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## A. *Update on the implementation of past recommendations/action items*

There were no Department of Defense specific action items. See sections B and C.

## B. *Departmental news of relevance to ISAC priorities*

This report covers only DOD invasive species related activities, excluding the U.S. Army Corps of Engineers who will submit a separate report on invasive species management and research of interest to the ISAC. DOD specific invasive species resources, policy and guidance, fact sheets, and projects funded by DOD's Legacy Resource Management Program can be viewed at <http://www.dodinvasives.org/Index.html>

As the Federal Government's fifth largest land holder, the DOD is responsible for managing over 25 million ecologically diverse acres harboring across approximately 523 major installations and 562,000 assets worldwide. DOD's priority is to conduct military testing, training and operational activities in ways that balance readiness needs with environmental stewardship responsibilities. Mitigation funding, prevention and management of invasive species on DOD lands is highly variable with funding originating from multiple natural resources and operational appropriations, cooperative conservation efforts, as well as through research and conservation funding awards.

DOD's invasive species management priorities generally fall within three major categories: (1) Management and mitigation of species that directly impact military readiness training; (2) Species that interfere with recovery goals for the 400 threatened and endangered species and more than 550 species at risk found on DOD lands; and (3) Invasive species that impact human health and safety.

High visibility DOD invasive species issues include a multi-agency eradication efforts for coconut rhinoceros beetle at Joint Base Pearl Harbor-Hickam (HI) as well as continued collaborative research, inspection and mitigation efforts for brown tree snakes in Guam. Also of interest is the continued stakeholder implementation of the Regional Biosecurity Plan (RBP) for Micronesia and Hawaii developed by the Navy. Another smaller scale biosecurity plan has been developed for San Clemente Island, CA. Zika virus and associated mosquito control planning and guidance reached the highest levels of DOD in 2016. Of note was the successful EPA Section 18 registration of aircraft disinsection insecticides (2% permethrin) for pre-embarkation applications required by several countries around the world. Zika virus and associated mosquito vector policy, guidance and aircraft disinsection training can be found at the Armed Forces Pest Management Board website ([www.acq.osd.mil/eie/afpmb](http://www.acq.osd.mil/eie/afpmb)).

Some important, but less visible examples of DOD's invasive species management projects include ice plant removal on the beaches of Vandenberg AFB, CA to improve endangered snowy plover habitat and the use of C-130 aircraft to chemically control cheat grass, Saharan thistle, halogeton, musk thistle, Russian thistle, and salt cedar on several western training ranges for enhancing training landscapes, wildland fire control and improving western sage grouse habitat. Other management projects focus on controlling species that impact mobility and security, damage infrastructure and equipment, and harm soldiers. Examples of these species include red imported fire ants, Asian tiger mosquitoes, feral hogs, Formosan termites, giant hogweed, phragmites, cogon grass, Brazilian pepper, and yellow star-thistle.

Agricultural and public health related retrograde cargo treatments are also an important part of DOD invasive species operations for

redeployment of equipment transported around the globe. The USDA APHIS oversees the preclearance program for the military. The DOD funds invasive species projects through its Legacy Program, Strategic Research and Development Program (SERDP), and Environmental Security and Technology Certification Program (ESTCP). Since 1991, the Legacy Program has funded over 140 invasive species projects at military installations totaling \$19M focusing on best management practices, risk analysis, and ecotype restoration. Additionally, the SERDP and ESTCP Program has funded 30 invasive species and biocontrol related projects totaling about \$42M since inception.

DOD funded Legacy and SERDP / ESTCP projects of interest to ISAC include (1) Prioritizing Invasive Plants for Eradication, Containment, and Surveillance; (2) Early Detection Rapid Response Invasive Species Strike Teams; (3) Strategic Management of Invasive Species and Web Seminar series; (4) Great Basin Species-At-Risk and Invasive Species Management; (5) Repellent Tools for Invasive Species Control in Military Cargo; (6) Cooperative Invasive Species Management Areas; (7) Tools: Noxious and Nuisance Plant Management Information System; (8) Model Invasive Species Control Project: Yellow Star Thistle and (8) Introduction of Invasive Species from Participation in OCONUS Exercises. Project details can be downloaded at: [http://www.dodinvasives.org/Legacy\\_Invasive\\_Species\\_Fact\\_Sheet\\_final\\_4-15-15.pdf](http://www.dodinvasives.org/Legacy_Invasive_Species_Fact_Sheet_final_4-15-15.pdf)

Past or on-going biocontrol efforts have been implemented at various military installations (e.g., New Boston Air Force Station, Air Force Academy, Buckley AFB, FE Warren AFB, Cheyenne Mt, and Shriever AFB) targeting hemlock wooly adelgids, Canada/musk thistle, spotted knapweed, leafy spurge, Dalmatian toad flax, and salt cedar. Targeted grazing using goats and cattle has also been used at FE Warren and Vandenberg AFB to control garlic mustard.

### *C. Departmental notes of relevance to ISAC*

Ms Maureen Sullivan, the Office of the Secretary of Defense, Deputy Assistant Secretary for Environmental Safety and Occupational Health (DASD/ESOH), is the DOD NISC Principal, and Dr. Douglas A. Burkett at the OSD Armed Force Pest Management Board is serving as the DOD Policy Liaison.