



# **MEETING MATERIALS**

**May 6, 2009**

**San Jacinto River Authority**



**Region H Water Planning Group**  
**10:00 AM Wednesday**  
**May 6, 2009**  
**San Jacinto River Authority Office**  
**Lake Conroe Dam, 1577 Dam Site Rd.**  
**Conroe, Texas**

**Agenda**

1. Introductions.
2. Review and approve minutes of February 4, 2009 meeting.
3. **Receive public comments on specific issues related to agenda items 6 through 13**  
(Public comments to be limited to 3 minutes per speaker).
4. Receive presentation from consultant on the results of the population and water demand projection analysis (Task 2) including revised municipal and steam-electric demands.
5. **Receive public comment on Item 4.**
6. Consider and take action on approving the submittal of revised population and water demand projections to the Texas Water Development Board (TWDB).
7. Receive presentation from Consultant on the status of water supply analysis (Task 3), including the approval of the use of alternatives to WAM Run 3 firm yields for determining regional supplies.
8. Receive presentation from Consultant on the proposed methodology for selection of water management strategies (WMS) (Task 4).
9. Consider and take action approving the WMS selection approach described under Item 8.
10. Receive presentation from David Kasper, HDR/Claunch & Miller, regarding the consistency of the 2006 Regional Water Plan regarding Harris County WCID 21.
11. Consider and take action as necessary regarding Item 10.
12. Receive updates by local water agencies or other interested parties regarding any water-related initiatives or projects currently underway or planned.
13. Agency communications
14. **General public comments.** (Public comments to be limited to 3 minutes per speaker).
15. Next Meeting: June 3, 2009 (if needed); July 1, 2009 regular meeting.
16. Adjourn.



## Agenda Item 2

Review and approve minutes of February 4, 2009 meeting.



**MINUTES**  
**REGION H WATER PLANNING GROUP MEETING**  
**10:00 A.M.**  
**FEBRUARY 4, 2009**  
**SAN JACINTO RIVER AUTHORITY OFFICE**  
**LAKE CONROE DAM**  
**1577 DAMSITE ROAD**  
**CONROE, TEXAS**

**MEMBERS PRESENT:** Roosevelt Alexander, John Bartos, Reed Eichelberger, Mark Evans, Ted Long, John Howard, Robert Istre, Glynn Leiper, Ronald Neighbors, Jimmie Schindewolf, Jun Chang, Steve Tyler, Mike Uhl, Danny Vance, Harold Wallace, Pudge Willcox

**DESIGNATED ALTERNATES:** Reeves Gilmore for John Blount, Tom Michel for Marvin Marcell, Jason Pierce for James Morrison, and Jace Houston for William Teer

**MEMBERS ABSENT:** John Baker, Robert Bruner, Jack Harris, and Bob Hebert

**NON-VOTING MEMBERS PRESENT:** Temple McKinnon and Melinda Silva

**PRESIDING:** Mark Evans, Vice-Chair

**CALL TO ORDER PUBLIC MEETING AT 10:10 A.M.**

**MINUTES OF NOVEMBER 5, 2008 MEETING**

Motion was made by Harold Wallace to approve the minutes of the November 5, 2008 meeting; seconded by Danny Vance. The motion carried unanimously.

**PUBLIC COMMENTS ON AGENDA ITEMS 4 – 15**

Brandt Mannchen commented on the Environmental Flows Study Draft Report (agenda Item No. 11). He began by thanking Region H for conducting the environmental flows analysis. He continued by distributing a written summary of his personal comments and then he discussed each of the specific comments.

Ken Kramer with the Sierra Club commented on the submittal of the Drought Management Study Draft Report to the Texas Water Development Board on or before March 31, 2009 (agenda Item No. 9). He expressed concern over the focus of reservoir levels in the report to serve as trigger mechanisms for water usage cutbacks. Mr. Kramer questioned a statement in the conclusion of the report pertaining to the relevance of drought contingency plans since they are based on the drought of record. He proposed that in the third round of regional planning that the issue of drought contingency be revisited. His formal written comments on the Drought Management Study Draft Report will be submitted this spring. He continued by briefly commenting on agenda Item No. 11 pertaining to the Environmental Flows Study Draft Report. Mr. Kramer spoke on Region C's management strategies, reuse projects, and the impact on

flows. In summary, he informed everyone that the Texas Parks and Wildlife Department's *Texas the State of Flowing Water* would air on PBS on February 12<sup>th</sup> at 8:00 p.m.

**ACCEPT THE RESIGNATION OF JOHN BAKER AS A VOTING MEMBER OF THE REGION H REGIONAL WATER PLANNING GROUP REPRESENTING RIVER AUTHORITIES**

A motion was made by Danny Vance to accept the resignation of John Baker; seconded by Ronald Neighbors. The motion carried unanimously.

**CONSIDER AND TAKE ACTION ON THE NOMINATION AND APPOINTMENT OF JOHN HOFMANN (CENTRAL AND LOWER REGION MANAGER FOR BRAZOS RIVER AUTHORITY) AS A VOTING MEMBER OF THE REGION H REGIONAL WATER PLANNING GROUP REPRESENTING RIVER AUTHORITIES**

A motion was made by Robert Istre to accept the nomination and appointment of John Hofmann as a voting member of the Region H Water Planning Group representing river authorities; seconded by Danny Vance. The motion carried unanimously.

**ACCEPT THE RESIGNATION OF JACK HARRIS AS A VOTING MEMBER OF THE REGION H REGIONAL WATER PLANNING GROUP REPRESENTING COUNTIES**

A motion was made by Ronald Neighbors to accept the resignation of Jack Harris as a voting member of the Region H Regional Water Planning Group; seconded by Danny Vance. The motion carried unanimously.

**RECEIVE RECOMMENDATIONS FROM THE NOMINATING COMMITTEE FOR CALENDAR YEAR 2009 EXECUTIVE COMMITTEE MEMBERS**

Jimmy Schindewolf made recommendations on behalf of the Nominating Committee for the 2009 Executive Committee as follows:

|            |                   |
|------------|-------------------|
| Chair      | Mark Evans        |
| Vice-Chair | Ronald Neighbors  |
| Secretary  | Reed Eichelberger |
| Member     | C. Harold Wallace |
| Member     | John R. Bartos    |

**TAKE ACTION ON THE APPOINTMENT OF EXECUTIVE COMMITTEE MEMBERS OF THE REGION H REGIONAL WATER PLANNING GROUP FOR CALENDAR YEAR 2009**

A motion was made by Danny Vance to approve the recommended nominations as Jimmy Schindewolf presented on behalf of the Nominating Committee; seconded by Bob Hebert. The motion carried unanimously.

**CONSIDER AND TAKE ACTION ON APPROVING THE DROUGHT MANAGEMENT STUDY DRAFT REPORT FOR SUBMITTAL TO THE TEXAS WATER DEVELOPMENT (TWDB) ON OR BEFORE MARCH 31, 2009**

Mike Reedy with AECOM stated that there have been no official comments to date on the plan other than verbal comments received at the last meeting. Mr. Reedy stated that all comments have been addressed and clarifications made as needed. A motion was made by Ron Neighbors to approve the Drought Management Study Draft Report for submittal to the TWDB; seconded by Roosevelt Alexander. The motion carried unanimously.

**CONSIDER AND TAKE ACTION ON APPROVING THE INTERRUPTIBLE SUPPLY STUDY DRAFT REPORT FOR SUBMITTAL TO THE TEXAS WATER DEVELOPMENT BOARD (TWDB) ON OR BEFORE MARCH 31, 2009**

Mike Reedy with AECOM reviewed the amendments to the scope of work for interruptible supplies. In order to fulfill the contractual agreement with the Texas Water Development Board, he requested approval for the Interruptible Supplies Study to be submitted to the TWDB on or before March 31, 2009. A motion was made by Danny Vance to approve the Interruptible Supply Study Draft Report for submittal to the TWDB; seconded by Roosevelt Alexander. The motion carried unanimously.

**RECEIVE PRESENTATION FROM CONSULTANT ON THE RESULTS OF THE ENVIRONMENTAL FLOWS STUDY DRAFT REPORT**

Mike Reedy with AECOM started his presentation by thanking the Environmental Flows Committee for their input on the study. He explained the purpose of the study and presented an overview of the project. A brief discussion ensued regarding future challenges of implementing measures to meet environmental flow targets. John Bartos, Chair of the Environmental Flows Committee briefly commented on the committee's discussions concerning the study.

**RECEIVE PUBLIC COMMENTS ON ITEM 11**

No comments received.

**CONSIDER AND TAKE ACTION ON APPROVING THE ENVIRONMENTAL FLOWS STUDY DRAFT REPORT FOR SUBMITTAL TO THE TEXAS WATER DEVELOPMENT BOARD (TWDB) ON OR BEFORE MARCH 31, 2009**

A motion was made by Reed Eichelberger to approve the Environmental Flow Study Draft Report for submittal to the Texas Water Development Board; seconded by Ron Neighbors. The motion carried unanimously.

**RECEIVE PRESENTATION FROM CONSULTANT ON THE STATUS OF CURRENT PLANNING AND FUTURE WORK SCHEDULE FOR THE 2011 REGION H REGIONAL WATER PLAN**

Mike Reedy presented information on the 2011 Regional Water Plan development. He discussed the development of population projections at the county, WUG, and county-other level and asked for the planning group's input on gathering this data. Discussion followed regarding the completion of surveys. Robert Istre commented regarding the inclusion industrial demand information. Mike Reedy explained how the population projections are used in developing the water demands for the 2011 Regional Water Plan. Temple McKinnon commented on the population projections and water demands and presented the planning group with a summary of the Texas Water Development Board's study entitled "Water Demand Projections for Power Generation in Texas" dated January, 2009. Mr. Reedy stated that he would come back with recommendations associated with this item. In summary, Mr. Reedy presented a schedule of deliverables and explained the need to hold more frequent meetings in order to meet the upcoming deadlines.

**CONSIDER AND TAKE ACTION ON REQUESTING APPROVAL FROM THE TWDB FOR POTENTIAL USE OF ALTERNATIVES TO USING WAM RUN 3 MODELS AND POTENTIAL USE OF ALTERNATIVES TO FIRM YIELD FOR DEFINING REGIONAL WATER SUPPLIES IN REGION H**

After a brief discussion, motion was made by Danny Vance to request approval from the TWDB for use of alternatives to WAM Run 3 and the potential use of alternatives to firm yield for defining regional water supplies in Region H; seconded by Ronald Neighbors. The motion carried unanimously.

**RECEIVE PRESENTATION FROM REPRESENTATIVES OF MONTGOMERY COUNTY MUD 8 AND 9 REGARDING PLANNING FOR A REGIONAL REUSE PROJECT AND DISCUSSION OF POTENTIAL AMENDMENTS TO THE REGION H PLAN TO ALLOW FOR ADDITIONAL REUSE PROJECTS**

Dan Davis appeared on behalf of MUD 8 and MUD 9 and presented information on planning for water recycling projects and the potential for amendments to the Region H plan. Mike Reedy and Temple McKinnon met with Mr. Davis to discuss this matter. Mr. Reedy explained that small reuse projects are not identified in the plan and that they are not looking to amend the plan.

**RECEIVE UPDATES BY LOCAL WATER AGENCIES OR OTHER INTERESTED PARTIES REGARDING ANY WATER RELATED INITIATIVES OR PROJECTS CURRENTLY UNDERWAY OR PLANNED**

Danny Vance wanted to make everyone aware that Mike Reedy recently made a presentation on the Environmental Flows Study to the Chairman of the Environmental Flows Science Advisory Committee, Bob Huston.

Temple McKinnon gave an update on the retirement of Bill Mullican, Deputy Executive Administrator for Water Science and Conservation and stated that Robert Mace will be filling his position.

Jason Pierce with the City of Huntsville inquired as to the vacant position of Jack Harris. Mark Evans confirmed that recommendations will be considered at the next meeting.

### **GENERAL PUBLIC COMMENTS**

Dan Davis commented on the challenges of distributing Region H surveys and requests for information to various public utility districts. He requested to be included on future correspondence with his MUD.

### **AGENCY COMMUNICATIONS**

None.

### **NEXT MEETING:**

May 6, 2009  
San Jacinto River Authority  
Lake Conroe Dam  
1577 Damsite Road  
Conroe, Texas 77305

**ADJOURNED AT 12:20 P.M.**



## Agenda Items 4 - 9

Receive presentation from consultant on the results of the population and water demand projection analysis (Task 2) including revised municipal and steam-electric demands.

Receive public comment on Item 4.

Consider and take action on approving the submittal of revised population and water demand projections to the Texas Water Development Board (TWDB).

Receive presentation from Consultant on the status of water supply analysis (Task 3), including the approval of the use of alternatives to WAM Run 3 firm yields for determining regional supplies.

Receive presentation from Consultant on the proposed methodology for selection of water management strategies (WMS) (Task 4).

Consider and take action approving the WMS selection approach described under Item 8.





**2011 Regional Water Plan Schedule**

**REGION H**  
Water Planning Group

| <b>Date</b>     | <b>Event</b>        | <b>Items Due</b>  |
|-----------------|---------------------|---|
| 02/04/09        | RWPG Meeting        | No Deliverables   |
| <b>05/06/09</b> | <b>RWPG Meeting</b> | <b>Population and Water Demand Projections for Consideration by RWPG</b>                  |
| 07/01/09        | RWPG Meeting        | Draft Chapters 2 and 3; Proposed Recommendations and Strategies for Consideration by RWPG |
| 09/02/09        | RWPG Meeting        | Draft Chapters 4, 5, and 8  |
| 10/07/09        | RWPG Meeting        | Draft Chapters 1, 6, 7, and 9   |
| 12/02/09        | RWPG Meeting        | Draft Initially Prepared Plan   |
| 03/01/10        | Due Date            | Draft Final Initially Prepared Plan   |
| 09/01/10        | Due Date            | Regional Water Plan   |

## Focus for Today's Meeting

**REGION H**  
Water Planning Group

- **Task 2 – Population and Water Demands**
  - Review revised population and water demand projections for the 2011 RWP.
  - Receive public comment on revised projections.
  - Take action to approve revised projections.
- **Task 3 – Water Supply Analysis**
  - Review procedures and activities for completion of the 2011 RWP.
- **Task 4 – Water Management Strategy Selection**
  - Present WMA selection methodology.
  - Take action to approve selection methodology.



## Task 2 – Population and Water Demands

**REGION H**  
Water Planning Group

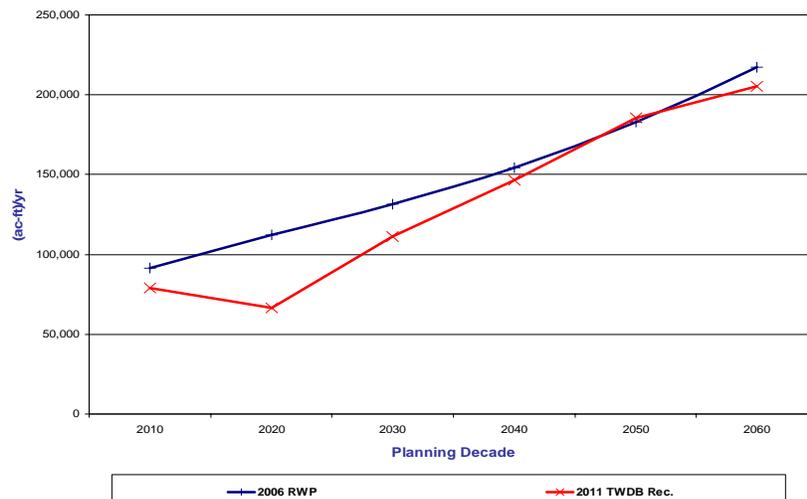
### Items for Consideration

- Steam-Electric Demands
- Population Projections
- Municipal Water Demands
- Approval of all Water Demand Projections

## Task 2 – Population and Water Demands

**REGION H**  
Water Planning Group

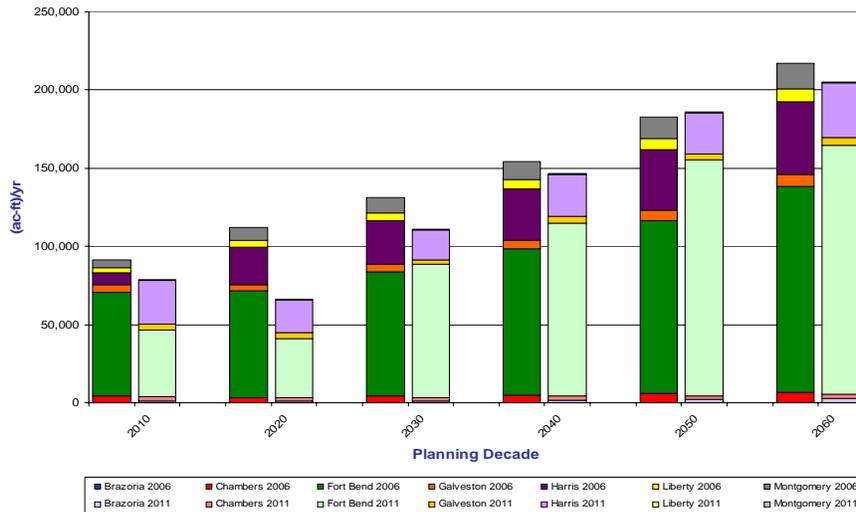
### Steam-Electric Demand Alternatives



## Steam-Electric Demands by County

REGION H  
Water Planning Group

### Steam-Electric Demand Alternatives



## Task 2 – Population and Water Demands

REGION H  
Water Planning Group

### Steam-Electric Demand Recommendation

- In general, the total regional steam-electric demands in the 2006 RWP are greater than those proposed for this round
- The methodology used for developing the revised projections result in a decrease in demand in the 2020 decade
- Recommend the retention of the 2006 RWP values for this round of planning

## Projection Methodology

- County Population Projections
- WUG-Level Population Projections
  - TWDB-produced alternative projections
  - Input from WUGs
  - Data from Groundwater Reduction Plans
- Municipal Demand Projections
  - Developed by TWDB from Region H population projections
  - Per capita water usage based on baseline Year 2000 TWDB Water Use Survey

## County Projection Methodology

- County Control Populations
  - Applied changes to counties with growth greater than 5% of the 2006 RWP projection
    - Harris County did not meet the 5% threshold although it was included due to magnitude of increase
  - Applying change in population as a one-time occurrence
    - Harris County
  - Applying percent change in population as a long-term trend
    - Brazoria, Chambers, Fort Bend, and Montgomery Counties

## Task 2 – Population and Water Demands



### 2008 Projections from Texas State Data Center

- Basis for comparing Region H projections
- Cohort-component projection technique for counties
  - Calculates projections for groups of persons with common characteristics (cohorts)
- For each cohort, projection based on:
  - Base population
  - Birth rate
  - Death rate
  - Migration rate

## Task 2 – Population and Water Demands



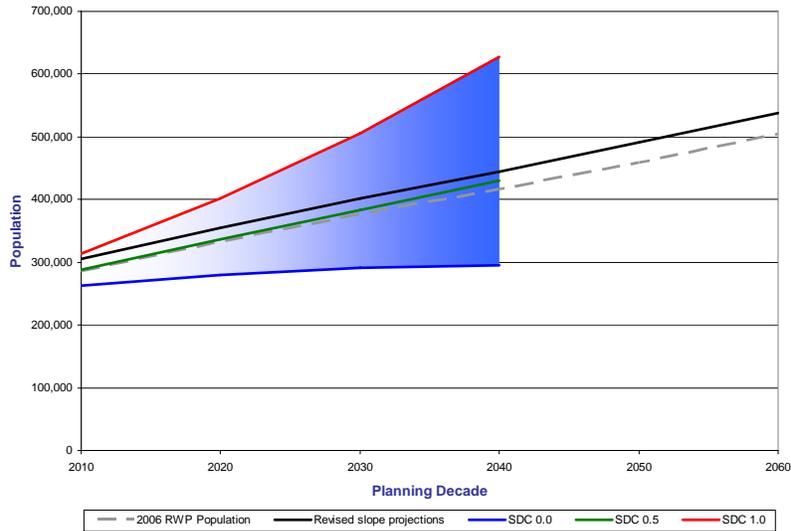
### 2008 Projections from Texas State Data Center

- Developed projections through 2040 based on 3 migration rate scenarios:
  - 0.0 – Assumes in-migration and out-migration are equal
  - 0.5 – Assumes net migration of ½ the 1990 to 2000 rate
  - 1.0 – Assumes net migration rate for 1990 to 2000 continues

## Task 2 – Population and Water Demands

**REGION H**  
Water Planning Group

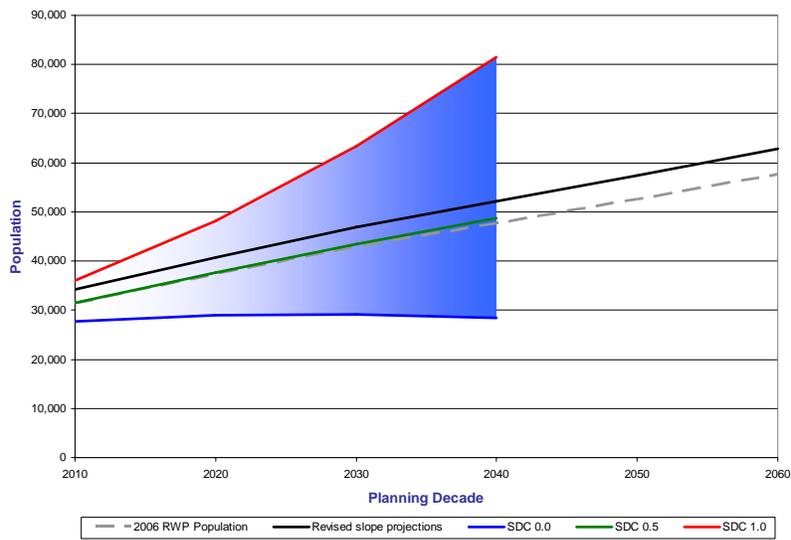
### Revised Brazoria County Control Population



## Task 2 – Population and Water Demands

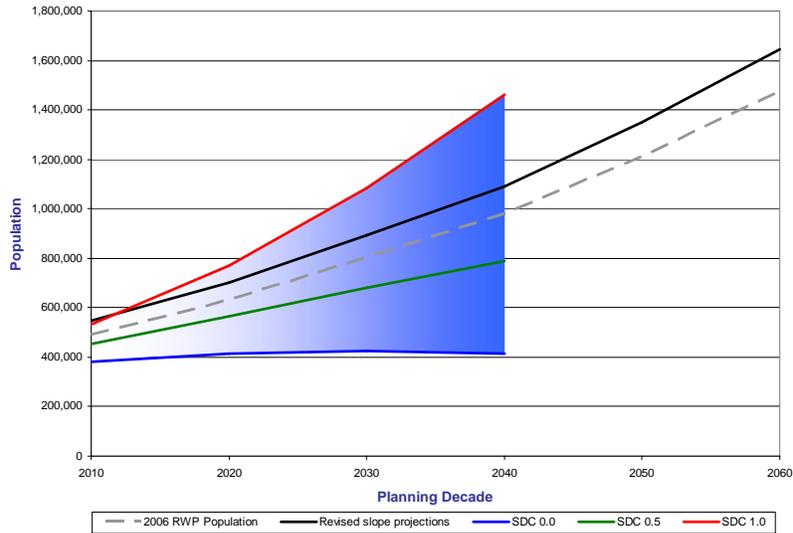
**REGION H**  
Water Planning Group

### Revised Chambers County Control Population



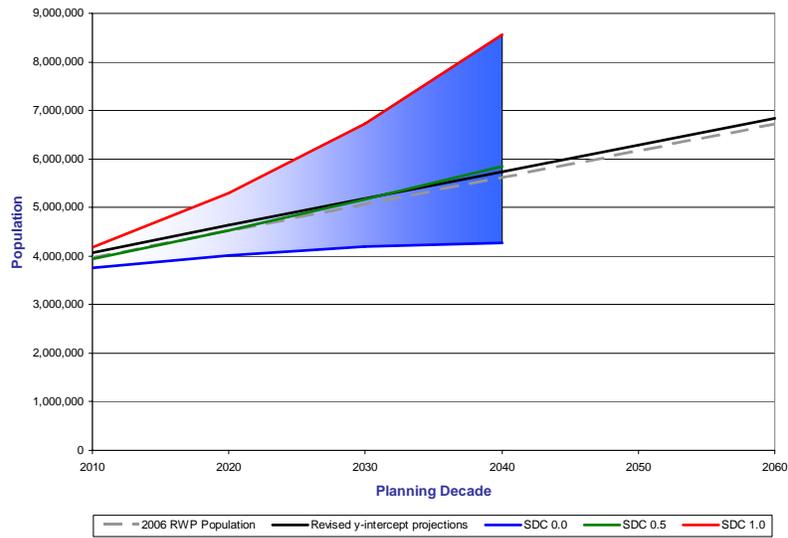
## Task 2 – Population and Water Demands

### Revised Fort Bend County Control Population



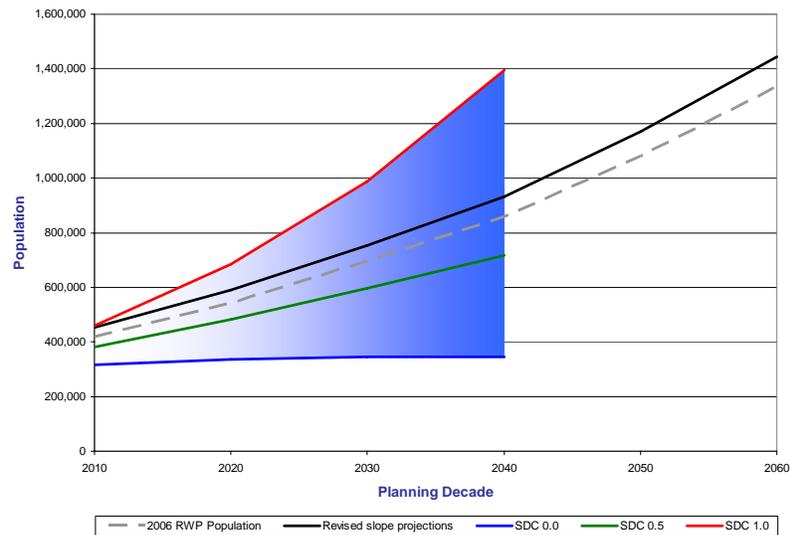
## Task 2 – Population and Water Demands

### Revised Harris County Control Population



## Task 2 – Population and Water Demands

### Revised Montgomery County Control Population



## Task 2 – Population and Water Demands

### WUG-Level Populations

- Surplus county population (in excess of 2006 RWP values) first distributed to new WUGs and WUGs with known demand revisions
- Applied remaining surplus based on county:
  - Brazoria – No surplus
  - Chambers – Distributed to Trinity Bay Conservation District because 2006 RWP County-Other showed no growth through 2060
  - Fort Bend – No surplus
  - Harris – Surplus represented in County-Other
  - Montgomery – Allocated to all County-Other and utility WUGs based on rate of growth in 2006 RWP

## Task 2 – Population and Water Demands

### Municipal Demand Projections

- Developed from population projections provided to TWDB
- In general, use per capita demand from 2006 RWP
- Include limited conservation savings from conservation programs, resulting in a decreasing per capita demand over time

## Task 2 – Population and Water Demands

### Survey Results

WUGs given the opportunity to review projections.

- Developed online database to receive WUG responses
- Received 29 responses from 232 mail-outs – 12.5%
- WUGs informed of criteria to revise projections
  - Credible population estimates such as SDC, expanded service areas
  - More representative DOR condition for per capita demands
- Redeveloped population and demand projections based on input from WUGs

The screenshot shows a web browser window displaying a survey form titled "Region H Water Planning Group Projected Population and Water Demand for 2013 Regional Water Plan". The form includes a "WUG Name" field, a "WUG Contact Person" field, and a table for entering projected population and water demand data. The table has columns for "Region H Water Plan" and years 2014, 2020, 2026, 2032, 2038, and 2044. Below the table are fields for "Year Date (enter if different than above)", "WUG Projected Population", and "WUG Projected Water Demand". The form also contains a "Submit" button and a "Contact Us" link.

| Region H Water Plan        | 2014 | 2020 | 2026 | 2032 | 2038 | 2044 |
|----------------------------|------|------|------|------|------|------|
| WUG Projected Population   |      |      |      |      |      |      |
| WUG Projected Water Demand |      |      |      |      |      |      |

## Task 2 – Population and Water Demands



### Survey Results

29 WUGs that responded to Survey by Deadline

#### 10 WUGs requested Changes

- 10 WUGs requested population changes
  - City of Montgomery
  - City of Panorama Village
  - City of Sugar Land
  - Crosby MUD
  - Fort Bend County MUD #67
  - Fort Bend County MUD #69
  - Montgomery County MUD #8
  - Montgomery County MUD #9
  - North Fort Bend Water Authority
  - Riverside WSC
- 6 WUGs requested per capita changes
  - City of Montgomery
  - City of Panorama Village
  - City of Sugar Land
  - Fort Bend County MUD #67
  - Fort Bend County MUD #69
  - North Fort Bend Water Authority

19 WUGs approved the projections provided in the mail-out

## Task 2 – Population and Water Demands



### WUG Input Net Differences – Fort Bend County

| WUG         | Projection | 2010   | 2020    | 2030    | 2040    | 2050    | 2060    |
|-------------|------------|--------|---------|---------|---------|---------|---------|
| FBC MUD #67 | Draft      | 3,306  | 3,306   | 3,306   | 3,306   | 3,306   | 3,306   |
|             | WUG        | 3,759  | 3,759   | 3,759   | 3,759   | 3,759   | 3,759   |
| FBC MUD #69 | Draft      | 1,701  | 1,701   | 1,701   | 1,701   | 1,701   | 1,701   |
|             | WUG        | 2,086  | 2,086   | 2,086   | 2,086   | 2,086   | 2,086   |
| Sugar Land  | Draft      | 89,426 | 89,426  | 89,426  | 89,426  | 89,426  | 89,426  |
|             | WUG        | 83,819 | 101,422 | 105,000 | 105,000 | 105,000 | 105,000 |

\*Adjustments were made to the County-Other WUG to account for the net differences except for Fort Bend County Planning Decade 2020.

*NFBWA Requested a revision of their per capita demand to reflect their GRP values*

## Task 2 – Population and Water Demands

### WUG Input Net Differences – Harris County

| WUG        | Projection | 2010  | 2020  | 2030  | 2040  | 2050  | 2060  |
|------------|------------|-------|-------|-------|-------|-------|-------|
| Crosby MUD | Draft      | 3,162 | 3,162 | 3,162 | 3,162 | 3,162 | 3,162 |
|            | WUG        | 4,734 | 5,184 | 5,634 | 6,084 | 6,534 | 6,984 |
| NFBWA      | Draft      | 6,954 | 6,824 | 6,875 | 7,244 | 7,469 | 7,429 |
|            | WUG        | 6,954 | 6,824 | 6,875 | 7,244 | 7,469 | 7,429 |

\*Adjustments were made to the County-Other WUG to account for the net differences.

## Task 2 – Population and Water Demands

### WUG Input Net Differences – Montgomery County

| WUG              | Projection | 2010  | 2020  | 2030  | 2040   | 2050   | 2060   |
|------------------|------------|-------|-------|-------|--------|--------|--------|
| MC MUD #8        | Draft      | 4,702 | 5,435 | 7,084 | 9,021  | 11,577 | 14,548 |
|                  | WUG        | 4,060 | 5,336 | 6,532 | 6,967  | 6,886  | 6,829  |
| MC MUD #9        | Draft      | 3,290 | 3,936 | 5,388 | 7,093  | 9,345  | 11,962 |
|                  | WUG        | 2,840 | 3,864 | 4,968 | 5,478  | 5,559  | 5,616  |
| Panorama Village | Draft      | 2,538 | 2,888 | 3,572 | 3,913  | 3,913  | 3,913  |
|                  | WUG        | 2,160 | 2,281 | 2,402 | 2,523  | 2,644  | 2,765  |
| Montgomery       | Draft      | 927   | 1,290 | 1,729 | 2,213  | 2,851  | 3,592  |
|                  | WUG        | 1,200 | 5,000 | 7,500 | 10,000 | 12,500 | 15,000 |

\*Adjustments were made to the County-Other WUG to account for the net differences except for Fort Bend County Planning Decade 2020.

## Task 2 – Population and Water Demands

### WUG Input Net Differences – San Jacinto County

| WUG              | Projection | 2010  | 2020  | 2030  | 2040  | 2050  | 2060  |
|------------------|------------|-------|-------|-------|-------|-------|-------|
| Riverside<br>WSC | Draft      | 1,887 | 2,542 | 3,066 | 3,393 | 3,582 | 3,668 |
|                  | WUG        | 2,017 | 2,542 | 3,066 | 3,950 | 4,485 | 5,011 |

\*Adjustments were made to the County-Other WUG to account for the net differences.

## Task 2 – Population and Water Demands

### WUG Input Net Differences – Walker County

| WUG              | Projection | 2010  | 2020  | 2030  | 2040  | 2050  | 2060  |
|------------------|------------|-------|-------|-------|-------|-------|-------|
| Riverside<br>WSC | TWDB       | 4,184 | 4,612 | 4,819 | 4,768 | 4,780 | 4,780 |
|                  | WUG        | 4,472 | 4,612 | 4,819 | 5,550 | 5,985 | 6,530 |

\*Adjustments were made to the County-Other WUG to account for the net differences.

## Task 2 – Population and Water Demands

### Published Projections

- Posted on Region H Water website on April 22 for public review and comment
- Include all requests for changes made up to deadline.
- Detailed WUG-level projections provided in handouts

## Task 2 – Population and Water Demands

### Water Demand – Austin County

| Type                    |                      | RWP  | 2010        | 2020          | 2030          | 2040          | 2050          | 2060          |               |
|-------------------------|----------------------|------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Municipal Population    |                      | 2006 | 27,173      | 30,574        | 32,946        | 34,355        | 35,031        | 35,958        |               |
|                         |                      | 2011 | 27,173      | 30,574        | 32,946        | 34,355        | 35,031        | 35,958        |               |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006 | 3,918       | 4,258         | 4,494         | 4,590         | 4,639         | 4,756         |               |
|                         |                      | 2011 | 4,123       | 4,658         | 5,027         | 5,191         | 5,278         | 5,446         |               |
|                         | Irrigation           | 2006 | 10,617      | 10,617        | 10,617        | 10,617        | 10,617        | 10,617        |               |
|                         |                      | 2011 | 10,617      | 10,617        | 10,617        | 10,617        | 10,617        | 10,617        |               |
|                         | Livestock            | 2006 | 1,615       | 1,615         | 1,615         | 1,615         | 1,615         | 1,615         |               |
|                         |                      | 2011 | 1,615       | 1,615         | 1,615         | 1,615         | 1,615         | 1,615         |               |
|                         | Manufacturing        | 2006 | 210         | 233           | 253           | 272           | 288           | 313           |               |
|                         |                      | 2011 | 210         | 233           | 253           | 272           | 288           | 313           |               |
|                         | Mining               | 2006 | 51          | 56            | 59            | 62            | 65            | 67            |               |
|                         |                      | 2011 | 51          | 56            | 59            | 62            | 65            | 67            |               |
|                         | Steam Electric Power | 2006 | 0           | 0             | 0             | 0             | 0             | 0             |               |
|                         |                      | 2011 | 0           | 0             | 0             | 0             | 0             | 0             |               |
|                         | <b>TOTAL</b>         |      | <b>2006</b> | <b>16,411</b> | <b>16,779</b> | <b>17,038</b> | <b>17,156</b> | <b>17,224</b> | <b>17,368</b> |
|                         |                      |      | <b>2011</b> | <b>16,616</b> | <b>17,179</b> | <b>17,571</b> | <b>17,757</b> | <b>17,863</b> | <b>18,058</b> |

## Task 2 – Population and Water Demands

### Water Demand – Brazoria County

| Type                    |                      | RWP         | 2010           | 2020           | 2030           | 2040           | 2050           | 2060           |
|-------------------------|----------------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal Population    |                      | 2006        | 285,850        | 331,731        | 375,664        | 416,157        | 459,078        | 503,894        |
|                         |                      | 2011        | 305,649        | 354,708        | 401,684        | 444,981        | 490,875        | 538,795        |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 44,685         | 50,822         | 56,754         | 62,022         | 68,202         | 74,967         |
|                         |                      | 2011        | 47,184         | 53,523         | 59,656         | 65,134         | 71,567         | 78,598         |
|                         | Irrigation           | 2006        | 135,033        | 123,115        | 118,544        | 115,788        | 115,788        | 115,788        |
|                         |                      | 2011        | 135,033        | 123,115        | 118,544        | 115,788        | 115,788        | 115,788        |
|                         | Livestock            | 2006        | 1,614          | 1,614          | 1,614          | 1,614          | 1,614          | 1,614          |
|                         |                      | 2011        | 1,614          | 1,614          | 1,614          | 1,614          | 1,614          | 1,614          |
|                         | Manufacturing        | 2006        | 260,239        | 286,554        | 309,841        | 333,348        | 354,093        | 379,241        |
|                         |                      | 2011        | 260,239        | 286,554        | 309,841        | 333,348        | 354,093        | 379,241        |
|                         | Mining               | 2006        | 4,104          | 4,502          | 4,737          | 4,969          | 5,201          | 5,419          |
|                         |                      | 2011        | 4,104          | 4,502          | 4,737          | 4,969          | 5,201          | 5,419          |
|                         | Steam Electric Power | 2006        | 0              | 0              | 0              | 0              | 0              | 0              |
|                         |                      | 2011        | 0              | 0              | 0              | 0              | 0              | 0              |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>445,675</b> | <b>466,607</b> | <b>491,490</b> | <b>517,741</b> | <b>544,898</b> | <b>577,029</b> |
|                         |                      | <b>2011</b> | <b>448,174</b> | <b>469,308</b> | <b>494,392</b> | <b>520,853</b> | <b>548,263</b> | <b>580,660</b> |

## Task 2 – Population and Water Demands

### Water Demand – Chambers County

| Type                    |                      | RWP         | 2010           | 2020           | 2030           | 2040           | 2050           | 2060           |
|-------------------------|----------------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal Population    |                      | 2006        | 31,375         | 37,328         | 42,867         | 47,667         | 52,535         | 57,521         |
|                         |                      | 2011        | 34,282         | 40,786         | 46,838         | 52,083         | 57,402         | 62,850         |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 4,625          | 5,438          | 6,180          | 6,824          | 7,506          | 8,249          |
|                         |                      | 2011        | 4,985          | 5,854          | 6,648          | 7,338          | 8,067          | 8,863          |
|                         | Irrigation           | 2006        | 117,777        | 117,777        | 117,777        | 117,777        | 117,777        | 117,777        |
|                         |                      | 2011        | 117,777        | 117,777        | 117,777        | 117,777        | 117,777        | 117,777        |
|                         | Livestock            | 2006        | 462            | 462            | 462            | 462            | 462            | 462            |
|                         |                      | 2011        | 462            | 462            | 462            | 462            | 462            | 462            |
|                         | Manufacturing        | 2006        | 11,802         | 12,959         | 13,987         | 15,011         | 15,932         | 17,122         |
|                         |                      | 2011        | 11,802         | 12,959         | 13,987         | 15,011         | 15,932         | 17,122         |
|                         | Mining               | 2006        | 37,422         | 40,532         | 42,427         | 44,286         | 46,130         | 47,742         |
|                         |                      | 2011        | 37,422         | 40,532         | 42,427         | 44,286         | 46,130         | 47,742         |
|                         | Steam Electric Power | 2006        | 4,435          | 3,536          | 4,134          | 4,863          | 5,751          | 6,834          |
|                         |                      | 2011        | 4,435          | 3,536          | 4,134          | 4,863          | 5,751          | 6,834          |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>176,523</b> | <b>180,704</b> | <b>184,967</b> | <b>189,223</b> | <b>193,558</b> | <b>198,186</b> |
|                         |                      | <b>2011</b> | <b>176,883</b> | <b>181,120</b> | <b>185,435</b> | <b>189,737</b> | <b>194,119</b> | <b>198,800</b> |

## Task 2 – Population and Water Demands

### Water Demand – Fort Bend County

| Type                    |                      | RWP         | 2010           | 2020           | 2030           | 2040           | 2050           | 2060           |
|-------------------------|----------------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal Population    |                      | 2006        | 490,072        | 630,624        | 802,486        | 979,196        | 1,210,945      | 1,475,761      |
|                         |                      | 2011        | 545,883        | 715,275        | 893,875        | 1,090,710      | 1,348,851      | 1,643,825      |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 89,579         | 111,680        | 138,770        | 165,904        | 202,470        | 245,404        |
|                         |                      | 2011        | 98,180         | 123,852        | 149,894        | 178,496        | 217,213        | 263,055        |
|                         | Irrigation           | 2006        | 53,455         | 53,455         | 53,455         | 53,455         | 53,455         | 53,455         |
|                         |                      | 2011        | 53,455         | 53,455         | 53,455         | 53,455         | 53,455         | 53,455         |
|                         | Livestock            | 2006        | 1,171          | 1,171          | 1,171          | 1,171          | 1,171          | 1,171          |
|                         |                      | 2011        | 1,171          | 1,171          | 1,171          | 1,171          | 1,171          | 1,171          |
|                         | Manufacturing        | 2006        | 6,863          | 7,199          | 7,468          | 7,685          | 7,829          | 7,410          |
|                         |                      | 2011        | 6,863          | 7,199          | 7,468          | 7,685          | 7,829          | 7,410          |
|                         | Mining               | 2006        | 3,010          | 3,070          | 3,105          | 3,138          | 3,169          | 3,196          |
|                         |                      | 2011        | 3,010          | 3,070          | 3,105          | 3,138          | 3,169          | 3,196          |
|                         | Steam Electric Power | 2006        | 66,026         | 68,046         | 79,553         | 93,582         | 110,682        | 131,527        |
|                         |                      | 2011        | 66,026         | 68,046         | 79,553         | 93,582         | 110,682        | 131,527        |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>220,104</b> | <b>244,621</b> | <b>283,522</b> | <b>324,935</b> | <b>378,776</b> | <b>442,163</b> |
|                         |                      | <b>2011</b> | <b>228,705</b> | <b>256,793</b> | <b>294,646</b> | <b>337,527</b> | <b>393,519</b> | <b>459,814</b> |

## Task 2 – Population and Water Demands

### Water Demand – Galveston County

| Type                    |                      | RWP         | 2010           | 2020           | 2030           | 2040           | 2050           | 2060           |
|-------------------------|----------------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Municipal Population    |                      | 2006        | 268,714        | 284,731        | 294,218        | 298,057        | 300,915        | 302,774        |
|                         |                      | 2011        | 268,714        | 284,731        | 294,218        | 298,057        | 300,915        | 302,774        |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 46,090         | 47,390         | 47,818         | 47,487         | 47,393         | 47,641         |
|                         |                      | 2011        | 46,090         | 47,390         | 47,818         | 47,487         | 47,393         | 47,641         |
|                         | Irrigation           | 2006        | 10,342         | 10,342         | 10,342         | 10,342         | 10,342         | 10,342         |
|                         |                      | 2011        | 10,342         | 10,342         | 10,342         | 10,342         | 10,342         | 10,342         |
|                         | Livestock            | 2006        | 325            | 325            | 325            | 325            | 325            | 325            |
|                         |                      | 2011        | 325            | 325            | 325            | 325            | 325            | 325            |
|                         | Manufacturing        | 2006        | 41,005         | 44,330         | 47,046         | 49,692         | 51,967         | 55,491         |
|                         |                      | 2011        | 41,005         | 44,330         | 47,046         | 49,692         | 51,967         | 55,491         |
|                         | Mining               | 2006        | 265            | 279            | 286            | 293            | 300            | 307            |
|                         |                      | 2011        | 265            | 279            | 286            | 293            | 300            | 307            |
|                         | Steam Electric Power | 2006        | 5,034          | 4,013          | 4,692          | 5,519          | 6,528          | 7,757          |
|                         |                      | 2011        | 5,034          | 4,013          | 4,692          | 5,519          | 6,528          | 7,757          |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>103,061</b> | <b>106,679</b> | <b>110,509</b> | <b>113,658</b> | <b>116,855</b> | <b>121,863</b> |
|                         |                      | <b>2011</b> | <b>103,061</b> | <b>106,679</b> | <b>110,509</b> | <b>113,658</b> | <b>116,855</b> | <b>121,863</b> |

## Task 2 – Population and Water Demands

### Water Demand – Harris County

| Type                    |                      | RWP         | 2010             | 2020             | 2030             | 2040             | 2050             | 2060             |
|-------------------------|----------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Municipal Population    |                      | 2006        | 3,951,682        | 4,502,786        | 5,053,890        | 5,604,994        | 6,156,098        | 6,707,202        |
|                         |                      | 2011        | 4,078,231        | 4,629,335        | 5,180,439        | 5,731,543        | 6,282,647        | 6,833,751        |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 677,684          | 756,765          | 834,747          | 915,339          | 999,189          | 1,089,188        |
|                         |                      | 2011        | <b>706,813</b>   | <b>785,055</b>   | <b>863,902</b>   | <b>942,276</b>   | <b>1,024,102</b> | <b>1,112,393</b> |
|                         | Irrigation           | 2006        | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
|                         |                      | 2011        | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           | 15,300           |
|                         | Livestock            | 2006        | 1,133            | 1,133            | 1,133            | 1,133            | 1,133            | 1,133            |
|                         |                      | 2011        | 1,133            | 1,133            | 1,133            | 1,133            | 1,133            | 1,133            |
|                         | Manufacturing        | 2006        | 395,997          | 424,761          | 449,218          | 470,881          | 487,094          | 478,957          |
|                         |                      | 2011        | 395,997          | 424,761          | 449,218          | 470,881          | 487,094          | 478,957          |
|                         | Mining               | 2006        | 1,282            | 1,434            | 1,529            | 1,624            | 1,720            | 1,805            |
|                         |                      | 2011        | 1,282            | 1,434            | 1,529            | 1,624            | 1,720            | 1,805            |
|                         | Steam Electric Power | 2006        | 7,728            | 23,962           | 28,015           | 32,955           | 38,977           | 46,317           |
|                         |                      | 2011        | 7,728            | 23,962           | 28,015           | 32,955           | 38,977           | 46,317           |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>1,099,124</b> | <b>1,223,355</b> | <b>1,329,942</b> | <b>1,437,232</b> | <b>1,543,413</b> | <b>1,632,700</b> |
|                         |                      | <b>2011</b> | <b>1,128,253</b> | <b>1,251,645</b> | <b>1,359,097</b> | <b>1,464,169</b> | <b>1,568,326</b> | <b>1,655,905</b> |

## Task 2 – Population and Water Demands

### Water Demand – Leon County

| Type                    |                      | RWP         | 2010         | 2020         | 2030         | 2040         | 2050         | 2060         |
|-------------------------|----------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Municipal Population    |                      | 2006        | 18,231       | 21,137       | 22,863       | 22,971       | 22,809       | 23,028       |
|                         |                      | 2011        | 18,231       | 21,137       | 22,863       | 22,971       | 22,809       | 23,028       |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 2,122        | 2,364        | 2,475        | 2,441        | 2,400        | 2,422        |
|                         |                      | 2011        | <b>2,128</b> | <b>2,376</b> | <b>2,489</b> | <b>2,456</b> | <b>2,414</b> | <b>2,437</b> |
|                         | Irrigation           | 2006        | 542          | 542          | 542          | 542          | 542          | 542          |
|                         |                      | 2011        | 542          | 542          | 542          | 542          | 542          | 542          |
|                         | Livestock            | 2006        | 1,691        | 1,691        | 1,691        | 1,691        | 1,691        | 1,691        |
|                         |                      | 2011        | 1,691        | 1,691        | 1,691        | 1,691        | 1,691        | 1,691        |
|                         | Manufacturing        | 2006        | 714          | 842          | 967          | 1,093        | 1,207        | 1,313        |
|                         |                      | 2011        | 714          | 842          | 967          | 1,093        | 1,207        | 1,313        |
|                         | Mining               | 2006        | 1,517        | 1,464        | 1,435        | 1,409        | 1,384        | 1,364        |
|                         |                      | 2011        | 1,517        | 1,464        | 1,435        | 1,409        | 1,384        | 1,364        |
|                         | Steam Electric Power | 2006        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         |                      | 2011        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>6,586</b> | <b>6,903</b> | <b>7,110</b> | <b>7,176</b> | <b>7,224</b> | <b>7,332</b> |
|                         |                      | <b>2011</b> | <b>6,592</b> | <b>6,915</b> | <b>7,124</b> | <b>7,191</b> | <b>7,238</b> | <b>7,347</b> |

## Task 2 – Population and Water Demands

### Water Demand – Liberty County

| Type                    |                      | RWP  | 2010    | 2020    | 2030    | 2040    | 2050    | 2060    |
|-------------------------|----------------------|------|---------|---------|---------|---------|---------|---------|
| Municipal Population    |                      | 2006 | 81,930  | 94,898  | 107,335 | 119,519 | 132,875 | 147,845 |
|                         |                      | 2011 | 81,930  | 94,898  | 107,335 | 119,519 | 132,875 | 147,845 |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006 | 10,283  | 11,370  | 12,401  | 13,455  | 14,670  | 16,176  |
|                         |                      | 2011 | 10,470  | 11,759  | 12,980  | 14,211  | 15,629  | 17,362  |
|                         | Irrigation           | 2006 | 82,901  | 82,901  | 82,901  | 82,901  | 82,901  | 82,901  |
|                         |                      | 2011 | 82,901  | 82,901  | 82,901  | 82,901  | 82,901  | 82,901  |
|                         | Livestock            | 2006 | 757     | 757     | 757     | 757     | 757     | 757     |
|                         |                      | 2011 | 757     | 757     | 757     | 757     | 757     | 757     |
|                         | Manufacturing        | 2006 | 393     | 465     | 537     | 611     | 678     | 736     |
|                         |                      | 2011 | 393     | 465     | 537     | 611     | 678     | 736     |
|                         | Mining               | 2006 | 8,730   | 8,753   | 8,766   | 8,778   | 8,790   | 8,800   |
|                         |                      | 2011 | 8,730   | 8,753   | 8,766   | 8,778   | 8,790   | 8,800   |
|                         | Steam Electric Power | 2006 | 2,962   | 4,240   | 4,957   | 5,831   | 6,896   | 8,195   |
|                         |                      | 2011 | 2,962   | 4,240   | 4,957   | 5,831   | 6,896   | 8,195   |
|                         | TOTAL                | 2006 | 106,026 | 108,486 | 110,319 | 112,333 | 114,692 | 117,565 |
|                         |                      | 2011 | 106,213 | 108,875 | 110,898 | 113,089 | 115,651 | 118,751 |

## Task 2 – Population and Water Demands

### Water Demand – Madison County

| Type                    |                      | RWP  | 2010   | 2020   | 2030   | 2040   | 2050   | 2060   |
|-------------------------|----------------------|------|--------|--------|--------|--------|--------|--------|
| Municipal Population    |                      | 2006 | 13,905 | 14,873 | 15,644 | 16,364 | 17,002 | 17,560 |
|                         |                      | 2011 | 13,905 | 14,873 | 15,644 | 16,364 | 17,002 | 17,560 |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006 | 1,792  | 1,864  | 1,918  | 1,952  | 2,007  | 2,072  |
|                         |                      | 2011 | 1,793  | 1,867  | 1,921  | 1,954  | 2,010  | 2,075  |
|                         | Irrigation           | 2006 | 19     | 19     | 19     | 19     | 19     | 19     |
|                         |                      | 2011 | 19     | 19     | 19     | 19     | 19     | 19     |
|                         | Livestock            | 2006 | 750    | 750    | 750    | 750    | 750    | 750    |
|                         |                      | 2011 | 750    | 750    | 750    | 750    | 750    | 750    |
|                         | Manufacturing        | 2006 | 260    | 289    | 316    | 343    | 367    | 398    |
|                         |                      | 2011 | 260    | 289    | 316    | 343    | 367    | 398    |
|                         | Mining               | 2006 | 24     | 24     | 24     | 24     | 24     | 24     |
|                         |                      | 2011 | 24     | 24     | 24     | 24     | 24     | 24     |
|                         | Steam Electric Power | 2006 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         |                      | 2011 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         | TOTAL                | 2006 | 2,845  | 2,946  | 3,027  | 3,088  | 3,167  | 3,263  |
|                         |                      | 2011 | 2,846  | 2,949  | 3,030  | 3,090  | 3,170  | 3,266  |

## Task 2 – Population and Water Demands

### Water Demand – Montgomery County

| Type                    |                      | RWP  | 2010    | 2020    | 2030    | 2040    | 2050      | 2060      |
|-------------------------|----------------------|------|---------|---------|---------|---------|-----------|-----------|
| Municipal Population    |                      | 2006 | 417,692 | 542,051 | 692,548 | 858,410 | 1,077,190 | 1,331,286 |
|                         |                      | 2011 | 453,369 | 588,351 | 751,702 | 931,732 | 1,169,199 | 1,444,999 |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006 | 68,638  | 90,346  | 111,441 | 133,994 | 164,466   | 200,243   |
|                         |                      | 2011 | 74,350  | 98,430  | 121,683 | 146,476 | 179,791   | 218,933   |
|                         | Irrigation           | 2006 | 66      | 66      | 66      | 66      | 66        | 66        |
|                         |                      | 2011 | 66      | 66      | 66      | 66      | 66        | 66        |
|                         | Livestock            | 2006 | 510     | 510     | 510     | 510     | 510       | 510       |
|                         |                      | 2011 | 510     | 510     | 510     | 510     | 510       | 510       |
|                         | Manufacturing        | 2006 | 2,045   | 2,332   | 2,608   | 2,883   | 3,126     | 3,392     |
|                         |                      | 2011 | 2,045   | 2,332   | 2,608   | 2,883   | 3,126     | 3,392     |
|                         | Mining               | 2006 | 480     | 509     | 526     | 543     | 559       | 573       |
|                         |                      | 2011 | 480     | 509     | 526     | 543     | 559       | 573       |
|                         | Steam Electric Power | 2006 | 5,046   | 8,537   | 9,981   | 11,741  | 13,886    | 16,502    |
|                         |                      | 2011 | 5,046   | 8,537   | 9,981   | 11,741  | 13,886    | 16,502    |
|                         | TOTAL                | 2006 | 76,785  | 102,300 | 125,132 | 149,737 | 182,613   | 221,286   |
|                         |                      | 2011 | 82,497  | 110,384 | 135,374 | 162,219 | 197,938   | 239,976   |

## Task 2 – Population and Water Demands

### Water Demand – Polk County

| Type                    |                      | RWP  | 2010   | 2020   | 2030   | 2040   | 2050   | 2060   |
|-------------------------|----------------------|------|--------|--------|--------|--------|--------|--------|
| Municipal Population    |                      | 2006 | 37,650 | 42,196 | 45,779 | 48,561 | 51,535 | 54,380 |
|                         |                      | 2011 | 37,650 | 42,196 | 45,779 | 48,561 | 51,535 | 54,380 |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006 | 4,859  | 5,230  | 5,486  | 5,662  | 5,913  | 6,205  |
|                         |                      | 2011 | 5,062  | 5,632  | 6,046  | 6,335  | 6,693  | 7,088  |
|                         | Irrigation           | 2006 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         |                      | 2011 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         | Livestock            | 2006 | 134    | 134    | 134    | 134    | 134    | 134    |
|                         |                      | 2011 | 134    | 134    | 134    | 134    | 134    | 134    |
|                         | Manufacturing        | 2006 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         |                      | 2011 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         | Mining               | 2006 | 29     | 31     | 32     | 33     | 34     | 35     |
|                         |                      | 2011 | 29     | 31     | 32     | 33     | 34     | 35     |
|                         | Steam Electric Power | 2006 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         |                      | 2011 | 0      | 0      | 0      | 0      | 0      | 0      |
|                         | TOTAL                | 2006 | 5,022  | 5,395  | 5,652  | 5,829  | 6,081  | 6,374  |
|                         |                      | 2011 | 5,225  | 5,797  | 6,212  | 6,502  | 6,861  | 7,257  |

## Task 2 – Population and Water Demands

### Water Demand – San Jacinto County

| Type                    |                      | RWP         | 2010         | 2020         | 2030         | 2040         | 2050         | 2060         |
|-------------------------|----------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Municipal Population    |                      | 2006        | 27,443       | 32,541       | 36,617       | 39,159       | 40,630       | 41,299       |
|                         |                      | 2011        | 27,443       | 32,541       | 36,617       | 39,159       | 40,630       | 41,299       |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 3,161        | 3,622        | 3,972        | 4,158        | 4,262        | 4,329        |
|                         |                      | 2011        | 3,995        | 4,591        | 5,016        | 5,087        | 5,118        | 5,076        |
|                         | Irrigation           | 2006        | 667          | 667          | 667          | 667          | 667          | 667          |
|                         |                      | 2011        | 667          | 667          | 667          | 667          | 667          | 667          |
|                         | Livestock            | 2006        | 284          | 284          | 284          | 284          | 284          | 284          |
|                         |                      | 2011        | 284          | 284          | 284          | 284          | 284          | 284          |
|                         | Manufacturing        | 2006        | 48           | 52           | 56           | 60           | 63           | 68           |
|                         |                      | 2011        | 48           | 52           | 56           | 60           | 63           | 68           |
|                         | Mining               | 2006        | 30           | 29           | 28           | 27           | 26           | 26           |
|                         |                      | 2011        | 30           | 29           | 28           | 27           | 26           | 26           |
|                         | Steam Electric Power | 2006        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         |                      | 2011        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>4,190</b> | <b>4,654</b> | <b>5,007</b> | <b>5,196</b> | <b>5,302</b> | <b>5,374</b> |
|                         |                      | <b>2011</b> | <b>5,024</b> | <b>5,623</b> | <b>6,051</b> | <b>6,125</b> | <b>6,158</b> | <b>6,121</b> |

## Task 2 – Population and Water Demands

### Water Demand – Trinity County

| Type                    |                      | RWP         | 2010         | 2020         | 2030         | 2040         | 2050         | 2060         |
|-------------------------|----------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Municipal Population    |                      | 2006        | 11,571       | 12,485       | 12,786       | 12,631       | 12,131       | 11,673       |
|                         |                      | 2011        | 11,571       | 12,485       | 12,786       | 12,631       | 12,131       | 11,673       |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 1,203        | 1,260        | 1,255        | 1,206        | 1,145        | 1,102        |
|                         |                      | 2011        | 1,203        | 1,260        | 1,255        | 1,206        | 1,145        | 1,102        |
|                         | Irrigation           | 2006        | 467          | 467          | 467          | 467          | 467          | 467          |
|                         |                      | 2011        | 467          | 467          | 467          | 467          | 467          | 467          |
|                         | Livestock            | 2006        | 211          | 211          | 211          | 211          | 211          | 211          |
|                         |                      | 2011        | 211          | 211          | 211          | 211          | 211          | 211          |
|                         | Manufacturing        | 2006        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         |                      | 2011        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         | Mining               | 2006        | 6            | 6            | 6            | 6            | 6            | 6            |
|                         |                      | 2011        | 6            | 6            | 6            | 6            | 6            | 6            |
|                         | Steam Electric Power | 2006        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         |                      | 2011        | 0            | 0            | 0            | 0            | 0            | 0            |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>1,887</b> | <b>1,944</b> | <b>1,939</b> | <b>1,890</b> | <b>1,829</b> | <b>1,786</b> |
|                         |                      | <b>2011</b> | <b>1,887</b> | <b>1,944</b> | <b>1,939</b> | <b>1,890</b> | <b>1,829</b> | <b>1,786</b> |

## Task 2 – Population and Water Demands

### Water Demand – Walker County

| Type                    | RWP                  | 2010        | 2020          | 2030          | 2040          | 2050          | 2060          |               |
|-------------------------|----------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Municipal Population    | 2006                 | 70,672      | 77,915        | 81,402        | 80,547        | 80,737        | 80,737        |               |
|                         | 2011                 | 70,672      | 77,915        | 81,402        | 80,547        | 80,737        | 80,737        |               |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 16,512        | 17,941        | 18,516        | 18,146        | 18,097        | 18,097        |
|                         |                      | 2011        | 21,879        | 24,244        | 25,074        | 23,575        | 22,971        | 22,251        |
|                         | Irrigation           | 2006        | 11            | 11            | 11            | 11            | 11            | 11            |
|                         |                      | 2011        | 11            | 11            | 11            | 11            | 11            | 11            |
|                         | Livestock            | 2006        | 632           | 632           | 632           | 632           | 632           | 632           |
|                         |                      | 2011        | 632           | 632           | 632           | 632           | 632           | 632           |
|                         | Manufacturing        | 2006        | 3,208         | 3,718         | 4,188         | 4,666         | 5,083         | 5,517         |
|                         |                      | 2011        | 3,208         | 3,718         | 4,188         | 4,666         | 5,083         | 5,517         |
|                         | Mining               | 2006        | 13            | 13            | 13            | 13            | 13            | 13            |
|                         |                      | 2011        | 13            | 13            | 13            | 13            | 13            | 13            |
|                         | Steam Electric Power | 2006        | 0             | 0             | 0             | 0             | 0             | 0             |
|                         |                      | 2011        | 0             | 0             | 0             | 0             | 0             | 0             |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>20,376</b> | <b>22,315</b> | <b>23,360</b> | <b>23,468</b> | <b>23,836</b> | <b>24,270</b> |
|                         |                      | <b>2011</b> | <b>25,743</b> | <b>28,618</b> | <b>29,918</b> | <b>28,897</b> | <b>28,710</b> | <b>28,424</b> |

## Task 2 – Population and Water Demands

### Water Demand – Waller County

| Type                    | RWP                  | 2010        | 2020          | 2030          | 2040          | 2050          | 2060          |               |
|-------------------------|----------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Municipal Population    | 2006                 | 41,137      | 51,175        | 62,352        | 74,789        | 89,598        | 106,608       |               |
|                         | 2011                 | 41,137      | 51,175        | 62,352        | 74,789        | 89,598        | 106,608       |               |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006        | 5,393         | 6,310         | 7,380         | 8,530         | 10,016        | 11,757        |
|                         |                      | 2011        | 5,713         | 7,003         | 8,469         | 10,084        | 12,093        | 14,454        |
|                         | Irrigation           | 2006        | 22,978        | 22,978        | 22,978        | 22,978        | 22,978        | 22,978        |
|                         |                      | 2011        | 22,978        | 22,978        | 22,978        | 22,978        | 22,978        | 22,978        |
|                         | Livestock            | 2006        | 939           | 939           | 939           | 939           | 939           | 939           |
|                         |                      | 2011        | 939           | 939           | 939           | 939           | 939           | 939           |
|                         | Manufacturing        | 2006        | 89            | 101           | 112           | 123           | 133           | 144           |
|                         |                      | 2011        | 89            | 101           | 112           | 123           | 133           | 144           |
|                         | Mining               | 2006        | 80            | 80            | 80            | 80            | 80            | 80            |
|                         |                      | 2011        | 80            | 80            | 80            | 80            | 80            | 80            |
|                         | Steam Electric Power | 2006        | 0             | 0             | 0             | 0             | 0             | 0             |
|                         |                      | 2011        | 0             | 0             | 0             | 0             | 0             | 0             |
|                         | <b>TOTAL</b>         | <b>2006</b> | <b>29,479</b> | <b>30,408</b> | <b>31,489</b> | <b>32,650</b> | <b>34,146</b> | <b>35,898</b> |
|                         |                      | <b>2011</b> | <b>29,799</b> | <b>31,101</b> | <b>32,578</b> | <b>34,204</b> | <b>36,223</b> | <b>38,595</b> |

## Task 2 – Population and Water Demands

### Water Demand – Region H Total

| Type                    | RWP                  | 2010      | 2020      | 2030      | 2040      | 2050       | 2060       |           |
|-------------------------|----------------------|-----------|-----------|-----------|-----------|------------|------------|-----------|
| Municipal Population    | 2006                 | 5,775,097 | 6,707,045 | 7,679,397 | 8,653,377 | 9,739,109  | 10,897,526 |           |
|                         | 2011                 | 6,015,840 | 6,990,980 | 7,986,480 | 8,998,002 | 10,132,237 | 11,346,082 |           |
| Water Demand (Ac-Ft/Yr) | Municipal            | 2006      | 980,544   | 1,116,660 | 1,253,607 | 1,391,710  | 1,552,375  | 1,732,608 |
|                         |                      | 2011      | 1,033,968 | 1,177,494 | 1,317,878 | 1,457,306  | 1,621,483  | 1,806,775 |
|                         | Irrigation           | 2006      | 450,175   | 438,257   | 433,686   | 430,930    | 430,930    | 430,930   |
|                         |                      | 2011      | 450,175   | 438,257   | 433,686   | 430,930    | 430,930    | 430,930   |
|                         | Livestock            | 2006      | 12,228    | 12,228    | 12,228    | 12,228     | 12,228     | 12,228    |
|                         |                      | 2011      | 12,228    | 12,228    | 12,228    | 12,228     | 12,228     | 12,228    |
|                         | Manufacturing        | 2006      | 722,873   | 783,835   | 836,597   | 886,668    | 927,860    | 950,102   |
|                         |                      | 2011      | 722,873   | 783,835   | 836,597   | 886,668    | 927,860    | 950,102   |
|                         | Mining               | 2006      | 57,043    | 60,782    | 63,053    | 65,285     | 67,501     | 69,457    |
|                         |                      | 2011      | 57,043    | 60,782    | 63,053    | 65,285     | 67,501     | 69,457    |
|                         | Steam Electric Power | 2006      | 91,231    | 112,334   | 131,332   | 154,491    | 182,720    | 217,132   |
|                         |                      | 2011      | 91,231    | 112,334   | 131,332   | 154,491    | 182,720    | 217,132   |
|                         | TOTAL                | 2006      | 2,314,094 | 2,524,096 | 2,730,503 | 2,941,312  | 3,173,614  | 3,412,457 |
|                         |                      | 2011      | 2,367,518 | 2,584,930 | 2,794,774 | 3,006,908  | 3,242,722  | 3,486,624 |

## Task 2 – Population and Water Demands

### Population and Water Demand Approval

- Approval of population and water demands by the RWPG is required before submittal for TWDB approval.
- Projections were posted 14 days in advance of this meeting, per 31 TAC 357.5 (d) (2).
- Once approved, projections will be submitted to TWDB for consideration and approval, unless valid requests for revisions are made within next 14 days.

## Task 2 – Population and Water Demands



### Population and Water Demand Approval

- A valid request for a demand revision will require a revised set of projections to be re-approved at a subsequent meeting following another posting of no less than 14 days.
- Consultant team to evaluate additional revision requests, if any, and bring recommendations back to the RWPG at next meeting.

## Task 2 – Population and Water Demands



### Requirements for Requesting a Revision

- Population Projections
  - Including, but not limited to the following justifications:
    - population estimates of the Texas State Data Center, or other credible sources, are greater than projected populations used in the 2007 state water plan for the year 2010;
    - population growth rates for a sub-county area as tabulated by the Texas SDC over the most recent five years is substantially greater than growth rates reported by the U.S. Census Bureau between 1990 and 2000;
    - cities have annexed additional land since the 2000 Census; or
    - water utilities have expanded their service areas since last updated by the Texas Commission on Environmental Quality.
- Per Capita Demand
  - if acceptable data sources indicate that a measured gallons per capita per day from years prior to 2000 *is more representative of drought of record conditions*

| WUG                               | COUNTY    | BASIN               | 2011 POPULATIONS |                |                |                |                |                |
|-----------------------------------|-----------|---------------------|------------------|----------------|----------------|----------------|----------------|----------------|
|                                   |           |                     | 2010             | 2020           | 2030           | 2040           | 2050           | 2060           |
| BELLVILLE                         | AUSTIN    | BRAZOS              | 5,213            | 6,560          | 7,499          | 8,057          | 8,325          | 8,692          |
| COUNTY-OTHER                      | AUSTIN    | BRAZOS              | 8,982            | 7,775          | 6,933          | 6,432          | 6,191          | 5,862          |
| COUNTY-OTHER                      | AUSTIN    | BRAZOS-COLORADO     | 2,409            | 2,739          | 2,969          | 3,106          | 3,172          | 3,262          |
| COUNTY-OTHER                      | AUSTIN    | COLORADO            | 226              | 257            | 279            | 292            | 298            | 306            |
| SAN FELIPE                        | AUSTIN    | BRAZOS              | 1,106            | 1,332          | 1,490          | 1,584          | 1,629          | 1,691          |
| SEALY                             | AUSTIN    | BRAZOS              | 7,902            | 10,421         | 12,178         | 13,222         | 13,723         | 14,410         |
| WALLIS                            | AUSTIN    | BRAZOS-COLORADO     | 1,335            | 1,490          | 1,598          | 1,662          | 1,693          | 1,735          |
| <b>AUSTIN TOTAL</b>               |           |                     | <b>27,173</b>    | <b>30,574</b>  | <b>32,946</b>  | <b>34,355</b>  | <b>35,031</b>  | <b>35,958</b>  |
| ALVIN                             | BRAZORIA  | SAN JACINTO-BRAZOS  | 23,231           | 25,123         | 26,935         | 28,605         | 30,375         | 32,223         |
| ANGLETON                          | BRAZORIA  | SAN JACINTO-BRAZOS  | 19,999           | 20,900         | 21,763         | 22,559         | 23,402         | 24,282         |
| BAILEY'S PRAIRIE                  | BRAZORIA  | BRAZOS              | 121              | 129            | 137            | 144            | 152            | 160            |
| BAILEY'S PRAIRIE                  | BRAZORIA  | SAN JACINTO-BRAZOS  | 623              | 666            | 707            | 745            | 786            | 828            |
| BRAZORIA                          | BRAZORIA  | BRAZOS              | 745              | 761            | 776            | 790            | 805            | 820            |
| BRAZORIA                          | BRAZORIA  | BRAZOS-COLORADO     | 2,316            | 2,366          | 2,413          | 2,456          | 2,502          | 2,550          |
| BRAZORIA COUNTY MUD #1            | BRAZORIA  | SAN JACINTO-BRAZOS  | 7,517            | 11,063         | 14,458         | 17,587         | 20,904         | 24,368         |
| BRAZORIA COUNTY MUD #2            | BRAZORIA  | BRAZOS              | 4,857            | 6,959          | 8,971          | 10,826         | 12,792         | 14,845         |
| BRAZORIA COUNTY MUD #3            | BRAZORIA  | SAN JACINTO-BRAZOS  | 4,987            | 7,340          | 9,593          | 11,669         | 13,870         | 16,168         |
| BRAZORIA COUNTY MUD #4            | BRAZORIA  | SAN JACINTO-BRAZOS  | 3,438            | 3,438          | 3,438          | 3,438          | 3,438          | 3,438          |
| BRAZORIA COUNTY MUD #5            | BRAZORIA  | SAN JACINTO-BRAZOS  | 4,743            | 4,743          | 4,743          | 4,743          | 4,743          | 4,743          |
| BROOKSIDE VILLAGE                 | BRAZORIA  | SAN JACINTO-BRAZOS  | 2,282            | 2,618          | 2,939          | 3,235          | 3,549          | 3,877          |
| CLUTE                             | BRAZORIA  | SAN JACINTO-BRAZOS  | 11,217           | 12,043         | 12,834         | 13,563         | 14,335         | 15,141         |
| COUNTY-OTHER                      | BRAZORIA  | BRAZOS              | 509              | 538            | 570            | 602            | 637            | 675            |
| COUNTY-OTHER                      | BRAZORIA  | BRAZOS-COLORADO     | 17,190           | 18,480         | 19,719         | 20,862         | 22,076         | 23,342         |
| COUNTY-OTHER                      | BRAZORIA  | SAN JACINTO-BRAZOS  | 40,875           | 45,409         | 50,791         | 55,708         | 60,953         | 66,487         |
| DANBURY                           | BRAZORIA  | SAN JACINTO-BRAZOS  | 1,747            | 1,888          | 2,023          | 2,148          | 2,280          | 2,418          |
| FREEPORT                          | BRAZORIA  | BRAZOS              | 1,173            | 1,173          | 1,173          | 1,173          | 1,173          | 1,173          |
| FREEPORT                          | BRAZORIA  | SAN JACINTO-BRAZOS  | 14,621           | 17,833         | 20,909         | 23,744         | 26,749         | 29,886         |
| HILLCREST                         | BRAZORIA  | SAN JACINTO-BRAZOS  | 744              | 767            | 789            | 810            | 832            | 855            |
| HOLIDAY LAKES                     | BRAZORIA  | SAN JACINTO-BRAZOS  | 1,141            | 1,189          | 1,235          | 1,278          | 1,323          | 1,370          |
| IOWA COLONY                       | BRAZORIA  | SAN JACINTO-BRAZOS  | 911              | 1,022          | 1,129          | 1,227          | 1,331          | 1,440          |
| JONES CREEK                       | BRAZORIA  | BRAZOS-COLORADO     | 2,130            | 2,130          | 2,130          | 2,130          | 2,130          | 2,130          |
| LAKE JACKSON                      | BRAZORIA  | SAN JACINTO-BRAZOS  | 29,383           | 32,502         | 35,488         | 38,241         | 41,159         | 44,205         |
| MANVEL                            | BRAZORIA  | SAN JACINTO-BRAZOS  | 4,510            | 4,510          | 4,510          | 4,510          | 4,510          | 4,510          |
| ORBIT SYSTEMS INC                 | BRAZORIA  | BRAZOS-COLORADO     | 516              | 627            | 733            | 831            | 935            | 1,043          |
| ORBIT SYSTEMS INC                 | BRAZORIA  | SAN JACINTO-BRAZOS  | 4,201            | 5,101          | 5,963          | 6,758          | 7,600          | 8,480          |
| OYSTER CREEK                      | BRAZORIA  | SAN JACINTO-BRAZOS  | 1,424            | 1,666          | 1,897          | 2,110          | 2,336          | 2,572          |
| PEARLAND                          | BRAZORIA  | SAN JACINTO-BRAZOS  | 82,803           | 104,912        | 125,037        | 143,622        | 163,286        | 183,764        |
| RICHWOOD                          | BRAZORIA  | SAN JACINTO-BRAZOS  | 3,534            | 3,798          | 4,050          | 4,282          | 4,528          | 4,785          |
| SOUTHWEST UTILITIES               | BRAZORIA  | SAN JACINTO-BRAZOS  | 632              | 668            | 703            | 735            | 769            | 804            |
| SURFSIDE BEACH                    | BRAZORIA  | BRAZOS              | 889              | 1,020          | 1,146          | 1,262          | 1,385          | 1,513          |
| SWEENEY                           | BRAZORIA  | BRAZOS-COLORADO     | 3,895            | 4,177          | 4,447          | 4,696          | 4,960          | 5,236          |
| VARNER CREEK UD                   | BRAZORIA  | BRAZOS              | 2,341            | 2,852          | 3,341          | 3,792          | 4,270          | 4,769          |
| WEST COLUMBIA                     | BRAZORIA  | BRAZOS              | 3,696            | 3,606          | 3,520          | 3,441          | 3,357          | 3,269          |
| WEST COLUMBIA                     | BRAZORIA  | BRAZOS-COLORADO     | 708              | 691            | 674            | 659            | 643            | 626            |
| <b>BRAZORIA TOTAL</b>             |           |                     | <b>305,649</b>   | <b>354,708</b> | <b>401,684</b> | <b>444,981</b> | <b>490,875</b> | <b>538,795</b> |
| ANAHUAC                           | CHAMBERS  | NECHES-TRINITY      | 1,866            | 2,035          | 2,192          | 2,328          | 2,466          | 2,607          |
| ANAHUAC                           | CHAMBERS  | TRINITY             | 539              | 588            | 633            | 672            | 712            | 753            |
| BAYTOWN                           | CHAMBERS  | TRINITY-SAN JACINTO | 3,754            | 4,211          | 4,636          | 5,004          | 5,377          | 5,760          |
| BEACH CITY                        | CHAMBERS  | TRINITY             | 292              | 391            | 483            | 562            | 643            | 726            |
| BEACH CITY                        | CHAMBERS  | TRINITY-SAN JACINTO | 2,066            | 2,762          | 3,409          | 3,970          | 4,539          | 5,122          |
| COUNTY-OTHER                      | CHAMBERS  | NECHES-TRINITY      | 410              | 403            | 397            | 394            | 388            | 381            |
| COUNTY-OTHER                      | CHAMBERS  | TRINITY             | 2,054            | 2,022          | 1,992          | 1,966          | 1,940          | 1,913          |
| COUNTY-OTHER                      | CHAMBERS  | TRINITY-SAN JACINTO | 1,324            | 1,303          | 1,284          | 1,267          | 1,250          | 1,233          |
| MONT BELVIEU                      | CHAMBERS  | TRINITY             | 2,195            | 2,878          | 3,513          | 4,063          | 4,621          | 5,193          |
| MONT BELVIEU                      | CHAMBERS  | TRINITY-SAN JACINTO | 1,029            | 1,349          | 1,647          | 1,905          | 2,167          | 2,435          |
| OLD RIVER-WINFREE                 | CHAMBERS  | TRINITY             | 1,585            | 1,755          | 1,913          | 2,050          | 2,189          | 2,331          |
| TRINITY BAY CONSERVATION DISTRICT | CHAMBERS  | NECHES-TRINITY      | 11,780           | 14,470         | 16,975         | 19,146         | 21,347         | 23,602         |
| TRINITY BAY CONSERVATION DISTRICT | CHAMBERS  | TRINITY             | 5,388            | 6,619          | 7,764          | 8,756          | 9,763          | 10,794         |
| <b>CHAMBERS TOTAL</b>             |           |                     | <b>34,282</b>    | <b>40,786</b>  | <b>46,838</b>  | <b>52,083</b>  | <b>57,402</b>  | <b>62,850</b>  |
| ARCOLA                            | FORT BEND | SAN JACINTO-BRAZOS  | 2,500            | 2,750          | 3,025          | 3,328          | 3,661          | 4,026          |
| BEASLEY                           | FORT BEND | BRAZOS              | 62               | 72             | 84             | 97             | 114            | 133            |
| BEASLEY                           | FORT BEND | BRAZOS-COLORADO     | 639              | 743            | 871            | 1,002          | 1,174          | 1,371          |
| COUNTY-OTHER                      | FORT BEND | BRAZOS              | 14,278           | 6,904          | 22,600         | 51,476         | 110,777        | 180,192        |
| COUNTY-OTHER                      | FORT BEND | BRAZOS-COLORADO     | 1,346            | 404            | 1,080          | 1,464          | 1,967          | 2,099          |
| COUNTY-OTHER                      | FORT BEND | SAN JACINTO         | 920              | 562            | 2,415          | 6,018          | 14,855         | 24,278         |
| COUNTY-OTHER                      | FORT BEND | SAN JACINTO-BRAZOS  | 6,174            | 2,812          | 7,377          | 28,867         | 73,882         | 125,530        |
| FAIRCHILDS                        | FORT BEND | BRAZOS              | 929              | 1,189          | 1,507          | 1,834          | 2,263          | 2,754          |
| FIRST COLONY MUD #9               | FORT BEND | BRAZOS              | 8,120            | 8,424          | 8,728          | 9,032          | 9,336          | 9,640          |
| FORT BEND COUNTY MUD #106         | FORT BEND | BRAZOS              | 3,285            | 3,285          | 3,285          | 3,285          | 3,285          | 3,285          |
| FORT BEND COUNTY MUD #108         | FORT BEND | BRAZOS              | 2,817            | 2,817          | 2,817          | 2,817          | 2,817          | 2,817          |
| FORT BEND COUNTY MUD #111         | FORT BEND | BRAZOS              | 3,315            | 3,315          | 3,315          | 3,315          | 3,315          | 3,315          |
| FORT BEND COUNTY MUD #23          | FORT BEND | SAN JACINTO-BRAZOS  | 5,968            | 9,084          | 12,895         | 16,813         | 21,952         | 27,824         |
| FORT BEND COUNTY MUD #25          | FORT BEND | SAN JACINTO-BRAZOS  | 11,336           | 16,141         | 22,016         | 28,057         | 35,979         | 45,032         |
| FORT BEND COUNTY MUD #67          | FORT BEND | BRAZOS              | 3,759            | 3,759          | 3,759          | 3,759          | 3,759          | 3,759          |
| FORT BEND COUNTY MUD #68          | FORT BEND | BRAZOS              | 3,717            | 3,717          | 3,717          | 3,717          | 3,717          | 3,717          |
| FORT BEND COUNTY MUD #69          | FORT BEND | BRAZOS              | 2,086            | 2,086          | 2,086          | 2,086          | 2,086          | 2,086          |
| FORT BEND COUNTY MUD #81          | FORT BEND | BRAZOS              | 2,054            | 2,762          | 3,628          | 4,518          | 5,685          | 7,019          |
| FULSHEAR                          | FORT BEND | BRAZOS              | 664              | 848            | 1,072          | 1,303          | 1,606          | 1,951          |
| FULSHEAR                          | FORT BEND | SAN JACINTO-BRAZOS  | 434              | 553            | 700            | 851            | 1,048          | 1,275          |
| HOUSTON                           | FORT BEND | SAN JACINTO         | 23,433           | 27,408         | 32,268         | 37,266         | 43,820         | 51,309         |
| HOUSTON                           | FORT BEND | SAN JACINTO-BRAZOS  | 16,457           | 19,249         | 22,663         | 26,173         | 30,776         | 36,036         |
| KATY                              | FORT BEND | SAN JACINTO         | 1,548            | 2,072          | 2,712          | 3,370          | 4,233          | 5,220          |
| KENDLETON                         | FORT BEND | BRAZOS-COLORADO     | 601              | 775            | 1,000          | 1,290          | 1,664          | 2,147          |
| MEADOWS                           | FORT BEND | SAN JACINTO         | 6,333            | 6,333          | 6,333          | 6,333          | 6,332          | 6,332          |
| MEADOWS                           | FORT BEND | SAN JACINTO-BRAZOS  | 628              | 628            | 628            | 628            | 629            | 629            |
| MISSOURI CITY                     | FORT BEND | BRAZOS              | 1,659            | 2,088          | 2,499          | 2,917          | 3,206          | 3,880          |
| MISSOURI CITY                     | FORT BEND | SAN JACINTO         | 13,589           | 17,102         | 20,468         | 23,885         | 26,256         | 31,779         |



| WUG   | COUNTY  | BASIN               | 2011 POPULATIONS |                  |                  |                  |                  |                  |
|---|---------|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|   |         |                     | 2010             | 2020             | 2030             | 2040             | 2050             | 2060             |
| HARRIS COUNTY MUD #8                            | HARRIS  | SAN JACINTO         | 6,225            | 6,961            | 7,685            | 8,402            | 9,114            | 9,823            |
| HARRIS COUNTY UD #14                            | HARRIS  | SAN JACINTO         | 1,699            | 1,871            | 2,040            | 2,208            | 2,375            | 2,541            |
| HARRIS COUNTY UD #15                            | HARRIS  | SAN JACINTO         | 3,259            | 3,792            | 4,316            | 4,835            | 5,351            | 5,865            |
| HARRIS COUNTY WCID #1                           | HARRIS  | SAN JACINTO         | 9,665            | 11,283           | 12,874           | 14,449           | 16,014           | 17,573           |
| HARRIS COUNTY WCID #133                         | HARRIS  | SAN JACINTO         | 4,577            | 4,652            | 4,727            | 4,802            | 4,877            | 4,877            |
| HARRIS COUNTY WCID #21                          | HARRIS  | SAN JACINTO         | 10,120           | 10,724           | 11,318           | 11,906           | 12,490           | 13,072           |
| HARRIS COUNTY WCID #36                          | HARRIS  | SAN JACINTO         | 10,451           | 11,572           | 12,674           | 13,765           | 14,849           | 15,929           |
| HARRIS COUNTY WCID #50                          | HARRIS  | SAN JACINTO         | 4,700            | 5,284            | 5,859            | 6,428            | 6,993            | 7,556            |
| HARRIS COUNTY WCID #76                          | HARRIS  | SAN JACINTO         | 1,788            | 1,788            | 1,788            | 1,788            | 1,788            | 1,788            |
| HARRIS COUNTY WCID #84                          | HARRIS  | SAN JACINTO         | 2,475            | 2,519            | 2,562            | 2,605            | 2,648            | 2,691            |
| HEDWIG VILLAGE                                  | HARRIS  | SAN JACINTO         | 2,334            | 2,334            | 2,334            | 2,334            | 2,334            | 2,334            |
| HILSHIRE VILLAGE                                | HARRIS  | SAN JACINTO         | 770              | 770              | 770              | 770              | 770              | 770              |
| HOUSTON   | HARRIS  | SAN JACINTO         | 2,083,856        | 2,342,251        | 2,596,403        | 2,847,979        | 3,097,992        | 3,347,056        |
| HOUSTON   | HARRIS  | SAN JACINTO-BRAZOS  | 116,132          | 130,532          | 144,696          | 158,716          | 172,649          | 186,529          |
| HUMBLE  | HARRIS  | SAN JACINTO         | 16,862           | 19,085           | 21,272           | 23,436           | 25,587           | 27,730           |
| HUNTERS CREEK VILLAGE                           | HARRIS  | SAN JACINTO         | 4,755            | 5,126            | 5,491            | 5,852            | 6,211            | 6,568            |
| JACINTO CITY                                    | HARRIS  | SAN JACINTO         | 11,171           | 12,017           | 12,849           | 13,673           | 14,492           | 15,308           |
| JERSEY VILLAGE                                  | HARRIS  | SAN JACINTO         | 8,742            | 10,555           | 12,338           | 14,103           | 15,857           | 17,604           |
| KATY  | HARRIS  | SAN JACINTO         | 17,294           | 21,438           | 25,513           | 29,547           | 33,556           | 37,550           |
| LA PORTE  | HARRIS  | SAN JACINTO         | 1,915            | 2,104            | 2,289            | 2,473            | 2,655            | 2,837            |
| LA PORTE  | HARRIS  | SAN JACINTO-BRAZOS  | 33,552           | 36,856           | 40,105           | 43,321           | 46,518           | 49,702           |
| LEAGUE CITY                                     | HARRIS  | SAN JACINTO-BRAZOS  | 180              | 185              | 190              | 195              | 200              | 205              |
| LONGHORN TOWN UD                                | HARRIS  | SAN JACINTO         | 1,907            | 2,753            | 3,585            | 4,409            | 5,228            | 6,044            |
| MASON CREEK UD                                  | HARRIS  | SAN JACINTO         | 9,050            | 9,050            | 9,050            | 9,050            | 9,050            | 9,050            |
| MISSOURI CITY                                   | HARRIS  | SAN JACINTO         | 6,887            | 8,243            | 9,577            | 10,898           | 12,210           | 13,517           |
| NASSAU BAY                                      | HARRIS  | SAN JACINTO-BRAZOS  | 4,170            | 4,170            | 4,170            | 4,170            | 4,170            | 4,170            |
| NFBWA   | HARRIS  | SAN JACINTO         | 6,954            | 6,824            | 6,875            | 7,244            | 7,469            | 7,429            |
| NHCRWA  | HARRIS  | SAN JACINTO         | 602,401          | 723,186          | 816,772          | 868,302          | 892,569          | 915,347          |
| NORTH BELT UD                                   | HARRIS  | SAN JACINTO         | 3,916            | 5,197            | 6,457            | 7,705            | 8,945            | 10,180           |
| NORTH GREEN MUD                                 | HARRIS  | SAN JACINTO         | 3,503            | 3,935            | 4,359            | 4,779            | 5,197            | 5,613            |
| NORTHWEST HARRIS COUNTY MUD #23                 | HARRIS  | SAN JACINTO         | 4,482            | 5,700            | 6,898            | 8,084            | 9,262            | 10,436           |
| NORTHWEST PARK MUD                              | HARRIS  | SAN JACINTO         | 10,999           | 12,271           | 13,522           | 14,760           | 15,990           | 17,216           |
| PARKWAY UD                                      | HARRIS  | SAN JACINTO         | 2,911            | 2,932            | 2,953            | 2,974            | 2,994            | 3,014            |
| PASADENA  | HARRIS  | SAN JACINTO         | 126,325          | 141,544          | 156,513          | 171,330          | 186,055          | 200,724          |
| PASADENA  | HARRIS  | SAN JACINTO-BRAZOS  | 35,353           | 39,612           | 43,801           | 47,948           | 52,069           | 56,174           |
| PEARLAND  | HARRIS  | SAN JACINTO-BRAZOS  | 3,074            | 3,606            | 4,129            | 4,647            | 5,161            | 5,673            |
| PINE TRAILS UTILITY                             | HARRIS  | SAN JACINTO         | 6,166            | 6,763            | 7,350            | 7,931            | 8,508            | 9,083            |
| PINEY POINT VILLAGE                             | HARRIS  | SAN JACINTO         | 3,546            | 3,708            | 3,867            | 4,024            | 4,180            | 4,336            |
| ROLLING FORK PUD                                | HARRIS  | SAN JACINTO         | 2,453            | 2,571            | 2,689            | 2,808            | 2,926            | 3,044            |
| SEABROOK  | HARRIS  | SAN JACINTO-BRAZOS  | 11,943           | 14,377           | 16,771           | 19,141           | 21,496           | 23,842           |
| SHOREACRES                                      | HARRIS  | SAN JACINTO-BRAZOS  | 1,644            | 1,796            | 1,945            | 2,093            | 2,241            | 2,389            |
| SOUTH HOUSTON                                   | HARRIS  | SAN JACINTO         | 17,307           | 18,742           | 20,153           | 21,550           | 22,938           | 24,321           |
| SOUTHSIDE PLACE                                 | HARRIS  | SAN JACINTO         | 1,686            | 1,822            | 1,956            | 2,088            | 2,220            | 2,351            |
| SOUTHWEST UTILITIES                             | HARRIS  | SAN JACINTO         | 6,341            | 7,321            | 8,285            | 9,239            | 10,187           | 11,131           |
| SPRING VALLEY                                   | HARRIS  | SAN JACINTO         | 3,810            | 4,003            | 4,193            | 4,381            | 4,568            | 4,754            |
| STAFFORD  | HARRIS  | SAN JACINTO         | 313              | 316              | 319              | 322              | 325              | 328              |
| SUNBELT FWSD                                    | HARRIS  | SAN JACINTO         | 24,141           | 28,628           | 33,041           | 37,409           | 41,750           | 46,075           |
| TAYLOR LAKE VILLAGE                             | HARRIS  | SAN JACINTO-BRAZOS  | 5,472            | 5,472            | 5,472            | 5,472            | 5,472            | 5,472            |
| TOMBALL   | HARRIS  | SAN JACINTO         | 12,059           | 15,429           | 18,150           | 22,954           | 26,554           | 31,650           |
| TRAIL OF THE LAKES MUD                          | HARRIS  | SAN JACINTO         | 10,970           | 10,970           | 10,970           | 10,970           | 10,970           | 10,970           |
| WALLER  | HARRIS  | SAN JACINTO         | 586              | 778              | 967              | 1,154            | 1,340            | 1,525            |
| WEBSTER   | HARRIS  | SAN JACINTO-BRAZOS  | 13,076           | 16,964           | 20,788           | 24,573           | 28,334           | 32,081           |
| WEST HARRIS COUNTY MUD #6                       | HARRIS  | SAN JACINTO         | 3,500            | 3,500            | 3,500            | 3,500            | 3,500            | 3,500            |
| WEST UNIVERSITY PL.                             | HARRIS  | SAN JACINTO         | 15,381           | 16,520           | 17,641           | 18,750           | 19,852           | 20,950           |
| WHCRWA  | HARRIS  | SAN JACINTO         | 311,392          | 361,319          | 398,614          | 423,643          | 430,783          | 437,665          |
| WILLOW RUN SUBDIVISION                          | HARRIS  | SAN JACINTO         | 3,663            | 3,663            | 3,663            | 3,663            | 3,663            | 3,663            |
| WINDFERN FOREST UD                              | HARRIS  | SAN JACINTO         | 6,584            | 8,622            | 8,622            | 8,622            | 8,622            | 8,622            |
| WOODCREEK MUD                                   | HARRIS  | SAN JACINTO         | 3,605            | 4,784            | 5,944            | 7,092            | 8,233            | 9,369            |
|   |         | <b>HARRIS TOTAL</b> | <b>4,078,231</b> | <b>4,629,335</b> | <b>5,180,439</b> | <b>5,731,543</b> | <b>6,282,647</b> | <b>6,833,751</b> |
| BUFFALO   | LEON    | TRINITY             | 2,074            | 2,345            | 2,506            | 2,516            | 2,501            | 2,521            |
| CENTERVILLE                                     | LEON    | TRINITY             | 1,002            | 1,101            | 1,160            | 1,164            | 1,158            | 1,165            |
| COUNTY-OTHER                                    | LEON    | BRAZOS              | 3,831            | 4,164            | 4,362            | 4,375            | 4,356            | 4,381            |
| COUNTY-OTHER                                    | LEON    | TRINITY             | 4,150            | 4,490            | 4,692            | 4,704            | 4,686            | 4,713            |
| FLO COMMUNITY WSC                               | LEON    | TRINITY             | 5,335            | 6,894            | 7,820            | 7,878            | 7,791            | 7,908            |
| JEWETT  | LEON    | BRAZOS              | 269              | 322              | 353              | 355              | 352              | 356              |
| JEWETT  | LEON    | TRINITY             | 802              | 959              | 1,052            | 1,058            | 1,049            | 1,061            |
| NORMANGEE                                       | LEON    | BRAZOS              | 217              | 244              | 260              | 260              | 259              | 261              |
| NORMANGEE                                       | LEON    | TRINITY             | 551              | 618              | 658              | 661              | 657              | 662              |
|   |         | <b>LEON TOTAL</b>   | <b>18,231</b>    | <b>21,137</b>    | <b>22,863</b>    | <b>22,971</b>    | <b>22,809</b>    | <b>23,028</b>    |
| AMES  | LIBERTY | TRINITY             | 1,338            | 1,623            | 1,897            | 2,165            | 2,459            | 2,789            |
| CLEVELAND                                       | LIBERTY | SAN JACINTO         | 7,930            | 8,288            | 8,631            | 8,967            | 9,336            | 9,749            |
| COUNTY-OTHER                                    | LIBERTY | NECHES              | 1,633            | 1,968            | 2,292            | 2,608            | 2,955            | 3,343            |
| COUNTY-OTHER                                    | LIBERTY | NECHES-TRINITY      | 112              | 135              | 157              | 179              | 203              | 230              |
| COUNTY-OTHER                                    | LIBERTY | SAN JACINTO         | 13,748           | 16,579           | 19,294           | 21,954           | 24,870           | 28,138           |
| COUNTY-OTHER                                    | LIBERTY | TRINITY             | 29,614           | 34,343           | 38,878           | 43,321           | 48,192           | 53,650           |
| COUNTY-OTHER                                    | LIBERTY | TRINITY-SAN JACINTO | 1,985            | 2,394            | 2,786            | 3,170            | 3,591            | 4,063            |
| DAISETTA  | LIBERTY | NECHES              | 419              | 438              | 456              | 474              | 493              | 515              |
| DAISETTA  | LIBERTY | TRINITY             | 659              | 689              | 717              | 745              | 775              | 809              |
| DAYTON  | LIBERTY | TRINITY             | 7,491            | 9,454            | 11,336           | 13,180           | 15,201           | 17,467           |
| HARDIN  | LIBERTY | TRINITY             | 885              | 1,028            | 1,165            | 1,299            | 1,446            | 1,611            |
| HARDIN WSC                                      | LIBERTY | TRINITY             | 3,184            | 3,828            | 4,445            | 5,050            | 5,713            | 6,456            |
| KENEFICK  | LIBERTY | TRINITY             | 824              | 997              | 1,163            | 1,325            | 1,503            | 1,702            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | LIBERTY | TRINITY             | 1,670            | 1,880            | 2,081            | 2,278            | 2,494            | 2,736            |
| LIBERTY   | LIBERTY | TRINITY             | 8,265            | 8,520            | 8,765            | 9,005            | 9,268            | 9,563            |
| MERCY WSC                                       | LIBERTY | SAN JACINTO         | 404              | 482              | 557              | 630              | 710              | 800              |
| PLUM GROVE                                      | LIBERTY | SAN JACINTO         | 1,234            | 1,569            | 1,890            | 2,205            | 2,550            | 2,937            |
| SOUTHWEST UTILITIES                             | LIBERTY | SAN JACINTO         | 123              | 148              | 172              | 196              | 222              | 251              |

| WUG   | COUNTY      | BASIN                    | 2011 POPULATIONS |                |                |                |                  |                  |
|---|-------------|--------------------------|------------------|----------------|----------------|----------------|------------------|------------------|
|   |             |                          | 2010             | 2020           | 2030           | 2040           | 2050             | 2060             |
| WEST HARDIN WSC                                 | LIBERTY     | NECHES                   | 412              | 535            | 653            | 768            | 894              | 1,036            |
|   |             | <b>LIBERTY TOTAL</b>     | <b>81,930</b>    | <b>94,898</b>  | <b>107,335</b> | <b>119,519</b> | <b>132,875</b>   | <b>147,845</b>   |
| COUNTY-OTHER                                    | MADISON     | BRAZOS                   | 994              | 1,066          | 1,124          | 1,178          | 1,226            | 1,268            |
| COUNTY-OTHER                                    | MADISON     | TRINITY                  | 8,419            | 9,026          | 9,508          | 9,959          | 10,358           | 10,708           |
| MADISONVILLE                                    | MADISON     | TRINITY                  | 4,442            | 4,725          | 4,951          | 5,162          | 5,349            | 5,512            |
| NORMANGEE                                       | MADISON     | TRINITY                  | 50               | 56             | 61             | 65             | 69               | 72               |
|   |             | <b>MADISON TOTAL</b>     | <b>13,905</b>    | <b>14,873</b>  | <b>15,644</b>  | <b>16,364</b>  | <b>17,002</b>    | <b>17,560</b>    |
| CONROE  | MONTGOMERY  | SAN JACINTO              | 59,845           | 78,924         | 102,013        | 127,459        | 161,024          | 200,007          |
| CONSUMERS WATER INC                             | MONTGOMERY  | SAN JACINTO              | 2,351            | 2,673          | 3,397          | 4,246          | 5,368            | 6,672            |
| COUNTY-OTHER                                    | MONTGOMERY  | SAN JACINTO              | 168,860          | 202,973        | 290,646        | 395,073        | 542,668          | 714,207          |
| CRYSTAL SPRNGS WATER COMPANY                    | MONTGOMERY  | SAN JACINTO              | 6,670            | 7,945          | 10,814         | 14,182         | 18,629           | 23,798           |
| CUT AND SHOOT                                   | MONTGOMERY  | SAN JACINTO              | 1,515            | 1,733          | 2,159          | 2,655          | 3,309            | 4,068            |
| EAST PLANTATION UD                              | MONTGOMERY  | SAN JACINTO              | 2,398            | 2,839          | 3,831          | 4,995          | 6,532            | 8,318            |
| H M W SUD                                       | MONTGOMERY  | SAN JACINTO              | 11,464           | 12,796         | 15,791         | 19,305         | 23,947           | 29,342           |
| HOUSTON   | MONTGOMERY  | SAN JACINTO              | 1,096            | 1,486          | 2,248          | 3,134          | 4,303            | 5,661            |
| MAGNOLIA  | MONTGOMERY  | SAN JACINTO              | 2,151            | 3,012          | 4,054          | 5,203          | 6,718            | 8,478            |
| MONTGOMERY                                      | MONTGOMERY  | SAN JACINTO              | 1,200            | 5,000          | 7,500          | 10,000         | 12,500           | 15,000           |
| MONTGOMERY COUNTY MUD #18                       | MONTGOMERY  | SAN JACINTO              | 6,928            | 8,840          | 13,139         | 18,185         | 24,848           | 32,592           |
| MONTGOMERY COUNTY MUD #19                       | MONTGOMERY  | SAN JACINTO              | 3,200            | 3,200          | 3,200          | 3,200          | 3,200            | 3,200            |
| MONTGOMERY COUNTY MUD #8                        | MONTGOMERY  | SAN JACINTO              | 4,060            | 5,336          | 6,532          | 6,967          | 6,886            | 6,829            |
| MONTGOMERY COUNTY MUD #9                        | MONTGOMERY  | SAN JACINTO              | 2,840            | 3,864          | 4,968          | 5,478          | 5,559            | 5,616            |
| MONTGOMERY COUNTY UD #2                         | MONTGOMERY  | SAN JACINTO              | 3,116            | 3,116          | 3,116          | 3,116          | 3,116            | 3,116            |
| MONTGOMERY COUNTY UD #3                         | MONTGOMERY  | SAN JACINTO              | 3,726            | 3,976          | 4,537          | 5,197          | 6,069            | 7,081            |
| MONTGOMERY COUNTY UD #4                         | MONTGOMERY  | SAN JACINTO              | 4,972            | 4,972          | 4,972          | 4,972          | 4,972            | 4,972            |
| MONTGOMERY COUNTY WCID #1                       | MONTGOMERY  | SAN JACINTO              | 4,157            | 4,448          | 5,100          | 5,867          | 6,879            | 8,055            |
| NEW CANEY MUD                                   | MONTGOMERY  | SAN JACINTO              | 15,154           | 17,712         | 23,465         | 30,218         | 39,135           | 49,499           |
| OAK RIDGE NORTH                                 | MONTGOMERY  | SAN JACINTO              | 3,743            | 4,202          | 5,100          | 6,144          | 7,521            | 9,120            |
| PANORAMA VILLAGE                                | MONTGOMERY  | SAN JACINTO              | 2,160            | 2,281          | 2,402          | 2,523          | 2,644            | 2,765            |
| PATTON VILLAGE                                  | MONTGOMERY  | SAN JACINTO              | 1,721            | 1,923          | 2,318          | 2,777          | 3,382            | 4,085            |
| POINT AQUARIUS MUD                              | MONTGOMERY  | SAN JACINTO              | 3,558            | 4,429          | 6,388          | 8,686          | 11,722           | 15,250           |
| PORTER WSC                                      | MONTGOMERY  | SAN JACINTO              | 15,087           | 17,179         | 21,887         | 27,412         | 27,412           | 27,412           |
| RAYFORD ROAD MUD                                | MONTGOMERY  | SAN JACINTO              | 18,237           | 18,237         | 18,237         | 18,237         | 18,237           | 18,237           |
| RIVER PLANTATION MUD                            | MONTGOMERY  | SAN JACINTO              | 3,310            | 3,310          | 3,310          | 3,310          | 3,310            | 3,310            |
| ROMAN FOREST                                    | MONTGOMERY  | SAN JACINTO              | 4,372            | 6,934          | 10,035         | 13,452         | 17,959           | 23,194           |
| SHENANDOAH                                      | MONTGOMERY  | SAN JACINTO              | 2,561            | 3,437          | 4,497          | 5,666          | 7,208            | 8,998            |
| SOUTHERN MONTGOMERY COUNTY MUD                  | MONTGOMERY  | SAN JACINTO              | 11,087           | 14,196         | 14,481         | 15,034         | 15,213           | 15,568           |
| SOUTHWEST UTILITIES                             | MONTGOMERY  | SAN JACINTO              | 2,263            | 2,582          | 3,299          | 4,141          | 5,253            | 6,545            |
| SPLENDORA                                       | MONTGOMERY  | SAN JACINTO              | 2,017            | 2,470          | 3,356          | 4,386          | 5,745            | 7,323            |
| SPRING CREEK UD                                 | MONTGOMERY  | SAN JACINTO              | 5,326            | 6,271          | 8,397          | 10,892         | 14,186           | 18,015           |
| STAGECOACH                                      | MONTGOMERY  | SAN JACINTO              | 626              | 861            | 1,185          | 1,630          | 2,243            | 3,086            |
| STANLEY LAKE MUD                                | MONTGOMERY  | SAN JACINTO              | 4,256            | 5,201          | 5,201          | 5,201          | 5,201            | 5,201            |
| THE WOODLANDS                                   | MONTGOMERY  | SAN JACINTO              | 60,080           | 111,470        | 119,300        | 119,300        | 119,300          | 119,300          |
| WILLIS  | MONTGOMERY  | SAN JACINTO              | 5,695            | 6,739          | 8,780          | 11,153         | 14,283           | 17,918           |
| WOODBANCH                                       | MONTGOMERY  | SAN JACINTO              | 1,567            | 1,784          | 2,047          | 2,336          | 2,718            | 3,161            |
|   |             | <b>MONTGOMERY TOTAL</b>  | <b>453,369</b>   | <b>588,351</b> | <b>751,702</b> | <b>931,732</b> | <b>1,169,199</b> | <b>1,444,999</b> |
| COUNTY-OTHER                                    | POLK        | TRINITY                  | 11,800           | 12,789         | 13,538         | 14,167         | 14,984           | 15,747           |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | POLK        | TRINITY                  | 13,706           | 15,319         | 16,590         | 17,577         | 18,632           | 19,641           |
| LIVINGSTON                                      | POLK        | TRINITY                  | 6,740            | 8,025          | 9,061          | 9,829          | 10,539           | 11,232           |
| ONALASKA  | POLK        | TRINITY                  | 1,562            | 1,944          | 2,252          | 2,480          | 2,691            | 2,897            |
| ONALASKA WSC                                    | POLK        | TRINITY                  | 3,764            | 4,029          | 4,238          | 4,400          | 4,573            | 4,739            |
| TRINITY RURAL WSC                               | POLK        | TRINITY                  | 78               | 90             | 100            | 108            | 116              | 124              |
|   |             | <b>POLK TOTAL</b>        | <b>37,650</b>    | <b>42,196</b>  | <b>45,779</b>  | <b>48,561</b>  | <b>51,535</b>    | <b>54,380</b>    |
| COLDSRING                                       | SAN JACINTO | SAN JACINTO              | 177              | 205            | 228            | 242            | 250              | 254              |
| COLDSRING                                       | SAN JACINTO | TRINITY                  | 649              | 753            | 836            | 888            | 918              | 932              |
| COUNTY-OTHER                                    | SAN JACINTO | SAN JACINTO              | 7,109            | 8,130          | 8,946          | 9,455          | 9,750            | 9,884            |
| COUNTY-OTHER                                    | SAN JACINTO | TRINITY                  | 4,076            | 4,490          | 4,718          | 4,303          | 4,038            | 3,635            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | SAN JACINTO | SAN JACINTO              | 1,467            | 1,844          | 2,145          | 2,333          | 2,442            | 2,491            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | SAN JACINTO | TRINITY                  | 3,165            | 3,978          | 4,628          | 5,033          | 5,268            | 5,375            |
| MERCY WSC                                       | SAN JACINTO | SAN JACINTO              | 1,820            | 2,211          | 2,523          | 2,718          | 2,831            | 2,882            |
| POINT BLANK                                     | SAN JACINTO | TRINITY                  | 662              | 763            | 843            | 893            | 922              | 935              |
| RIVERSIDE WSC                                   | SAN JACINTO | TRINITY                  | 2,017            | 2,542          | 3,066          | 3,950          | 4,485            | 5,011            |
| SAN JACINTO WSC                                 | SAN JACINTO | TRINITY                  | 3,697            | 4,457          | 5,065          | 5,444          | 5,663            | 5,763            |
| SHEPHERD  | SAN JACINTO | TRINITY                  | 2,604            | 3,168          | 3,619          | 3,900          | 4,063            | 4,137            |
|   |             | <b>SAN JACINTO TOTAL</b> | <b>27,443</b>    | <b>32,541</b>  | <b>36,617</b>  | <b>39,159</b>  | <b>40,630</b>    | <b>41,299</b>    |
| COUNTY-OTHER                                    | TRINITY     | TRINITY                  | 2,866            | 3,092          | 3,167          | 3,129          | 3,005            | 2,891            |
| GROVETON  | TRINITY     | TRINITY                  | 630              | 680            | 696            | 688            | 660              | 635              |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | TRINITY     | TRINITY                  | 1,673            | 1,805          | 1,849          | 1,826          | 1,754            | 1,688            |
| TRINITY   | TRINITY     | TRINITY                  | 3,033            | 3,273          | 3,352          | 3,311          | 3,180            | 3,060            |
| TRINITY RURAL WSC                               | TRINITY     | TRINITY                  | 3,369            | 3,635          | 3,722          | 3,677          | 3,532            | 3,399            |
|   |             | <b>TRINITY TOTAL</b>     | <b>11,571</b>    | <b>12,485</b>  | <b>12,786</b>  | <b>12,631</b>  | <b>12,131</b>    | <b>11,673</b>    |
| CONSOLIDATED WSC                                | WALKER      | TRINITY                  | 100              | 110            | 115            | 113            | 114              | 114              |
| COUNTY-OTHER                                    | WALKER      | SAN JACINTO              | 10,395           | 11,461         | 11,973         | 11,848         | 11,876           | 11,876           |
| COUNTY-OTHER                                    | WALKER      | TRINITY                  | 6,424            | 7,400          | 7,732          | 6,869          | 6,462            | 5,917            |
| HUNTSVILLE                                      | WALKER      | SAN JACINTO              | 32,831           | 36,196         | 37,816         | 37,419         | 37,507           | 37,507           |
| HUNTSVILLE                                      | WALKER      | TRINITY                  | 7,310            | 8,059          | 8,420          | 8,331          | 8,351            | 8,351            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | WALKER      | TRINITY                  | 439              | 484            | 506            | 501            | 502              | 502              |
| NEW WAVERLY                                     | WALKER      | SAN JACINTO              | 1,087            | 1,199          | 1,252          | 1,239          | 1,242            | 1,242            |
| RIVERSIDE WSC                                   | WALKER      | TRINITY                  | 4,472            | 4,612          | 4,819          | 5,550          | 5,985            | 6,530            |
| TRINITY RURAL WSC                               | WALKER      | TRINITY                  | 267              | 294            | 307            | 304            | 305              | 305              |
| WALKER COUNTY RURAL WSC                         | WALKER      | TRINITY                  | 7,347            | 8,100          | 8,462          | 8,373          | 8,393            | 8,393            |
|   |             | <b>WALKER TOTAL</b>      | <b>70,672</b>    | <b>77,915</b>  | <b>81,402</b>  | <b>80,547</b>  | <b>80,737</b>    | <b>80,737</b>    |
| BROOKSHIRE                                      | WALLER      | BRAZOS                   | 4,616            | 5,997          | 7,535          | 9,246          | 11,284           | 13,624           |
| COUNTY-OTHER                                    | WALLER      | BRAZOS                   | 8,859            | 9,572          | 10,366         | 11,251         | 12,303           | 13,512           |
| COUNTY-OTHER                                    | WALLER      | SAN JACINTO              | 10,878           | 13,699         | 16,840         | 20,334         | 24,494           | 29,275           |
| HEMPSTEAD                                       | WALLER      | BRAZOS                   | 7,389            | 10,585         | 14,143         | 18,102         | 22,817           | 28,232           |
| KATY  | WALLER      | SAN JACINTO              | 1,462            | 2,241          | 3,109          | 4,074          | 5,224            | 6,544            |
| PINE ISLAND                                     | WALLER      | BRAZOS                   | 1,102            | 1,402          | 1,736          | 2,107          | 2,549            | 3,057            |

| WUG                   | COUNTY | BASIN       | 2011 POPULATIONS |                  |                  |                  |                   |                   |
|-----------------------|--------|-------------|------------------|------------------|------------------|------------------|-------------------|-------------------|
|                       |        |             | 2010             | 2020             | 2030             | 2040             | 2050              | 2060              |
| PRAIRIE VIEW          | WALLER | BRAZOS      | 4,306            | 4,700            | 5,139            | 5,628            | 6,210             | 6,878             |
| PRAIRIE VIEW          | WALLER | SAN JACINTO | 474              | 517              | 565              | 619              | 683               | 756               |
| WALLER                | WALLER | SAN JACINTO | 2,051            | 2,462            | 2,919            | 3,428            | 4,034             | 4,730             |
| <b>WALLER TOTAL</b>   |        |             | <b>41,137</b>    | <b>51,175</b>    | <b>62,352</b>    | <b>74,789</b>    | <b>89,598</b>     | <b>106,608</b>    |
| <b>REGION H TOTAL</b> |        |             | <b>6,015,840</b> | <b>6,990,980</b> | <b>7,986,480</b> | <b>8,998,002</b> | <b>10,132,237</b> | <b>11,346,082</b> |

| WUG                    | COUNTY   | BASIN               | 2011 DEMANDS (ac-ft/yr) |                |                |                |                |                |
|------------------------|----------|---------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|
|                        |          |                     | 2010                    | 2020           | 2030           | 2040           | 2050           | 2060           |
| BELLVILLE              | AUSTIN   | BRAZOS              | 1,192                   | 1,477          | 1,664          | 1,760          | 1,810          | 1,889          |
| COUNTY-OTHER           | AUSTIN   | BRAZOS              | 1,047                   | 871            | 762            | 692            | 659            | 624            |
| COUNTY-OTHER           | AUSTIN   | BRAZOS-COLORADO     | 281                     | 307            | 326            | 334            | 338            | 347            |
| COUNTY-OTHER           | AUSTIN   | COLORADO            | 26                      | 29             | 31             | 31             | 32             | 33             |
| IRRIGATION             | AUSTIN   | BRAZOS              | 743                     | 743            | 743            | 743            | 743            | 743            |
| IRRIGATION             | AUSTIN   | BRAZOS-COLORADO     | 9,874                   | 9,874          | 9,874          | 9,874          | 9,874          | 9,874          |
| LIVESTOCK              | AUSTIN   | BRAZOS              | 1,211                   | 1,211          | 1,211          | 1,211          | 1,211          | 1,211          |
| LIVESTOCK              | AUSTIN   | BRAZOS-COLORADO     | 339                     | 339            | 339            | 339            | 339            | 339            |
| LIVESTOCK              | AUSTIN   | COLORADO            | 65                      | 65             | 65             | 65             | 65             | 65             |
| MANUFACTURING          | AUSTIN   | BRAZOS              | 172                     | 191            | 208            | 223            | 236            | 257            |
| MANUFACTURING          | AUSTIN   | BRAZOS-COLORADO     | 38                      | 42             | 45             | 49             | 52             | 56             |
| MINING                 | AUSTIN   | BRAZOS              | 40                      | 44             | 47             | 49             | 51             | 53             |
| MINING                 | AUSTIN   | BRAZOS-COLORADO     | 4                       | 4              | 4              | 4              | 5              | 5              |
| MINING                 | AUSTIN   | COLORADO            | 7                       | 8              | 8              | 9              | 9              | 9              |
| SAN FELIPE             | AUSTIN   | BRAZOS              | 124                     | 145            | 159            | 167            | 170            | 176            |
| SEALY                  | AUSTIN   | BRAZOS              | 1,275                   | 1,635          | 1,883          | 2,000          | 2,060          | 2,163          |
| WALLIS                 | AUSTIN   | BRAZOS-COLORADO     | 178                     | 194            | 202            | 207            | 209            | 214            |
| <b>AUSTIN TOTAL</b>    |          |                     | <b>16,616</b>           | <b>17,179</b>  | <b>17,571</b>  | <b>17,757</b>  | <b>17,863</b>  | <b>18,058</b>  |
| ALVIN                  | BRAZORIA | SAN JACINTO-BRAZOS  | 3,123                   | 3,293          | 3,440          | 3,557          | 3,743          | 3,970          |
| ANGLETON               | BRAZORIA | SAN JACINTO-BRAZOS  | 2,218                   | 2,225          | 2,243          | 2,249          | 2,307          | 2,394          |
| BAILEY'S PRAIRIE       | BRAZORIA | BRAZOS              | 15                      | 15             | 15             | 16             | 17             | 17             |
| BAILEY'S PRAIRIE       | BRAZORIA | SAN JACINTO-BRAZOS  | 75                      | 78             | 80             | 82             | 85             | 90             |
| BRAZORIA               | BRAZORIA | BRAZOS              | 74                      | 73             | 72             | 70             | 70             | 71             |
| BRAZORIA               | BRAZORIA | BRAZOS-COLORADO     | 229                     | 226            | 222            | 215            | 216            | 220            |
| BRAZORIA COUNTY MUD #1 | BRAZORIA | SAN JACINTO-BRAZOS  | 842                     | 1,214          | 1,587          | 1,911          | 2,271          | 2,648          |
| BRAZORIA COUNTY MUD #2 | BRAZORIA | BRAZOS              | 1,115                   | 1,590          | 2,050          | 2,462          | 2,909          | 3,376          |
| BRAZORIA COUNTY MUD #3 | BRAZORIA | SAN JACINTO-BRAZOS  | 603                     | 872            | 1,139          | 1,372          | 1,631          | 1,902          |
| BRAZORIA COUNTY MUD #4 | BRAZORIA | SAN JACINTO-BRAZOS  | 578                     | 570            | 562            | 558            | 558            | 558            |
| BRAZORIA COUNTY MUD #5 | BRAZORIA | SAN JACINTO-BRAZOS  | 680                     | 669            | 659            | 653            | 653            | 653            |
| BROOKSIDE VILLAGE      | BRAZORIA | SAN JACINTO-BRAZOS  | 266                     | 296            | 323            | 348            | 378            | 413            |
| CLUTE                  | BRAZORIA | SAN JACINTO-BRAZOS  | 1,181                   | 1,214          | 1,265          | 1,291          | 1,349          | 1,425          |
| COUNTY-OTHER           | BRAZORIA | BRAZOS              | 126                     | 131            | 138            | 143            | 151            | 160            |
| COUNTY-OTHER           | BRAZORIA | BRAZOS-COLORADO     | 4,237                   | 4,492          | 4,749          | 4,955          | 5,218          | 5,517          |
| COUNTY-OTHER           | BRAZORIA | SAN JACINTO-BRAZOS  | 10,073                  | 11,038         | 12,233         | 13,230         | 14,407         | 15,715         |
| DANBURY                | BRAZORIA | SAN JACINTO-BRAZOS  | 211                     | 222            | 231            | 238            | 250            | 265            |
| FREEPORT               | BRAZORIA | BRAZOS              | 140                     | 135            | 132            | 130            | 129            | 129            |
| FREEPORT               | BRAZORIA | SAN JACINTO-BRAZOS  | 1,752                   | 2,057          | 2,366          | 2,633          | 2,936          | 3,281          |
| HILLCREST              | BRAZORIA | SAN JACINTO-BRAZOS  | 125                     | 126            | 126            | 127            | 130            | 133            |
| HOLIDAY LAKES          | BRAZORIA | SAN JACINTO-BRAZOS  | 92                      | 91             | 90             | 89             | 90             | 94             |
| IOWA COLONY            | BRAZORIA | SAN JACINTO-BRAZOS  | 108                     | 118            | 126            | 135            | 145            | 156            |
| IRRIGATION             | BRAZORIA | BRAZOS              | 4,186                   | 3,816          | 3,675          | 3,589          | 3,589          | 3,589          |
| IRRIGATION             | BRAZORIA | BRAZOS-COLORADO     | 5,536                   | 5,048          | 4,860          | 4,747          | 4,747          | 4,747          |
| IRRIGATION             | BRAZORIA | SAN JACINTO-BRAZOS  | 125,311                 | 114,251        | 110,009        | 107,452        | 107,452        | 107,452        |
| JONES CREEK            | BRAZORIA | BRAZOS-COLORADO     | 98                      | 91             | 84             | 76             | 72             | 72             |
| LAKE JACKSON           | BRAZORIA | SAN JACINTO-BRAZOS  | 4,015                   | 4,332          | 4,611          | 4,883          | 5,210          | 5,595          |
| LIVESTOCK              | BRAZORIA | BRAZOS              | 242                     | 242            | 242            | 242            | 242            | 242            |
| LIVESTOCK              | BRAZORIA | BRAZOS-COLORADO     | 404                     | 404            | 404            | 404            | 404            | 404            |
| LIVESTOCK              | BRAZORIA | SAN JACINTO-BRAZOS  | 968                     | 968            | 968            | 968            | 968            | 968            |
| MANUFACTURING          | BRAZORIA | BRAZOS              | 216,824                 | 238,749        | 258,151        | 277,737        | 295,021        | 315,974        |
| MANUFACTURING          | BRAZORIA | BRAZOS-COLORADO     | 1,184                   | 1,304          | 1,410          | 1,517          | 1,611          | 1,726          |
| MANUFACTURING          | BRAZORIA | SAN JACINTO-BRAZOS  | 42,231                  | 46,501         | 50,280         | 54,094         | 57,461         | 61,541         |
| MANVEL                 | BRAZORIA | SAN JACINTO-BRAZOS  | 526                     | 511            | 496            | 480            | 470            | 470            |
| MINING                 | BRAZORIA | BRAZOS              | 307                     | 337            | 354            | 372            | 389            | 405            |
| MINING                 | BRAZORIA | BRAZOS-COLORADO     | 2,852                   | 3,128          | 3,292          | 3,452          | 3,614          | 3,766          |
| MINING                 | BRAZORIA | SAN JACINTO-BRAZOS  | 945                     | 1,037          | 1,091          | 1,145          | 1,198          | 1,248          |
| ORBIT SYSTEMS INC      | BRAZORIA | BRAZOS-COLORADO     | 47                      | 55             | 63             | 71             | 79             | 88             |
| ORBIT SYSTEMS INC      | BRAZORIA | SAN JACINTO-BRAZOS  | 386                     | 451            | 514            | 575            | 638            | 712            |
| OYSTER CREEK           | BRAZORIA | SAN JACINTO-BRAZOS  | 166                     | 188            | 210            | 229            | 251            | 277            |
| PEARLAND               | BRAZORIA | SAN JACINTO-BRAZOS  | 11,965                  | 14,925         | 17,508         | 19,949         | 22,681         | 25,525         |
| RICHWOOD               | BRAZORIA | SAN JACINTO-BRAZOS  | 341                     | 354            | 363            | 370            | 386            | 408            |
| SOUTHWEST UTILITIES    | BRAZORIA | SAN JACINTO-BRAZOS  | 71                      | 73             | 75             | 77             | 79             | 83             |
| SURFSIDE BEACH         | BRAZORIA | BRAZOS              | 168                     | 189            | 209            | 228            | 248            | 271            |
| SWEENEY                | BRAZORIA | BRAZOS-COLORADO     | 606                     | 636            | 663            | 684            | 717            | 757            |
| YARNER CREEK UD        | BRAZORIA | BRAZOS              | 359                     | 428            | 494            | 556            | 622            | 694            |
| WEST COLUMBIA          | BRAZORIA | BRAZOS              | 481                     | 457            | 434            | 413            | 395            | 385            |
| WEST COLUMBIA          | BRAZORIA | BRAZOS-COLORADO     | 92                      | 88             | 84             | 79             | 76             | 74             |
| <b>BRAZORIA TOTAL</b>  |          |                     | <b>448,174</b>          | <b>469,308</b> | <b>494,392</b> | <b>520,853</b> | <b>548,263</b> | <b>580,660</b> |
| ANAHUAC                | CHAMBERS | NECHES-TRINITY      | 274                     | 292            | 307            | 318            | 334            | 353            |
| ANAHUAC                | CHAMBERS | TRINITY             | 79                      | 84             | 89             | 92             | 97             | 102            |
| BAYTOWN                | CHAMBERS | TRINITY-SAN JACINTO | 606                     | 661            | 712            | 752            | 802            | 859            |
| BEACH CITY             | CHAMBERS | TRINITY             | 39                      | 51             | 62             | 72             | 82             | 93             |
| BEACH CITY             | CHAMBERS | TRINITY-SAN JACINTO | 275                     | 362            | 439            | 507            | 580            | 654            |
| COUNTY-OTHER           | CHAMBERS | NECHES-TRINITY      | 50                      | 48             | 46             | 44             | 43             | 42             |
| COUNTY-OTHER           | CHAMBERS | TRINITY             | 251                     | 240            | 230            | 220            | 213            | 210            |
| COUNTY-OTHER           | CHAMBERS | TRINITY-SAN JACINTO | 162                     | 155            | 148            | 142            | 137            | 135            |
| IRRIGATION             | CHAMBERS | NECHES-TRINITY      | 83,269                  | 83,269         | 83,269         | 83,269         | 83,269         | 83,269         |
| IRRIGATION             | CHAMBERS | TRINITY             | 32,741                  | 32,741         | 32,741         | 32,741         | 32,741         | 32,741         |
| IRRIGATION             | CHAMBERS | TRINITY-SAN JACINTO | 1,767                   | 1,767          | 1,767          | 1,767          | 1,767          | 1,767          |
| LIVESTOCK              | CHAMBERS | NECHES-TRINITY      | 333                     | 333            | 333            | 333            | 333            | 333            |
| LIVESTOCK              | CHAMBERS | TRINITY             | 60                      | 60             | 60             | 60             | 60             | 60             |
| LIVESTOCK              | CHAMBERS | TRINITY-SAN JACINTO | 69                      | 69             | 69             | 69             | 69             | 69             |
| MANUFACTURING          | CHAMBERS | TRINITY-SAN JACINTO | 11,802                  | 12,959         | 13,987         | 15,011         | 15,932         | 17,122         |
| MINING                 | CHAMBERS | NECHES-TRINITY      | 639                     | 692            | 725            | 756            | 788            | 816            |
| MINING                 | CHAMBERS | TRINITY             | 28,240                  | 30,587         | 32,017         | 33,420         | 34,811         | 36,027         |
| MINING                 | CHAMBERS | TRINITY-SAN JACINTO | 8,543                   | 9,253          | 9,685          | 10,110         | 10,531         | 10,899         |
| MONT BELVIEU           | CHAMBERS | TRINITY             | 669                     | 870            | 1,055          | 1,215          | 1,382          | 1,553          |
| MONT BELVIEU           | CHAMBERS | TRINITY-SAN JACINTO | 314                     | 408            | 494            | 570            | 648            | 728            |

| WUG                               | COUNTY    | BASIN               | 2011 DEMANDS (ac-ft/yr) |                |                |                |                |                |
|-----------------------------------|-----------|---------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|
|                                   |           |                     | 2010                    | 2020           | 2030           | 2040           | 2050           | 2060           |
| OLD RIVER-WINFREE                 | CHAMBERS  | TRINITY             | 208                     | 225            | 238            | 248            | 263            | 280            |
| STEAM ELECTRIC POWER              | CHAMBERS  | TRINITY-SAN JACINTO | 4,435                   | 3,536          | 4,134          | 4,863          | 5,751          | 6,834          |
| TRINITY BAY CONSERVATION DISTRICT | CHAMBERS  | NECHES-TRINITY      | 1,412                   | 1,686          | 1,940          | 2,167          | 2,392          | 2,644          |
| TRINITY BAY CONSERVATION DISTRICT | CHAMBERS  | TRINITY             | 646                     | 772            | 888            | 991            | 1,094          | 1,210          |
| <b>CHAMBERS TOTAL</b>             |           |                     | <b>176,883</b>          | <b>181,120</b> | <b>185,435</b> | <b>189,737</b> | <b>194,119</b> | <b>198,800</b> |
| ARCOLA                            | FORT BEND | SAN JACINTO-BRAZOS  | 403                     | 434            | 474            | 514            | 566            | 622            |
| BEASLEY                           | FORT BEND | BRAZOS              | 8                       | 9              | 10             | 12             | 14             | 16             |
| BEASLEY                           | FORT BEND | BRAZOS-COLORADO     | 84                      | 95             | 108            | 122            | 142            | 166            |
| COUNTY-OTHER                      | FORT BEND | BRAZOS              | 2,527                   | 1,182          | 3,774          | 8,358          | 17,765         | 28,857         |
| COUNTY-OTHER                      | FORT BEND | BRAZOS-COLORADO     | 221                     | 67             | 177            | 235            | 313            | 334            |
| COUNTY-OTHER                      | FORT BEND | SAN JACINTO         | 163                     | 96             | 403            | 977            | 2,382          | 3,888          |
| COUNTY-OTHER                      | FORT BEND | SAN JACINTO-BRAZOS  | 1,092                   | 481            | 1,232          | 4,362          | 11,849         | 20,103         |
| FAIRCHILDS                        | FORT BEND | BRAZOS              | 406                     | 515            | 650            | 787            | 971            | 1,182          |
| FIRST COLONY MUD #9               | FORT BEND | BRAZOS              | 1,392                   | 1,425          | 1,467          | 1,508          | 1,559          | 1,609          |
| FORT BEND COUNTY MUD #106         | FORT BEND | BRAZOS              | 968                     | 960            | 960            | 957            | 957            | 957            |
| FORT BEND COUNTY MUD #108         | FORT BEND | BRAZOS              | 587                     | 577            | 574            | 571            | 571            | 571            |
| FORT BEND COUNTY MUD #111         | FORT BEND | BRAZOS              | 780                     | 772            | 772            | 769            | 769            | 769            |
| FORT BEND COUNTY MUD #23          | FORT BEND | SAN JACINTO-BRAZOS  | 675                     | 1,018          | 1,444          | 1,883          | 2,459          | 3,117          |
| FORT BEND COUNTY MUD #25          | FORT BEND | SAN JACINTO-BRAZOS  | 1,587                   | 2,224          | 3,009          | 3,803          | 4,877          | 6,104          |
| FORT BEND COUNTY MUD #67          | FORT BEND | BRAZOS              | 830                     | 821            | 816            | 813            | 813            | 813            |
| FORT BEND COUNTY MUD #68          | FORT BEND | BRAZOS              | 604                     | 600            | 600            | 600            | 600            | 600            |
| FORT BEND COUNTY MUD #69          | FORT BEND | BRAZOS              | 479                     | 479            | 477            | 477            | 477            | 477            |
| FORT BEND COUNTY MUD #81          | FORT BEND | BRAZOS              | 773                     | 1,033          | 1,349          | 1,675          | 2,108          | 2,602          |
| FULSHEAR                          | FORT BEND | BRAZOS              | 211                     | 267            | 335            | 404            | 496            | 603            |
| FULSHEAR                          | FORT BEND | SAN JACINTO-BRAZOS  | 138                     | 174            | 219            | 264            | 323            | 394            |
| HOUSTON                           | FORT BEND | SAN JACINTO         | 4,068                   | 4,667          | 5,386          | 6,136          | 7,166          | 8,391          |
| HOUSTON                           | FORT BEND | SAN JACINTO-BRAZOS  | 2,857                   | 3,277          | 3,782          | 4,310          | 5,033          | 5,893          |
| IRRIGATION                        | FORT BEND | BRAZOS              | 17,907                  | 17,907         | 17,907         | 17,907         | 17,907         | 17,907         |
| IRRIGATION                        | FORT BEND | BRAZOS-COLORADO     | 18,869                  | 18,869         | 18,869         | 18,869         | 18,869         | 18,869         |
| IRRIGATION                        | FORT BEND | SAN JACINTO         | 7,538                   | 7,538          | 7,538          | 7,538          | 7,538          | 7,538          |
| IRRIGATION                        | FORT BEND | SAN JACINTO-BRAZOS  | 9,141                   | 9,141          | 9,141          | 9,141          | 9,141          | 9,141          |
| KATY                              | FORT BEND | SAN JACINTO         | 287                     | 374            | 484            | 597            | 745            | 919            |
| KENDLETON                         | FORT BEND | BRAZOS-COLORADO     | 151                     | 194            | 251            | 324            | 418            | 539            |
| LIVESTOCK                         | FORT BEND | BRAZOS              | 691                     | 691            | 691            | 691            | 691            | 691            |
| LIVESTOCK                         | FORT BEND | BRAZOS-COLORADO     | 211                     | 211            | 211            | 211            | 211            | 211            |
| LIVESTOCK                         | FORT BEND | SAN JACINTO         | 70                      | 70             | 70             | 70             | 70             | 70             |
| LIVESTOCK                         | FORT BEND | SAN JACINTO-BRAZOS  | 199                     | 199            | 199            | 199            | 199            | 199            |
| MANUFACTURING                     | FORT BEND | BRAZOS              | 1,235                   | 1,296          | 1,344          | 1,383          | 1,409          | 1,334          |
| MANUFACTURING                     | FORT BEND | SAN JACINTO         | 1,979                   | 2,076          | 2,154          | 2,216          | 2,258          | 2,137          |
| MANUFACTURING                     | FORT BEND | SAN JACINTO-BRAZOS  | 3,649                   | 3,827          | 3,970          | 4,086          | 4,162          | 3,939          |
| MEADOWS                           | FORT BEND | SAN JACINTO         | 1,887                   | 1,859          | 1,838          | 1,817          | 1,809          | 1,809          |
| MEADOWS                           | FORT BEND | SAN JACINTO-BRAZOS  | 188                     | 185            | 183            | 181            | 180            | 180            |
| MINING                            | FORT BEND | BRAZOS              | 618                     | 630            | 638            | 644            | 651            | 656            |
| MINING                            | FORT BEND | BRAZOS-COLORADO     | 140                     | 144            | 144            | 146            | 147            | 149            |
| MINING                            | FORT BEND | SAN JACINTO         | 280                     | 285            | 289            | 292            | 295            | 297            |
| MINING                            | FORT BEND | SAN JACINTO-BRAZOS  | 1,972                   | 2,011          | 2,034          | 2,056          | 2,076          | 2,094          |
| MISSOURI CITY                     | FORT BEND | BRAZOS              | 315                     | 390            | 466            | 545            | 603            | 733            |
| MISSOURI CITY                     | FORT BEND | SAN JACINTO         | 2,577                   | 3,195          | 3,817          | 4,460          | 4,938          | 6,004          |
| MISSOURI CITY                     | FORT BEND | SAN JACINTO-BRAZOS  | 11,664                  | 14,464         | 17,280         | 20,186         | 22,351         | 27,175         |
| NEEDVILLE                         | FORT BEND | BRAZOS              | 207                     | 250            | 304            | 359            | 436            | 527            |
| NEEDVILLE                         | FORT BEND | BRAZOS-COLORADO     | 250                     | 303            | 368            | 435            | 527            | 637            |
| NFBWA                             | FORT BEND | BRAZOS              | 951                     | 1,516          | 2,241          | 3,082          | 4,381          | 6,010          |
| NFBWA                             | FORT BEND | SAN JACINTO         | 12,438                  | 16,675         | 19,914         | 22,105         | 22,749         | 22,793         |
| NFBWA                             | FORT BEND | SAN JACINTO-BRAZOS  | 8,411                   | 18,111         | 25,447         | 31,997         | 38,076         | 44,115         |
| ORBIT SYSTEMS INC                 | FORT BEND | SAN JACINTO-BRAZOS  | 15                      | 16             | 18             | 20             | 22             | 25             |
| PECAN GROVE MUD #1                | FORT BEND | BRAZOS              | 2,301                   | 2,321          | 2,339          | 2,368          | 2,441          | 2,539          |
| PECAN GROVE MUD #1                | FORT BEND | SAN JACINTO-BRAZOS  | 612                     | 617            | 622            | 629            | 649            | 675            |
| PLANTATION MUD                    | FORT BEND | SAN JACINTO-BRAZOS  | 573                     | 554            | 544            | 534            | 530            | 530            |
| PLEAK                             | FORT BEND | BRAZOS              | 547                     | 646            | 770            | 895            | 1,063          | 1,256          |
| RICHMOND                          | FORT BEND | BRAZOS              | 2,653                   | 3,224          | 3,907          | 4,578          | 5,527          | 6,648          |
| ROSENBERG                         | FORT BEND | BRAZOS              | 5,156                   | 6,405          | 7,932          | 9,502          | 11,637         | 14,171         |
| SIENNA PLANTATION MUD #2          | FORT BEND | SAN JACINTO-BRAZOS  | 1,061                   | 1,212          | 1,212          | 1,205          | 1,205          | 1,205          |
| SIMONTON                          | FORT BEND | BRAZOS              | 419                     | 497            | 592            | 689            | 816            | 967            |
| STAFFORD                          | FORT BEND | SAN JACINTO         | 333                     | 434            | 552            | 677            | 852            | 1,052          |
| STAFFORD                          | FORT BEND | SAN JACINTO-BRAZOS  | 1,395                   | 1,820          | 2,317          | 2,839          | 3,573          | 4,411          |
| STEAM ELECTRIC POWER              | FORT BEND | BRAZOS              | 66,026                  | 68,046         | 79,553         | 93,582         | 110,682        | 131,527        |
| SUGAR LAND                        | FORT BEND | BRAZOS              | 8,223                   | 9,859          | 10,111         | 10,063         | 10,063         | 10,063         |
| SUGAR LAND                        | FORT BEND | SAN JACINTO         | 824                     | 987            | 1,013          | 1,008          | 1,008          | 1,008          |
| SUGAR LAND                        | FORT BEND | SAN JACINTO-BRAZOS  | 11,234                  | 13,468         | 13,813         | 13,747         | 13,747         | 13,747         |
| WHCRWA                            | FORT BEND | SAN JACINTO         | 2,654                   | 3,103          | 3,540          | 4,117          | 4,657          | 5,250          |
| <b>FORT BEND TOTAL</b>            |           |                     | <b>228,705</b>          | <b>256,793</b> | <b>294,646</b> | <b>337,527</b> | <b>393,519</b> | <b>459,814</b> |
| BACLIFF MUD                       | GALVESTON | SAN JACINTO-BRAZOS  | 552                     | 572            | 569            | 560            | 557            | 562            |
| BAYOU VISTA                       | GALVESTON | SAN JACINTO-BRAZOS  | 429                     | 458            | 471            | 475            | 478            | 482            |
| BOLIVAR PENINSULAR SUD            | GALVESTON | NECHES-TRINITY      | 1,123                   | 1,201          | 1,240          | 1,251          | 1,261          | 1,272          |
| CLEAR LAKE SHORES                 | GALVESTON | SAN JACINTO-BRAZOS  | 282                     | 287            | 289            | 287            | 287            | 289            |
| COUNTY-OTHER                      | GALVESTON | NECHES-TRINITY      | 0                       | 0              | 1              | 0              | 0              | 1              |
| COUNTY-OTHER                      | GALVESTON | SAN JACINTO-BRAZOS  | 1,098                   | 948            | 850            | 795            | 764            | 749            |
| DICKINSON                         | GALVESTON | SAN JACINTO-BRAZOS  | 3,085                   | 3,416          | 3,586          | 3,620          | 3,657          | 3,699          |
| FRIENDSWOOD                       | GALVESTON | SAN JACINTO-BRAZOS  | 3,245                   | 3,532          | 3,652          | 3,638          | 3,666          | 3,707          |
| GALVESTON                         | GALVESTON | SAN JACINTO-BRAZOS  | 16,095                  | 15,903         | 15,711         | 15,518         | 15,390         | 15,390         |
| GALVESTON COUNTY MUD #1           | GALVESTON | SAN JACINTO-BRAZOS  | 426                     | 483            | 514            | 525            | 532            | 540            |
| GALVESTON COUNTY WCID #12         | GALVESTON | SAN JACINTO-BRAZOS  | 267                     | 296            | 312            | 316            | 320            | 324            |
| HITCHCOCK                         | GALVESTON | SAN JACINTO-BRAZOS  | 933                     | 935            | 930            | 914            | 911            | 915            |
| IRRIGATION                        | GALVESTON | SAN JACINTO-BRAZOS  | 10,342                  | 10,342         | 10,342         | 10,342         | 10,342         | 10,342         |
| JAMAICA BEACH                     | GALVESTON | SAN JACINTO-BRAZOS  | 300                     | 344            | 368            | 377            | 383            | 389            |
| KEMAH                             | GALVESTON | SAN JACINTO-BRAZOS  | 278                     | 322            | 348            | 356            | 360            | 366            |
| LA MARQUE                         | GALVESTON | SAN JACINTO-BRAZOS  | 2,161                   | 2,115          | 2,069          | 2,023          | 1,992          | 1,992          |

| WUG                                 | COUNTY    | BASIN               | 2011 DEMANDS (ac-ft/yr) |                |                |                |                |                |
|-------------------------------------|-----------|---------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|
|                                     |           |                     | 2010                    | 2020           | 2030           | 2040           | 2050           | 2060           |
| LEAGUE CITY                         | GALVESTON | SAN JACINTO-BRAZOS  | 7,477                   | 8,253          | 8,674          | 8,751          | 8,840          | 8,947          |
| LIVESTOCK                           | GALVESTON | NECHES-TRINITY      | 16                      | 16             | 16             | 16             | 16             | 16             |
| LIVESTOCK                           | GALVESTON | SAN JACINTO-BRAZOS  | 309                     | 309            | 309            | 309            | 309            | 309            |
| MANUFACTURING                       | GALVESTON | SAN JACINTO-BRAZOS  | 41,005                  | 44,330         | 47,046         | 49,692         | 51,967         | 55,491         |
| MINING                              | GALVESTON | NECHES-TRINITY      | 136                     | 143            | 147            | 150            | 154            | 158            |
| MINING                              | GALVESTON | SAN JACINTO-BRAZOS  | 129                     | 136            | 139            | 143            | 146            | 149            |
| SAN LEON MUD                        | GALVESTON | SAN JACINTO-BRAZOS  | 632                     | 670            | 680            | 676            | 677            | 684            |
| SANTA FE                            | GALVESTON | SAN JACINTO-BRAZOS  | 988                     | 990            | 982            | 956            | 951            | 956            |
| STEAM ELECTRIC POWER                | GALVESTON | SAN JACINTO-BRAZOS  | 5,034                   | 4,013          | 4,692          | 5,519          | 6,528          | 7,757          |
| TEXAS CITY                          | GALVESTON | SAN JACINTO-BRAZOS  | 6,476                   | 6,383          | 6,269          | 6,138          | 6,051          | 6,056          |
| TIKI ISLAND                         | GALVESTON | SAN JACINTO-BRAZOS  | 243                     | 282            | 303            | 311            | 316            | 321            |
| <b>GALVESTON TOTAL</b>              |           |                     | <b>103,061</b>          | <b>106,679</b> | <b>110,509</b> | <b>113,658</b> | <b>116,855</b> | <b>121,863</b> |
| BAYTOWN                             | HARRIS    | SAN JACINTO         | 624                     | 625            | 628            | 631            | 643            | 659            |
| BAYTOWN                             | HARRIS    | TRINITY-SAN JACINTO | 10,531                  | 10,537         | 10,599         | 10,645         | 10,841         | 11,114         |
| BELLAIRE                            | HARRIS    | SAN JACINTO         | 3,734                   | 3,993          | 4,254          | 4,527          | 4,817          | 5,131          |
| BLUE BELL MANOR UTILITY COMPANY     | HARRIS    | SAN JACINTO         | 572                     | 563            | 555            | 546            | 540            | 540            |
| BRITMOORE UTILITIES                 | HARRIS    | SAN JACINTO         | 471                     | 550            | 626            | 705            | 783            | 864            |
| BUNKER HILL VILLAGE                 | HARRIS    | SAN JACINTO         | 1,504                   | 1,491          | 1,479          | 1,466          | 1,462          | 1,462          |
| CANDLELIGHT HILLS SUBDIVISION       | HARRIS    | SAN JACINTO         | 451                     | 530            | 610            | 691            | 770            | 853            |
| CHCRWA                              | HARRIS    | SAN JACINTO         | 4,637                   | 6,433          | 6,433          | 6,433          | 6,433          | 6,433          |
| CHIMNEY HILL MUD                    | HARRIS    | SAN JACINTO         | 668                     | 646            | 625            | 618            | 611            | 611            |
| CLEAR BROOK CITY MUD WOODMEADOWS    | HARRIS    | SAN JACINTO         | 1,003                   | 1,089          | 1,189          | 1,281          | 1,384          | 1,503          |
| CONSUMERS WATER INC                 | HARRIS    | SAN JACINTO         | 399                     | 524            | 653            | 767            | 897            | 1,026          |
| COUNTY-OTHER                        | HARRIS    | SAN JACINTO         | 14,130                  | 13,609         | 23,334         | 41,631         | 67,774         | 94,505         |
| COUNTY-OTHER                        | HARRIS    | SAN JACINTO-BRAZOS  | 2,621                   | 2,045          | 2,512          | 2,030          | 1,966          | 2,014          |
| COUNTY-OTHER                        | HARRIS    | TRINITY-SAN JACINTO | 2,373                   | 1,776          | 1,997          | 1,370          | 969            | 645            |
| CROSBY MUD                          | HARRIS    | SAN JACINTO         | 897                     | 964            | 1,028          | 1,091          | 1,157          | 1,237          |
| CRYSTAL SPRNGS WATER COMPANY        | HARRIS    | SAN JACINTO         | 21                      | 27             | 33             | 39             | 45             | 51             |
| DEER PARK                           | HARRIS    | SAN JACINTO         | 1,723                   | 1,725          | 1,737          | 1,746          | 1,782          | 1,832          |
| DEER PARK                           | HARRIS    | SAN JACINTO-BRAZOS  | 2,641                   | 2,645          | 2,664          | 2,678          | 2,732          | 2,809          |
| EL DORADO UD                        | HARRIS    | SAN JACINTO         | 465                     | 507            | 544            | 584            | 627            | 675            |
| EL LAGO                             | HARRIS    | SAN JACINTO-BRAZOS  | 534                     | 524            | 513            | 503            | 496            | 496            |
| FOUNTAINVIEW SUBDIVISION            | HARRIS    | SAN JACINTO         | 341                     | 389            | 438            | 483            | 532            | 585            |
| FRIENDSWOOD                         | HARRIS    | SAN JACINTO-BRAZOS  | 1,031                   | 1,005          | 979            | 952            | 944            | 944            |
| GALENA PARK                         | HARRIS    | SAN JACINTO         | 1,231                   | 1,234          | 1,245          | 1,252          | 1,285          | 1,332          |
| GREEN TRAILS MUD                    | HARRIS    | SAN JACINTO         | 917                     | 1,036          | 1,158          | 1,276          | 1,396          | 1,520          |
| HARRIS COUNTY FWSD #47              | HARRIS    | SAN JACINTO         | 423                     | 408            | 394            | 380            | 370            | 370            |
| HARRIS COUNTY FWSD #51              | HARRIS    | SAN JACINTO         | 2,536                   | 2,473          | 2,451          | 2,409          | 2,409          | 2,409          |
| HARRIS COUNTY FWSD #6               | HARRIS    | SAN JACINTO         | 346                     | 396            | 441            | 494            | 544            | 601            |
| HARRIS COUNTY MUD #11               | HARRIS    | SAN JACINTO         | 417                     | 470            | 523            | 574            | 627            | 686            |
| HARRIS COUNTY MUD #119 INWOOD NORTH | HARRIS    | SAN JACINTO         | 878                     | 919            | 899            | 880            | 870            | 870            |
| HARRIS COUNTY MUD #132              | HARRIS    | SAN JACINTO         | 1,755                   | 2,176          | 2,579          | 2,986          | 3,385          | 3,801          |
| HARRIS COUNTY MUD #151              | HARRIS    | SAN JACINTO         | 1,275                   | 1,267          | 1,259          | 1,250          | 1,250          | 1,250          |
| HARRIS COUNTY MUD #152              | HARRIS    | SAN JACINTO         | 787                     | 1,014          | 1,228          | 1,444          | 1,670          | 1,895          |
| HARRIS COUNTY MUD #153              | HARRIS    | SAN JACINTO         | 1,227                   | 1,669          | 2,106          | 2,533          | 2,971          | 3,406          |
| HARRIS COUNTY MUD #154              | HARRIS    | SAN JACINTO         | 676                     | 830            | 974            | 1,122          | 1,265          | 1,421          |
| HARRIS COUNTY MUD #158              | HARRIS    | SAN JACINTO         | 486                     | 597            | 589            | 574            | 574            | 574            |
| HARRIS COUNTY MUD #180              | HARRIS    | SAN JACINTO         | 616                     | 741            | 864            | 990            | 1,113          | 1,245          |
| HARRIS COUNTY MUD #189              | HARRIS    | SAN JACINTO         | 804                     | 970            | 1,133          | 1,299          | 1,462          | 1,636          |
| HARRIS COUNTY MUD #261              | HARRIS    | SAN JACINTO         | 870                     | 867            | 867            | 865            | 865            | 865            |
| HARRIS COUNTY MUD #345              | HARRIS    | SAN JACINTO         | 1,415                   | 1,403          | 1,403          | 1,397          | 1,397          | 1,397          |
| HARRIS COUNTY MUD #46               | HARRIS    | SAN JACINTO         | 836                     | 822            | 808            | 801            | 801            | 801            |
| HARRIS COUNTY MUD #5                | HARRIS    | SAN JACINTO         | 655                     | 642            | 628            | 614            | 605            | 605            |
| HARRIS COUNTY MUD #50               | HARRIS    | SAN JACINTO         | 620                     | 655            | 696            | 731            | 773            | 820            |
| HARRIS COUNTY MUD #53               | HARRIS    | SAN JACINTO         | 1,933                   | 2,384          | 2,806          | 3,238          | 3,658          | 4,111          |
| HARRIS COUNTY MUD #55               | HARRIS    | SAN JACINTO-BRAZOS  | 1,502                   | 1,463          | 1,424          | 1,385          | 1,359          | 1,359          |
| HARRIS COUNTY MUD #8                | HARRIS    | SAN JACINTO         | 697                     | 756            | 809            | 866            | 929            | 1,001          |
| HARRIS COUNTY UD #14                | HARRIS    | SAN JACINTO         | 582                     | 635            | 686            | 737            | 790            | 845            |
| HARRIS COUNTY UD #15                | HARRIS    | SAN JACINTO         | 427                     | 484            | 541            | 596            | 653            | 716            |
| HARRIS COUNTY WCID #1               | HARRIS    | SAN JACINTO         | 1,115                   | 1,264          | 1,413          | 1,554          | 1,704          | 1,870          |
| HARRIS COUNTY WCID #133             | HARRIS    | SAN JACINTO         | 754                     | 750            | 747            | 737            | 743            | 743            |
| HARRIS COUNTY WCID #21              | HARRIS    | SAN JACINTO         | 1,417                   | 1,466          | 1,509          | 1,547          | 1,609          | 1,684          |
| HARRIS COUNTY WCID #36              | HARRIS    | SAN JACINTO         | 1,346                   | 1,452          | 1,547          | 1,650          | 1,763          | 1,891          |
| HARRIS COUNTY WCID #50              | HARRIS    | SAN JACINTO         | 605                     | 663            | 715            | 770            | 830            | 897            |
| HARRIS COUNTY WCID #76              | HARRIS    | SAN JACINTO         | 296                     | 290            | 284            | 278            | 274            | 274            |
| HARRIS COUNTY WCID #84              | HARRIS    | SAN JACINTO         | 602                     | 604            | 606            | 604            | 611            | 621            |
| HEDWIG VILLAGE                      | HARRIS    | SAN JACINTO         | 831                     | 824            | 816            | 808            | 803            | 803            |
| HILSHIRE VILLAGE                    | HARRIS    | SAN JACINTO         | 191                     | 188            | 185            | 183            | 182            | 182            |
| HOUSTON                             | HARRIS    | SAN JACINTO         | 361,804                 | 398,796        | 433,343        | 468,951        | 506,649        | 547,381        |
| HOUSTON                             | HARRIS    | SAN JACINTO-BRAZOS  | 20,163                  | 22,225         | 24,150         | 26,134         | 28,235         | 30,505         |
| HUMBLE                              | HARRIS    | SAN JACINTO         | 3,664                   | 4,062          | 4,456          | 4,857          | 5,274          | 5,715          |
| HUNTERS CREEK VILLAGE               | HARRIS    | SAN JACINTO         | 1,747                   | 1,866          | 1,981          | 2,091          | 2,212          | 2,340          |
| IRRIGATION                          | HARRIS    | SAN JACINTO         | 9,883                   | 9,883          | 9,883          | 9,883          | 9,883          | 9,883          |
| IRRIGATION                          | HARRIS    | TRINITY-SAN JACINTO | 5,417                   | 5,417          | 5,417          | 5,417          | 5,417          | 5,417          |
| JACINTO CITY                        | HARRIS    | SAN JACINTO         | 1,301                   | 1,346          | 1,410          | 1,455          | 1,526          | 1,612          |
| JERSEY VILLAGE                      | HARRIS    | SAN JACINTO         | 1,586                   | 1,880          | 2,170          | 2,464          | 2,753          | 3,056          |
| KATY                                | HARRIS    | SAN JACINTO         | 3,197                   | 3,867          | 4,544          | 5,230          | 5,902          | 6,604          |
| LA PORTE                            | HARRIS    | SAN JACINTO         | 287                     | 306            | 328            | 346            | 369            | 394            |
| LA PORTE                            | HARRIS    | SAN JACINTO-BRAZOS  | 5,036                   | 5,367          | 5,750          | 6,066          | 6,461          | 6,904          |
| LEAGUE CITY                         | HARRIS    | SAN JACINTO-BRAZOS  | 26                      | 26             | 26             | 26             | 27             | 27             |
| LIVESTOCK                           | HARRIS    | SAN JACINTO         | 951                     | 951            | 951            | 951            | 951            | 951            |
| LIVESTOCK                           | HARRIS    | SAN JACINTO-BRAZOS  | 91                      | 91             | 91             | 91             | 91             | 91             |
| LIVESTOCK                           | HARRIS    | TRINITY-SAN JACINTO | 91                      | 91             | 91             | 91             | 91             | 91             |
| LONGHORN TOWN UD                    | HARRIS    | SAN JACINTO         | 596                     | 857            | 1,112          | 1,368          | 1,622          | 1,875          |
| MANUFACTURING                       | HARRIS    | SAN JACINTO         | 256,465                 | 275,094        | 290,934        | 304,964        | 315,464        | 310,194        |
| MANUFACTURING                       | HARRIS    | SAN JACINTO-BRAZOS  | 66,918                  | 71,779         | 75,911         | 79,572         | 82,312         | 80,937         |
| MANUFACTURING                       | HARRIS    | TRINITY-SAN JACINTO | 72,614                  | 77,888         | 82,373         | 86,345         | 89,318         | 87,826         |

| WUG   | COUNTY  | BASIN               | 2011 DEMANDS (ac-ft/yr) |                  |                  |                  |                  |                  |
|---|---------|---------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|
|   |         |                     | 2010                    | 2020             | 2030             | 2040             | 2050             | 2060             |
| MASON CREEK UD                                  | HARRIS  | SAN JACINTO         | 2,352                   | 2,321            | 2,291            | 2,271            | 2,261            | 2,261            |
| MINING  | HARRIS  | SAN JACINTO         | 1,258                   | 1,407            | 1,500            | 1,593            | 1,688            | 1,771            |
| MINING  | HARRIS  | SAN JACINTO-BRAZOS  | 24                      | 27               | 29               | 31               | 32               | 34               |
| MISSOURI CITY                                   | HARRIS  | SAN JACINTO         | 1,306                   | 1,540            | 1,786            | 2,035            | 2,296            | 2,554            |
| NASSAU BAY                                      | HARRIS  | SAN JACINTO-BRAZOS  | 1,028                   | 1,014            | 1,000            | 986              | 976              | 976              |
| NFBWA   | HARRIS  | SAN JACINTO         | 1,072                   | 1,031            | 1,021            | 1,061            | 1,084            | 1,080            |
| NHCRWA  | HARRIS  | SAN JACINTO         | 116,062                 | 136,903          | 152,789          | 161,456          | 164,968          | 169,178          |
| NORTH BELT UD                                   | HARRIS  | SAN JACINTO         | 461                     | 600              | 731              | 863              | 1,002            | 1,140            |
| NORTH GREEN MUD                                 | HARRIS  | SAN JACINTO         | 349                     | 379              | 405              | 434              | 466              | 503              |
| NORTHWEST HARRIS COUNTY MUD #23                 | HARRIS  | SAN JACINTO         | 587                     | 728              | 873              | 1,005            | 1,152            | 1,298            |
| NORTHWEST PARK MUD                              | HARRIS  | SAN JACINTO         | 1,331                   | 1,443            | 1,545            | 1,653            | 1,773            | 1,909            |
| PARKWAY UD                                      | HARRIS  | SAN JACINTO         | 303                     | 296              | 288              | 280              | 275              | 277              |
| PASADENA  | HARRIS  | SAN JACINTO         | 15,990                  | 17,440           | 18,759           | 20,151           | 21,674           | 23,383           |
| PASADENA  | HARRIS  | SAN JACINTO-BRAZOS  | 4,475                   | 4,881            | 5,250            | 5,639            | 6,066            | 6,544            |
| PEARLAND  | HARRIS  | SAN JACINTO-BRAZOS  | 445                     | 513              | 579              | 646              | 717              | 788              |
| PINE TRAILS UTILITY                             | HARRIS  | SAN JACINTO         | 939                     | 1,008            | 1,070            | 1,137            | 1,210            | 1,292            |
| PINEY POINT VILLAGE                             | HARRIS  | SAN JACINTO         | 1,275                   | 1,317            | 1,360            | 1,402            | 1,451            | 1,506            |
| ROLLING FORK PUD                                | HARRIS  | SAN JACINTO         | 706                     | 729              | 753              | 777              | 806              | 839              |
| SEABROOK  | HARRIS  | SAN JACINTO-BRAZOS  | 2,421                   | 2,867            | 3,288            | 3,731            | 4,166            | 4,620            |
| SHOREACRES                                      | HARRIS  | SAN JACINTO-BRAZOS  | 204                     | 217              | 229              | 239              | 237              | 237              |
| SOUTH HOUSTON                                   | HARRIS  | SAN JACINTO         | 2,288                   | 2,393            | 2,528            | 2,631            | 2,775            | 2,942            |
| SOUTHSIDE PLACE                                 | HARRIS  | SAN JACINTO         | 406                     | 433              | 458              | 482              | 510              | 540              |
| SOUTHWEST UTILITIES                             | HARRIS  | SAN JACINTO         | 710                     | 795              | 882              | 962              | 1,050            | 1,147            |
| SPRING VALLEY                                   | HARRIS  | SAN JACINTO         | 888                     | 915              | 944              | 972              | 1,008            | 1,049            |
| STAFFORD  | HARRIS  | SAN JACINTO         | 23                      | 23               | 23               | 22               | 23               | 23               |
| STEAM ELECTRIC POWER                            | HARRIS  | SAN JACINTO         | 7,284                   | 22,585           | 26,405           | 31,062           | 36,738           | 43,656           |
| STEAM ELECTRIC POWER                            | HARRIS  | SAN JACINTO-BRAZOS  | 444                     | 1,377            | 1,610            | 1,893            | 2,239            | 2,661            |
| SUNBELT FWSD                                    | HARRIS  | SAN JACINTO         | 4,489                   | 5,227            | 5,922            | 6,663            | 7,389            | 8,154            |
| TAYLOR LAKE VILLAGE                             | HARRIS  | SAN JACINTO-BRAZOS  | 908                     | 889              | 871              | 852              | 846              | 846              |
| TOMBALL   | HARRIS  | SAN JACINTO         | 2,621                   | 3,301            | 3,842            | 4,834            | 5,562            | 6,630            |
| TRAIL OF THE LAKES MUD                          | HARRIS  | SAN JACINTO         | 1,413                   | 1,376            | 1,364            | 1,339            | 1,339            | 1,339            |
| WALLER  | HARRIS  | SAN JACINTO         | 119                     | 154              | 190              | 225              | 260              | 296              |
| WEBSTER   | HARRIS  | SAN JACINTO-BRAZOS  | 2,417                   | 3,097            | 3,772            | 4,432            | 5,110            | 5,786            |
| WEST HARRIS COUNTY MUD #6                       | HARRIS  | SAN JACINTO         | 565                     | 561              | 561              | 549              | 541              | 541              |
| WEST UNIVERSITY PL.                             | HARRIS  | SAN JACINTO         | 3,101                   | 3,275            | 3,438            | 3,591            | 3,780            | 3,989            |
| WHCRWA  | HARRIS  | SAN JACINTO         | 51,623                  | 58,282           | 63,404           | 66,911           | 67,556           | 68,635           |
| WILLOW RUN SUBDIVISION                          | HARRIS  | SAN JACINTO         | 665                     | 652              | 640              | 628              | 620              | 620              |
| WINDFERN FOREST UD                              | HARRIS  | SAN JACINTO         | 804                     | 1,033            | 1,014            | 1,004            | 1,004            | 1,004            |
| WOODCREEK MUD                                   | HARRIS  | SAN JACINTO         | 622                     | 815              | 999              | 1,184            | 1,374            | 1,564            |
| <b>HARRIS TOTAL</b>                             |         |                     | <b>1,128,253</b>        | <b>1,251,645</b> | <b>1,359,097</b> | <b>1,464,169</b> | <b>1,568,326</b> | <b>1,655,905</b> |
| BUFFALO   | LEON    | TRINITY             | 348                     | 384              | 401              | 397              | 392              | 395              |
| CENTERVILLE                                     | LEON    | TRINITY             | 189                     | 203              | 210              | 207              | 205              | 206              |
| COUNTY-OTHER                                    | LEON    | BRAZOS              | 395                     | 416              | 421              | 412              | 405              | 408              |
| COUNTY-OTHER                                    | LEON    | TRINITY             | 428                     | 448              | 452              | 443              | 436              | 439              |
| FLO COMMUNITY WSC                               | LEON    | TRINITY             | 418                     | 525              | 578              | 574              | 559              | 567              |
| IRRIGATION                                      | LEON    | TRINITY             | 542                     | 542              | 542              | 542              | 542              | 542              |
| JEWETT  | LEON    | BRAZOS              | 51                      | 60               | 64               | 64               | 63               | 64               |
| JEWETT  | LEON    | TRINITY             | 151                     | 177              | 192              | 191              | 188              | 190              |
| LIVESTOCK                                       | LEON    | BRAZOS              | 423                     | 423              | 423              | 423              | 423              | 423              |
| LIVESTOCK                                       | LEON    | TRINITY             | 1,268                   | 1,268            | 1,268            | 1,268            | 1,268            | 1,268            |
| MANUFACTURING                                   | LEON    | TRINITY             | 714                     | 842              | 967              | 1,093            | 1,207            | 1,313            |
| MINING  | LEON    | BRAZOS              | 221                     | 213              | 209              | 205              | 201              | 198              |
| MINING  | LEON    | TRINITY             | 1,296                   | 1,251            | 1,226            | 1,204            | 1,183            | 1,166            |
| NORMANGEE                                       | LEON    | BRAZOS              | 42                      | 46               | 49               | 48               | 47               | 48               |
| NORMANGEE                                       | LEON    | TRINITY             | 106                     | 117              | 122              | 120              | 119              | 120              |
| <b>LEON TOTAL</b>                               |         |                     | <b>6,592</b>            | <b>6,915</b>     | <b>7,124</b>     | <b>7,191</b>     | <b>7,238</b>     | <b>7,347</b>     |
| AMES  | LIBERTY | TRINITY             | 137                     | 159              | 179              | 197              | 221              | 250              |
| CLEVELAND                                       | LIBERTY | SAN JACINTO         | 1,341                   | 1,365            | 1,392            | 1,416            | 1,464            | 1,529            |
| COUNTY-OTHER                                    | LIBERTY | NECHES              | 154                     | 179              | 203              | 228              | 255              | 288              |
| COUNTY-OTHER                                    | LIBERTY | NECHES-TRINITY      | 11                      | 12               | 14               | 16               | 18               | 20               |
| COUNTY-OTHER                                    | LIBERTY | SAN JACINTO         | 1,294                   | 1,504            | 1,707            | 1,918            | 2,145            | 2,427            |
| COUNTY-OTHER                                    | LIBERTY | TRINITY             | 2,787                   | 3,116            | 3,441            | 3,786            | 4,157            | 4,628            |
| COUNTY-OTHER                                    | LIBERTY | TRINITY-SAN JACINTO | 187                     | 217              | 247              | 277              | 310              | 350              |
| DAISETTA  | LIBERTY | NECHES              | 58                      | 59               | 60               | 61               | 62               | 65               |
| DAISETTA  | LIBERTY | TRINITY             | 91                      | 93               | 94               | 95               | 98               | 102              |
| DAYTON  | LIBERTY | TRINITY             | 1,737                   | 2,161            | 2,553            | 2,924            | 3,355            | 3,855            |
| HARDIN  | LIBERTY | TRINITY             | 136                     | 155              | 172              | 191              | 211              | 235              |
| HARDIN WSC                                      | LIBERTY | TRINITY             | 567                     | 669              | 767              | 865              | 973              | 1,099            |
| IRRIGATION                                      | LIBERTY | NECHES              | 3,317                   | 3,317            | 3,317            | 3,317            | 3,317            | 3,317            |
| IRRIGATION                                      | LIBERTY | NECHES-TRINITY      | 8,289                   | 8,289            | 8,289            | 8,289            | 8,289            | 8,289            |
| IRRIGATION                                      | LIBERTY | SAN JACINTO         | 830                     | 830              | 830              | 830              | 830              | 830              |
| IRRIGATION                                      | LIBERTY | TRINITY             | 53,056                  | 53,056           | 53,056           | 53,056           | 53,056           | 53,056           |
| IRRIGATION                                      | LIBERTY | TRINITY-SAN JACINTO | 17,409                  | 17,409           | 17,409           | 17,409           | 17,409           | 17,409           |
| KENEFICK  | LIBERTY | TRINITY             | 94                      | 112              | 128              | 144              | 162              | 183              |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | LIBERTY | TRINITY             | 108                     | 116              | 124              | 130              | 140              | 153              |
| LIBERTY   | LIBERTY | TRINITY             | 1,509                   | 1,527            | 1,532            | 1,543            | 1,578            | 1,628            |
| LIVESTOCK                                       | LIBERTY | NECHES              | 104                     | 104              | 104              | 104              | 104              | 104              |
| LIVESTOCK                                       | LIBERTY | NECHES-TRINITY      | 35                      | 35               | 35               | 35               | 35               | 35               |
| LIVESTOCK                                       | LIBERTY | SAN JACINTO         | 140                     | 140              | 140              | 140              | 140              | 140              |
| LIVESTOCK                                       | LIBERTY | TRINITY             | 446                     | 446              | 446              | 446              | 446              | 446              |
| LIVESTOCK                                       | LIBERTY | TRINITY-SAN JACINTO | 32                      | 32               | 32               | 32               | 32               | 32               |
| MANUFACTURING                                   | LIBERTY | SAN JACINTO         | 331                     | 391              | 452              | 514              | 570              | 619              |
| MANUFACTURING                                   | LIBERTY | TRINITY             | 62                      | 74               | 85               | 97               | 108              | 117              |
| MERCY WSC                                       | LIBERTY | SAN JACINTO         | 75                      | 88               | 100              | 113              | 126              | 142              |
| MINING  | LIBERTY | NECHES              | 32                      | 32               | 32               | 32               | 32               | 33               |
| MINING  | LIBERTY | NECHES-TRINITY      | 23                      | 23               | 23               | 24               | 23               | 22               |
| MINING  | LIBERTY | SAN JACINTO         | 34                      | 34               | 34               | 34               | 35               | 35               |

| WUG   | COUNTY      | BASIN               | 2011 DEMANDS (ac-ft/yr) |                |                |                |                |                |
|---|-------------|---------------------|-------------------------|----------------|----------------|----------------|----------------|----------------|
|   |             |                     | 2010                    | 2020           | 2030           | 2040           | 2050           | 2060           |
| MINING  | LIBERTY     | TRINITY             | 4,924                   | 4,937          | 4,945          | 4,951          | 4,958          | 4,963          |
| MINING  | LIBERTY     | TRINITY-SAN JACINTO | 3,717                   | 3,727          | 3,732          | 3,737          | 3,742          | 3,747          |
| PLUM GROVE                                      | LIBERTY     | SAN JACINTO         | 141                     | 176            | 207            | 240            | 277            | 319            |
| SOUTHWEST UTILITIES                             | LIBERTY     | SAN JACINTO         | 14                      | 16             | 18             | 20             | 23             | 26             |
| STEAM ELECTRIC POWER                            | LIBERTY     | TRINITY             | 2,962                   | 4,240          | 4,957          | 5,831          | 6,896          | 8,195          |
| WEST HARDIN WSC                                 | LIBERTY     | NECHES              | 29                      | 35             | 42             | 47             | 54             | 63             |
| <b>LIBERTY TOTAL</b>                            |             |                     | <b>106,213</b>          | <b>108,875</b> | <b>110,898</b> | <b>113,089</b> | <b>115,651</b> | <b>118,751</b> |
| COUNTY-OTHER                                    | MADISON     | BRAZOS              | 106                     | 110            | 113            | 115            | 118            | 122            |
| COUNTY-OTHER                                    | MADISON     | TRINITY             | 896                     | 931            | 959            | 971            | 998            | 1,032          |
| IRRIGATION                                      | MADISON     | TRINITY             | 19                      | 19             | 19             | 19             | 19             | 19             |
| LIVESTOCK                                       | MADISON     | BRAZOS              | 120                     | 120            | 120            | 120            | 120            | 120            |
| LIVESTOCK                                       | MADISON     | TRINITY             | 630                     | 630            | 630            | 630            | 630            | 630            |
| MADISONVILLE                                    | MADISON     | TRINITY             | 781                     | 815            | 837            | 856            | 881            | 908            |
| MANUFACTURING                                   | MADISON     | TRINITY             | 260                     | 289            | 316            | 343            | 367            | 398            |
| MINING  | MADISON     | BRAZOS              | 9                       | 9              | 9              | 9              | 9              | 9              |
| MINING  | MADISON     | TRINITY             | 15                      | 15             | 15             | 15             | 15             | 15             |
| NORMANGEE                                       | MADISON     | TRINITY             | 10                      | 11             | 12             | 12             | 13             | 13             |
| <b>MADISON TOTAL</b>                            |             |                     | <b>2,846</b>            | <b>2,949</b>   | <b>3,030</b>   | <b>3,090</b>   | <b>3,170</b>   | <b>3,266</b>   |
| CONROE  | MONTGOMERY  | SAN JACINTO         | 11,262                  | 14,588         | 18,512         | 22,987         | 28,860         | 35,846         |
| CONSUMERS WATER INC                             | MONTGOMERY  | SAN JACINTO         | 222                     | 243            | 305            | 371            | 470            | 583            |
| COUNTY-OTHER                                    | MONTGOMERY  | SAN JACINTO         | 23,266                  | 27,511         | 38,743         | 52,220         | 71,729         | 94,402         |
| CRYSTAL SPRNGS WATER COMPANY                    | MONTGOMERY  | SAN JACINTO         | 606                     | 704            | 933            | 1,208          | 1,586          | 2,026          |
| CUT AND SHOOT                                   | MONTGOMERY  | SAN JACINTO         | 210                     | 235            | 285            | 348            | 430            | 529            |
| EAST PLANTATION UD                              | MONTGOMERY  | SAN JACINTO         | 471                     | 551            | 734            | 952            | 1,244          | 1,584          |
| H M W SUD                                       | MONTGOMERY  | SAN JACINTO         | 1,696                   | 1,864          | 2,282          | 2,768          | 3,434          | 4,208          |
| HOUSTON   | MONTGOMERY  | SAN JACINTO         | 190                     | 253            | 375            | 516            | 704            | 926            |
| IRRIGATION                                      | MONTGOMERY  | SAN JACINTO         | 66                      | 66             | 66             | 66             | 66             | 66             |
| LIVESTOCK                                       | MONTGOMERY  | SAN JACINTO         | 510                     | 510            | 510            | 510            | 510            | 510            |
| MAGNOLIA  | MONTGOMERY  | SAN JACINTO         | 439                     | 604            | 800            | 1,015          | 1,302          | 1,643          |
| MANUFACTURING                                   | MONTGOMERY  | SAN JACINTO         | 2,045                   | 2,332          | 2,608          | 2,883          | 3,126          | 3,392          |
| MINING  | MONTGOMERY  | SAN JACINTO         | 480                     | 509            | 526            | 543            | 559            | 573            |
| MONTGOMERY                                      | MONTGOMERY  | SAN JACINTO         | 249                     | 1,019          | 1,497          | 1,970          | 2,442          | 2,927          |
| MONTGOMERY COUNTY MUD #18                       | MONTGOMERY  | SAN JACINTO         | 1,871                   | 2,377          | 3,518          | 4,869          | 6,653          | 8,726          |
| MONTGOMERY COUNTY MUD #19                       | MONTGOMERY  | SAN JACINTO         | 459                     | 452            | 448            | 444            | 444            | 444            |
| MONTGOMERY COUNTY MUD #8                        | MONTGOMERY  | SAN JACINTO         | 842                     | 1,095          | 1,325          | 1,397          | 1,381          | 1,369          |
| MONTGOMERY COUNTY MUD #9                        | MONTGOMERY  | SAN JACINTO         | 796                     | 1,074          | 1,369          | 1,504          | 1,526          | 1,541          |
| MONTGOMERY COUNTY UD #2                         | MONTGOMERY  | SAN JACINTO         | 559                     | 552            | 545            | 538            | 538            | 538            |
| MONTGOMERY COUNTY UD #3                         | MONTGOMERY  | SAN JACINTO         | 485                     | 504            | 560            | 629            | 728            | 849            |
| MONTGOMERY COUNTY UD #4                         | MONTGOMERY  | SAN JACINTO         | 981                     | 970            | 958            | 947            | 947            | 947            |
| MONTGOMERY COUNTY WCID #1                       | MONTGOMERY  | SAN JACINTO         | 499                     | 519            | 577            | 651            | 756            | 885            |
| NEW CANEY MUD                                   | MONTGOMERY  | SAN JACINTO         | 1,460                   | 1,647          | 2,156          | 2,708          | 3,507          | 4,436          |
| OAK RIDGE NORTH                                 | MONTGOMERY  | SAN JACINTO         | 683                     | 748            | 897            | 1,067          | 1,297          | 1,573          |
| PANORAMA VILLAGE                                | MONTGOMERY  | SAN JACINTO         | 654                     | 682            | 710            | 743            | 776            | 811            |
| PATTON VILLAGE                                  | MONTGOMERY  | SAN JACINTO         | 87                      | 88             | 101            | 115            | 136            | 165            |
| POINT AQUARIUS MUD                              | MONTGOMERY  | SAN JACINTO         | 734                     | 908            | 1,303          | 1,762          | 2,377          | 3,092          |
| PORTER WSC                                      | MONTGOMERY  | SAN JACINTO         | 1,944                   | 2,156          | 2,697          | 3,347          | 3,317          | 3,317          |
| RAYFORD ROAD MUD                                | MONTGOMERY  | SAN JACINTO         | 2,309                   | 2,288          | 2,268          | 2,268          | 2,268          | 2,268          |
| RIVER PLANTATION MUD                            | MONTGOMERY  | SAN JACINTO         | 835                     | 824            | 812            | 801            | 798            | 798            |
| ROMAN FOREST                                    | MONTGOMERY  | SAN JACINTO         | 544                     | 839            | 1,192          | 1,568          | 2,073          | 2,677          |
| SHENANDOAH                                      | MONTGOMERY  | SAN JACINTO         | 873                     | 1,159          | 1,502          | 1,873          | 2,366          | 2,954          |
| SOUTHERN MONTGOMERY COUNTY MUD                  | MONTGOMERY  | SAN JACINTO         | 1,901                   | 2,402          | 2,417          | 2,493          | 2,523          | 2,581          |
| SOUTHWEST UTILITIES                             | MONTGOMERY  | SAN JACINTO         | 254                     | 281            | 352            | 432            | 542            | 675            |
| SPLENDORA                                       | MONTGOMERY  | SAN JACINTO         | 188                     | 224            | 297            | 383            | 502            | 640            |
| SPRING CREEK UD                                 | MONTGOMERY  | SAN JACINTO         | 537                     | 612            | 800            | 1,025          | 1,335          | 1,696          |
| STAGECOACH                                      | MONTGOMERY  | SAN JACINTO         | 79                      | 106            | 144            | 194            | 265            | 365            |
| STANLEY LAKE MUD                                | MONTGOMERY  | SAN JACINTO         | 744                     | 904            | 898            | 892            | 892            | 892            |
| STEAM ELECTRIC POWER                            | MONTGOMERY  | SAN JACINTO         | 5,046                   | 8,537          | 9,981          | 11,741         | 13,886         | 16,502         |
| THE WOODLANDS                                   | MONTGOMERY  | SAN JACINTO         | 14,671                  | 26,596         | 28,330         | 28,197         | 28,063         | 28,063         |
| WILLIS  | MONTGOMERY  | SAN JACINTO         | 568                     | 649            | 816            | 1,024          | 1,296          | 1,626          |
| WOODBANCH                                       | MONTGOMERY  | SAN JACINTO         | 183                     | 202            | 225            | 249            | 284            | 330            |
| <b>MONTGOMERY TOTAL</b>                         |             |                     | <b>82,497</b>           | <b>110,384</b> | <b>135,374</b> | <b>162,219</b> | <b>197,938</b> | <b>239,976</b> |
| COUNTY-OTHER                                    | POLK        | TRINITY             | 1,600                   | 1,691          | 1,744          | 1,794          | 1,880          | 1,976          |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | POLK        | TRINITY             | 890                     | 944            | 985            | 1,004          | 1,044          | 1,100          |
| LIVESTOCK                                       | POLK        | TRINITY             | 134                     | 134            | 134            | 134            | 134            | 134            |
| LIVINGSTON                                      | POLK        | TRINITY             | 2,137                   | 2,517          | 2,802          | 3,006          | 3,212          | 3,423          |
| MINING  | POLK        | TRINITY             | 29                      | 31             | 32             | 33             | 34             | 35             |
| ONALASKA  | POLK        | TRINITY             | 189                     | 229            | 260            | 281            | 302            | 325            |
| ONALASKA WSC                                    | POLK        | TRINITY             | 240                     | 244            | 247            | 242            | 246            | 255            |
| TRINITY RURAL WSC                               | POLK        | TRINITY             | 6                       | 7              | 8              | 8              | 9              | 9              |
| <b>POLK TOTAL</b>                               |             |                     | <b>5,225</b>            | <b>5,797</b>   | <b>6,212</b>   | <b>6,502</b>   | <b>6,861</b>   | <b>7,257</b>   |
| COLDSRING                                       | SAN JACINTO | SAN JACINTO         | 44                      | 51             | 56             | 59             | 60             | 61             |
| COLDSRING                                       | SAN JACINTO | TRINITY             | 163                     | 186            | 205            | 216            | 222            | 225            |
| COUNTY-OTHER                                    | SAN JACINTO | SAN JACINTO         | 868                     | 974            | 1,052          | 1,091          | 1,114          | 1,129          |
| COUNTY-OTHER                                    | SAN JACINTO | TRINITY             | 1,339                   | 1,513          | 1,607          | 1,463          | 1,372          | 1,240          |
| IRRIGATION                                      | SAN JACINTO | TRINITY             | 667                     | 667            | 667            | 667            | 667            | 667            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | SAN JACINTO | SAN JACINTO         | 95                      | 114            | 127            | 133            | 137            | 140            |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | SAN JACINTO | TRINITY             | 206                     | 245            | 275            | 288            | 295            | 301            |
| LIVESTOCK                                       | SAN JACINTO | SAN JACINTO         | 142                     | 142            | 142            | 142            | 142            | 142            |
| LIVESTOCK                                       | SAN JACINTO | TRINITY             | 142                     | 142            | 142            | 142            | 142            | 142            |
| MANUFACTURING                                   | SAN JACINTO | SAN JACINTO         | 48                      | 52             | 56             | 60             | 63             | 68             |
| MERCY WSC                                       | SAN JACINTO | SAN JACINTO         | 338                     | 404            | 455            | 487            | 504            | 513            |
| MINING  | SAN JACINTO | SAN JACINTO         | 23                      | 23             | 22             | 21             | 20             | 20             |
| MINING  | SAN JACINTO | TRINITY             | 7                       | 6              | 6              | 6              | 6              | 6              |
| POINT BLANK                                     | SAN JACINTO | TRINITY             | 85                      | 96             | 104            | 108            | 111            | 112            |
| RIVERSIDE WSC                                   | SAN JACINTO | TRINITY             | 150                     | 179            | 213            | 270            | 302            | 337            |
| SAN JACINTO WSC                                 | SAN JACINTO | TRINITY             | 406                     | 474            | 528            | 561            | 577            | 587            |
| SHEPHERD  | SAN JACINTO | TRINITY             | 301                     | 355            | 394            | 411            | 424            | 431            |

| WUG   | COUNTY  | BASIN       | 2011 DEMANDS (ac-ft/yr) |           |           |           |           |           |
|---|---------|-------------|-------------------------|-----------|-----------|-----------|-----------|-----------|
|   |         |             | 2010                    | 2020      | 2030      | 2040      | 2050      | 2060      |
| <b>SAN JACINTO TOTAL</b>                        |         |             | 5,024                   | 5,623     | 6,051     | 6,125     | 6,158     | 6,121     |
| COUNTY-OTHER                                    | TRINITY | TRINITY     | 526                     | 558       | 561       | 547       | 522       | 502       |
| GROVETON  | TRINITY | TRINITY     | 119                     | 126       | 127       | 123       | 118       | 113       |
| IRRIGATION                                      | TRINITY | TRINITY     | 467                     | 467       | 467       | 467       | 467       | 467       |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | TRINITY | TRINITY     | 109                     | 111       | 110       | 104       | 98        | 95        |
| LIVESTOCK                                       | TRINITY | TRINITY     | 211                     | 211       | 211       | 211       | 211       | 211       |
| MINING  | TRINITY | TRINITY     | 6                       | 6         | 6         | 6         | 6         | 6         |
| TRINITY   | TRINITY | TRINITY     | 170                     | 172       | 165       | 152       | 142       | 137       |
| TRINITY RURAL WSC                               | TRINITY | TRINITY     | 279                     | 293       | 292       | 280       | 265       | 255       |
| <b>TRINITY TOTAL</b>                            |         |             | 1,887                   | 1,944     | 1,939     | 1,890     | 1,829     | 1,786     |
| CONSOLIDATED WSC                                | WALKER  | TRINITY     | 8                       | 9         | 9         | 8         | 8         | 8         |
| COUNTY-OTHER                                    | WALKER  | SAN JACINTO | 5,752                   | 6,303     | 6,558     | 6,463     | 6,465     | 6,465     |
| COUNTY-OTHER                                    | WALKER  | TRINITY     | 9,060                   | 10,373    | 10,793    | 9,550     | 8,967     | 8,211     |
| HUNTSVILLE                                      | WALKER  | SAN JACINTO | 4,597                   | 4,946     | 5,041     | 4,904     | 4,874     | 4,874     |
| HUNTSVILLE                                      | WALKER  | TRINITY     | 1,024                   | 1,101     | 1,122     | 1,092     | 1,085     | 1,085     |
| IRRIGATION                                      | WALKER  | SAN JACINTO | 5                       | 5         | 5         | 5         | 5         | 5         |
| IRRIGATION                                      | WALKER  | TRINITY     | 6                       | 6         | 6         | 6         | 6         | 6         |
| LAKE LIVINGSTON WATER SUPPLY & SEWER SERVICE CO | WALKER  | TRINITY     | 29                      | 30        | 30        | 29        | 28        | 28        |
| LIVESTOCK                                       | WALKER  | SAN JACINTO | 310                     | 310       | 310       | 310       | 310       | 310       |
| LIVESTOCK                                       | WALKER  | TRINITY     | 322                     | 322       | 322       | 322       | 322       | 322       |
| MANUFACTURING                                   | WALKER  | SAN JACINTO | 577                     | 669       | 753       | 839       | 914       | 993       |
| MANUFACTURING                                   | WALKER  | TRINITY     | 2,631                   | 3,049     | 3,435     | 3,827     | 4,169     | 4,524     |
| MINING  | WALKER  | SAN JACINTO | 7                       | 7         | 7         | 7         | 7         | 7         |
| MINING  | WALKER  | TRINITY     | 6                       | 6         | 6         | 6         | 6         | 6         |
| NEW WAVERLY                                     | WALKER  | SAN JACINTO | 218                     | 235       | 243       | 236       | 235       | 235       |
| RIVERSIDE WSC                                   | WALKER  | TRINITY     | 330                     | 325       | 335       | 379       | 402       | 439       |
| TRINITY RURAL WSC                               | WALKER  | TRINITY     | 22                      | 24        | 24        | 23        | 23        | 23        |
| WALKER COUNTY RURAL WSC                         | WALKER  | TRINITY     | 839                     | 898       | 919       | 891       | 884       | 884       |
| <b>WALKER TOTAL</b>                             |         |             | 25,743                  | 28,618    | 29,918    | 28,897    | 28,710    | 28,424    |
| BROOKSHIRE                                      | WALLER  | BRAZOS      | 673                     | 847       | 1,039     | 1,254     | 1,517     | 1,832     |
| COUNTY-OTHER                                    | WALLER  | BRAZOS      | 685                     | 708       | 755       | 794       | 869       | 954       |
| COUNTY-OTHER                                    | WALLER  | SAN JACINTO | 841                     | 1,013     | 1,227     | 1,435     | 1,729     | 2,066     |
| HEMPSTEAD                                       | WALLER  | BRAZOS      | 1,457                   | 2,052     | 2,694     | 3,427     | 4,294     | 5,313     |
| IRRIGATION                                      | WALLER  | BRAZOS      | 4,825                   | 4,825     | 4,825     | 4,825     | 4,825     | 4,825     |
| IRRIGATION                                      | WALLER  | SAN JACINTO | 18,153                  | 18,153    | 18,153    | 18,153    | 18,153    | 18,153    |
| KATY  | WALLER  | SAN JACINTO | 271                     | 405       | 554       | 722       | 919       | 1,151     |
| LIVESTOCK                                       | WALLER  | BRAZOS      | 676                     | 676       | 676       | 676       | 676       | 676       |
| LIVESTOCK                                       | WALLER  | SAN JACINTO | 263                     | 263       | 263       | 263       | 263       | 263       |
| MANUFACTURING                                   | WALLER  | BRAZOS      | 17                      | 19        | 21        | 24        | 25        | 28        |
| MANUFACTURING                                   | WALLER  | SAN JACINTO | 72                      | 82        | 91        | 99        | 108       | 116       |
| MINING  | WALLER  | BRAZOS      | 9                       | 9         | 9         | 9         | 9         | 9         |
| MINING  | WALLER  | SAN JACINTO | 71                      | 71        | 71        | 71        | 71        | 71        |
| PINE ISLAND                                     | WALLER  | BRAZOS      | 117                     | 146       | 177       | 210       | 254       | 305       |
| PRAIRIE VIEW                                    | WALLER  | BRAZOS      | 1,129                   | 1,211     | 1,307     | 1,418     | 1,558     | 1,726     |
| PRAIRIE VIEW                                    | WALLER  | SAN JACINTO | 124                     | 133       | 144       | 156       | 171       | 190       |
| WALLER  | WALLER  | SAN JACINTO | 416                     | 488       | 572       | 668       | 782       | 917       |
| <b>WALLER TOTAL</b>                             |         |             | 29,799                  | 31,101    | 32,578    | 34,204    | 36,223    | 38,595    |
| <b>REGION H TOTAL</b>                           |         |             | 2,367,518               | 2,584,930 | 2,794,774 | 3,006,908 | 3,242,722 | 3,486,624 |

## Task 2 – Population and Water Demands

**REGION H**  
Water Planning Group

### Public Comment

- **Item 5:** *Receive public comment on Item 4 (Population and water demand projections)*

## Task 2 – Population and Water Demands

**REGION H**  
Water Planning Group

### Approval of Population and Water Demands

- **Item 6:** *Consider and take action on approving the submittal of revised population and water demand projections to the Texas Water Development Board*



## Task 3 – Water Supply Analysis

**REGION H**  
Water Planning Group

### New Supply Sources

- Lake Houston Additional Yield
  - 28,200 acre-ft/year
  - 50% COH, 50% SJRA
  - Date Issued: 12/3/2008
  - 2006 Plan:
    - WMS ID: H15-HOUYLD10
    - Allocated to Katy, NHCRWA, Tomball
    - WMS Supply (acre-ft/year):

| Year                  | 2010   | 2020   | 2030   | 2040   | 2050  | 2060  |
|-----------------------|--------|--------|--------|--------|-------|-------|
| Supply (acre-ft/year) | 27,000 | 22,000 | 17,000 | 12,000 | 7,000 | 2,000 |

## Task 3 – Water Supply Analysis

### Firm Yield Determination

#### **31 TAC 357.7 (a) (3) (C)**

*“The planning group shall use available Texas Commission on Environmental Quality water availability models for evaluating the adequacy of surface water supplies. The planning group shall assume full utilization of existing water rights and no return flows when using the water availability models and the group may use better site specific information upon written approval from the executive administrator. Until information is provided by the Texas Commission on Environmental Quality, regional water planning groups may use estimates of the projected amount of surface water that would be available from existing water rights during a drought of record. Once this information is available from the Texas Commission on Environmental Quality, the regional water planning group shall incorporate it in its next planning cycle unless better site-specific information is available.”*

## Task 3 – Water Supply Analysis

### Modified Firm Yield Determination

- March 31, 2009 TWDB approved request to use modified supply analyses.
- Trinity and Brazos yield analyses in both 2006 and 2011 Plans contain limited return flows as in Region C and G models
- Determination of firm yield for run-of-river rights
  - 2006 RWP – Minimum Annual Diversion
  - 2011 RWP – Monthly Basis
- Coordinate with major water rights holders to determine appropriate basis for determining yield

## Task 3 – Water Supply Analysis



### Region C Coordination – Upper Trinity Basin Return Flows

- Conference call held with Region C Consultants
  - Tom Gooch (Freese & Nichols, Inc)
- Draft Region C Water Conservation and Reuse Study (December 2008)
  - Potential reductions in return flows in region H for the 2011 plan.

## Task 3 – Water Supply Analysis



### Region G Coordination – Brazos G WAM Updates

- Met with BRA & HDR
  - Received Memo outlining 2011 Brazos G WAM assumptions from HDR
  - Received updated list of Region H contracts from BRA
- Return Flows
  - Slight reduction due to increased direct reuse
  - Specific requests from Bryan and College Station
- Region G Consultant (HDR) will transmit the updated Brazos G WAMs for Region H supply analysis



## Task 4 – WMS Selection

REGION H  
Water Planning Group

Planning Group is required to document how WMS selection will be performed, per 31 TAC 357.5 (e) (4)

*"provide specific recommendations of water management strategies based upon identification, analysis, and comparison of all water management strategies the regional water planning group determines to be potentially feasible so that the cost effective water management strategies which are environmentally sensitive are considered and adopted unless the regional water planning group demonstrates that adoption of such strategies is not appropriate. To determine cost-effectiveness, the regional water planning groups will use the process described in §357.7(a)(8)(A)(i) of this title (relating to Regional Water Plan Development) and, to determine environmental sensitivity, the regional water planning groups shall use the process described in §357.7(a)(8)(A)(ii) of this title. **Before a regional water planning group begins the process of identifying potentially feasible water management strategies, it shall document the process by which it will list all possible water management strategies and identify the water management strategies that are potentially feasible for meeting a need in the region.** Once this process is identified, the regional water planning group shall present it to the public for comment at the public meeting required by §357.12(a)(1) of this title (relating to Notice and Public Participation);"*

## Task 4 – WMS Selection

### General Process for WMS Selection

- Shortage analysis
  - Performed under Task 3
  
- Application of General WMS
  - Increased groundwater use
  - Increase existing contracts
  - Conservation

## Task 4 – WMS Selection

### General Process for WMS Selection

- Identification/Selection of WMS to Add New Water Supplies
  - Development of matrix to evaluate:
    - Suitability of strategy
    - Environmental impacts
    - Cost

## Task 4 – WMS Selection

### General WMS

- Represent strategies that can be applied without the development of new water supplies.
- Can be applied at the WUG level and do not require WWP sponsorship.
- Many WUG shortages can be met by increasing surface water contracts if WWP surplus exists.
  - Applied to 43 WUG units in 2006 RWP

## Task 4 – WMS Selection

### General WMS

- It is required that conservation be considered
  - Applied to 133 WUG units in 2006 RWP
- New wells where groundwater is available
  - Applied to 280 WUG units in the 2006 RWP

## Task 4 – WMS Selection

### Existing 2006 WMS

- Evaluate validity of existing strategies
  - WUG sponsorship and agreement of WMS
  - Technical feasibility
  - New information from WUG and/or water providers
  - Outreach to better achieve consistency with plan
  
- Already evaluated in decision matrix last round

## Task 4 – WMS Selection

### WMS Selection Methodology – New Projects

| CATEGORY   | RATING CRITERIA                                  |   |  |
|--|--|---|--|
|  | -1   | 0   | 1  |
| Cost   | >\$200/ac-ft                                     | <\$200/ac-ft  | <\$100/ac-ft   |
| Yield  | Size is too small or too large for need          | Size is flexible or meets needs                             | Size can be adjusted to optimum                            |
| Location   | IBT required, long distance or outside Region H. | No IBT required. Conveyance required.                       | No IBT required. Relatively near demand.                   |
| Water Quality  | Quality of supply is reduced.                    | No known water quality issues.                              | Existing water quality problems are reduced.               |
| Environmental Land & Habitat                         | Significant environmental issues and opposition. | Environmental impacts can be mitigated. Limited concerns.   | Limited or no known impacts.                               |
| Local Preference                                     | No local support. Significant opposition.        | Some local support. Limited opposition.                     | Widespread local support. Multi-use benefits likely.       |
| Institutional Constraints / Risk of Implementability | Permits opposed. Significant property required.  | Permits expected with minimal problems. Property available. | Permits issued. Facilities or land owned. Water available. |
| Impacts on Environmental Flows                       | Reduces instream or B&E flows.                   | No impact.  | Increases instream or B&E flows.                           |
| Impacts on Other Management Strategies               | Negative impact.                                 | No impact.  | Positive impact.   |

## Task 4 – WMS Selection

### Alternative Strategies

- Will be identified when:
  - Choice in long-term supply solutions is uncertain
  - WMS are comparable in qualitative value
  - Called for in SOW
- SOW includes a subtask to identify alternative strategies

## Task 4 – WMS Selection

### Alternative Strategies

- Strategies for selection include, but are not limited to:
  - Storage to enhance yields from ROR supplies
  - Aquifer storage and recovery (ASR)
  - Brackish water desalination
- Alternative WMS to be selected using same strategy matrix used for new strategies

**AECOM**

5757 Woodway Drive, Suite 101W, Houston, Texas 77057-1599  
T 713.780.4100 F 713.780.0838 www.aecom.com

## Memorandum

---

Date February 23, 2009

To Region H Water Planning Group

From Jason D. Afinowicz, PE

Subject Potential Water Management Strategies (WMS)  
Identification and Selection

---

Distribution Jace Houston (SJRA), Temple McKinnon (TWDB), General Distribution

---

Pursuant to TAC 357.5(e)(4), the Region H Water Planning Group (RHWP) is required to prepare a summary of its process for identifying and selecting Water Management Strategies (WMS) for development of the 2011 Regional Water Plan (RWP). This process shall be presented to the public for comment at a public meeting. This document proposes a WMS selection methodology for consideration and adoption by the RHWP.

Potential WMS will be defined based on a determination of needs developed from a comparison of projected demands and existing supplies. These strategies are to be analyzed at the Wholesale Water Provider (WWP) or county level. A detailed technical memorandum will be prepared for each of the management strategies selected.

### Shortage Analysis

The regional water planning process begins with identifying current and projected future water demands. After water demands are identified for all Water User Groups (WUGs), water supplies available to Region H are identified and allocated to WUGs and WWPs based on current usage and contracts. By matching the supplies and the demands, projected surpluses and shortages are determined. Wholesale water providers (WWP) supplies and contracts will be reviewed to determine their respective surplus or shortage during the planning period.

### Application of General WMS

The selection of WMS begins with the identification of certain "general WMS" that are readily available. Such alternatives can provide simple, cost-effective solutions to shortage without the development of new, major water projects. These strategies include the use of groundwater where available, the expansion or extension of existing contracts for water supplies between WUGs and WWPs, and the reduction of demand through water conservation.

In evaluating the general WMS, the RHWP would make three assumptions. First, water user groups would continue to develop groundwater until it is fully utilized. This is based upon the observed pattern of development in the region, where the Gulf Coast aquifer is available in all of the southern counties. The supply of groundwater will not be allocated in excess of regulation set forth by subsidence or groundwater conservation districts, or other entities that have regulatory power over the consumption of groundwater.

Second, those WUGs currently receiving water from WWP's would be able to increase their contract amounts until the WWP supplies were fully allocated. This assumes the use of existing supplies conveyed through existing infrastructure wherever possible.

Finally, the RHWPG will assume that every municipal WUG with a projected shortage would utilize conservation before seeking out or increasing a WWP contract. This is pursuant to the language of 357.7(a)(7).

#### **Identification of WMS to Add New Water Supplies**

Potential WMS will include but are not limited to the strategies considered in the 2006 RWP. These strategies are as follows:

- Municipal Water Conservation
- Irrigation Conservation
- Industrial Conservation
- Non-Municipal Contractual Transfers
- Allens Creek Reservoir
- Bédias Reservoir
- Bédias Reservoir to Lake Conroe Transfer
- Little River Reservoir
- Wastewater Reclamation for Industry
- City of Houston/Trinity River Authority Contract Agreement
- Luce Bayou Interbasin Conveyance
- Houston to Gulf Coast Water Authority Transfer
- Brazos Saltwater Barrier
- Brazos River Authority System Operations Permit
- Houston Indirect Wastewater Reuse
- NHCRWA Indirect Wastewater Reuse
- New Permits in the San Jacinto River Basin
- Redesignation of Existing Water Rights
- San Jacinto River Authority/Trinity River Authority Contract Agreement
- Expanded Use of Groundwater
- Sabine Basin to Region H Interbasin Transfer
- Municipal Irrigation Reuse

#### **Selection of WMS to Add New Water Supplies**

The preliminary process for WMS in addition to the general strategies discussed above, will include various steps to identify logical groupings of WUGs with shortage issues and any projects that are already being developed. Identifying geographic locations of WUGs will be vital to assigning WMS that are in the vicinity of the need or can be easily conveyed once built. A list of feasible strategies for that are will be developed.

As possible, WUGs will be engaged to identify existing plans for long-term water supply. This may include the use of existing documentation such as groundwater reduction plans or preliminary engineering reports.

Following the assignment of general WMS to WUGs, the RHWPG will use a screening process for selecting the most beneficial and/or least invasive option for meeting shortages for each WUG. The potential water management strategies will be compared using a screening table, with required environmental assessments including:

- Instream flows
- Bay and Estuary Inflows
- Wildlife Habitat
- Wetlands

- Threatened and Endangered Species
- Cultural Resources
- Evaluation of Impacts on Water Management Strategies on Threats to Natural Resources.

The comparison table, shown in *Table 1*, summarizes for each strategy: project yield, capital and unit water costs, impacts on wetlands habitats and Bay and Estuary (B&E) flows, and impacts on landform. Evaluation criteria include cost, yield, location, water quality, environmental land and habitats, local preference, institutional constraints or risk of non-implementation, impacts on environmental flows and impacts on other water management strategies. In each of the evaluation categories, the strategy will be rated positively (+1), neutral (0) or negatively (-1), using evaluation criteria summarized below. The screening factors across each water management strategy are totaled to give an overall WMS screening factor score, and will be used in the preparation of a proposed WMS shortlist to be presented at public meeting for modification and/or approval.

Table 1 – Criteria for Rating Water Management Strategies

| Category   | Rating Criteria                                  |   |  |
|--|--|---|--|
|  | -1   | 0   | 1  |
| Cost   | >\$200/ac-ft                                     | <\$200/ac-ft  | <\$100/ac-ft   |
| Yield  | Size is too small or too large for need          | Size is flexible or meets needs                             | Size can be adjusted to optimum                            |
| Location   | IBT required, long distance or outside Region H. | No IBT required. Conveyance required.                       | No IBT required. Relatively near demand.                   |
| Water Quality  | Quality of supply is reduced.                    | No known water quality issues.                              | Existing water quality problems are reduced.               |
| Environmental Land & Habitat                         | Significant environmental issues and opposition. | Environmental impacts can be mitigated. Limited concerns.   | Limited or no known impacts.                               |
| Local Preference                                     | No local support. Significant opposition.        | Some local support. Limited opposition.                     | Widespread local support. Multi-use benefits likely.       |
| Institutional Constraints / Risk of Implementability | Permits opposed. Significant property required.  | Permits expected with minimal problems. Property available. | Permits issued. Facilities or land owned. Water available. |
| Impacts on Environmental Flows                       | Reduces instream or B&E flows.                   | No impact.  | Increases instream or B&E flows.                           |
| Impacts on Other Management Strategies               | Negative impact.                                 | No impact.  | Positive impact.   |

Environmental assessments will consider impacts to the following as a portion of the selection process:

- Instream flows
- Bay and Estuary Inflows
- Wildlife Habitat
- Wetlands
- Threatened and Endangered Species
- Cultural Resources
- Evaluation of Impacts on Water Management Strategies on Threats to Natural Resources

**Alternative Strategies**

Alternative strategies will be identified for WUGs with shortages, where the choice in long-term supply solutions is uncertain, where WMS are comparable in qualitative value, or where specifically called for in the Scope of Work.

## Task 4 – WMS Selection

**REGION H**  
Water Planning Group

### Approval of WMS Selection Strategy

- **Item 9:** Consider and take action approving the WMS selection approach described under Item 8



## Task 6 – Water Conservation and Drought Management



### Water Conservation Survey

- Mailed surveys to 232 WUGs
- Identify:
  - Conservation measures implemented
  - Identify measures considered for future implementation
  - Startup and Operating Costs associated with each measure
  - Estimated Water Savings
- Information gained from surveys will be used to update conservation strategies.
- Request responses to survey by May 15<sup>th</sup>

## Agenda Item 13

Agency communications.





# TEXAS WATER DEVELOPMENT BOARD



James E. Herring, *Chairman*  
Lewis H. McMahan, *Member*  
Edward G. Vaughan, *Member*

J. Kevin Ward  
*Executive Administrator*

Jack Hunt, *Vice Chairman*  
Thomas Weir Labatt III, *Member*  
Joe M. Crutcher, *Member*

March 31, 2009

The Honorable Mark Evans  
Trinity County Judge  
Chairman, Region H Water Planning Group  
P.O. Box 457  
Groveton, Texas 75845-0457

Re: Request for Approval of Continued Use of Modified Water Availability Models for the Brazos and Trinity Basins for the Water Availability Analyses in the Region H Regional Water Planning Area

Dear Chairman Evans:

Staff at the Texas Water Development Board (TWDB) reviewed your request for approval of water supply methodologies for the 2011 Region H Regional Water Plan Update and your response to our request for more information on the proposed methodologies. As you mentioned in your request, the Region H Regional Water Planning Group will continue using the modified Water Availability Models for the Brazos and Trinity Basins.

The TWDB approves the continued use of these methodologies as described in your March 17, 2009 e-mail to Temple McKinnon for development of the 2011 regional water plan.

If you have any further questions, please do not hesitate to contact Ms. Temple McKinnon, Project Manager for the Region H Regional Water Planning Group at (512) 475-2057 or via email @ [Temple.McKinnon@twdb.state.tx.us](mailto:Temple.McKinnon@twdb.state.tx.us).

Sincerely,

Carolyn L. Brittin  
Deputy Executive Administrator  
Water Resources Planning and Information

cs: Reed Eichelberger, SJRA  
Mike Reedy, AECOM  
David Carter, TWDB

#### *Our Mission*

*To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.*

P.O. Box 13231 • 1700 N. Congress Avenue • Austin, Texas 78711-3231  
Telephone (512) 463-7847 • Fax (512) 475-2053 • 1-800-RELAYTX (for the hearing impaired)  
[www.twdb.state.tx.us](http://www.twdb.state.tx.us) • [info@twdb.state.tx.us](mailto:info@twdb.state.tx.us)

TNRIS - Texas Natural Resources Information System • [www.tnris.state.tx.us](http://www.tnris.state.tx.us)  
*A Member of the Texas Geographic Information Council (TGIC)*



**From:** Temple McKinnon  
**To:** Afinowicz, Jason  
**Subject:** Re: WAM Revisions Clarification

>>> "Afinowicz, Jason" <[Jason.Afinowicz@aecom.com](mailto:Jason.Afinowicz@aecom.com)> 3/17/2009 12:59 PM >>>  
Temple,

This message is in response to your March 10th response to our letter dated February 24, 2009 regarding alternatives to use of the WAM Run 3 for the 2011 round of regional planning. It is the intention of the Region H Water Planning Group (RHWPG) to provide a conservative, yet realistic projection of future water supplies for the purposes of developing the 2011 Regional Water Plan (RWP).

In the past, the RHWPG has adopted the Brazos River WAM developed by the Brazos G Water Planning Group (Brazos G) which includes some return flows from wastewater plants in the Brazos River Basin. More information regarding this model can be found in Section 3.3.1.6 of the 2006 RWP. Further coordination with Region G will be performed during the 2011 round of planning in a manner similar to that in developing the 2006 RWP as the RHWPG has become aware of similar modifications by Brazos G.

The Trinity River Basin WAM has been modified in the past by the RHWPG to include limited return flows from Region C, as agreed upon between the two regional planning groups. Coordination has already begun with the Region C consultant team regarding the results of their Water Conservation and Reuse Study to develop reasonable levels of return flows for the Trinity River WAM. Section 3.3.1.2 of the 2006 RWP describes the way this task was performed in the past.

Thank you for your response, and please let me know if you have any additional questions regarding our request.



Jimmie Schindewolf, P.E.  
General Manager

BOARD OF DIRECTORS  
Kelly P. Fessler, *President*  
James D. Pulliam, *Vice President*  
Ron Graham, *Secretary*  
Lenox A. Sigler, *Treasurer*  
Alan J. Rendl, *Asst. Secretary*

April 13, 2009

Judge Mark Evans, Chair  
Region H Water Planning Group  
c/o Michael V. Reedy, P.E.  
Associate Vice President  
AECOM  
5757 Woodway, Suite 101 West  
Houston, Texas 77057-1599

Re: **North Harris County Regional Water Authority Drought Contingency Plan for Groundwater Transfer Program**

Dear Judge Evans.:

Transmitted herewith please a copy of the North Harris County Regional Water Authority (the "Authority") Drought Contingency Plan for Groundwater Transfer Program (the "Plan"). This Plan was adopted by the Authority Board of Directors at the April 6, 2009 Board meeting.

In accordance with the Texas Commission on Environmental Quality ("TCEQ") regulations, a copy of the adopted Plan has been submitted to TCEQ and a copy is also being provided to the Region H Water Planning Group for informational purposes. Please feel free to contact me if you have any questions or need any additional information regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Jimmie Schindewolf".

Jimmie Schindewolf, P.E.  
General Manager

JAS/lis

Attachment

xc: Robin S. Bobbitt, Johnson Radcliffe Petrov & Bobbitt PLLC w/o attachment  
Tom Rolen, P.E., TCB INC. w/o attachment  
Michael Baugher, P.E., TCB INC. w/o attachment  
Tony Bennett, TCB INC. w/o attachment  
Paul Nelson, Authority Planning and GIS Coordinator w/o attachment

