

Environmental Concerns for ODOT Geotechnical Investigations

ODOT/ACEC Partnering Conference 2015

Recent Environmental Developments

- New Endangered Species Listings and requirements
- These ESA requirements overlap with Section 404 Permit requirements
- Geotechnical Investigations are part of Interdependent and Interrelated actions of ODOT projects

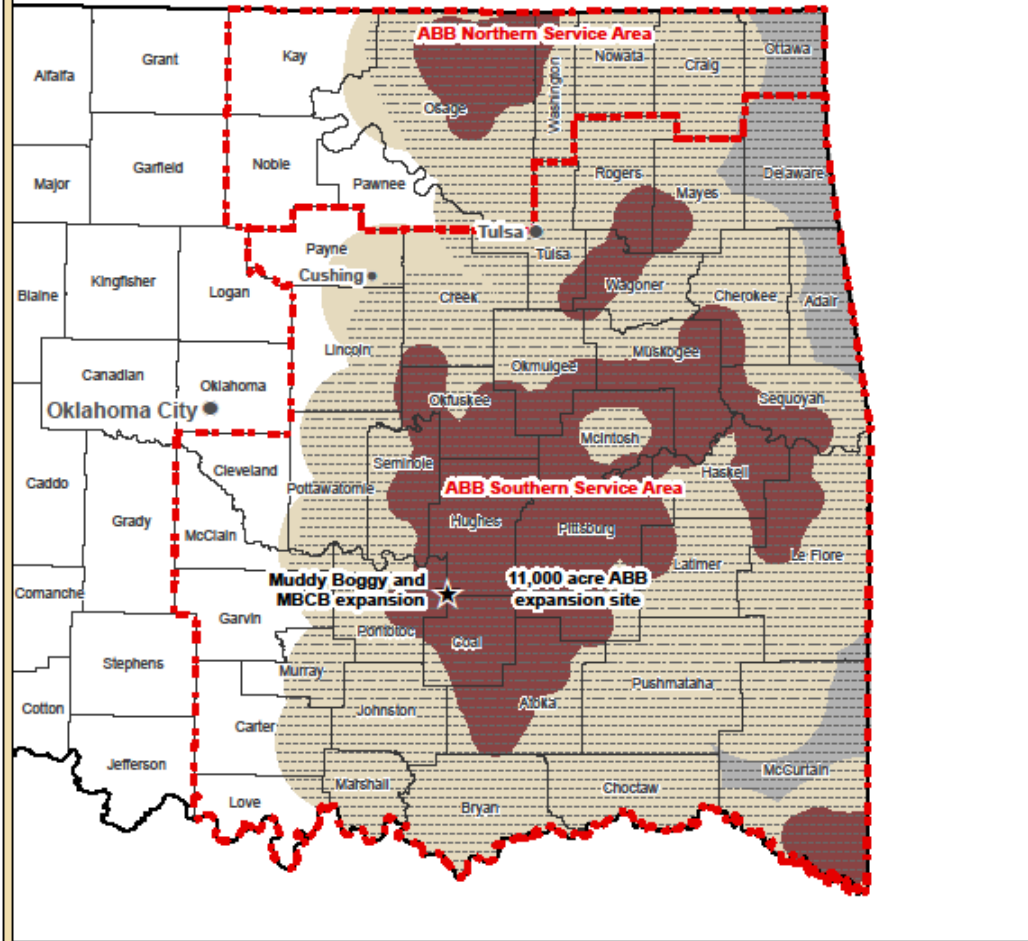
New Listings and Requirements

- ODOT American Burying Beetle (ABB) Programmatic Biological Opinion (applies to Eastern OK Counties)
- New Listing of the lesser prairie-chicken (LPC) in Northwestern OK Counties
- New FHWA Programmatic Biological Opinion for the Northern Long Eared Bat (NLEB) in OK
- New Critical Habitat designations for endangered mussels

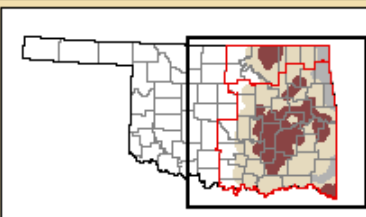
American Burying Beetle



American Burying Beetle Oklahoma Overview Map



- ★ Conservation Bank Location
- Revised ABB Range (March 2015)
- ABB Range*
- Potential ABB Range**
- ABB Conservation Priority Areas
- ABB Service Areas
- 2014 ABB Range
- Counties
- Cities



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*Within 30 km of documented ABB occurrence
**Not within 30 km of a documented ABB occurrence, but the Service recommends considering this area as potential ABB range due to potential ABB habitat and previously documented ABB locations in adjacent states

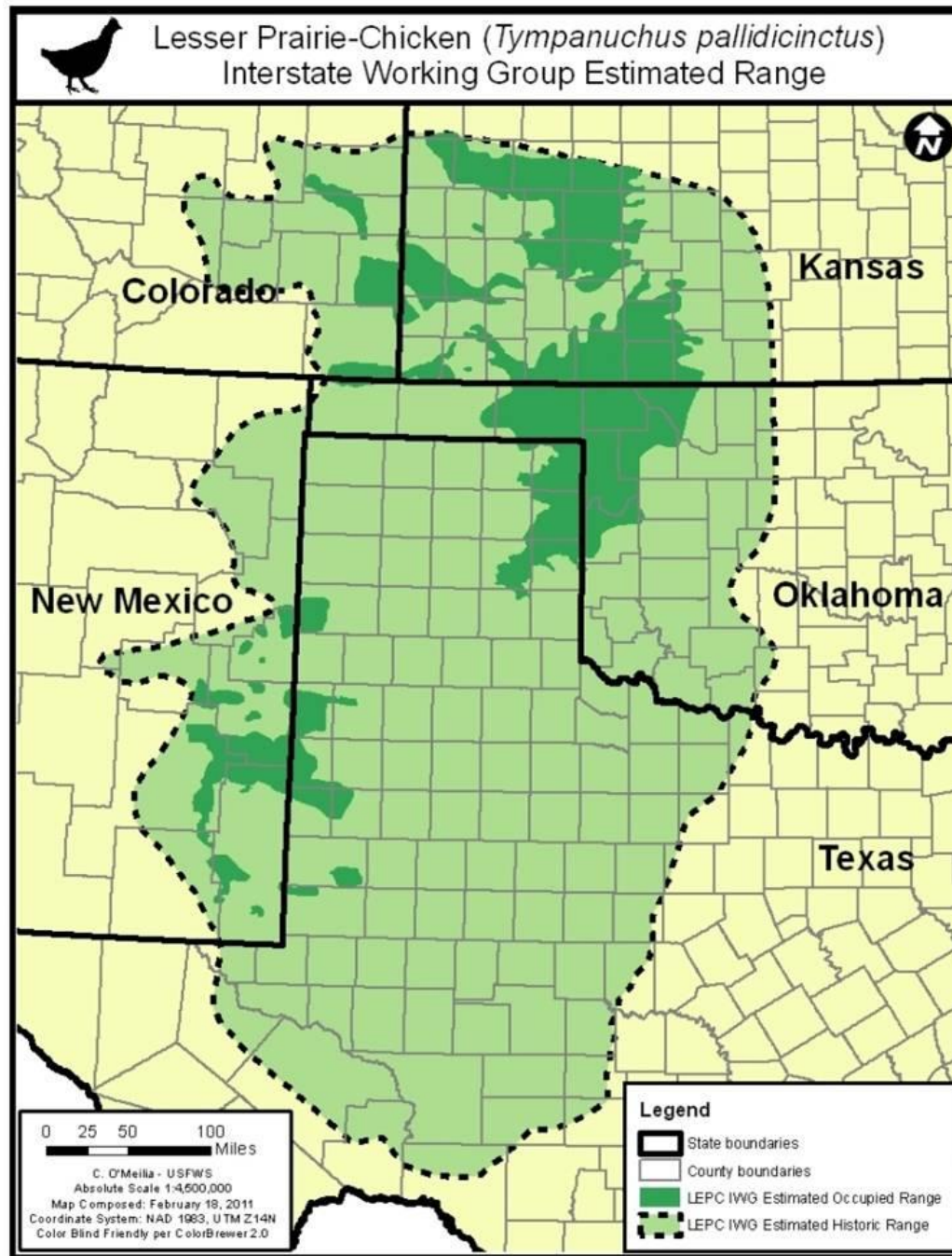
ODOT ABB PBO

- **All projects to be let by ODOT are covered.**
- Requires avoidance and minimization of impacts to suitable ABB habitat
- Requires purchase of conservation credits for unavoidable impacts to ABB, based on type of impact (permanent or temporary) unless a survey is negative
- Surveys are seasonal, so ODOT may assume presence of ABB and proceed accordingly.

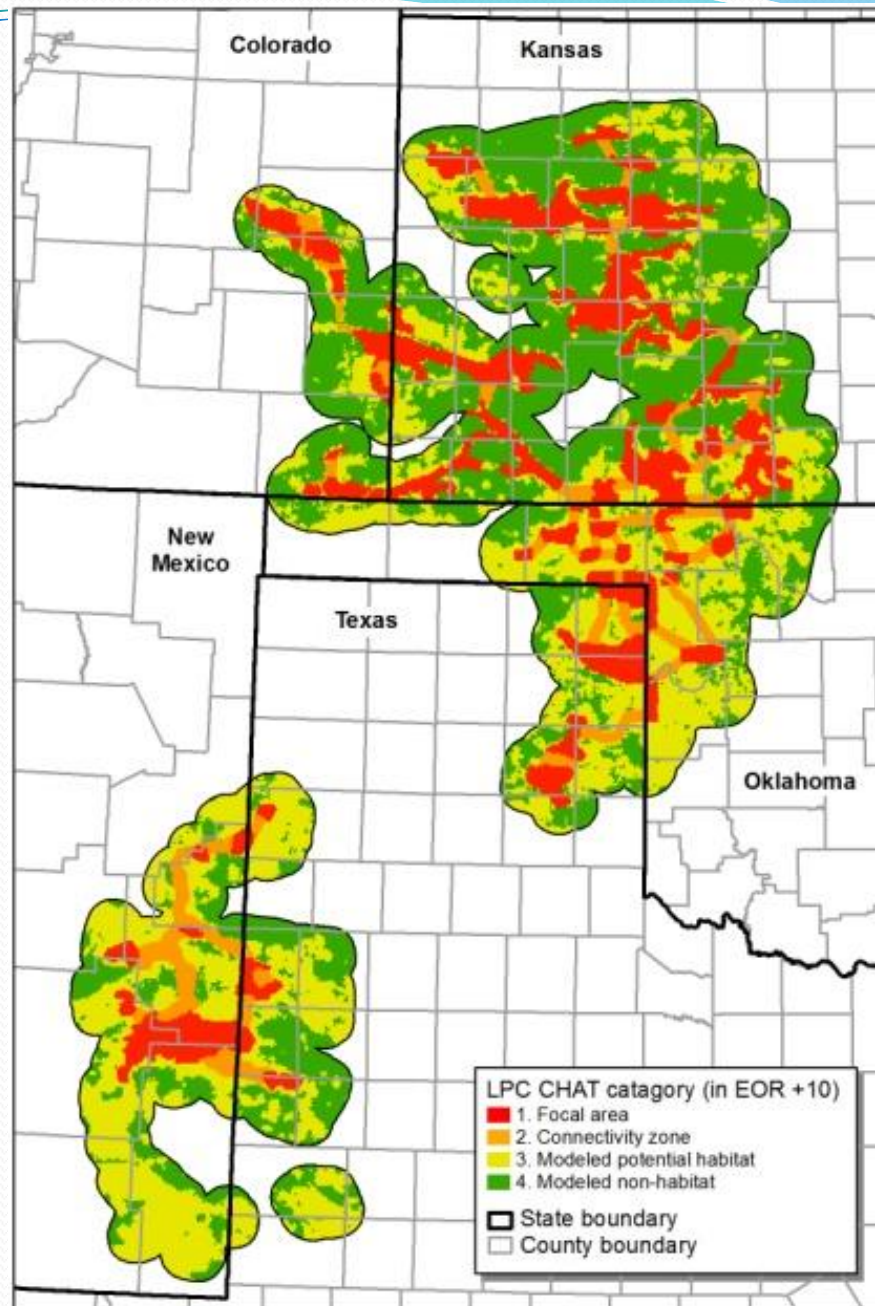
Lesser Prairie-Chicken



LPC



LPC



LPC

- Listed as Threatened under the Endangered Species Act in April of 2014
- Critical breeding season (avoidance season) March 1- July 15
- Activities to be conducted within this time period will require consultation with USFWS

Northern Long Eared Bat



Northern Long-Eared Bat Draft* Range

* The US Fish and Wildlife Service is seeking additional information on known locations of northern long-eared bats, and expects the range will change as this information is provided. For this reason, the depicted range should be considered draft. This map uses Version 5 of the draft range.

USFWS Regions

- 2
- 3
- 4
- 5
- 6

White Nose Syndrome

County Status (as of 05/09/14)

- Confirmed
- Suspect



Produced by USFWS, Region 3 Ecological Services
Production Date: 3/23/2014
Coordinate System:
USA Contiguous Albers Equal Area Conic USGS version
Projection: Albers
Datum: North American 1983

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Northern Long Eared Bat

- Listed as a Threatened species under the Endangered Species Act, April 2015
- Parts of Divisions 1,2,8
- Avoidance of impacts to 9 known Oklahoma hibernation areas (hibernaculum) during winter
- Avoidance of known roost trees in spring and summer
- ODOT will perform acoustic surveys to determine if tree removal must be avoided during active season (April – October)
- Additional requirements to be determined

Critical Habitat

- Whooping Crane – Great Salt Plains, Alfalfa County
- Leopard Darter – Portions of the Black Fork and Little Rivers in Pushmataha County and McCurtain Counties
- Neosho Mucket – Illinois River upstream of Lake Tenkiller, Cherokee County
- Rabbitsfoot Mussel – Verdigris River between Lake Oologah and SH266, Rogers County , and portions of the Little River in McCurtain County
- Arkansas River Shiner – Cimarron River from Kansas State Line to US 77 in Logan County; Canadian River from SH 33 in Custer County downstream to US 75 in McIntosh County

Why does this matter?

- Recently in the News...
 - Chesapeake Appalachia, LLC (Chesapeake Appalachia), a subsidiary of Chesapeake Energy Corporation, the nation's second largest natural gas producer, operating within Chesapeake Energy's Eastern Division was faced with significant fines for failing to comply with Sections 301(a) and 404 of the Clean Water Act (CWA), 33 U.S.C. §§ 1311(a) and 1344, which prohibits the discharge of dredge and/or fill material to waters of the United States except in compliance with a permit issued by the Army Corps of Engineers.

Chesapeake

- Civil Penalty : Chesapeake Appalachia will pay a penalty of **\$3.2 million**, divided equally between the United States and its co-plaintiff, the State of West Virginia. This civil penalty is the largest ever obtained under the CWA's provisions prohibiting the discharge of dredged and/or fill material into waters of the United States without a CWA permit.
- Criminal Penalty : During 2012, Chesapeake Appalachia pled guilty to three federal misdemeanor counts of unauthorized discharge of dredge and/or fill material at one of the locations and paid a criminal fine to the government.
- Violations : 27 sites with unauthorized discharges of dredged and/or fill material in West Virginia. The discharges at the sites are associated with the construction of pads, impoundments, and road crossings. The discharges at the remaining site are associated with the construction of natural gas transportation activities.

Clean Water Act 404 Permit

- Any temporary and/or permanent fill in jurisdictional waters or wetlands requires a permit
- Geotechnical Investigations fall under a Nationwide Permit (NWP 6) for survey activities, roads under NWP 14
- Terms and conditions of the permit require addressing ESA compliance, and other environmental regulations
- ODOT has performed the studies required, in order to cover geotechnical investigations with the necessary permit

**How Is This Going To
Work?**

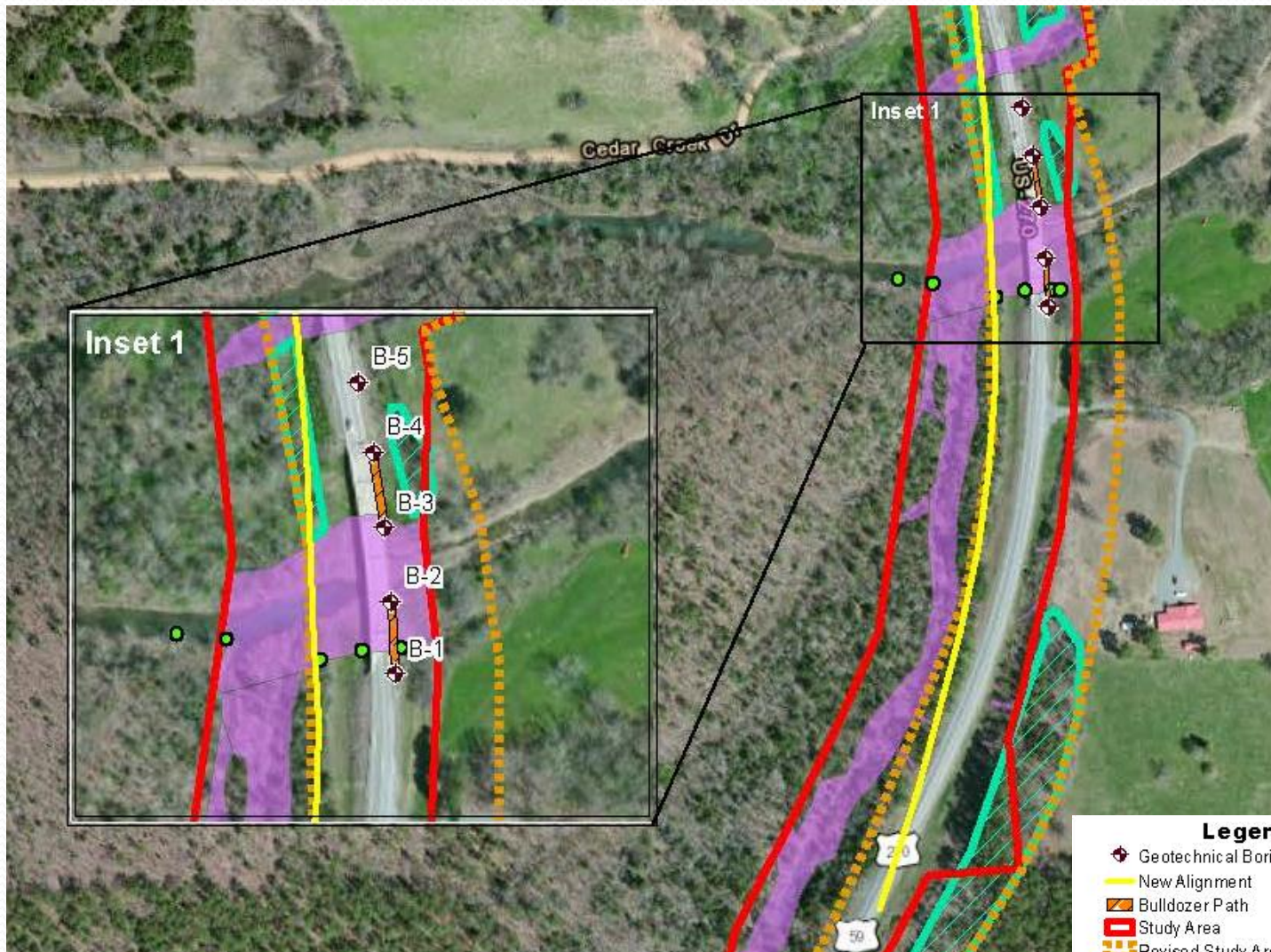
Information Sharing

- Environmental Programs Division (EPD) Already Completes Environmental Studies For ODOT Projects
- Wetlands And Habitat Boundaries Are Put In Shape Files
- EPD Will Provide These Shape Files To The Designers
- Designers Will Place This Information On The Plan & Profile Sheets
- The P&P Sheets Will Be Attached To The Task Order Request For Geotech Services



Minimize Impacts To The Areas Of Concern

- Geotech Provider Will Identify The Pads And Paths On The P&P Sheets And Return Them With The Request For Task Order Approval
- Design Will Distribute The Markups With The RW & UT Meeting Plans
- RW & UT Meeting Will Include Pad And Path Discussion
- If No Impacts, Design Will Complete Task Order And Contract Administrator Will Issue The NTP



- Legend**
- ◆ Geotechnical Borings
 - New Alignment
 - Bulldozer Path
 - ▭ Study Area
 - ▭ Revised Study Area
 - ▭ Revised ABB Habitat
 - OHWM_1
 - ▭ OHWM3_1 Clip



Mitigate And Permit

- If Impacts Are Identified, Design Will Work With Firm And EPD To Minimize Before Completing The Task Order
- As Necessary, Design Will Include Geotech Impacts On The 404 Permit Application
- Permit Conditions Will Become A Part Of The Task Order
- Geotech Firm Will Follow Conditions And Remain In Footprint
- EPD Will Complete The 404 Permit And Any Necessary Mitigation

Geotechnical Perspective

- FHWA and other federal agencies have placed these requirements on ODOT. These requirements are in place to **protect our environment**.
- Requirements are **realistic** and as such, we as teammates with ODOT must work to comply.
- Requirements will impact **field activities**, only, and will typically not require geotechnical consultants to modify field activities from what we have been doing on the vast majority of projects.
- Requirements dictate that we now conduct **research** on wetlands and endangered species as we develop our scope and fee.

Geotechnical Perspective

- Requirements make it imperative that the geotechnical consultant is involved in the project scope and fee and as **early in the project** as possible.
- The geotechnical consultant will need **plan and profile** sheets to properly scope their field operations.
- Most information that we need to determine what, if any, impact our field operations will have on wetlands and endangered species is available from **ODOT**.

Geotechnical Perspective

- **Site visits** by the geotechnical consultant while developing scope and fee will be useful in determining impact on environmental requirements.
- We will need to be **creative** in developing means for avoiding wetlands and endangered species areas.
- **Communication** with both ODOT and USACOE is key to developing a work plan that minimizes impact to project schedule and budget.



Questions?