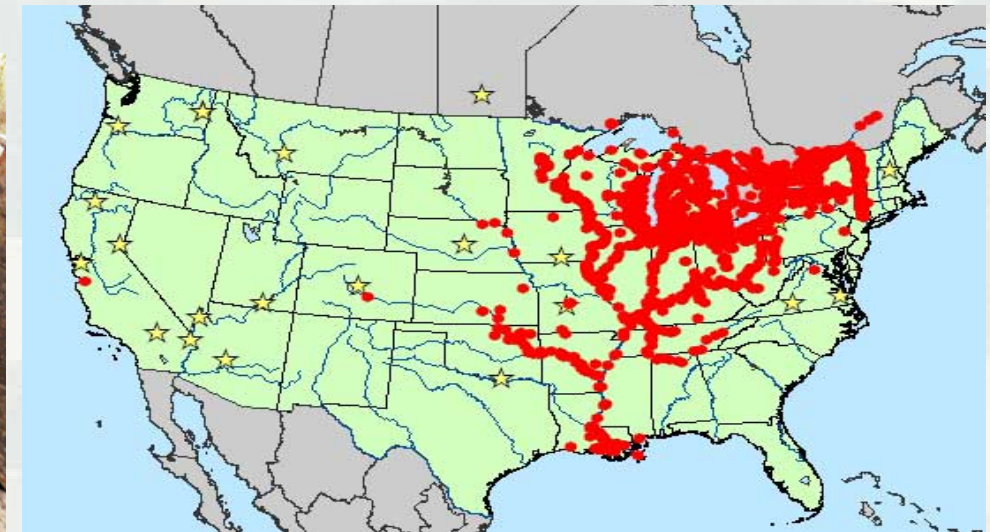


Hydrilla
Hydrilla verticillata
Photo by Vic Ramey
© 1999 University of Florida



ZEBRA MUSSELS

Zebra mussels, species *Dreissena polymorpha*, are freshwater bivalve mollusks that typically have a dark and white (zebra-like) pattern on their shells, but may be any combination of colors from off-white to dark brown (hence the Latin name "polymorpha"). They are alien to North America but have invaded many of our waters, east of the 100th Meridian from Ontario Canada and the Great Lakes to southern Louisiana. Zebra mussels have also been detected in a few Western states. Zebra mussels are usually about an inch or less long, but may be larger. When healthy, they attach to hard substrates, often found in clusters much like marine mussels, but unlike any native freshwater bivalve in North America. Zebra mussels reproduce quickly and in large numbers, typically creating large populations. Zebra Mussel densities have been reported to be over 700,000 individuals per square meter in some facilities in the Great Lakes area. Zebra and quagga mussels are biofoulers that occlude pipes in municipal and industrial raw-water systems, requiring millions of dollars annually to treat.



KUDZU

Pueraria montana var. - Kudzu is a climbing, semi-woody, perennial vine in the pea family. Deciduous leaves are alternate and compound, with three broad leaflets up to 4 inches across. Leaflets may be entire or deeply 2-3 lobed with hairy margins. Individual flowers, about 1/2 inch long, are purple, highly fragrant and borne in long hanging clusters. Flowering in late summer is followed by production of brown, hairy, flattened, seed pods, each of which contains three to ten hard seeds. Kudzu kills or degrades other plants by smothering them under a solid blanket of leaves, by girdling woody stems and tree trunks, and by breaking branches or uprooting entire trees and shrubs through the sheer force of its weight. Once established, Kudzu plants grow rapidly, extending as much as 60 feet per season at a rate of about one foot per day. This vigorous vine may extend 32-100 feet in length

