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**LLANO ESTACADO REGIONAL WATER PLANNING GROUP**

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2015 APR 13 PM 10:51  
Lubbock TX 79411-2499

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COUNTY CLERK LUBBOCK COUNTY, TEXAS

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**PUBLIC MEETING NOTICE**

The Llano Estacado Regional Water Planning Group (LERWPG) will meet at **10:00 a.m., Wednesday, April 15, 2015** in the A. Wayne Wyatt Board Room at the High Plains Underground Water Conservation District No. 1 office, 2930 Avenue Q, Lubbock, Texas 79411-2499.

**AGENDA**

1. Call to Order and Welcome by Chairman H.P. Brown Jr.
2. Roll Call of members to establish quorum.

**ACTION ITEMS:**

3. Discuss and take possible action to approve the minutes of the March 26, 2015 regular meeting. (*H. P. Brown Jr.*)
4. Discuss and take possible action to approve the financial report (*Doug Hutcheson*).
5. Discuss and take possible action to approve the following draft chapters of the Initially Prepared 2016 Llano Estacado Regional Water Management Plan. (*Amy Ewing*)
  - Executive Summary
  - Chapter 5: Water Management Strategies
6. Discuss and take possible action to adopt the Initially Prepared Plan and authorize the LERWPG political subdivision to submit the IPP to the TWDB by the May 1, 2015 deadline. (*Amy Ewing/Sarah Backhouse*)
7. Discuss and take possible action to authorize the LERWPG political subdivision to provide public notice and to hold a public hearing on the Initially Prepared Plan. (*Sarah Backhouse*)

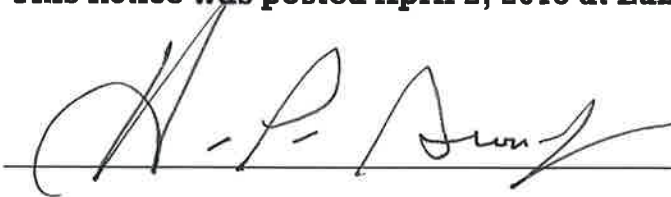
**COMMITTEE REPORTS AND OTHER INFORMATION:**

8. Receive a report from the TWDB Project Manager. (*Sarah Backhouse*)
9. Receive a report from the Region O Technical Consultant (*Andy Donnelly/Amy Ewing*).
10. Receive a report from the Region O Administrator (*Jason Coleman*).
11. Receive a report from Groundwater Management Area representatives:  
  
    GMA # 2   Ronnie Hopper  
    GMA # 6   Jack Campsey
12. Receive reports from liaisons to other regional water planning groups:  
  
    Region A   Kent Satterwhite  
    Region B   Jack Campsey  
    Region F   Harvey Everheart  
    Region G   Michael McClendon
13. Receive public input and comments.
14. Consider a date and agenda items for the next regular meeting.
15. Consider other business and announcements.
16. Adjourn.

**PUBLIC NOTICE**

This notice complies with Texas Government Code Chapter 551, Open Meetings Act, Section 551.041 (Notice of Meeting Requirements); Section 551.043 (Time and Accessibility of Notice Requirements); and Section 551.053 (Notice Requirements of a Political Subdivision Extending Into Four or More Counties). The notice has been filed at least 72 hours before the scheduled time of the meeting with the Office of the Texas Secretary of State, the Lubbock County Clerk's Office, and has been posted at the administrative office of the High Plains Underground Water Conservation District No. 1, 2930 Avenue Q, Lubbock, TX 79411-2499. This agenda and notice have also been posted on the Llano Estacado Regional Water Planning Group's web site at [www.llanoplan.org](http://www.llanoplan.org).

**This notice was posted April 2, 2015 at Lubbock TX.**

A handwritten signature in black ink, appearing to read "H.P. Brown Jr.", is written over a horizontal line.

**H.P. Brown Jr., Chairman**  
**Llano Estacado Regional Water Planning Group**

**NOTE:** **Agenda items may be considered, deliberated, and/or acted upon in a different order than set forth.** Additional information about this meeting is available by contacting the High Plains Underground Water Conservation District No. 1 at **(806) 762-0181**.

# Llano Estacado Regional Water Planning Group Meeting

March 26, 2015

10:00 a.m.

High Plains Underground Water Conservation District No. 1 Office  
2930 Avenue Q, Lubbock TX

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## 1. Call To Order and Welcome.

Chairman H. P. Brown Jr. called the meeting to order at 10:07 a.m. in the A. Wayne Wyatt Board Room of the High Plains Underground Water Conservation District No. 1 office, 2930 Avenue Q, in Lubbock, Texas.

Notice of the meeting was provided to each voting/non-voting member/interested parties and was also filed/posted in accordance with the Texas Open Meetings Act at the following locations: *Office of Texas Secretary of State, Office of Lubbock County Clerk, Lubbock County Courthouse, Administrative Offices of the High Plains Underground Water Conservation District No. 1, the High Plains Water District web site at [www.hpwd.com](http://www.hpwd.com) and the regional water planning group web site at [www.llanoplan.org](http://www.llanoplan.org).*

## 2. Roll Call of Members and Establish Quorum.

### **The following Llano Estacado Water Planning Group members were in attendance:**

Dr. Melanie Barnes; H.P. Brown Jr.; Jack Campsey; Jason Coleman; Harvey Everheart; Ronnie Hopper; Doug Hutcheson; Mayor Bob Josserand; Mark Kirkpatrick; Don McElroy; Charlie Morris; Dr. Ken Rainwater; Kent Satterwhite; Aubrey Spear; Jim Steiert; and John Taylor.

There was a quorum of Llano Estacado Regional Water Planning Group members in attendance (*16 of 22 voting members or 73% attendance*).

**Voting members unable to attend (excused absences):** Bruce Blalack; Delmon Ellison Jr.; Richard Gillespie; Bill Harbin; Michael McClendon; and Jimmy Wedel.

**Voting members unable to attend (unexcused absences):** None.

**Non-voting members in attendance:** Non-voting members in attendance were Sarah Backhouse, Texas Water Development Board; John Clayton, Texas Parks and Wildlife Department; Amy Ewing, Daniel B. Stephens and Associates; Jay Keith, Texas Commission on Environmental Quality; and Matt Williams, Texas Department of Agriculture.

**Non-voting members unable to attend (excused absences):** None.

**Others in attendance:** The following names were obtained from a sign-in sheet at today's meeting: J. Collier Adams, Jr.; Lori Barnes, Llano Estacado UWCD; Neil Blandford, Daniel B. Stephens & Associates; Amber Blount, Sandy Land UWCD; David Harkins; Lindy Harris, South Plains UWCD; Malcolm Laing, City of Lubbock; Paula Jo Lemonds, HDR Engineering; Juan I. Moreno, Isolux Corsán; Josie Musico, *Lubbock Avalanche-Journal*; and Beth Salvas, Daniel B. Stephens & Associates.

Carmon McCain of the High Plains Water District staff served as recording secretary for the meeting. Elaine Fowler with Cathy Sosebee and Associates transcribed the meeting.

**3. Introductions.** No introductions were made.

### **ACTION ITEMS:**

**4. Discuss and take possible action to approve the minutes of the January 27, 2015 regular meeting.**

Draft minutes of the January 27, 2015 regular meeting were provided to the members prior to today's meeting. There being no addition or correction, a motion was made by Mr. Coleman and seconded by Mr. Kirkpatrick to approve the minutes as printed. All members voted "aye" and the motion was unanimously approved.

**5. Discuss and take possible action to approve the financial report.**

A financial report was provided to the members prior to today's meeting. Secretary-Treasurer Hutcheson reported a February 2015 bank balance of \$4,462.27. A motion to accept the financial report as presented was made by Mr. Taylor and seconded by Mr. Satterwhite. All members voted "aye" and the financial report was unanimously approved as presented.

**6. Discuss and take possible action to approve each draft chapter of the Initially Prepared 2016 Llano Estacado Regional Water Management Plan.**

Chairman Brown called on Ms. Ewing and Ms. Salvas to discuss draft chapters 1-4 and 6-11 of the 2016 Initially Prepared LERWPG Plan (IPP). She reminded the members that the draft IPP is due to the TWDB on May 1. Any needed revisions should be provided to Ms. Ewing in the next few weeks in order to meet the deadline.

**Chapter 1 of the IPP** is a description of the regional water planning area. It also includes sections discussing state water planning; population; economic activity; current water use; current water supplies and water quality; wholesale water providers; agricultural and natural resources; threats to water supply, agriculture, and natural resources; existing local and regional water plans; drought; and water loss audits.

Chairman Brown requested feral hogs and bob white quail to be added to Table 1-22, "Common Flora and Fauna of the High and Rolling Plains."

Mr. Steiert asked about the deadline for additional modifications to the document. Ms. Ewing said any modifications would be needed as soon as possible in order to make the revisions and prepare needed copies prior to the May 1 deadline to submit the IPP to the TWDB.

Chairman Brown thanked Mr. Steiert for his previous work, "Springs and Seeps of the Llano Estacado Region," which appeared as Appendix B in the 2011 regional water plan. Mr. Steiert will update this material for use as Appendix 1A in the 2016 plan. He said he wants to update this to show what can be done if the region receives adequate rainfall.

There were no other additions, revisions, or questions.

**Chapter 2 of the IPP** contains population and water demand projections. The population projections are shown for county levels, water user groups, and river basins. The water demand projections are for municipal, industrial (*manufacturing, steam-electric, and mining*), irrigation, livestock, and wholesale water providers.

This chapter includes some minor updates to the draft document presented to the group in September 2014. The section pertaining to wholesale water provider demand projections was added.

Mr. Steiert asked if wildlife water needs should be included in livestock water needs. Ms. Salvas said DBS&A can add this information.

There were no other additions, revisions, or questions.

**Chapter 3 of the IPP** discusses water availability and existing water supplies. The chapter presented today was revised from the November 2014 draft for improved readability with no substantive changes. There was some updated information relating to import and export of existing water supplies.

The municipal water demand projection for Lubbock was increased based upon the city's 2013 strategic plan.

Information was added up front regarding groundwater conservation districts, GMA areas, and groundwater availability.

It was noted that White River Lake was not used as a water supply source recently—due to drought. The reservoir was non-existent during the “Drought of Record” of the 1950s. White River Lake was completed in 1963 to serve Crosbyton, Post, Ralls, and Spur. It opened to the public in 1965. White River was at zero percent of capacity a year ago. Therefore, it is not considered to be as a reliable water supply for the region. Water provided by White River Municipal Water District comes from its well fields at present.

Ms. Salvas noted that the “Drought of Record in the 1950s” is still a benchmark—but this chapter details how intense the most recent drought was.

There were no additions, revisions, or questions.

**Chapter 4 of the IPP** reviews water needs in the region.

The water needs in the region are listed by respective water user groups. The majority of the water needs (*90 percent or more*) is associated with agricultural production. Ms. Ewing said there will be a placeholder in the document for any of the 2017 Regional Water Planning Application (BD-17) information that is not yet available.

Dr. Rainwater offered a correction to the way an equation is presented on Page 41. The slash mark might be construed as “divide” to some. It is important to be careful about terminology as it may mean different things to different sectors of the public.

There were no other additions, revisions, or questions.

**Chapter 5 of the IPP** is not available for review at today’s meeting. However, Ms. Ewing did share its Table of Contents with the LERWPG members.

Ms. Ewing also discussed the individual county summaries which were e-mailed to members in advance of today’s meeting. Information pertaining to location, square miles, river basin, reservoirs, aquifers, groundwater conservation districts, projected population, and respective county seat are provided for each of the 21 counties in the region.

Mayor Josserand was examining the Deaf Smith County summary. He asked how critical it was to show the current water sources in the county. For example, Deaf Smith County uses groundwater from the Dockum Aquifer for irrigation and livestock. This is not shown in the chapter summary. He said there are some feed yards in the county that no longer use groundwater stored in the Ogallala—but rather groundwater in the Dockum.

Ms. Salvas said DBS&A would revisit these data.

Vice-Chairman Spear said the Ogallala and Edwards Trinity aquifers are mentioned in the Lubbock County summary—but the Dockum is not. He said it is available for use. DBS&A will add the Dockum aquifer to the applicable County summaries.

Chairman Brown asked Mr. McElroy if he had any comments regarding the Bailey County summary. Mr. McElroy did not.

Vice-Chairman Spear asked if the updated groundwater availability models (GAMs) would be available for use during this planning cycle. They are not.

**Chapter 6 of the IPP** outlines the impacts of the regional water plan. Ms. Ewing discussed the impacts of water management strategies on water quality as well as the impact of moving water from agricultural and rural areas.

Chapter 6.1 discusses potential impacts of water management strategies on key water quality parameters. There is little to no impact.

Chapter 6.2 highlights the impacts of moving water from agricultural and rural areas of the region.

Chapter 6.3 discusses the protection of area reservoirs, surface water features, playa lakes, groundwater resources, springs, soil, and minerals, such as oil and gas, through the regional water planning process.

Chapter 6.4 is a placeholder for the socioeconomic impact analysis that Region O requested from the TWDB on February 26, 2015.

Chairman Brown said Table 6.3 discussed mercury levels in fish at Lake Alan Henry. He invited Mr. Clayton to comment.

Mr. Clayton said the West Texas area tends to have higher levels of mercury than others—and the reason is unknown. It could be due to the amount of gypsum in the soil. The larger the fish, the more mercury it may have ingested over time. He noted that the fish can be consumed, but it is wise to limit servings to about eight ounces per week.

Vice-Chairman Spear noted that the mercury contamination is not in the lake water itself—but rather in the soil.

Mr. Clayton agreed. It is coming from the bioplankton that are consumed by the larval fish. The larger the fish, the more it has consumed during its lifetime. The health benefits of eating the fish far outweigh the risks posed by the mercury.



There were no other additions, revisions, or questions.

**Chapter 7 of the IPP** discusses drought response information, activities, and recommendations.

Chapter 7.1 outlines the drought contingency plans that TCEQ requires of all irrigation districts as well as wholesale/retail public water suppliers with 3,300 connections or more. The current plans were submitted in 2014 and are required to be updated every five years. It also provides a summary of drought contingency plan triggers for mild, moderate, severe, critical, and emergency conditions.

Chapter 7.2 discusses the drought(s) of record. Ms. Salvas said she added sources to the Palmer Drought Severity Index figures.

Chapter 7.3 outlines the existing and potential emergency infrastructure connections within the region. A general summary of the existing connections is provided in this chapter. However, in accordance with 31 TAC § 357.42(d), information on the potential emergency connections was compiled and provided to the TWDB Executive Administrator separately from the regional water plan document.

Chapter 7.4 discusses the various drought trigger conditions for both surface water and groundwater supplies.

Chapter 7.5 reviews emergency responses to local drought conditions or loss of municipal water supply. There are no changes.

Chapter 7.6 discusses the Drought Preparedness Council established in 1999 as a result of HB 2660.

One of the appendices for the plan will contain two model drought contingency plans as presented at an earlier Region O meeting.

Chairman Brown asked if the two drought contingency model plans are acceptable to the TCEQ. Mr. Keith said he has not received the revised plans for review. Ms. Ewing said she would email the files to Mr. Keith. She said the draft documents are based upon templates found on the TCEQ website.

Vice-Chairman Spear said the according to Lubbock's most current information, the current drought on the Lake Alan Henry watershed exceeds that of the 1950s. He was wondering if the current drought information contained in the Plan is based upon a meteorological drought, a hydrological drought, or other. He also wondered if this was used for the region, watersheds, or specific lakes.

Ms. Salvas said it is hoped that the current drought will end soon so that the model can be updated. This should be taken care of in the next planning cycle.

Mr. Morris said White River Lake is currently at 3.5 percent of capacity, which is better than the zero percent recorded last year. Cities are able to use water from the lake at this time. They had to rely solely on groundwater last year.

Vice-Chairman Spear noted the Texas Tech University research regarding temperature change during the past 40 years. The information seems a bit inconclusive. He asked if this was needed in the plan.

Ms. Salvas said she didn't believe the information was required. She opted to incorporate it since it was available—and the two stations (Lubbock and Lynn Counties) were within Region O, it would be of interest to others.

Dr. Barnes provided a brief bit of background on the information. She said the research predicts that it may be drier in the future in the region.

Dr. Rainwater said it would be best if the individual authors' names were referenced—rather than Texas Tech University. These faculty members conducted this research for another purpose.

Ms. Ewing said text would be added to clarify the purpose of the discussion. It would reflect that climate change research is underway and that additional weather stations might be helpful for such purpose.

Mr. McElroy noted a reference to American Cotton Growers in 7.4. The denim plant closed in January 2015—and no longer has the water needs associated with it in the past.

Ms. Backhouse noted that the TWDB is looking for local information from the planning groups. They do have the guidance to encourage the RWPGs to submit information if there is a potential new drought of record occurring in the region. TWDB welcomes data from more current studies pertaining to Lake Alan Henry or other reservoirs.

There were no other additions, revisions, or questions.

**Chapter 8 of the IPP** is an overview of unique reservoir segments, reservoir sites, and other related recommendations. Much of the discussion at the previous meeting centered on the updating of Chapter 8.3,

Chapter 8.1 reviews unique stream segments in the region. None were designated.

Chapter 8.2 examines unique reservoir sites. Post Reservoir was designated as such in 2001 with passage of HB 3096.

Chairman Brown acknowledged Mr. Clayton as one of the references included in this chapter of the regional water management plan. He asked Mr. Clayton if he believed the proposed Post Reservoir could be constructed.

Mr. Clayton said he is unsure. There are several issues relating to the Federal Government and the Endangered Species Act. There is some question as to whether or not the Post Reservoir could be completed before the sharpnose and smalleye shiners become extinct. They were listed as endangered species by the U.S. Fish and Wildlife Service on August 4, 2014.

Mr. Steiert reminded the group that Joan Glass of the TPWD had an open and frank discussion about the unique stream segment designation a couple of planning cycles ago. She said there was no advantage to such a designation.

Chapter 8.3 includes several recommendations for the TWDB's consideration. These include appreciation for state funding for project implementation (SWIFT loan program); support of the Rule of Capture; acknowledgement of the importance of agriculture to the region and state; concern about ways to realistically address agricultural water supply problems; playa best management practices; control of invasive species (*invasive aquatic vegetation, salt cedar, etc.*) and protection of springs and seeps.

Dr. Rainwater offered a correction on Page 87. The document discusses control of the invasive species, including plants and animals. The next sentence reads... "Support controlling aquatic vegetation as a water conservation practice." The word "invasive" should be added.

Chairman Brown asked if there was a spray to kill juniper cedar, which is quickly spreading off the Caprock Escarpment. Mr. Morris said he was not aware of a cost-effective spray.

There was discussion regarding the regional water planning group's involvement in developing the water supply and demand projections. Mayor Josserand said the statement should be strengthened whenever/wherever possible. Ms. Salvas said she would give examples of areas where it is believed that population estimates are overestimated.

Vice-Chairman Spear said the region often has much better grasp on population and demand projections than the TWDB. The planning group should be able to incorporate these projections, assumptions, and data or modify the existing TWDB data to match conditions in the region. Ms. Salvas said these sentiments would be incorporated into the draft plan.

Ms. Ewing encouraged the members to review this section and provide additional comments to her, if needed.

**Chapter 9 of the IPP** will discuss how local governments, regional authorities, and other political subdivisions will finance the implementation of water management strategies, based on an online survey that will be administered by the TWDB. It is a placeholder at present. This information will be added after the draft IPP is submitted to the TWDB on May 1.

**Chapter 10 of the IPP** documents the public participation in the regional water planning process. This section discusses information provided on the LERWPG web site ([www.llanoplan.org](http://www.llanoplan.org)), an overview of the regional water planning group members and the water users they represent, collection of data pertaining to water supply and water conservation, and coordination with other regional water planning groups. Ms. Ewing noted that the TWDB has asked that they be alerted to any potential interregional conflicts. While this is the case in other regions, Region O does not have any conflicts with adjoining regions at this time.

Chapters 10.5, 10.6, and 10.7 will be completed as part of the final adopted 2016 regional water plan.

Vice-Chairman Spear asked Ms. Backhouse to discuss the public comment process that will take place when the draft IPP is submitted to the TWDB.

Copies of the IPP will be distributed to Courthouses and Libraries in each county of the region.

Ms. Backhouse said the LERWPG is required to hold a public hearing on the IPP after it is submitted to the TWDB in May. There are quite a few public notices that must be sent out/published when the IPPs are delivered to the courthouses/libraries in the region. Comments can be accepted during the 30-day period. Then, comments will be accepted 60 days following the hearing.

Mayor Josserand noted that state statute requires the regional water planning group to conduct only one public hearing on the initially-prepared plan. However, additional hearings could be conducted, if the members so desire. Ms. Backhouse agreed.

There were no other additions, revisions, or questions.

**Chapter 11 of the IPP** compares implementation of the 2016 regional water plan to the previous 2011 plan.

There were no additions, revisions, or questions.

Chairman Brown thanked Ms. Ewing and Ms. Salvas for their presentation. He then asked the group if they wanted to approve the draft chapters with the previously discussed additions and revisions.

Vice-Chairman Spear noted that the regional water plan is still in draft form. The LERWPG will meet in April to consider approval of the Executive Summary and Chapter 5--Water Management Strategies. There will be opportunities for revisions between the end of the public comment period and submission of the final plan to the TWDB on or before December 1, 2015.

Mr. Everheart made a motion to approve draft Chapters 1-4 and 6-11 as presented and/or amended at today's meeting. Mr. Hopper seconded the motion. All members voted "aye," and the motion was unanimously approved.

The amended chapters will be posted to the Llano Estacado Regional Water Planning Group website ([www.llanoplan.org](http://www.llanoplan.org)). Ms. Ewing said Daniel B. Stephens and Associates (*DBS&A*) will provide 12 printed copies to the TWDB and two printed copies for distribution in each county of the Region O water planning area. Unless they contact Ms. Ewing to request a hardcopy, members will access the draft chapters on the LERWPG website. Members who want printed copies should contact her as soon as possible.

### **MEETING RECESSED FOR LUNCH:**

Chairman Brown called a recess at 11:38 a.m. for lunch. Mr. Keith left the meeting at this time.

### **MEETING RECONVENED:**

Chairman Brown reconvened the meeting at 12:26 p.m.

### **7. Discuss and take possible action to approve the summaries for each of the 21 counties included in the Initially Prepared Plan.**

No action was taken on this agenda item as this was included in discussion under Agenda Item 6.

### **8. Hear and discuss a report from the subcommittee on funding administration of the Llano Estacado Regional Water Planning Group.**

Chairman Brown called on Mr. Satterwhite, who chairs the funding source committee.

The committee is exploring funding options so that the South Plains Association of Governments (SPAG) can replace HPWD as the political subdivision administering the LERWPG. SPAG is willing to serve in this capacity—as long as it can receive guaranteed funding of about \$52,000 per year. They will probably need to hire an additional staff member to handle administrative duties.

Mr. Satterwhite discussed the Region O funding source recommendation document provided to members in advance of today's meeting. This document has only been circulated among the committee members and LERWPG membership. He asked the group to review the document and provide comments/recommendations as soon as possible.

The proposed solicitation involves funding from groundwater conservation districts, municipalities, surface and wholesale water providers, counties in the region, and other solicited companies and water supply systems.

Mr. Coleman had a March meeting with Elena Quintanilla of SPAG to share information about a political subdivision's role in the regional water planning process.

The SPAG membership is meeting sometime in April to discuss this matter. Mr. Coleman said this will give a better plan of action for Region O to solicit funds from entities in order to accomplish the goal of transferring administrative responsibilities.

Mr. Satterwhite said it is important to keep budget cycles in mind. Region O should begin the solicitation process as soon as possible in April.

Chairman Brown said he had visited with Chancellor Robert Duncan regarding Texas Tech University as a possible source for funding. Chairman Brown may visit with Rick Kellison, director of the Texas Alliance for Water Conservation (TAWC) as a result.

Mr. Everheart asked who would solicit these funds on behalf of Region O. Mr. Coleman said he hoped to have a better answer following SPAG's April meeting. There will need to be an education process so that everyone is aware of the regional water planning process and what the billing statement represents.

No action was taken on this agenda item. The committee will hold recommendations until it hears from SPAG in April. It is hoped that the SPAG meeting will take place prior to the April LERWPG meeting.

Chairman Brown commended Mr. Satterwhite, Ms. Barnes, Mr. Coleman, Mr. Everheart, Ms. Harris, Mr. Hopper, Mr. Morris, Vice-Chairman Spear, and Mr. Steiert for their work. Mr. Morris said he was unable to participate in the committee meetings—but also thanked the group for all their work.

**9. Discuss and take possible action to adopt the LERWPG Initially Prepared Plan and authorize the LERWPG political subdivision to submit the IPP to the TWDB by the May 1, 2015 deadline.**

No action was taken on this agenda item as it was previously discussed during today's meeting.

**10. Discuss and take possible action to authorize the LERWPG political subdivision to provide public notice and to hold a public hearing on the Initially Prepared Plan.**

No action was taken on this agenda item. It will be addressed at the April meeting.

**11. Discuss and take possible action to authorize the LERWPG political subdivision to execute a contract on behalf of the LERWPG for the fifth cycle of regional water planning (2016-2021).**

Ms. Backhouse said authorization is needed as the contracts for the fifth cycle of regional water planning are expected to be sent out in May. It is important to execute the contract so that the regional water planning efforts for the fifth cycle are funded by the state. The group does not need to lose the \$84,000 to fund the next planning cycle. HPWD has agreed to continue as the administrator for Region O until a new political subdivision is found. The transfer of responsibilities can be accomplished with a contract amendment.

After brief discussion, a motion was made by Mr. Satterwhite to authorize the High Plains Underground Water Conservation District (LERWPG political subdivision) to execute a contract on behalf of the LERWPG for the fifth cycle of regional water planning (2016-2021). Mr. Josserand seconded the motion. All members voted "aye," and the motion was unanimously approved.

**COMMITTEE REPORTS AND OTHER INFORMATION:**

**12. The LERWPG will hear a presentation on Zebra Mussels and other invasive aquatic species by John Clayton of the Texas Parks and Wildlife Department.**

Chairman Brown called on Mr. Clayton to give a PowerPoint presentation regarding aquatic invasive species in Texas.

There are many invasive species in the world. Efforts are made to keep them out of locations—but that's not to say that they won't be there eventually. Some are introduced with good intentions (kudzu vine and salt cedar) while others are introduced unknowingly in today's mobile society.

Originally from Russia, Zebra Mussels are “aquatic hitchhikers” that can be easily transported from place to place on boats and other recreational equipment. They begin as microscopic larvae that can eventually grow to 1½ inches. They are mainly found in the Great Lakes region—but have been found as far South as Lake Texoma and in other river basins in Texas. None have been found in the Panhandle-South Plains region.

Zebra Mussels will colonize on anything in water. They have been established for some time once evidence of the mussels has been found. Research has shown that acetylsalicylic acid (commonly known as aspirin) has been shown to kill Zebra Mussels.

TPWD and others are involved in educational efforts to remind boat owners to clean, drain, and dry their boats, trailers, and gear for at least one week before entering another body of water.

Other invasive species of concern include:

- **Quagga Mussels** -- These may be a larger problem than Zebra Mussels. DNA of Quagga Mussels has been found at Fort Sumner State Park in New Mexico. Many persons from New Mexico bring their watercraft to Lake Alan Henry.
- **Golden Algae** – Mr. Clayton said Golden Algae found in the Pecos River are identical to those found in fjords in Norway. Golden Algae produce a toxin that is responsible for the fish kill; it is typically bad in our part of Texas due to lack of fresh water inflow into the lakes. The non-toxic freshwater inflow would provide a refuge for the fish during the toxic bloom. Golden Algae fish kills have occurred in the North Fork of the Brazos River, Lake Ransom Canyon, Buffalo Springs Lake, and Lake Meredith. TPWD monitors this on a quarterly basis. Although carp were introduced to this country by European settlers many years ago, they aren't really considered an invasive species anymore. Golden Algae will kill them, but they seem to be a little more resistant to the toxic blooms than other species of fish. Algaecides will kill it. However, it comes back with a vengeance if treatment is halted.
- **Giant Salvinia** – Giant Salvinia, originally from Brazil, infests areas in South and East Texas.
- **Water Hyacinth** – This also originated in Brazil. The plants can double each week without predators. Therefore, one plant in a week becomes two, two becomes four, four becomes eight, and it can take over quickly. Insects are natural predators, but they are native to Brazil. They are being introduced to this area in an attempt to control this invasive species.



- **Milfoil and Hydrilla** – These have been found in Lake Greenbelt and Lake Meredith. Winter usually kills it; however, a mild winter could allow it to prosper.
- **Others** include didymo (“rock snot”), rusty crayfish, elephant ear, plecostomus (“sucker mouth catfish”) giant cane, koi, goldfish, and red belly pacu (often mistaken for piranha).

Chairman Brown and the membership thanked Mr. Clayton for a very informative presentation.

### **13. Receive A Report From The TWDB Project Manager.**

Ms. Backhouse wanted to add extra information about the 5<sup>th</sup> cycle contract. If SPAG takes over from HPWD, then two action items are needed from LERWPG. One item is to select SPAG as the new political subdivision to administer Region O. The other is to approve a contract amendment between TWDB, HPWD, and SPAG that transfers responsibilities to the new political subdivision.

### **14. Receive A Report from the Region O Technical Consultant.**

Ms. Ewing had no additional information to report.

### **15. Receive A Report from the Region O Administrator.**

Mr. Coleman had no additional information to report. He said the most relevant information had been covered by Mr. Satterwhite during Agenda Item 8.

Mr. Satterwhite left the meeting at this time.

### **16. Receive A Report From The GMA # 2 And GMA # 6 Representatives.**

**GMA # 2:** Mr. Hopper had no new information to report relating to GMA # 2.

**GMA # 6:** Mr. Campsey reported GMA # 6 is meeting April 2 at the North Central Texas Municipal Water Authority office in Munday. They will be discussing a public hearing to allow persons to discuss the desired future conditions previously adopted by GMA #6.

Representatives will also discuss a possible revision to the GMA # 6 boundaries. There is a portion of the Ogallala Aquifer in northwestern Motley County. It is not considered to be a major aquifer within this GMA and the boundaries need to be revised accordingly.

## **17. Receive reports from liaisons to other regional water planning groups.**

**Region A:** Ms. Backhouse reported Region A met on February 17 to approve the Panhandle Regional Planning Commission as its political subdivision. Other agenda items included approval of Chapters 1, 5, 7, and 8 of the initially prepared plan as well as a request that the TWDB conduct the socioeconomic impact analysis for the region. Region A meets April 20 to make final revisions and to adopt the draft IPP.

**Region B:** Jack Campsey reported Region B met March 25<sup>th</sup>. One major point of discussion was the City of Wichita Falls' study indicating that it is more cost-effective to construct Lake Ringgold in northern Clay County—rather than dredging existing Lake Arrowhead, which contains a great deal of silt. Construction of the new reservoir is expected to take 20-23 years and could cost more than \$300 million.

**Region F:** Mr. Everheart reported Region F met February 19 and discussed much of the same items that Region O discussed today. STW Resources Inc. of Midland gave a presentation regarding its zero liquid discharge DyVar desalination technology at the meeting.

**Region G:** Michael McClendon was absent. No report given.

## **18. Receive Public Input & Comments To The Regional Water Planning Group.**

Chairman Brown called for public input and comments from the audience. There were none.

He noted for the record that each member of the LERWPG received two sets of written comments from J. Collier Adams, Jr. Mr. Adams was present earlier—but was unable to stay for the conclusion of the meeting.

## **19. Consider A Date And Agenda Items For The Next Regular Meeting.**

After discussion, the next regular meeting of the Llano Estacado Regional Water Planning Group is set for Wednesday, April 15, 2015 at the High Plains Water District office.

## **20. Consider Other Business And Announcements.**

Chairman Brown called on the membership to consider other business and announcements. There being none, no action was taken.

**21. Adjournment.**

There being no additional business, Chairman Brown adjourned the meeting at 1:38 p.m.

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The above conveys my understanding of the issues discussed and conclusions reached. I assume this understanding is correct until notice to the contrary is received.

Respectfully submitted,

*/s/ Doug Hutcheson*

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**Doug Hutcheson, Secretary-Treasurer**  
Llano Estacado Regional Water Planning Group

*These minutes were approved at the April 15, 2015 regular meeting of the Llano Estacado Regional Water Planning Group.*

### WUG CATEGORY SUMMARY

<b>REGION O</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
<b>MUNICIPAL</b>						
POPULATION	438,734	480,850	520,999	561,556	602,736	642,235
DEMANDS (acre-feet per year)	81,066	86,726	92,425	98,926	106,044	113,026
EXISTING SUPPLIES (acre-feet per year)	71,530	65,814	67,745	62,750	57,959	52,769
NEEDS (acre-feet per year)*	(17,123)	(29,450)	(36,331)	(46,076)	(55,931)	(66,775)
<b>COUNTY-OTHER</b>						
POPULATION	101,761	113,541	124,981	136,313	148,122	159,484
DEMANDS (acre-feet per year)	13,687	14,708	15,784	16,982	18,353	19,692
EXISTING SUPPLIES (acre-feet per year)	11,538	12,445	13,068	12,684	11,800	11,593
NEEDS (acre-feet per year)*	(3,552)	(3,837)	(4,737)	(5,989)	(7,788)	(9,569)
<b>MANUFACTURING</b>						
DEMANDS (acre-feet per year)	16,575	17,346	18,084	18,717	19,738	20,822
EXISTING SUPPLIES (acre-feet per year)	12,658	15,654	17,912	17,844	17,916	18,622
NEEDS (acre-feet per year)*	(3,980)	(2,225)	(2,567)	(3,363)	(4,473)	(4,822)
<b>MINING</b>						
DEMANDS (acre-feet per year)	16,011	17,373	15,729	13,236	10,986	9,333
EXISTING SUPPLIES (acre-feet per year)	7,500	5,539	3,241	1,791	1,261	850
NEEDS (acre-feet per year)*	(11,202)	(13,580)	(13,240)	(11,724)	(9,872)	(8,483)
<b>STEAM ELECTRIC POWER</b>						
DEMANDS (acre-feet per year)	25,981	30,376	35,732	42,261	50,221	58,976
EXISTING SUPPLIES (acre-feet per year)	29,376	34,133	41,981	46,373	48,293	47,183
NEEDS (acre-feet per year)*	(7,747)	(6,617)	(3,189)	(4,185)	(5,474)	(11,793)
<b>LIVESTOCK</b>						
DEMANDS (acre-feet per year)	38,828	44,965	46,265	47,638	49,072	50,617
EXISTING SUPPLIES (acre-feet per year)	29,929	37,631	38,083	34,833	33,015	33,202
NEEDS (acre-feet per year)*	(13,825)	(14,642)	(14,788)	(19,309)	(22,751)	(23,215)
<b>IRRIGATION</b>						
DEMANDS (acre-feet per year)	3,518,490	3,396,129	3,271,821	3,152,785	3,038,772	2,938,318
EXISTING SUPPLIES (acre-feet per year)	1,950,375	1,662,194	1,351,460	1,138,166	973,480	727,226
NEEDS (acre-feet per year)*	(1,750,267)	(1,869,576)	(2,036,136)	(2,107,512)	(2,118,678)	(2,258,188)
<b>REGION TOTALS</b>						
POPULATION	540,495	594,391	645,980	697,869	750,858	801,719
DEMANDS (acre-feet per year)	3,710,638	3,607,623	3,495,840	3,390,545	3,293,186	3,210,784
EXISTING SUPPLIES (acre-feet per year)	2,112,906	1,833,410	1,533,490	1,314,441	1,143,724	891,445
NEEDS (acre-feet per year)*	(1,807,696)	(1,939,927)	(2,110,988)	(2,198,158)	(2,224,967)	(2,382,845)

\*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Category Summary report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>BAILEY COUNTY</b>							
<b>BRAZOS BASIN</b>							
MULESHOE	O   OGALLALA AQUIFER   BAILEY COUNTY	455	406	372	307	278	197
COUNTY-OTHER	O   OGALLALA AQUIFER   BAILEY COUNTY	151	133	121	100	91	64
MANUFACTURING	O   OGALLALA AQUIFER   BAILEY COUNTY	133	120	110	93	91	64
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   BAILEY COUNTY	1,286	1,216	1,178	1,059	1,064	753
IRRIGATION	O   DIRECT REUSE	825	825	825	825	825	825
IRRIGATION	O   OGALLALA AQUIFER   BAILEY COUNTY	36,900	30,980	26,452	20,948	18,505	13,094
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>39,750</b>	<b>33,680</b>	<b>29,058</b>	<b>23,332</b>	<b>20,854</b>	<b>14,997</b>
<b>BAILEY COUNTY TOTAL EXISTING SUPPLY</b>		<b>39,750</b>	<b>33,680</b>	<b>29,058</b>	<b>23,332</b>	<b>20,854</b>	<b>14,997</b>
<b>BRISCOE COUNTY</b>							
<b>RED BASIN</b>							
SILVERTON	O   MACKENZIE LAKE/RESERVOIR	71	71	71	71	71	71
SILVERTON	O   OGALLALA AQUIFER   BRISCOE COUNTY	0	0	0	0	0	0
COUNTY-OTHER	O   OTHER AQUIFER   BRISCOE COUNTY	295	295	295	295	295	295
LIVESTOCK	O   OGALLALA AQUIFER   BRISCOE COUNTY	33	33	33	33	33	33
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DOCKUM AQUIFER   BRISCOE COUNTY	100	100	100	100	100	100
IRRIGATION	O   OGALLALA AQUIFER   BRISCOE COUNTY	15,606	9,616	7,212	5,144	4,647	528
IRRIGATION	O   OTHER AQUIFER   BRISCOE COUNTY	3,705	3,705	3,705	3,705	3,705	3,705
IRRIGATION	O   SEYMOUR AQUIFER BRACKISH   BRISCOE COUNTY	4,063	1,821	1,821	1,821	1,821	1,821
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>23,873</b>	<b>15,641</b>	<b>13,237</b>	<b>11,169</b>	<b>10,672</b>	<b>6,553</b>
<b>BRISCOE COUNTY TOTAL EXISTING SUPPLY</b>		<b>23,873</b>	<b>15,641</b>	<b>13,237</b>	<b>11,169</b>	<b>10,672</b>	<b>6,553</b>
<b>CASTRO COUNTY</b>							
<b>BRAZOS BASIN</b>							
DIMMITT	O   OGALLALA AQUIFER   CASTRO COUNTY	661	243	354	318	286	249
HART	O   OGALLALA AQUIFER   CASTRO COUNTY	191	279	455	193	174	104
COUNTY-OTHER	O   OGALLALA AQUIFER   CASTRO COUNTY	100	148	243	241	237	241
MANUFACTURING	O   OGALLALA AQUIFER   CASTRO COUNTY	893	1,367	2,337	2,445	2,617	2,729
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   CASTRO COUNTY	1,431	1,440	540	317	344	204
IRRIGATION	O   DIRECT REUSE	4,031	4,031	4,031	4,031	4,031	4,031
IRRIGATION	O   OGALLALA AQUIFER   CASTRO COUNTY	87,091	86,890	55,016	40,050	33,267	21,029
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>94,398</b>	<b>94,398</b>	<b>62,976</b>	<b>47,595</b>	<b>40,956</b>	<b>28,587</b>
<b>RED BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   CASTRO COUNTY	141	227	288	286	281	286
MANUFACTURING	O   OGALLALA AQUIFER   CASTRO COUNTY	62	102	136	142	152	159
LIVESTOCK	O   OGALLALA AQUIFER   CASTRO COUNTY	2,626	4,391	5,047	5,099	5,464	5,314
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   CASTRO COUNTY	34,107	31,421	20,521	18,257	14,993	4,384
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>36,936</b>	<b>36,141</b>	<b>25,992</b>	<b>23,784</b>	<b>20,890</b>	<b>10,143</b>
<b>CASTRO COUNTY TOTAL EXISTING SUPPLY</b>		<b>131,334</b>	<b>130,539</b>	<b>88,968</b>	<b>71,379</b>	<b>61,846</b>	<b>38,730</b>

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>COCHRAN COUNTY</b>							
<b>BRAZOS BASIN</b>							
MORTON	O   OGALLALA AQUIFER   COCHRAN COUNTY	92	78	57	53	50	33
COUNTY-OTHER	O   OGALLALA AQUIFER   COCHRAN COUNTY	34	35	26	67	59	39
MINING	O   OGALLALA AQUIFER   COCHRAN COUNTY	2	1	1	2	1	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   COCHRAN COUNTY	149	159	132	369	366	242
IRRIGATION	O   DIRECT REUSE	267	267	267	267	267	267
IRRIGATION	O   OGALLALA AQUIFER   COCHRAN COUNTY	7,430	6,283	4,554	3,919	3,703	2,450
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>7,974</b>	<b>6,823</b>	<b>5,037</b>	<b>4,677</b>	<b>4,446</b>	<b>3,031</b>
<b>COLORADO BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   COCHRAN COUNTY	92	79	73	95	90	88
MINING	O   OGALLALA AQUIFER   COCHRAN COUNTY	921	651	467	426	256	52
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DIRECT REUSE	27	27	27	27	27	27
IRRIGATION	O   OGALLALA AQUIFER   COCHRAN COUNTY	27,488	26,355	25,386	11,262	11,406	6,056
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>28,528</b>	<b>27,112</b>	<b>25,953</b>	<b>11,810</b>	<b>11,779</b>	<b>6,223</b>
<b>COCHRAN COUNTY TOTAL EXISTING SUPPLY</b>		<b>36,502</b>	<b>33,935</b>	<b>30,990</b>	<b>16,487</b>	<b>16,225</b>	<b>9,254</b>
<b>CROSBY COUNTY</b>							
<b>BRAZOS BASIN</b>							
CROSBYTON	O   OGALLALA AQUIFER   CROSBY COUNTY	344	356	366	382	401	417
LORENZO	O   OGALLALA AQUIFER   CROSBY COUNTY	288	259	233	209	188	160
RALLS	O   OGALLALA AQUIFER   CROSBY COUNTY	313	324	333	347	364	381
COUNTY-OTHER	O   OGALLALA AQUIFER   CROSBY COUNTY	268	271	273	271	268	270
COUNTY-OTHER	O   OTHER AQUIFER BRACKISH   CROSBY COUNTY	100	100	100	100	100	100
MANUFACTURING	O   OGALLALA AQUIFER   CROSBY COUNTY	6	6	6	6	6	6
MINING	O   OGALLALA AQUIFER   CROSBY COUNTY	54	31	13	0	0	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DIRECT REUSE	583	583	583	583	583	583
IRRIGATION	O   OGALLALA AQUIFER   CROSBY COUNTY	84,507	80,644	77,147	74,744	71,482	68,120
IRRIGATION	O   OTHER AQUIFER BRACKISH   CROSBY COUNTY	6,900	6,900	6,900	6,900	6,900	6,900
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>93,363</b>	<b>89,474</b>	<b>85,954</b>	<b>83,542</b>	<b>80,292</b>	<b>76,937</b>
<b>RED BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   CROSBY COUNTY	1	1	1	1	1	1
MINING   NULL		0	0	0	0	0	0
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   CROSBY COUNTY	1,235	1,192	1,152	1,100	1,077	1,029
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>1,236</b>	<b>1,193</b>	<b>1,153</b>	<b>1,101</b>	<b>1,078</b>	<b>1,030</b>
<b>CROSBY COUNTY TOTAL EXISTING SUPPLY</b>		<b>94,599</b>	<b>90,667</b>	<b>87,107</b>	<b>84,643</b>	<b>81,370</b>	<b>77,967</b>
<b>DAWSON COUNTY</b>							
<b>BRAZOS BASIN</b>							
O'DONNELL	A   OGALLALA AQUIFER   ROBERTS COUNTY	28	11	11	9	9	8
COUNTY-OTHER	O   OGALLALA AQUIFER   DAWSON COUNTY	18	19	18	18	17	17

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>DAWSON COUNTY</b>							
<b>BRAZOS BASIN</b>							
LIVESTOCK   NULL	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   DAWSON COUNTY	1,824	1,719	1,496	1,266	894	745
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>1,870</b>	<b>1,749</b>	<b>1,525</b>	<b>1,293</b>	<b>920</b>	<b>770</b>
<b>COLORADO BASIN</b>							
LAMESA	A   OGALLALA AQUIFER   ROBERTS COUNTY	1,503	1,084	1,118	1,143	1,031	920
LAMESA	O   OGALLALA AQUIFER   DAWSON COUNTY	508	457	411	370	333	285
COUNTY-OTHER	O   OGALLALA AQUIFER   DAWSON COUNTY	612	616	607	587	565	561
MANUFACTURING	O   OGALLALA AQUIFER   DAWSON COUNTY	129	137	144	150	162	168
MINING	O   OGALLALA AQUIFER   DAWSON COUNTY	779	455	195	0	0	0
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DOCKUM AQUIFER   DAWSON COUNTY	31	31	31	31	31	31
IRRIGATION	O   OGALLALA AQUIFER   DAWSON COUNTY	179,992	169,583	147,684	128,033	88,337	73,768
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>183,554</b>	<b>172,363</b>	<b>150,190</b>	<b>130,314</b>	<b>90,459</b>	<b>75,733</b>
<b>DAWSON COUNTY TOTAL EXISTING SUPPLY</b>		<b>185,424</b>	<b>174,112</b>	<b>151,715</b>	<b>131,607</b>	<b>91,379</b>	<b>76,503</b>
<b>DEAF SMITH COUNTY</b>							
<b>CANADIAN BASIN</b>							
COUNTY-OTHER	O   DOCKUM AQUIFER   DEAF SMITH COUNTY	15	15	15	15	15	15
COUNTY-OTHER	O   OGALLALA AQUIFER BRACKISH   DEAF SMITH COUNTY	1	1	1	1	1	1
LIVESTOCK	O   CANADIAN LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   DOCKUM AQUIFER   DEAF SMITH COUNTY	50	50	50	50	50	50
IRRIGATION	O   DOCKUM AQUIFER   DEAF SMITH COUNTY	1,017	1,017	1,017	1,017	1,017	1,017
<b>CANADIAN BASIN TOTAL EXISTING SUPPLY</b>		<b>1,083</b>	<b>1,083</b>	<b>1,083</b>	<b>1,083</b>	<b>1,083</b>	<b>1,083</b>
<b>RED BASIN</b>							
HEREFORD	O   DOCKUM AQUIFER   DEAF SMITH COUNTY	578	3,630	3,630	3,630	3,630	3,630
HEREFORD	O   OGALLALA AQUIFER   DEAF SMITH COUNTY	2,353	0	0	0	0	0
COUNTY-OTHER	O   OGALLALA AQUIFER   DEAF SMITH COUNTY	644	916	1,243	1,196	1,049	1,453
MANUFACTURING	O   OGALLALA AQUIFER   DEAF SMITH COUNTY	2,649	3,289	4,061	3,864	3,453	4,398
LIVESTOCK	O   OGALLALA AQUIFER   DEAF SMITH COUNTY	7,913	10,188	12,560	12,484	11,549	14,914
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DIRECT REUSE	2,810	2,810	2,810	2,810	2,810	2,810
IRRIGATION	O   OGALLALA AQUIFER   DEAF SMITH COUNTY	104,307	92,175	70,216	62,538	49,630	25,613
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>121,254</b>	<b>113,008</b>	<b>94,520</b>	<b>86,522</b>	<b>72,121</b>	<b>52,818</b>
<b>DEAF SMITH COUNTY TOTAL EXISTING SUPPLY</b>		<b>122,337</b>	<b>114,091</b>	<b>95,603</b>	<b>87,605</b>	<b>73,204</b>	<b>53,901</b>
<b>DICKENS COUNTY</b>							
<b>BRAZOS BASIN</b>							
SPUR	O   OGALLALA AQUIFER   CROSBY COUNTY	178	173	171	170	170	170
COUNTY-OTHER	O   OGALLALA AQUIFER   DICKENS COUNTY	212	194	169	158	147	126
COUNTY-OTHER	O   OTHER AQUIFER BRACKISH   DICKENS COUNTY	81	80	78	76	74	72
MINING	O   OGALLALA AQUIFER   DICKENS COUNTY	47	27	12	0	0	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   DICKENS COUNTY	3,209	3,145	3,300	3,232	3,165	3,210

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>DICKENS COUNTY</b>							
<b>BRAZOS BASIN</b>							
IRRIGATION	O   OTHER AQUIFER BRACKISH   DICKENS COUNTY	2,667	2,684	2,708	2,720	2,733	2,753
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>6,394</b>	<b>6,303</b>	<b>6,438</b>	<b>6,356</b>	<b>6,289</b>	<b>6,331</b>
<b>RED BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   DICKENS COUNTY	41	38	33	30	28	24
COUNTY-OTHER	O   OTHER AQUIFER BRACKISH   DICKENS COUNTY	252	236	214	204	193	175
MINING		0	0	0	0	0	0
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   DICKENS COUNTY	2,534	2,465	2,184	2,129	2,080	1,905
IRRIGATION	O   OTHER AQUIFER BRACKISH   DICKENS COUNTY	4,914	4,914	4,914	4,914	4,914	4,914
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>7,741</b>	<b>7,653</b>	<b>7,345</b>	<b>7,277</b>	<b>7,215</b>	<b>7,018</b>
<b>DICKENS COUNTY TOTAL EXISTING SUPPLY</b>		<b>14,135</b>	<b>13,956</b>	<b>13,783</b>	<b>13,633</b>	<b>13,504</b>	<b>13,349</b>
<b>FLOYD COUNTY</b>							
<b>BRAZOS BASIN</b>							
FLOYDADA	O   MACKENZIE LAKE/RESERVOIR	49	49	49	49	49	49
FLOYDADA	O   OGALLALA AQUIFER   FLOYD COUNTY	696	693	685	657	623	616
LOCKNEY	O   MACKENZIE LAKE/RESERVOIR	35	35	35	35	35	35
LOCKNEY	O   OGALLALA AQUIFER   FLOYD COUNTY	244	0	0	0	0	0
COUNTY-OTHER	O   OGALLALA AQUIFER   FLOYD COUNTY	185	183	180	172	163	160
MINING	O   OGALLALA AQUIFER   FLOYD COUNTY	214	216	215	214	213	213
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   FLOYD COUNTY	1,298	1,373	1,452	1,536	1,625	1,702
IRRIGATION	O   DIRECT REUSE	449	449	449	449	449	449
IRRIGATION	O   OGALLALA AQUIFER   FLOYD COUNTY	79,437	75,385	71,135	67,752	65,878	61,492
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>82,607</b>	<b>78,383</b>	<b>74,200</b>	<b>70,864</b>	<b>69,035</b>	<b>64,716</b>
<b>RED BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   FLOYD COUNTY	107	106	104	100	95	93
MINING	O   OGALLALA AQUIFER   FLOYD COUNTY	272	276	274	272	271	272
LIVESTOCK	O   OGALLALA AQUIFER   FLOYD COUNTY	88	88	88	88	88	88
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   FLOYD COUNTY	32,239	25,011	20,904	20,082	19,327	14,287
IRRIGATION	O   OTHER AQUIFER   FLOYD COUNTY	12,000	12,000	12,000	12,000	12,000	12,000
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>44,706</b>	<b>37,481</b>	<b>33,370</b>	<b>32,542</b>	<b>31,781</b>	<b>26,740</b>
<b>FLOYD COUNTY TOTAL EXISTING SUPPLY</b>		<b>127,313</b>	<b>115,864</b>	<b>107,570</b>	<b>103,406</b>	<b>100,816</b>	<b>91,456</b>
<b>GAINES COUNTY</b>							
<b>COLORADO BASIN</b>							
SEAGRAVES	O   OGALLALA AQUIFER   GAINES COUNTY	682	507	381	287	213	94
SEMINOLE	O   OGALLALA AQUIFER   GAINES COUNTY	2,074	1,799	1,551	1,283	1,045	461
COUNTY-OTHER	O   OGALLALA AQUIFER   GAINES COUNTY	691	586	500	410	334	148
MANUFACTURING	O   OGALLALA AQUIFER   GAINES COUNTY	1,968	1,700	1,482	1,283	1,118	494
MINING	O   OGALLALA AQUIFER   GAINES COUNTY	1,627	1,796	1,294	835	520	313
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0



### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>GAINES COUNTY</b>							
<b>COLORADO BASIN</b>							
LIVESTOCK	O   OGALLALA AQUIFER   GAINES COUNTY	590	516	459	407	357	158
IRRIGATION	O   OGALLALA AQUIFER   GAINES COUNTY	230,828	166,571	123,434	91,143	66,107	29,188
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>238,460</b>	<b>173,475</b>	<b>129,101</b>	<b>95,648</b>	<b>69,694</b>	<b>30,856</b>
<b>GAINES COUNTY TOTAL EXISTING SUPPLY</b>		<b>238,460</b>	<b>173,475</b>	<b>129,101</b>	<b>95,648</b>	<b>69,694</b>	<b>30,856</b>
<b>GARZA COUNTY</b>							
<b>BRAZOS BASIN</b>							
POST	A   OGALLALA AQUIFER   ROBERTS COUNTY	306	306	306	306	306	306
POST	O   OGALLALA AQUIFER   CROSBY COUNTY	792	828	861	884	928	965
COUNTY-OTHER	O   ALAN HENRY LAKE/RESERVOIR	25	25	25	25	25	25
COUNTY-OTHER	O   DOCKUM AQUIFER BRACKISH   GARZA COUNTY	36	36	36	36	36	36
COUNTY-OTHER	O   OGALLALA AQUIFER   GARZA COUNTY	134	128	119	110	101	93
MANUFACTURING	O   OGALLALA AQUIFER   GARZA COUNTY	2	2	2	2	2	2
MINING	O   OGALLALA AQUIFER   GARZA COUNTY	361	211	90	0	0	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DOCKUM AQUIFER   GARZA COUNTY	2	2	2	2	2	2
IRRIGATION	O   DOCKUM AQUIFER BRACKISH   GARZA COUNTY	575	575	575	575	575	575
IRRIGATION	O   OGALLALA AQUIFER   GARZA COUNTY	6,382	6,053	5,735	5,442	5,159	4,837
IRRIGATION	O   OTHER AQUIFER   GARZA COUNTY	1,250	1,250	1,250	1,250	1,250	1,250
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>9,865</b>	<b>9,416</b>	<b>9,001</b>	<b>8,632</b>	<b>8,384</b>	<b>8,091</b>
<b>GARZA COUNTY TOTAL EXISTING SUPPLY</b>		<b>9,865</b>	<b>9,416</b>	<b>9,001</b>	<b>8,632</b>	<b>8,384</b>	<b>8,091</b>
<b>HALE COUNTY</b>							
<b>BRAZOS BASIN</b>							
ABERNATHY	O   OGALLALA AQUIFER   HALE COUNTY	122	169	224	195	173	146
HALE CENTER	O   OGALLALA AQUIFER   HALE COUNTY	211	405	740	666	599	702
PETERSBURG	O   OGALLALA AQUIFER   HALE COUNTY	130	209	316	0	0	0
PLAINVIEW	A   OGALLALA AQUIFER   ROBERTS COUNTY	2,547	1,667	1,580	1,455	1,313	1,171
PLAINVIEW	O   OGALLALA AQUIFER   HALE COUNTY	4,531	6,394	8,659	8,128	7,076	6,260
COUNTY-OTHER	O   OGALLALA AQUIFER   HALE COUNTY	508	806	1,203	1,184	1,161	1,166
MANUFACTURING	O   OGALLALA AQUIFER   HALE COUNTY	1,603	2,603	4,042	4,164	4,400	4,521
MINING	O   OGALLALA AQUIFER   HALE COUNTY	14	13	0	0	0	0
STEAM ELECTRIC POWER	O   OGALLALA AQUIFER   HALE COUNTY	26	47	83	98	117	139
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   HALE COUNTY	1,103	1,473	2,201	1,086	969	506
IRRIGATION	O   DIRECT REUSE	5,477	5,477	5,477	5,477	5,477	5,477
IRRIGATION	O   OGALLALA AQUIFER   HALE COUNTY	119,788	114,051	94,335	68,793	61,677	42,277
IRRIGATION	O   OTHER AQUIFER   HALE COUNTY	800	800	800	800	800	800
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>136,860</b>	<b>134,114</b>	<b>119,660</b>	<b>92,046</b>	<b>83,762</b>	<b>63,165</b>
<b>RED BASIN</b>							
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   HALE COUNTY	1,212	1,259	1,101	832	747	539
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>1,212</b>	<b>1,259</b>	<b>1,101</b>	<b>832</b>	<b>747</b>	<b>539</b>



### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>LUBBOCK COUNTY</b>							
<b>BRAZOS BASIN</b>							
LUBBOCK	O   OGALLALA AQUIFER   BAILEY COUNTY	1,827	1,521	1,300	983	869	460
LUBBOCK	O   OGALLALA AQUIFER   LAMB COUNTY	562	767	1,056	1,056	1,056	1,056
ABERNATHY	O   OGALLALA AQUIFER   HALE COUNTY	43	63	90	87	81	72
IDALOU	O   OGALLALA AQUIFER   LUBBOCK COUNTY	264	295	278	257	233	218
NEW DEAL	A   OGALLALA AQUIFER   ROBERTS COUNTY	153	153	153	153	153	153
NEW DEAL	O   OGALLALA AQUIFER   LUBBOCK COUNTY	177	174	157	141	127	109
RANSOM CANYON	A   MEREDITH LAKE/RESERVOIR	0	0	0	0	0	0
RANSOM CANYON	A   OGALLALA AQUIFER   ROBERTS COUNTY	142	142	142	142	142	142
RANSOM CANYON	O   ALAN HENRY LAKE/RESERVOIR	143	143	143	143	143	143
RANSOM CANYON	O   OGALLALA AQUIFER   BAILEY COUNTY	142	142	142	142	142	142
RANSOM CANYON	O   OGALLALA AQUIFER   LAMB COUNTY	142	142	142	142	142	142
SHALLOWATER	A   MEREDITH LAKE/RESERVOIR	0	0	0	0	0	0
SHALLOWATER	O   OGALLALA AQUIFER   BAILEY COUNTY	187	187	187	187	187	187
SHALLOWATER	O   OGALLALA AQUIFER   LUBBOCK COUNTY	64	62	58	54	49	46
SLATON	A   OGALLALA AQUIFER   ROBERTS COUNTY	628	336	249	156	95	35
WOLFFORTH	O   OGALLALA AQUIFER   LUBBOCK COUNTY	2,262	2,219	1,997	1,797	1,618	1,384
COUNTY-OTHER	A   OGALLALA AQUIFER   ROBERTS COUNTY	200	200	200	200	200	200
COUNTY-OTHER	O   ALAN HENRY LAKE/RESERVOIR	202	202	202	202	202	202
COUNTY-OTHER	O   OGALLALA AQUIFER   BAILEY COUNTY	202	202	202	202	202	202
COUNTY-OTHER	O   OGALLALA AQUIFER   LAMB COUNTY	202	202	202	202	202	202
COUNTY-OTHER	O   OGALLALA AQUIFER   LUBBOCK COUNTY	2,798	3,053	2,909	2,907	2,744	2,705
MANUFACTURING	O   OGALLALA AQUIFER   LUBBOCK COUNTY	1,929	2,291	2,472	2,625	2,836	3,005
MINING	O   OGALLALA AQUIFER   LUBBOCK COUNTY	93	59	25	0	0	0
STEAM ELECTRIC POWER	O   DIRECT REUSE	15,682	15,682	15,682	15,682	12,322	8,961
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   LUBBOCK COUNTY	998	1,160	1,237	1,319	1,407	1,481
IRRIGATION	O   DIRECT REUSE	2,240	2,240	2,240	2,240	2,240	2,240
IRRIGATION	O   OGALLALA AQUIFER   LUBBOCK COUNTY	111,459	100,464	78,870	75,459	70,692	51,397
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>175,623</b>	<b>161,137</b>	<b>138,801</b>	<b>133,326</b>	<b>123,026</b>	<b>97,923</b>
<b>LUBBOCK COUNTY TOTAL EXISTING SUPPLY</b>		<b>175,623</b>	<b>161,137</b>	<b>138,801</b>	<b>133,326</b>	<b>123,026</b>	<b>97,923</b>
<b>LYNN COUNTY</b>							
<b>BRAZOS BASIN</b>							
O'DONNELL	A   OGALLALA AQUIFER   ROBERTS COUNTY	164	66	58	52	47	43
TAHOKA	A   OGALLALA AQUIFER   ROBERTS COUNTY	317	265	235	206	190	173
COUNTY-OTHER	O   EDWARDS-TRINITY-HIGH PLAINS AQUIFER   LYNN COUNTY	6	8	9	11	11	11
COUNTY-OTHER	O   OGALLALA AQUIFER   LYNN COUNTY	245	235	222	193	163	159
MINING	O   OGALLALA AQUIFER   LYNN COUNTY	15	9	4	0	0	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DIRECT REUSE	346	346	346	346	346	346
IRRIGATION	O   EDWARDS-TRINITY-HIGH PLAINS AQUIFER   LYNN COUNTY	215	213	212	210	210	210

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>LYNN COUNTY</b>							
<b>BRAZOS BASIN</b>							
IRRIGATION	O   OGALLALA AQUIFER   LYNN COUNTY	97,480	96,710	94,374	86,752	78,380	76,277
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>98,788</b>	<b>97,852</b>	<b>95,460</b>	<b>87,770</b>	<b>79,347</b>	<b>77,219</b>
<b>COLORADO BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   LYNN COUNTY	7	6	6	6	6	6
MINING	O   OGALLALA AQUIFER   LYNN COUNTY	4	2	1	0	0	0
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   LYNN COUNTY	462	454	460	416	375	370
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>473</b>	<b>462</b>	<b>467</b>	<b>422</b>	<b>381</b>	<b>376</b>
<b>LYNN COUNTY TOTAL EXISTING SUPPLY</b>		<b>99,261</b>	<b>98,314</b>	<b>95,927</b>	<b>88,192</b>	<b>79,728</b>	<b>77,595</b>
<b>MOTLEY COUNTY</b>							
<b>RED BASIN</b>							
MATADOR	O   OTHER AQUIFER BRACKISH   MOTLEY COUNTY	224	207	187	174	166	147
COUNTY-OTHER	O   OGALLALA AQUIFER   MOTLEY COUNTY	136	123	108	98	93	78
MANUFACTURING	O   OGALLALA AQUIFER   MOTLEY COUNTY	6	6	6	6	6	6
MINING	O   OGALLALA AQUIFER   MOTLEY COUNTY	4	3	1	0	0	0
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   MOTLEY COUNTY	5,419	5,279	5,139	5,011	4,892	4,751
IRRIGATION	O   OTHER AQUIFER BRACKISH   MOTLEY COUNTY	8,776	8,793	8,813	8,826	8,834	8,853
IRRIGATION	O   SEYMOUR AQUIFER   MOTLEY COUNTY	1,776	1,769	1,769	1,685	1,685	1,657
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>16,341</b>	<b>16,180</b>	<b>16,023</b>	<b>15,800</b>	<b>15,676</b>	<b>15,492</b>
<b>MOTLEY COUNTY TOTAL EXISTING SUPPLY</b>		<b>16,341</b>	<b>16,180</b>	<b>16,023</b>	<b>15,800</b>	<b>15,676</b>	<b>15,492</b>
<b>PARMER COUNTY</b>							
<b>BRAZOS BASIN</b>							
BOVINA	O   OGALLALA AQUIFER   PARMER COUNTY	252	335	330	317	300	297
FARWELL	O   OGALLALA AQUIFER   PARMER COUNTY	305	364	328	294	265	227
COUNTY-OTHER	O   OGALLALA AQUIFER   PARMER COUNTY	230	304	298	286	270	266
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   PARMER COUNTY	3,925	5,397	4,439	2,716	1,810	1,074
IRRIGATION	O   DIRECT REUSE	401	401	401	401	401	401
IRRIGATION	O   OGALLALA AQUIFER   PARMER COUNTY	40,860	25,479	10,150	10,362	13,894	6,336
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>45,973</b>	<b>32,280</b>	<b>15,946</b>	<b>14,376</b>	<b>16,940</b>	<b>8,601</b>
<b>RED BASIN</b>							
FRIONA	O   OGALLALA AQUIFER   PARMER COUNTY	954	431	207	170	139	136
COUNTY-OTHER	O   OGALLALA AQUIFER   PARMER COUNTY	76	98	51	45	39	38
MANUFACTURING	O   OGALLALA AQUIFER   PARMER COUNTY	1,756	2,413	1,360	1,290	1,256	1,235
LIVESTOCK	O   OGALLALA AQUIFER   PARMER COUNTY	2,341	3,252	1,863	1,810	1,765	1,736
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   DIRECT REUSE	2,486	2,486	2,486	2,486	2,486	2,486
IRRIGATION	O   OGALLALA AQUIFER   PARMER COUNTY	12,366	10,766	13,044	12,327	10,090	9,919
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>19,979</b>	<b>19,446</b>	<b>19,011</b>	<b>18,128</b>	<b>15,775</b>	<b>15,550</b>
<b>PARMER COUNTY TOTAL EXISTING SUPPLY</b>		<b>65,952</b>	<b>51,726</b>	<b>34,957</b>	<b>32,504</b>	<b>32,715</b>	<b>24,151</b>

### EXISTING WATER SUPPLY

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>SWISHER COUNTY</b>							
<b>BRAZOS BASIN</b>							
KRESS	O   OGALLALA AQUIFER   SWISHER COUNTY	102	82	68	55	44	27
COUNTY-OTHER	O   OGALLALA AQUIFER   SWISHER COUNTY	42	41	41	40	38	38
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   SWISHER COUNTY	165	165	165	165	165	165
IRRIGATION	O   OGALLALA AQUIFER   SWISHER COUNTY	23,191	2,116	743	194	208	0
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>23,500</b>	<b>2,404</b>	<b>1,017</b>	<b>454</b>	<b>455</b>	<b>230</b>
<b>RED BASIN</b>							
HAPPY	A   DOCKUM AQUIFER   RANDALL COUNTY	45	45	44	44	44	43
HAPPY	O   OGALLALA AQUIFER   SWISHER COUNTY	94	98	96	88	79	69
KRESS	O   OGALLALA AQUIFER   SWISHER COUNTY	82	83	81	79	76	75
TULIA	O   DOCKUM AQUIFER   SWISHER COUNTY	324	328	324	311	288	288
TULIA	O   MACKENZIE LAKE/RESERVOIR	61	61	61	61	61	61
TULIA	O   OGALLALA AQUIFER   SWISHER COUNTY	305	325	318	292	256	222
COUNTY-OTHER	O   OGALLALA AQUIFER   SWISHER COUNTY	199	209	203	189	171	148
LIVESTOCK	O   OGALLALA AQUIFER   SWISHER COUNTY	3,235	3,611	3,794	3,846	3,866	3,353
LIVESTOCK	O   RED LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   SWISHER COUNTY	75,315	70,144	60,506	55,336	51,610	44,758
<b>RED BASIN TOTAL EXISTING SUPPLY</b>		<b>79,660</b>	<b>74,904</b>	<b>65,427</b>	<b>60,246</b>	<b>56,451</b>	<b>49,017</b>
<b>SWISHER COUNTY TOTAL EXISTING SUPPLY</b>		<b>103,160</b>	<b>77,308</b>	<b>66,444</b>	<b>60,700</b>	<b>56,906</b>	<b>49,247</b>
<b>TERRY COUNTY</b>							
<b>BRAZOS BASIN</b>							
COUNTY-OTHER	O   OGALLALA AQUIFER   TERRY COUNTY	14	15	16	15	13	0
MINING		0	0	0	0	0	0
LIVESTOCK	O   BRAZOS LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   TERRY COUNTY	13,310	13,305	9,760	5,331	4,079	95
<b>BRAZOS BASIN TOTAL EXISTING SUPPLY</b>		<b>13,324</b>	<b>13,320</b>	<b>9,776</b>	<b>5,346</b>	<b>4,092</b>	<b>95</b>
<b>COLORADO BASIN</b>							
BROWNFIELD	A   OGALLALA AQUIFER   ROBERTS COUNTY	1,499	815	760	709	638	568
BROWNFIELD	O   OGALLALA AQUIFER   TERRY COUNTY	241	218	197	158	87	12
MEADOW	A   OGALLALA AQUIFER   ROBERTS COUNTY	18	18	18	18	18	18
MEADOW	O   OGALLALA AQUIFER   TERRY COUNTY	75	78	80	70	43	6
COUNTY-OTHER	O   OGALLALA AQUIFER   TERRY COUNTY	393	407	419	372	225	31
MANUFACTURING	O   OGALLALA AQUIFER   TERRY COUNTY	1	1	1	1	1	0
MINING	O   OGALLALA AQUIFER   TERRY COUNTY	266	155	66	0	0	0
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
LIVESTOCK	O   OGALLALA AQUIFER   TERRY COUNTY	150	166	183	180	121	16
IRRIGATION	O   OGALLALA AQUIFER   TERRY COUNTY	180,493	119,439	75,965	47,776	29,078	3,991
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>183,136</b>	<b>121,297</b>	<b>77,689</b>	<b>49,284</b>	<b>30,211</b>	<b>4,642</b>
<b>TERRY COUNTY TOTAL EXISTING SUPPLY</b>		<b>196,460</b>	<b>134,617</b>	<b>87,465</b>	<b>54,630</b>	<b>34,303</b>	<b>4,737</b>
<b>YOAKUM COUNTY</b>							
<b>COLORADO BASIN</b>							
DENVER CITY	O   OGALLALA AQUIFER   YOAKUM COUNTY	676	90	65	48	34	13

**EXISTING WATER SUPPLY**

REGION O	SOURCE REGION   SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
<b>YOAKUM COUNTY</b>							
<b>COLORADO BASIN</b>							
PLAINS	O   OGALLALA AQUIFER   YOAKUM COUNTY	238	174	135	106	80	32
COUNTY-OTHER	O   OGALLALA AQUIFER   YOAKUM COUNTY	183	146	122	97	72	28
MINING	O   OGALLALA AQUIFER   YOAKUM COUNTY	914	328	77	17	0	0
STEAM ELECTRIC POWER	O   OGALLALA AQUIFER   YOAKUM COUNTY	2,232	2,020	1,924	1,862	1,712	676
LIVESTOCK	O   COLORADO LIVESTOCK LOCAL SUPPLY	0	0	0	0	0	0
IRRIGATION	O   OGALLALA AQUIFER   YOAKUM COUNTY	55,502	40,817	31,559	24,587	18,142	7,162
<b>COLORADO BASIN TOTAL EXISTING SUPPLY</b>		<b>59,745</b>	<b>43,575</b>	<b>33,882</b>	<b>26,717</b>	<b>20,040</b>	<b>7,911</b>
<b>YOAKUM COUNTY TOTAL EXISTING SUPPLY</b>		<b>59,745</b>	<b>43,575</b>	<b>33,882</b>	<b>26,717</b>	<b>20,040</b>	<b>7,911</b>
<b>REGION O TOTAL EXISTING SUPPLY</b>							
		<b>2,112,906</b>	<b>1,833,410</b>	<b>1,533,490</b>	<b>1,314,441</b>	<b>1,143,724</b>	<b>891,445</b>

**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>BAILEY COUNTY</b>						
<b>BRAZOS BASIN</b>						
MULESHOE	(719)	(878)	(1,025)	(1,216)	(1,378)	(1,590)
COUNTY-OTHER	(126)	(163)	(200)	(251)	(290)	(347)
MANUFACTURING	(183)	(206)	(225)	(250)	(274)	(324)
LIVESTOCK	(1,049)	(1,797)	(1,879)	(2,045)	(2,089)	(2,451)
IRRIGATION	(81,543)	(84,602)	(86,337)	(89,115)	(88,897)	(91,833)
<b>BRISCOE COUNTY</b>						
<b>RED BASIN</b>						
SILVERTON	(55)	(52)	(49)	(48)	(48)	(48)
COUNTY-OTHER	(2)	3	6	7	7	7
LIVESTOCK	(269)	(277)	(286)	(295)	(305)	(315)
IRRIGATION	(13,786)	(20,666)	(21,766)	(22,578)	(21,864)	(24,898)
<b>CASTRO COUNTY</b>						
<b>BRAZOS BASIN</b>						
DIMITT	(435)	(921)	(856)	(942)	(1,018)	(1,092)
HART	11	90	261	(10)	(36)	(112)
COUNTY-OTHER	(96)	(57)	30	18	6	4
MANUFACTURING	60	482	1,402	1,467	1,570	1,608
LIVESTOCK	(2,897)	(3,829)	(4,855)	(5,209)	(5,321)	(5,606)
IRRIGATION	(161,062)	(151,595)	(174,170)	(180,195)	(178,380)	(182,959)
<b>RED BASIN</b>						
COUNTY-OTHER	(74)	2	55	42	29	27
MANUFACTURING	(85)	(54)	(29)	(31)	(33)	(39)
LIVESTOCK	1,106	2,540	3,152	3,157	3,474	3,273
IRRIGATION	(101,685)	(99,164)	(105,058)	(102,507)	(101,141)	(107,626)
<b>COCHRAN COUNTY</b>						
<b>BRAZOS BASIN</b>						
MORTON	(381)	(396)	(410)	(403)	(416)	(436)
COUNTY-OTHER	(342)	(380)	(401)	(361)	(385)	(412)
MINING	(6)	(9)	(9)	(6)	(5)	(4)
LIVESTOCK	(221)	(229)	(275)	(59)	(83)	(230)
IRRIGATION	(61,819)	(60,283)	(59,432)	(57,586)	(55,417)	(54,549)
<b>COLORADO BASIN</b>						
COUNTY-OTHER	(32)	(50)	(56)	(33)	(41)	(44)
MINING	775	453	267	271	147	(25)
LIVESTOCK	(166)	(174)	(183)	(192)	(202)	(212)
IRRIGATION	(5,198)	(5,069)	(4,823)	(17,780)	(16,514)	(20,865)
<b>CROSBY COUNTY</b>						
<b>BRAZOS BASIN</b>						
CROSBYTON	50	50	50	50	50	50
LORENZO	57	13	(25)	(66)	(107)	(150)
RALLS	0	0	0	0	0	0
COUNTY-OTHER	214	213	207	198	187	179
MANUFACTURING	3	3	3	3	3	3
MINING	(572)	(586)	(536)	(477)	(413)	(358)
LIVESTOCK	(256)	(262)	(268)	(275)	(281)	(288)
IRRIGATION	(20,702)	(20,025)	(19,164)	(17,387)	(16,637)	(16,446)

**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>CROSBY COUNTY</b>						
<b>RED BASIN</b>						
COUNTY-OTHER	0	0	0	0	0	0
MINING   NULL	(368)	(363)	(322)	(280)	(243)	(210)
LIVESTOCK	(6)	(6)	(6)	(6)	(6)	(6)
IRRIGATION	(3,435)	(3,290)	(3,149)	(3,028)	(2,885)	(2,786)
<b>DAWSON COUNTY</b>						
<b>BRAZOS BASIN</b>						
O'DONNELL	10	(7)	(8)	(10)	(11)	(12)
COUNTY-OTHER	13	14	13	14	12	12
LIVESTOCK   NULL	(2)	(2)	(2)	(2)	(2)	(2)
IRRIGATION	758	713	547	370	49	(58)
<b>COLORADO BASIN</b>						
LAMESA	(264)	(762)	(785)	(806)	(1,018)	(1,220)
COUNTY-OTHER	29	6	(26)	(62)	(120)	(155)
MANUFACTURING	0	0	0	0	0	(7)
MINING	(175)	(709)	(828)	(703)	(423)	(255)
LIVESTOCK	(137)	(141)	(145)	(149)	(153)	(157)
IRRIGATION	74,459	70,001	53,719	39,366	4,669	(5,684)
<b>DEAF SMITH COUNTY</b>						
<b>CANADIAN BASIN</b>						
COUNTY-OTHER	15	15	15	14	14	14
LIVESTOCK	(76)	(93)	(98)	(103)	(109)	(115)
IRRIGATION	(917)	(856)	(796)	(739)	(683)	(633)
<b>RED BASIN</b>						
HEREFORD	(1,022)	(833)	(1,410)	(2,098)	(2,658)	(3,277)
COUNTY-OTHER	104	321	581	447	227	551
MANUFACTURING	(1,185)	(661)	0	(293)	(842)	(40)
LIVESTOCK	(4,516)	(3,973)	(2,099)	(2,698)	(4,181)	(1,392)
IRRIGATION	(84,359)	(90,424)	(106,510)	(108,500)	(115,901)	(134,912)
<b>DICKENS COUNTY</b>						
<b>BRAZOS BASIN</b>						
SPUR	0	0	0	0	0	0
COUNTY-OTHER	170	156	133	120	108	85
MINING	37	17	2	(10)	(10)	(10)
LIVESTOCK	(231)	(236)	(242)	(248)	(254)	(260)
IRRIGATION	539	651	984	1,079	1,171	1,369
<b>RED BASIN</b>						
COUNTY-OTHER	263	244	218	205	192	170
MINING	(2)	(2)	(2)	(2)	(2)	(2)
LIVESTOCK	(144)	(147)	(150)	(154)	(158)	(162)
IRRIGATION	3,422	3,472	3,308	3,366	3,428	3,353
<b>FLOYD COUNTY</b>						
<b>BRAZOS BASIN</b>						
FLOYDADA	173	153	131	81	29	7
LOCKNEY	11	(239)	(241)	(251)	(259)	(265)
COUNTY-OTHER	49	46	39	27	14	8
MINING	0	0	0	0	0	0
LIVESTOCK	733	780	829	883	939	981



**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>FLOYD COUNTY</b>						
<b>BRAZOS BASIN</b>						
IRRIGATION	26,705	24,771	22,555	21,125	21,126	18,402
<b>RED BASIN</b>						
COUNTY-OTHER	43	42	38	31	25	21
MINING	0	0	0	0	0	0
LIVESTOCK	(85)	(94)	(103)	(113)	(123)	(133)
IRRIGATION	(50,305)	(53,767)	(54,258)	(51,609)	(49,031)	(51,115)
<b>GAINES COUNTY</b>						
<b>COLORADO BASIN</b>						
SEAGRAVES	263	77	(66)	(183)	(272)	(408)
SEMINOLE	(274)	(772)	(1,296)	(1,877)	(2,366)	(3,214)
COUNTY-OTHER	(712)	(1,177)	(1,705)	(2,282)	(2,818)	(3,485)
MANUFACTURING	(310)	(686)	(1,007)	(1,295)	(1,604)	(2,380)
MINING	(202)	(604)	(777)	(692)	(531)	(463)
LIVESTOCK	352	266	197	131	68	(146)
IRRIGATION	(148,951)	(193,429)	(217,817)	(232,334)	(240,522)	(263,050)
<b>GARZA COUNTY</b>						
<b>BRAZOS BASIN</b>						
POST	306	306	306	306	306	306
COUNTY-OTHER	60	60	55	45	32	21
MANUFACTURING	0	0	0	0	0	0
MINING	(34)	(333)	(348)	(334)	(234)	(164)
LIVESTOCK	(299)	(305)	(312)	(320)	(328)	(346)
IRRIGATION	(3,412)	(3,057)	(2,737)	(2,428)	(2,144)	(1,991)
<b>HALE COUNTY</b>						
<b>BRAZOS BASIN</b>						
ABERNATHY	(406)	(370)	(316)	(337)	(372)	(404)
HALE CENTER	(87)	106	444	377	303	403
PETERSBURG	(196)	(125)	(19)	(330)	(338)	(342)
PLAINVIEW	2,710	3,620	5,812	5,239	3,940	2,935
COUNTY-OTHER	(663)	(371)	41	49	0	(7)
MANUFACTURING	(1,227)	(341)	990	1,020	1,078	1,011
MINING	(1,154)	(1,139)	(1,022)	(886)	(766)	(662)
STEAM ELECTRIC POWER	(34)	(24)	0	0	0	0
LIVESTOCK	(924)	(1,163)	(472)	(1,625)	(1,784)	(2,290)
IRRIGATION	(240,050)	(233,658)	(241,645)	(255,847)	(251,998)	(261,477)
<b>RED BASIN</b>						
LIVESTOCK	(18)	(24)	(24)	(25)	(25)	(25)
IRRIGATION	(2,485)	(2,315)	(2,355)	(2,509)	(2,484)	(2,591)
<b>HOCKLEY COUNTY</b>						
<b>BRAZOS BASIN</b>						
ANTON	645	642	641	641	634	630
LEVELLAND	(516)	(1,187)	(1,338)	(1,471)	(1,653)	(1,809)
COUNTY-OTHER	125	9	(24)	(59)	(200)	(242)
MANUFACTURING	0	0	0	0	0	(3)
MINING	1,494	965	363	4	(14)	(13)
LIVESTOCK	265	284	305	326	349	366
IRRIGATION	(45,997)	(52,877)	(58,977)	(56,085)	(55,322)	(53,726)

**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>HOCKLEY COUNTY</b>						
<b>COLORADO BASIN</b>						
SUNDOWN	(208)	(226)	(249)	(257)	(285)	(306)
COUNTY-OTHER	1	8	8	7	2	2
MINING	385	311	120	4	(2)	(2)
LIVESTOCK	(35)	(37)	(39)	(41)	(43)	(45)
IRRIGATION	(1,645)	(1,220)	(1,106)	(899)	(876)	(1,177)
<b>LAMB COUNTY</b>						
<b>BRAZOS BASIN</b>						
AMHERST	151	172	207	172	138	96
EARTH	(18)	10	(77)	(74)	(76)	(77)
LITTLEFIELD	535	904	1,403	1,359	1,288	1,265
OLTON	350	497	899	648	587	572
SUDAN	30	44	76	36	(9)	(60)
COUNTY-OTHER	176	286	449	416	368	361
MANUFACTURING	(280)	(213)	(105)	(108)	(115)	(146)
MINING	(570)	(567)	(507)	(445)	(385)	(333)
STEAM ELECTRIC POWER	(6,227)	(4,267)	0	0	0	(2,984)
LIVESTOCK	(889)	(680)	(1,070)	(1,567)	(1,972)	(2,639)
IRRIGATION	(199,252)	(204,875)	(216,428)	(227,103)	(230,194)	(239,866)
<b>LUBBOCK COUNTY</b>						
<b>BRAZOS BASIN</b>						
ABERNATHY	(141)	(137)	(127)	(149)	(174)	(202)
IDALOU	(155)	(131)	(158)	(195)	(236)	(268)
LUBBOCK	(10,352)	(18,100)	(22,615)	(29,226)	(36,019)	(43,148)
NEW DEAL	216	206	182	156	132	104
RANSOM CANYON	232	213	192	168	145	121
SHALLOWATER	(171)	(215)	(262)	(317)	(374)	(429)
SLATON	(118)	(390)	(463)	(555)	(623)	(691)
WOLFFORTH	1,497	1,307	935	574	233	(163)
COUNTY-OTHER	(1,043)	(1,151)	(1,687)	(2,156)	(2,804)	(3,336)
MANUFACTURING	(232)	(63)	(68)	(72)	(78)	(143)
MINING	(6,261)	(6,366)	(5,888)	(5,302)	(4,763)	(4,314)
STEAM ELECTRIC POWER	11,142	10,374	9,438	8,297	3,546	(945)
LIVESTOCK	218	273	319	368	422	460
IRRIGATION	(55,543)	(57,036)	(69,663)	(64,611)	(61,390)	(73,945)
<b>LYNN COUNTY</b>						
<b>BRAZOS BASIN</b>						
O'DONNELL	59	(40)	(47)	(52)	(62)	(68)
TAHOKA	(161)	(223)	(243)	(266)	(304)	(332)
COUNTY-OTHER	(50)	(61)	(65)	(85)	(129)	(139)
MINING	(1,069)	(1,225)	(1,163)	(961)	(768)	(614)
LIVESTOCK	(131)	(136)	(139)	(144)	(149)	(153)
IRRIGATION	19,395	22,851	24,521	20,682	15,891	16,834
<b>COLORADO BASIN</b>						
COUNTY-OTHER	(3)	(4)	(4)	(4)	(4)	(4)
MINING	(78)	(91)	(87)	(72)	(58)	(46)
LIVESTOCK	(10)	(10)	(11)	(11)	(11)	(12)
IRRIGATION	(5,458)	(5,147)	(4,840)	(4,599)	(4,370)	(4,146)

**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>MOTLEY COUNTY</b>						
<b>RED BASIN</b>						
MATADOR	11	(2)	(21)	(33)	(41)	(60)
COUNTY-OTHER	27	18	4	(5)	(10)	(25)
MANUFACTURING	0	0	0	0	0	0
MINING	(236)	(210)	(204)	(198)	(179)	(161)
LIVESTOCK	(481)	(490)	(499)	(509)	(519)	(529)
IRRIGATION	6,532	6,682	6,837	6,905	7,052	7,138
<b>PARMER COUNTY</b>						
<b>BRAZOS BASIN</b>						
BOVINA	(121)	(67)	(99)	(141)	(196)	(234)
FARWELL	(91)	(66)	(133)	(200)	(270)	(346)
COUNTY-OTHER	(154)	(110)	(144)	(188)	(242)	(283)
LIVESTOCK	(582)	(129)	(1,215)	(3,071)	(4,117)	(5,000)
IRRIGATION	(222,584)	(235,164)	(247,721)	(244,767)	(238,522)	(243,452)
<b>RED BASIN</b>						
FRIONA	125	(463)	(746)	(848)	(964)	(1,046)
COUNTY-OTHER	(171)	(168)	(233)	(259)	(291)	(315)
MANUFACTURING	(477)	48	(1,132)	(1,313)	(1,526)	(1,738)
LIVESTOCK	1,214	1,870	450	363	283	217
IRRIGATION	(51,109)	(52,009)	(49,038)	(49,070)	(50,628)	(50,142)
<b>SWISHER COUNTY</b>						
<b>BRAZOS BASIN</b>						
KRESS	84	64	51	39	26	9
COUNTY-OTHER	13	12	12	12	8	8
LIVESTOCK	47	41	35	28	21	14
IRRIGATION	(12,250)	(34,455)	(35,619)	(35,960)	(35,740)	(35,745)
<b>RED BASIN</b>						
HAPPY	40	42	40	34	20	7
KRESS	21	22	21	20	15	13
TULIA	(236)	(231)	(235)	(260)	(362)	(418)
COUNTY-OTHER	14	22	19	5	(20)	(48)
LIVESTOCK	991	1,254	1,319	1,248	1,138	489
IRRIGATION	(86,139)	(96,456)	(105,143)	(109,367)	(112,151)	(118,078)
<b>TERRY COUNTY</b>						
<b>BRAZOS BASIN</b>						
COUNTY-OTHER	6	7	8	7	4	(9)
MINING	(25)	(37)	(38)	(29)	(21)	(14)
LIVESTOCK	(12)	(13)	(14)	(15)	(16)	(18)
IRRIGATION	6,137	6,500	3,304	(794)	(1,732)	(5,447)
<b>COLORADO BASIN</b>						
BROWNFIELD	(53)	(821)	(966)	(1,133)	(1,362)	(1,592)
MEADOW	(2)	(1)	(3)	(17)	(48)	(89)
COUNTY-OTHER	81	90	90	27	(134)	(343)
MANUFACTURING	(1)	(1)	(1)	(1)	(1)	(2)
MINING	(64)	(333)	(439)	(387)	(272)	(192)
LIVESTOCK	(108)	(109)	(112)	(137)	(219)	(361)
IRRIGATION	44,205	(9,863)	(46,708)	(68,607)	(81,337)	(101,315)

**WUG (NEEDS)/SURPLUS**

REGION O	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
<b>YOAKUM COUNTY</b>						
<b>COLORADO BASIN</b>						
DENVER CITY	(747)	(1,489)	(1,656)	(1,841)	(2,032)	(2,224)
PLAINS	(194)	(306)	(387)	(464)	(544)	(643)
COUNTY-OTHER	(84)	(145)	(192)	(244)	(300)	(375)
MINING	(386)	(1,006)	(1,070)	(940)	(783)	(641)
STEAM ELECTRIC POWER	(1,486)	(2,326)	(3,189)	(4,185)	(5,474)	(7,864)
LIVESTOCK	(281)	(286)	(290)	(296)	(301)	(322)
IRRIGATION	(90,581)	(98,274)	(100,876)	(101,508)	(101,918)	(107,676)

**SOURCE WATER BALANCE (AVAILABILITY - WUG SUPPLY)**

<b>REGION O</b>									
<b>GROUNDWATER</b>	<b>COUNTY</b>	<b>BASIN</b>	<b>SALINITY</b>	<b>SOURCE WATER BALANCE (ACRE-FEET PER YEAR)</b>					
				<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
DOCKUM AQUIFER	BAILEY	BRAZOS	FRESH	1	1	1	1	1	1
DOCKUM AQUIFER	BRISCOE	RED	FRESH	131	131	131	131	131	131
DOCKUM AQUIFER	CASTRO	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	CASTRO	RED	FRESH	1	1	1	1	1	1
DOCKUM AQUIFER	COCHRAN	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	COCHRAN	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	CROSBY	BRAZOS	FRESH	4,061	4,061	4,061	4,061	4,061	4,061
DOCKUM AQUIFER	CROSBY	RED	FRESH	48	48	48	48	48	48
DOCKUM AQUIFER	DAWSON	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	DEAF SMITH	CANADIAN	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	DEAF SMITH	RED	FRESH	3,052	0	0	0	0	0
DOCKUM AQUIFER	DICKENS	BRAZOS	FRESH	2,126	2,126	2,126	2,126	2,126	2,126
DOCKUM AQUIFER	DICKENS	RED	FRESH	1,584	1,584	1,584	1,584	1,584	1,584
DOCKUM AQUIFER	FLOYD	BRAZOS	FRESH	745	745	745	745	745	745
DOCKUM AQUIFER	FLOYD	RED	FRESH	939	939	939	939	939	939
DOCKUM AQUIFER	GAINES	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	GARZA	BRAZOS	BRACKISH	0	0	0	0	0	0
DOCKUM AQUIFER	GARZA	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	HALE	BRAZOS	FRESH	734	734	734	734	734	734
DOCKUM AQUIFER	HALE	RED	FRESH	4	4	4	4	4	4
DOCKUM AQUIFER	HOCKLEY	BRAZOS	FRESH	571	571	571	571	571	571
DOCKUM AQUIFER	HOCKLEY	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	LAMB	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	LUBBOCK	BRAZOS	FRESH	15	15	15	15	15	15
DOCKUM AQUIFER	LYNN	BRAZOS	FRESH	5	5	5	5	5	5
DOCKUM AQUIFER	LYNN	COLORADO	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	MOTLEY	RED	FRESH	2,860	2,860	2,860	2,860	2,860	2,860
DOCKUM AQUIFER	PARMER	BRAZOS	FRESH	0	0	0	0	0	0
DOCKUM AQUIFER	PARMER	RED	FRESH	2	2	2	2	2	2
DOCKUM AQUIFER	SWISHER	BRAZOS	FRESH	83	83	83	83	83	83
DOCKUM AQUIFER	SWISHER	RED	FRESH	290	286	290	303	326	326
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	BAILEY	BRAZOS	FRESH	279	279	279	279	279	279
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	COCHRAN	BRAZOS	FRESH	137	137	137	137	137	137
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	COCHRAN	COLORADO	FRESH	127	127	127	127	127	127
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	DAWSON	BRAZOS	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	DAWSON	COLORADO	FRESH	1,103	1,103	1,103	1,103	1,103	1,103
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	FLOYD	BRAZOS	FRESH	521	521	518	505	499	491
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	FLOYD	RED	FRESH	695	695	695	695	683	671

**SOURCE WATER BALANCE (AVAILABILITY - WUG SUPPLY)**

<b>REGION O</b>									
<b>GROUNDWATER</b>	<b>COUNTY</b>	<b>BASIN</b>	<b>SALINITY</b>	<b>SOURCE WATER BALANCE (ACRE-FEET PER YEAR)</b>					
				<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	GAINES	COLORADO	FRESH	46,202	30,316	22,997	16,523	12,904	1,672
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	GARZA	BRAZOS	FRESH	18	18	18	18	18	18
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	GARZA	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	HALE	BRAZOS	FRESH	3,523	3,523	3,523	3,523	3,419	3,315
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	HOCKLEY	BRAZOS	FRESH	96	96	96	96	96	96
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	HOCKLEY	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	LAMB	BRAZOS	FRESH	164	164	164	164	164	164
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	LUBBOCK	BRAZOS	FRESH	690	690	690	690	690	690
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	LYNN	BRAZOS	FRESH	0	0	0	0	0	0
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	LYNN	COLORADO	FRESH	9	9	9	9	9	9
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	TERRY	BRAZOS	FRESH	23	23	23	23	23	23
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	TERRY	COLORADO	FRESH	959	922	922	922	922	922
EDWARDS-TRINITY-HIGH PLAINS AQUIFER	YOAKUM	COLORADO	FRESH	1,893	1,757	1,642	1,642	1,524	1,436
OGALLALA AQUIFER	BAILEY	BRAZOS	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	BRISCOE	RED	FRESH	10,818	10,073	6,975	7,860	7,253	5,793
OGALLALA AQUIFER	CASTRO	BRAZOS	FRESH	0	0	31,422	45,066	47,533	57,353
OGALLALA AQUIFER	CASTRO	RED	FRESH	0	0	9,457	10,866	12,650	22,715
OGALLALA AQUIFER	COCHRAN	BRAZOS	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	COCHRAN	COLORADO	FRESH	0	0	0	11,891	9,440	13,671
OGALLALA AQUIFER	CROSBY	BRAZOS	FRESH	46,328	50,177	53,660	56,045	59,251	62,569
OGALLALA AQUIFER	CROSBY	RED	FRESH	368	420	466	523	546	594
OGALLALA AQUIFER	DAWSON	BRAZOS	FRESH	5,332	5,331	5,120	4,057	1,082	445
OGALLALA AQUIFER	DAWSON	COLORADO	FRESH	8,842	7,492	5,868	901	2,318	374
OGALLALA AQUIFER	DEAF SMITH	CANADIAN	BRACKISH	73	0	0	0	0	0
OGALLALA AQUIFER	DEAF SMITH	RED	FRESH	0	0	8,677	0	0	7,816
OGALLALA AQUIFER	DICKENS	BRAZOS	FRESH	2,471	2,573	2,458	2,549	2,627	2,603
OGALLALA AQUIFER	DICKENS	RED	FRESH	3,825	3,897	3,964	4,022	3,547	3,617
OGALLALA AQUIFER	FLOYD	BRAZOS	FRESH	11,675	14,191	17,263	16,127	15,798	17,968
OGALLALA AQUIFER	FLOYD	RED	FRESH	22,911	27,839	26,083	22,809	20,280	20,896
OGALLALA AQUIFER	GAINES	COLORADO	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	GARZA	BRAZOS	FRESH	12,194	12,548	12,866	12,478	11,859	12,020
OGALLALA AQUIFER	HALE	BRAZOS	FRESH	0	0	12,494	34,379	34,734	53,497
OGALLALA AQUIFER	HALE	RED	FRESH	525	525	525	525	525	525
OGALLALA AQUIFER	HOCKLEY	BRAZOS	FRESH	4,726	12,874	20,715	15,194	10,072	8,380
OGALLALA AQUIFER	HOCKLEY	COLORADO	FRESH	0	0	0	0	0	251
OGALLALA AQUIFER	LAMB	BRAZOS	FRESH	0	20	651	3,514	2,347	5,011

**SOURCE WATER BALANCE (AVAILABILITY - WUG SUPPLY)**

<b>REGION O</b>									
<b>GROUNDWATER</b>	<b>COUNTY</b>	<b>BASIN</b>	<b>SALINITY</b>	<b>SOURCE WATER BALANCE (ACRE-FEET PER YEAR)</b>					
				<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
OGALLALA AQUIFER	LUBBOCK	BRAZOS	FRESH	0	5,571	20,696	16,203	11,367	25,082
OGALLALA AQUIFER	LYNN	BRAZOS	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	LYNN	COLORADO	FRESH	5,547	5,558	5,553	5,598	5,544	5,454
OGALLALA AQUIFER	MOTLEY	RED	FRESH	4,371	4,525	4,682	4,821	4,585	4,381
OGALLALA AQUIFER	PARMER	BRAZOS	FRESH	0	7,745	20,079	16,003	11,153	13,876
OGALLALA AQUIFER	PARMER	RED	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	SWISHER	BRAZOS	FRESH	4,666	24,116	18,791	13,551	7,773	3,399
OGALLALA AQUIFER	SWISHER	RED	FRESH	0	0	0	0	0	0
OGALLALA AQUIFER	TERRY	BRAZOS	FRESH	18	22	17	2	0	0
OGALLALA AQUIFER	TERRY	COLORADO	FRESH	1,261	803	394	0	0	0
OGALLALA AQUIFER	YOAKUM	COLORADO	FRESH	0	0	0	0	0	0
OTHER AQUIFER	BRISCOE	RED	FRESH	0	0	0	0	0	0
OTHER AQUIFER	CROSBY	BRAZOS	BRACKISH	0	0	0	0	0	0
OTHER AQUIFER	DICKENS	BRAZOS	BRACKISH	0	0	0	0	0	0
OTHER AQUIFER	DICKENS	RED	BRACKISH	0	0	0	0	0	0
OTHER AQUIFER	FLOYD	RED	FRESH	0	0	0	0	0	0
OTHER AQUIFER	GARZA	BRAZOS	FRESH	0	0	0	0	0	0
OTHER AQUIFER	HALE	BRAZOS	FRESH	0	0	0	0	0	0
OTHER AQUIFER	MOTLEY	RED	BRACKISH	0	0	0	0	0	0
SEYMOUR AQUIFER	BRISCOE	RED	BRACKISH	0	0	0	0	0	0
SEYMOUR AQUIFER	MOTLEY	RED	FRESH	0	0	0	0	0	0
<b>GROUNDWATER TOTAL SOURCE WATER BALANCE</b>				<b>219,642</b>	<b>250,876</b>	<b>336,019</b>	<b>345,653</b>	<b>319,117</b>	<b>373,679</b>

<b>REGION O</b>									
<b>REUSE</b>	<b>COUNTY</b>	<b>BASIN</b>	<b>SALINITY</b>	<b>SOURCE WATER BALANCE (ACRE-FEET PER YEAR)</b>					
				<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
DIRECT REUSE	BAILEY	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	CASTRO	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	COCHRAN	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	COCHRAN	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	CROSBY	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	DEAF SMITH	RED	FRESH	0	0	0	0	0	0
DIRECT REUSE	FLOYD	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	HALE	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	HOCKLEY	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	HOCKLEY	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	LAMB	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	LUBBOCK	BRAZOS	FRESH	4,806	7,214	9,107	10,586	15,200	19,558
DIRECT REUSE	LYNN	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	PARMER	BRAZOS	FRESH	0	0	0	0	0	0
DIRECT REUSE	PARMER	RED	FRESH	0	0	0	0	0	0
<b>REUSE TOTAL SOURCE WATER BALANCE</b>				<b>4,806</b>	<b>7,214</b>	<b>9,107</b>	<b>10,586</b>	<b>15,200</b>	<b>19,558</b>

**SOURCE WATER BALANCE (AVAILABILITY - WUG SUPPLY)**

<b>REGION O</b>									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
ALAN HENRY LAKE/RESERVOIR	RESERVOIR	BRAZOS	FRESH	12,575	12,295	11,995	11,675	11,355	10,695
BRAZOS LIVESTOCK LOCAL SUPPLY	BAILEY	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	CASTRO	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	COCHRAN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	CROSBY	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	DAWSON	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	DICKENS	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	FLOYD	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	GARZA	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	HALE	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	HOCKLEY	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	LAMB	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	LUBBOCK	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	LYNN	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	PARMER	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	SWISHER	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	TERRY	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS RUN-OF-RIVER   COMBINED IRRIGATION WR 12-3708	CROSBY	BRAZOS	FRESH	10	10	10	10	10	10
BRAZOS RUN-OF-RIVER   COMBINED IRRIGATION WR 12-3696, 12-3698, 12-3699	DICKENS	BRAZOS	FRESH	130	130	130	130	130	130
BRAZOS RUN-OF-RIVER   COMBINED IRRIGATION WR 12-3713	LYNN	BRAZOS	FRESH	30	30	30	30	30	30
BRAZOS RUN-OF-RIVER   COMBINED MUNICIPAL WR 12-3715 POST ISD	GARZA	BRAZOS	FRESH	30	30	30	30	30	30
BRAZOS RUN-OF-RIVER   MUNICIPAL WR 12-3707 TOWN OF LAKE RANSON CANYON	LUBBOCK	BRAZOS	FRESH	20	20	20	20	20	20
CANADIAN LIVESTOCK LOCAL SUPPLY	DEAF SMITH	CANADIAN	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	COCHRAN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	DAWSON	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	GAINES	COLORADO	FRESH	0	0	0	0	0	0



**SOURCE WATER BALANCE (AVAILABILITY - WUG SUPPLY)**

<b>REGION O</b>									
<b>SURFACE WATER</b>	<b>COUNTY</b>	<b>BASIN</b>	<b>SALINITY</b>	<b>SOURCE WATER BALANCE (ACRE-FEET PER YEAR)</b>					
				<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>2060</b>	<b>2070</b>
COLORADO LIVESTOCK LOCAL SUPPLY	HOCKLEY	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	LYNN	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	TERRY	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	YOAKUM	COLORADO	FRESH	0	0	0	0	0	0
MACKENZIE LAKE/RESERVOIR	RESERVOIR	RED	FRESH	4,304	4,304	4,304	4,304	4,304	4,304
RED LIVESTOCK LOCAL SUPPLY	BRISCOE	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	CASTRO	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	CROSBY	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	DEAF SMITH	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	DICKENS	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	FLOYD	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	HALE	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	MOTLEY	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	PARMER	RED	FRESH	0	0	0	0	0	0
RED LIVESTOCK LOCAL SUPPLY	SWISHER	RED	FRESH	0	0	0	0	0	0
RED RUN-OF-RIVER   IRRIGATION WR 02-5099, 02-5212	BRISCOE	RED	FRESH	60	60	60	60	60	60
RED RUN-OF-RIVER   IRRIGATION WR 02-5101	FLOYD	RED	FRESH	10	10	10	10	10	10
RED RUN-OF-RIVER   IRRIGATION WR 02-5102	MOTLEY	RED	FRESH	10	10	10	10	10	10
RED RUN-OF-RIVER   IRRIGATION WR 02-5186	PARMER	RED	FRESH	10	10	10	10	10	10
RED RUN-OF-RIVER   MUNICIPAL WR 02-5220 TPWD CAPROCK CANYONS STATE PARK	BRISCOE	RED	FRESH	20	20	20	20	20	20
WHITE RIVER LAKE/RESERVOIR	RESERVOIR	BRAZOS	FRESH	0	0	0	0	0	0
<b>SURFACE WATER TOTAL SOURCE WATER BALANCE</b>				<b>17,209</b>	<b>16,929</b>	<b>16,629</b>	<b>16,309</b>	<b>15,989</b>	<b>15,329</b>
<b>REGION O TOTAL SOURCE WATER BALANCE</b>				<b>241,657</b>	<b>275,019</b>	<b>361,755</b>	<b>372,548</b>	<b>350,306</b>	<b>408,566</b>



**Table 5-3. Summary of Recommended Water Management Strategies**  
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Water Management Strategy	Implementation Decade <sup>a</sup>	Capital Cost <sup>b</sup> (\$)	Unit Cost (\$/acre-foot)	Total Annual Yield (acre-feet per year)					
				2020	2030	2040	2050	2060	2070
<b>Regional Strategies</b>									
<i>Conservation</i>									
Municipal	2020	<i>not estimated</i>	770	13,476	12,748	12,334	12,590	13,329	14,169
Agricultural	2020	248,399,450	1,000	97,585	83,176	67,639	67,639	67,639	67,639
Manufacturing	2020	<i>not estimated</i>	<i>not estimated</i>	<i>not estimated</i>					
Drought management	2020	<i>not estimated</i>	<i>not estimated</i>	0	0	0	0	0	0
Water reuse	2020	<i>not estimated</i>	572	<i>not estimated</i>					
Playa BMPs	2020	65/acre	13	4 to 6 feet of recharge per year					
Rainwater harvesting	2020	<i>not estimated</i>	<i>not estimated</i>	1,000-1,200					
Brush management	2020	20-225/acre	<i>not estimated</i>	<i>not estimated</i>					
Electric-dry power generation	TBD	<i>not estimated</i>	<i>not estimated</i>	<i>not estimated</i>					
<i>Water transfers</i>									
Voluntary	2020	<i>not estimated</i>	<i>not estimated</i>	<i>not estimated</i>					
Emergency	2020	<i>not estimated</i>	<i>not estimated</i>	<i>not estimated</i>					
<i>Development of new supplies</i>									
Local groundwater development	2020	16,196,170	568	28,538					
Brackish water desalination	2030	<i>not estimated</i>	357-782	<i>not estimated</i>					
Cloud seeding	2020	<i>not estimated</i>	<30	2 to 15 percent increase in annual precipitation or runoff					
Reuse	2030	<i>not estimated</i>	<i>not estimated</i>	<i>not estimated</i>					
<b>City of Lubbock Strategies</b>									
Direct potable reuse to South Water Treatment Plant	TBD	12,660,000	1,255	10,089					
Direct potable reuse to North Water Treatment Plant	TBD	8,796,000	872	10,089					

<sup>a</sup> TBD = Implementation decade to be determined

<sup>b</sup> Sum of all capital costs incurred throughout all decades



**Table 5-3. Summary of Recommended Water Management Strategies**  
**Page 2 of 2**

Water Management Strategy	Implementation Decade <sup>a</sup>	Capital Cost <sup>b</sup> (\$)	Unit Cost (\$/acre-foot)	Total Annual Yield (acre-feet per year)					
				2020	2030	2040	2050	2060	2070
<b>City of Lubbock Strategies (cont.)</b>									
North Fork diversion at CR 7300	TBD	6,344,000	629						10,089
South Fork discharge	TBD	8,315,000	1,016						8,186
North Fork diversion to Lake Alan Henry pump station	TBD	6,981,000	930						7,510
Reclaimed water to aquifer storage and recovery	TBD	12,001,257	930						8,071
Bailey County Well Field capacity maintenance	2020	2,634,779	844						3,120
CRMWA aquifer storage and recovery	TBD	6,693,970	1,099						6,090
South Lubbock well field	TBD	7,421,538	2,840						2,613
Brackish well field at the South Water Treatment Plant	TBD	4,111,000	3,671						1,120
Lake Alan Henry Phase 2	2020	8,159,414	1,020						8,000
Jim Bertram Lake 7	TBD	9,351,000	828						11,300
Post Reservoir	TBD	10,453,000	1,166						8,962
North Fork scalping operation	TBD	14,815,000	1,698						8,725
<b>CRMWA Strategies</b>									
Conjunctive use of Roberts County Well Field and Lake Meredith	2020	0	0						10,000
Expanded development of Roberts County Well Field with additional transmission	2020	250,299,000	676						32,466,000
<b>South Garza water system</b>									
Infrastructure to serve areas surrounding Lake Alan Henry	2020	1,047,300	3,879						270

<sup>a</sup> TBD = Implementation decade to be determined

<sup>b</sup> Sum of all capital costs incurred throughout all decades