FACTSHEET

Meet the Invasive Species Challenge. Know the NISC Plan, Manage the Problem. PREPARE, PREVENT, PROTECT.

National Invasive Species Council
FISCAL YEAR 2005 INTERAGENCY INVASIVE SPECIES PERFORMANCE-BASED BUDGET

WHY ARE INVASIVE SPECIES IMPORTANT?

Invasive species--whether plants, insects, 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. They include pathogens and parasites, such as foot and mouth disease and West Nile Virus, which can infect wild and domestic animals and humans.

WHAT IS THE INTERAGENCY INVASIVE SPECIES PERFORMANCE-BASED BUDGET?

The National Invasive Species Council (NISC) was established by Executive Order in 1999 to coordinate and enhance the invasive species programs of 23 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 Interior and includes seven other federal departments. As called for in the National Invasive Species Management Plan, NISC developed the first invasive species crosscut budget for fiscal year 2004. The Office of Management and Budget (OMB) encouraged NISC to develop shared goal statements, strategies, and common performance measures among agencies as part of the FY04 budget process. The result was a first-of-its-kind interagency performance budget that facilitated the more efficient allocation of resources through enriched interagency cooperation

The Invasive Species Crosscut Budget was 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 invasive species issues.
3. Provide a clear and comprehensive picture of invasive species issues and efforts across the federal government.

NISC identified areas of cooperation, defined common strategic goals, determined measurable performance standards and created a starting point for the more comprehensive and cooperative effort that OMB encouraged for the FY05 budget cycle.

Building off the success of the FY04 effort, NISC prepared a more comprehensive performance-based budget for FY05. The FY05 effort highlights ten interagency initiatives with strategic performance measures for four specific invasive species:

- Brown Tree snake
- Emerald Ash Borer
- Leafy Spurge/Yellow Star Thistle
- Tamarisk

as well as more general performance-based initiatives on:

- Ballast Water
- Screening of Deliberately Introduced Non-native Organisms
- Prevention Through Education
- Aquatic Area Monitoring
- Early Detection and Rapid Response
- Innovative Control Technologies

These ten initiatives were chosen because they are good examples of multi-departmental federal cooperation to address a single, important, invasive species issue.

To provide 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 2005. The general categories are:

- prevention
- early detection and rapid response
- 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 National Invasive Species Management Plan. These areas represent the depth and scope of federal invasive species activities.

FY05 INTERAGENCY BUDGET HIGHLIGHTS (General Categories)

Overall, federal departments would receive an increase of 8% for the seven invasive species General Categories in the President's fiscal year 2005 proposed budget. Most notably, Early Detection and Rapid Response receives a 54% increase and Control receives a 7% decrease (Budget Chart D). Of the eight federal departments listed in the General Categories section of the FY05 Invasive Species Crosscut Budget, USDA receives the greatest funding with USACE, DOI, Department of State, EPA, DOC, DHS and DOT also receiving funds (Budget Chart E). (**Please see last page for a list of federal agency names and abbreviations)**

FY05 INTERAGENCY PERFORMANCE-BASED BUDGET HIGHLIGHTS (Specific Initiatives)

Summary Data provided in Budget Charts A, B and C.

A) Specific Species:

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 FY05 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; 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 FY05 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 programs to control, manage, and suppress existing infestations on over 12,000 acres.

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

Emerald Ash Borer

The Emerald Ash Borer is an Asian beetle currently infesting 5,600 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 left unchecked, 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 FY05 proposed budget provides funding to:

- Identify the range and level of infestation in high-risk areas by surveying 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 FY05 proposed budget calls for:

- Use remote sensing to complete an accurate inventory of federal and non-federal infested acreage.
- Initiation of techniques to prevent new infestations, and implementation of comprehensive Integrated Pest Management techniques to control and suppress existing infestations.
- 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; and the USACE)

B) Prevention:

Improvement of ballast water management and research efforts.

To address the most important aquatic pathway for the introduction of invasive species, the President's FY05 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 2005.

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

Screening of Deliberately Introduced Non-native Organisms.

Many species are intentionally introduced into areas outside their native range. These intentional introductions are often beneficial or benign. However, some introduced species become invasive and have severe negative effects on the economy, environment and/or human health. The President's FY05 proposed budget calls for:

- Long-term collaboration of relevant federal entities to promote the development of screening protocols for the intentional introduction of non-native aquatic species.
- Production of screening concepts, policies and guidelines.

(Participating agencies include DOC: NOAA; DOI, and USDA).

Prevention through Education.

Human activity may facilitate the unintentional introduction and spread of invasive species. The President's FY05 proposed budget intends to:

- Use public outreach and education to convey the impact of invasive species on people's lives and natural ecosystems.
- Perform a comprehensive assessment of existing communication and education programs and disseminate the information through an upgraded www.invasivespecies.gov website.
- Expand partnerships with non-governmental organizations and develop innovative exhibit materials.
- Focus special attention on reaching recreation boaters with information regarding the accidental spread of aquatic invasive species by developing educational materials with 20 State agencies.

(Participating agencies include USACE; DOI: NPS, FWS, and the BLM).

C) Research

Monitoring Aquatic Areas

The President's FY05 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: BOR, FWS, NPS; USACE; USDA: FS; and DHS: USCG).

D) Early Detection and Rapid Response--ED/RR:

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 FY05 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 2000 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, CSREES, FS; and the 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 FY05 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; USACE; USDA; ARS, NRCS, and APHIS).

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

FY 2005 BUDGET CHARTS

A

FY 2005 INTERAGENCY PERFORMANCE BUDGET SUMMARY

(Selected Specific Initiatives)

Department	2004 ($1000)	2005 ($1000)	Difference 2004-2005 ($1000)
DOD	$10,355	$15,355	$5,000
USDA	$376,009	$466,750	$90,741
DOI	$9,369	$11,928	$2,559
DOC	$0	$0	$0
EPA	$75	$75	$0
Smithsonian	$325	$325	$0
Total	$396,133	$494,433	$98,300

B

FY 2005 INTERAGENCY PERFORMANCE BUDGET SUMMARY

INITIATIVE	2004 ($1000)	2005 ($1000)	Change from 2004 - 2005 ($1000)	PERCENT change from 2004 - 2005
Brown Treesnake	$3,368	$4,247	$879	26.1%
Tamarisk	$5,929	$4,822	-$1,107	-18.7%
Emerald Ash Borer	$2,018	$16,978	$14,960	741.3%
Leafy Spurge / Yellow Star Thistle	$3,690	$3,916	$226	6.1%
Ballast Water	$945	$945	$0	0.0%
Screening	$0	$0	$0	
Prevention Through Education	$649	$649	$0	0.0%
Aquatic Area Monitoring	$2,647	$2,647	$0	0.0%
Early Detection / Rapid Response	$259,457	$353,669	$94,212	36.3%
Innovative Control Technologies	$117,430	$106,560	-$10,870	-9.3%
TOTAL	$396,133	$494,433	$98,300	24.8%

C

FY 2005 INTERAGENCY PERFORMANCE BUDGET INITIATIVE SPENDING BY DEPARTMENT ($1,000)

	USDA	DOI	DOC	DOD	EPA	SERC
Brown Treesnake	513	3734	0		0	0
Tamarisk	1905	2167	0	750	0	0
Emerald Ash Borer	16948	30	0	0	0	0
Leafy Spurge / Yellow Star Thistle	3031	410	0	475	0	0
Ballast Water	0	870	0	0	75	0
Screening	0	0	0	0	0	0
Prevention Through Education	0	149	0	500	0	0
Aquatic Area Monitoring	0	992	0	1330	0	325
Early Detection / Rapid Response	351368	2001	0	300	0	0
Innovative Control Technologies	92985	1575	0	12000	0	0

D

FISCAL YEAR 2005 GENERAL CATEGORIES SUMMARY ($1,000)

	FY 2002 Actual	FY 2003 Actual	FY 2004 Enacted	FY 2005 President's Request	Change from FY 04 to FY 05	% Change from FY04 to FY05
Prevention	80,086	105,068	115,971	126,522	10,551	**9.10%**
ED&RR	98,403	151,276	160,456	247,263	86,807	**54.10%**
Control	366,884	448,420	478,109	443,846	-34,263	**-7.17%**
Research	152,498	169,218	183,740	202,763	19,023	**10.35%**
Restoration	14,578	21,935	23,819	25,876	2,057	**8.64%**
Ed & Public Awareness	39,548	51,598	53,444	55,422	1,978	**3.70%**
Leadership / International Coordination	24,835	50,809	59,398	67,421	8,023	**13.51%**
TOTALS	**776,832**	**998,324**	**1,074,937**	**1,169,113**	**94,176**	**8.76%**

E

Fiscal Year 2005 President's Budget
General Category Summary by Department ($1,000)

	USDA	USACE	DOI	STATE	EPA	DOC	DHS	DOT	TOTAL
Prevention	118,275	600	4,247	0	0	400	3,000	0	**126,522**
ED&RR	239,272	700	7,291	0	0	0	0	0	**247,263**
Control	351,613	53,000	26,414	12,119	700	0	0	0	**443,846**
Research	185,752	3,153	10,533	0	1,100	2,150	0	75	**202,763**
Restoration	6,589	9,500	9,787	0	0	0	0	0	**25,876**
Ed & Public Awareness	54,772	0	0	0	0	650	0	0	**55,422**
Leadership / International Coordination	66,845	0	0	80		496	0	0	**67,421**
TOTALS	**1,023,118**	**66,953**	**58,272**	**12,199**	**1,800**	**3,696**	**3,000**	**75**	**1,169,113**