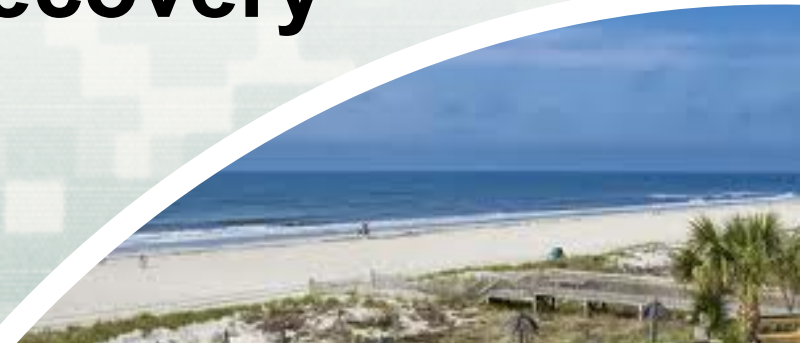


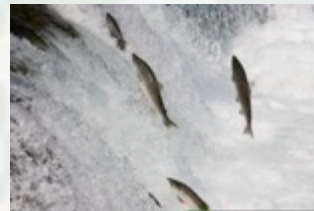
Endangered Species Act Section 7(a)(1): Conservation Planning, Mission Support, and Species Recovery

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

21 October 2016



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

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



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Federal TES Expenditures

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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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What is the Problem?

USACE TES Expenditures

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

FY14 Top Ten Costliest TES Species

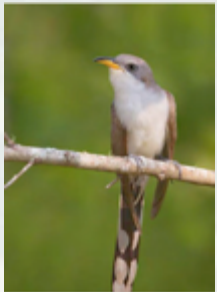
	Common Name	Total
1	Salmon, chinook	\$65,209,235
2	Sturgeon, pallid	\$62,619,597
3	Steelhead	\$31,828,548
4	Salmon, sockeye	\$10,715,945
5	Tern, least	\$8,431,784
6	Plover, piping	\$8,307,257
7	Flycatcher, southwestern willow	\$3,847,451
8	Salmon, coho	\$3,270,107
9	Salmon, chum	\$2,305,573
10	Trout,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



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What is the Problem?

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



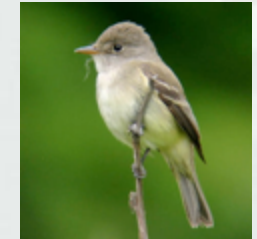
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Salmon, coho (4 Populations)	\$3,404,322
Sturgeon, Atlantic	\$2,248,191
Vireo, least Bell's	\$2,229,661
Sturgeon, shortnose	\$1,628,115
Sturgeon, North American green	\$1,385,026
Woodpecker, red-cockaded	\$1,058,791
Trout, bull	\$979,656
Smelt, delta	\$586,391
Bat, Indiana	\$560,676
Sea turtle, loggerhead	\$496,875
Manatee, West Indian	\$469,134

FISH

BIRDS

MAMMALS

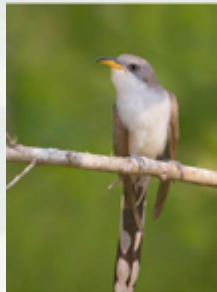
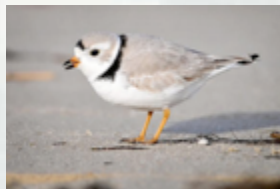
REPTILES/AMPHIBIANS



BUILDING STRONG®

Military Services Expenditures (FY14)

- 28% of FY13 DoD expenditures are 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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What is the Problem?

- ▶ TES conservation concerns and potential mission impacts currently exist at over 430 USACE projects, ~300 military installations, and for over 300 different species



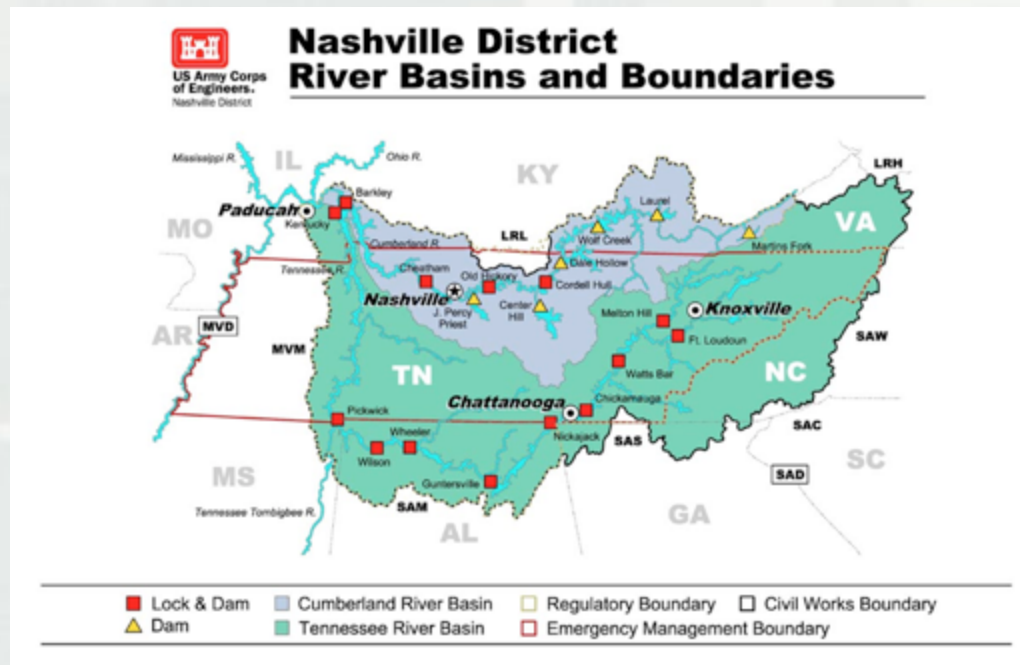
A piping plover incubates its eggs in a sandy hollow. Image courtesy of the U.S. Army Corps of Engineers.



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What is the Problem?

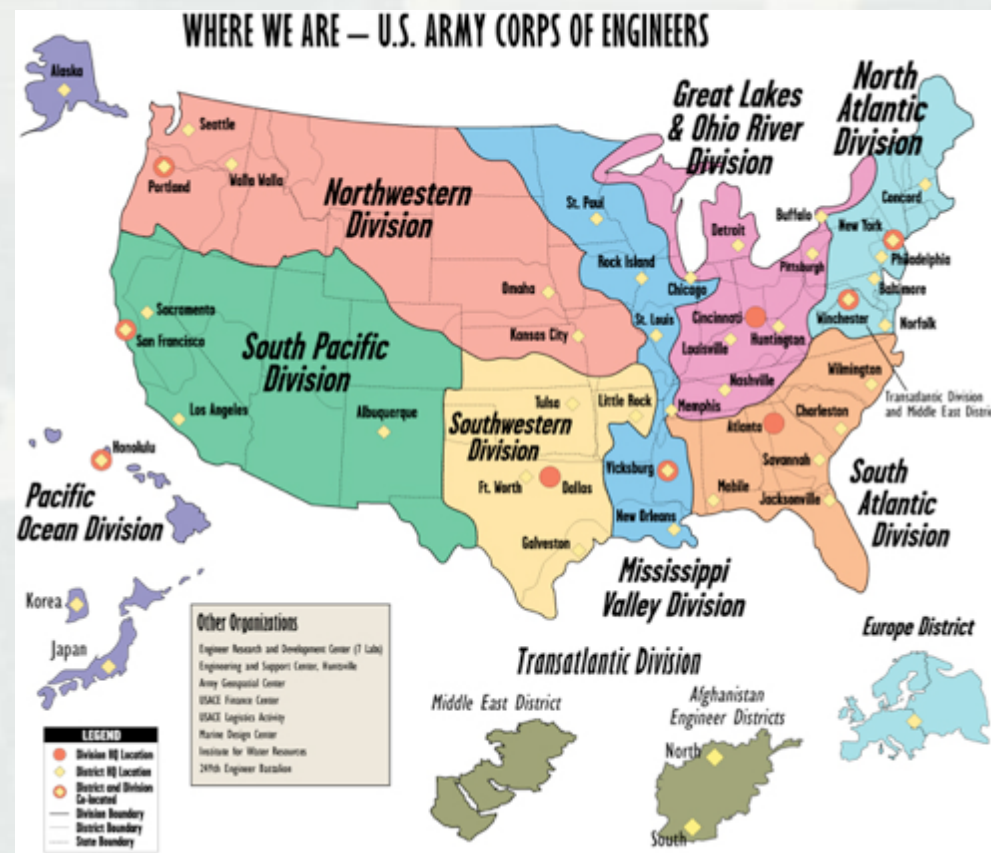
- ▶ Under the USFWS National Listing Workplan, many additional listings or critical habitat designations are expected to occur by 2023



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What is the Problem?

- ▶ USACE has had 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.



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)*



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 Return on Investment (ROI)
- Investigate system-level approaches with high ROI (e.g., beach nourishment; RSM = Beneficial Uses of Dredged Material)
- Identify needed R&D that has high impact to TES recovery and/or decreases mission impact
- Develop a R&D investment plan based on priorities and ROI
- Integrate *ESA Section 7(a)(1)* as a proactive tool for conservation and recovery



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USACE Threatened & Endangered Species Team -TEST

Advancing the USACE Approach

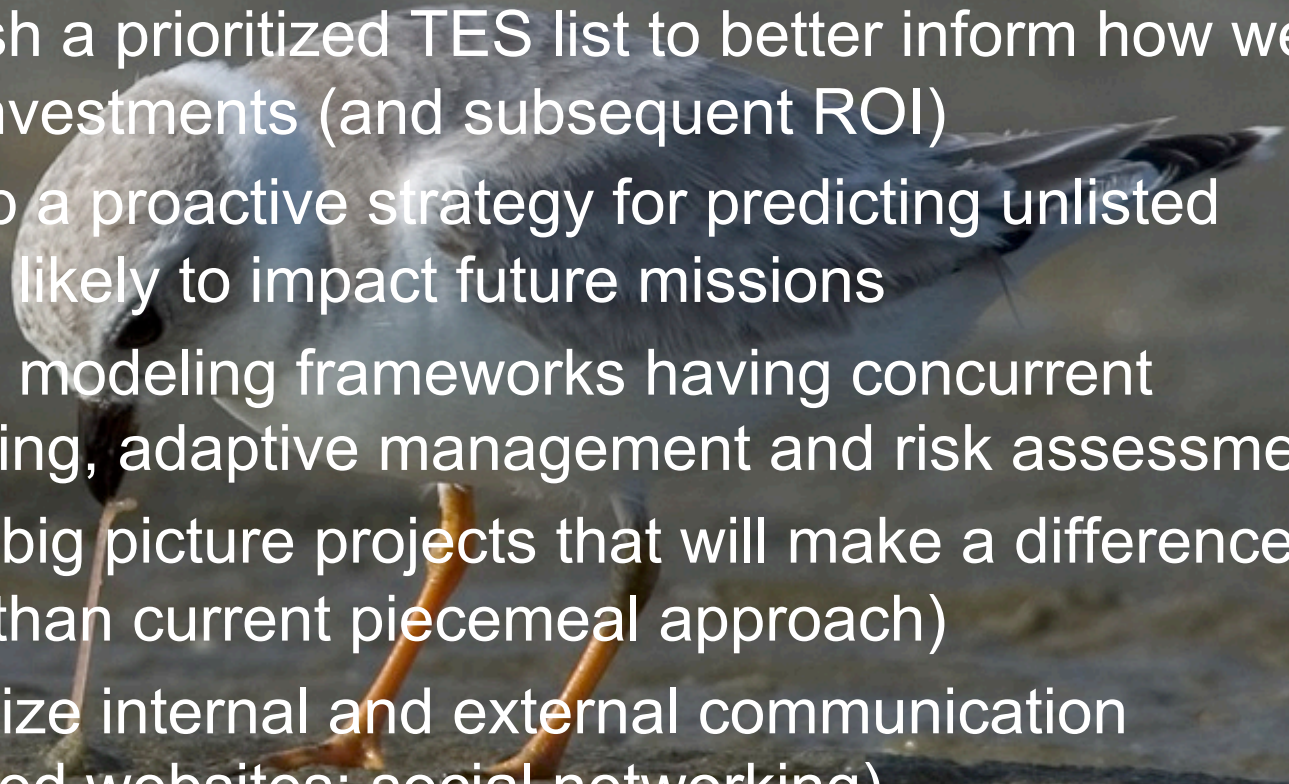
■ “T” in TEST

- ▶ 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 a 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)
- 
- A seagull with white and grey feathers and orange legs is standing on a sandy beach. It is looking down at the ground, possibly at a small object. The background is a blurred beach scene.

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 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



"I have today signed ...the Endangered Species Act of 1973....this legislation provides the Federal Government with the needed authority to protect an irreplaceable part of our national heritage - threatened wildlife.

"This important measure grants the Government both the authority to make early identification of endangered species and the means to act quickly and thoroughly to save them from extinction.

President Richard M. Nixon, 1973



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An aerial photograph of a wide river with a sandy bar in the center, surrounded by green fields and some trees. The image is semi-transparent, allowing text to be overlaid.

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.

- ▶ Sec. 7(a)(1) of the Act directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for listed species.
- ▶ 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)



New Approach

Section 7(a)(1)

- Allows agencies 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

Paul Hartfield, USFWS

Conservation Management Agreements

- Explicit plans 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
481 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

Prepared by Request Here



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Recovery of the Interior Least Tern

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



History

- 2016: Start with the end result –a petition to delist the Interior Least Tern appears imminent
 - ▶ 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)



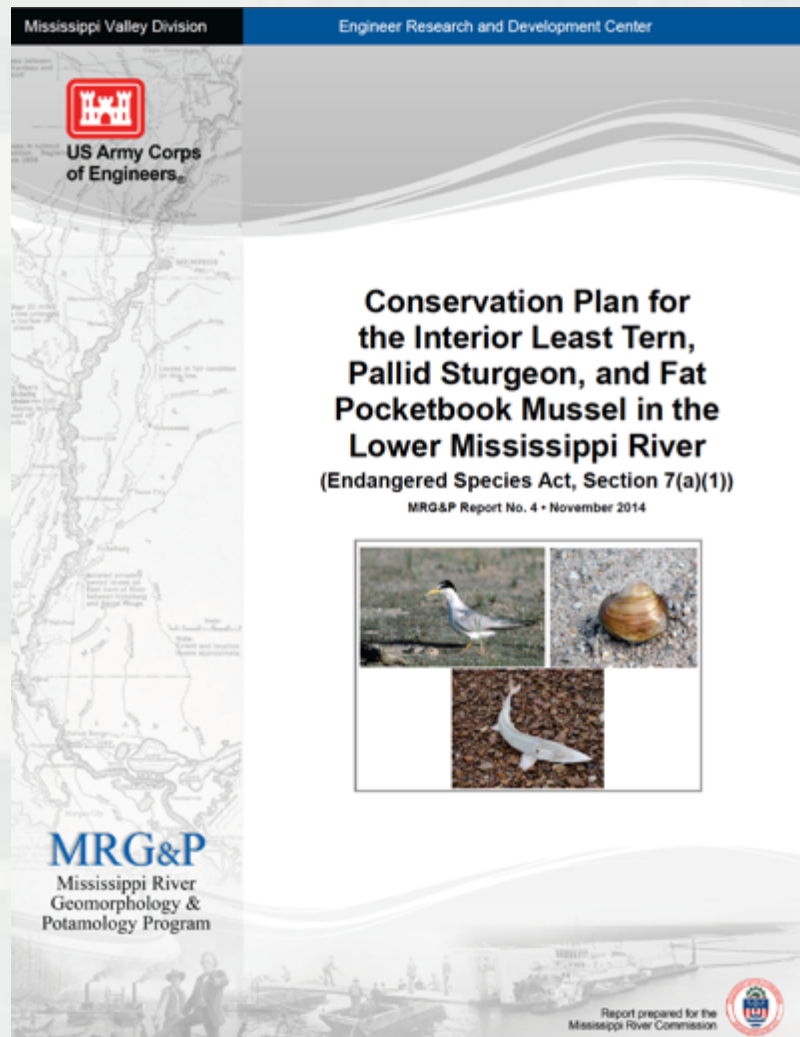
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Interior Least Tern – An Action Plan for Delisting

- Delisting the Interior Least Tern
 - ✓ Complete testing of TernPOP model and provide to USFWS
 - ✓ Complete 7(a)(1) Plans for Mississippi Valley, Southwestern, and Great Lakes/Ohio River Divisions
 - ✓ 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



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

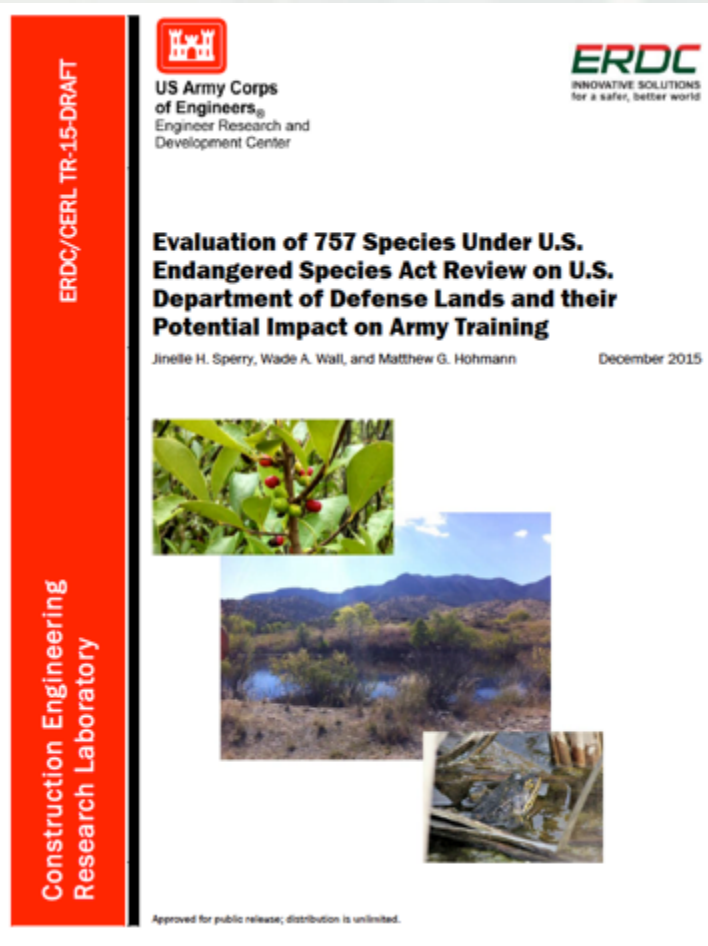


- Proactive and innovative
- Commits the Corps to long-term management and monitoring within authorities and available budgets
- Supports USFWS 5-Year Status Reviews for listed species



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DoD/Army Investigations



- Candidate Conservation Agreements have proven to be successful for many species.
- Development of conservation agreements was among the most important predictors of USFWS listings
- Proactive management and conservation of species proposed for listing could reduce the likelihood of their listing.
- If a conservation agreement was in place, species were listed 53% of the time; the absence of a conservation agreement increased the probability of being listed to 80%.



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Opportunities for USACE/Military Services Cooperative 7(a)(1) Partnerships?



Southwestern Willow Flycatcher



Salmon, chinook (9 Populations)	\$73,851,410
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Smelt, delta	\$586,391
Bat, Indiana	\$560,676
Sea turtle, loggerhead	\$496,875
Manatee, West Indian	\$469,134



Least Bell's Vireo



BUILDING STRONG®

Threatened and Endangered Species WebAppBuilder

with Web AppBuilder for ArcGIS

To query Threatened and Endangered species, click the  icon.

This will open a set of tools at the bottom of the map



Use the following tools to enter a point, line or area you are interested in

Locate Incident 

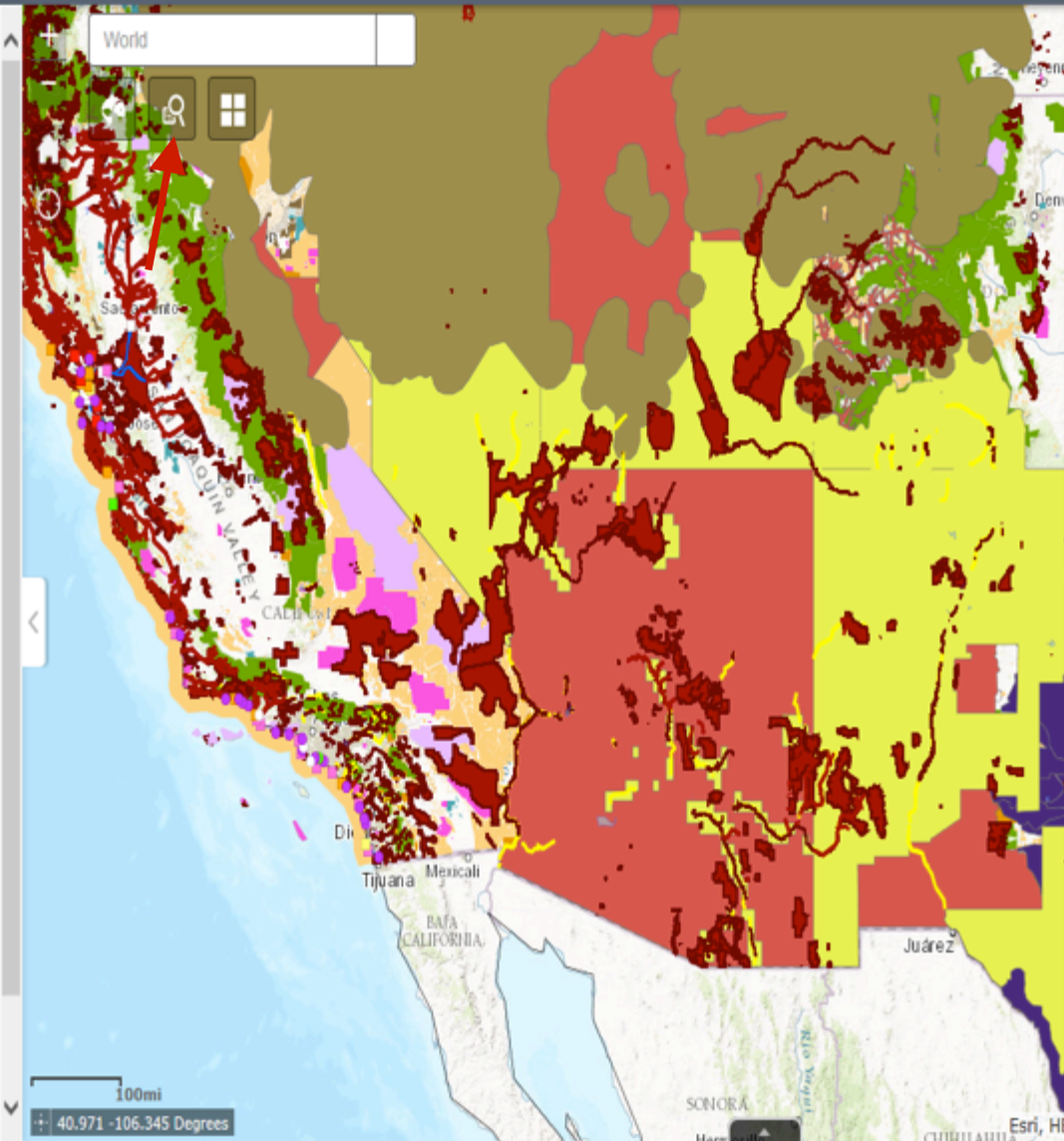
Buffer the area accordingly. Enter 0 if you have drawn an area and do not wish to buffer

Buffer Distance (Miles)

Once you have your area defined, click each of the tabs below to query the results that fall within that category and download a CSV if desired

Query Species Query Reservoirs Query Channels

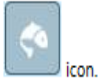
To quickly find an existing project (Channel, Reservoir, Shore Protection) or a Species, click the  icon.



Layer List

- Operational Layers
- Shore Protection Projects
- Navigation Projects
- Channels
- USACE Reservoirs
- Critical Habitat - Linear Features
- Critical Habitat - Polygon Features
- Endangered Species Lines
- Endangered Species Areas
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Forest Service
- Fish and Wildlife Service
- National Park Service
- Other Agency Control

To query Threatened and Endangered species, click the



icon.

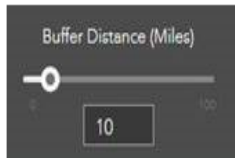
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To quickly find an existing project (Channel, Reservoir, Shore

Protection) or a Species, click the



icon.

Layer List

- Lesser Prairie C
- Loggerhead Se
- New England C
- Pallid Sturgeon
- Rainbow Trout
- Rio Grande Silv
- Sage Grouse
- Sockeye Salmo
- Southwestern v
- Yellow-billed C

DOWNLOAD CSV

1 Miles: 0
Army DOD

2 Miles: 9.23
Air Force DOD

3 Miles: 18.27
Air Force DOD

4 Miles: 20.36
Air Force DOD

Shore Protection
Critical Habitat Areas
Critical Habitat Linear
BIA
BLM
BOR
DOD
Forest Service
FWS
NP

Projects
Navigation Projects
Channels
USACE Reservoirs
Critical Habitat - Linear Features
Critical Habitat - Polygon Features
Endangered Species Lines
End

Options
Filter by Map Extent
Zoom to
Clear Selection
Refresh

activityStatus	commonName	isNative	kingdom	mediaIDFK	natureServeID	scientificName	sdsFeatureDesc	sdsFeatureName	sdsID
	Southwestern willow flycatcher								
	Southwestern willow flycatcher								

The Department of Defense.csv download has completed.

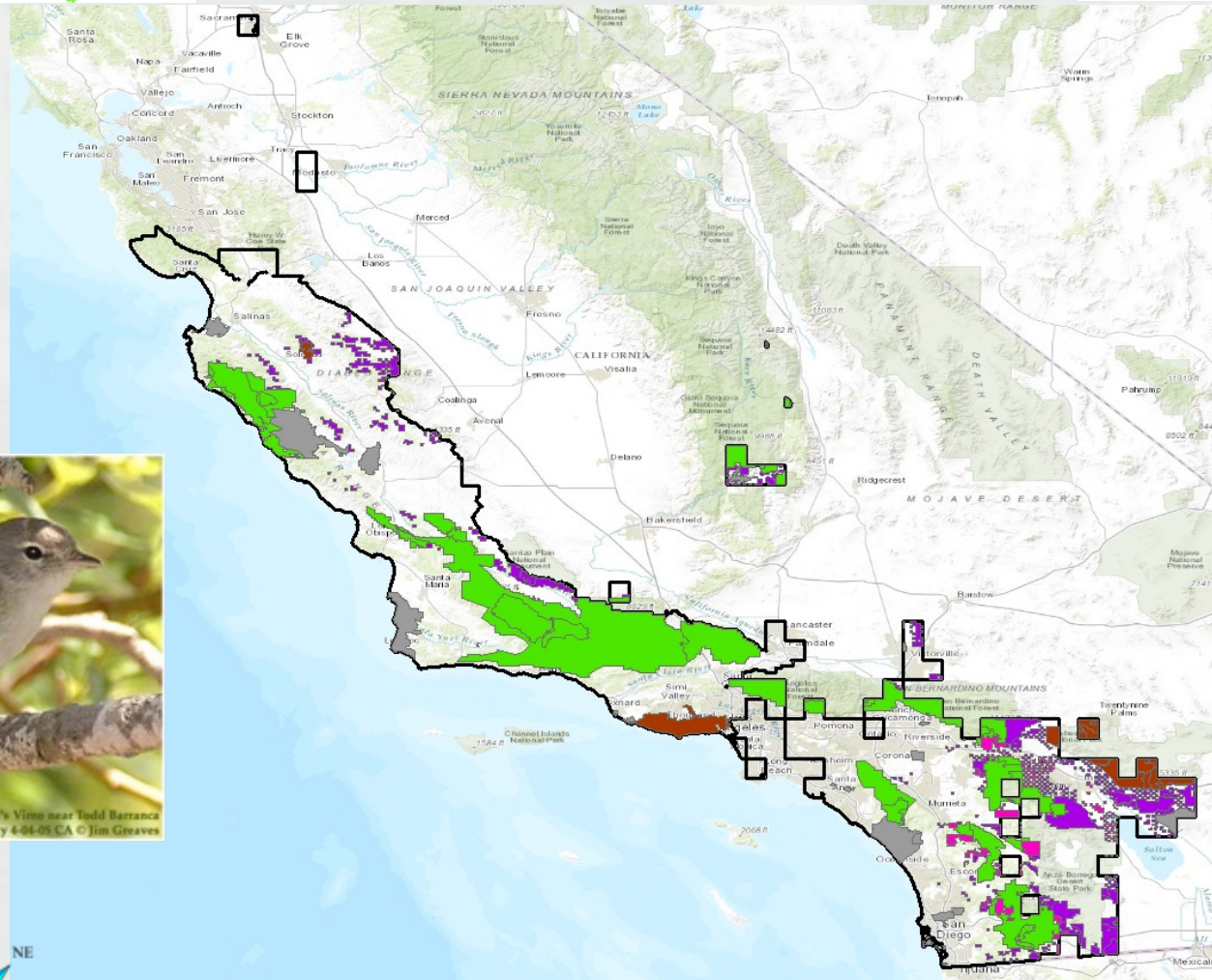
Open
Open folder
View downloads
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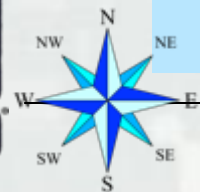


Least Bell's Vireo

- Tribal Lands
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Forest Service
- National Park Service



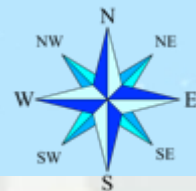
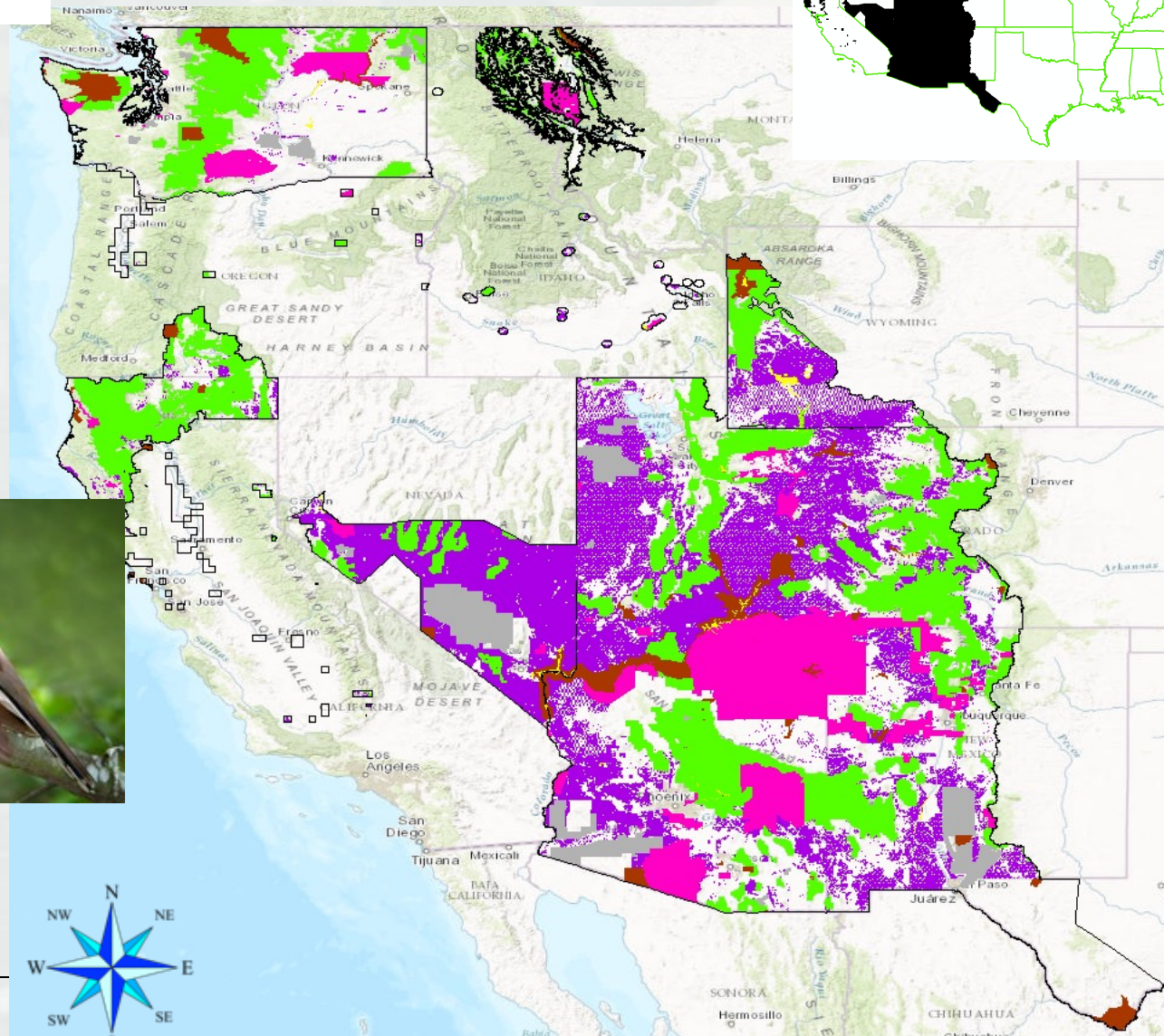
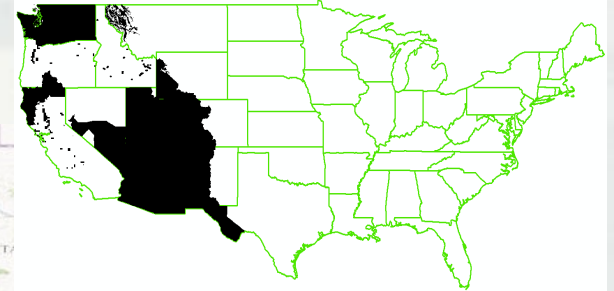
Least Bell's Vireo near Todd Barranca
Ventura County 4-94-05 CA © Jim Greaves



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Yellow-billed Cuckoo

- Tribal Lands
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Forest Service
- National Park Service



STRONG®

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, 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.



BUILDING STRONG®



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.

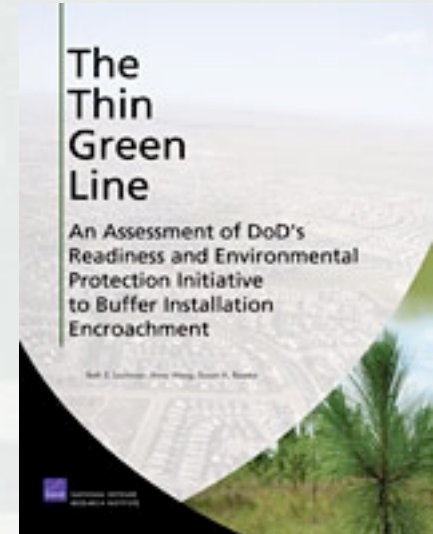
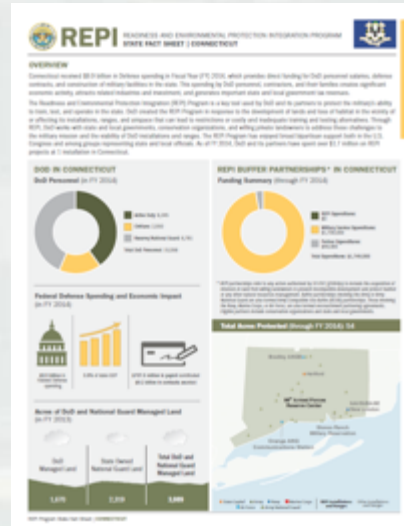
Collaborative Wildlife Protection and Recovery Initiative

UNITED STATES DEPARTMENT OF DEFENSE
SUSTAINABLE RANGES INITIATIVE ★ ★ ★



ACUB
means
Army Compatible Use
Buffer

by allacronyms.com



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7(a)(1) Partnership Workshop – A New Approach to Endangered Species Conservation

What: Two-day workshop at Marine Corps Base Camp Pendleton

When: 6-7 Dec 2017

Objective: Discuss opportunities to create better conservation outcomes with lower costs, fewer conflicts, and improved mission capabilities.



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Questions/Comments?



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