

**FACTSHEET**

Meet the Invasive Species Challenge.

Know the NISC Plan, Manage the Problem.

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## **National Invasive Species Council FISCAL YEAR 2007 INTERAGENCY INVASIVE SPECIES PERFORMANCE BUDGET**

### **WHY ARE INVASIVE SPECIES SUCH AN IMPORTANT ISSUE?**

Invasive species - whether plants, animals, pathogens or parasites - are estimated to cost the U.S. economy over \$100 billion per year. They cause extensive environmental harm and are the second leading cause (after habitat loss) of species being listed as threatened or endangered. Examples include plants such as kudzu and garlic mustard, animals such as the nutria which has destroyed thousands of acres of wetlands in the Gulf Coast and Chesapeake Bay, pathogens such as foot and mouth disease and West Nile virus which can infect wild and domestic animals and in some cases humans, and parasites like the sea lamprey which has decimated fisheries in the Great Lakes.

### **WHAT IS THE INTERAGENCY INVASIVE SPECIES PERFORMANCE BUDGET?**

The National Invasive Species Council (NISC) was established by Executive Order 13112 in 1999 to coordinate and enhance the invasive species programs of over 40 federal agencies and work closely with state and local governments and private organizations on this critical economic, environmental and health issue. NISC is co-chaired by the Departments of Agriculture, Commerce and the Interior and includes 11 other federal departments and agencies. As called for in the National Invasive Species Management Plan (NISC Plan), NISC developed the first Invasive Species Performance Budget for fiscal year 2004 (FY04). The Office of Management and Budget (OMB) encouraged NISC to develop shared (crosscutting) goal statements, strategies, and common performance measures among agencies as part of the FY04 budget process. The result was a first-of-its-kind inter-agency performance budget that facilitated a more efficient allocation of resources through enriched inter-agency cooperation. It created a starting point for more comprehensive and cooperative efforts for the FY05, FY06 and FY07 budget cycles.

The Invasive Species Inter-agency Performance Budget is designed to:

1. Encourage federal cooperation and coordination on invasive species issues that benefit from an interagency approach.
2. Highlight and promote interagency performance-based approaches to address specific invasive species issues.
3. Provide a clear and comprehensive overview of invasive species issues and efforts across the federal government.

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The FY07 Invasive Species Inter-agency Performance Budget (FY07 Crosscut) builds on the successful efforts in FY04, FY05 and FY06. It includes two sections: **I. General Categories**, a compilation of all (reported) federal expenditures for invasive species in seven broad categories and **II. Specific Initiatives**, a document that identifies ten areas of cooperation, with defined common strategic goals and measurable performance standards.

## I. GENERAL CATEGORIES

The General Categories part of the Performance Budget provides context for the initiatives within total invasive species funding. NISC compiled all federal funding on invasive species, divided into seven general categories, for fiscal years 2002 through 2007. The general categories are:

- Prevention
- Early Detection and Rapid Response (ED/RR)
- Control and Management
- Research
- Restoration
- Education and Public Awareness
- Leadership and International Coordination

The categories were determined in 2001 and closely mirror those used in the NISC Plan. These areas represent the depth and scope of federal invasive species activities.

### FY07 INTERAGENCY BUDGET HIGHLIGHTS (General Categories)

Overall, federal departments would receive an increase of 5.9% for the seven invasive species General Categories in the President's fiscal year 2007 proposed budget. Most notably, Restoration receives a 34% increase, Early Detection and Rapid Response (ED/RR) receives a nearly 20% increase, and Control receives a 5% decrease [Budget Chart I-A]. Of the eight federal departments listed in the General Categories section of the FY07 Invasive Species Performance Budget, USDA receives the greatest funding with USACE, DOI, Department of State, EPA, DOC, and DHS also receiving funds [Budget Chart I-B].

**(Please see last page for a list of federal agency names and abbreviations)**

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## I-A.

**FISCAL YEAR 2007  
GENERAL CATEGORIES SUMMARY (\$1,000)**

	FY 2002 Actual	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Enacted	FY 2007 Presidents Proposed	Change from FY 06 to FY 07	% Change from FY06 to FY07
Prevention	80,086	108,068	124,130	124,232	126,636	131,871	5,490	4.3
ED/RR	98,403	151,276	157,366	206,630	228,136	270,721	43,014	18.9
Control	366,884	448,420	457,074	461,879	473,487	446,540	-26,272	-5.5
Research	152,498	169,268	190,808	197,145	207,620	222,250	13,895	6.7
Restoration	14,578	21,935	23,405	31,638	33,954	34,246	422	1.2
Education & Public Awareness	39,548	51,598	59,134	45,454	49,561	48,175	-1,411	-2.8
Leadership & International Coordination	24,835	50,809	78,204	51,684	58,860	75,682	16,733	28.4
<b>TOTALS</b>	<b>776,832</b>	<b>1,001,374</b>	<b>1,090,120</b>	<b>1,118,812</b>	<b>1,177,615</b>	<b>1,229,486</b>	<b>51,871</b>	<b>4.4</b>

## I-B.

**Fiscal Year 2007 President's Budget  
General Category Summary by Department (\$1,000)**

	USDA	USACE	DOI	STATE	DOC	DHS	NASA	EPA	TOTAL
Prevention	121,003	600	5,117	0	800	4,000	335	10	131,871
ED/RR	259,860	700	8,058	0	1,000	0	1,103	0	270,721
Control	340,308	68,000	24,784	12,119	1,000	0	279	50	446,540
Research	204,728	3,600	10,845	0	2,000	0	268	809	222,250
Restoration	12,691	10,500	10,590	0	0	0	465	0	34,246
Education & Public Awareness	47,815	200	32	0	0	0	128	0	48,175
Leadership / International Coordination	74,418	0	616	88	500	0	0	60	75,682
<b>TOTALS</b>	<b>1,060,829</b>	<b>83,600</b>	<b>60,042</b>	<b>12,207</b>	<b>5,300</b>	<b>4,000</b>	<b>2,579</b>	<b>929</b>	<b>1,229,486</b>

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## II. SPECIFIC INITIATIVES

The FY07 Specific Initiatives document includes strategic performance measures for six specific invasive species initiatives:

- Brown Treesnake
- Emerald Ash Borer
- Leafy Spurge/Yellow Star Thistle
- Tamarisk
- Sudden Oak Death
- Asian Carp

As well as four issues and program-based initiatives:

- Ballast Water
- Aquatic Area Monitoring
- Early Detection and Rapid Response (ED/RR)
- Innovative Control Technologies

These ten initiatives were chosen because they are good examples of multi-departmental federal cooperation to address an important invasive species issue. A number of the issue-based initiatives are also important components of the NISC Plan.

### **FY07 INTERAGENCY PERFORMANCE BUDGET HIGHLIGHTS (Specific Initiatives)**

**Summary Data provided in Budget Charts II –A and II –B.**

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**A) Specific Species Initiatives:****Brown Treesnake**

The Brown Treesnake is a devastating environmental and agricultural pest in Guam where it is responsible for the extinction of several endemic species and causes millions of dollars in damage each year by triggering power failures and reducing tourism. The brown treesnake poses a serious ecological and economic threat to Hawaii, the Commonwealth of Northern Marianas Islands, Samoa, other Pacific islands and the mainland United States. The introduction of the brown treesnake from Guam to other locations could have significant national and international implications. To prevent the spread of this threat, the President's FY07 proposed budget calls for:

- Evaluation and improvement of new and existing brown treesnake control products.
- Enhancement of methods of detection, monitoring, and control.
- Creation and management of areas to protect endangered species and other wildlife from brown treesnake predation.
- Successful testing of a new brown treesnake bait application
- Monitoring and control of additional acres on Guam
- Continued monitoring of the number of brown treesnake interceptions at Guam ports of exit

(Participating agencies and Departments include USDA: APHIS; and NRCS; DOI: USGS, FWS and OIA).

**Tamarisk**

Tamarisk, or salt cedar, is an invasive shrub, primarily affecting the Southwestern United States. Tamarisk causes severe environmental and economic damage from increased salinization of soils, interference with water management, increased fire frequency, and alteration and degradation of native habitats. The problems caused by tamarisk are especially acute in times of drought. In response to this multifaceted problem, the President's FY07 proposed budget calls for federal agencies to take several collaborative actions. Agencies will:

- Use remote sensing to determine the range and impact of tamarisk infested areas.
- Initiate over 60 weed prevention programs to prevent new infestations.
- Apply comprehensive Integrated Pest Management (IPM) programs to control, manage, and suppress existing infestations on over 12,000 acres.

(Participating agencies include DOI: BLM, FWS, NPS, USGS, BOR, BIA; USDA: FS, NRCS, ARS, APHIS; DOD: USACE)

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**Emerald Ash Borer**

The emerald ash borer is an Asian beetle currently infesting more than 13,000 square miles in North America (in the United States, mostly in Michigan, but also in Ohio, Maryland, and Virginia and in Canada in the Windsor, Ontario area). The emerald ash borer targets ash trees (which comprise an estimated 5 – 20% of all plantings in the Eastern United States and Canada) with disastrous effect. If this threat is not controlled, it could impact ash trees (*Fraxinus* genus) as the Chestnut Blight of the 1930's impacted chestnut trees, where 99+% of all afflicted trees died. To counter this looming threat, the President's FY07 proposed budget provides funding to:

- Identify the range and level of infestation in high-risk areas over 12,000 acres.
- Increase public awareness.
- Develop methodologies to predict areas at-risk for infection and initiate prevention programs.
- Conduct eradication and control activities.
- Restore one-tenth of afflicted acres.
- Start several research initiatives to support field efforts in detection, eradication, monitoring, management and restoration of effected ecosystems.

(Participating agencies include USDA: FS, APHIS, ARS; and DOI: USGS)

**Leafy Spurge and Yellow Star Thistle**

Leafy spurge and yellow star thistle are two invasive plants that cause tremendous environmental and economic problems in the Northwest and Northern Great Plains states. Both reduce forage production and wildlife habitat and are poisonous to many grazing animals. To address this growing invasive weed problem, the President's FY06 proposed budget calls for:

- Use of remote sensing to inventory federal and non-federal infested acreage.
- Initiation of techniques to prevent new infestations, and implementation of comprehensive Integrated Pest Management (IPM) control techniques.
- Restoration of native or desirable vegetation in treated areas and development of research tools to aid field detection, monitoring, eradication and control efforts.
- Determination of the range and level of infestation.
- Estimation of the impacts of invading species on native species.
- Creation of state weed-free forage programs.
- Release of scientifically tested biological control agents.
- Restoration of impacted areas.
- Discovery of new biological control agents.

(Participating agencies include DOI: BLM, FWS, NPS, USGS; USDA: FS, ARS, APHIS; DOD: USACE)

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**Sudden Oak Death (SOD)**

SOD (also called Ramorum blight) is an ecologically devastating new pathogen that has killed tens of thousands of hardwood trees in 14 California counties and part of one county in Oregon. The pathogen increases the risk of forest fire, and causes severe economic damage. Although the pathogen is established in only these two states, it has been detected on nursery stock in at least 21 other states. There have been no confirmed detections in forests outside of the regulated areas in California and Oregon. SOD threatens not only oaks, but conifers, laurels and other trees across the entire country. In response to this menace to America's forests and silviculture industry, the President's FY06 proposed budget calls for the following activities:

- Provide critical support to monitoring and detection activities to identify incipient new infestations and promote numerous prevention activities.
- Prevent the spread of SOD through professional and public education and outreach, and establishment of effective domestic and international partnerships.
- Treat newly infested areas.
- Develop and implement restoration strategies for SOD-damaged areas.
- Continue to support and enhance critical research to enhance field efforts aimed at prevention, detection, and control of SOD.

(Participating agencies include USDA: ARS, APHIS, CSREES, and FS)

**Asian Carp**

The entire Great Lakes ecosystem faces a grave potential threat from three Asian Carp species (bighead, black, and silver). Unless they are prevented from continuing their northward colonization, they will likely find their way into Lake Michigan through the Chicago Ship and Sanitary Canal and potentially cause enormous damage to native species and the entire Great Lakes ecosystem. To prevent this potentially disastrous situation, the President's FY07 Proposed Budget calls for the following actions:

- Provide for effective maintenance and operation of the Chicago Ship and Sanitary Canal electric dispersal barrier.
- Develop and implement measures to test the effectiveness of the barrier periodically.
- Finalize the Asian Carp Control and Management Plan to minimize impacts.
- Develop rapid response plans.
- Research new Asian carp chemical and biological control technologies.
- Identify specific vulnerabilities in Asian carp through physiology, and genetic characterization studies.

(Participating agencies include DOI: USGS and FWS; DOD: USACE)

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**B) Issue and Program-Based Initiatives:****Ballast Water**

To address the most important aquatic pathway for the introduction of invasive species, the President's FY07 proposed budget includes a joint, competitive research grant program for the development of new ballast water treatment technologies. To accomplish this goal, federal agencies will:

- Sponsor eight ballast water management technology projects.
- Develop and implement a standardized program to test and certify the performance capabilities of ballast water treatment systems.
- Conduct a pilot scale verification trial of a full-scale treatment to validate the standardized program by the end of 2006.

(Participating agencies include DOC: NOAA; DOI: FWS, USGS; DOT: Maritime Administration; and EPA)

**Monitoring Aquatic Areas**

The President's FY07 proposed budget calls for the development of an effective and proactive strategy to address the problem of aquatic invasive species. To minimize the establishment of aquatic invasive species, federal agencies will work collaboratively to:

- Establish standardized protocols for early detection of invasive species in different aquatic habitats.
- Test and publish a manual on standardized protocols for surveying and monitoring a minimum of five habitats and/or species groups.
- Develop an aquatic invasive species monitoring protocol for National Park units.
- 'Harmonize' survey and aquatic monitoring databases among cooperating agencies and begin building a national reporting, warning and information dissemination system.

(Participating agencies include DOI: USGS and FWS; DOD: USACE; DOC: NOAA)

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**Early Detection and Rapid Response**

The overall objective of this initiative is to detect, eliminate or control the spread of newly established invasive species before they cause significant economic or environmental damage or harm human, plant, or animal health. Along these lines, the President's FY07 proposed budget calls for federal agencies to work together to:

- Improve general public knowledge and understanding of invasive species issues in order to build a network of trained professionals and volunteers necessary to detect new outbreaks. Trained personnel will form the backbone of this network and will encourage public participation.
- Develop and implement new methods of detection and identification of invasive species.
- Train over 2,000 volunteers which will result in over 50,000 hours of volunteer service.
- Develop early detection pilot projects for:
  - Particular geographic areas
  - Taxonomic groups
  - Specially designated areas and/or specific agricultural commodities
- Develop regional, contingency-based rapid response plans for both aquatic and terrestrial species.

(Participating agencies include DOI: BLM, FWS, USGS; USDA: APHIS, ARS, NRCS; DOD: USACE)

**Innovative Control Methodologies**

Successful invasive species control activities are a result of using integrated biological, chemical and mechanical techniques. However, adequate or appropriate control options are often limited or unavailable for these large-scale and highly complex ecosystems. In order to provide resource managers with adequate and appropriate invasive species control options, the President's FY07 proposed budget calls for federal agencies to:

- Conduct research to develop new and improved control technologies. This research will be in the form of:
  - Chemical and biological control methodology development
  - Characterization of physiology, genetics and ecology of invasive species
  - Development of native plant and animal restoration technologies
  - Integration of various control methodologies to provide economically efficient and ecologically sound pest management systems

(Participating agencies include DOI; USGS, FWS; DOD: USACE; USDA; ARS, NRCS, and APHIS)

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<b>FY 2007 INTERAGENCY PERFORMANCE BUDGET SUMMARY</b>				
<b>INITIATIVE</b>	<b>Base Funding from FY 2006 (\$1000)</b>	<b>Proposed Funding for FY 2007 (\$1000)</b>	<b>Change from FY 2006 – FY 2007 (\$1000)</b>	<b>PERCENT change from FY 2006 – FY 2007</b>
Brown Treesnake	4,579	4,001	-578	-12.7
Tamarisk	8,710	7,333	-1,377	-15.8
Emerald Ash Borer	13,345	35,332	21,987	164.8
Leafy Spurge / Yellow Star Thistle	6,485	7,096	611	9.4
Sudden Oak Death	7,447	15,345	7,898	106.1
Asian Carp	1,832	1,832	0	0
Ballast Water	4,834	4,834	0	0
Aquatic Area Monitoring	1,719	2,549	830	48.3
Early Detection / Rapid Response	75,134	89,523	14,389	19.2
Innovative Control Technologies	227,277	227,277	0	0
<b>TOTAL</b>	<b>351,362</b>	<b>395,122</b>	<b>43,760</b>	<b>12.5</b>

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## II-B.

<b>FY 2007 INTERAGENCY PERFORMANCE BUDGET INITIATIVE SPENDING BY DEPARTMENT (\$1,000)</b>					
	<b>USDA</b>	<b>DOI</b>	<b>DOC</b>	<b>DOD</b>	<b>DHS</b>
<b>Brown Treesnake</b>	750	3,251	0	0	0
<b>Tamarisk</b>	4,110	2,473	0	750	0
<b>Emerald Ash Borer</b>	35,302	30	0	0	0
<b>Leafy Spurge / Yellow Star Thistle</b>	4,592	2,029	0	475	0
<b>Sudden Oak Death</b>	15,345	0	0	0	0
<b>Asian Carp</b>	0	832	0	1,000	0
<b>Ballast Water</b>	0	834	0	0	4000
<b>Aquatic Area Monitoring</b>	0	359	830	1,360	0
<b>Early Detection / Rapid Response</b>	86,162	1,461	0	1,900	0
<b>Innovative Control Technologies</b>	219,708	569	0	7,000	0

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**FEDERAL AGENCY NAMES AND ABBREVIATIONS**United States Department of Agriculture--USDA

Animal and Plant Health Inspection Service—APHIS

U.S. Forest Service—FS

Natural Resource Conservation Service—NRCS

Agricultural Research Service—ARS

Cooperative State Research, Education, and Extension Service—CSREES

United States Department of the Interior—DOI

U.S. Geological Survey—USGS

Fish and Wildlife Service—FWS

Office of International Affairs—OIA

Bureau of Land Management—BLM

National Park Service—NPS

Bureau of Reclamation—BOR

Department of Defense—DOD

U.S. Army Corp of Engineers—USACE

Department of Commerce—DOC

National Oceanic and Atmospheric Administration—NOAA

Department of Homeland Security—DHS

United States Coast Guard—USCG

Department of Transportation – DOT

The Maritime Administration – MARAD

Environmental Protection Agency—EPA

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