



Invasive Species Order

Michigan Commission of Agriculture and Rural Development

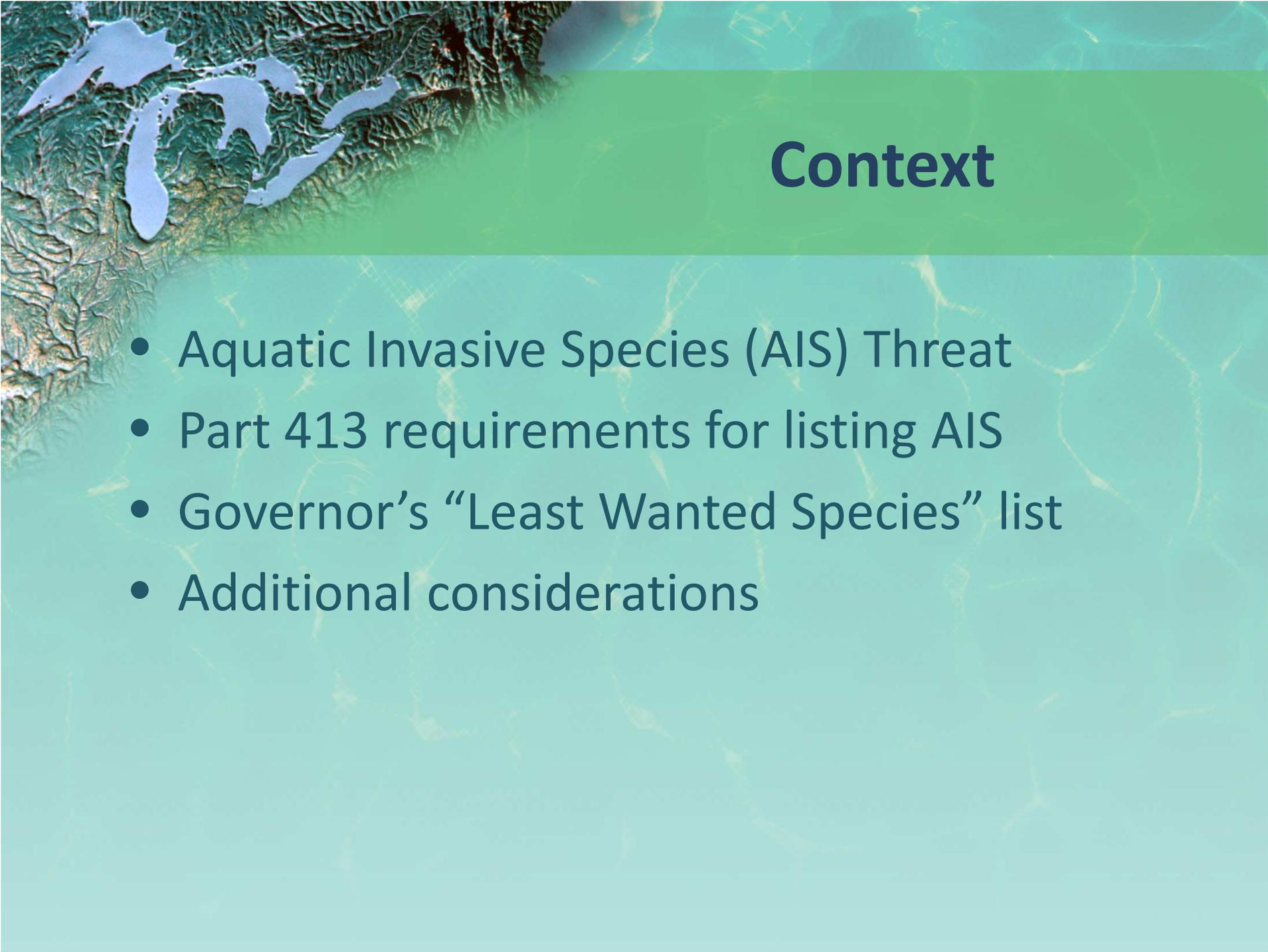


Nick Popoff

Michigan Department of Natural Resources

Mike Bryan

Michigan Department of Agriculture and Rural Development

A topographic map of Michigan is shown in the upper left corner, with a green semi-transparent overlay covering the rest of the slide. The word "Context" is written in a bold, dark blue font on the green background.

Context

- Aquatic Invasive Species (AIS) Threat
- Part 413 requirements for listing AIS
- Governor's "Least Wanted Species" list
- Additional considerations

Aquatic Invasive Species

A species that is not native and whose introduction causes or is likely to cause harm:

- Economic
- Environmental
- Human health



Costs of management and control of AIS

\$20M/year



\$10M/year



\$25M/year



**Total = over \$2.5 billion
over 20 years**



What are we doing?

- AIS State Management Plan
- QOL AIS Core Team
- Focus:
 - Prevention
 - Early Detection
 - Control/Eradication

*Terrestrial invasive species Team recently formed



An aerial photograph of a forested area with a green overlay. The overlay is a semi-transparent green rectangle that covers the top right portion of the image. The text 'Prevention - Process' is written in a dark blue font on this green background. Below the green background, the text of the list is written in a dark blue font on a light blue background.

Prevention - Process

- List species as Prohibited or Restricted under Part 413 of NREPA
 - Species must meet certain criteria
 - Commission of Agriculture & Rural Development has authority for plants and insects
 - DNR has authority for all other organisms
 - To list a species: consultation between DNR and Commission of Ag. & Rural Dev.

A topographic map of the Great Lakes region, showing the five Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding landmasses. The map is rendered in shades of green and brown, with a semi-transparent green overlay on the right side. The title "Regional Commitment" is centered in the green overlay.

Regional Commitment

2013 Council of Great Lakes Governors & Premiers

- AIS Task Force
- Agreed to a “least wanted species” list

Agreement

- Prevent intro and spread of AIS
- Foster mutual aid for responses
- Prohibit 16 species across GLs Basins



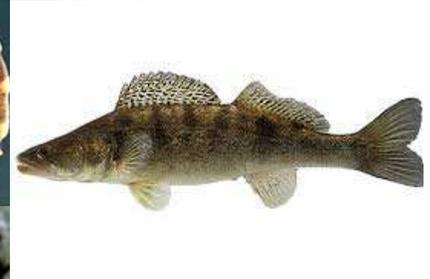
Least Wanted List

<u>Fish</u>	<u>Aquatic invertebrates</u>	<u>Plants</u>
<ul style="list-style-type: none">• Bighead carp*• Silver carp*• Grass carp*• Black carp*• Northern snakehead*• Stone moroko• Zander• Wels catfish	<ul style="list-style-type: none">• Killer shrimp• Yabby (crayfish)• Golden mussel	<ul style="list-style-type: none">• Hydrilla*• Brazilian elodea*• Water soldier• European water chestnut*• Parrot feather*

- * denotes species is currently listed under Part 413 as Prohibited
- *7 species not currently listed*

Least Wanted Species

- These 7 species are not currently in live trade
- All 7 species are climate matches to MI
- 6 fall under DNR authority and 1 under the Comm. of Ag. and Rural Dev.
- Governor committed to listing



Water Soldier

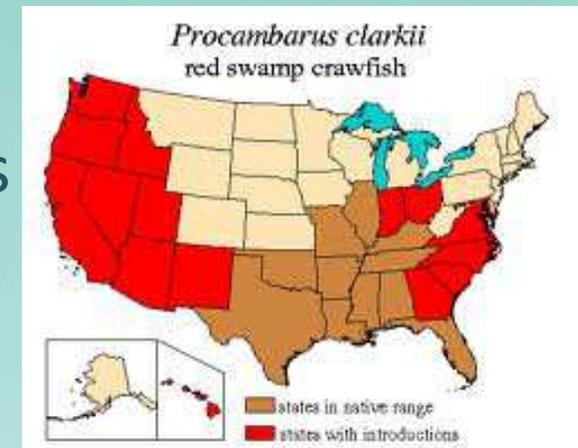
- Native to Europe/NW Asia
- Detected in Trent River, Ontario in 2008
- Forms dense mats
- Sharp serrated leaves that will cut through skin



Additional Consideration

Red Swamp Crayfish

- Native to Gulf Coast up Miss. River to S. Illinois
- Where is the concern:
 - Food: imported live
 - Pet shops
 - Bait purchased from markets



Red Swamp Crayfish

- Virtually impossible to eradicate
- Consulted with MI Restaurant Association
- There is a surrogate crayfish native to MI that is also raised for food export

Red Swamp Crayfish



White River
Crayfish from
Muskegon
River



Rusty Crayfish

- Currently Prohibited under Part 413
- Now considered widespread and naturalized
- Recommend listing as Restricted Species
 - “naturalized and widely distributed...”



Thank You!!!!

