

Vision for the Minnesota Invasive Terrestrial Plants and Pests Center

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Our predecessor – the Minnesota Aquatic Invasive Species Research Center – started in 2012



“The land” has its own issues



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The issues are extensive

Forests



Urban Forests



Agriculture



Grasslands



Gypsy moth
White pine blister rust
Buckthorn
Emerald ash borer
Oak wilt
Spotted wing drosophila
Potato cyst nematodes
Spotted knapweed
European brome

These issues are costly



- U.S. ~ \$134 billion annually
- MN ~ \$3 billion annually (conservative)
- Direct:
 - ⬆ control costs
 - ⬇ production & marketability
 - ⬇ ecosystem services
- Indirect:
 - ⬇ markets
 - ⬇ pollinators
 - ⬇ water quality

These issues are increasing

- New threats in North America but not yet in Minnesota
 - Giant hogweed
 - Swede midge
 - Mountain pine beetle
 - Asian longhorned beetle
 - Thousand cankers disease
 - Soybean rust



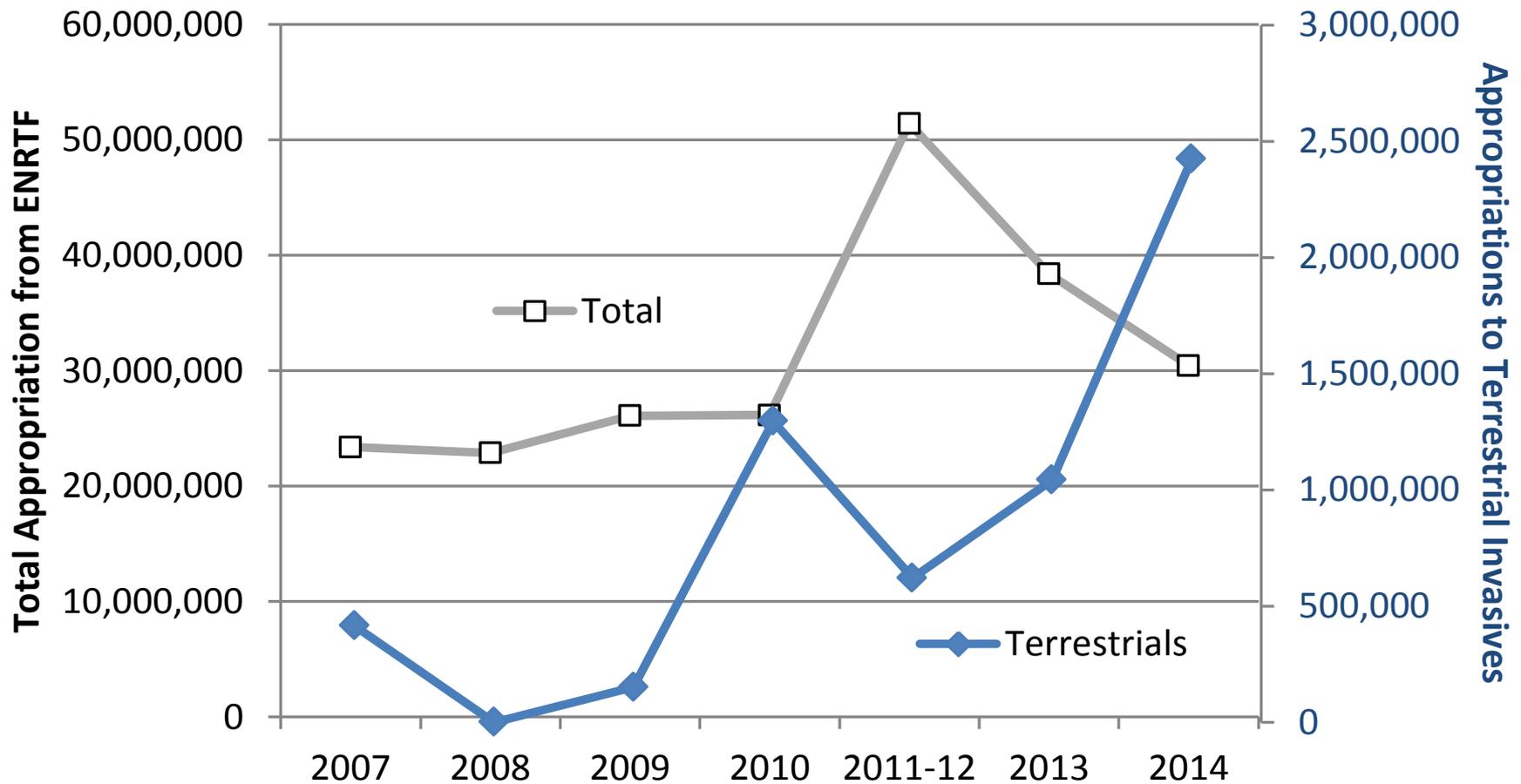
Funding for the Center: goal is \$15M

Year	LCCMR/ENRTF	General Fund Appropriation
2014 (7-10-2014 to 6-30-2022)	\$1,460,000*	\$3,400,000**
2015 (7-10-2015 to 8-15-2022)	\$5,000,000 (Needs leg. approval)	
2017	\$5,000,000 (To be proposed)	

*Funding in 2014 to support at least 2-3 projects for 3-4 years at up to \$210,000 per year. Funding may be used for faculty salary (up to 25% time), postdocs, graduate students, in-state travel, and supplies. Funding may not be used for capital expenditures.

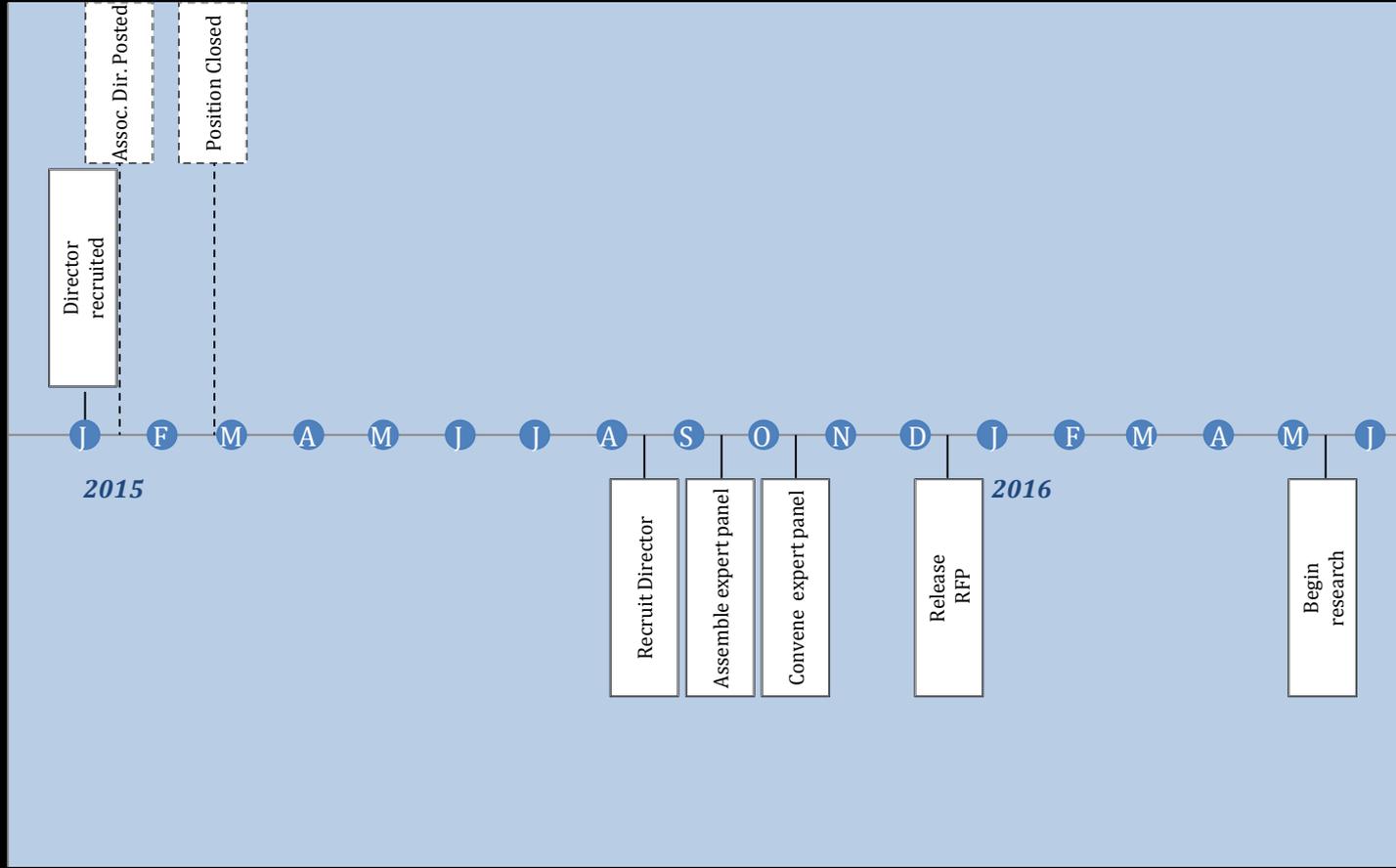
**For research and establishment of the Center

Center is a major increase in the state's commitment to terrestrial invasive species research

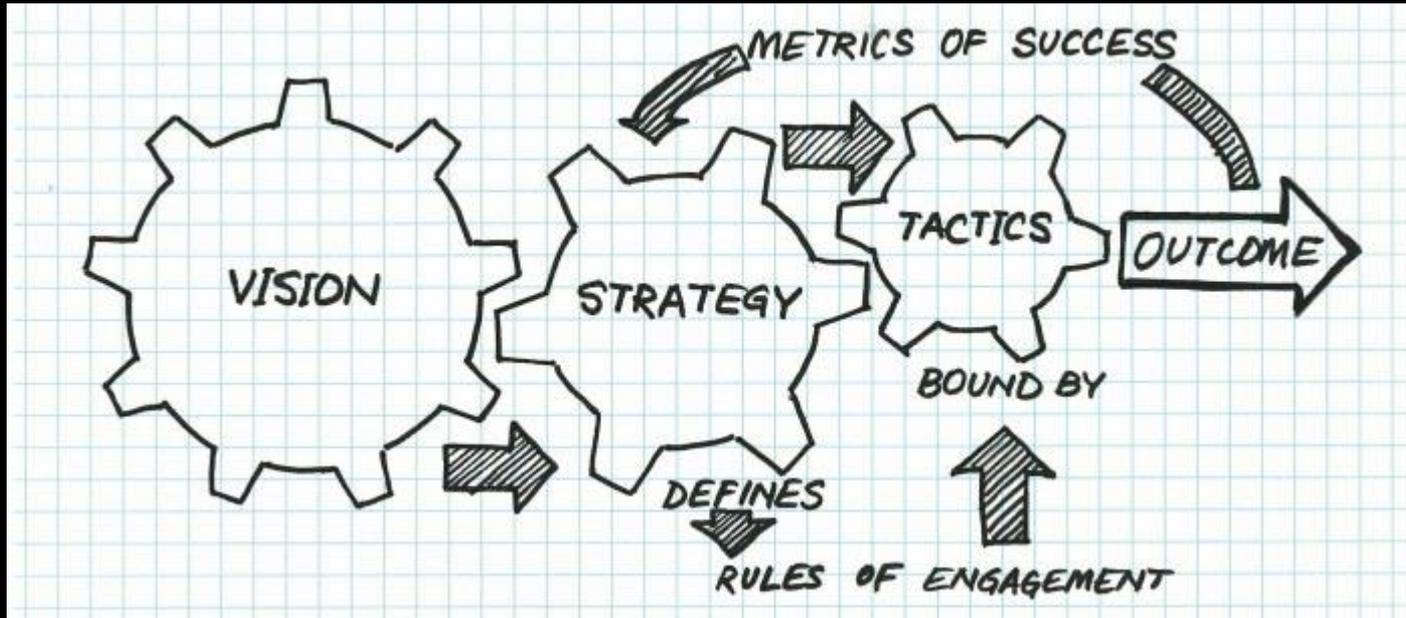


Initial timeline for Center activities

Proposed Completed



Organization of the rest of the talk



The Center supplements (not supplants) the mission of the University



Broad vision for the Center

- Healthy & Resilient Ecosystems
- Productive & Sustainable Biobased Economies
- Intellectual & Emotional Connection to the Land



Protected

Part of the vision is in statute

- “The purpose of [the Center] is to research and develop effective measures to prevent and minimize the threats posed by terrestrial invasive plants, pathogens, and pests, including agricultural weeds and pests, in order to protect the state’s native prairies, forests, wetlands, and agricultural resources.”



Part of the mission must be tied to the Grand Challenges

Invasions of:
Animal/human
pathogens
Insect vectors

Biofuels

Pathogens
Plants
Animals

IPPC
Biobased
economies

Hydrology
Pesticides

Management
Society

Biosecurity
Bioterrorism



Yet the Center needs to do a bit more.

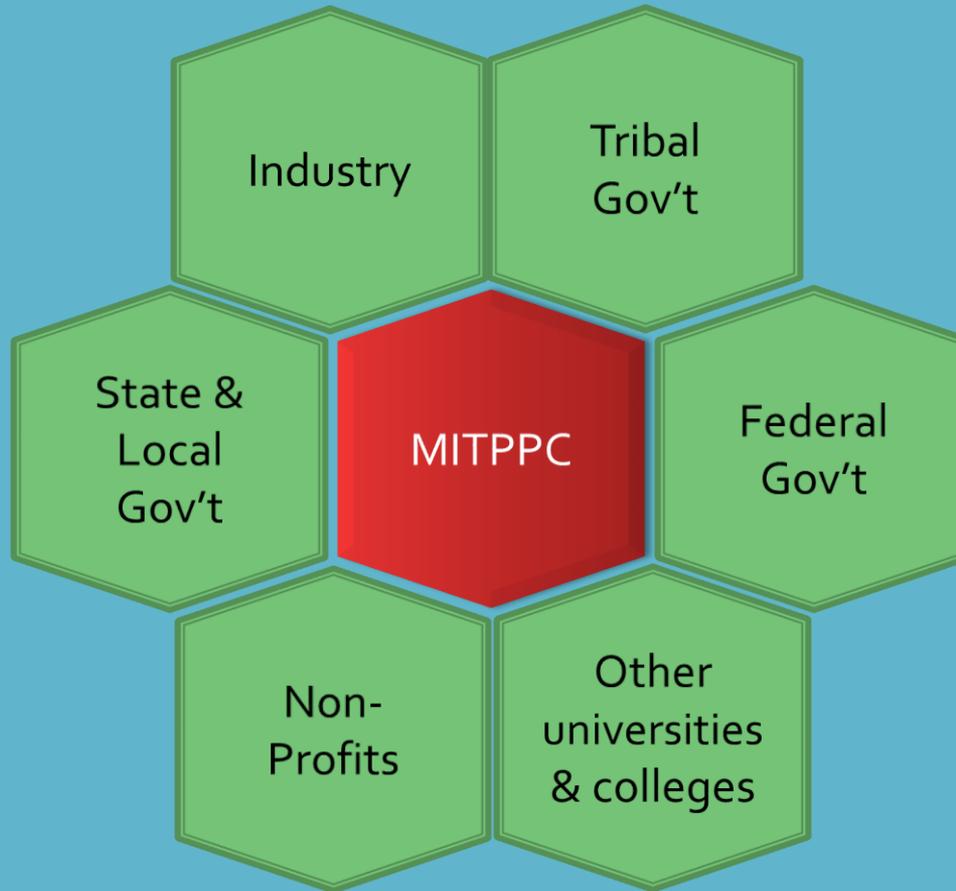
MN Invasive Terrestrial Plants and Pests Center should:

- train and sustain diverse, creative, and productive researchers devoted to invasive terrestrial plants and pests.
- harness the talents of the research community to protect terrestrial ecosystems.
- remain flexible, responsive, and accountable to the needs of stakeholders.
- achieve national recognition as a center of excellence.

Subtle twist on the vision for the Center in statute

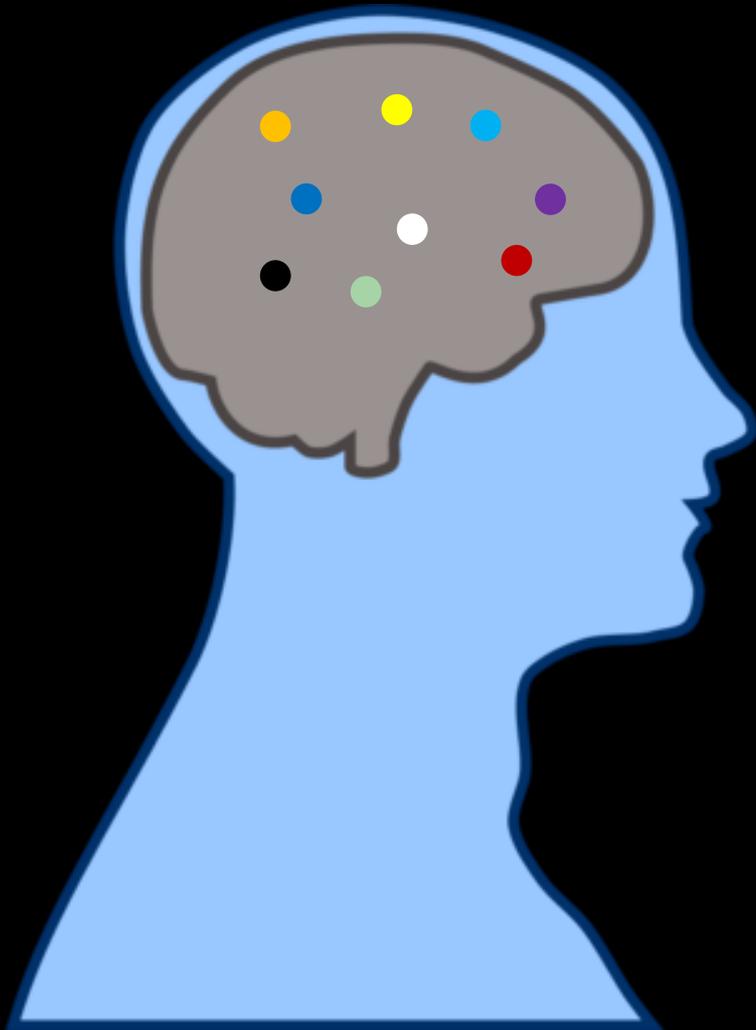
- “[The goal of the MITPPC] is to prevent and minimize the threats posed by terrestrial invasive plants, other weeds, pathogens, and pests in order to protect the state’s prairies, forests, wetlands, and agricultural resources.”

The successes of the Center and our partners are interconnected



Private citizens, landowners, and businesses

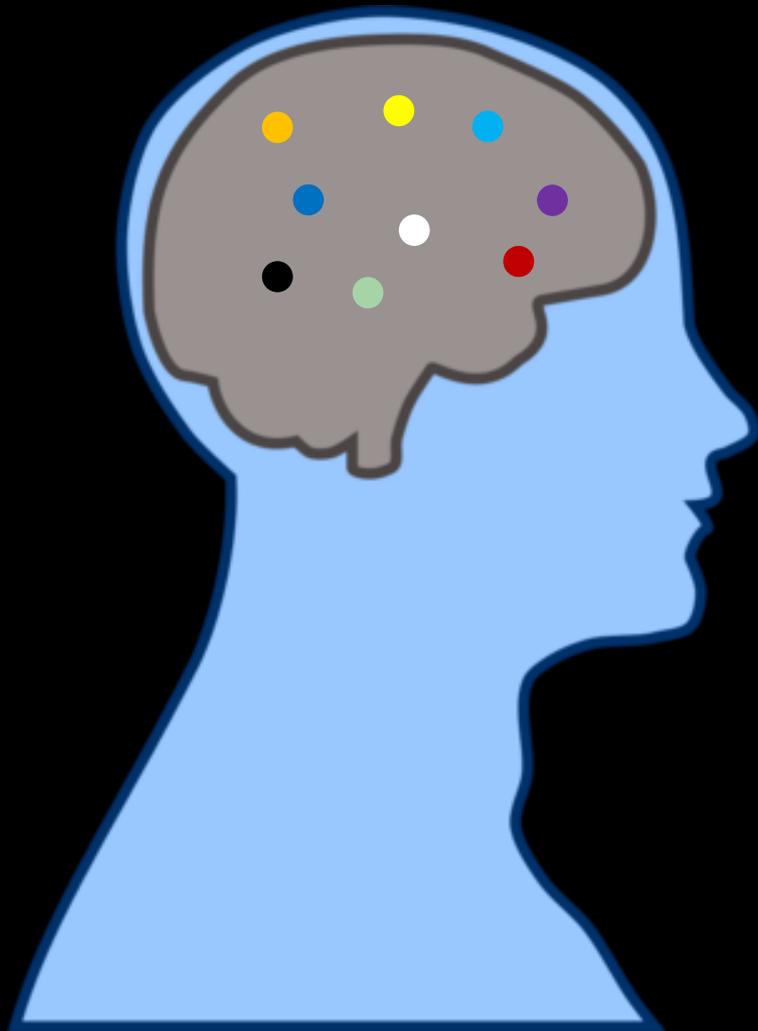
Importance of prioritization



Magnitude of threat

Research impact

Importance of prioritization



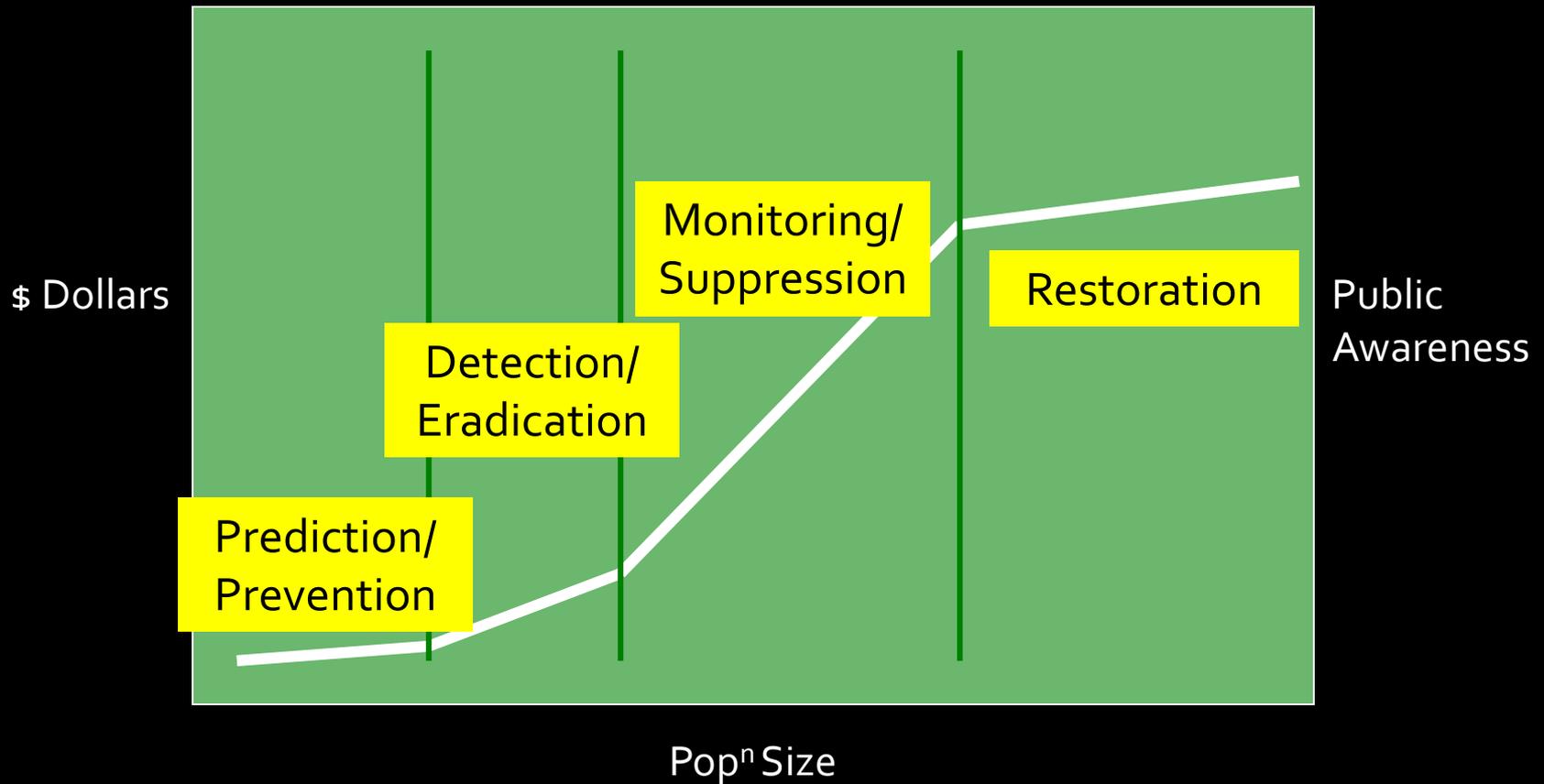
Magnitude of threat

Priority topic 1
Priority topic 2

Research impact

Priority topic 3

Must grapple with the effectiveness/ perception dilemma as prioritization rubric is developed



We need your help

- Ideas for research
- Support for research
 - Willingness to collaborate
 - \$\$
 - In-kind contributions
- Support for the Center



Contact Rob Venette, Director, MITPPC
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