



May 6, 2011

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Re: Permit Application Number SWF-2010-00506  
CTA, LLC  
Central Texas Airport

Permit application number SWF-2010-00506, dated March 25, 2011, proposes to construct the Central Texas Airport project located between the intersection of FM 969 and FM 1704 along the Colorado River in Bastrop County, Texas. The proposed project would discharge approximately 46,000 cubic yards of dredged and fill material into approximately 9.42 acres of waters of the U.S., including 5,390 linear feet (lf) of ephemeral stream and 8.55 acres of an on-channel pond. Waters of the U.S. would be replaced by concrete box culverts and a stormwater detention pond. Proposed on-site mitigation includes the creation of 17.2 acres of forested riparian corridor along 3,484 lf of the Colorado River and 4,000 lf of an oxbow of the Colorado River, as well as a 26-acre pond within a water detention area.

Texas Parks and Wildlife Department (TPWD) staff has concerns about this project regarding the alteration of aquatic resources and the applicant's mitigation plan.

TPWD staff is concerned that the proposed stream modifications will result in the irreplaceable loss of stream habitats and functions in this region. In fast-growing areas ephemeral and headwater streams are often severely and irreversibly altered for development and flood control purposes. On a regional scale, the eradication and channelization of these streams results in a large cumulative impact to the watershed in general. Removing the sinuosity and floodplain access of streams by confining them to underground culverts will increase the volume and flow velocity downstream and potentially cause erosion or flooding in those areas. Water exiting these modified streams has more erosive potential since the water in a channelized stream generally does not have as much suspended sediment in the water column. Burying exacerbates downstream problems by passing

contaminants, accelerated flow, and runoff from additional impervious cover further down the watershed.

In general, Texas Parks and Wildlife staff discourages channelizing or burying streams in culverts because of the loss to fish and wildlife resources. Putting a stream underground further limits access to water for urban wildlife, restricts fish passage, and degrades a public aquatic resource.

It is unclear from the Public Notice (PN) and the January 2011 Mitigation Plan (MP) how the location for the detention pond was selected or whether site conditions would allow the pond to be positioned elsewhere on the property. Detention facilities should be located off-channel where possible in order to minimize impacts to aquatic resources.

TPWD staff are concerned that the MP would not adequately compensate for the project's impacts to aquatic resources. The applicant has proposed mitigating the loss of 5,390 lf of ephemeral stream channel with 7,484 lf of riparian plantings. While riparian areas are valuable components of properly functioning stream systems, it is doubtful that riparian plantings alone will replace lost functions associated with this project. Additionally, for both streams included in the mitigation area the proposed riparian enhancements would only occur on one bank. When calculating impacts to streams in linear feet the entire stream system is considered, including both banks. Riparian enhancement to only one bank of a stream should effectively be considered as half the linear feet.

3,484 feet of the proposed plantings will occur along a perennial stream. In accordance with the Mitigation Rule, all mitigation should be in-kind (e.g. impacts to ephemeral streams should be compensated with ephemeral stream functions). If the proposed out-of-kind elements of the MP are deemed preferable to in-kind compensation by the applicant, such mitigation should require a significantly increased ratio. The applicant should pursue additional off-site mitigation opportunities to supplement the existing MP.

A portion of the proposed riparian plantings would occur on 4,000 lf of an oxbow of the Colorado River. However, there is no indication in the PN or the MP that this feature has been determined to be jurisdictional. Non-jurisdictional features should not be permitted to compensate for impacts to waters of the U.S.

A Fort Worth District approved functional assessment should be performed to establish baseline conditions and measure progress at the mitigation site(s). The final assessment should indicate a minimum 1:1 ratio of functions lost versus functions gained. The applicant should use an assessment method that considers temporal losses and the risk of project failure in the calculation of total functions gained.

The plant list proposed in Section 4.4 of the MP is generally acceptable, however it differs from the less comprehensive list provided in Figure 3. The more expansive list provided in the text should be used in the final MP. A success criterion should be set for woody species diversity in Section 5.1 of the MP. For example, if six species are planted, each may be required to average at least 5% per acre of the surviving stem count. A minimum survival requirement for each planted species will assure diversity and viable numbers on the site as a whole. Section 5.3 of the MP lists "mowing" as a potential maintenance tool. While mowing may occasionally be an acceptable practice in the establishment of the mitigation area (e.g., site preparation for the planting of woody species, limiting growth of non-desirable species to ensure initial survival of plantings, etc.) it is not appropriate to for long-term management. Mitigation sites should ultimately be self-sustaining, and a functioning bottomland riparian forest should have a developed understory of forbs, vines, and shrubs that would not necessitate mowing.

In order to ensure that impacts to waters of the U.S. and the State's fish and wildlife resources will be appropriately mitigated, the applicant should address these issues and incorporate changes into the MP prior to permit issuance. TPWD staff appreciates the opportunity to provide comments on this project. Questions can be directed to Ryan McGillicuddy in Austin (512-389-8622).

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency on or after September 1, 2009 may be required by state law. For further guidance, please see Texas Parks & Wildlife Code Section 12.0011 at <http://www.statutes.legis.state.tx.us/Docs/PW/htm/PW.12.htm>.

Sincerely,



Thomas G. Heger  
Watershed Conservation Team Leader