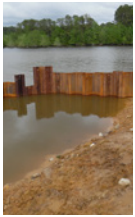
Texas Department of Transportation



BEAUMONT DISTRICT

ENVIRONMENTAL FIELD GUIDE SUPPLEMENT

Reference:
Common Environmental Constraints, Requirements and Best Management Practices for Construction Projects

Key Contractor Responsibilities

- Contractors are responsible for being familiar with the contents of the Environmental Permits, Issues and Commitments (EPIC) sheet. The contractors shall provide appropriate information and instruction to all personnel in order to ensure compliance with all EPICs.
- All project activity must be accomplished in a manner that maintains compliance throughout the lifetime of the project.
- Construction supervisors and inspectors are responsible for insuring EPICs are adhered to for the duration of the project.
- Consult Section I of the EPIC sheet for information on adjacent municipal separate storm sewer systems (MS4s) and provide notification if required.
- Contractors are responsible for adhering to applicable federal, state, and local laws.
- Some environmental clearances are based on the method or timing of the activity.
  - Changes to construction methods or phasing may invalidate the National Environmental Policy Act (NEPA) clearance for the project.

Demolition

- Requirements prior to demolition of bridges or bridge class culverts include:
  - Measures must be in place to ensure debris does not enter any channels.
  - Phase projects so demolition occurs outside of migratory bird nesting season.
  - A survey for bats and/or birds will be required. Surveys are valid for seven days. If demolition does not occur within seven days a new survey is required.

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1. Mantain a clean work site. Dispose of trash properly.
2. Sediment and erosion control devices must be installed and maintained in compliance with TCEQ standards.
3. Phase demolition to occur outside of nesting season.

- The day of the structure removal, the TxDOT Project Inspector must confirm no birds have begun nesting within the structure.
- Birds and/or bats will not be relocated without permission from relevant regulatory agencies.
- Contact the TxDOT district environmental coordinator for assistance with wildlife relocations.
- Ensure that the necessary asbestos-containing materials (ACM) inspection and any required ACM abatement have been completed.
- Ensure that the Department of State Health Services demolition notification has been submitted, and that the start date is correct.
- Contact the TxDOT district environmental coordinator for assistance on any of the above issues.

Regulatory Commitments

- If ***any*** wildlife is encountered on site, **work must cease in the immediate area,** and wildlife must be allowed to leave the vicinity. Follow these guidelines:
  - **Do not move or kill** snakes, birds, bats or other wildlife. These species may be protected by state and/or federal laws. Moving or killing them could result in penalties and/or prosecution of the individuals involved.
  - If wildlife, including snakes, become entrapped or refuse to leave the project area, contact the TxDOT District Environmental Coordinator for assistance.
  - Killing or harassing wildlife can result in enforcement actions against individuals by state and federal agents.
  - Contact the district environmental coordinator for assistance with wildlife relocations.

- Some projects are limited to use of only wildlife-friendly erosion control devices (see Section II and Section IV of the EPIC Sheet). A list of wildlife-friendly devices and manufacturers can be obtained from the TxDOT construction inspector.
- If equipment requires maintenance onsite, take measures to ensure no oil or fluids leak or are spilled.
- Any proposed changes in project plans should be submitted to the district environmental Coordinator for NEPA review (including project locations, scope of work, construction methods or phasing). Failure to do so may invalidate the project's environmental permits and NEPA clearance.

Trash

- If trash remains onsite overnight, the contractor will provide wildlife-proof trash containers (cans with secure lids).
- Ensure no trash or debris enters any water or channel.
- All debris within the project limits is to be removed and disposed of by the contractor.
- Collect litter daily, including water bottles, cigarette butts, food wrappers, etc.

4 Barge set to capture debris. Do not allow debris or trash to enter any water body.

5 Insure encapsulation measures are properly installed and maintained to prevent the escape of hazardous materials such as lead-based paint.

Work In or Near Waters/Wetlands

Regulatory Requirements and Best Management Practices

Work conducted in or over lakes, streams and wetland areas requires a permit from the U.S. Army Corps of Engineers (USACE). **Contractor must conduct work in a manner that does not violate the conditions of the permit.**

Permit conditions most likely to affect TxDOT projects:

- Downstream flows must be maintained. This means that flow must not be restricted to the extent that downstream areas experience low water conditions. Failure to maintain downstream flow is a violation of the Fish and Wildlife Coordination Act and the USACE permit.
- Any equipment that comes into contact with water is required to follow Texas Parks and Wildlife Department (TPWD) Clean, Drain and Dry procedures to protect against spreading of invasive aquatic species such as zebra mussel and water hyacinth. See https://tpwd.texas.gov/fishboat/boat/protect_water/ or contact your district environmental coordinator for guidance.
- Comply with Texas Commission on Environmental Quality (TCEQ) Water Quality Certifications. Water quality protection devices must be installed and maintained according to TCEQ standards.
  - Smaller projects are usually completed using a nationwide permit. For guidance, consult TCEQ Water Quality Certifications for nationwide permits, found on the USACE Galveston District website (www.swg.usace.army.mil), or request a copy from the TxDOT Construction Inspector.

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1. All Permits require bank stabilization. Do not allow sediment to enter the water.
2. Be prepared for high water conditions.
3. Impacts to nesting birds normally results in the USACE permit being revoked.

  - Large projects will be accomplished under an Individual Permit from the USACE. Water quality certifications will be included in the approved permit.
- Modification of the type of water quality protection devices to be used on a project (listed at bottom left of the EPIC sheet) requires a change to the USACE permit documentation in the Environmental Record. Notify the district environmental coordinator prior to changing any controls listed on the EPIC sheet.

Other Regulatory Commitments

- The contractor must be able to provide the inspector with information regarding the date and location where the equipment was last used in waters and the dates the Clean/Drain/Dry activity was conducted. This documentation should be provided prior to placing the equipment in the water.
- Any debris (tires, household goods, etc) within the project limits must be removed.
- When removing silt fence, capture and remove all accumulated sediments. Dispose of sediment as construction debris according to TCEQ regulations.
- Temporary stream crossings are not allowed unless specifically referenced on the EPIC Sheet. If allowed, Section II and Section IV of the EPIC Sheet will provide guidance on the permitted manner in which temporary crossings may be installed and removed.

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4 No debris is allowed to enter the water. Construct devices to capture falling debris.

5 Secondary containment may be neccessary to prevent fill from entering the water.

6 USACE permits may be revoked if erosion or sedimentation controls are not properly installed and maintained.

- When installing riprap under bridges, allow for dry ground and a natural surface path above the riprap to accommodate wildlife crossing.
  - For low crossings where rip rap is placed nearly at the top of the embankment, riprap should be placed in a manner that provides a 1- to 2-foot natural pathway above the ordinary high-water mark to accommodate wildlife crossing.
- Use wildlife-friendly erosion control logs and matting when feasible. Some projects are limited to using only wildlife-friendly devices (see Section II and Section V of the EPIC Sheet). A list of wildlife- friendly devices and manufacturers can be obtained from the District.

Compliance with the Migratory Bird Treaty Act (MBTA) is required for all USACE permits.

- Violation of the MBTA invalidates the USACE permit.
- Consult the Migratory Bird Treaty Act Card for information on maintaining MBTA compliance.

Migratory Bird Treaty Act (MBTA)

- **Nearly all bird species are protected under the MBTA**
- Violation of this act may result in fines up to $2,000 and/or jail sentences up to two years **for each offense.**
  - Activity that causes nest abandonment is a violation.
  - Each nest removed or destroyed is considered a separate violation
  - Each nestling is a separate violation.
- Bird best management practices (BMPs) minimize impacts to species or groups of species, ensures compliance with the Migratory Bird Treaty Act, prevents work stoppages, and avoids regulatory enforcement action from the US Environmental Protection Agency, US Fish and Wildlife Service and/or Texas Parks and Wildlife Department.
- Nests may not be altered or removed between February 15 and September 30, **regardless of whether nesting birds, eggs or young are present.**
- Construction activities (demolition, sand blasting, painting, etc.) on bridges or bridge class culverts should plan to have bird exclusion devices installed by February 14.
- Nesting exclusion devices must be approved by the district environmental coordinator no later than February 1st.
  - Failure to exclude nesting birds may result in a work stoppage and construction delay.
  - No spray repellents are allowed.

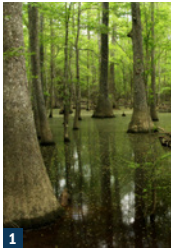
1. Nests at top of bent cap.
2. Nests below deck at top of bent cap.
3. Nests on exterior bridge beams.
4. Owl relocation (to be performed by specialists only).
5. Owls in bridge box beam.
6. Swallow nest relocation.

  - Contact the District Environmental Coordinator prior to February 1 for guidance on exclusion devices.
  - If nests are present on the project site from March to September, consult with the district environmental coordinator. Nests may not be removed February 15 – September 30.
- All activity must be conducted in a manner which does not prevent nesting birds from successfully hatching and fledging their young.
- Watch for ground nesting species in the right of way (ROW). If found, the district environmental coordinator must be notified immediately.
- If a nest becomes damaged or nestlings are found outside of a nest, work must cease in the immediate area and the district environmental coordinator must be notified immediately.

Vegetation and Habitat Impacts

Regulatory Requirements and Best Management Practices

- Minimize the amount of vegetation cleared. Minimization of vegetation clearing is defined as only clearing the minimum area necessary to accomplish the work.
  - Minimizing vegetation disturbance and/or removal will improve erosion control and storm water pollution prevention plan (SWPPP) requirements.
  - Minimizing vegetation clearance reduces costs for seeding and/or replanting
- Constraints regarding "No disturbance beyond the front slope of the roadside ditches" are normally implemented to avoid impacts to federally protected endangered plant species.
  - Ignoring this constraint may result in a violation of the Endangered Species Act (ESA).
  - Violations of the ESA can result in the prosecution of individual employees as well as their employer.
- Project phasing, as outlined in the project plans, may be in place to avoid impacts to state endangered or threatened species, or Species of Greatest Conservation Need (SGCN).
  - If the phasing sequence is changed, consult with the district environmental coordinator prior to initiating activity for potential impacts to protected species.
- Prior to vegetation removal occurring March 1 to September 1, a survey must be conducted for the presence of nesting birds. Contact the district environmental coordinator for guidance.



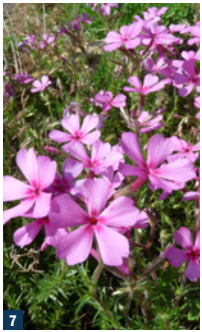
1 Cypress-Tupelo Swamp is federally protected. Do not intrude.

2 Check for nests before clearing vegetation.

3 Coastal prairie habitat – take measures to minimize footprint.

4 Longleaf Pine Savannah Habitat – avoid impacting.

Credit: Images 1, 3 and 4 are courtesy of Matt Buckingham.



5 Scarlet catchfly – do not remove. Report sightings to district enironmental coordinator.

6 Texas trailing phlox flower – federally protected. Do not impact.

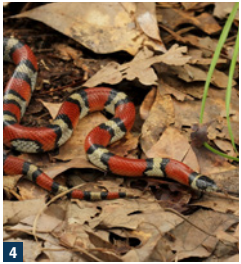
7 Texas trailing phlox in bloom – federally protected. Do not impact.

8 Texas trailing phlox stem – federally protected. Do not impact.

Credit: Images 5, 6, and 8 are courtesy of Matt Buckingham; Image 7 provided by Mercer Arboretum, Humble, TX

- Contact District Environmental Coordinator if you encounter a state or federally protected species or habitat.
- To avoid the spread of the emerald ash borer, any vegetative debris generated in Jasper, Tyler, or Newton Counties must remain within the county of origin.
  - The preferred method of disposal for vegetative debris within these counties is burning.
  - The burning activity must adhere to TCEQ regulations.
  - If the vegetative debris is mulched or otherwise recycled, the final product must remain within the borders of the county where the vegetation originated.
- Minimize habitat disturbance.
  - Limit the number of vehicles in the right of way (ROW)
  - Avoid driving beyond paved areas.
  - Use established storage areas for staging and storage of equipment and materials.
  - Do not create storage areas on undisturbed ground.
- Some habitat areas are protected by state or federal law
  - Longleaf pine savannah (forest).
  - Cypress-tupelo swamp.
  - Baygall/bog.

- If any wildlife is encountered within a project area, work must cease in the area and wildlife must be allowed to leave the vicinity.
  - This includes all species of snakes; DO NOT KILL snakes or other wildlife. These species are protected by state and/or federal law.
  - All species of wildlife are considered property of the state of Texas. Harming wildlife is a crime.
- Few species of snake in east Texas are venomous. Both venomous and non-venomous species are protected.
  - The Louisiana pine snake is a non-venomous state protected species (federal protection status pending).
  - The timber, or canebrake, rattlesnake is a venomous state protected species.
- If equipment is staged on site, check for the presence of wildlife each morning prior to using the equipment.
- Cover open trenches overnight. Check all trenches each day prior to the start of work and prior to filling trenches to ensure no wildlife has become trapped.
  - If wildlife is trapped or refuses to leave the area, contact the district environmental coordinator for assistance.
- If large cypress trees or large standing hollow trees are present within the project area, a survey for the presence of bats must be conducted prior to removal. Contact the district environmental coordinator for assistance.
- Prior to removing bridges or bridge class culverts, the structure must be surveyed by a qualified



1. American alligator – do not disturb or harm this species. If nesting near the ROW, report the presence to district environmental coordinator.
2. Brazilian freetail bat in bridge joint – do not remove bridge or bridge class culverts without obtaining bat and bird surveys.
3. Coral Snake (venomous) – if seen, allow the animal to leave the area. Do not kill any snake species.
4. Louisiana milk snake (non-venomous) – if seen, allow the animal to leave the area. Do not kill any snake species.

Photo Credit: Images 3 and 4 courtesy of Matt Buckingham

biologist for the presence of bats or birds.
  - Surveys are valid for seven days. If demolition does not occur within seven days, a new survey is required.
  - The day of the structure removal, the TxDOT project inspector must confirm no birds have begun nesting within the structure.
  - If nests, partially or fully formed, are found in or on the structure, the inspector shall inform the district environmental coordinator.
- Birds and/or bats may not be relocated without permission from state or federal agencies.
  - Contact the district environmental coordinator for assistance with wildlife relocations.
  - Note that bats are easily relocated with minor expense.
- No type of interaction with wildlife is allowed. Do not feed, harass, approach or harm wildlife.
- Use wildlife-friendly erosion control logs and matting where possible.
- Some projects are limited to using only wildlife-friendly devices (see Section II and Section IV of the EPIC Sheet). A list of wildlife-friendly devices and manufacturers can be obtained from the TxDOT construction inspector.

5 Louisiana pine snake (non-venomous) – if seen allow the animal to leave the area. Do not kill any snake species.

6 Northern scarlet snake (non-venomous) – if seen allow the animal to leave the area. Do not kill any snake species

7 Timber, or a canebrake, rattlesnake (venomous) – if seen allow the animal to leave the area. Do not kill any snake species.

Photo Credit: Images 6 and 7 courtesy of Matt Buckingham; Image 5 provided by the US Fish and Wildlife Service Clear Lake Field Office.

Historic Properties

- Most historic properties will be adjacent to the project area, not within the construction project.
- Construction activities, such as sidewalk replacements, must take care not to damage historic buildings:
  - Hand-remove concrete adjacent to historic buildings/walls/stairs/fences. No jackhammers.
  - Place an expansion joint between the concrete and the building/wall/stair/fence. Do not install concrete adjacent to building.
- Historical markers come in a wide variety of forms, especially the older ones. Take care not to destroy them or move them. If you find a historical marker in the vicinity of a project, contact the district environmental coordinator.
- Courthouses are special places in Texas. Work on courthouse squares, including sidewalks, parking, lighting or other enhancements, must be pre-approved by TxDOT and the Texas Historical Commission.
- Historic paving materials may be uncovered as part of a project. Historic paving materials include brick, stone (limestone, cobble), stamped or labeled concrete, tile in doorways of businesses, and blue and white address tile. If any of these paving materials are found, stop work in the vicinity and contact the district environmental coordinator.

1. Install expansion joints between new sidewalks and historic buildings. This protects the historic building from damage caused by the expansion and contraction of the concrete.
2. While most historical markers should be offset from project areas, keep an eye out to ensure that they will not be damaged by any construction work.
3. Courthouse squares have special protection in the state of Texas. All work on a courthouse square must be approved and must be conducted carefully in order to protect its history.
4. Historic rest areas materials may include stone masonry, brick and concrete, corrugated asbestos, or tubular steel, such as this mid-century picnic table with arbor.

Archeological Sites

Background

Archeological materials may be found in TxDOT ROW and easements and are protected under state law. Prehistoric archeological sites are generally identified by the presence of chipped stone tools and debris from manufacture of stone tools, pottery sheards, ground stone, fire cracked rock, bone fragments, shell or charcoal. They may also contain remains of such features as hearths and locations of posts that formed structures. Historic archeological sites generally refer to archeological remains that date after 1520 A.D. and could be as recent as 50 years ago. Historic archeological sites can include wells, cisterns or building foundations. Indicators of historic archeological sites include glass shards (black, light green or blue with air bubbles, purple/amethyst, white), ceramics, brick fragments (solid, smaller than present day bricks) and metal fragments (cast iron).

Discovery Procedures

When construction activities turn up archeological evidence, such as arrowheads or pottery sherds, take the following actions:

1. Stop work in the area where the artifacts were discovered.

2. Immediately notify the project supervisor/ engineer.

3. Follow your district's procedures for notifying management and the district environmental quality coordinator (DEQC) or district environmental coordinator (EC).

4. The DEQC/EC will then immediately notify ENV's Cultural Resource Management Section (CRM) staff at (512)416-2631/3001.

5. CRM staff will immediately notify the appropriate state agency of the discovery. For more information, see the "Archeological Artifacts Emergency Discovery Guidelines," online at: http://www.dot.state.tx.us/env/pdf/resources/emergencydiscovery.pdf

1 Various prehistoric artifacts, including (roughly clockwise from top left) stone dart points, other stone tools, debris from stone tool manufacture (flakes), bone, shell, ceramic sheards and burnt rock (from hearths, fire pits).

2 Various historic artifacts (clockwise from top left), include window glass, bottle glass, ceramic sheards, buttons, bullet casings, coins, barbed wire, nails and children's toys.

Cemeteries

Background

Both marked and unmarked cemeteries are present in TxDOT's rights of way. All cemeteries are afforded legal protection. Care should be taken to protect cemetery monuments and cemetery fences.

Discovery Procedures

If construction activities turn up graves or cemeteries, the following steps must be taken:

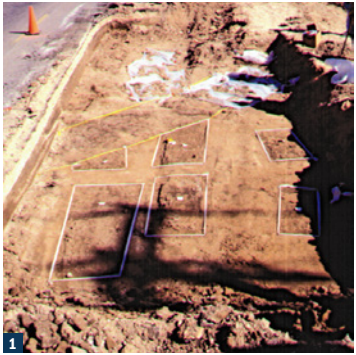
1. Stop all work in the area where the remains were found. Do not touch or remove any of the remains.

2. Immediately notify the project supervisor/engineer.

3. Follow your district's procedures for notifying management and the district environmental quality coordinator or district environmental coordinator.

4. The DEQC/EC quickly notifies ENV's CRM staff at (512) 416-2631/3001 and also notifies, for unmarked burials, local law enforcement. Unmarked burials should be regarded as a potential crime scene until law enforcement has determined that the remains are not a crime scene under their jurisdiction.

5. CRM staff will immediately notify the appropriate state agency of the discovery.



1 Grave shafts can appear as darker or lighter stains in the soil.

CONTACT INFORMATION

Beaumont District Office	(409) 892-7311
Beaumont Area Office	(409) 924-6521
Jasper Area Office	(409) 384-5493
Liberty Area Office	(936) 336-2244
District Construction	(409) 892-5838
District Environmental	(409) 898-5854

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