



LOWER BOIS D’ARC CREEK RESERVOIR

Fannin County, Texas

Final Environmental Impact Statement

U.S. Army Corps of Engineers

Tulsa District

Errata Sheet

January 19, 2017

This errata sheet documents errors to the text of the Final Environmental Impact Statement (FEIS) for the Lower Bois d’ Arc Creek Reservoir (LBCR) that was released on November 9, 2017, by the U.S. Army Corps of Engineers. There are no changes to the proposed project, significant new circumstances or information identified in this errata sheet that affect the analysis and conclusions in the LBCR FEIS. No errors were identified that would cause a significant change to the environmental impacts, nor would they change the conclusions reached in the FEIS. This errata sheet has been prepared to disclose known errors to stakeholders and general public. Changes made in blue are additions and changes made in red are deletions to text.

The following contains the changes to the LBCR FEIS:

Page ES-4; Alternative 1 – Applicant’s Proposed Action (Applicant’s Preferred Alternative)

The fourth full paragraph on this page contains the statement that should have the following change:

“The construction phase of Alternative 1 (including all components) would **commence immediately** ~~begin in 2020-2021~~ and last approximately three to four years **should a Department of the Army permit be authorized.**”

Page ES-10; Table ES-1. – Summary Comparison of Impacts

The table row below on this page should have the following column change:

Resource	Alternative 1	Alternative 2	No Action Alternative
Water Resources: Existing Reservoirs	Moderate, adverse impacts with a high likelihood of occurrence	No impacts.	No impacts.

<i>within the Bois d'Arc Creek Watershed</i>	<p>in the long-term on Lake Bonham.</p> <p>There would be erosion damage and changes to performance of the embankment's internal drainage system.</p> <p>The service spillway would be affected by submersion of the principal spillway and reduction of discharge efficiency. No impacts to Lake Bonham dam's emergency spillway, outlet works, or dam safety inspections. No impact to Lake Texoma.</p>		
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Page ES-22; Existing Reservoirs within the Bois d' Arc Creek Watershed

The second paragraph under this heading contains the statement that should have the following change:

~~One Two~~ reservoirs in the Bois d'Arc Watershed could potentially be affected by Alternative 2: Lake Bonham. ~~and Lake Texoma.~~ The surface elevation of the downsized LBCR would not be high enough to encroach on the embankment, spillways, outlets, or drainage system of Lake Bonham dam or to interfere with existing dam inspection procedures. ~~The water withdrawn from Lake Texoma under Alternative 2 would not exceed withdrawal limits under the existing NTMWD water rights and is therefore not considered a new impact on Lake Texoma.~~ Thus, there would be no impacts on ~~either of these~~ Lake Bonham existing reservoirs under Alternative 2.

Page ES-30; Utilities

The first and second paragraphs under this heading contain the following statements that should have the following change:

“The overhead power lines that run within the vicinity of the proposed reservoir footprint would need to be raised or removed and relocated before the proposed reservoir could be filled. Both demolition and construction of the overhead powerlines would occur within the footprint of the proposed reservoir site. ~~Underground utilities inside the reservoir footprint would be impacted by impoundment and would need to be removed and relocated prior to impoundment of waters.~~ During construction of the raw water pipeline from the proposed reservoir to the WTP, electrical transmission lines, gas/petroleum pipelines, and other minor utilities located within the pipeline footprint would be impacted, but effects would end upon completion of construction.”

“The overhead power lines within the vicinity of the Alternative 1 reservoir footprint would be located almost entirely outside of the footprint of the Alternative 2 reservoir, so they would not need to be demolished or relocated. **Underground utilities inside the reservoir footprint would be impacted and would require removal and relocation.** Alternative 2 includes an additional pipeline, resulting in additional impacts to utilities from pipeline construction.”

Page ES-34; Cultural Resources

The sixth paragraph under this heading contains the statement that should have the following change.

“Because there are no NRHP-eligible resources in the survey area, impacts on significant cultural resources from this **feature of the project** ~~connected action~~ are expected to be non-existent.”

Page 1-31; 1.7.1.4 - Biological Resources

The first paragraph under this heading contains the statement that should have the following change:

“The scale of the project – over 17,000 acres for the reservoir “footprint”, plus additional acreage impacted by the proposed pipeline(s), ~~the WTP, and TSR~~ – as well as the fact the proposed reservoir would impact wetlands and waters of the U.S., diminish bottomland hardwood forest in northern Texas, and convert the flowing waters of a stream into the slack waters of a lake, are the bases for these concerns.”

Page 2-37; 2.4.6 - Reservoir Operation

The first paragraph on this page contains the statement that should have the following change:

“Under normal reservoir operations (**with blending**), it is anticipated that the full **114,800 86,100**-AFY firm yield of ~~the Alternative 2 downsized LBCR~~ would be fully utilized by approximately **2031. 2026** ~~—the year construction on the project is expected to be completed.~~”

Page 2-43; 2.6.1.2 - Desalination

The fifth paragraph under this heading contains the statement that should have the following change:

“NTMWD currently holds a ~~10-year TCEQ Class I UIC General~~ Permit **WDWG010000** for brine disposal to the Red River, but **would need to obtain coverage under General Permit WDWG010000 in order to dispose of brine through underground injection.** The General

Permit expires on December 15, 2019 and TCEQ has stated that the permit can be amended, revoked, or canceled at any time, or renewed for additional terms of 10 years or less.”

Page 2-51; Blending Lake Texoma Water with New Freshwater Supplies

The last paragraph under this heading contains this statement that should have the following change:

“For those alternatives that cannot be implemented in time to meet NTMWD’s near and long term ~~mid-term~~ supply needs, blending Texoma water does not meet the timing criterion of the purpose and need.”

Page 2-54; Operate Wright Patman Lake and Jim Chapman Lake as a System to Increase Combined Yield

The first paragraph under this heading contains this statement that should have the following change:

“The timeframe for this alternative is similar to the 2040 to ~~2045~~ 2015 timeframe for the other Wright Patman alternatives.”

Page 2-59; Table 2.7-1 – Ability of Alternatives Considered to Meet the Purpose and Need

The 4 table rows below on this page should have the following column changes:

Alternatives that Do Not Require a Section 404 Permit							
New Groundwater Supplies							
Ogallala Aquifer groundwater in Roberts County	200,000	No Yes	2035	No	No	No	Dismiss
Carrizo-Wilcox Aquifer Groundwater in Brazos County	17,000	No	2032	N/A No	No	No	Dismiss
Carrizo-Wilcox Aquifer in Freestone and Anderson Counties	Up to 42,000	No	2030	N/A No	No	No	Dismiss

Other Groundwater Supplies in Region C and Nearby Counties	Uncertain None	No	2025	Yes	No	No	Dismiss
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Page 2-60; Table 2.7-1 Ability of Alternatives Considered to Meet the Purpose and Need

The 3 table rows below on this page should have the following column changes:

Alternatives Unavailable to the Applicant							
Importing Water from Oklahoma	50,000 0	No	2060(?) ^b	No	No	No	Dismiss
Lake O' the Pines	87,900 0	No	Unknown	No	No	No	Dismiss
Other Alternatives Available to the Applicant							
<i>Water Supplied from New (Undeveloped) Reservoirs</i>							
Downsized LBCR without Blending of Lake Texoma Water	86,100	No	2026	Yes No	Yes	No	Dismiss

Page 3-117; 3.10 - Utilities

The second paragraph under this heading contains the statement that should have the following change:

“Specific utilities that could be impacted by project activities include an overhead electrical transmission line located inside the reservoir footprint, **underground utilities inside the reservoir footprint**, ~~(no other utilities are located within the reservoir footprint)~~ and utilities located along the proposed pipeline(s) under each alternative (see Chapter 2, Sections 2.2, 2.3, and 2.4).”

Page 4-8; 4.2.1 – No Action Alternative

The second paragraph under this heading contains the statement that should have the following change:

Changes in land use due to increased urbanization in nearby cities and towns would likely occur within and in proximity to the city of Bonham, located approximately one mile to the west-southwest of the ~~south~~ **north** end of the project site.

Page 4-23; Table 4.4-1. – Summary of Impacts to Water Resources Under Each Alternative

The table row below on this page should have the following column change:

Existing Reservoirs within the Bois d’Arc Creek Watershed			
Size (area impacted by construction and operation of the LBCR)	Lake Bonham Dam: Embankment: Erosion damage and changes to performance of the embankment’s internal drainage system Emergency Spillway: No impact Service Spillway: Submersion of the principal	Lake Bonham Dam: No Impact Lake Texoma: No Impact	No change from current condition.

Page 4-24; Table 4.4-1. – Summary of Impacts to Water Resources Under Each Alternative

The table row below on this page [Size (area impacted by construction and operation of the LBCR) continued from Page 4-23] should have the following column change:

Impact Factor	Magnitude of Impacts		
	Alternative 1	Alternative 2	No Action Alternative
	spillway and reduction of discharge efficiency Outlet Works Impacts: No impact Dam Safety Inspections: No impact Lake Texoma: No Impact		

Page 4-45; Navigation Flows

The second full paragraph on this page contains the statement that should have the following change:

“The Red River is not defined as navigable between the Bois d’Arc Creek-Red River confluence and the Oklahoma/Arkansas state line. ~~Shreveport-Bossier City in Louisiana.~~
 The Red River is defined as navigable for historic use at the Oklahoma/Arkansas state line

and downstream to the US Highway 71 Bridge. The Red River is navigable in-fact from Shreveport-Bossier City in Louisiana downstream.”

Page 4-49; Estimated Reservoir Water Quality

The second paragraph under this heading contains this statement that should have the following change:

“Note that the information from Schnier (2016) provides more recent data than presented in Appendix R M, therefore, superseding that information for some variables. However, the new data does not supersede the entire analysis in Appendix R M, nor does it invalidate it.”

Page 4-60; 4.4.3.6 – Existing Reservoirs within the Bois d’Arc Creek Watershed

The first, second, and third paragraphs under this heading contains the statements that should have the following changes:

“~~One Two~~ reservoirs in the Bois d’Arc Watershed could potentially be affected by Alternative 2: Lake Bonham. ~~and Lake Texoma.~~ The following discussion summarizes potential impacts to Lake Bonham ~~and Lake Texoma~~ as a result of the downsized LBCR.”

Lake Bonham Dam

“The normal pool of the downsized LBCR would be 19 feet lower than the normal pool of the full-sized LBCR (515 versus 534 feet msl). As indicated under Alternative 1, the Lake Bonham dam embankment and service spillways could be adversely affected when the full-sized LBCR surface elevation reaches 524 feet msl. Under Alternative 2, the Lake Bonham dam and facilities would not be affected because the surface elevation of the downsized LBCR would not be high enough to encroach on the embankment, spillways, outlets, or drainage system, or to interfere with existing dam inspection procedures. ~~No other reservoirs in the Bois d’Arc Creek watershed would be affected by Alternative 2.~~”

Lake Texoma

~~“Under Alternative 2, up to 28,700 AFY of water would be withdrawn from Lake Texoma for blending with water from the downsized LBCR. NTMWD already has a water right to withdraw this water, and because existing diversions do not reach the withdrawal limit under the water right, approximately 70,623 AFY of water supply would be available from Lake Texoma in 2020 through 2060 (see Section 3.4.2.4, Reservoirs. Under the NTMWD Texoma water right, the water may be used at any time by the owner; therefore, the withdrawal of water for blending with water from the downsized reservoir would not be considered a new impact to Lake Texoma. No other reservoirs in the Bois d’Arc Creek watershed would be affected by Alternative 2.”~~

Page 4-74; Upland Habitats

The first paragraph under this heading contains this statement that should have the following changes:

“However, water levels would fluctuate between 534 462 and 541 534 feet msl, which means vegetation in this area would not be permanently inundated and may experience a different degree of impact compared to vegetation permanently inundated (and lost) at and below the 534 462 feet msl.”

Page 4-84; 4.5.3.3 – Habitat Impacts

The second paragraph under this heading the statement that should have the following change acreage change:

“The potential impact to wetlands under Alternative 2 is estimated at approximately 3,620 9,501 acres; this includes impacts from all elements of the project to forested wetlands, scrub shrub wetlands, and emergent wetlands.”

Page 4-93; Table 4.5-6. - Summary of Potential Impacts to Terrestrial Resources and Proposed Mitigation

The last row on this table should have the following column change:

Terrestrial Resource Type	Acres Impacted	HU	Amount of Mitigation	Net Gain (+) – Net Loss
Shrubland (acres)	64	36	41	(-) 5 (+) 5

Page 4-97; 4.6.2.1 - Estimated Criteria Pollutant Emissions and General Conformity

The first paragraph under this heading contains this statement that should have the following change:

“Because the WTP is not an action taken by a federal agency ~~would be located within AQCR 215, which is in attainment~~, the General Conformity Rule requirements do not apply.”

Page 4-99; 4.6.2.5 – Mitigation of Air Quality Impacts from Construction

The subsection, 4.6.2.5 – Mitigation of Air Quality Impacts from Construction, on this page should have been deleted as the “No Action Alternative” involves no construction, and thus this subsection is not applicable.

~~4.6.2.5 – Mitigation of Air Quality Impacts from Construction~~

~~In comments submitted on the 2015 DEIS, EPA Region 6 recommended that NTMWD, its contractors, and all responsible parties develop mitigation measures to control fine particulate~~

~~matter (PM10) emissions and fugitive dust during construction (i.e., implementing wind erosion controls or watering of bare soil). These mitigation measures would be included in a detailed Construction Emissions Mitigation Plan that would identify BMPs for the construction effort. The BMPs would be designed to reduce air quality impacts associated with emissions of criteria pollutants (nitrogen oxide [Nox], carbon monoxide [CO], carbon dioxide [CO2], PM, and sulfur dioxide [SO2]) and specifically to minimize potential exposure of individuals near the construction sites to PM10 from fugitive dust and heavy equipment tailpipe emissions.~~

Page 4-100; 4.6.3.1 – Estimated Criteria Pollutant Emissions and General Conformity

The first paragraph under this heading contains the statement that should have the following change:

“Any later indirect emissions during operations would not be within the USACE’s continuing Section 404 of the Clean Water Act program responsibility because ~~the Section 404 permit, if issued by the USACE would not regulate reservoir operations.~~ any potential reservoir operations would be regulated by other governmental entities and not by the USACE ~~and the USACE cannot practicably control them.~~”

Page 4-104; 4.6.4.1 – Estimated Criteria Pollutant Emissions and General Conformity

The first paragraph under this heading (continued onto this page) contains the statement that should have the following change:

“Similar to Alternative 1, any later indirect emissions during operations would not be within the USACE’s continuing Section 404 of the Clean Water Act program responsibility because any potential reservoir operations would be regulated by other governmental entities and not by the USACE ~~the Section 404 permit, if issued by the USACE would not regulate reservoir operations, and the USACE cannot practicably control them.~~”

Page 4-134; Table 4.10-1. – Summary of Impacts to Utilities Under Each Alternative

The 1 table row below under this heading should have the following column change:

	Magnitude of Impacts		
	Alternative 1	Alternative 2	No Action Alternative
Short-Term Impacts ^a			

Size	Power lines and underground utilities within the proposed reservoir footprint and utilities within the footprint of the proposed pipeline	Power lines within the proposed reservoir footprint and Underground utilities within the proposed reservoir footprint and utilities within the footprints of the proposed pipelines	Utilities located at the WTP site and along the pipeline routes.
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Page 4-136; Short-Term Impacts

The paragraph under this heading contains the statement that should have the following change:

“Both demolition and construction of the overhead powerlines would occur within the footprint of the proposed reservoir ~~with~~—~~No~~ other ~~underground~~ utilities ~~that~~ would be impacted by construction activities.”

Page 4-137; 4.10.3.1 Dam and Reservoir; Short-Term Impacts

The paragraph under this heading contains the statement that should have the following change:

“~~If The the~~ power lines do not need to be relocated, ~~but~~ there would be ~~no~~ impacts to ~~underground~~ utilities from construction activities.”

Page 4-197; 4.15.2.3 – FM 1396 Relocation (FM 897 Extension from U.S. 82 to FM 1396) and New Bridge Construction

The paragraph under this heading contains the statement that should have the following change:

“Because there are no NRHP-eligible resources in the survey area, impacts on significant cultural resources from this ~~feature of the project~~ ~~connected-action~~ are expected to be non-existent.”

Page 4-204; 4.15.3.3 - FM 1396 Relocation (FM 897 Extension from U.S. 82 to FM 1396) and New Bridge Construction

The paragraph under this heading contains the statement that should have the following change:

“Since there are no NRHP-eligible resources in the survey area, impacts on significant cultural resources from this ~~feature of the project~~ ~~connected-action~~ under Alternative 2 are expected to be nonexistent.”

Page 4-210; 4.18.1 – Irreversible Commitments of Resources

The second bullet under this heading contains the statement that should have the following change:

“Consumption of fossil fuels (primarily diesel) and lubricants by heavy construction equipment used to construct all related facilities and carry out ~~features of the project~~ ~~connected actions~~, such as construction of the raw water pipeline and pump station/substation, FM 1396 relocation and bridge construction, other road relocations, and the grading required at the Riverby Ranch and Upper BDC mitigation sites;”

Page 5-12; 5.3.1.9 – TransCanada Gulf Coast Pipeline Project

The third paragraph under this heading contains the statement that should have the following change:

“Pipeline maintenance of the TransCanada Gulf Coast Pipeline on the Riverby Ranch may contribute to cumulative impacts related to land use, soils and geology, surface water hydrology, water quality, groundwater, wetlands and aquatic habitats, aquatic biota, upland biota, ~~state listed species~~, invasive species, air quality, utilities, socioeconomics, and cultural resources.”