

January 19, 2017

TO: Members of the National Invasive Species Council (NISC)SUBJECT: Recommendations to NISC from the ISAC Meeting held December 6–8, 2016

During the December 6–8, 2016 meeting held at the Smithsonian Institution National Museum of the American Indian, the Invasive Species Advisory Committee (ISAC) approved a white paper entitled, *Invasive Species Impacts on Infrastructure*. This paper advances action items 4.2.1 and 4.2.2 of the 2016–2018 NISC Management Plan.

Because non-native species typically enter the U.S. through ports of entry in urban environments, some of the first observable impacts may be to infrastructure. In many cases, species that initially impacted infrastructure have had devastating impacts on ecological systems, agriculture, and/or fisheries when they spread into less modified landscapes and waterways. The United States currently lacks the comprehensive authority, or clarity of authority, necessary to effectively prevent, eradicate, and control invasive species that impact the human-built environment ("infrastructure"). This prevents rapid response to some of the most damaging invasive species. It also limits the ability of agencies to prioritize and allocate the resources necessary to control invasive species that threaten public security (e.g., zebra mussels [*Dreissena polymorpha*] incapacitating power plants and irrigation systems), undermine costly Federal programs (e.g., the Raspberry/tawny crazy ant [*Nylanderia fulva*], which has impacted electrical systems at the Port of Houston and NASA Johnson Space Center in Houston), and cause homeowners to incur substantial repair and maintenance costs (e.g., Formosan termite [*Coptotermes formosanu*]).

The Management Plan thus calls for NISC to compile case studies and to develop guidance that will enable federal agencies to take the necessary action to prevent, eradicate, and control non-native species that harm or have the potential to harm infrastructure within the United States and its overseas territories.

The ISAC, therefore, recommends:

- 1. NISC should work with relevant federal agencies to help them assess the physical and economic impacts of invasive species on the infrastructure projects that they manage directly or support through federal funding. Documentation should include baseline inventories, infrastructure risk assessment, long-term strategies, budgetary needs and measures of success.
- 2. Given that it is difficult for agencies to quantify the costs of invasive species infrastructure impacts because those costs are often included in overall maintenance and repair budgets, ISAC recommends that NISC work with relevant federal agencies to quantify the actual cost of invasive species management to federally owned or supported infrastructure.
- 3. For existing infrastructure, ISAC recommends to NISC that relevant federal agencies establish mechanisms for funding early detection and rapid response to minimize the impact and the economic burden of invasive species management.
- 4. In the case of new construction or major renovation to existing infrastructure, ISAC recommends that NISC help agencies adopt innovative construction practices that will prevent future impact from invasive species.

Sincerely, John Peter Shomp Jou

John Peter Thompson Chair, Invasive Species Advisory Committee Maryland Nursery and Landscape Association

ATTACHMENTS: Invasive Species Impacts on Infrastructure White Paper