

**Attachment 1**  
**Exhibit A**  
**First Amended Scope of Work**

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## **Task 1- Planning Area Description<sup>1</sup>**

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The objective of this task is to prepare a standalone chapter<sup>2</sup> to be included in the 2016 Regional Water Plan (RWP) that describes the Regional Water Planning Area (RWPA).

### **Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.30.<sup>3</sup>
- b) Review and summary of relevant existing planning documents in the region including those that have been developed since adoption of the previous Regional Water Plan. Documents to be summarized include those referenced under 31 TAC §357.22.
- c) Incorporation of all required TWDB Regional Water Planning Application (formerly referred to as the 'online planning database') (DB17) reports into document.
- d) Review of the chapter document by RWPG members.
- e) Modifications to the chapter document based on RWPG, public, and or agency comments.
- f) Submittal of chapter document to TWDB for review and approval; and
- g) All effort required to obtain final approval of the regional water plan chapter by TWDB.

**Deliverables:** A completed Chapter 1 describing the Regional Water Planning Area shall be delivered in the 2016 RWP as a work product.

## **Task 2A - Non-Population Related Water Demand Projections<sup>4</sup>**

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Texas Water Development Board (TWDB) staff, in conjunction with the Texas Commission on Environmental Quality (TCEQ), Texas Parks and Wildlife Department (TPWD), and Texas Department of Agriculture (TDA) will prepare draft water demand projections for all water demands unrelated to population (e.g. mining, manufacturing, irrigation, steam-electric power, and livestock) with specific attention to updated mining water demand projections to be provided by the TWDB. TWDB staff will update water demand projections for all associated Water User Groups (WUGs) and provide them to RWPGs for their review and input. All projections will be extended through 2070. RWPGs will then review the draft projections and may provide input to TWDB or request specific changes to the projections from TWDB.<sup>5</sup> If adequate justification is provided by the RWPGs to TWDB,

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<sup>1</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>2</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>3</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>4</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

water demand projections may be adjusted by the TWDB. Once RWPG input and revision requests are considered, final water demand projections will be adopted by the TWDB's governing Board (Board). The adopted projections will then be provided to RWPGs. RWPGs must use the Board-adopted projections when preparing their regional water plans.

TWDB will directly populate DB17 with all WUG-level projections and make related changes to DB17 based on Board-adopted projections.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.31.<sup>6</sup>
2. Prepare a standalone chapter <sup>7</sup>(including work from both Tasks 2A & 2B) to be included in the 2016 Regional Water Plan (RWP) that also incorporates all required TWDB DB17 reports into the document.
3. Receive and make publicly available the draft water demand projections provided by TWDB.
4. Evaluate draft water demand projections provided by TWDB.
5. Review comments received from local entities and the public for compliance with TWDB requirements.
6. Provide detailed feedback to TWDB on water demand projections, as necessary, including justification and documentation supporting suggested changes.
7. Prepare and submit numerical requests for revisions, in table format in accordance with TWDB guidance, of draft water demand projections and process such requests based on, for example, requests from local entities within the region. The RWPG and/or local entities should provide required documentation and justification of requested revisions.
8. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
9. Assist TWDB, as necessary, in resolving final allocations of water demands to water user groups to conform with any control totals defined by TWDB, for example, by county and/or region.
10. Prepare water demand projection summaries for WUGs using final, Board-adopted projections to be provided by the TWDB, as necessary.
11. Modify any associated water demand projections for Wholesale Water Providers (WWPs), as necessary based on final, Board-adopted projections.

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<sup>5</sup> All requests to adjust draft population or water demand projections must be submitted along with associated data in an electronic format determined by TWDB (e.g., fixed format spreadsheets)

<sup>6</sup> Requirements are further explained in the guidance document First Amended General Guidelines for Regional Water Plan Development.

<sup>7</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

12. Review the *TWDB DB17 Non-Population Related*<sup>8</sup> *Water Demand* report from the DB17 and incorporate this planning database report into the Technical Memorandum and Initially Prepared Plan (IPP) and adopted regional water plans (labeled as such and with source reference).
13. Modify any aggregated water demand summaries, for example, for Wholesale Water Providers (WWPs) or irrigation districts, accordingly incorporate this planning database report into the Technical Memorandum and IPP and adopted regional water plans (labeled as such and with source reference).
14. Update WWP contractual obligations and WUG ‘seller’ obligations to supply water to other entities and report this information along with projected demands including within the DB17 and within any planning memorandums or reports, as appropriate.

### **Task 2B - Population and Population-Related Water Demand Projections**<sup>9</sup>

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TWDB staff, in conjunction with the TCEQ, TPWD, and TDA will prepare draft population and associated water demand projections for all population-related water user groups using data from the recent 2010 Census. TWDB staff will update population and associated water demand projections for all Water User Groups (WUGs) and provide them to RWPGs for their review and input. All projections will be extended through 2070.

RWPGs shall then review the draft projections and may provide input to TWDB or request specific changes to the projections from TWDB. If adequate justification is provided by the RWPGs to TWDB, population and/or water demand projections may be adjusted by the TWDB, TDA, TCEQ, and TPWD. Once RWPG input and revision requests are considered, final population and associated water demand projections will be adopted by the Board. The adopted projections will then be provided to RWPGs. RWPGs must use the Board-adopted projections when preparing their regional water plans.

TWDB will directly populate the DB17 with all WUG-level projections and make related changes to the DB17 if revisions are made.

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.31.<sup>10</sup>
2. Prepare a standalone chapter<sup>11</sup>(including work from both Tasks 2A & 2B) to be included in the 2016 Regional Water Plan (RWP) that also incorporates all of required TWDB DB17 reports into the document.

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<sup>8</sup> All ‘*TWDB DB17...*’ reports will be provided by TWDB through the online planning database web interface as a customizable report that can be downloaded by RWPGs and must be included as part of the Technical Memorandum and water plan.

<sup>9</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>10</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>11</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

3. Receive and make publicly available the draft population and associated water demand projections provided by TWDB.
4. Evaluate draft population and associated water demand projections provided by TWDB.
5. Review comments received from local entities and the public for compliance with TWDB requirements.
6. Provide detailed feedback to TWDB on both population and associated water demand projections, as necessary, including justification and documentation supporting suggested changes.
7. Prepare and submit numerical requests, in table format in accordance with TWDB guidance, for revisions of draft population and/or water demand projections and process such requests based on, for example, requests from local entities within the region. The RWPG and/or local entities should provide required documentation and justification of requested revisions.
8. Communicate and/or meet with TWDB staff and/or local entities requesting revisions, as necessary.
9. Assist TWDB, as necessary, in resolving final allocations of population and water demands to water user groups to conform with any control totals defined by TWDB, for example, by county and/or region.
10. Prepare population and water demand projection summaries for WUGs using final, adopted projections to be provided by the TWDB, as necessary for presentation in documents.
11. Consider and include in all appropriate planning documents the projections of population and associated water demands for any new WUGs to be provided by the TWDB.
12. Modify any associated water demand projections for WWPs, as necessary based on final, adopted projections.
13. Review the *TWDB DB17 Population* and associated *TWDB DB17 Population-Related Water Demand* reports from the DB17<sup>12</sup> and incorporate these planning database reports into the Technical Memorandum and IPP and final regional water plans (labeled as such and with source reference).
14. Modify any aggregated water demand summaries, for example, for Wholesale Water Providers (WWPs), accordingly and present in planning documents.
15. Update WWP contractual obligations and WUG ‘seller’ obligations to supply water to other entities and report this information along with projected demands including within DB17 and within any planning memorandums or reports, as appropriate.

### **Task 3 - Water Supply Analyses<sup>13</sup>**

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This Task involves updating or adding: a) groundwater, surface water, reuse, and other water source availability estimates, and b) existing WUG and WWP water supplies that were included in the 2011 Regional Water Plan, in accordance with methodology described in **Section 3** of the *First Amended General Guidelines for Regional Water Plan Development* for estimating surface water, groundwater,

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<sup>12</sup> RWPG technical consultants must attend mandatory training on the Regional Water Planning Application (DB17).

<sup>13</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

systems, reuse, and other supplies during drought of record conditions. All water availability and water supply estimates will be extended through 2070.

This Task includes performing all work in accordance with TWDB rules and guidance required to:

Meet all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.32.<sup>14</sup>

Prepare a standalone chapter<sup>15</sup> to be included in the 2016 Regional Water Plan (RWP) that also incorporates of all required DB17 reports into the document.

**I) Estimate a) Surface Water Availability and b) Existing WUG and WWP Surface Water Supplies:**

1. Select hydrologic assumptions, models, and operational procedures for modeling the region's river basins and reservoirs using Texas Commission on Environmental Quality (TCEQ) Water Availability Models (WAMs) in a manner appropriate for assessment of existing surface water supply and regional water planning purposes. Reservoir systems<sup>16</sup> and their yields shall be modeled in accordance with the *First Amended General Guidelines for Regional Water Plan Development*.
2. Obtain TWDB Executive Administrator approval of hydrologic assumptions or models and for any variations from modeling requirements in the *First Amended General Guidelines for Regional Water Plan Development*.
3. As necessary and appropriate, modify or update associated WAMs or other models to reflect recent changes to permits, transfers, legal requirements, new water rights, and/or specified operational requirements.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
5. Apply the TCEQ WAMs, as modified and approved by TWDB, and/or other appropriate models to quantify firm yield for major reservoirs, reservoir systems, and firm diversion for run-of-river water rights, as determined on at least a monthly time-step basis. Reservoir firm yield shall be quantified based on the most recent measured capacity and estimated capacity in year 2070.
6. Compile TCEQ Water System Data Reports<sup>17</sup> for municipal WUGs that use surface water and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Limitations to be considered based on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.

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<sup>14</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>15</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>16</sup> Reservoir systems must be approved by TWDB and identified as such in DB17

<sup>17</sup> Available from TCEQ

Update information on WWP contractual obligations and WUG ‘seller’ obligations to supply water to other entities including within DB17.<sup>18</sup> Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.

7. Based on the water availability, existing infrastructure, and associated physical and legal limitations, determine the existing surface water supply available from each surface water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record based on source water availability, infrastructure capacity, legal constraints, and/or operational limitations.
8. Complete and update all required data elements for DB17 through the web interface.<sup>19</sup>
9. Compile firm yield and diversion information by Source, WUG, WWP, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB17 Water Source Availability* and associated *TWDB DB17 WUG and WWP Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the DB17 interface.
10. Review, confirm the accuracy of, and incorporate the required associated planning database reports directly into the Technical Memorandum and IPP and adopted regional water plans under Task 4C (labeled as such and with source reference).

## **II) Estimate a) Groundwater Availability and b) Existing WUG and WWP Groundwater Supplies:**

Obtain and review the Modeled Available Groundwater<sup>20</sup> volumes that are developed by TWDB based on the Desired Future Conditions adopted by Groundwater Management Areas (GMAs). Modeled Available Groundwater volumes for each aquifer will be available from TWDB through DB17 interface, split into discrete geographic-aquifer units by: Aquifer; County; River Basin; Region; and, where applicable, by Groundwater Conservation District (GCD).

1. In areas that were not considered in the DFC process and therefore do not have Modeled Available Groundwater annual volumes but have groundwater supplies, develop availability estimates according to the First Amended General Guidelines for Regional Water Plan Development.
2. Consider the impacts of the available Modeled Available Groundwater annual volumes on the regional water plan including how it impacts existing water supplies.
3. In areas with Groundwater Conservation District (GCDs), obtain GCD Management Plans and GCD information to be considered when estimating existing supplies and water management strategies under future tasks.

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<sup>18</sup> Some WUGs have ‘seller’ obligations even though they are not classified as a WWP.

<sup>19</sup> In accordance with the Guidelines for Regional Water Plan Data Deliverables. RWPG technical consultants must attend mandatory training on the Regional Water Planning Application (DB17).

<sup>20</sup> The estimated total pumping from the aquifer that achieves the desired future condition adopted by members of the associated Groundwater Management Area. Modeled Available Groundwater data to be entered into DB17 by TWDB (see guidance document).

4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting supply analyses for WWPs.
5. Select hydrologic and other assumptions for distribution of available groundwater for potential future use by WUGs (e.g. via a pro-rationing policy) as existing supply based on models and operational procedures appropriate for assessment of water supply and regional water planning purposes.
6. Compile TCEQ Water System Data Reports<sup>21</sup> for municipal Water User Groups using groundwater and identify any physical constraints limiting existing water supplies to WUGs and/or WWPs. Limitations to be considered based on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
7. Update information on WWP contractual obligations and WUG ‘seller’ obligations to supply water to other entities including within DB17. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
8. Compile and/or update information regarding acquisitions of groundwater rights, for example, for transfer to municipal use, and account for same in the assessment of both availability and existing groundwater supplies.
9. Based on the water availability, existing infrastructure, and associated physical and legal limitations, determines the existing groundwater supply available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record based on water availability, infrastructure capacity, legal constraints, and/or operational limitations.
10. Complete and update all required data elements for DB17 through the web interface.<sup>22</sup>
11. Compile groundwater availability information by Source, Water User Group, Wholesale Water Provider, county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period. This will be facilitated by *TWDB DB17 Water Source Availability* and associated *TWDB DB17 WUG and WWP Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs.

### **III) Estimate System, Reuse, and Other Types of Existing Supplies**

#### Systems, Reuse, and Other Water Supplies

1. Integrate firm water supplies for WUGs using a system of supply sources (e.g., surface water, storage, and groundwater).

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<sup>21</sup> Available from TCEQ

<sup>22</sup> In accordance with the Guidelines for Regional Water Plan Data Deliverables. RWPG technical consultants must attend mandatory training on the Regional Water Planning Application (DB17).



2. Research and quantify existing supplies and commitments of treated effluent through direct and indirect reuse.
3. Compile systems, reuse, and other availability information by source, water user group, wholesale water provider, county, river basin, and planning region as necessary to obtain decadal estimates of supply throughout the planning period.
4. Assign available water supplies, as appropriate, to WUGs and WWPs including conducting demand analyses for WWPs.
5. Identify and sub-categorize existing sources in DB17 to extract unique sources. In addition to surface water, groundwater, and reuse, for example, further clarify the source types in DB17 to subcategorize other specific water sources such as desalinated groundwater or desalinated surface water, and seawater desalination, and any other supply types that are connected supplies.
6. Review and confirm the accuracy of the *TWDB DB17 Availability* and associated *TWDB DB17 Existing Water Supply* reports from DB17 and incorporate these planning database reports directly into the Technical Memorandum and other planning documents (labeled as such and with source reference).
7. Identify any physical constraints limiting these existing water supplies to WUGs and/or WWPs including based on TCEQ Water System Data Reports<sup>23</sup>. Limitations to be considered based on delivering treated water to WUGs. Other information that the RWPGs collect, for example, survey results, may be included in the evaluation of infrastructure capacity or limitations in delivering treated water to WUGs.
8. Update information on WWP contractual obligations and WUG ‘seller’ obligations to supply water to other entities including within DB17. Unless the RWPG considers it unlikely that a specific contract will be renewed, water supplies based on contractual agreements shall be assumed to renew at the contract termination date, for example, if the contract provides for renewal or extensions. Report this information within any planning memorandums or reports, as appropriate.
9. Based on the water availability, existing infrastructure, and associated physical and legal limitations, determines the existing system, reuse, and other water supplies available from each water source to each WUG and WWP (including newly identified WUGs and WWPs) during a drought of record based on source water availability, infrastructure capacity, legal constraints, and/or operational limitations.
10. Complete and update all required data elements for DB17 through the web interface.
11. Compile these supplies by source, water user group, wholesale water provider, county, river basin, and planning region as necessary to obtain decadal estimates of existing surface water supply throughout the planning period. This will be facilitated by *TWDB DB17 Water Source Availability* and associated *TWDB DB17 WUG and WWP Existing Water Supply* reports using data provided by RWPGs and made available to all RWPGs through the DB17 interface.

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<sup>23</sup> Available from TCEQ

12. Review, confirm the accuracy of, and incorporate the required associated planning database reports directly into the Technical Memorandum and IPP and adopted regional water plans under Task 4C (labeled as such and with source reference).
13. Technical Memo, IPP, and adopted RWP shall include a written summary of all WAM and GAM models on which the surface and groundwater availability in the RWP is based (except for availability associated with MAGs), to include:
  - the named/labeled version (incl. date) of each model used;
  - a summary of any modifications to each model and the date these modifications were approved by the EA;
  - name of the entity/firm that performed the model run; and
  - the dates of the model runs.<sup>24</sup>

Includes all work required to coordinate with other planning regions to develop and allocate estimates of water availability and existing water supplies.

#### **Task 4A – Identification of water needs (analysis to be performed by TWDB)<sup>25</sup>**

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**Work shall include but not be limited to the following:**

1. In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.33.<sup>26</sup>
2. Prepare a standalone chapter<sup>27</sup> to be included in the 2016 Regional Water Plan (RWP) that also incorporates all required DB17 reports into the document.
3. *Based upon updated projections of existing water supply and projected water demands under Tasks 2 and 3, and the associated data entered into DB17, TWDB will update computations of identified water needs (potential shortages) by:*
  - WUGs
  - WWP

*As decadal estimates of needs (potential shortages) as well as by, county, river basin, and planning region.*
4. *The results of this computation will be provided by TWDB via DB17 to RWPGs in a customizable format that is in accordance with TWDB rules as the TWDB DB17 Identified Water Needs report*
5. *Regions may also request additional, unique needs analysis (e.g., for a WWP) that the RWPG considers warranted. Such reports will be provided by TWDB, if feasible based on the DB17 constraints and TWDB resources. The RWPG will need to enter or provide any additional data into DB17, that may be necessary to develop these evaluations.*

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<sup>24</sup> All input files of WAM models shall be included as an electronic appendix in the IPP and RWP.

<sup>25</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>26</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>27</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

6. The DB17 needs reports shall be incorporated by the RWPG into the Technical Memorandum and IPP and adopted regional water plans (labeled as such and with source reference).
7. *Upon request, TWDB will perform a socioeconomic analysis of the economic effects of not meeting the identified water needs and update and summarize potential social and economic effects under this Task. This report will be provided to RWPGs as part of this Task and incorporated into the adopted regional water plans.*
8. If the RWPG chooses to develop its own socioeconomic analysis the resulting socioeconomic report shall be incorporated into the IPP and adopted regional water plan by the RWPG.

#### **Task 4B - Identification of Potentially Feasible Water Management Strategies<sup>28</sup>**

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.34(a)(b)(c).<sup>29</sup>
2. Receive public comment on a proposed process to be used by the RWPG to identify and select water management strategies for the 2016 regional water plan. Revise and update documentation of the process by which water management strategies that are potentially feasible for meeting a need were identified and selected for evaluation in the 2016 regional water plan. Include a description of the process selected by the RWPG in the Technical Memorandum and the IPP and adopted regional water plans.
3. Consider the TWDB Water Loss Audit Report and drought management when considering potentially feasible water management strategies as required by rules.
4. Update relevant portions of the regional water plan summary of existing water supply plans for local and regional entities. This Task requires obtaining and considering existing water supply plans. Updated summary to be included in the IPP and adopted regional water plans.
5. Plans to be considered in developing water management strategies include those referenced under 31 TAC §357.22.
6. If no potentially feasible strategy can be identified for a WUG or WWP, document the reason for this in the Technical Memorandum and the IPP and adopted regional water plans.
7. Consider recent studies and describe any significant changes in water management strategies described as being in the implementation phase in the 2011 RWP as well as any new projects in the implementation phase prior to adoption of the Initially Prepared 2016 Regional Water Plan.
8. Identify potential water management strategies to meet needs for all WUGs and WWPs with identified needs, including any new retail utility WUGs and WWPS that may have been

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<sup>28</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>29</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

previously aggregated under County-other in the 2011 regional water plan but which are being treated as unique entities for the 2016 regional water plan.

9. Present a list of the potentially feasible water management strategies, in table format, within the Technical Memorandum and the IPP and adopted regional water plans.

#### **Task 4C - Prepare and Submit Technical Memorandum<sup>30</sup>**

This Task includes, but is not limited to, performing all work in accordance with TWDB rules and guidance required to:

1. Prepare a concise Technical Memorandum that briefly summarizes the work completed under Tasks 2, 3, 4A, 4B, and 4C and the general findings. To be considered administratively complete, the Technical Memorandum submitted must include:
  - a) a summary of work completed that shall be no longer than 5 pages.
  - b) each of the DB17 reports described under Tasks 2, 3, 4A, and 4B and as required by the *First Amended General Guidelines for Regional Water Plan Development* within the body of the memorandum.<sup>31</sup>
2. Approve submittal of the Technical Memorandum to TWDB at a regular regional water planning group meeting. The Technical Memorandum must be submitted to TWDB in accordance with Section I Article I of the contract.

#### **Task 4D - Evaluation and Recommendation of Water Management Strategies (WMSs)**

The objective of this task is to evaluate and recommend water management strategies (WMS) including preparing a separate chapter<sup>32</sup> and subchapter (on conservation recommendations see - Task 5) to be included in the 2016 Regional Water Plan (RWP) that describes the work completed, presents the potentially feasible WMSs, recommended and alternative WMSs, including all the technical evaluations, and presents which water user entities will rely on the recommended WMSs.

**Work shall be contingent upon a written notice-to-proceed and shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.34 and §357.35 that is not already included under Task 4B or Task 5.<sup>33</sup>
- b) Plans to be considered in developing water management strategies include those referenced under 31 TAC §357.22.

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<sup>30</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>31</sup> Also per the *First Amended General Guidelines for Regional Water Plan Development* document.

<sup>32</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>33</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- c) Inclusion of a list of the potentially feasible water management strategies that were identified by the RWPG. Information to include what past evaluations have been performed for each potentially feasible water management strategy listed.
- d) Technical evaluations of all categories of potentially feasible WMSs including previously identified or recommended WMSs and newly identified WMSs including drought management and conservation WMSs; WMS documentation shall include a strategy description, discussion of associated facilities, project map, and technical evaluation addressing all considerations and factors required under 31 TAC §357.34(d)(e)(f) and §357.35.
- e) Process of selecting all recommended WMSs including development of WMS evaluations matrices and other tools required to assist the RWPG in comparing and selecting recommended WMSs.
- f) Consideration of water conservation and drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations.
- g) Communication, coordination, and facilitation required within the RWPA and with other RWPGs to develop recommendations.
- h) Updates to descriptions and associated technical analyses and documentation of any WMSs that are carried forward from the previous RWP to address:
  - Changed conditions or project configuration
  - Changes to sponsor of WMS
  - Updated costs (based on use of required costing tool<sup>34</sup>)
  - Other changes that must be addressed to meet requirements of 31 TAC §357.34 and §357.35.
- i) Assignment of all recommended strategy water supplies to meet projected needs of specific WUGs.
- j) Documentation of the evaluation and selection of all recommended water management strategies.
- k) Coordination with sponsoring water user groups, wholesale water providers, and/or other resource agencies regarding any changed conditions in terms of projected needs, strategy modifications, planned facilities, market costs of water supply, endangered or threatened species, etc.
- l) If applicable, determination of the “highest practicable level” of water conservation and efficiency achievable (as existing conservation or proposed within a water management strategy) for each WUG that relies on a WMS involving and interbasin transfer to which TWC 11.085 applies. Recommended conservation WMSs associated with this analysis shall be presented by WUG.
- m) Presentation of the water supply plans in the RWP for each WUG and WWP relying on the recommended WMSs.

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<sup>34</sup> See section 5.1.2.1 under ‘Financial Costs’ in *First Amended General Guidelines for Regional Water Plan Development*

- n) Consideration of alternative WMSs for inclusion in the plan. Alternative water management strategies must be fully evaluated in accordance with 31 TAC §357.34(d)(e)(f).
- o) Incorporation of all required DB17 reports into document.
- p) Submission of data through the Regional Water Planning Application (DB17) to include the following work:
  - review of the data,
  - confirmation that data is accurate,
  - incorporation of the required DB17 reports into the draft and final regional water planning chapter document
- q) Review of the chapter document and related information by RWPG members,
- r) Modifications to the chapter document based on RWPG, public, and or agency comments.
- s) Submittal of chapter document to TWDB for review and approval; and
- t) All effort required to obtain final approval of the regional water plan chapter and associated DB17 data by TWDB.
- u) *[SCOPE OF WORK TO BE DETERMINED]*

*Scope of Work to be amended based on specific Task 4D scope of work to be developed and negotiated with TWDB. Work under this Task to be performed only after approval and incorporation of Task 4D scope of work and written notice-to-proceed. NOTE: Work effort associated with preparing and submitting a proposed Task 4D scope of work for the purpose of obtaining a written 'notice-to-proceed' from TWDB is not included in Task 4D and shall not be reimbursed under the Contract.*

**Deliverables:** A completed Chapter 5 shall be delivered in the 2016 RWP as a work product to include technical analyses of all evaluated WMSs. Data shall be submitted and finalized through DB17 in accordance with the Guidelines for Regional Water Planning Data Deliverables.

### **Task 5 - Water Conservation Recommendations**

The objective of this task is to prepare a separate subchapter<sup>35</sup> of Chapter 5 to be included in the 2016 Regional Water Plan (RWP) that consolidates conservation-related recommendations and provide model water conservation plans.

**Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.34(g).<sup>36</sup>

<sup>35</sup> This shall be a separate subchapter as required by 31 TAC §357.34(g).

<sup>36</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- b) Consider water conservation plans from each WUG, as necessary, to inform conservation WMSs and other recommendations.
- c) If applicable, explanation of the RWPG's basis for not recommending conservation for WUGs that had identified water needs but did not have a recommended conservation WMS.
- d) If applicable, present what level of water conservation (as existing conservation or proposed within a water management strategy) is considered by the RWPG as the "highest practicable level" of water conservation for each WUG and/or WWP that are dependent upon water management strategies involving interbasin transfers to which TWC 11.085 applies.
- e) Provision of model water conservation plans that may be referenced, instead of included in hard copy, in this subchapter, for example, by using internet links.
- f) Review of the subchapter document and related information by RWPG members,
- g) Modifications to the subchapter document based on RWPG, public, and or agency comments.
- h) Submittal of subchapter document to TWDB for review and approval; and
- i) All effort required to obtain final approval of the regional water plan by TWDB.

**Deliverables:** A completed Subchapter of Chapter 5 shall be delivered in the 2016 RWP as a work product.

#### **Task 6 - Impacts of Regional Water Plan**

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The objective of this task is to prepare a separate chapter<sup>37</sup> to be included in the 2016 Regional Water Plan (RWP) that describes the potential impacts of the regional water plan and how the plan is consistent with long-term protection of water resources, agricultural resources, and natural resources.

**Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.40 and §357.41.<sup>38</sup>
- b) Evaluation of the estimated cumulative impacts of the regional water plan, for example on groundwater levels, spring discharges, bay and estuary inflows, and instream flows.
- c) Review of the chapter document by RWPG members.
- d) Modifications to the chapter document based on RWPG, public, and or agency comments.
- e) Submittal of chapter document to TWDB for review and approval; and

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<sup>37</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>38</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- f) All effort required to obtain final approval of the regional water plan chapter by TWDB.

**Deliverables:** A completed Chapter 6 shall be delivered in the 2016 RWP as a work product.

### **Task 7 – Drought Response Information, Activities and Recommendations**

The objective of this task is to prepare a separate chapter<sup>39</sup> to be included in the 2016 Regional Water Plan (RWP) that: presents information regarding historical droughts and on preparations for drought in the region; develops recommendations for triggers and responses to the onset of drought conditions; evaluates potential emergency responses to local drought conditions; and includes various other drought-related evaluations and recommendations.

#### **Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.42.<sup>40</sup>
- b) Plans to be considered in developing this chapter include relevant plans referenced under 31 TAC §357.22.
- c) Collecting information on previous and current responses to drought in the region including reviewing drought contingency plans received from each WUG and determining what measures are most commonly used and whether these measures have been recently implemented in response to drought conditions.
- d) Determining whether there is any reliable information on the reduction in demands on individual WUGs caused by their implementation of drought contingency measures.
- e) Process of selecting recommended triggers and actions including any tools required to assist the RWPG in comparing options and making recommendations.
- f) Consideration of drought contingency plans from each WUG, as necessary, to inform WMS evaluations and recommendations.
- g) Coordination and communication, as necessary, with entities in the region to gather information required to develop recommendations.
- h) Summarization of potentially feasible drought management WMS, recommended drought management WMS, and or alterative drought management WMSs, if any, associated with work performed under Task 4D.
- i) If applicable, explanation of the RWPG's basis for not recommending drought management strategies for WUGs that had identified water needs but did not have a recommended drought management WMS.

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<sup>39</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>40</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.



- j) Development by the RWPG of region-specific model drought contingency plans consistent with TCEQ requirements that, at a minimum, identify triggers for and responses to the most severe drought response stages commonly referred as 'severe', 'critical' and 'emergency' drought conditions.
- k) Summary of any other drought management measures recommended by the RWPG.
- l) Preparation of tabular data for inclusion in chapter.
- m) Review of the chapter document and related information by RWPG members.
- n) Modifications to the chapter document based on RWPG, public, and or agency comments.
- o) Submittal of chapter document to TWDB for review and approval; and
- p) All effort required to obtain final approval of the regional water plan chapter and associated data by TWDB.

**Deliverables:** A completed Chapter 7 shall be delivered in the 2016 RWP as a work product. Data shall be submitted in the form of tables included in the chapter.

#### **Task 8 - Recommendations Regarding Unique Stream Segments and/or Reservoir Sites and Legislative & Regional Policy Issues**

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The objective of this task is to prepare a separate chapter<sup>41</sup> to be included in the 2016 Regional Water Plan (RWP) that presents the RWPG's unique stream segment, unique reservoir site, legislative, administrative, and regulatory recommendations.

**Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.43 and §358.2.<sup>42</sup>
- b) Plans to be considered in developing this chapter include relevant plans referenced under 31 TAC §357.22.
- c) RWPG consideration and discussion of potential recommendations for designation of ecologically unique stream segments within the Regional Water Planning Area (RWPA), based on criteria in 31 TAC §358.2.
- d) If applicable, prepare a draft memorandum recommending which stream segments in the region, if any, should be recommended for designation as ecologically unique stream segments. Evaluate and incorporate comments from the regional water planning group. Upon approval by the group, submit the draft memorandum to TWDB and TPWD for comments.

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<sup>41</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>42</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- e) RWPG consideration and discussion of potential recommendations for designation of unique reservoir sites within the RWPA.
- f) If applicable, prepare a draft memorandum recommending designation of unique sites for reservoir development. Evaluate and incorporate comments from the regional water planning group. Upon approval by the group, submit the draft memorandum to TWDB for comments.
- g) RWPG consideration and discussion of potential regional policy issues; identification and articulation of recommendations for legislative, administrative, and regulatory rule changes; and negotiations toward RWPG consensus.
- h) Review of the chapter document and related information by RWPG members.
- i) Modifications to the chapter document based on RWPG, public, and or agency comments.
- j) Submittal of chapter document to TWDB for review and approval; and
- k) All effort required to obtain final approval of the regional water plan chapter by TWDB.

**Deliverables:** A completed Chapter 8 shall be delivered in the 2016 RWP as a work product.

#### **Task 9 - Report to Legislature on Water Infrastructure Funding Recommendations**

The objective of this task is to evaluate and recommend water management strategies (WMS) including preparing a separate chapter<sup>43</sup> to be included in the 2016 Regional Water Plan (RWP) that reports on how sponsors of recommended WMSs propose to finance projects.

#### **Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.44.<sup>44</sup>
- b) Coordination and communication with sponsoring water user groups, wholesale water providers, and/or other water agencies.
- c) Perform a survey, including the following work:
  - a. Contacting WMS project sponsors/WUGs
  - b. Collection and collation of data
  - c. Documentation of the effectiveness of survey methodology, providing percent survey completions, and whether an acceptable minimum percent survey completion was achieved.
  - d. Submission of data into the online survey tool
- d) Coordination with WUGs and WWP as necessary to ensure detailed needs and costs associated with their anticipated projects are sufficiently represented in the RWP for future funding determinations.

<sup>43</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>44</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- e) Assisting the RWPG with the development of recommendations regarding the proposed role of the State in financing water infrastructure projects identified in the RWP.
- f) Summarizing the survey results.
- g) Review chapter document and related information by RWPG members.
- h) Submittal of chapter document to TWDB for review and approval; and
- i) All effort required to obtain final approval of the regional water plan chapter and associated DB17 data by TWDB.

**Deliverables:** A completed Chapter 9 shall be delivered in the 2016 RWP as a work product to include summary of reported financing approaches for all recommended WMSs. Data shall be submitted and finalized through the online survey tool in accordance with the *Guidelines for Regional Water Planning Data Deliverables*.

### **Task 10 Public Participation and Plan Adoption<sup>45</sup>**

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The objective of this task is to address public participation, public meetings, eligible administrative and technical support activities, and other requirements and activities eligible for reimbursement and necessary to complete and submit an Initially Prepared Plan (IPP) and final RWP and obtain TWDB approval of the RWP.

#### **Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable statute requirements governing regional and state water planning this portion of work shall, in particular, include all technical and administrative support activities necessary to meet all the requirements of 31 TAC Chapters 355, 357, and 358 that are not already addressed under the scope of work associated with other contract Tasks but that are necessary and or required to complete and deliver an IPP and final, adopted RWP to TWDB and obtain approval of the adopted RWP by TWDB.<sup>46</sup>
- b) Organization, support, facilitation, and documentation of all meetings/hearings associated with: preplanning meeting; meetings associated with revision of projections; consideration of a substitution of alternative water management strategies; public hearing after adoption of the initially prepared plan (IPP) and prior to adoption of the final RWP; and consideration of a Minor Regional Water Plan Amendments.

#### **Technical Support and Administrative Activities**

- c) Attendance and participation of technical consultants at RWPG, subgroup, subcommittees, special and or other meetings and hearings including preparation and follow-up activities.

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<sup>45</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

<sup>46</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- d) Developing technical and other presentations and handout materials for regular and special meetings to provide technical and explanatory data to the RWPG and its subcommittees, including follow-up activities.
- e) Collecting and evaluating information, including any information gathering surveys from water suppliers or WUGs, (e.g., on existing infrastructure; existing water supplies; potentially feasible WMSs) and or maintenance of contact lists for regional planning information in the region.
- f) Administrative and technical support and participation in RWPG activities, and documentation of any RWPG workshops, work groups, subgroup and/or subcommittee activities.
- g) Technical support and administrative activities associated with periodic and special meetings of the RWPG including developing agendas and coordinating activities for the RWPG.
- h) Provision of status reports to TWDB for work performed under this Contract.
- i) Development of draft and final responses for RWPG approval to public questions or comments as well as approval of the final responses to comments on RWP documents.
- j) Intraregional and interregional coordination and communication, and or facilitation required within the RWPA and with other RWPGs to develop a RWP including with water suppliers or other relevant entities such as groundwater conservation districts, WUGs, and or WWPs.
- k) Incorporation of all required DB17 reports into RWP document.
- l) Modifications to the RWP documents based on RWPG, public, and or agency comments.
- m) Preparation of a RWP chapter summarizing Task 10 activities including review by RWPG and modification of document as necessary.
- n) Development and inclusion of Executive Summaries in both IPP and final RWP.
- o) Production, distribution, and submittal of all draft and final RWP-related planning documents for RWPG, public and agency review, including in hard-copy format when required.
- p) Assembling, compiling, and production of the completed IPP and Final Regional Water Plan document(s) that meet all requirements of statute, 31 TAC Chapters 355, 357 and 358, Contract and associated guidance documents.
- q) Submittal of the RWP documents in both hard copy and electronic formats to TWDB for review and approval; and all effort required to obtain final approval of the RWP by TWDB.

#### **Other Activities**

- r) Review of all RWP-related documents by RWPG members.
- s) Limited non-labor, direct costs associated with maintenance of the RWPG website.
- t) Development of agendas, presentations, and handout materials for the public meetings and hearings to provide to the general public.

- u) Documentation of meetings and hearings to include recorded minutes and or audio recordings as required by the RWPG bylaws and archiving and provision of minutes to public.
- v) Preparation and transmission of correspondence, for example, directly related to public comments on RWP documents.
- w) Promoting consensus decisions through conflict resolution efforts including monitoring and facilitation required to resolve issues between and among RWPG members and stakeholders in the event that issues arise during the process of developing the RWP, including mediation between RWPG members, if necessary.
- x) RWPG membership solicitation activities.
- y) Meeting all posting, meeting, hearing and other public notice requirements in accordance with the open meetings act, statute, and 31 TAC §357.21 and 31 TAC Chapter 355 and any other applicable public notice requirements.
- z) Solicitation, review, and dissemination of public input, as necessary.

**Deliverables:** Complete IPP and final, adopted RWP documents shall be delivered as work products. This includes a completed Chapter 10 summarizing public participation activities and appendices with public comments and RWPG responses to comments.

### **Task 11 – Implementation and Comparison to the Previous Regional Water Plan**

The objective of this task is to evaluate and recommend water management strategies (WMS) including preparing a separate chapter<sup>47</sup> to be included in the 2016 Regional Water Plan (RWP) that reports on the degree of implementation of WMs from the previous RWP and summarizes how the new RWP compares to the previous RWP.

#### **Work shall include but not be limited to the following:**

- a) In addition to generally meeting all applicable rules and statute requirements governing regional and state water planning under 31 TAC Chapters 357 and 358, this portion of work shall, in particular, include all work necessary to meet all the requirements of 31 TAC §357.45.<sup>48</sup>
- b) Implementation (31 TAC §357.45(a)):
  - I. Coordination and communication with RWPG representatives and sponsors of WMSs, including WUGs and WWP
  - II. Documentation of the level of implementation of each WMS that was recommend in the previous regional water plan
  - III. Submission of implementation results data in the online survey tool and in spreadsheet format
  - IV. To the extent feasible, identify other projects implemented by these entities that are not included in the previous RWP

<sup>47</sup> This shall be a separate chapter as required by 31 TAC §357.22(b).

<sup>48</sup> Requirements are further explained in the guidance document *First Amended General Guidelines for Regional Water Plan Development*.

- c) Comparison to the Previous Regional Water Plan (31 TAC §357.45(b)):
  - I. Compare the RWP to the previous RWP by chapter in the new RWP
  - II. Summarize differences quantitatively and qualitatively
  - III. Present information in graphical, tabular, and written format
- d) Review of the chapter document and related information by RWPG members.
- e) Modifications to the chapter document based on RWPG, public, and or agency comments.
- f) Submittal of chapter document to TWDB for review and approval; and
- g) All effort required to obtain final approval of the regional water plan chapter and associated DB17 data by TWDB.

**Deliverables:** A completed Chapter 11 shall be delivered in the 2016 RWP as a work product. Survey data shall be submitted and finalized through the online survey tool in accordance with the Guidelines for Regional Water Planning Data Deliverables.