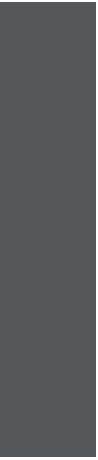




10

Public Participation and Adoption of Plan



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10 Public Participation and Adoption of Plan

10.1 Public Participation

The Brazos G Regional Water Planning Group (BGRWPG) provided considerable opportunity for the public to participate in the planning process. Notices and meeting agendas were posted prior to each meeting in accordance with State law, and these and other meeting materials were posted on the BGRWPG website (www.brazosgwater.org) as they became available prior to each meeting. The public was invited to speak during public comment periods during each planning group and committee meeting. In addition, stakeholders were often invited to participate in planning group and committee meetings (as formal items of the meeting agenda) to present information to the planning group that was pertinent to issues the planning group was considering.

The BGRWPG formally adopted its process for identifying, evaluating and selecting water management strategies on January 26, 2012 and included opportunities for public input during the development of the scope of work to develop the 2016 Plan.

The BGRWPG held three sub-regional meetings in March 2015 to solicit comments on the draft WUG and WWP plans prior to development of the Initially Prepared Plan. These meetings were held in Abilene on March 24, 2015 (Upper Subregion), in Waco on March 25, 2015 (Middle Subregion), and in College Station on March 26, 2015 (Lower Subregion).

As described below, the BGRWPG held a public hearing on June 23, 2015 to receive comments from the public on the Initially Prepared Plan.

10.2 Brazos G Regional Water Planning Group Website (www.brazosgwater.org)

The BGRWPG has directed the Brazos River Authority (BRA) to maintain a website where meeting notices, agendas, and presentation materials may be viewed by the public. In addition to meeting materials, the 2001, 2006 and 2011 Brazos G Regional Water Plans are posted for public viewing and download, as well as documents from the planning process for the 2016 Plan. The website offers other features including member contact information, planning area maps, planning data, and audio transcripts of meetings.

10.3 Coordination with Water User Groups and Wholesale Water Providers

The BGRWPG coordinated with multiple water user groups, wholesale water providers, county judges, and councils of governments in the region regarding population and water demand projections developed by the Texas Water Development Board (TWDB), groundwater and surface water availability estimates, proposed water management strategies, and recommendations for sites uniquely suited for reservoir construction.

Representatives from the BGRWPG met with representatives from multiple entities in Williamson County on January 21, 2015 and March 16, 2015 to discuss options available to address large water needs in that county. At those meetings, various options were presented and the representatives prioritized those water management strategies they considered most desirable. The resulting plans for entities in Williamson County reflect the outcome from those meetings.

Surveys were disseminated to water user group and wholesale water providers to obtain input regarding draft population and water demand projections and current sources of supply (March/April 2013), draft water needs and strategies to supply those needs (October 2013), implementation of water management strategies recommended in the 2011 Brazos G Regional Water Plan (June 2015), and infrastructure financing recommendations for water management strategies recommended in the 2016 Plan (September 2015).

The Brazos G technical consultant worked closely with 30 water user groups during May – July, 2013 to refine or correct information used by the TWDB to determine per capita water use (gpcd) values used to project municipal water demands.

Draft plans for each water user group and wholesale water provider were presented to water user groups and wholesale water providers at the three subregional meetings held in January. In addition, the Initially Prepared 2016 Plan was provided to county libraries and county clerks in all Brazos G counties, and posted on the Brazos G website for public review and comment.

10.4 Coordination with Other Planning Regions

Coordination with other planning regions was accomplished primarily through the technical consultants, who coordinated data and shared information that was later reported to the planning groups. Coordination was accomplished with the technical consultants from Regions B, C, F, H, K, L and O.

10.5 Brazos G Regional Water Planning Group Meetings

The BGRWPG held 51 public meetings during the 2016 planning cycle, between March 1, 2011 and December 31, 2015, including regular meetings of the full planning group; periodic meetings of the Executive, Scope of Work, and Finance Committees; and periodic meetings of the Water Policy Workgroup.

10.6 Public Hearing and BGRWPG Responses to Public Comments on Initially Prepared Plan

The BGRWPG held a public hearing on June 23, 2015 to receive comments concerning the Initially Prepared 2016 Brazos G Regional Water Plan. The oral comments received can be heard from the audio transcripts on the BGRWPG website (www.brazosgwater.org), and a transcript of the public hearing can be viewed at the same location. At the public hearing, 20 members of the public provided oral comments and/or submitted written comments to the planning group concerning various aspects of the plan, predominantly focused on the proposed Little River Off-Channel Reservoir.

Written comments were received from several individuals that mirror or expand upon their oral comments.

Following the June 23, 2015 public hearing, written public comments were received by the planning group through August 24, 2015. Additional comments were received from the Texas Water Development Board and the Texas Parks and Wildlife Department. No comments were received from federal agencies.

The following section summarizes the public comments received and the responses of the BGRWPG. Comments are summarized in *italics*, with the response from the BGRWPG following in regular type. Copies of written comments received and a transcript of oral comments received at the public hearing are included in Appendix I. When duplicate written information was provided by different parties in support of written comments, only one copy of the duplicate document is included in the appendix.

Comments Received Opposing Inclusion of the Little River Off-Channel Reservoir in the 2016 Brazos G Regional Water Plan (oral and written comments)

Numerous comments were received in opposition to the Little River Off-Channel Reservoir. Those providing comments in opposition to the proposed reservoir are listed below. This list was compiled from signatories of hard copy and email comments received by the Brazos River Authority, and from the record of those making oral comments at the June 23, 2015 public hearing in the Initially Prepared Plan. In addition, opponents presented the results of a hard copy petition and a petition on the Change.org website, with a combined total of 2,442 signatures reported by the organizers.

- Milam County Commissioners Court
- Gause Independent School District Board
- Milano City Council
- 22 Hills Homeowners' Association Architectural Control Committee, Gause, TX
- Patsy Alford, Gause, TX
- Judge Dave Barkemeyer, Milam County Judge – oral comments
- Elaine Shafer Baumann, Gause, TX
- Eugene and Elaine Baumann, Gause, TX
- Curtis Chubb, Ph.D., Milam County, TX
- Joyce and Mike Conner, Gause, TX – oral and written comments
- Dave Cunningham, Gause, TX – oral comments
- Cindy and James Delulio, Calvert, TX
- Dan Fischer, Gause, TX
- Wayne Fisher, Milan County and Harris County – oral comments
- Sherry Hughes Garner
- Don & Lynn Hagan, Gause, TX
- Kimberly Hahn, Dewitt County – oral comments
- Sheryl Hall, Gause, TX – oral comments
- Linda Hoppe, Gause Independent School District – oral comments
- Tommi Ivey

Steven Gonzales, Executive Director, El Camino Real de los Tejas National Historic Trail Association – oral and written comments
Robert W. Knight, Ph.D., Texas A&M University
Gary, Lisa, Sara and Scott Kornegay – oral and written comments
Julie Kornegay
Mary Lou Kornegay
Michael Wayne Kornegay, Gause, TX – oral and written comments
Steve and Cathy Lazarus, Calvert, TX – oral and written comments
Judy Marks, Gause, TX
Allison Shafer Riherd
Reece Riherd
Parker Riherd
Deborah, Jerrod, Graham and Sean Russell, Tomball, TX
Norma Schroeder Schendel, Yorktown, TX
Arlene Schroeder, Yorktown, TX
Marlan Scully – oral comments
Clay Shafer
Frank A. Shafer, Franklin, TX
Harold C. and Susan Shafer
Kyle Shafer
Philip Shafer
Watson Hubert & Opal Shafer, Gause, TX
William Shafer
Melissa Shehane, College Station, TX – oral and written comments
Amanda and John Sulzbach, The Woodlands, TX
Colby Theis, Robertson County, TX
Cathy Tooley
Marion Brewer Travis, Cameron, TX
Kathy and V.V. Turner, Gause, TX
James and Mary Waldson
Carl and Stephanie Wall
Frank Louis Wall II
Irma Andrea Wall
Maria Elizabeth Wall
Michelle Wall – oral comments
Stephanie Wall
Melvin F. Wall, Gause, TX – oral and written comments
Gary Westbrook, General Manager, Post Oak Savannah GCD, Milano, TX – oral and written comments
Benjamin Whittington
Jacob Whittington

Jerald Wise P.E. (Ret), Cameron, TX

Many of the comments opposing the reservoir focus on one or more common themes or technical arguments. Each of these is summarized below, followed by the BGRWPG's response. Note that numbers assigned to the comments are solely for organizational purposes.

1. *Each commenter identified above requested removal of the Little River Off-Channel Reservoir from the 2016 Brazos G Regional Water Plan as a recommended water management strategy.*

The BGRWPG understands the concerns voiced regarding the Little River Off-Channel Reservoir. During the Brazos G regional water planning process, water management strategies such as additional development of Carrizo-Wilcox Aquifer groundwater and the Lake Granger Augmentation Project were preferred options to include in the 2016 Brazos G Regional Water Plan. When confronted by the Modeled Available Groundwater (MAG) limitations of these two options, the BGRWPG has little alternative but to make the Little River Off-Channel Reservoir a recommended strategy.

At this time, the planning group believes it is prudent to continue the project as a recommended water management strategy in the 2016 Brazos G Regional Water Plan. Many of the issues put forth by opponents of the project are more appropriately dealt with during state and federal permitting processes and not during the regional water planning process. At this time, no entity has been identified as wishing to pursue the project, but if that should happen, environmental, cultural resource and technical issues will need to be addressed in much greater depth than is done during the regional water planning process. Retaining the project in the plan facilitates the opportunity to receive state funding to study the project further and provide greater definition of the impact of the issues identified by the project's opponents. If the project is not a recommended water management strategy in the plan, then state funding for those studies will not be available. These further studies will determine with greater certainty whether the project is, in actuality, feasible to develop or not. If the project is removed from the regional water plan, there is no certainty that it won't be recommended in some future regional water planning cycle. By allowing the project to remain as a recommended water management strategy in the 2016 Plan, the opportunity will remain for any entity wishing to pursue the project to obtain state funding for the in-depth technical studies necessary to determine the actual viability of the project. These studies would include a more detailed alternative siting analysis, where sites other than the one identified in the plan would be investigated more fully.

2. *Remove designation of the Little River Off-Channel Reservoir as a Unique Reservoir Site.*

The Texas Legislature is responsible for designating Unique Reservoir Sites, and usually does so upon the recommendation of one or more regional water planning group and/or the Texas Water Development Board. The Brazos G Regional Water Planning Group has not recommended that the Little River Off-Channel Reservoir be designated as a Unique Reservoir Site. The Brazos G Regional Water Planning Group only recommends such designation when requested by a project sponsor. The Region H Water Planning Group has recommended that the project be designated as a Unique Reservoir Site in the 2011 Region H Plan and in the 2016 Initially Prepared Region H Plan. Requests to

remove that designation should be made to the Region H Water Planning Group, the Texas Water Development Board, and the Texas Legislature.

3. *Remove the Little River Off-Channel Reservoir from evaluation in future water plans.*

The Brazos G Regional Water Planning group cannot guarantee that the project won't be evaluated in future regional water planning cycles. The Brazos G Regional Water Planning Group has no authority to prevent future members of the Brazos G Regional Water Planning Group from evaluating the project during future planning cycles or to prevent other regional water planning groups from evaluating the project.

4. *The proposed Little River Off-Channel Reservoir will inundate multiple cultural resources, including the Pin Oak Cemetery, designated an Historic Cemetery by the Texas Historical Commission, numerous family homesteads including Texas Department of Agriculture Family Land Heritage Program designations, Native American artifacts and a portion of the El Camino Real de los Tejas, a National Historic Trail.*

The BGRWPG appreciates the various commenters' concerns that the proposed reservoir will inundate numerous areas that have cultural and archeological significance. Many of the impacts identified by the commenters, i.e., the Pin Oak Cemetery, are identified in the technical evaluation of the project (Volume II) and will be more fully assessed during the federal permitting process.

The portion of the El Camino Real de los Tejas within the area that would be inundated by the reservoir is largely on private property, and there is no public park system or other public access to view or otherwise visit this portion of the historic route.

5. *The proposed Little River Off-Channel Reservoir will inundate areas having substantial natural resource value, and this loss of habitat will negatively impact area wildlife as well as permanently destroy areas of natural beauty, such as dogwood forests and pristine streams. Maps do not show what land will be used for environmental mitigation.*

The BGRWPG understands the concerns that the proposed reservoir will inundate these areas and have these impacts to area wildlife. These issues are addressed during the federal permitting process and will require appropriate mitigation for those impacts. This mitigation process may include established mitigation banks. Identification of those mitigation areas is outside the scope of the regional water planning process.

6. *The proposed Little River Off-Channel Reservoir is not needed to meet the needs of Williamson County – other water management strategies can be recommended to meet those demands, such as additional conservation, aquifer storage and recovery projects, groundwater development, more aggressive levels of wastewater reuse and ocean water desalination.*

The BGRWPG is responsible for water planning in all areas of Brazos G, including Williamson County. The BGRWPG coordinated with entities in Williamson County, who requested that the Little River Off-Channel Reservoir be recommended to meet future water needs for entities in Williamson County. This is not the only strategy recommended to meet water needs in Williamson County. Other strategies recommended include developing water from the Highland Lakes, reuse, and aquifer storage and recovery associated with overdrafting of Lake Granger. Additional advanced conservation was also recommended for those entities having per capita water use rates greater than 120 gpcd to achieve that level within the planning horizon, while the target

for the rest of the Brazos G Area is 140 gpcd. Only limited additional groundwater development can be recommended in the plan for any of the aquifer systems near Williamson County (including Milam County) because of limitations imposed by the estimates of the Managed Available Groundwater (MAG) for those aquifer systems.

- 7. The proposed Little River Off-Channel Reservoir would impart a large increase on the BRA's system rate, and would produce a large cost on users of the supply. The costs for the project are much more expensive than other alternatives, such as the Allens Creek Reservoir.*

The BRA is identified as the project sponsor in the 2016 Plan by default because no entity has requested to be identified as the project sponsor. The impact of the project on BRA's system rate would be determined when and if the BRA decided to pursue the project. The BRA has no current plans to develop the project. A reservoir project is expensive, and will have a large impact on the end users' water rates.

- 8. Specific errors or anomalies have been identified with regard to how supplies are assigned from the Little River OCR to various water user groups and the Brazos River Authority. Additionally, a completion date of 2020 appears unrealistic and should be changed to 2050 or later.*

These technical items have been reviewed and the values corrected, as necessary.

- 9. Supplies from the proposed Little River Off-Channel Reservoir will be used to meet demands for Williamson County entities only, and therefore, any recommended strategy should be located in Williamson County. The citizens of Milam County would not benefit from supplies from the proposed reservoir.*

Supplies from the proposed Little River Off-Channel Reservoir are identified in the plan to supplement supplies available from the Brazos River Authority (Lakes Belton, Stillhouse Hollow, Georgetown and Granger), and from groundwater sources. The plan addresses specific water user groups in Williamson County. However, entities in Milam County also receive supplies from the BRA system through the Central Texas WSC, including the Town of Buckholts, Bell-Milam-Falls WSC, Little Elm Valley WSC, and Salem-Elm Ridge WSC. Although this is not specifically identified in the plan, these utilities would benefit from the proposed reservoir by reducing dependence on the limited supplies from the existing BRA reservoirs. Additionally, future steam-electric demands in Milam County are identified in the plan to be supplied from the reservoir.

- 10. The water demands for Williamson County are overstated and the reservoir is not needed.*

The population of Williamson County is expected to increase from the 2010 census of 211,306 persons to 705,691 persons in 2030 and 1,523,206 persons in 2070. These projections were developed by the Texas State Demographer and accepted by entities in Williamson County. Water demand projections for water user groups in Williamson County reflect this dramatic population increase, but also reflect conservation through the increased use of water efficient plumbing fixtures. Williamson County entities requested that the plan include additional advanced conservation as a strategy to achieve a water conservation goal of 120 gpcd rather than the standard goal of 140 gpcd used for the rest of the Brazos G Area. Further, population projections are frequently evaluated during the water planning process.

11. *The proposed Little River Off-Channel Reservoir is located above the recharge zone of the Carrizo-Wilcox Aquifer and the reservoir will be unable to hold water, if constructed. This will cause degradation of the water quality in the aquifer because Brazos River has lower water quality than the native water in the aquifer.*

Any impacts of locating the reservoir above the recharge zone of the Carrizo-Wilcox Aquifer would be determined through a detailed technical study. Such a study will help address issues such as determining if the reservoir is a viable option. Assessment of long-term leakage would be affected by such factors as reservoir depth, aquifer properties, and other characteristics that might influence the rate of migration of water into the underlying aquifer.

12. *Other sites for the proposed Little River Off-Channel Reservoir should have been investigated.*

This specific site for the Little River Off-Channel Reservoir has been identified in the regional water planning process since the first planning cycle that developed the 2001 Plan. No other sites have ever been suggested for the project, and no detailed alternative siting analysis has been performed. A detailed review of other potential sites would most likely be one of the first priorities should a project sponsor be identified that is interested in pursuing the Little River Off-Channel Reservoir.

13. *The proposed Little River Off-Channel Reservoir will destroy the investments made by previous and current landowners to improve their property.*

The BGRWPG understands the concerns about the loss of investments in sometimes multi-generation held property. These are economic compensation issues that are addressed if the Little River Off-Channel Reservoir is pursued by a project sponsor.

14. *The proposed Little River Off-Channel Reservoir will destroy parts of FM 2095 and impair access to the City of Cameron by citizens of the communities of Gause and Hanover.*

These are issues that are addressed if the Little River Off-Channel Reservoir is pursued by a project sponsor.

15. *The proposed Little River Off-Channel Reservoir will have an adverse affect on the tax bases of the Gause Independent School District, the Milano Independent School District, and Milam County.*

The BGRWPG understands the concern about the impact of the Little River Off-Channel Reservoir affecting the tax base. Development of the reservoir will remove roughly 4,400 acres (6.875 square miles) from the tax rolls. The impact of this on the tax base of the two school districts and the county are not determined as part of the regional water planning study. The total area of Milam County is 1,022 square miles, so the area of the reservoir represents roughly 0.67 percent (a little more than half a percent) of the total land area in the county. The impact to the tax base of the two school districts would be proportionally greater because the reservoir footprint includes a greater portion of the school districts' areas. This is the kind of issue assessed if there is a project sponsor willing to pursue the project.

16. *The proposed Little River Off-Channel Reservoir will cover agricultural lands protected by the federal Farmland Protection Policy Act.*

The Farmland Protection Policy Act is intended to minimize the extent to which Federal programs "contribute to the unnecessary and irreversible conversion of farmland to

nonagricultural uses.” The act directs the Department of Agriculture and other Federal agencies to take steps to assure that the actions of the Federal Government do not cause farmland to be irreversibly converted in cases in which other national interests do not outweigh the benefits of maintaining farmland resources. It appears that this specific legislation would only apply if the project sponsor for the Little River Off-Channel Reservoir were a federal entity.

17. The proposed Little River Off-Channel Reservoir would provide no significant recreational or economic value to the citizens of Milam County.

This concern appears to be premature, as the use of a reservoir is determined by the project sponsor that owns and controls the rights to the reservoir’s use, including recreational use.

18. The TWDB has new requirements for water conservation content to be included in the Plans including directives...to assess the highest level of water conservation and efficiencies achievable, report the resulting projected water use savings in gallons per capita per day, and develop conservation strategies based on this information. The IPP...fails to report any savings from water conservation for the entities in Williamson County that are to receive water from the Little River Off-Channel Reservoir. Please break this information out as required.

Conservation savings are documented for each of the Williamson County municipal WUGs identified to receive water from the Little River Off-Channel Reservoir. These include Brushy Creek MUD, Chisholm Trail SUD, City of Georgetown, City of Round Rock and Williamson County-Other. Conservation (140 gpcd) savings are documented in Volume II, Section 2.1.3 and additional advanced conservation (120 gpcd) savings are documented in Volume II, Section 2.1.4.

19. There would be little water available to fill the reservoir. It will seldom be full and most of the time would be quite low.

Water available to the project was determined using the Brazos River Basin Water Availability Model (Brazos WAM), as stipulated by Texas Water Development Board planning rules. A storage trace showing how the reservoir would perform over a historical period of record analysis is included in the technical evaluation of the project in Volume II, Figure 4.7-2, page 4.7-3. More detailed technical studies will assess points concerning water availability and retention.

20. Please remove from the plan all identified off-channel reservoir sites.

State law requires that the BGRWPG prepare a plan consisting of water planning strategies. Most of the off-channel reservoir sites identified in the technical evaluations in Volume II are not recommended strategies, but were potentially feasible alternatives that were considered and evaluated, but not recommended. These are potentially feasible water management strategies that were evaluated during the process of developing the 2016 Plan and should remain documented as such in the report.

21. Milam County OCR should be preferred over the Little River OCR because it is a smaller, less expensive project and would have fewer negative environmental impacts. The Milam County OCR could also replace the Peach Creek OCR (specific comment from Mr. Theis)

The Milam County OCR is not the recommended option because it does not generate sufficient supply. Future evaluations of alternative sizes for the project may prove that

the Milam County OCR is the more preferred option. However, evaluation of multiple iterations of the project was outside the scope of this planning study. The Peach Creek OCR was evaluated, but is not a recommended water management strategy in the 2016 Plan.

22. Impacted areas where projects are located should be notified when projects are included that affect them.

The Brazos G Regional Water Planning Group posts public notices of all of its meetings. In addition, the planning group disseminates the Initially Prepared Plan to each county clerk and a public library in each county in the planning area. The planning group holds a public hearing on the Initially Prepared Plan to obtain public input, with the intention that comments on the Initially Prepared Plan will be considered and incorporated as appropriate into the final plan. Information is also available to the public on the brazosgwater.org website. At the time a project is actually pursued by a water supply entity and detailed plans are developed so that a more accurate determination can be made of property owners that might be affected by a particular project, notices will be sent by the appropriate entity.

23. Use of “place holder” strategies that will never be built wastes the state’s resources and misrepresents the state’s water balance.

Several alternatives exist by which regional water planning groups can account for how projected water needs will be met. One alternative is to assume in the plan that certain water needs will go unmet. Another alternative is to include a potentially feasible water management strategy in the plan to meet the projected needs. Another alternative is to include more than one strategy to meet a projected need with the expectation that future detailed evaluations will identify the preferred alternative. Readers should recognize that the strategies recommended are a plan, nothing more and nothing less, and nothing is binding regarding the strategies or the water user groups and wholesale water providers for which they are recommended.

24. Environmental impacts of the proposed reservoir have not been fully determined, including downstream riparian impacts due to modified river flow regimes.

Detailed environmental evaluations are part of the state and federal permitting process. Such studies are done when a project sponsor elects to pursue permitting of the Little River Off-Channel Reservoir.

25. Use of GAM and WAM values appear to not be widely accepted amongst all users. Models and water availability estimates used in the planning process should be accepted by all stakeholders.

The GAM and WAM models used in the planning process are stipulated by Texas Water Development Board rules, and are considered to be the standards by which water supplies are to be evaluated.

26. Utilizing the lowest annual rainfall year to determine the amount of water needed is a flawed approach because it proposes a solution to a problem that has an extremely low probability of existing. Planning should be based on what is probable, not a worst case scenario.

Hydrology in Texas is highly variable and is characterized by extremes. The Texas Legislature established that all water demands in regional water planning be based upon

what is needed in a “dry” year, but not necessarily the driest year on record. Water demands in the Brazos G Area are based on that dry year methodology.

Similarly, supplies are to be developed based on drought of record analysis, i.e., how much water would be available throughout a repeat of the drought of record. The drought of record is based upon recorded historical observations, which represent a relatively short period of time, often less than 100 years. We know that there have been pre-historic periods that appear to have been much drier than what is generally accepted as the drought of record. Because drought periods in Texas span multiple years, water supplies need to be developed that allow for supply to be maintained through sequences of dry years. The need for water is so critical, that prudence calls for planning to meet water demands through a drought of record period.

27. Inclusion of the reservoir location in the water plan unnecessarily encumbers the affected landowners because the land is at risk for condemnation in the future. This has a negative effect on any landowner attempting to sell property.

The Brazos G Regional Water Planning Group understands the concerns of those land owners whose property is identified as being within areas shown to be impacted by the project. If the project were being pursued definitely by a project sponsor, it would be appropriate to show the project area to a level of detail that individual properties might be identified because the project sponsor would already have completed a more detailed site alternatives analysis and been in communication with those property owners affected. Conversely, in the absence of a project sponsor, the Brazos G Regional Water Planning Group believes it would be better to simply describe a project as being “in the vicinity” of Milam County without identifying a specific project footprint on a map because there is less definition of the project and the actual project might eventually be located miles or more from the location shown in the plan. However, Texas Water Development Board planning rules require that a footprint of the proposed project be shown in the plan.

Comments Received Supporting Inclusion of the Little River Off-Channel Reservoir in the 2016 Brazos G Regional Water Plan

Numerous comments were received in support of the Little River Off-Channel Reservoir. Those commenting in support of the proposed reservoir are listed below.

Dale Ross, Mayor, City of Georgetown, TX

Several officers of the Chisholm Trail SUD

Board of Directors, Lone Star Regional Water Authority, Jarrell, TX

David L. Mann, Sr., Chairman, The Woods Ad Hoc Water Committee, Georgetown, TX

William L. McGavran III, Chairperson, Williamson County Greater Water Committee, Georgetown, TX

Don Scott, Chairman, Woodland Park and Woodland Park West Water Committee, Georgetown, TX

Judith Prehar, Water Committee Member of Fountainwood, Georgetown, TX

Carlene Boyd, Shady Oaks Ad Hoc Water Committee, Georgetown, TX

Diana Rogoff, Georgetown, TX

These themes and arguments in support of the reservoir are summarized below.

1. *Williamson County and the entire Brazos Basin will be enhanced by inclusion of the project in the plan.*
2. *Every water resource that can be developed, in the Brazos Basin, is a resource that will provide for the continued prosperity of Texas.*
3. *...maintaining a diverse set of identified resource options is proper long-term regional planning.*
4. *Maintaining the reservoir in the plan will continue to make it eligible for state and federal funding.*

The BGRWPG understands your support of the Little River Off-Channel Reservoir and has opted to retain it as a recommended water management strategy in the 2016 Brazos G Regional Water Plan.

Commenter — T. Barret Lyne, Ph.D., Bryan, TX (oral and written comments)

The groundwater model, MODFLOW, is based upon equations that have limited ability to describe groundwater flow and decisions based upon modeling in MODFLOW are suspect and should not be relied upon by water planners and water managers.

The MODFLOW model has been proven to be a reliable system for evaluating groundwater systems and is used widely in the industry and in academia. It has general acceptance in the water supply community and is the basis for many decisions made by groundwater districts and for establishing Modeled Available Groundwater estimates by the Texas Water Development Board.

Comments Received from the Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department provided a comment letter noting several aspects of the initially prepared plan. Those comments requiring a response involving a potential modification to the plan are summarized and responded to below.

1. *There appears to be an error on page ES-16 stating municipal conservation savings in the 2016 Plan are 21,366 acft/yr.*

The typographic error has been corrected to 73,835 acft/yr.

2. *Please include updated information to help clarify the present status of zebra mussels in Texas. The present known distribution (as of July 27, 2015) of zebra mussels in Texas reservoirs includes two reservoirs in Brazos G: Lake Waco and Belton Reservoir.*

The information has been added to the plan in Chapter 1, Section 1.9 as a threat to water supply in the Brazos G Area.

3. *The proposed Cedar Ridge Reservoir will alter streamflow variability, could potentially affect up to 27 threatened, endangered, and rare species, would increase concentrations of dissolved salts and minerals in Possum Kingdom Reservoir, and would increase fluctuations in lake levels at Possum Kingdom Reservoir.*

The Cedar Ridge Reservoir was evaluated using environmental flow standards adopted by the TCEQ, which were developed through a stakeholder-driven public process by the

Brazos River and Associated Bay and Estuary System Stakeholder Committee (BBASC) and Expert Science Team (BBEST), as per TWDB planning requirements. The expected environmental impacts of the proposed reservoir are discussed in detail in the technical evaluation of the project in Volume II. Any additional environmental evaluations of the project will be during the state and federal permitting processes for the project.

- 4. The upper Brazos drainages support a unique prairie stream ecosystem. Alterations in hydrologic and water quality conditions due to reservoir construction and operation, water diversions, control of brine sources, and consequent effects may disrupt the dynamics of the unique ecosystem and render habitat unsuitable for species adapted to prairie streams, including pupfish, killifish and minnows (Smalley Shiner and Sharpnose Shiner).*

Anticipated environmental impacts of the each strategy are documented in the technical evaluations found in Volume II, which were completed as per regional planning rules and guidelines. Any of the recommended water management strategies located in the upper Brazos River Basin will undergo additional environmental assessment during the state and federal permitting processes for the projects. Such additional assessments are beyond the scope of the regional water planning process.

- 5. The IPP does not recommend any stream segments be nominated as ecologically unique. No explanation is provided for the lack of recommendations.*

The BGRWPG is concerned regarding the impact such designation may have on limiting future activities in the vicinity of any streams designated as ecologically unique and has chosen to not nominate any streams.

Comments Received from the Brazos River Authority

- 1. ...all of BRA's existing supplies are fully contracted, so subordination agreements...may not be possible...the BRA requests that Brazos G and HDR, Inc. include a caveat in every water management strategy that assumes a subordination agreement with BRA that clearly states subordination may not be possible.*

The appropriate text has been added to each water management strategy that assumes a subordination agreement with BRA.

- 2. There are frequent references that subordination for some recommended water management strategies will be possible upon issuance of BRA's System Operation Permit. BRA does not want sponsors of other recommended water management strategies to assume that a subordination agreement with BRA is "automatic."*

The appropriate text has been added to each water management strategy that assumes a subordination agreement with BRA related to the pending BRA System Operation Permit.

- 3. BRA recommends that the Brazos G consultant revisit the use of BRA's System Operation Permit as a recommended water management strategy and limit the new supply to a volume closer to the 84,899 acft/yr that is contained in the 2011 Brazos G Plan.*

The total supply from BRA's System Operation Permit in the 2011 Brazos G Plan is actually 102,581 acft/yr, when accounting for the supply necessary to develop the Lake Granger Augmentation project, which would utilize an additional 17,682 acft/yr from the System Operation Permit. The total supply from the permit in the Initially Prepared 2016 Brazos G Plan is 141,952 acft/yr, or about 39,371 acft/yr more than the 2011 Plan.

4. *For planning purposes, it is assumed that all existing water supply contracts will be renewed. BRA notes that not all contracts will necessarily be renewed and requested the following text be added to the plan to the second sentence of the second paragraph of section 4.3.1: “...all of these contracts are long term and considered perpetual through 2070 for regional water planning purposes. However, in reality, the BRA will consider contract renewals on a case by case basis as contracts expire.”*

The suggested text has been added, as requested.

5. *The BRA has requested that the current system rate charged to system contractual customers be used when presenting costs of strategies involving BRA supplies.*

Per regional water planning guidelines, costs are presented in September 2013 dollars. The costs in the plan utilize the 2014 BRA system rate of \$65.65/acft, which was adopted for the BRA fiscal year beginning September 1, 2013.

6. *BRA has recommends revising the list of entities potentially involved with the West Central Brazos Water Distribution System (WCBWDS) because some have already contracted for water from BRA.*

The strategy evaluation was specific to those entities included in the evaluation and only those entities should continue to be identified with the project.

7. *BRA recommends removing the regional WTP expansion in Breckenridge from the WCBWDS strategy evaluation in Chapter 8.4 of Volume II because project participants have elected to build individual water treatment plants,, and notes that the City of Abilene is constructing new treatment capacity near Breckenridge that would benefit Abilene and possibly Breckenridge.*

The regional WTP identified in the strategy evaluation is part of the original formulation of the water management strategy, which has not been updated in this round of planning. Brazos G notes that the WCBWDS strategy should be updated in future plans to reflect current plans of selected entities, none of which have informed Brazos G of their intentions to build separate WTPs and forgo the regional WTP identified in the original plan formulation. The West Central Brazos Water Distribution System water management strategy was evaluated for a specific set of water user groups in the vicinity of Shackelford, Stephens, and Throckmorton Counties. The City of Abilene was not a participant in this water management strategy. The regional WTP identified in the strategy evaluation is for those entities, and does not involve Abilene. The WTP being constructed by Abilene is for Abilene’s sole use and is not associated with this water management strategy.

8. *Regarding Table 8.4-2, BRA states “For Fish and Wildlife Habitat section, it will be more than a low to moderate impacts if brine effluent is discharged to surface water streams. The Sharp Nose Shiner has already precluded Abilene from discharging in the river above PK. Same comment for Threatened and Endangered Species below.”*

The impacts to fish and wildlife habitat and threatened and endangered species if brine effluent were to be discharged to surface water streams should remain shown as “low to moderate” in Table 8.4-2. The actual method of brine disposal has not been determined, nor have specific streams been identified as candidates for brine disposal. Furthermore, the City of Abilene has requested that Brazos G note that the discharge permit in question for Abilene (which is not related to this water management strategy) is still under review and no determination has been made regarding Abilene’s ability to

discharge brine upstream of Possum Kingdom Reservoir. Endangered species have not been demonstrated to preclude Abilene from discharging in the river above Possum Kingdom Reservoir.

9. *The BRA suggests miscellaneous formatting, typographical corrections, and wording suggestions to refine information presented and improve the clarity of the text.*

Brazos G thanks the BRA for their thorough and careful review of the text of the initially prepared plan and will adopt those suggested revisions as appropriate in the text of the final plan.

Jayson Barfknecht, Ph.D., P.E., Public Works Director, City of Bryan

Dr. Barfknecht requested that the City of Bryan ASR project be made a recommended water management strategy with changes to the technical evaluation to demonstrate water available for ASR storage. The City offered to provide technical analysis in coordination with the TWDB to demonstrate water that would be made available by the project.

The BGRWPG will replace the current technical evaluation of the project with the evaluation demonstrating the water available for ASR that will not exceed the MAG for the Carrizo-Wilcox Aquifer in Brazos and Robertson Counties.

John Firth, Coryell County Judge

Judge Firth expressed support for inclusion of the Coryell County Off-Channel Reservoir as a recommended water management strategy in the 2016 Brazos G Regional Water Plan.

The Coryell County Off-Channel Reservoir is a recommended water management strategy in the plan.

Coryell County Commissioners Court

The Coryell County Commissioners Court provided a resolution passed by the court on June 22, 2015 that reads as follows:

“The County of Coryell request that the State Water Development Board and Region G support increasing the priority for the construction of the Coryell Off-Channel Reservoir given the limited known water resources that will be available to Western Coryell County and neighboring counties.”

The BGRWPG supports the development of the Coryell County Off-Channel Reservoir. The BGRWPG have recommended it as a water management strategy to meet projected water needs in the area and have recommended that the Texas Legislature designate the site of the proposed reservoir as a “Unique Reservoir Site.”

Jimmy Wood, President, Multi-County Water Supply Corporation

Mr. Wood, on behalf of the Multi-County Water Supply Corporation, expressed support for the Coryell County Off-Channel Reservoir and requested that the Multi-County Water Supply Corporation be identified as the project sponsor in the 2016 Brazos G Regional Water Plan.

The BGRWPG supports the development of the Coryell County Off-Channel Reservoir. The BGRWPG have recommended it as a water management strategy to meet projected

water needs in the area and have recommended that the Texas Legislature designate the site of the proposed reservoir as a “Unique Reservoir Site.” Furthermore, the BGRWPG has modified the 2016 Brazos G Regional Water Plan to identify the Multi-County WSC as the sponsor of the project.

Kleber Denny, P.E., on behalf of the Salt Fork Water Quality Corporation

Mr. Denny expresses concerns that the evaluation of the Upper Brazos Basin Salinity Control project is not shown as developing a quantified water supply. Mr. Denny presented some research and computations to demonstrate that the reduced salinity results in less reject water (brine) coming from desalination treatment processes along the main stem of the Brazos River, which increases usable supply to entities desalinating the water prior to use.

The BGRWPG has considered the information provided by Mr. Denny and has incorporated it into the technical evaluation of the project. The project is now shown as making water supply available to municipal users due to reduced volumes of reject brine being produced by desalination facilities.

Rodney Kroll, President (written comments) and Scooter Radcliffe, General Manager (oral and written comments), Southern Trinity Groundwater Conservation District

Mr. Kroll and Mr. Radcliffe express support of the plan and inform the BGRWPG that the groundwater district is “developing policies and programs that promote the conjunctive use of groundwater and surface water to optimize the amount of water available to McLennan County during surface water shortages and extending the viability of the Trinity aquifer for many decades.” Mr. Kroll also notes that the district’s “approach and use of the existing Trinity Aquifer MAG...allows our permitted volumes to be equal to or less than the MAG while promoting long term conservation of the aquifer through reduced pumping during times of adequate surface water supplies.”

The BGRWPG appreciates that the district’s management of the Trinity Aquifer in McLennan County is consistent with the MAG, and looks forward to working with the district as the plans are formulated for conjunctive use of surface and groundwater supplies.

Janice Bezanson, Executive Director, Texas Conservation Alliance in coordination with Friends of the Brazos River (oral and written comments)

Ms. Bezanson expresses concerns over water demands shown for the City of Abilene, the supplies available to Abilene, and the resulting need for Cedar Ridge Reservoir as a recommended water management strategy for Abilene. Ms. Bezanson recommends that the Cedar Ridge Reservoir be replaced as a recommended water management strategy with a diversion from the Clear Fork of the Brazos River to Hubbard Creek Reservoir.

The projected water demands and supplies were developed using technical methods approved by the TWDB and reflect the best known information regarding the City’s current and future water supply commitments and water supplies currently available to the City.



The BGRWPG strives for the Brazos G Plan to reflect the plans of local water user groups and wholesale water providers and will continue to recommend the Cedar Ridge Reservoir at the request of the City of Abilene.

William Oliver

Mr. Oliver expresses support for the proposed South Bend Reservoir project.

The BGRWPG has opted not to recommend the South Bend Reservoir project in the 2016 Brazos G Regional Water Plan, but recognizes that future circumstances could cause the project to become a more viable water management strategy.

10.7 TWDB Comments on Initially Prepared Plan and BGRWPG Responses

The following section summarizes the comments received from the TWDB and the responses of the BGRWPG. Level 1 comments are required to be addressed in order to meet statutory, agency rule, and/or contract requirements. Level 2 comments and suggestions are suggested for consideration to clarify or enhance the plan.

10.7.1 Level 1 TWDB Comments

1. *Tables 2-5 through 2-10 present water user group (WUG) demands by category of use, but do not include demand projections over the planning horizon for wholesale water providers (WWP) by water use category and by county. Please include WWP demands by category of use and county in the final, adopted regional water plan. [31 Texas Administrative Code (TAC) §357.31(b)]*

The information regarding demands by category of use for each WWP has been added in a new table.

2. *Page 3-51, Table 3.4-1 and Appendix B, page B-13: The Dockum Aquifer table of availability in Appendix B presents water volumes that differ from Table 3.4-1. Please reconcile Table 3.4-1 for the Dockum Aquifer in Nolan County with Appendix B information in the final, adopted regional water plan. [31 TAC §357.32(d)]*

The information between Chapter 3 and Appendix B has been reconciled.

3. *Volume I, Section 3.2.4 and Volume II, Section 1.2: Section 3.2.4 states that water availability was determined as the minimum annual supply for run-of-river rights; however, in Vol. II, Section 1.2, the methodology states the use of a 75/75 criteria for water right availability. Water availability for water management strategies must represent the anticipated diversion volume under drought of record conditions. Please confirm annual run-of-river availability and whether it is anticipated to be available under drought of record conditions. If necessary, please adjust strategy yields to reflect the volume of the run-of-river supplies that would be available under drought of record conditions in the final, adopted regional water plan. [31 TAC §357.34(d)(3)(A); Contract Exhibit 'C', Section 3.4]*

The text in Section 1.2 is a typographical error and has been corrected.

4. *Volume I, Table 5.39-2: The Summary of Recommended Strategies includes “Out of Region.” It is not clear what this strategy rollup represents and an associated technical memorandum in Volume II could not be identified. Please clarify the “Out of*

Region” water management strategy(s) in the final, adopted regional water plan. [Contract Exhibit ‘C’, Section 12.1.2]

That table has been replaced with a report from DB17.

- 5. Please describe how publicly available plans of major agricultural, municipal, manufacturing and commercial water users were considered in the final, adopted regional water plan. [31 TAC §357.22(a)(4)]*

A paragraph has been added to the beginning of Chapter 5 explaining how local, publically available plans were incorporated into the 2016 Brazos G Regional Water Plan.

- 6. Please provide a statement regarding any water availability requirements promulgated by a county commissioners court pursuant to Texas Water Code §35.019, which in Region G applies to the North - Central Texas Trinity and Woodbine Aquifers and Central Texas - Trinity Priority Groundwater Management Areas. [31 TAC §357.22(a)(6)]*

Explanatory text has been added to the descriptions of aquifer availability for the Trinity and Woodbine Aquifers in Appendix B, and a brief explanation has been added to section 3.4.1.

- 7. The plan does not include a subchapter in Chapter 5 consolidating the planning group's recommendations regarding water conservation and model water conservation plans. Please consolidate this information in the final, adopted regional water plan. [31 TAC §357.34(g)]*

The information has been added to Chapter 5 of the plan.

- 8. The plan does not appear to document the planning group's process for identifying potentially feasible water management strategies. Please include this documentation in the final, adopted regional water plan. [31 TAC §357.12(b) and §357.34(b)]*

The process for identifying potentially feasible water management strategies has been documented in Chapter 5, section 5.39.3.

- 9. The plan, in some instances, does not appear to include a quantitative reporting of impacts to agricultural resources. For example, Volume II strategy evaluation 4.7 identifies crops present in the reservoir and pipeline footprint, but does not appear to include quantified impacts to agricultural resources. Other strategy evaluations (e.g., 4.1, 4.2) do not appear to quantify impacts, including no impacts. Please include quantitative reporting of impacts, including if negligible, to agricultural resources in the final, adopted regional water plan. [31 TAC §357.34 (d)(3)(C)]*

Quantitative reporting of impacts, including negligible impacts, has been added to each water management strategy evaluation.

- 10. Pages 5.10-4, 5.33-3: The plan does not appear to consider conservation as a potentially feasible strategy for all identified water supply needs. For example, West Brazos WSC and Steamboat Mountain WSC have identified water needs but no conservation strategy is summarized as potentially feasible. Please include documentation that conservation water management strategies were considered to meet identified needs and, if not recommended, please document the reason in the final, adopted regional water plan. [31 TAC §357.34(f)(2)(B)]*

For municipal conservation, an annual 1% reduction in gpcd is applied until a target of gpcd of 140 is met. If a municipal entity had a gpcd less than 140 (120 for Williamson County entities), no additional conservation is recommended as a water management

strategy. Brazos G's approach for considering conservation is documented in Chapter 2 of Volume II. For most WUGs, this is also reiterated in Chapter 5 in the plan for each WUG. We have added that standard phrase for every WUG for which conservation is not a recommended water management strategy because the gpcd is below the 140 target (or 120 target in Williamson County).

11. Tables 5.39-2 and 5.39-6: The plan appears to include the Lake Granger ASR recommended strategy also in the summary of alternative strategies. Both tables include identical costs and strategy volumes and the technical evaluations in Volume II do not describe an alternative configuration. Please reconcile in the final, adopted regional water plan. [31 TAC §357.34(e)]

The Lake Granger ASR project is included in both tables because the project is identified as both a recommended strategy (BRA Little River System) and an alternative strategy (for City of Round Rock). We will remove it as an alternative strategy for the City of Round Rock to avoid any confusion. That table has been replaced by a DB17 report.

12. The plan does not appear to include model water conservation plans. Please include in the final, adopted regional water plan for example, as an online link. [31 TAC §357.34(g)]

These will be included in the final plan as an appendix.

13. The technical evaluations of the water management strategies do not appear to estimate water losses from the associated strategies. Please include an estimate of water losses in the final, adopted regional water plan, for example as an estimated percent loss. [31 TAC §357.34(d)(3)(A); Contract Exhibit 'C', Section 5.1.1]

Water loss from newly constructed water management strategies is assumed to be negligible (less than 1 percent). Supplies from water management strategies are sufficient to overcome minor losses and still meet the supplies assigned to individual water user groups and wholesale water providers. An explanatory statement has been included in the introduction of Volume II of the Plan.

14. Volume II, Page 3.5-41: The City of Cleburne reuse strategy appears to include retail distribution-level infrastructure in the strategy evaluation (i.e., 6-inch spur line to the sports complex). Please remove all distribution-level infrastructures and associated costs from the plan and confirm water management evaluations throughout the plan. [31 TAC §357.34(d)(3)(A), Conforms with Contract Exhibit 'C', Section 5.1.2.3]

None of the reuse strategy infrastructure should be considered "retail distribution-level" infrastructure. The entire infrastructure included in the strategy evaluations is used to transport the raw reuse supply to the place of its intended use. Retail distribution from the raw water source occurs downstream from these appurtenances.

15. Volume II, Strategy Evaluation 7.2: The plan does not appear to include consideration given to the highest practicable level of water conservation achievable by water users as relates to the interbasin transfer water management strategy Brushy Creek Regional Utility Authority System. Please include this documentation in the final, adopted regional water plan. [31 TAC §357.34(f)(2)(C), Contract Exhibit 'C', Section 5.1]

As per 31 TAC §357.34(f)(2)(c), the Brazos G Regional Water Planning Group consulted with Williamson County entities regarding strategies to meet needs in Williamson County. Additional advanced water conservation was identified to reduce per capita municipal consumption to 120 gpcd, which is less than the target of 140 gpcd established by

Brazos G as the goal for municipal water conservation. This was considered by the Williamson County entities as the highest practicable level of conservation to consider. This is documented in Chapter 2 of Volume II of the plan. In addition, the supply developed by the Brushy Creek Regional Utility Authority is not a proposed interbasin transfer, but is, in fact, an existing interbasin transfer authorization. As such, this strategy is exempt from this requirement.

16. *Volume II, Strategy Evaluation 7.11: The plan does not appear to report system gain as a separate permitted amount from the system in the analysis of the "BRA System Operation of Reservoirs". Please present the methodology used and the system gain volume separate from the system volume in the final, adopted regional water plan. [Contract Exhibit 'C', Section 3.5]*

It is shown in Table 7.11-1 as "Total Sys Ops Yield Supply". This quantity is the system gain volume.

10.7.2 Level 2 TWDB Comments

1. *In the Volume II, Table of Contents, the table heading number 3 for "Reuse" appears to have been omitted. Please consider revising in the final, adopted regional water plan.*

The typo has been corrected.

2. *Tables 5.39-2 and 5.39-6: Recommend clarifying that the numbers listed in the column "WUG/WWP using Strategy" are the number of entities using the strategy in the final, adopted regional water plan.*

We have added a footnote explaining the column.

3. *Tables 5.39-2 and 5.39-6: The "Supply Developed" for the "Reuse" alternative strategy appears to only account for the City of Bryan and does not account for WMARSS reuse (WMARSS is indicated as an alternative strategy for Cities of Mart, Riesel, and Waco). Suggest confirming supply volumes in the final, adopted regional water plan.*

We have corrected the tables for consistency.

4. *Table 5.39-6: It appears that the following Alternative Strategies are missing from Table 5.39-6: Voluntary Transfers such as Lake Whitney diversion to Cleburne (City of Cleburne), supply from City of Caldwell (Burlison Co. Manufacturing), supply for City of Gatesville (Coryell Co. – Other), supply from City of Granbury (City of Tolar), supply from Acton MUD (Hood Co. – Other), and supply from Somervell Co. water supply project (City of Glen Rose); Groundwater development of Edwards BFZ (Bell Co. Manufacturing); and WMARSS – Reuse (Cities of Mart, Riesel, and Waco). Please consider adding these alternative strategies to the table in the final, adopted regional water plan.*

The table has been replaced by a DB17 report in the final plan.

10.8 Final Plan Adoption

On September 15, October 7 and November 4, 2015, the BGRWPG reviewed and adopted responses to the oral and written comments received. On November 4, 2015, the final plan was adopted by unanimous vote of the members present pending completion of the changes noted in response to comments received and final formatting and editorial revisions.