

**Activity: Ecological Services**  
**Subactivity: Environmental Contaminants**

	2011 Actual	2012 Enacted	2013			Change from 2012 Enacted (+/-)
			Fixed Costs & Related Changes (+/-)	Program Changes (+/-)	Budget Request	
Environmental Contaminants (\$000)	13,316	13,128	+65	+1,200	14,393	+1,265
FTE	83	82	0	+4	86	+4

**Summary of 2013 Program Changes for Environmental Contaminants**

Request Component	(\$000)	FTE
• General Program Activities	+1,200	+4
<b>Program Changes</b>	<b>+1,200</b>	<b>+4</b>

**Justification of 2013 Program Changes**

The 2013 budget request for Environmental Contaminants is \$14,393,000 and 86 FTE, a net program change of +\$1,200,000 and +4 FTE from the 2012 Enacted.

**General Program Activities (+\$1,200,000/+4 FTE)**

The Service will use these funds to increase restoration activities on Natural Resource Damage Assessment and Restoration (NRDAR) cases. The Service has targeted 3 categories of cases that have restoration balances in the Department of the Interior’s Restoration Fund. The Service’s goal for 2013 is to: 1) close out the existing balances on 12 cases in which restoration has been completed; 2) accelerate the expenditure of restoration funding on 24 cases with active or on-going restoration projects; and 3) expedite the restoration planning process on the 16 largest NRDAR cases by having staff take a leading role in restoration implementation. The Service has prioritized work on these 3 categories of cases because they represent our best ability to complete restoration activities. The additional FTEs, along with the increase in funds, will be used to fully fund or hire new restoration specialists in order to finalize settlements and to complete restoration activities. These combined actions will result in the closure of several NRDAR cases, increase the number of wetland and upland acres and stream miles restored using NRDAR funds, and expedite the initiation of restoration planning activities at some larger sites.

Based on the performance of this program since the late-1990s, we expect to leverage these funds to obtain as much as a 25 to 1 return on this increase; for every \$1 spent we expect to obtain about \$25 in natural resource restoration value. As of 2011, the Service’s EC Program has been awarded nearly \$80 million in NRDA funding from DOI to pursue large NRDA cases. Working in close collaboration with our co-trustee partners, we have collectively obtained about \$2 billion for restoration of fish and wildlife and an additional several billion dollars in response and remediation work to clean-up natural habitats.

**Program Overview**

The Environmental Contaminants Program is dedicated to protecting fish, wildlife and their habitats from the harmful effects of pollutants, climate-related ecological changes, and the interactions between the two. Service trust resources are affected by thousands of chemicals in the environment, such as pesticides, personal care products, pharmaceuticals, nanoparticles, endocrine disrupters, PCBs, dioxins, mercury, selenium, cyanide, ammonia, oil, and the synergistic effects of these pollutants in the environment. The EC program operates under the authority of the Fish and Wildlife Coordination Act, Section 7 of the Endangered Species Act, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Oil Pollution Act of 1990. The Service will use its technical expertise and

knowledge base, collaborate with many internal and external partners, and work within DOI's Landscape Conservation Cooperatives to evaluate the impacts of contaminants on fish and wildlife; this provides critical information, unique technical expertise, and extensive subject matter experience to support Service decisions based on sound science. Operating under the goals outlined in the EC Strategic Plan, the

#### **Mission of the Environmental Contaminants Program**

Conserve, protect, and enhance fish, wildlife and their habitats by identifying and preventing the effects of contaminants, and by restoring impacted resources through collaboration with Service Programs, other federal, tribal, state, and local agencies as well as our partners in academia, industry and the public.

Clean Water Act, Oil Pollution Act, and several other contaminant-related laws, the EC staff works in three important areas: (1) **identifying** and assessing the effects on species and habitats exposed to contaminants; (2) **preventing** trust resources from being exposed to hazardous levels of contaminants; and (3) **restoring** habitats and DOI trust resources injured by contaminants.

#### ***Identifying and Assessing the Effects of Contaminants***

The EC Program ensures that the Service remains the leader in fish and wildlife toxicology issues. Achieving this goal requires working with nearly every Service Program, including Refuges, Migratory Birds, Law Enforcement, Fisheries, Endangered Species, and External/Legislative Affairs. In general, this work prevents, identifies, investigates, reduces or eliminates contaminant impacts to

trust resources through technical assistance activities. Outside the Service, work with other federal, state, tribal, municipal, corporate, and non-profit partners is critical. A critical component of this work is providing toxicological expertise on water quality criteria, pesticide registrations, pesticide use and other pest management practices. Through a peer review process, which evaluates scientific merit and measurable management outcomes, funds are allocated to each Region to investigate contaminant issues both on and off National Wildlife Refuges. In 2011, funds were allocated to the regions to conduct 19 on-refuge investigations and 17 off-refuge investigations. Several of these investigations evaluated the impact of climate change on the effects of contaminants. The Service also participated in 44 natural resource damage assessments supported by the Department's Natural Resource Damage Assessment Fund in 2011.

Service biologists are evaluating the decline of pollinators, including bats, hummingbirds, bees, and butterflies to determine if pesticides are responsible. As animals help pollinate over 75% of all flowering plants, and are vital to the production of many agricultural crops, promoting and researching these pollinators connects people with nature and increases their understanding and appreciation of the important ecological services pollinators provide. Continuing the legacy of Rachel Carson, Service biologists are fully integrated into the broader scientific community, serving as peer reviewers for professional journals, as oral examiners and dissertation advisors to PhD candidates, and as instructors at the Service's National Conservation Training Center and universities. The expertise of Service biologists is recognized internationally as reflected in requests for them to serve on international expert science panels and their successful competition for Fulbright fellowships.

Through the Analytical Control Facility (ACF) located in Shepherdstown, WV, the EC Program provides high-quality analytical chemistry services to the Service and other DOI bureaus. ACF maintains this level of excellence by securing the most technical, efficient, and accurate contract labs and operating under stringent quality assurance and quality control guidelines. During FY2011, the ACF awarded six new analytical contracts, which augment the Service's analytical capabilities for measuring new and emerging contaminants in the environment.

#### ***Preventing Trust Resources from Being Exposed to Contaminants***

In consultation with the Environmental Protection Agency (EPA) on water quality criteria and pesticide registrations, the Service helps prevent or minimize the harmful effects of contaminants on trust

resources. In addition, work continues with EPA on completing water quality consultations on national aquatic life criteria. Protection of trust resources is also ensured through the provision of technical support to our internal and external partners through activities such as reviewing and approving pesticide use proposals, providing input on the Refuge Program’s Comprehensive Conservation Plans, assisting with NEPA evaluation and compliance, and participating on work groups that evaluate the impacts of storm-water and sediment run off on our trust resources.

In FY 2013, the Service will begin developing and implementing scientifically rigorous protocols for national consultations with EPA that are protective of threatened and endangered species. Working collaboratively with the Endangered Species Program, which is receiving a \$1m add for pesticide consultations, the EC Program will work towards developing protocols that produce safe levels of pesticide exposures on listed species. These protocols will include development of safe levels of exposure relevant to pesticide effects on listed species which will greatly improve how the Service conducts section 7 consultations on pesticide registrations. Increasing the scientific and technical capacity of the Service will help ensure ESA compliance for pesticides early in the registration process, minimize the threat of lawsuits, and provide more certainty and guidance to applicants to allow those chemicals to continue to be available for production of food and fiber in this country.

FY2011 NRDAR Accomplishments
<ul style="list-style-type: none"> <li>• 32,068 wetland acres protected or restored</li> <li>• 55,557 upland acres protected or restored</li> <li>• 392 stream miles protected or restored</li> </ul>

***Restoration of Trust Resources***

Service biologists are key members of the DOI NRDAR program, whose mission is to restore natural resources injured as a result of oil spills or hazardous substances released into the environment. The Service provides leadership in the development of DOI Program guidance and participates in all damage assessment cases funded by the Departmental Program. In cooperation with state, tribal and federal

co-trustees, EC staff investigates injuries that result from the release of hazardous material and oil spills, and apply their unique technical expertise to reduce the impact of the spills on natural resources and to restore injured resources. Service staff determines the extent of injury, play a key role in settlement negotiations with responsible parties, and work with interested local, state and national groups to complete projects that restore fish, wildlife, and supporting habitat.

The EC Program works on projects designed to restore and protect waterways and habitat as defined by the America’s Great Outdoors (AGO) initiative. Two examples of AGO projects completed by the NRDAR Program include planting native willow trees and establishing a pedestrian path along the South Platte River using funds from the Shattuck Chemical NRDAR case or securing access for recreational fishing via the protection of 3.5 acres of land along the Naugatuck River in Connecticut using funds from the Housatonic River NRDAR case.

**2013 Program Performance**

Focusing on a science-based conservation strategy, the Service will continue to focus on three critical areas: (1) **identifying** and assessing contaminant effects on species and habitats; (2) **preventing** fish, wildlife, and their habitats from exposure to hazardous levels of contaminants; and (3) **restoring** habitats and DOI trust resources injured by contaminants.

***Identifying and Assessing the Effects of Contaminants***

To ensure the Service remains a leader in fish and wildlife toxicology issues efforts will continue to:

- Operate within the Strategic Habitat Conservation (SHC) framework. During the Biological Planning phase of the SHC process, contaminants are often identified as one of the factors responsible for limiting species population numbers. Service biologists will assist all Service programs in developing a science-based strategy to abate the impact of contaminants and other 'limiting factors' on these populations.
- Strengthen our network of partnerships within established Landscape Conservation Cooperatives (LCCs) to complement and build upon existing ecotoxicology science, thus increasing the Service's conservation efforts within designated geographic areas. Our partners whom we will collect and share scientific information with include Refuges, Migratory Birds, Law Enforcement, Fisheries, Endangered Species, other federal agencies, state, tribal and local governments, universities and other non-federal partners.
- Provide toxicological expertise on consultation and development of water quality criteria, pesticide registrations, pesticide use and other pest management practices.
- Conduct approximately 28 contaminant investigations and 17 contaminant cleanup projects on Refuge lands. Additionally, we will conduct approximately 30 contaminant investigations off Service lands. These investigations provide critical information on the impacts of contaminants to Service lands and trust species, which allows the Service to make science-based management decisions to protect resources.
- Provide high quality and cost effective analytical chemistry services to the Service and other DOI bureaus through the ACF. In 2012, the Service awarded contracts to six laboratories to provide inorganic (e.g., lead, mercury, selenium) analysis of physical and biological samples. For 2013, we anticipate awarding contracts to laboratories for organic (e.g., PCBs, dioxins, and pharmaceutical compounds) analysis. These contract labs will allow the Service to continue to provide analysis of samples for organic chemicals while increasing existing capabilities for measuring new and emerging contaminants in the environment.
- Emphasize the importance of investigating the effects a rapidly changing climate may have on the interaction between contaminants in the environment and the Service's trust resources. Beginning in 2010, the Service enhanced our contaminant investigation proposal process by adding scoring criteria for investigations that address the interactions between climate-related ecological changes and environmental contaminants. The Service will continue this emphasis in 2013.

#### ***Preventing Trust Resources from Being Exposed to Contaminants***

Service biologists will continue to play a critical role in protecting the nation's resources by preventing contaminant-induced injury to fish, wildlife, plants and their habitats. Prevention precludes the considerable costs associated with investigation, remediation and restoration. The Service will continue to:

- Determine the impacts of proposed legislation, regulations, state water quality standards, permits, and licenses, including new licenses or permits for renewable energy initiatives from a contaminant perspective, and recommend how negative impacts might be prevented.
- Conduct national consultations to establish an effective, efficient, and consistent nation-wide approach to consultation on water quality criteria approved or promulgated by EPA.
- Promote SMARxT Disposal™, a nationwide educational campaign about the proper disposal of unused and expired medications, using internal and external outreach and engaging more supporter groups. The Service will continue to work with pharmaceutical partners to coordinate with chain pharmacies for campaign promotion.
- Solidify our prevention message and express it in plain language for our many stakeholder audiences, including Congress and the public. Many of the public events we engage in support the America's Great Outdoor initiative, including our involvement in Earth Day celebration and participation in the Nation's River Bass Tournament at National Harbor and Kids' Fishing at Constitution Gardens.

- Partnering with the Endangered Species Program, which received \$1m in funding for pesticide consultation science, the EC Program will begin developing and helping Endangered Species apply scientifically rigorous protocols for national consultations on pesticides with EPA that are protective of threatened and endangered species.

**Efficiencies**  
 The EC Program continues to streamline our processes and increase our efficiencies. For example, we recently:

- Updated the Contaminant Assessment Protocol (CAP) to a more cost-effective platform and made it more user-friendly to provide a broader application to other Service programs,
- Began using the Tracking and Integrated Logging System (TAILS) automated database to record our annual accomplishments, and
- Awarded long-term contracts to six laboratories to provide inorganic (e.g., mercury and selenium) analysis of samples.

**Restoration of Trust Resources**

The Service will remain a key member of the Department of the Interior’s Office of Restoration and Damage Assessment (ORDA), providing leadership in developing Program guidance. Using an estimated \$4.0 million from the Departmental program, the Service will continue to focus on collaborative restoration with states, tribes, and other federal agencies.

The Service will consider climate-related ecological changes when

developing specific restoration plans and will continue to operate within the SHC framework in implementing restoration projects.

In order to continue to expedite restoration implementation in 2013, the Service will target the budget increase on three types of NRDAR cases. The first focus is on cases in which all the restoration projects have been completed but an unobligated balance remains in the DOI NRDAR fund. Emphasis is on spending these funds, either through additional restoration activities on that specific site, additional monitoring activities, or combining these funds with others funds from similar injuries in order to accomplish restoration. The second focus is to accelerate the expenditure of restoration funding by building on the momentum of active and on-going cases through the strong working relationship of the trustee council resulting in the completion of additional restoration projects. The final focus will expedite the restoration planning process on the largest NRDAR cases and take a leading role in restoration implementation. These activities should allow the Service to accelerate the completion of restoration projects. The Service will begin working with NOAA and other partners to strategically review and consider how best to allocate federal resources to pursue NRDAR cases nationally. Both agencies have extensive expertise and responsibility in addressing natural resource injuries, guiding clean-up and remedial activities, and restoring damaged fish, wildlife, and federal lands. Increasing collaborative efforts in broad scale planning, case prioritization, and resource allocation will enhance the efficiency of the NRDAR process.

**Environmental Contaminants – Combined Performance Change and Overview Table**

Performance Goal	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Plan	2013 PB	Change from 2012 Plan to 2013 PB	Long Term Target 2016
CSF 1.1 Number of DOI riparian (stream/shoreline) miles restored to the condition specified in management plans (GPRA)	53	72	63	65	47	47	0	72

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Performance Goal	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Plan	2013 PB	Change from 2012 Plan to 2013 PB	Long Term Target 2016
1.1.2 # miles of FWS riparian habitats restored through NRDA	n/a	n/a	9	15	5	16	11	n/a
Comments	Given the budget increase for 2013, we anticipate an increase in the number of stream miles restored through the NRDA program.							
CSF 2.1 Number of FWS wetland acres restored to the condition specified in management plans - annual (GPRA)	24,869	61,693	30,054	73,597	23,352	23,352	0	28,000
2.1.4 # of FWS wetland acres enhanced/restored through NRDA - annual	n/a	n/a	256	423	153	452	299	156
Comments	Given the budget increase for 2013, we anticipate an increase in the number of wetland acres restored through the NRDA program.							
CSF 2.3 Number of FWS coastal and marine acres restored to the condition specified in management plans - annual (GPRA)	8,863	103,800	10,281	7,620	6,105	6,105	0	9,000
2.3.4 # of FWS coastal and marine acres restored through NRDA	n/a	n/a	40	400	0	428	428	
Comments	Given the budget increase for 2013, we anticipate an increase in the number of coastal acres restored through the NRDA program.							
CSF 2.4 Number of FWS wetland acres managed or protected to maintain desired condition as specified in management plans - annual (GPRA)	32,194,867	32,087,460	32,069,571	32,231,040	30,556,558	30,556,558	0	32,087,460
2.4.6 # of FWS wetland acres managed or protected through NRDA - annual	n/a	n/a	43,609,237	196	190	209	19	945
Comments	Given the budget increase for 2013, we anticipate an increase in the number of wetland acres protected through the NRDA program.							

**Environmental Contaminants – Combined Performance Change and Overview Table**

Performance Goal	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Plan	2013 PB	Change from 2012 Plan to 2013 PB	Long Term Target 2016
2.9.5 # contaminant actions (e.g., spill drills & responses, investigations, cleanup, assessments, technical assistance, & Clean Water Act activities) benefiting FWS lands	n/a	n/a	1,764	1,006	836	1,006	170	n/a
Comments	For 2013, we anticipate that the # of contaminant actions benefiting FWS lands will increase slightly as our activities will be focused on restoration activities.							
CSF 3.1 Number of non-DOI riparian (stream/shoreline) miles restored, including through partnerships, as specified in plans or agreements that involve DOI (GPRA)	9,796	11,054	3,334	891	604	844	240	633
3.1.4 # of non-FWS riparian (stream/shoreline) miles enhanced/restored through NRDA - annual (GPRA)	391	97	76	89	65	95	30	111
Comments	Given the budget increase for 2013, we anticipate an increase in the number of stream miles restored through the NRDA program.							
CSF 4.1 Number of non-FWS wetland acres restored, including acres restored through partnerships, as specified in management plans or agreements that involve FWS - annual (GPRA)	974,658	458,713	363,141	372,004	213,378	340,270	126,892	447,693
4.1.3 # of non-FWS wetland acres enhanced/restored through NRDA - annual (GPRA)	21,593	3,601	1,676	1,330	392	1,423	1,031	1,882
Comments	Given the budget increase for 2013, we anticipate an increase in the number of wetland acres restored through the NRDA program.							

Environmental Contaminants – Combined Performance Change and Overview Table

Performance Goal	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Plan	2013 PB	Change from 2012 Plan to 2013 PB	Long Term Target 2016
CSF 4.2 Number of non-FWS upland acres restored, including acres restored through partnerships, as specified in management plans or agreements that involve FWS - annual (GPRA)	384,960	271,138	240,345	191,288	104,245	223,009	118,764	136,498
4.2.3 # of non-FWS upland acres enhanced/restored through NRDA - annual (GPRA)	3,289	18,010	1,350	2,485	2,322	2,658	336	1,286
Comments	Given the budget increase for 2013, we anticipate an increase in the number of wetland acres restored through the NRDA program.							
CSF 5.2 Percent of populations of native aquatic non-T&E species managed or influenced by the Fisheries Program for which current status (e.g., quantity and quality) and trend is known	40% (592/1,472)	34% (526/1,569)	32% (502/1,708)	34% (542/1,723)	33% (532/1,632)	27% (447/1,632)	-5%	30% (466/1,565)
5.2.8 # contaminant actions (e.g., spill drills & responses, investigations, cleanup, assessments, technical assistance, & Clean Water Act activities) benefiting trust aquatic non-T&E resources	n/a	n/a	5,627	1,290	748	1,290	542	n/a
Comments	For 2013, we anticipate that the # of contaminant actions benefitting T & E species will increase however, most of our program activities will be focused on restoration activities.							
CSF 6.1 Percent of all migratory bird species that are at healthy and sustainable levels (GPRA)	62.3% (568 of 912)	62.3% (568 of 912)	72.0% (725 of 1,007)	72.1% (726 of 1,007)	72.1% (726 of 1,007)	72.1% (726 of 1,007)	0.0%	71.2% (728 of 1,022)