

# Introduction to Conservation Banking



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Photos by USFWS  
Species conserved by conservation banks  
Vernal pool conservation bank in CA



**Built Capital**

- **Viability ecosystems** = foundation for sustainable environments, including healthy economies
- **Mitigation** = measures taken to avoid, minimize, and compensate for impacts to the environment
- **Compensatory mitigation mechanisms** = market-based tools for conserving species, habitat, and biodiversity, contributing to functioning ecosystems

**Human & Social Capital**

**Natural Capital**

“...fish and wildlife resources are public in nature...  
the Service strongly believes  
that preservation and conservation of natural resources  
is a necessary prerequisite to human existence”  
*USFWS 1981 Mitigation Policy (pg. 7644)*

**Viable Ecosystem**



*West Indian Manatee*

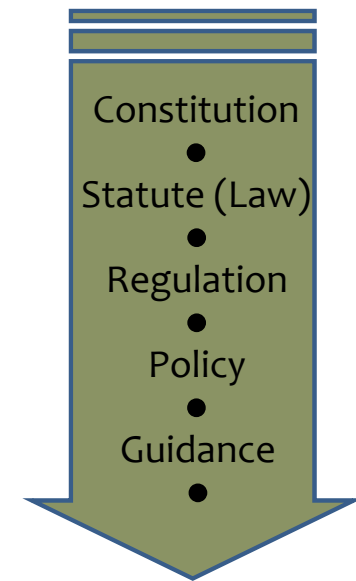
# Compensatory Mitigation Programs: Purpose and Goals

- Aid in recovery of Endangered Species Act (ESA) listed species
- Promote sustainable, landscape-scale approach to mitigation
- Provide economically effective process for project proponents
- Aid in preventing future ESA listings
- Reduce the Services' ESA workload
- Improve regulatory processes for project proponents



## Authorities – Laws and Regulations\*

- Endangered Species Act (ESA)
- Fish and Wildlife Coordination Act (FWCA)
- National Environmental Policy Act (NEPA)
- Clean Water Act (CWA)
- Oil Pollution Act & CERCLA (NRDA/NRDAR)
- Bald & Golden Eagle Protection Act (BGEPA/Eagle Act)
- Federal Land & Policy Management Act (FLPMA)
- Water Resources Development Act (WRDA)
- National Defense Authorization Act / Sikes Act
- Rivers and Harbors Act
- Magnuson-Stevens Act
- *Other* Federal and State Laws and Regulations



*\*not comprehensive*



# Current Mitigation Policies

*(as of October 2020)*



1981 USFWS Mitigation Policy

2003 USFWS Conservation Banking Guidance

2008 USFWS Recovery Crediting Policy

2018 USFWS Policy Regarding Voluntary Prelisting Conservation



2019 NMFS West Coast Region Conservation Banking Tips and Tools



2008 USACE & EPA Compensatory Mitigation for Losses of Aquatic Resources: Final Rule



2018 BLM IM on Mitigation



State or local regulations where applicable



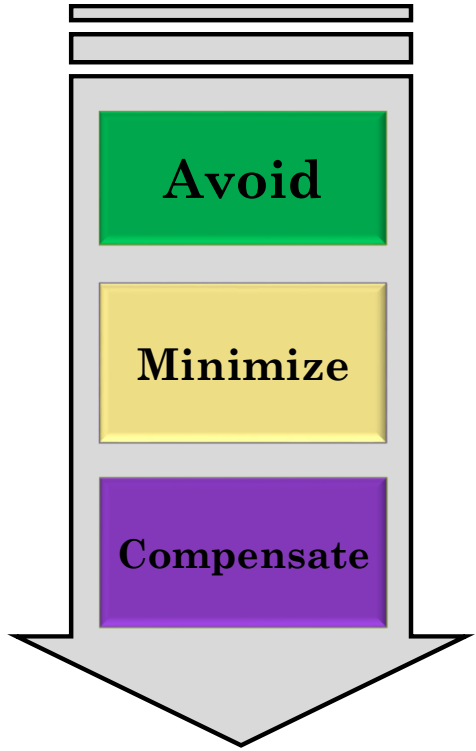
*Puerto Rican Parrot*

# Mitigation Hierarchy

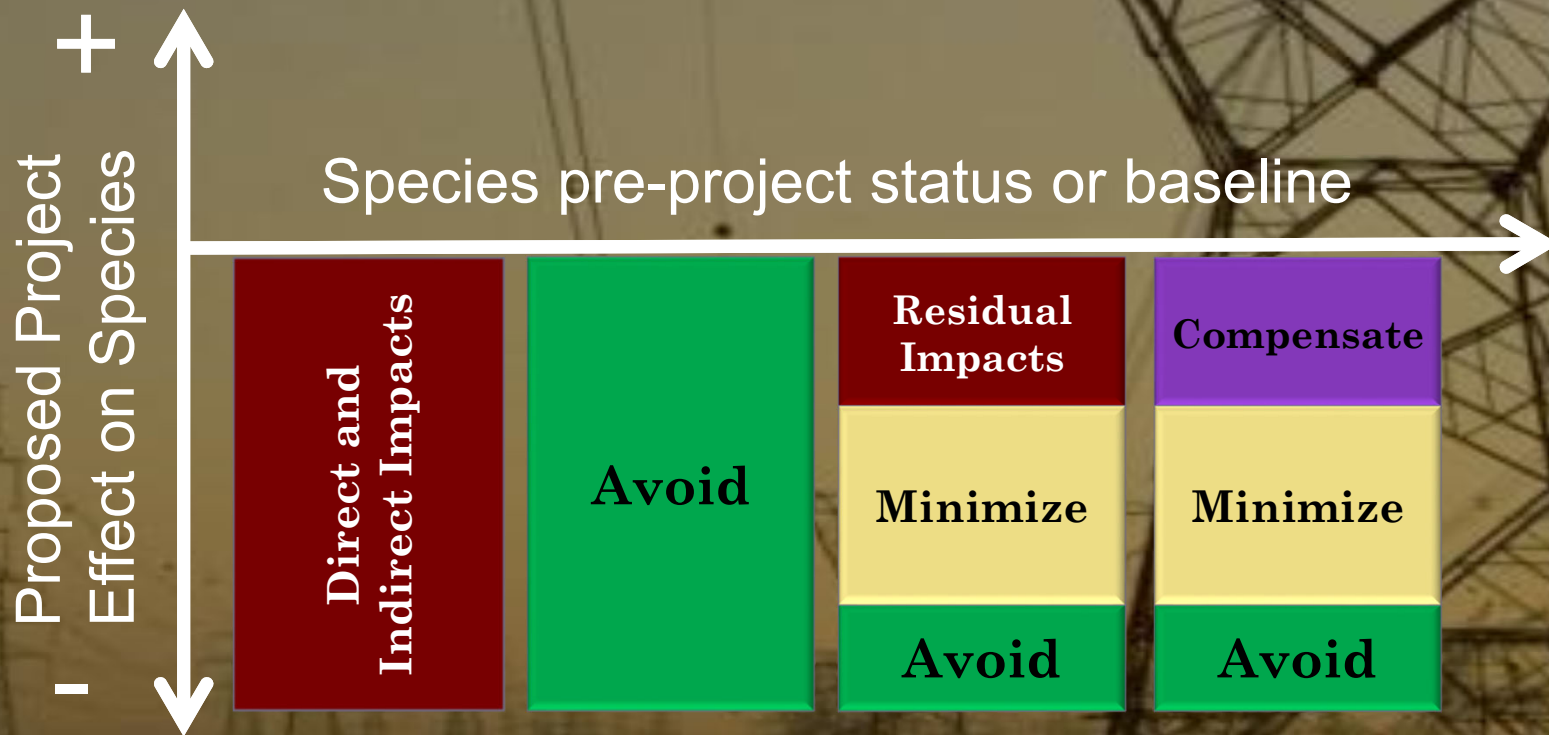
## Council On Environmental Quality (CEQ). 40 CFR § 1508.20 - Mitigation

Mitigation includes:

- **Avoiding** the impact altogether by not taking a certain action or parts of an action.
- **Minimizing** impacts by limiting the degree or magnitude of the action and its implementation.
- **Rectifying** the impact by repairing, rehabilitating, or restoring the affected environment.
- **Reducing** or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- **Compensating** for the impact by replacing or providing substitute resources or environments.



# Mitigation (Hierarchy) in Practice





# Compensatory Mitigation Mechanisms

## Single Party

- Permittee Responsible Mitigation (PRM)

## Third Party

- **Conservation Bank**
- In Lieu Fee (ILF)
- Habitat Credit Exchange
- Recovery Crediting System

## Programmatic

- Programmatic ESA Consultation & MOU Approaches
- Pre-Listing Mitigation Programs





# Mitigation Principles and Standards



Compensatory mitigation practices across the world are guided by the following:

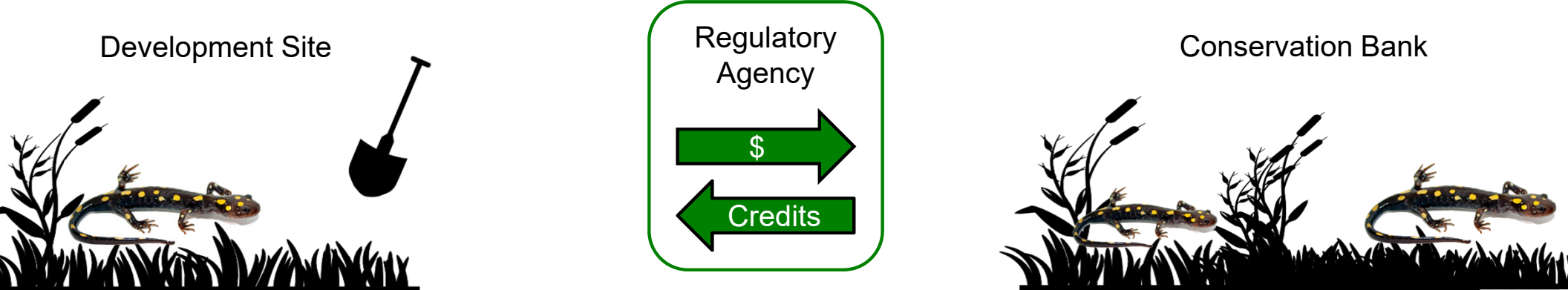
- Mitigation hierarchy
- In kind
- Landscape approach
- Transparency, consistency, collaboration
- Science as a base
- Consistent metrics
- Actions should be timely, well sited, additional, durable, effective, and accountable

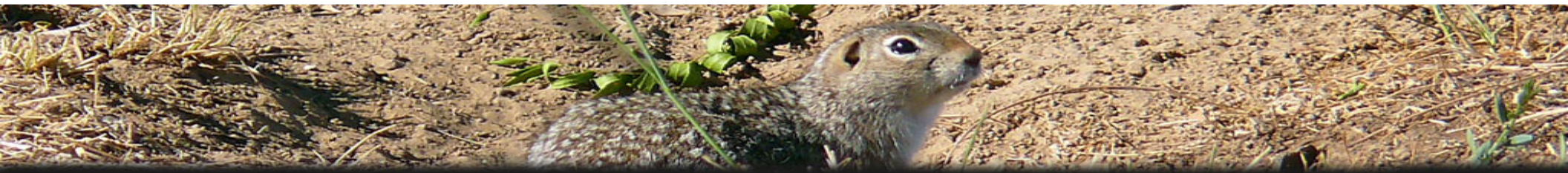


*A sample of conservation bank sites across the U.S.*

# Conservation Bank

is a site or suite of sites  
that is conserved and managed in perpetuity  
and provides ecological functions and services, expressed as credits,  
for specified species that are later used to compensate  
for adverse impacts occurring elsewhere to the same species



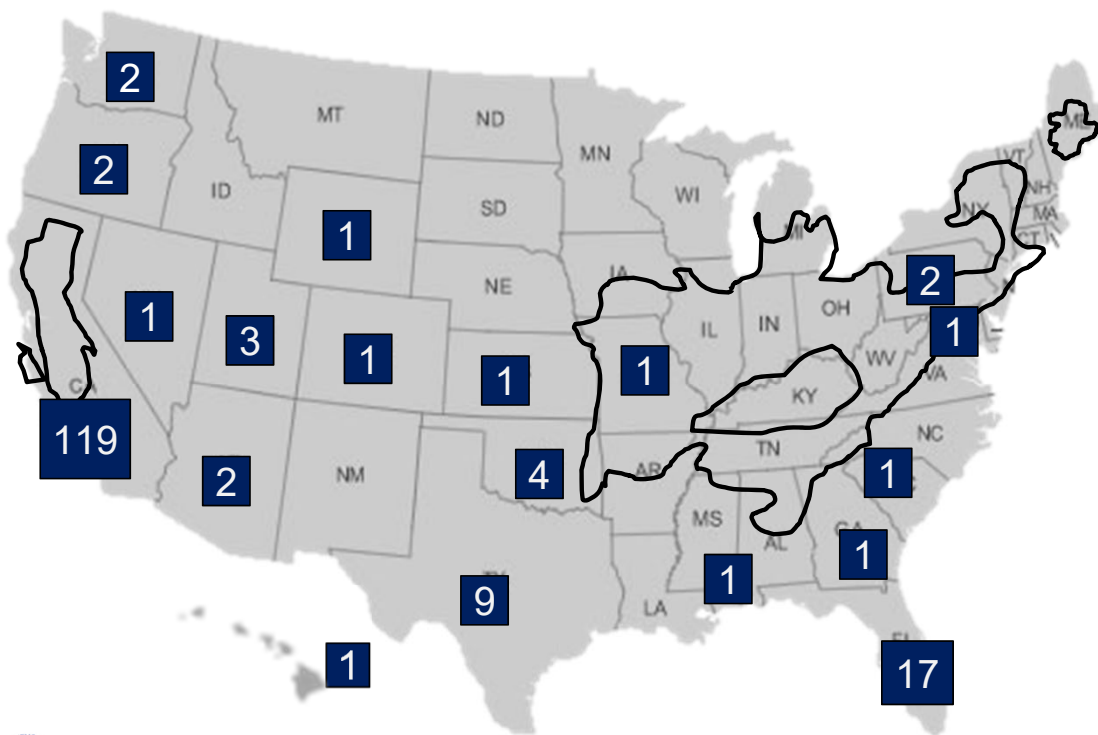


## ESA “Market”

**170** Conservation Banks

**6** ILF Programs

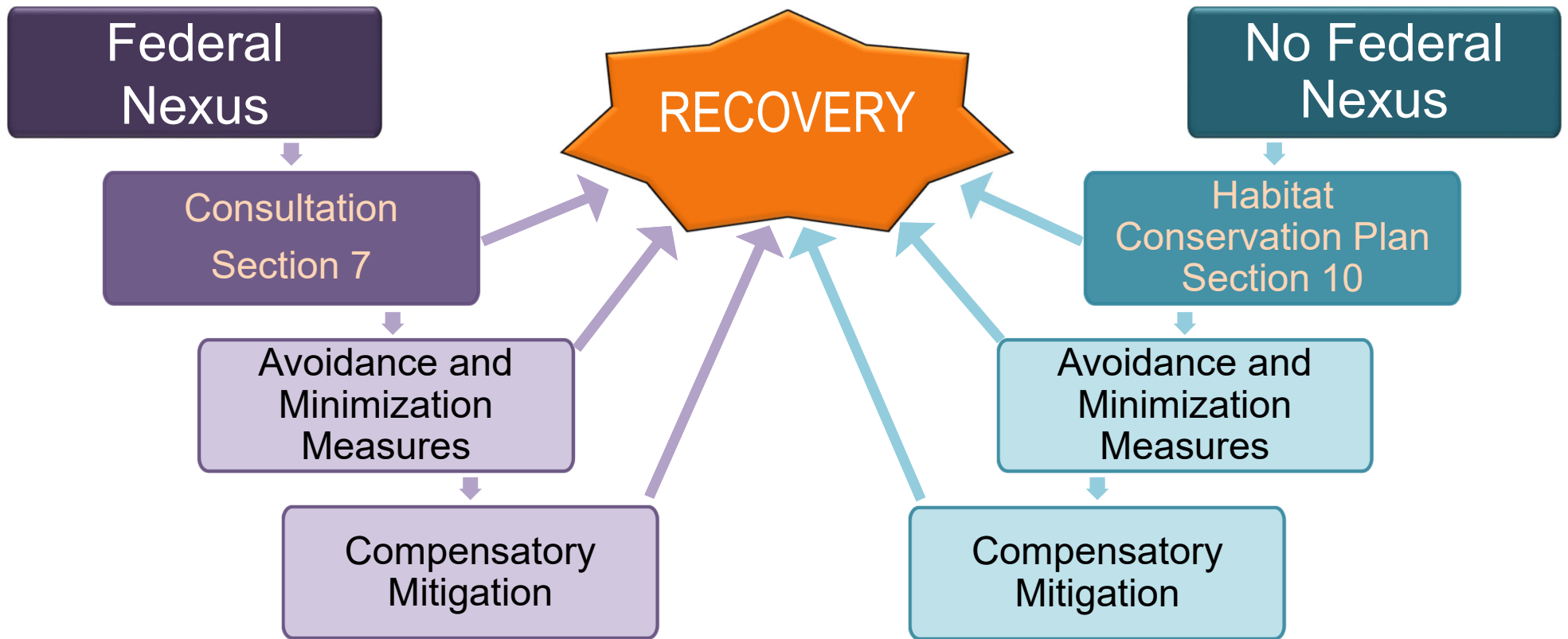
1,666 ESA-listed Species  
 ~70 species covered by  
 banks and ILFs



Data sources: RIBITS October 2020; ECOS October 2020



Incidental take of listed species can be authorized under ESA Sections 7(a)(2) and 10(a)(1)(B).





## Section 7 - Role for Compensatory Mitigation

1. Incorporated into the Proposed Action (Conservation Measures)
  - to mitigate unavoidable negative effects of the proposed action
2. As Conservation Recommendations
  - to avoid, minimize, or mitigate adverse effects on listed species or critical habitat
3. As a Reasonable and Prudent Alternative (RPA)
  - to avoid likelihood of jeopardizing continued existence of a listed species or destruction or adverse modification of critical habitat

mandatory  
measures

discretionary  
measures

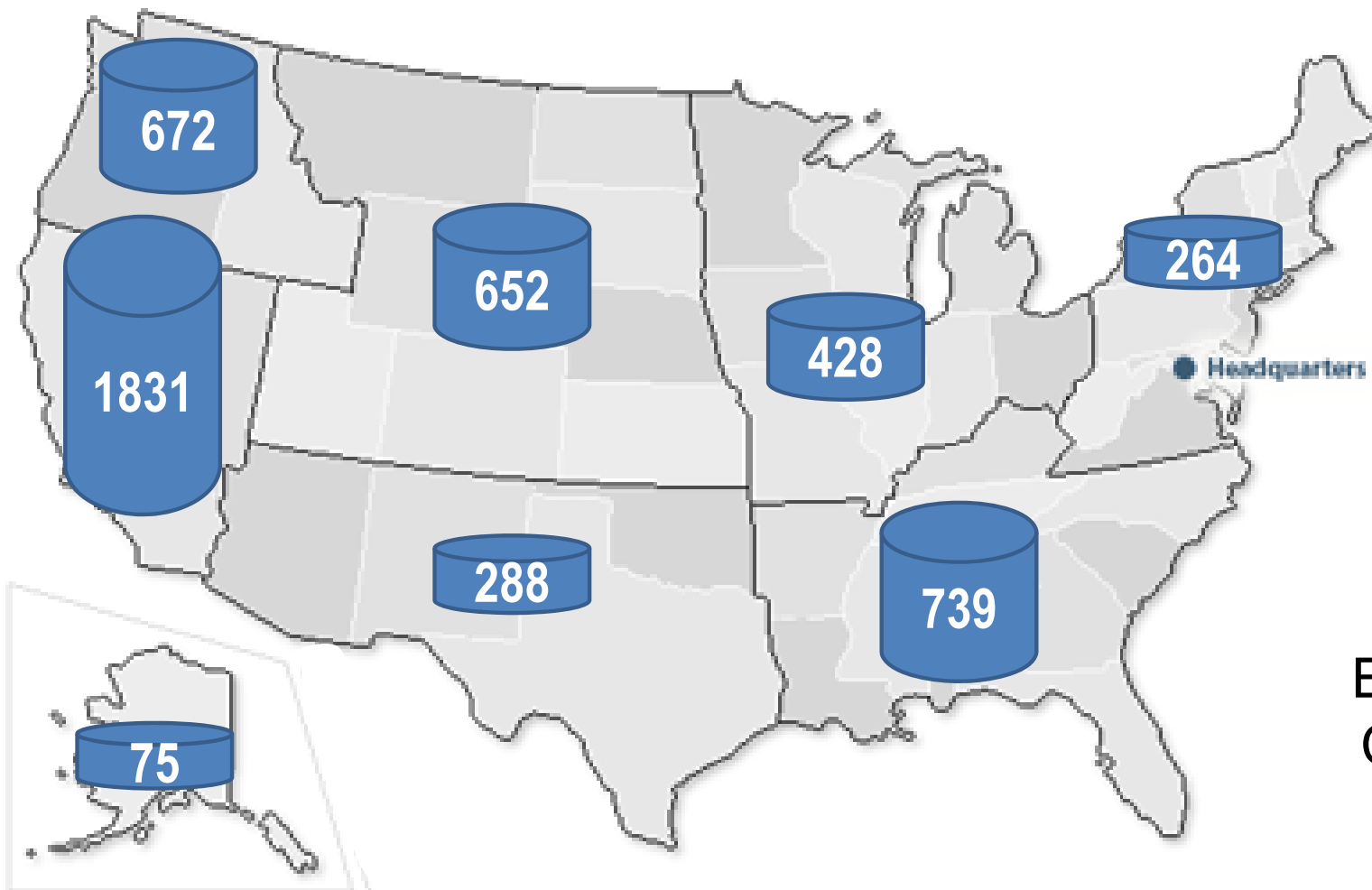
mandatory  
measures



## Section 10 - Habitat Conservation Plans (HCP)

- Tool for landowners undertaking activities that may incidentally take listed species.
- Provides Incidental Take Permit (ITP) with regulatory certainty “No Surprises”
- Describes minimization and mitigation measures to offset effects
- Mitigation may include purchase of credits in a bank
- Regional HCPs facilitate comprehensive planning and can incorporate banks or in-lieu fee programs

Source: USFWS TAILS

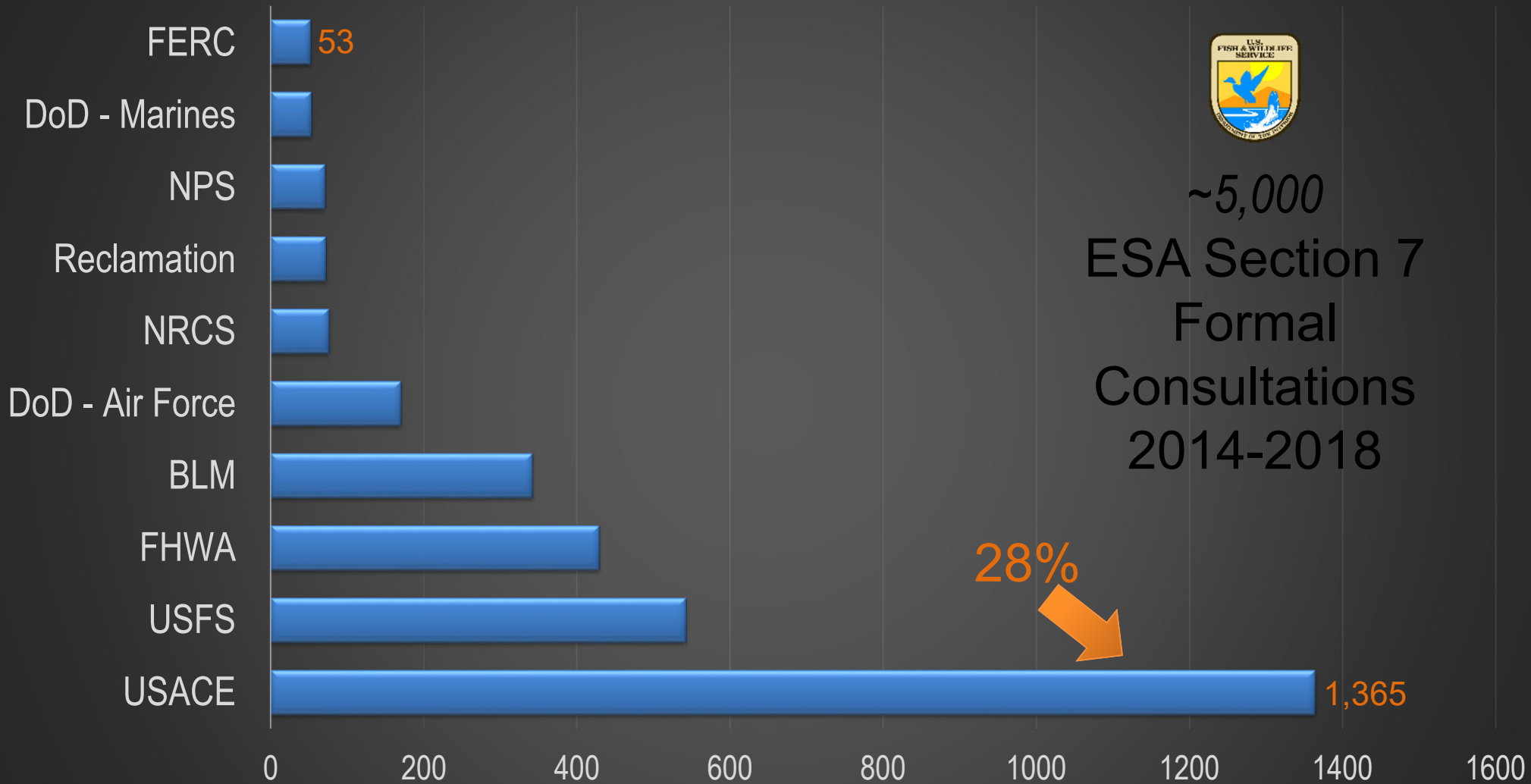


## ESA Section 7 Consultations 2014-2018





~5,000  
ESA Section 7  
Formal  
Consultations  
2014-2018



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# History of Conservation Banking

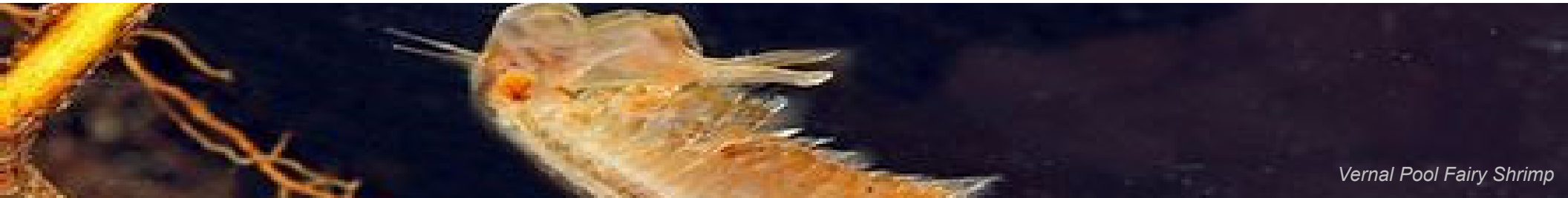
The roots of conservation are in wetland mitigation banking.

First “conservation bank site” is  
Coles Levee Ecosystem Preserve  
California, 1992


*\*Some sources recognize Carlsbad Highland  
Conservation Bank, San Diego County, CA,  
1995, as first conservation bank*



Coles Levee Ecosystem Preserve



Vernal Pool Fairy Shrimp

- 1973 Endangered Species Act (ESA) - amended in 1982
- 1981 USFWS Mitigation Policy
- 1992 *first* conservation bank established – Coles Levee 
- 1995 *first* USFWS programmatic biological opinion promoting conservation banks
- 1996 State of California “official policy” on banks
- 2003 USFWS Guidance for Establishment, Use, and Operation of Conservation Banks
- 2008 USACE/EPA Mitigation Rule
- 2019 NOAA NMFS West Coast Region Conservation Banking Program Tips and Tools



# Why do Conservation Banking?

## Biological Benefits

- Aid in recovery (outcome-based, traceable, baseline)
- Preserve ecosystems
- Avoid piecemeal mitigation
- Avoid time lag issues
- Contributes to science
- Contributes to community conservation strategies
- Long term durability

## Business Benefits

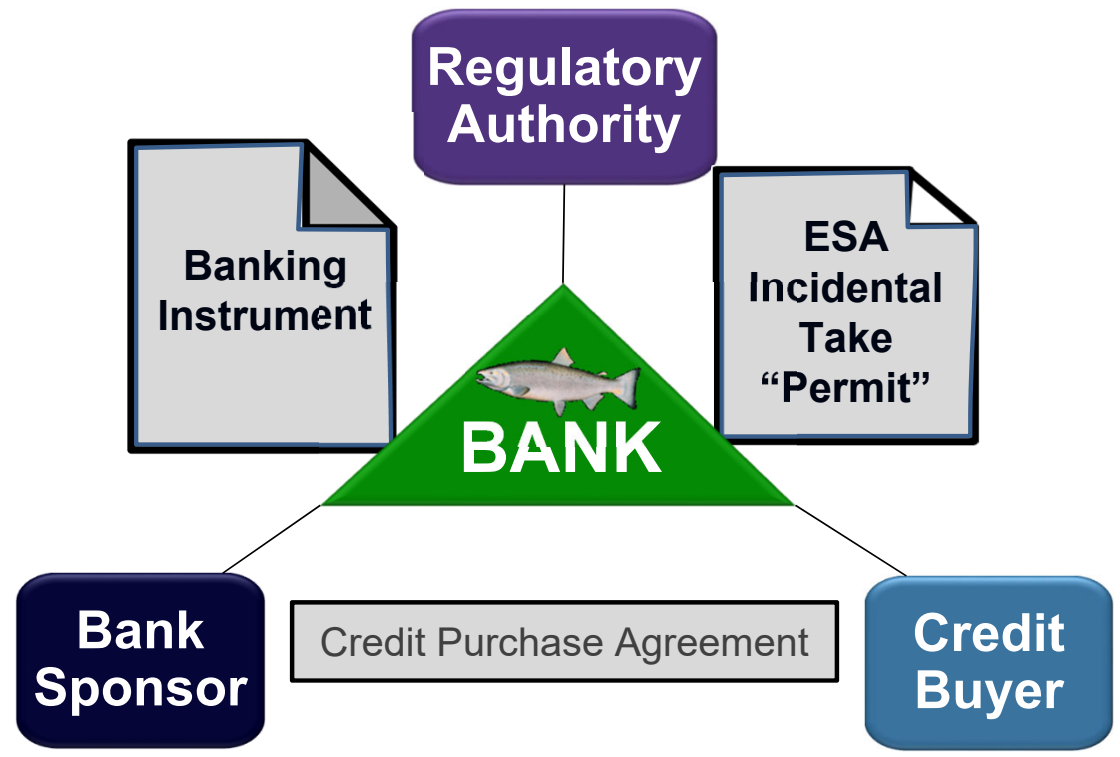
- Streamlined permit process
- Transfer of liability
- Reduced mitigation costs
- Reduced agency compliance/monitoring time
- Reduced need for enforcement
- Multi-land use compatibility
- Revenue
- Brings together development and environmental communities

## ***Economies of Scale***

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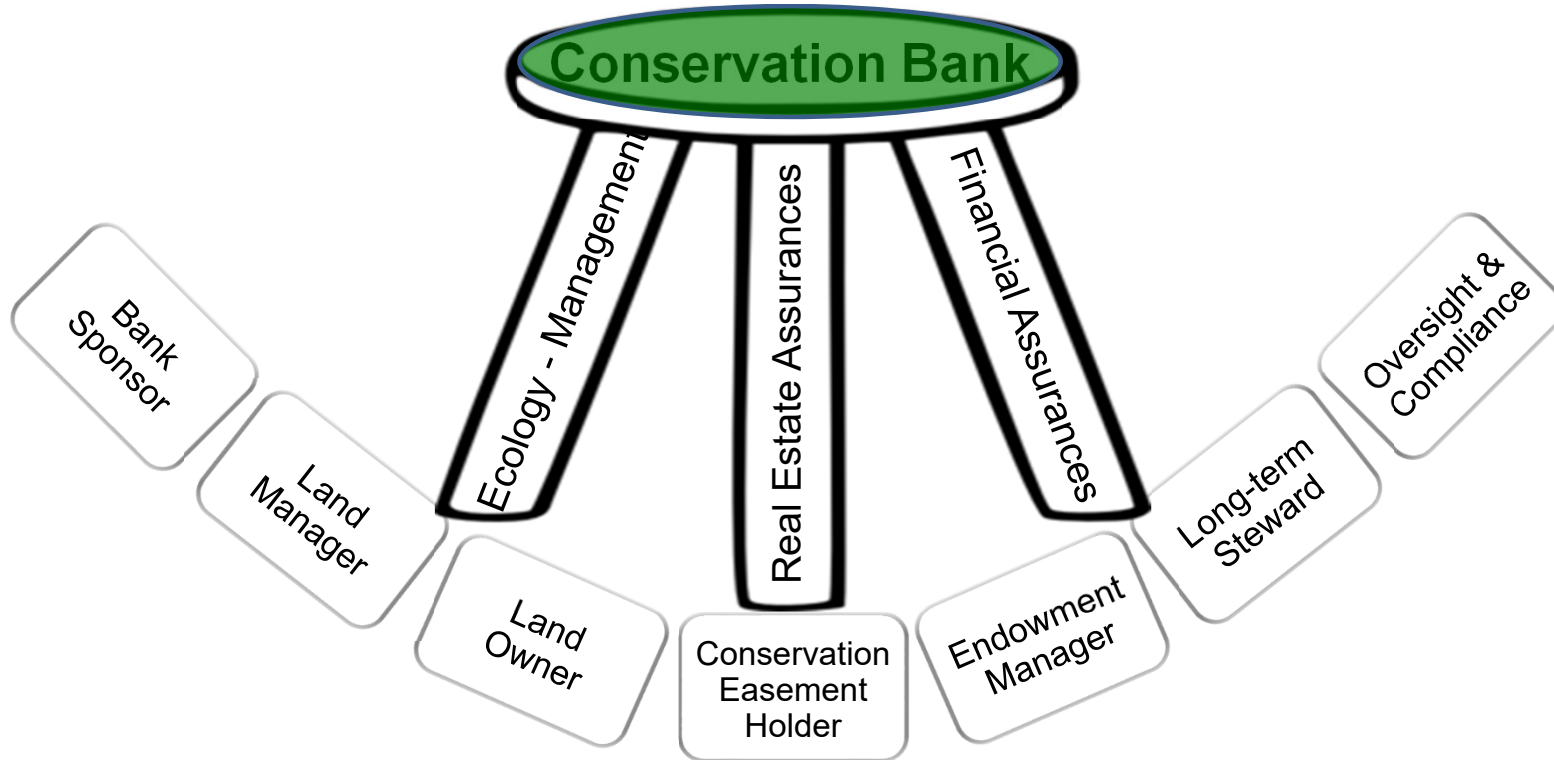
*Devils Hole pupfish*



Conservation Banking is a “3<sup>rd</sup> party” compensatory mitigation system



# Key Roles in Conservation Banks

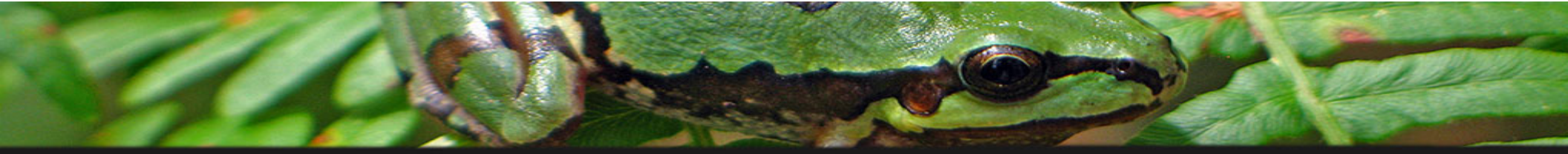




Indiana bat



Relative Lifespan of a Bank



## RIBITS

Regulatory In-lieu Fee & Bank  
Information Tracking System

***ribits.usace.army.mil***

All conservation banks approved by NMFS &  
USFWS are in RIBITS and visible to the public.



*Mud Slough Mitigation Bank, OR  
Photo: Jaimee Davis/USACE*



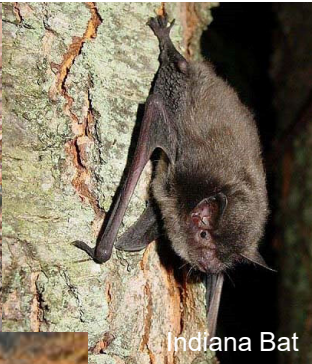


## Future of Conservation Banking

- Umbrella banking agreements
- More aquatic banks
- On-line “tool boxes” developed by Services’ Regional and Field offices with templates
- Expanded joint banking, including possible incorporation of other credit types (e.g., carbon, water quality)
- “Next generation” of conservation banking – holistic approach to ecosystem restoration and management / biodiversity banking



Pima Pineapple Cactus



Indiana Bat



Florida Panther



Chinook Salmon



Lesser Prairie Chicken



American Burying Beetle



# Thank You

Pathfinder Ranch



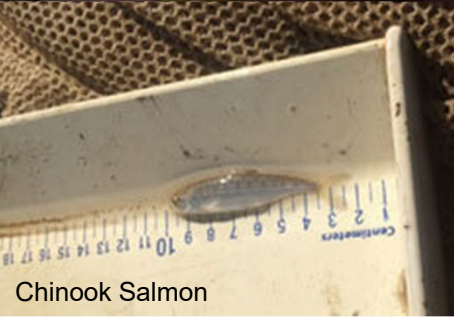
Houston Toad



Bullock Bend



California Tiger Salamander



Chinook Salmon



Sand Skink



Rough Popcorn Flower



Sutter Basin



Golden-cheeked Warbler