

Threatened and Endangered Species Team (TEST)

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Environmental Laboratory

9 March 2016





Research Wildlife Biologist at the U.S. Army Engineer R&D Center in Vicksburg, MS.

Primary Duties

- Wildlife Team Leader
- Conducting research and providing technical support to USACE Civil Works projects and DoD military installations

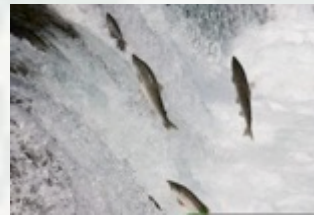
Research interests include:

- Riparian Zone Ecology and Management
- Migratory Bird Ecology and Management
- T&E Species



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Section 7(a)(1) of the Endangered Species Act—Supporting the Mission through Proactive Conservation Planning and Endangered Species Recovery



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Hoover/Killgore

Federal TES Expenditures

Agency/Land Ownership	Expenditure (2011)
NPS – 84 million acres	\$ 12,340,382
FWS – 89 million acres	\$217,939,379
BLM – 253 million acres	\$ 23,481,938
USFS – 193 million acres	\$ 43,564,300



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USFS – 193 million acres	\$ 43,564,300
DoD – 42 million acres	\$393,000,000
U.S. Military	\$141,000,000
USACE	\$252,000,000



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What is the Problem?

USACE TES Expenditures

- ▶ USACE TES conservation and compliance spending averages ~\$230 million per year

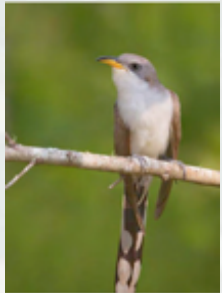
FY14 Top Ten Costliest TES Species

	Common Name	Total
1	Salmon, chinook	\$65,209,235
2	Sturgeon, pallid	\$62,619,597
3	Steelhead	\$31,828,548
4	Salmon, sockeye	\$10,715,945
5	Tern, least	\$8,431,784
6	Plover, piping	\$8,307,257
7	Flycatcher, southwestern willow	\$3,847,451
8	Salmon, coho	\$3,270,107
9	Salmon, chum	\$2,305,573
10	Trout, bull	\$2,302,528
	Top 10 Total	\$198,838,025
	Percent of FY14 Total	87.57%

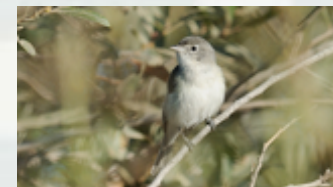
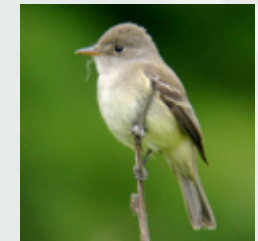
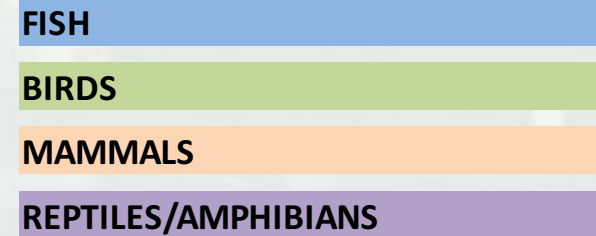


What is the Problem?

- 85% of USACE expenditures are on fish
- ~10% on birds

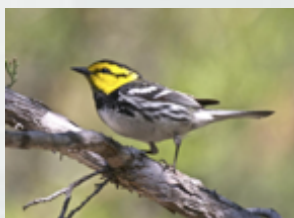
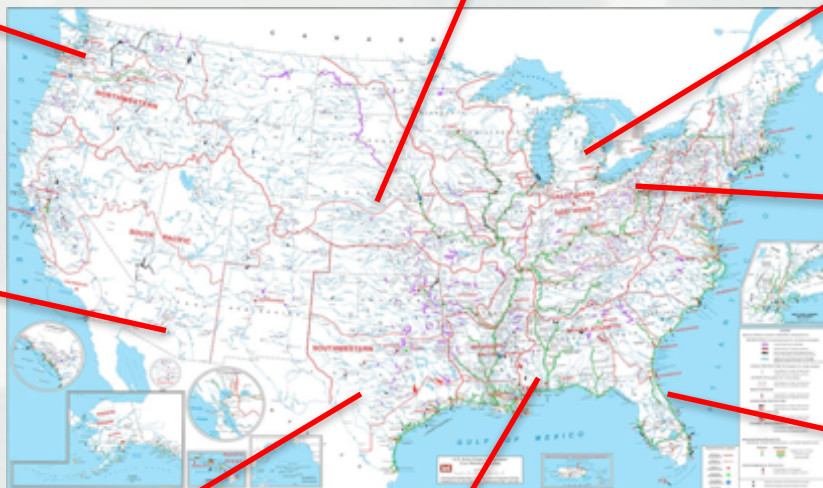
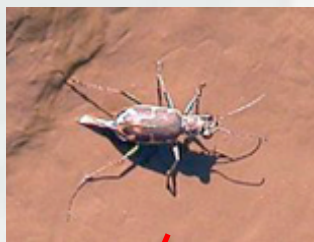


Salmon, chinook (9 Populations)	\$73,851,410
Steelhead (11 populations)	\$51,907,342
Sturgeon, pallid	\$48,718,484
Salmon, sockeye (2 Populations)	\$14,293,621
Flycatcher, southwestern willow	\$7,668,176
Salmon, chum (2 Populations)	\$6,102,995
Minnow, Rio Grande silvery	\$5,787,904
Plover, piping (2 Populations)	\$5,339,877
Tern, least	\$4,467,906
Salmon, coho (4 Populations)	\$3,404,322
Sturgeon, Atlantic	\$2,248,191
Vireo, least Bell's	\$2,229,661
Sturgeon, shortnose	\$1,628,115
Sturgeon, North American green	\$1,385,026
Woodpecker, red-cockaded	\$1,058,791
Trout, bull	\$979,656
Smelt, delta	\$586,391
Bat, Indiana	\$560,676
Sea turtle, loggerhead	\$496,875
Manatee, West Indian	\$469,134



What is the Problem?

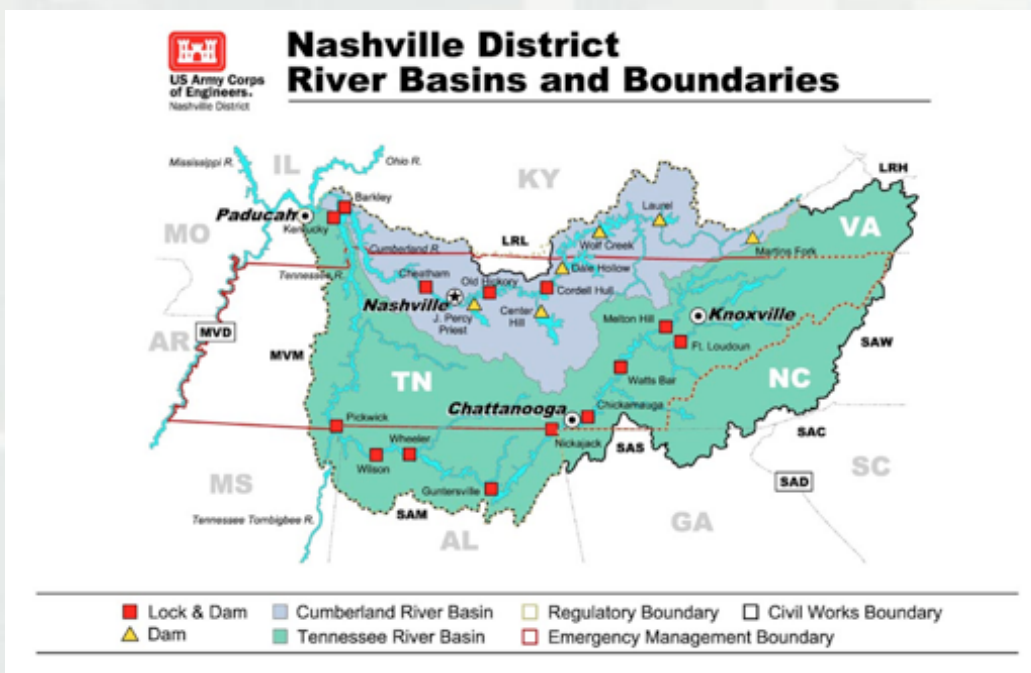
- ▶ TES conservation concerns currently exist at over 430 USACE projects, for over 300 different species



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What is the Problem?

- ▶ An additional 250 species listings or critical habitat designations are expected to occur by 2018



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What is the Problem?

- ▶ USACE has no formal and organized strategy to address TES
- ▶ Single-species approaches used to date have provided mixed results in terms of meeting the objective of easing operational constraints on the Corps.



What is the Problem?

Expenditures on TES by USACE Division

USACE TES Costs by Division, Comparison of FY12-14

Division	FY14	%	FY13	%	FY12	%	Prior Yr Change
NWD	\$187,183,216	82.4%	\$197,636,509	79.4%	\$280,786,918	83.5%	(\$10,453,293)
SPD	\$15,608,569	6.9%	\$31,755,211	12.8%	\$28,556,186	8.5%	(\$16,146,642)
SAD	\$9,869,724	4.3%	\$9,285,603	3.7%	\$12,777,165	3.8%	\$584,121
NAD	\$4,196,641	1.8%	\$3,008,131	1.2%	\$2,116,730	0.6%	\$1,188,510
MVD	\$3,524,474	1.6%	\$3,052,687	1.2%	\$1,923,351	0.6%	\$471,787
LRD	\$3,231,315	1.4%	\$1,061,633	0.4%	\$1,079,457	0.3%	\$2,169,682
SWD	\$2,819,784	1.2%	\$2,309,651	0.9%	\$2,984,665	0.9%	\$510,133
POD	\$620,383	0.3%	\$844,116	0.3%	\$6,239,536	1.9%	(\$223,733)
Total	\$227,054,106	100.0%	\$248,953,541	100.0%	\$336,464,008	100.0%	(\$21,899,435)



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What is the Problem?

FY14 TES Expenditures by USACE South Pacific Division

SpeciesName	Species Total	SPA	SPK	SPL	SPN
Flycatcher, southwestern willow	\$3,847,401	\$2,739,591	\$42,730	\$1,063,480	\$1,600
Steelhead	\$2,520,643		\$793,695	\$131,050	\$1,595,898
Minnnow, Rio Grande silvery	\$1,877,852	\$1,877,852			
Salmon, Chinook	\$1,536,929		\$1,458,072		\$78,857
Salmon, coho	\$1,436,860				\$1,436,860
Vireo, least Bell's	\$1,233,896		\$22,766	\$1,204,730	\$6,400
sturgeon, green	\$481,602		\$407,302		\$74,300
Beetle, valley elderberry longhorn	\$461,901		\$461,901		
Smelt, delta	\$243,949		\$190,749		\$53,200
Sucker, Santa Ana	\$243,416			\$243,416	
Frog, California red-legged	\$195,480		\$49,548	\$37,132	\$108,800
Mouse, salt marsh harvest	\$190,600				\$190,600
Salamander, California tiger	\$96,486		\$47,686		\$48,800



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USACE Threatened & Endangered Species Team (TEST)

- Purpose

Accelerate the development of solutions to priority threatened and endangered species issues that will:

- ▶ *Improve operational flexibility*
- ▶ *Reduce future costs*
- ▶ *Improve budget planning capabilities*
- ▶ *Reduce adverse impacts to mission execution*
- ▶ *Improve species conservation outcomes*



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What is the Threatened & Endangered Species Team (TEST)?

Objectives

- Identify and document TES with biggest impacts to USACE mission (monetarily and operationally)
- Prioritize resolvable TES issues with respect to potential ROI
- Investigate system-level approaches with high ROI (e.g., beach nourishment, RSM)
- Identify needed R&D with high impact to TES recovery or decreased mission impact
- Develop a R&D investment plan based on priorities and ROI
- Integrate *EWN and ESA 7(a)(1)* as proactive tools for conservation and recovery



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USACE Threatened & Endangered Species Team -TEST Advancing the USACE Approach

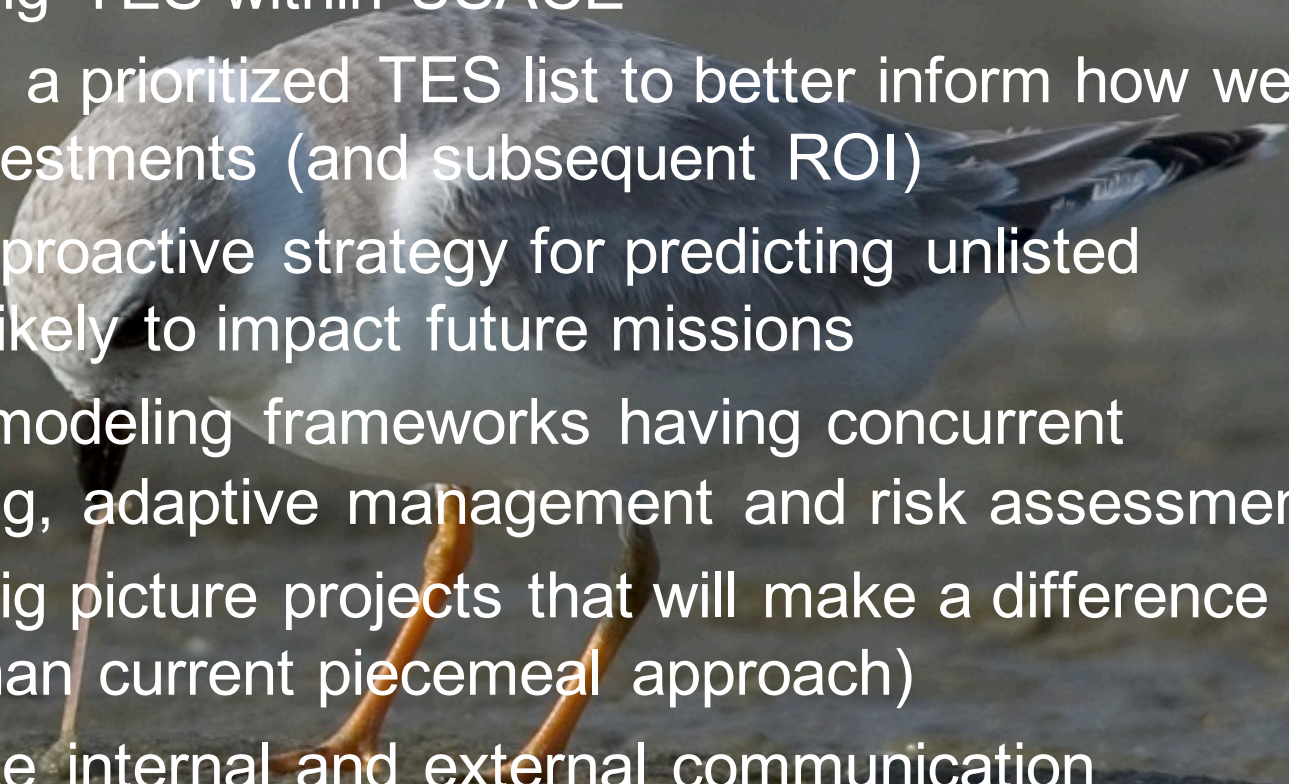
■ “T” in TEST

- ▶ HQ - Mr. Joe Wilson, Coordinating Lead; Legal, Business Line Leaders, Others
- ▶ MSC & District Chiefs and T&E Leads
- ▶ ERDC - Dr. Todd Bridges, Senior Scientist; Dr. Richard Fischer, Lead Coordinator; and Subject Matter Experts (SMEs) across labs
- ▶ District Staff – Project Managers, SMEs
- ▶ Additional USACE Resources – IWR, Mr. Jeff Krause (NRM); Military Programs T&E SMEs, others
- ▶ Resource Agencies, Industry, Academia, Other Stakeholders



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TEST Workshop Action Items

- Develop comprehensive long-term strategy for addressing TES within USACE
 - Establish a prioritized TES list to better inform how we make investments (and subsequent ROI)
 - Develop proactive strategy for predicting unlisted species likely to impact future missions
 - Explore modeling frameworks having concurrent monitoring, adaptive management and risk assessment
 - Design big picture projects that will make a difference (rather than current piecemeal approach)
 - Modernize internal and external communication (improved websites; social networking)
- 

ESA SECTION 7(a)(2)

Each Federal agency shall ... insure that any action ... is not likely to jeopardize the continued existence of any endangered species or threatened species...or result in destruction...of (critical) habitat...

Section 7(a)(2) consultations

- Occur when actions of a FEDERAL agency (funded, or permitted by) may adversely affect a listed species
- For example, dam operations by the USACE may affect Interior Least Terns & Great Plains Piping Plovers
- Action agency (USACE) writes Biological Assessment
 - ▶ If FWS determines that action is “likely to adversely affect...”
- FWS writes Biological Opinion (issues IT statement)
 - ▶ Jeopardy analysis (do actions jeopardize continued existence?)
 - ▶ If no, reasonable and prudent measures, terms and conditions
 - ▶ If yes, reasonable and prudent alternatives (jeopardy only)

An aerial photograph of a wide river flowing through a green, agricultural landscape. The river is the central focus, with sandy banks and some vegetation along its edges. The surrounding land is divided into fields and some wooded areas. The overall tone is somewhat muted, with a slight greenish-grey tint.

History

40+ years of using ESA Formal Consultation through Section 7(a)(2)

- *Adversarial*
- *Confrontational*
- *Dictatorial*
- *Costly*
- *Little Flexibility*
- *Unpredictable*
- *Little or no control*
- *Losing process for the species*

PURPOSE OF SECTION 7(a)(1)

To address the conservation (recovery) needs of listed species relative to Federal Program impacts.

- ▶ Section 7(a)(1) conservation programs are to improve listed species baselines within the scope of Federal action agency authorities.

Conservation Benefits

“Section 7a1 allows FWS or NMFS to work continuously with a Federal agency to develop a program of species conservation that uses all the agency’s authorities, is at the agency’s disposal at all times, and does not depend on the presence of a particular project for implementation.” (Ruhl 1995)

New Approach

Section 7(a)(1)

- Allows USACE to be proactive in consultation and conservation processes rather than reactionary
- Reduces surprises and conflicts
- We commit to actions we would be predisposed to undertake anyway under 7(a)(2)
- Reduce future 7(a)(2) consultations
- Actions contingent upon availability of funds providing budget predictability
- Improves likelihood of species recovery

Conservation Programs under 7(a)(1) are designed to improve listed species baselines within the scope of Federal action agency authorities.

Conservation Management Agreements

- Explicit plan for specific management actions
- Formal agreement enables long-term management
 - ▶ Any combination of agencies and organizations
 - ▶ Partners must have legal authority for management
 - ▶ Agreement must contain funding mechanisms
 - ▶ Agreement must be legally enforceable
- De-listing possible (protections of ESA not needed)

USACE/USFWS 7(a)(1) Coordination



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240



In Reply Refer To:
FWS/AES/DER/BCP/058968

JAN 09 2015

Memorandum

To: Regional Directors
Attn: Assistant Regional Directors, Ecological Services

From: Deputy Director *Steph Hunt*

Subject: Working with the U.S. Army Corps of Engineers to Improve the Effectiveness of the Endangered Species Act (ESA) by expanding the use of Section 7(a)(1)

Section 7(a)(1) of the ESA requires all Federal agencies to use their authorities, in consultation with the Service, to carry out programs for the conservation of listed threatened and endangered species. Proactive and collaborative conservation using 7(a)(1) programs can improve outcomes for listed species and streamline Section 7(a)(2) consultation processes. In addition, larger scale, more integrated approaches to the conservation of these species should improve interagency communication, cooperation, and trust, as well as promote adaptive management, strategic habitat conservation, and operational flexibility.

Recently, USACE Mississippi Valley Division and the Service's Southeast Region broke new ground through collaborative development and implementation of a Section 7(a)(1) Conservation Plan for three species in the Lower Mississippi River as part of the Mississippi River and Tributaries Channel Improvement Program (see attached fact sheet). The USACE and Service believe this model can and should be replicated across the Nation.

By this memorandum, you are empowered and encouraged to work with your USACE counterparts to use creative solutions suitable to your Region to implement Section 7(a)(1). Major General John Peabody, Deputy Commanding General for Civil and Emergency Operations, USACE, recently transmitted a similar memorandum to USACE Divisional Leadership (attached).

For questions or comments regarding improving the effectiveness of the ESA through implementing Section 7(a)(1) please contact Mr. Craig Aubrey, our Ecological Services Division Chief for Environmental Review at 703-358-2442.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-5000

CECW-ZA

30 June, 2015

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS, CHIEFS, OPERATIONS DIVISIONS

SUBJECT: Improving the Efficiency of Project Operations and Effectiveness of Endangered Species Act Compliance for U.S. Army Corps of Engineers Projects

1. References.

- a. Endangered Species Act Section 7(a) Federal Agency Actions and Consultations. (1) The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to Section 4 of this Act.
- b. Endangered Species Act Section 7(a) Federal Agency actions and Consultations. (2) Section 7(a)(2) requires Federal agencies to consult with the Service to ensure that actions they fund, authorize, permit, or otherwise carry out will not jeopardize the continued existence of any listed species or adversely modify designated critical habitats.
- c. Fact Sheet, USACE and Service Implement an Innovative Conservation Approach that Yields Success for Wildlife, U.S. Fish and Wildlife Service, September 2014.
- d. Memorandum for all Counsel, HQ, Divisions, Districts, Centers, Labs & FOA offices, subject: ESA Guidance, dated 11 June 2013.
- e. Memorandum for See Distribution, subject: Reissuance of the U.S. Army Corps of Engineers (Corps) Environmental Operating Principles, dated 7 August 2012.

2. Purpose. The purpose of this directive is to increase the environmental value of how the U.S. Army Corps of Engineers (USACE) operates existing Civil Works projects by conducting a holistic review of Endangered Species Act (ESA) Section 7(a)(1) and (2). Designing projects in ways that are compatible with the conservation needs of listed species and their ecosystems can be one of the most effective methods of ensuring an efficient Section 7 consultation process, as well as species' recovery.

3. Summary. The USACE operates, maintains, and manages a variety of projects throughout the Nation, often in a complex and inter-mixed natural and built environment that includes the potential to affect species listed as threatened or endangered under the ESA or to affect such species' habitats. The purposes of the ESA are to provide a means for conserving the ecosystems upon which endangered and threatened species depend by

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Recovery of the Interior Least Tern

A fresh approach to Species Recovery
through ESA Section 7(a)(1)



Interior Least Tern – An Action Plan for Delisting

- Delisting the Interior Least Tern
 - Complete testing of TernPOP model and provide to USFWS
 - Complete 7(a)(1) Plans for SWD, LRD
 - Publish monitoring plan in PR literature
 - USFWS proposes delisting rule in Federal Register
 - USFWS receives comments from federal agencies, species experts, etc.
 - Final Rule



U.S. Fish & Wildlife Service
Delisting a Species
Section 4 of the Endangered Species Act

Delisting is the removal of species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Downlisting is the reclassification of a species from Endangered to Threatened. Delisting and downlisting actions result from successful recovery efforts. To delist a species, the Service must determine that the species is not threatened based on a number of factors, such as population size, recruitment, stability of habitat quality and quantity and control or elimination of the threats. If some of the threats have been reduced and the population has met its recovery objectives for downlisting, we may consider changing the species status from Endangered to Threatened. Delisting species is the ultimate goal of implementing the Endangered Species Act (ESA).

Why, when, and how are species removed from the list of endangered and threatened species?
Recovery plans, developed by the Service and stakeholders for listed species, identify delisting and downlisting goals. When a species reaches its delisting goals, the Service considers removing it from the Federal Lists of Endangered and Threatened Wildlife and Plants. Likewise, when a species reaches its downlisting goals, the Service considers changing its status from Endangered to Threatened.

To delist or downlist a species, the Service follows a process similar to when we consider a species for listing under the ESA: we assess the population and its recovery achievements, we assess the existing threats, and, we seek advice from species experts in and outside of the Service. To assess the existing threats, the Service must determine that the species is no longer threatened or endangered based on five factors:

- Is there a present or threatened destruction, modification, or curtailment of species' habitat or range?
- Is species subject to overutilization for commercial, recreational, scientific, or educational purposes?
- Is disease or predation a factor?
- Are there inadequate existing regulatory mechanisms in place outside the ESA (taking into account the efforts by the States and other organizations to protect the species or habitat)?
- Are other natural or manmade factors affecting its continued existence?

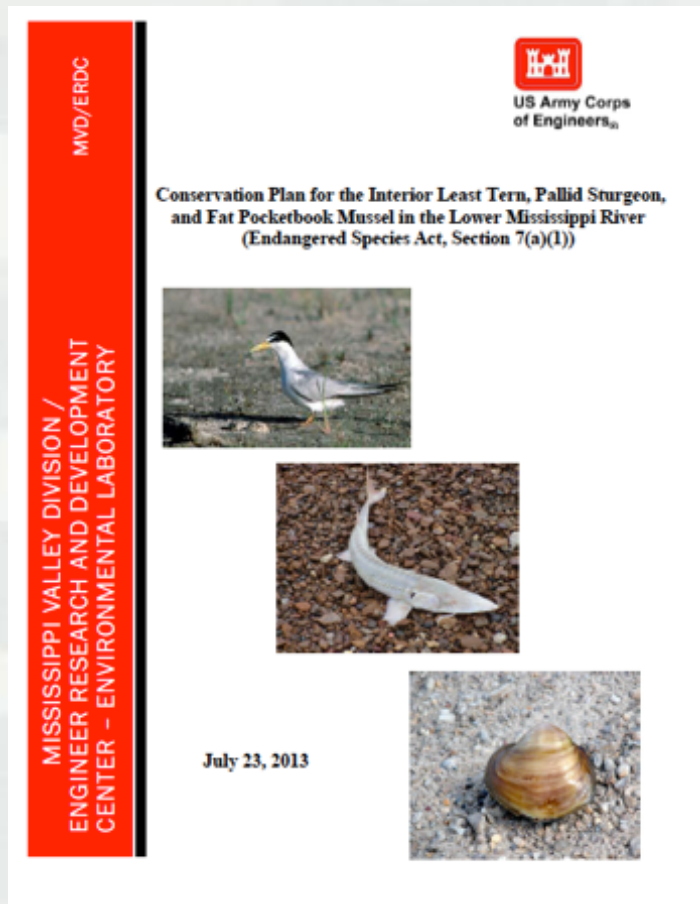
If the Service determines that the threats have been sufficiently reduced, then we may consider delisting or downlisting the species. When delisting or downlisting a species, the Service first proposes the action in the *Federal Register*. At this time, we also seek the opinion from independent species experts, other Federal agencies, State biologists, and the public. After analyzing the comments received on the proposed rulemaking, we decide whether to complete the proposed action or maintain the species status as it is. Our final decision is announced in the



American peregrine falcon, delisted in 1999, because of recovery. Craig Roggen, USFWS



MS River Habitat Conservation Plan



- Proactive and innovative
- Creates “buy-in” from multiple agencies and organizations
- Addresses multiple species
- Conserves habitat in perpetuity for listed species
- Provides template for others to follow
- Long-term cost-savings to USACE
- Supports USFWS 5-Year Status Reviews for listed species



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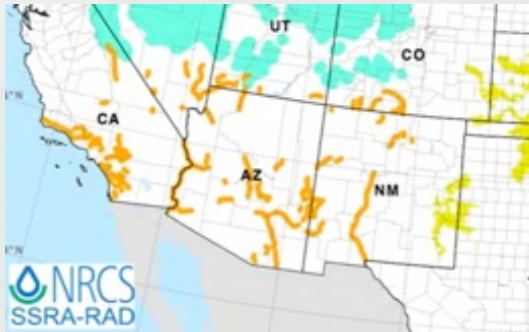
Other Opportunities?



Western DPS
Yellow-billed
Cuckoo



Least Bell's Vireo



Southwestern
Willow Flycatcher



Rio Grande Silvery
Minnow

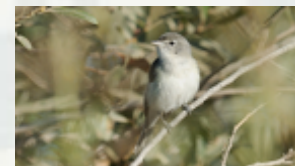


FY16 TEST Projects

Riparian Restoration and TES birds

PI: Fischer (lead), Vic Medina, Carlos Ruiz

- ▶ Field demonstration of riparian habitat restoration for regional TES birds with high USACE expenditures
- ▶ Coordination with USACE and other Federal partners
- ▶ Pursue 7(a)(1) conservation plans with partners
- ▶ FY16 site selection and coordination
- ▶ FY17 and FY18 – project construction and monitoring
- ▶ Leverage with WOTS funding
- ▶ Significant involvement by American Bird Conservancy



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Partnering Opportunities Outside of USACE

WRP MISSION

WRP provides a proactive and collaborative framework for senior-policy level Federal, State and Tribal leadership to identify common goals and emerging issues in the states of Arizona, Colorado, California, Nevada, New Mexico and Utah and to develop solutions that support WRP Partners and protect natural resources, while promoting sustainability, homeland security and military readiness.



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Natural Resources Conservation Service

United States Department of Agriculture

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Programs

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- ▣ Financial Assistance
- ▣ Technical Assistance
- ▣ Easements
- ▣ Landscape Planning
- ▣ Alphabetical Listing & Archive

Working Lands for Wildlife

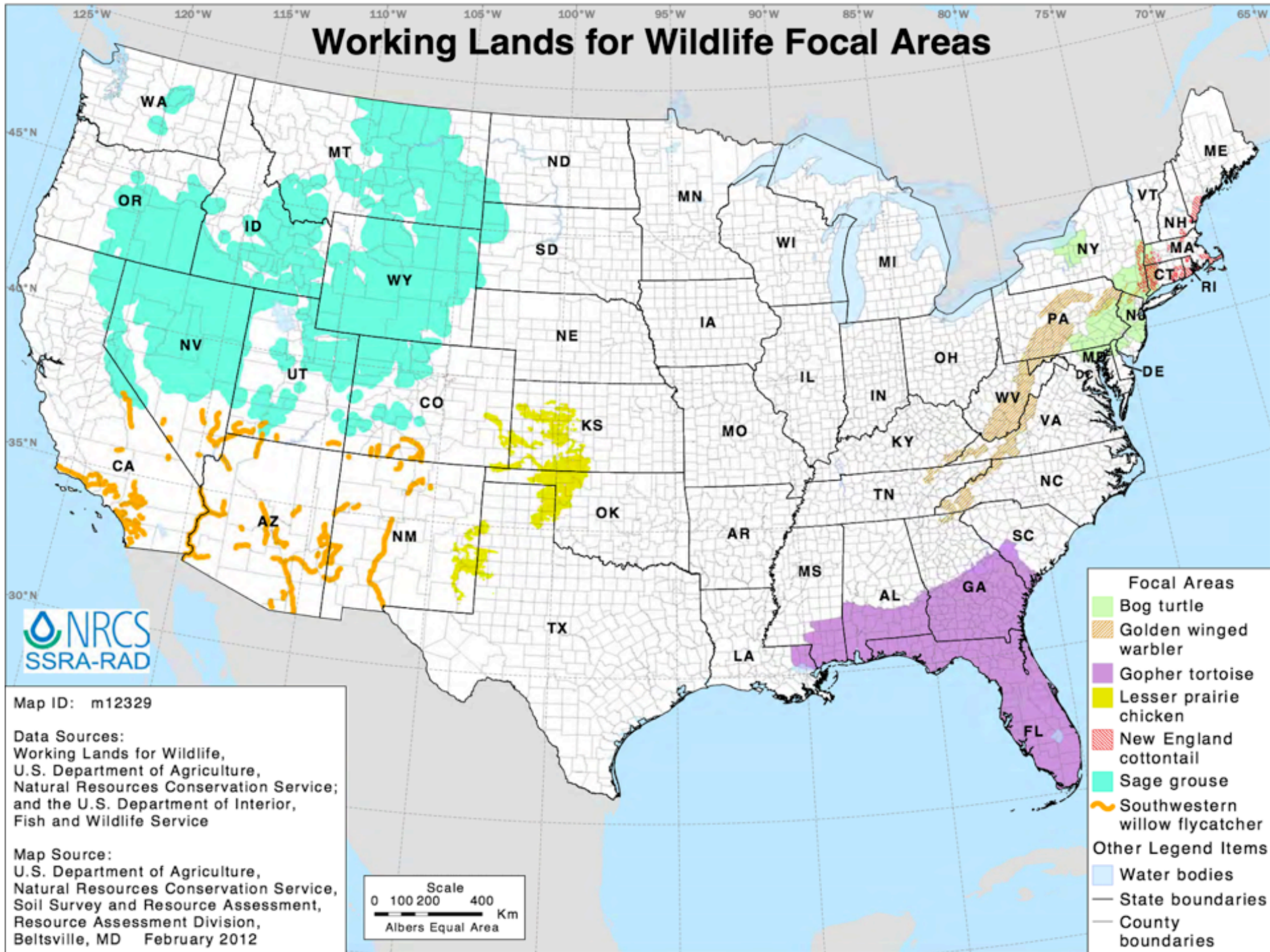


Working Lands for Wildlife is a partnership between NRCS and the U.S. Fish and Wildlife Service (FWS) to use agency technical expertise combined with \$33 million in financial assistance from the Wildlife Habitat Incentive Program to combat the decline of seven specific wildlife species whose decline can be reversed and will benefit other species with similar habitat needs.



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Working Lands for Wildlife Focal Areas



Questions/Comments?



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