



# Maneuvering Threatened and Endangered Species Regulations on a Construction Project

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ENVIRONMENTAL CONSTRUCTION ENGINEER

AL DEPARTMENT OF TRANSPORTATION

# Threatened VS Endangered

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THREATENED

ENDANGERED



Tri-Colored Bat  
*Perimyotis subflavus*



Northern Long-Eared Bat  
*(Myotis septentrionalis)*



Indiana Bat  
*(Myotis sodalis)*



# Meet Your Regulators

# Enforcement Agencies



U.S. Fish and Wildlife Services



U.S. Army Corps of Engineers



Federal Highway Administration

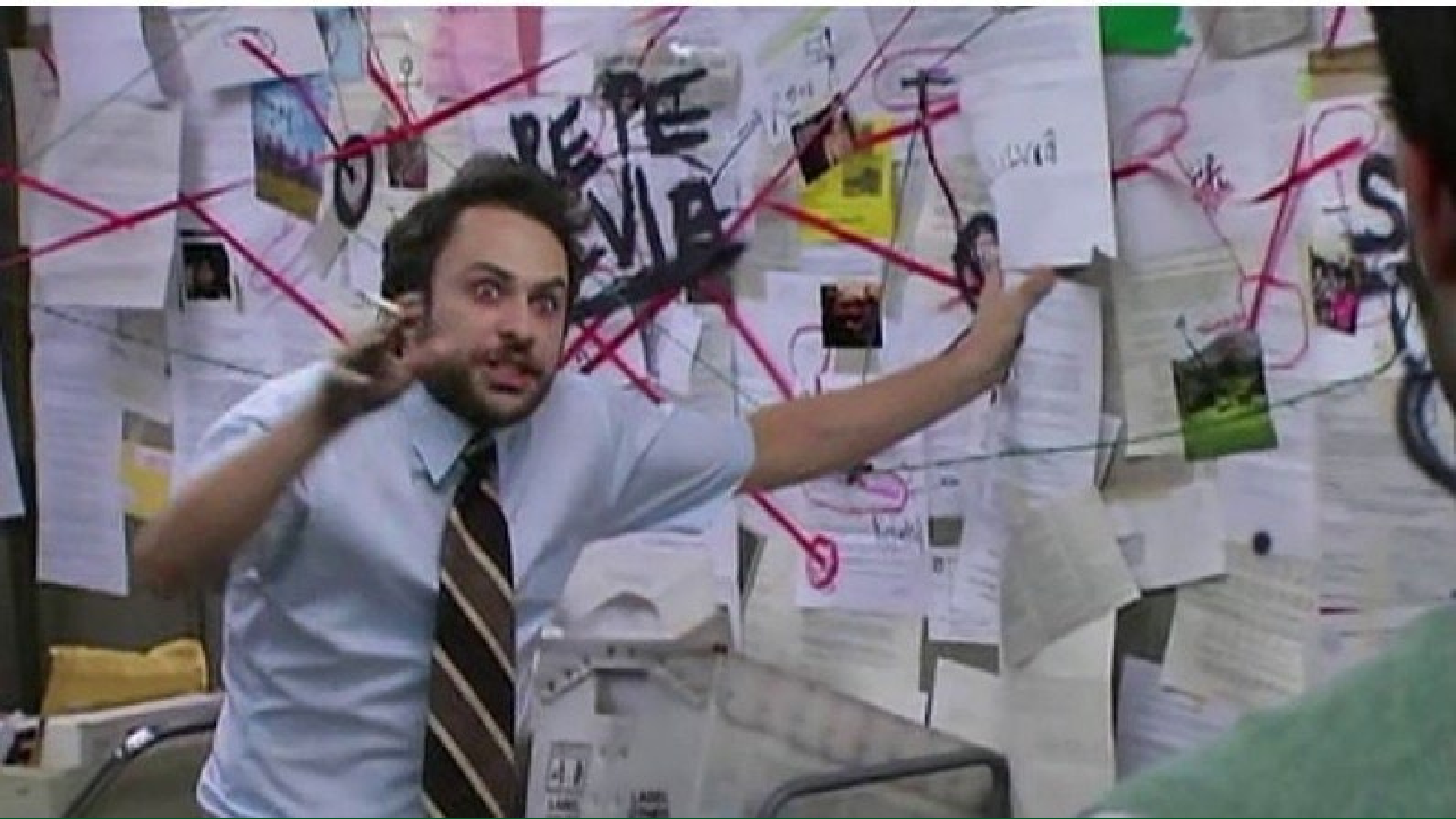


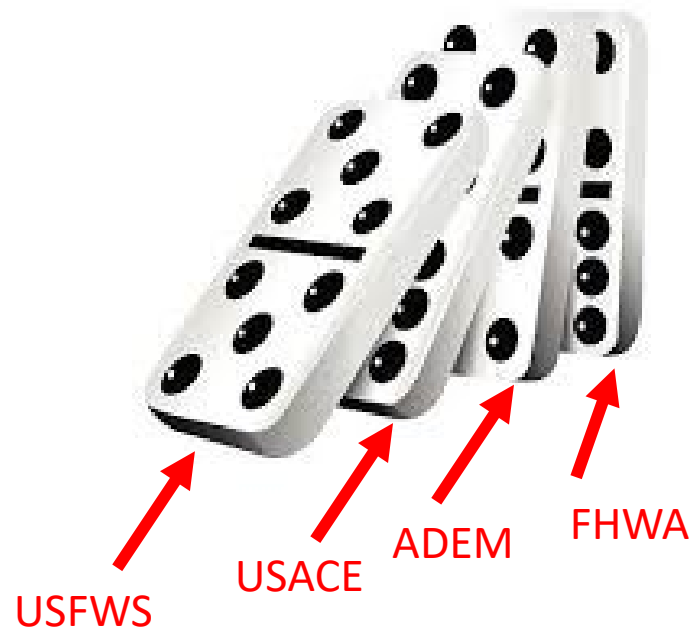
# **ALDOT** Alabama Department of Transportation



  
U.S. Department of Transportation  
Federal Highway Administration

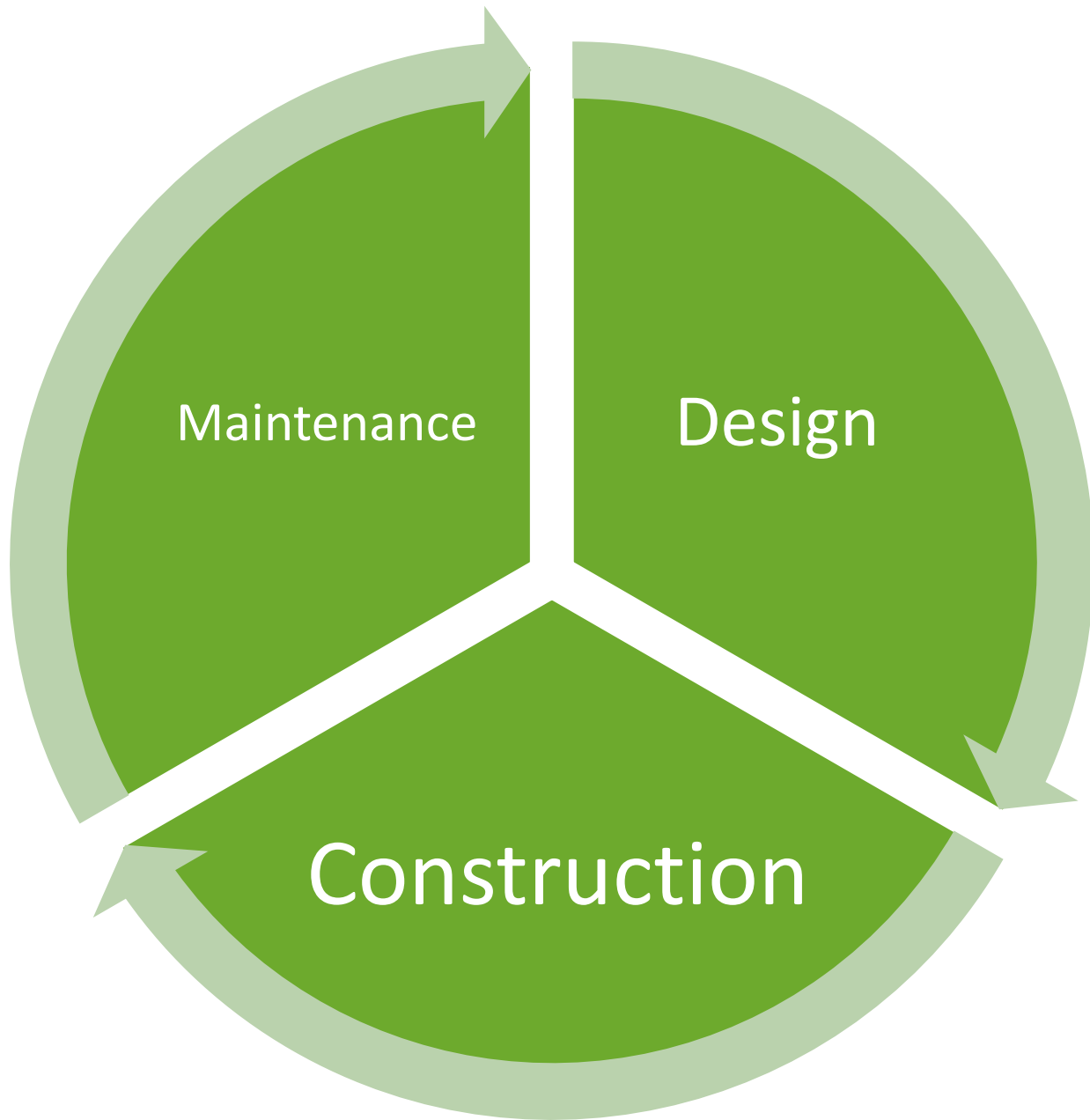
**ADEM**  
Alabama Department of Environmental Management





# T & E Violations Begin a Domino Effect

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**A successful  
project begins in  
Design!**





# T&E Species and Roadway Construction





Road and Bridge Construction



USFWS



USACE

# Tips for Navigating T&E Regs in Construction

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Understand the Regulation

Understand your Impacts

Document Document Document!!!

Make friends

- R&D

Go above and beyond

Build Trust with Regulators

Be Adaptable

Use your tools

- Conservation Measures
- NEAP Assist



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# Conservation Measures

# Conservation Measures

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- Onsite Awareness Training
- Avoidance and Minimization
  - Allowable Work Windows
- Habitat Assessments
- Species Surveys
- Species Relocation
- Span Waterways
- Best Management Practices
  - Erosion Control Products & Practices

Alabama Handbook for

**Erosion Control, Sediment Control  
and Stormwater Management on  
Construction Sites and Urban Areas  
(The Blue Book)**



**Volume 1**

**Developing Plans and Designing  
Best Management Practices**  
2022

Alabama Soil and Water Conservation Committee  
Montgomery, Alabama

Alabama Handbook for

**Erosion Control, Sediment Control  
and Stormwater Management on  
Construction Sites and Urban Areas  
(The Blue Book)**



**Volume 2**

**Installation, Maintenance, and Inspection of  
Best Management Practices**  
2022

Alabama Soil and Water Conservation Committee  
Montgomery, Alabama

# Conservation Measures

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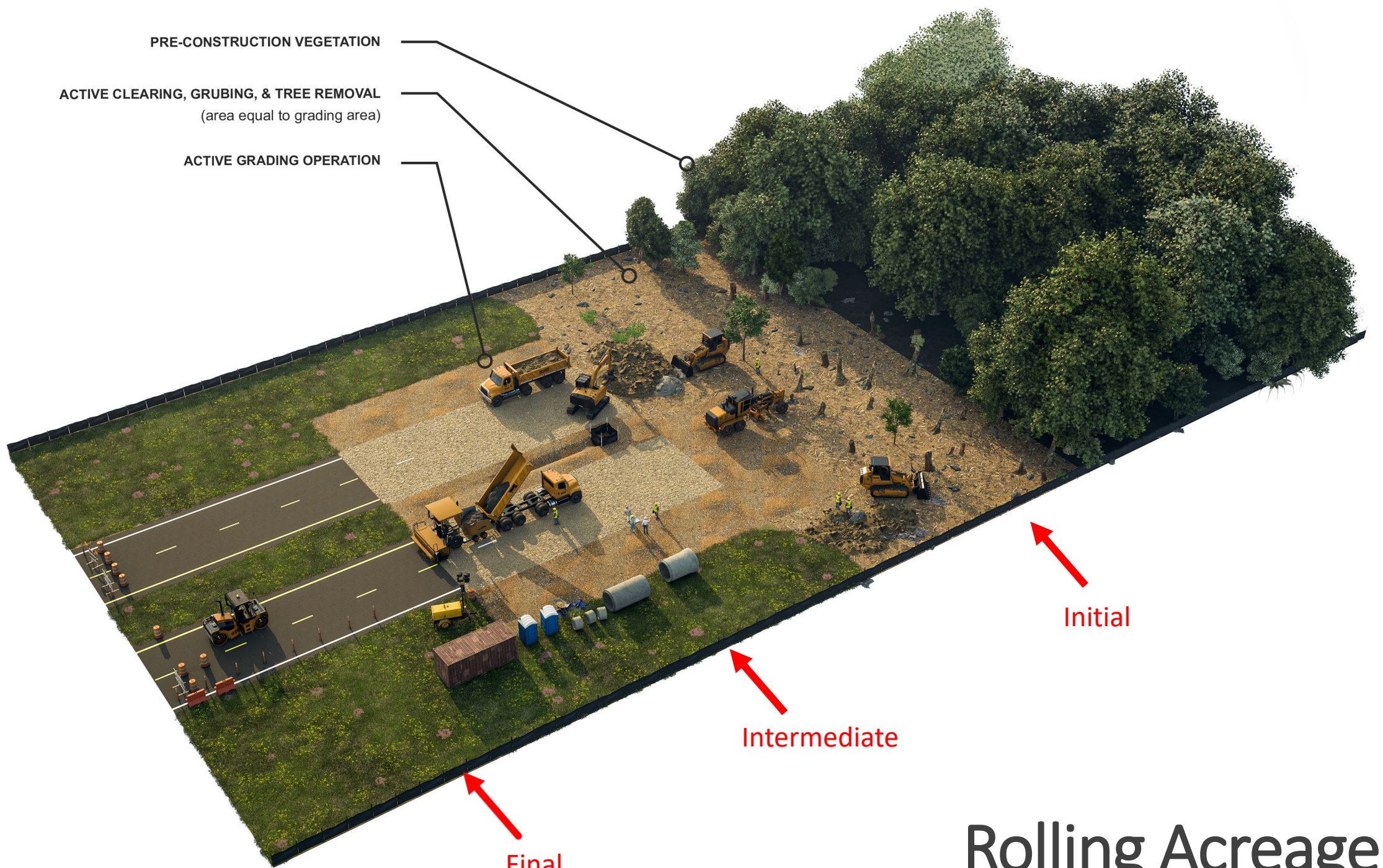
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  - Erosion Control Products
  - Phasing Construction



PRE-CONSTRUCTION VEGETATION

ACTIVE CLEARING, GRUBBING, & TREE REMOVAL  
(area equal to grading area)

ACTIVE GRADING OPERATION



Initial

Intermediate

Final

Rolling Acreage

# Conservation Measures

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- Best Management Practices
  - Erosion Control Products
  - Phasing Construction
  - Clearing with Mulching\*

# Clearing with Mulching

Photos ~1 year apart



# Conservation Measures

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- Enhanced BMPs



Silt Fence



Sediment  
Retention Barrier



“Burrito”

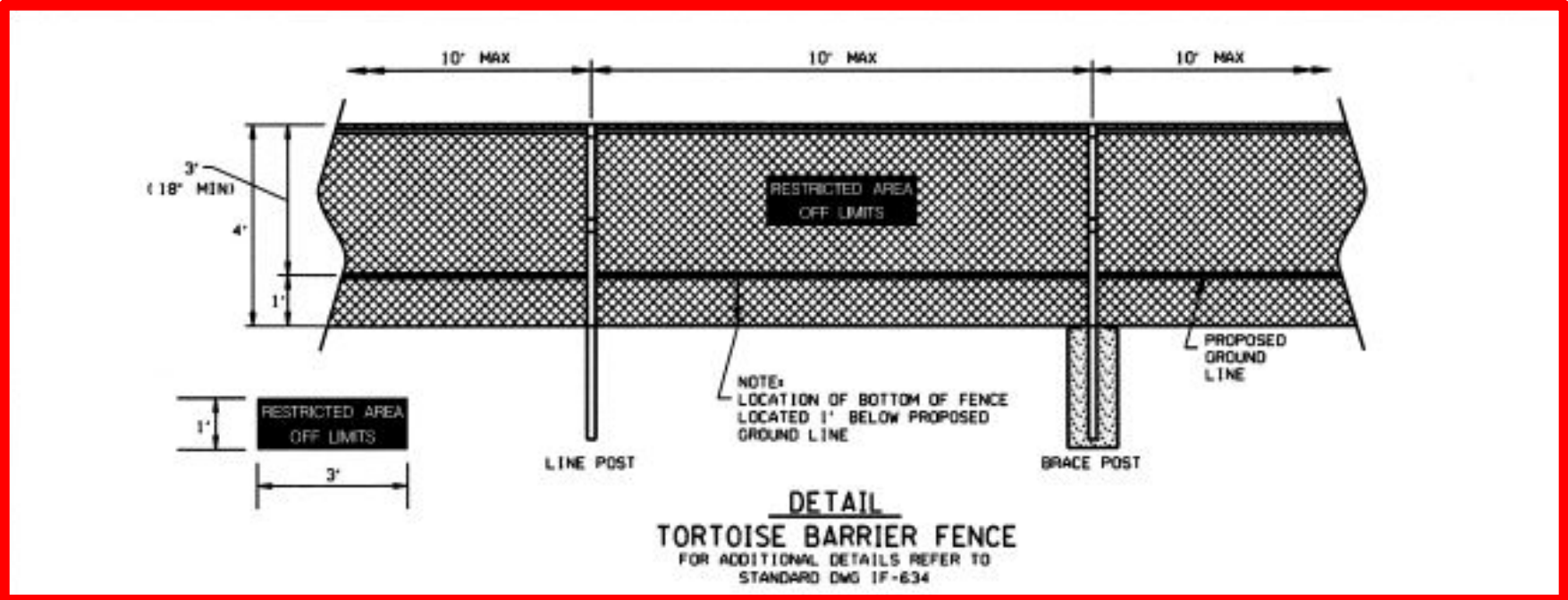
# Enhanced BMPs Example

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# Conservation Measures

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- Best Management Practices
  - Erosion Control Products
  - Phasing Construction
  - Clearing with Mulching\*
- Enhanced BMPs
- Species Barriers
  - Tortoise Fencing



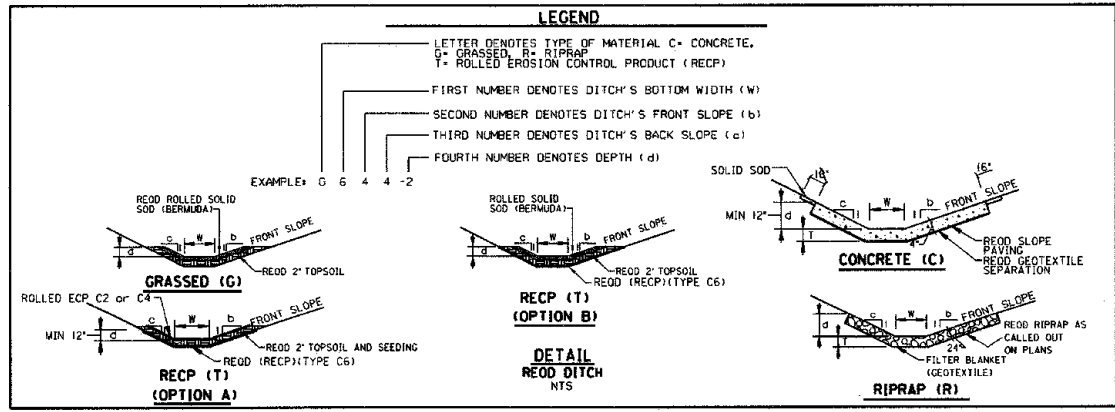
**DETAIL**  
**TORTOISE BARRIER FENCE**  
FOR ADDITIONAL DETAILS REFER TO  
STANDARD DMG 1F-634

TIED  
SITE  
MAT  
610E-000

PAVEMENT TRANSITION DETAIL (STEP DOWN)

PAVEMENT TRANSITION DETAIL (STEP UP)

LEGEND OF REQUESTED MATERIALS



LEGEND NO	ITEM NO	DESCRIPTION
(D)	EX PWMT (RET)	(APPROX 6" TO 8" THICK)
(E)	EX PWMT (REM)	(APPROX 6" TO 8" THICK)
(1)	424A-280	SUPERPAVE BITUMINOUS CONCRETE WEARING SURFACE LAYER, 1/2" MAXIMUM AGGREGATE SIZE MIX, ESAL RANGE E (220 LB/SY)
(1B)	424B-285	SUPERPAVE BITUMINOUS CONCRETE UPPER BINDER LAYER, PATCHING, 1" MAXIMUM AGGREGATE SIZE MIX, ESAL RANGE E, (900 LBS/SY TO BE PLACED IN 3 EQUAL LAYERS AT 300 LBS/SY)
(2)	424B-281	SUPERPAVE BITUMINOUS CONCRETE UPPER BINDER LAYER, 1" MAXIMUM AGGREGATE SIZE MIX, ESAL RANGE E (250 LB/SY)
(3)	424B-581	SUPERPAVE BITUMINOUS CONCRETE LOWER BINDER LAYER, 1" MAXIMUM AGGREGATE SIZE MIX, ESAL RANGE E (320 LB/SY)
(4)	424B-581	SUPERPAVE BITUMINOUS CONCRETE LOWER BINDER LAYER, 1" MAXIMUM AGGREGATE SIZE MIX, ESAL RANGE E (350 LB/SY)
(5)	401A-000	BITUMINOUS TREATMENT A
(6)	301A-012	CRUSHED AGGREGATE BASE COURSE, TYPE B, PLANT MIXED, 6" COMPACTED THICKNESS
(10)	210A-000	UNCLASSIFIED EXCAVATION AND/OR BORROW EXCAVATION (A-2-4 (D) OR A-4 (D))
(11)	214B-000	FOUNDATION BACKFILL, LOCAL

NOTES:  
A SEE DETAIL "A" SHEET 2

RESPONSIBLE PE:	SUPERVISOR:	DESIGNER:	PLAN SUBMITTAL:	ALABAMA DEPARTMENT OF TRANSPORTATION	NOT TO SCALE	SHEET TITLE	ROUTE
DATE:	DATE:	DATE:				TYPICAL SECTION	SR-158

# Conservation Measures

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  - Clearing with Mulching\*
- Enhanced BMPs
- Species Barriers
  - Tortoise Fencing
  - Bridge Netting





NEPA

CONTACT US

NEPA Home

Learn About NEPA

Filing an EIS

EPA's Role in the NEPA Process

NEPAssist

# NEPAssist

NEPAssist is a tool that facilitates the environmental review process and project planning in relation to environmental considerations. The web-based application draws environmental data dynamically from EPA Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest. These features contribute to a streamlined review process that potentially raises important environmental issues at the earliest stages of project development.

## Resources for NEPAssist Users

- [NEPAssist User Guide](#) - provides assistance on how to use the NEPAssist tool.
- [Description of Map Features](#) - provides information on available data features in NEPAssist.
- [EJSCREEN](#) - an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators.

## NEPAssist Basic Training Videos

- [How to Use the Basic Features in NEPAssist](#)



## Launch the Tool



- [Launch the NEPAssist Tool](#)

## NEPAssist Advanced Training Videos

- [How to Use Advanced Map Data Layers in NEPAssist](#)




# NEPA Assist Tool


# Generate Unofficial Ipac Report

Draw


You can select from the below to draw a point, line, area, rectangle or enter your own coordinates for your project area. You may draw more than one project area on the map.

Hold down the left-mouse button and drag on the map, release the button to end drawing.

Symbol: 

Fill Color: 

Transparency:

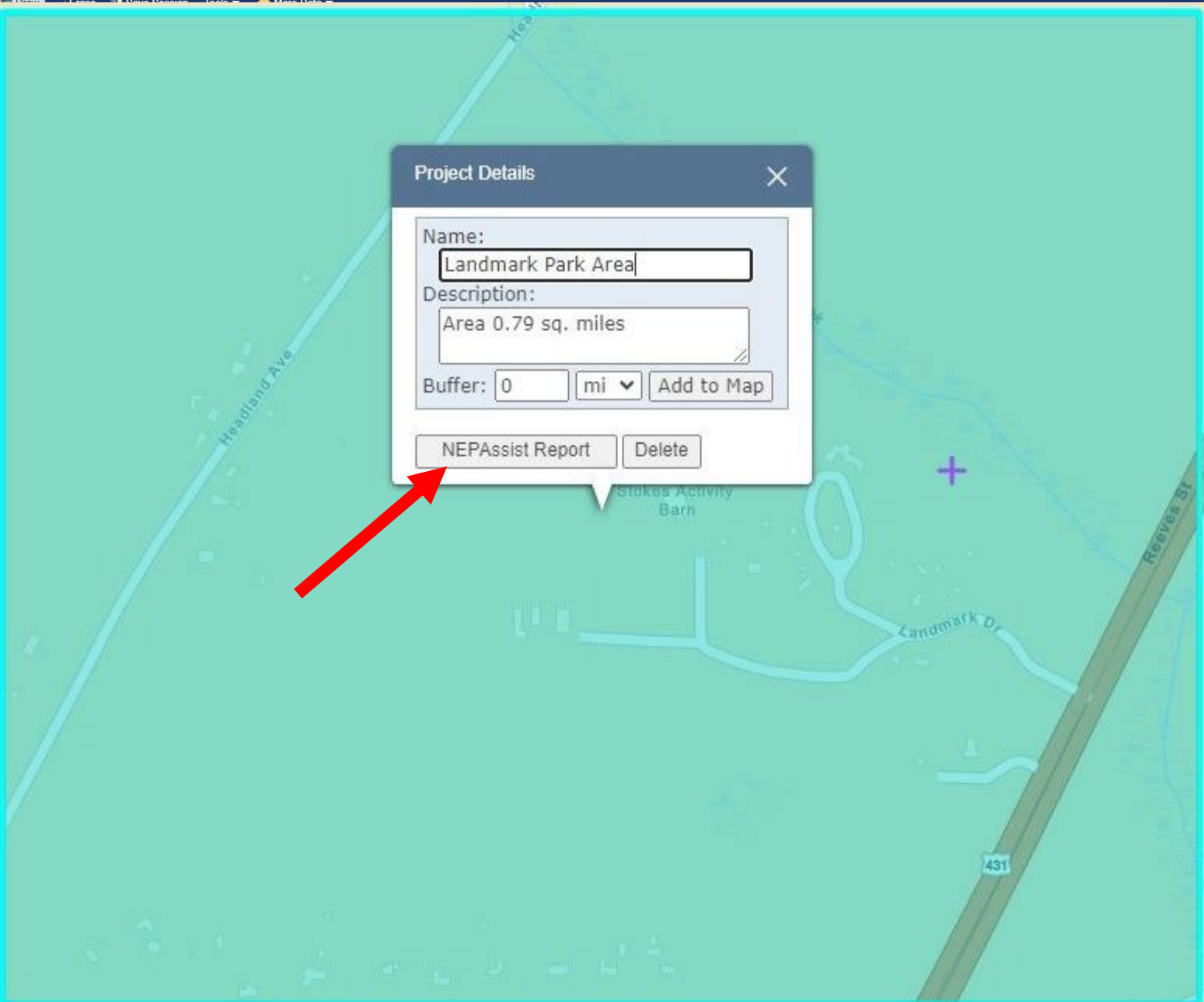
Outline Width:  px Outline Color: 

### Project Details

Name:

Description:

Buffer:  mi



Map



September 5, 2024

Project Area  
Search Point

- Alabama Report
- Demographic Reports
- USFWS IPaC Report

This report is from the U.S. Fish and Wildlife Service Information, Planning and Conservation System (IPaC) tool and provides information about the natural resources for which the U.S. Fish and Wildlife Service has trust or regulatory responsibility. For more information, visit the IPaC website.

IPaC Report

EXIT NEPAAssist

Project Area	0.79 sq mi
Within an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within a Federal Land?	no
Within an impaired stream?	yes
Within an impaired waterbody?	no
Within a waterbody?	no
Within a stream?	yes
Within an NWI wetland?	click here May take several minutes
Within a Brownfields site?	no
Within a Superfund site?	no
Within a Toxic Release Inventory (TRI) site?	no
Within a water discharger (NPDES)?	yes
Within a hazardous waste (RCRA) facility?	no
Within an air emission facility?	no
Within a school?	no
Within an airport?	no
Within a hospital?	no
Within a designated sole source aquifer?	no
Within a historic property on the National Register of Historic Places?	no
Within a Chemical Data Reporting (CDR) site?	no
Within a Land Cession Boundary?	yes
Within a tribal area (lower 48 states)?	no
Within the service area of a mitigation or conservation bank?	no
Within the service area of an In-Lieu-Fee Program?	no
	no
	no
	no
	no
	no
	no
	no
	no
	no
	no

Geographic co  
POLYGON (31.2  
with buffer 0 mi  
Note: The informat  
Reports use datase

# Explore location

LOCAL OFFICE: ALABAMA ESFO



LOCATION  
Houston County,  
Alabama  
CHANGE LOCATION

## Resources

- ENDANGERED SPECIES 5
- BALD & GOLDEN EAGLES
- MIGRATORY BIRDS 4
- FACILITIES
- WETLANDS
- [PRINT RESOURCE LIST](#)

### What's next?

Define a project at this location to evaluate potential impacts, get an official species list, and make species determinations.

[DEFINE PROJECT](#)

## Endangered species

Listed species and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries).

Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

Additional information on endangered species data is provided [below](#).

The following species are potentially affected by activities in this location:

THUMBNAILS  LIST

### Birds



Whooping Crane  
*Grus americana*

### Reptiles



Alligator Snapping Turtle  
*Macrochelys temminckii*  
Wherever found



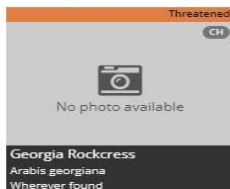
Eastern Indigo Snake  
*Drymarchon couperi*  
Wherever found

### Insects



Monarch Butterfly  
*Danaus plexippus*  
Wherever found

### Flowering Plants



Georgia Rockcress  
*Arabis georgiana*  
Wherever found

### Critical habitats

## Birds



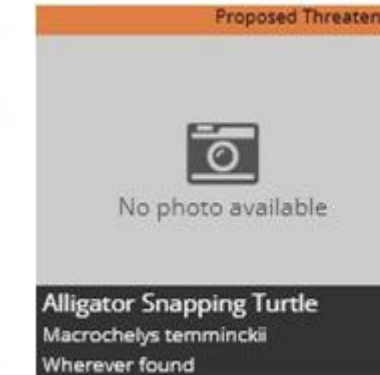
Whooping Crane  
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## Insects



Monarch Butterfly  
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Wherever found

## Reptiles

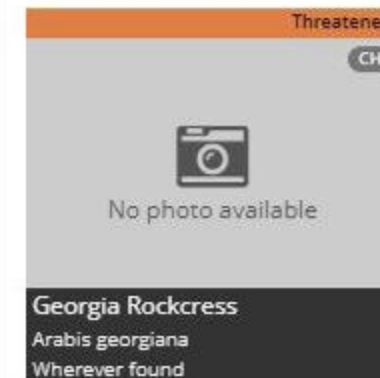


Alligator Snapping Turtle  
*Macrochelys temminckii*  
Wherever found



Eastern Indigo Snake  
*Drymarchon couperi*  
Wherever found

## Flowering Plants



Georgia Rockcress  
*Arabis georgiana*  
Wherever found





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# Endangered Species Spotlight



R=1



Northern Long-Eared Bat  
(*Myotis septentrionalis*)



Indiana Bat  
(*Myotis sodalis*)

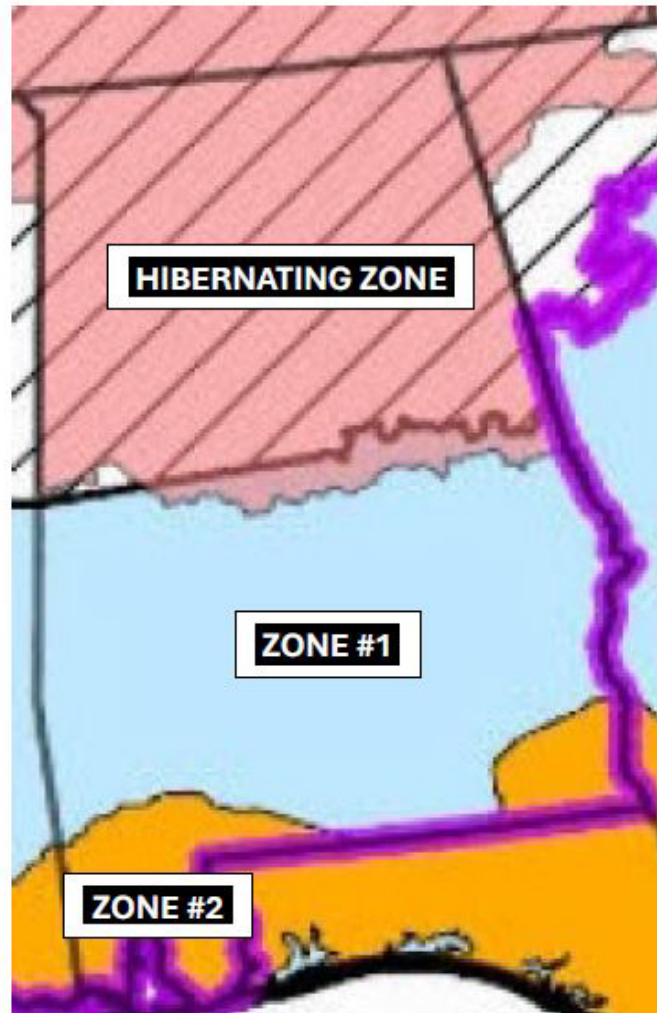
## Endangered Bats of Alabama





Tri-Colored Bat  
*Perimyotis subflavus*

## Endangered Bats of Alabama



<b>Hibernating Zone: Indiana Bat, Northern Long-eared Bat, Tricolored Bat</b>
October 1 – March 14
November 16 – March 14 (projects within 5 miles of a hibernacula)
July 16 – March 14 (survey documented absence of IB and NLEB but presence of TCB)

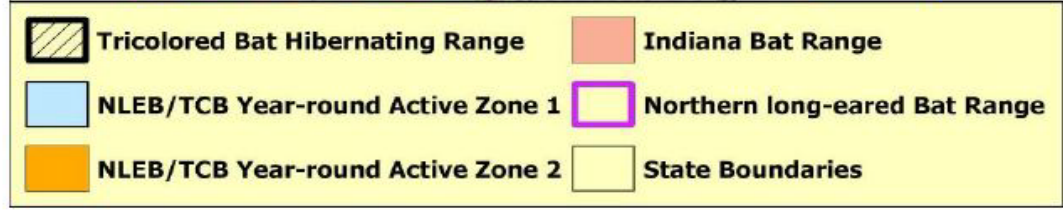
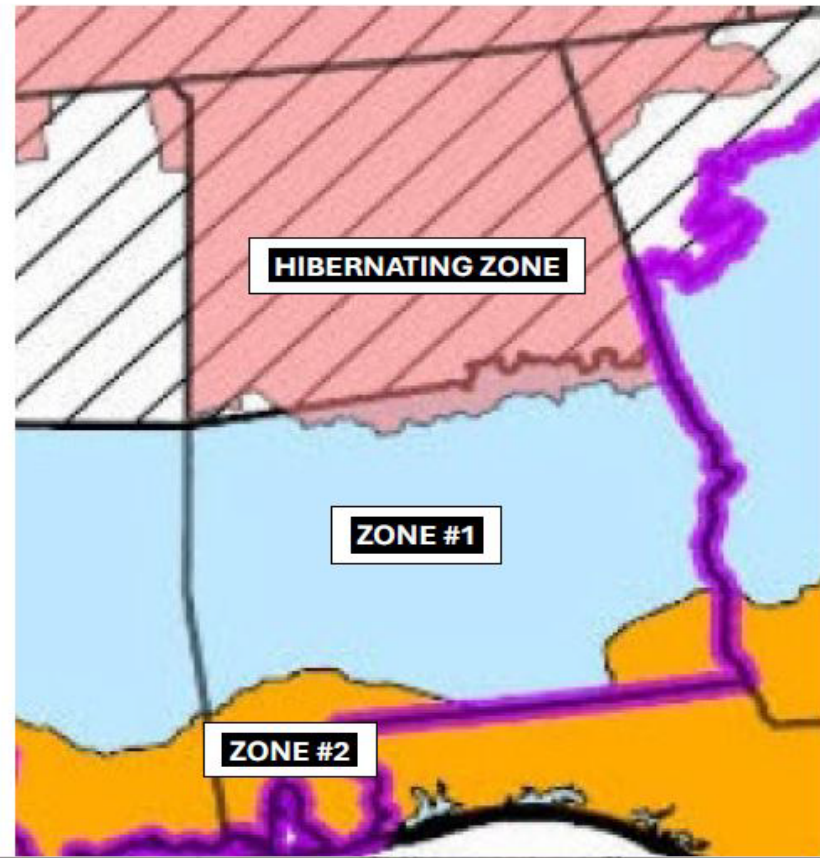
<b>Zone 1 [Year-Round Active]: Northern Long-eared Bat and Tricolored Bat</b>
July 16 – Dec 14 & Feb 16 – March 14 (NLEB and TCB)
July 16 – Dec 14 & Feb 16 – April 30 (TCB only)

<b>Zone 2 [Year-Round Active]: Northern Long-eared Bat and Tricolored Bat</b>
July 16 – March 14 (NLEB and TCB)
July 16 – April 30 (TCB only)

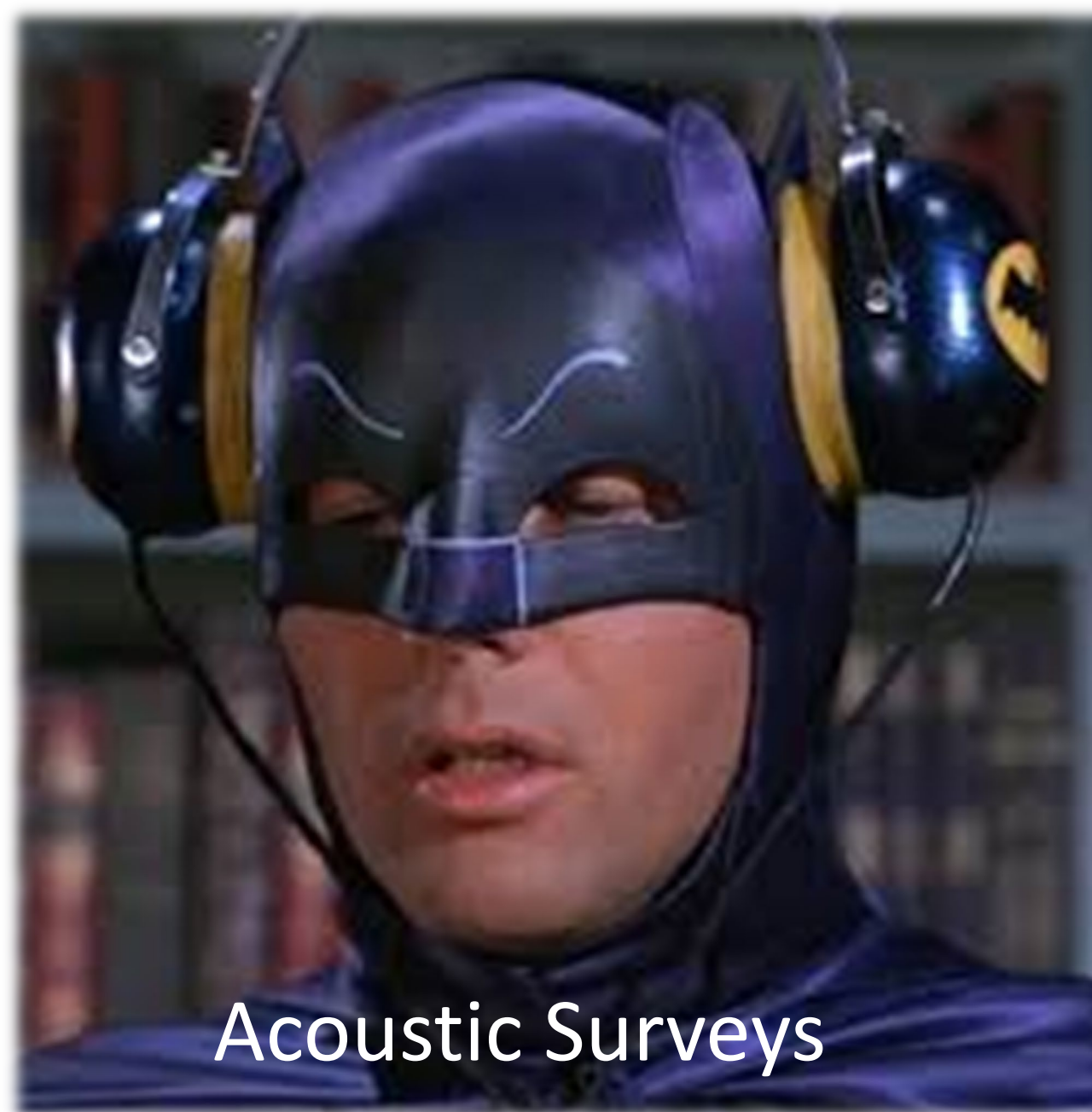


# Tree Clearing & Bridge Demo Timelines

# BAT SURVEY WINDOWS BASED ON PROJECT LOCATION



Zone	Survey Dates
Hibernating Zone	May 15 – August 15
Zone 1 [Year-Round Active]	March 1 – October 15
Zone 2 [Year-Round Active]	March 1 – October 15



Acoustic Surveys



Mist Netting



# ALDOT Environmental Culture Shift

# WRECK-IT RALPH

A pixelated character with spiky red hair, a wide toothy grin, and a determined expression. He is positioned in the center, overlapping the text 'WRECK-IT' and 'RALPH'.

MORE VIDEOS

Play (k)



Time: 58

Score: 0





**ALDOT CAN FIX IT!**





**ALDOT  
Environmental  
Program**



# ALDOT Environmental Resources

## ALDOT Personnel Dedicated to Environmental Duties

<b>Central Office</b>	
Design Bureau	27
Construction Bureau	3
Maintenance Bureau	2
Local Transportation Bureau	2
Materials & Test Bureau	5
Total	39
<b>Regions</b>	
Areas	20
QCIs	353
Grand Total	451 employees

# ALDOT Environmental Resources

## Pre-Construction Environmental Expenditures

2020-2024	
Cultural Resource Studies & Mitigation	\$13,124,008.00
Ecological Studies & Mitigation	\$17,401,202.00
HAZMAT/Remediation/Compliance	\$3,575,769.00
Agency Liaisons (USFWS, USACE, SHIPO)	\$2,264,017.00
Miscellaneous (Agreements, Manuals, Programmatic, etc.)	\$1,871,144.00
Total	\$38,236,140.00

## ALDOT E&SC Research

2017-2024	
Erosion and Sediment Control Research	\$~2,500,000.00

Questions?



RICHARD KLINGER  
ENVIRONMENTAL CONSTRUCTION