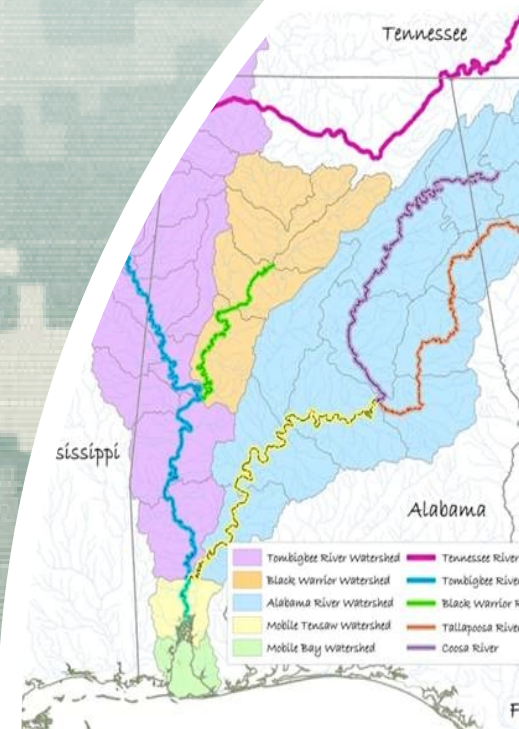


Threatened and Endangered Species Team (TEST)

Richard A. Fischer, Ph.D.
Research Wildlife Biologist
USACE – ERDC
Environmental Laboratory

25 April 2018



Fischer



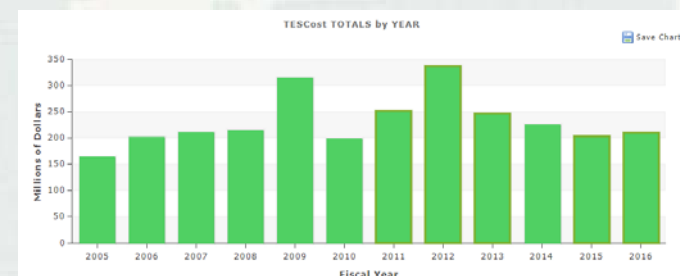
Traver/Killgore

Threatened and Endangered Species

Threatened/Endangered species (TES) concerns currently exist for 300+ species at over 430 USACE projects. The ERDC has developed a formal strategy for reducing costs and operational impacts while promoting TES conservation.

Key Points:

- USACE spends \$230 million annually on TES (significant mission impacts)
- USACE Threatened and Endangered Species Team (TEST)
 - ▶ Primary focus is on listed species that impact navigation, but others addressed as well
- Using power of ESA Section 7(a)(1) and partnerships for recovery
- 7(a)(1) approach leads to recovery of Interior Least Tern
- Collaborative Wildlife Protection and Recovery Initiative (CWPRI)
- ESA Conservation Workshop: Least Bell's Vireo, 24-26 April (Carlsbad)
- Develop Interagency ESA Section 7(a)(1) LBVI Rangewide Plan
- Return on Investment of 7(a)(1)
 - ▶ Streamlining 7(a)(2) consultations with improved BiOp outcomes
 - ▶ Agency “crediting” for 7(a)(1) conservation actions
 - ▶ Improved mission capabilities
 - ▶ Reduced expenditures/redirecting funding
 - ▶ Species Recovery



Federal TES Expenditures

Agency/Land Ownership	Expenditure (2014)
NPS – 84 million acres	\$ 13,000,617
FWS – 89 million acres	\$159,368,673
BLM – 253 million acres	\$ 22,398,174
USFS – 193 million acres	\$ 45,983,888
DoD – 42 million acres	\$337,383,601
U.S. Military	\$111,760,850
USACE	\$225,622,751



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TES Expenditures

- 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 (Interior, California)	\$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

FISH

BIRDS

MAMMALS

REPTILES/AMPHIBIANS



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Military Services Expenditures (FY14)

- 28% of DoD expenditures were on birds
- 21% on mammals
- 15% on plants



Woodpecker, Red Cockaded	\$9,333,009.00
Shrike, San Clemente loggerhead	\$2,962,285.00
Tortoise, Desert	\$2,525,682.93
Whale, Humpback	\$1,790,474.00
Whale, Fin	\$1,421,725.00
Whale, Sperm	\$1,261,509.00
Whale, Blue	\$1,217,763.00
Plover, Western Snowy	\$1,191,235.00
Whale, Sei	\$1,093,605.00
Owl, Mexican Spotted	\$1,087,106.00
Bat, Indiana	\$1,006,259.00
Whale, North Atlantic Right	\$983,904.00
Turtle, Green Sea	\$957,660.00
Jay, Florida Scrub	\$954,516.00
Abalone, Black	\$878,561.00
Marine Mammals (EIA)	\$859,281.00
Whales, False and Pygmy Killer**	\$858,798.00
Tern, California Least	\$815,490.00
Warbler, Golden-Cheeked	\$814,200.00
Seal, Hawaiian monk	\$811,283.00

INVERTEBRATES

BIRDS

MAMMALS

REPTILES/AMPHIBIANS



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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 (including Recovery)*



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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)(1) of the Endangered Species Act—Supporting Agency Missions through Proactive Conservation Planning and Endangered Species Recovery



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Hoover/Killgore

An aerial photograph of a wide river with a sandy bar in the center, surrounded by green fields and some buildings. The image is semi-transparent, serving as a background for the text.

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.

An aerial photograph of a wide river with a sandy bar in the center, surrounded by green fields and some buildings. The image is semi-transparent, serving as a background for the text.

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)

An aerial photograph of a river delta, showing a wide river branching into several smaller channels. The surrounding land is a mix of green fields and brownish soil. The text is overlaid on the top half of the image.

Conservation Management Agreements (Section 7(a)(1) Conservation Plans)

- 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
- 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 *Stacy Hunt*

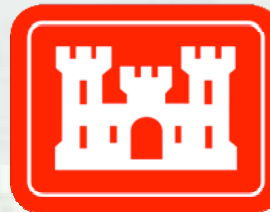
Subject: Working with the U.S. Army Corps of Engineers to Improve the Effectiveness of the Endangered Species Act (ESA) by expanding the use of Section 7(a)(1)

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.



REPLY TO
ATTENTION OF

CECWZA

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

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)



**AMERICAN BIRD
CONSERVANCY**



**US Army Corps
of Engineers.**

History

- 2017: Start with the end result –a petition to delist the Interior Least Tern is in process
 - ▶ If successful, removes ESA protection
 - ▶ Eliminates Section 7(a)(2) responsibilities and associated costs of compliance
 - ▶ Safeguards remain in place through ESA Section 7(a)(1) and post-listing monitoring plan
 - ▶ ILT would still receive federal protection (MBTA)



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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 MVD, SWD, and NWD
 - ✓ Publish monitoring plan in peer-reviewed 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 there natural or manmade factors affecting its continued existence?

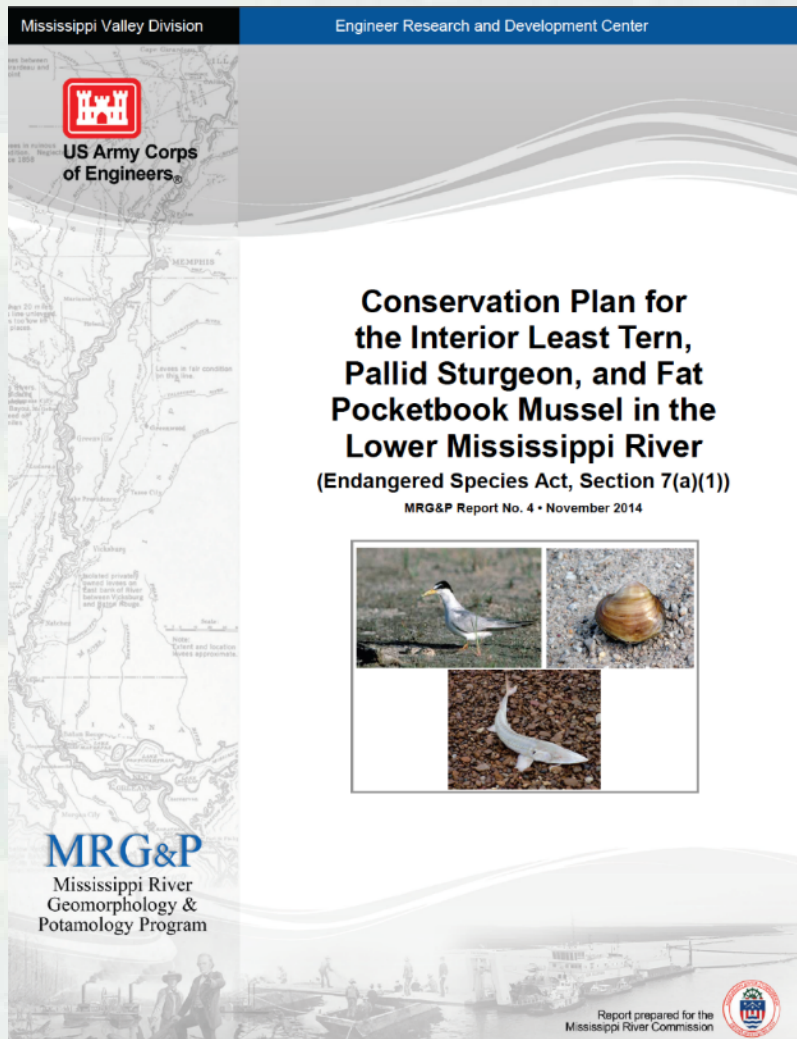
If the Service determines that the threats have been sufficiently reduced, then we may consider delisting or downlisting the species. When delisting or downlisting a species, the Service first proposes the action in the *Federal Register*. At this time, we also seek the opinion from independent species 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 Koppie, 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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Southern Plains Rivers Conservation Plan



- Proactive and innovative
- Commits the Corps to long-term management and monitoring within authorities and available budgets
- Supports USFWS 5-Year Status Review



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NWD 7(a)(1)

Conservation Plan for MRM

Conservation Plan for the Pallid Sturgeon, Interior Least Tern, Northern Great Plains Piping Plover, Gray Bat, Indiana Bat, and Northern Long-Eared Bat in the Missouri River Mainstem and Associated Tributary Projects

(Endangered Species Act, Section 7(a)(1))

October 2017

- This Conservation Plan (Plan) is prepared pursuant to Section 7(a)(1) of the Endangered Species Act (ESA), as amended, which requires all federal agencies to use their authority to carry out programs for the conservation of endangered and threatened species. The purpose of the Plan is to describe how the U.S. Army Corps of Engineers (USACE) Kansas City and Omaha Districts can use their Missouri River authorities and those on associated tributary projects to conserve pallid sturgeon (*Scaphirhynchus albus*), interior least tern (*Sternula antillarum*), piping plover (*Charadrius melodus*), gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), and northern long-eared bat (*Myotis septentrionalis*) within the Missouri River basin. Specific conservation measures are recommended to meet the purpose of the Plan, but are contingent upon opportunity and annual appropriations, and other authority and budgetary constraints.



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NWD 7(a)(1) Conservation Plan for MRM

Conservation Plan for the Pallid Sturgeon, Interior Least Tern, Northern Great Plains Piping Plover, Gray Bat, Indiana Bat, and Northern Long-Eared Bat in the Missouri River Mainstem and Associated Tributary Projects

(Endangered Species Act, Section 7(a)(1))

October 2017

-as a part of the Proposed Action, the USACE committed to the implementation of conservation measures and a Section 7(a)(1) plan that will further avoid and minimize effects to the listed species. Therefore, the Proposed Action will stabilize or improve the population abundance, and increase survival of the pallid sturgeon, piping plover, and interior least tern through implementation of the Science and Adaptive Management Plan, conservation measures, and the Section 7(a)(1) plan.
- This plan in concert with the Science and Adaptive Management Plan will provide a **proactive** basin-wide conservation strategy.
- “The Section 7(a)(1) plan further contributes to our finding that the Proposed Action is not likely to jeopardize the continued existence of the pallid sturgeon, piping plover, or interior least tern which allows the Service to exempt the associated incidental taking.” - USFWS



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Today's Objectives

1. **Agency and NGO Presentations**
2. **Identify LBVI Conservation and Management Needs**
3. **Putting Solutions on the Table**
4. **Putting it Together: Assemble outline of an interagency 7(a)(1) plan**
5. **Action Items, Assignments, and Leads**



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Outline for an Interagency 7(a)(1) Plan

- **PART I: INTRODUCTION**
 - ▶ Background
 - ▶ Purpose and Scope
 - ▶ Contributing Agencies (Missions and Programs)
- **PART II: ENVIRONMENTAL SETTING**
 - ▶ Description of major drainages
 - ▶ H&H; Climate Change effects
- **PART III: SPECIES ACCOUNT**
 - ▶ Life History and Habitat
 - ▶ Distribution (Current and Historical)
 - ▶ Breeding and Nesting
 - ▶ Wintering
 - ▶ Monitoring and Estimated Abundance
 - ▶ Recovery Status



Outline for an Interagency 7(a)(1) Plan

- **PART IV: EFFECTS ANALYSIS**
 - ▶ Factors affecting LBVI (Invasive Spp; Hydrology; BHCO; SHBO)
 - ▶ Address 5-factor stressors to support USFWS 5-Year Review
- **PART V: ENVIRONMENTAL BASELINE**
 - ▶ Historical and Current LBVI Populations
- **PART VI: MANAGEMENT AND CONSERVATION MEASURES**
 - ▶ Strategy 1: Breeding and Nesting Habitat
 - ▶ Strategy 2: Wintering Habitat
 - ▶ Strategy 3: Invasive Species Management
 - ▶ Strategy 4: Brown-headed Cowbird Control
 - ▶ Strategy 5: Monitoring (PDMP?)
 - ▶ Strategy 6-X: SHBO? Identify and address R&D Needs?



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Outline for an Interagency 7(a)(1) Plan

- **PART VII: PRIORITY WATERSHEDS**
 - ▶ Ensure security of “source” populations
 - ▶ Identify key “steppingstones” for range expansion
 - ▶ Identify and rehabilitate sufficiently-sized habitat blocks in former range
- **PART VIII: AGENCY OPPORTUNITIES AND ACTIONS**
 - ▶ Current Agency Section 7 actions that support LBVI
 - ▶ New Opportunities and Commitments
- **PART VII: CONTRIBUTORS**



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Outline for an Interagency 7(a)(1) Plan

- How Can YOU be part of the solution?



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