



## **MEETING MATERIALS**

**December 5, 2012**

**San Jacinto River Authority**



**Region H Water Planning Group**  
**10:00 AM Wednesday**  
**December 5, 2012**  
**San Jacinto River Authority Office**  
**1577 Dam Site Rd, Conroe, Texas**

**AGENDA**

1. Introductions.
2. Review and approve minutes of September 5, 2012 meeting.
3. **Receive public comments on specific issues related to agenda items 4 through 10.** (Public comments limited to 3 minutes per speaker)
4. Consider approval of a Region H Local Contribution Account Grant Policy and a grant application from the Texas Water Foundation for a proposed pilot project to quantify water conservation savings in Region H.
5. Receive update from Consultant Team regarding the schedule and milestones for the development of the 2016 Region H Regional Water Plan.
6. Receive update from Consultant Team and Population Demands Committee regarding draft population projections for use in development of the 2016 Region H Regional Water Plan.
7. Receive presentation from Consultant Team regarding the role of conservation in past regional planning cycles.
8. Consider and take action to approve the development and submittal of a letter of support for the Luce Bayou Interbasin Transfer Project.
9. Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Planning Group.
10. Agency communications and general information.
11. **Receive public comments.** (Public comments limited to 3 minutes per speaker)
12. Next Meeting: March 6, 2013.
13. Adjourn



## Agenda Item 2

Review and approve minutes of September 5, 2012 meeting.



**MINUTES**  
**REGION H WATER PLANNING GROUP MEETING**  
**10:00 A.M.**  
**September 5, 2012**  
**SAN JACINTO RIVER AUTHORITY**  
**GENERAL AND ADMINISTRATION BUILDING**  
**1577 DAM SITE ROAD**  
**CONROE, TEXAS**

**MEMBERS PRESENT:** David Bailey, John Bartos, Robert Bruner, Mark Evans, Art Henson, John Hofmann, Jace Houston, Robert Istre, Gena Leathers, Glynn Leiper, Ted Long, Marvin Marcell, Ron Neighbors, Jimmie Schindewolf, C. Harold Wallace, J. Kevin Ward, and Pudge Willcox

**DESIGNATED ALTERNATES:** Charles Dean for John Blount, Lisa Lattu for Jun Chang, Mike O'Connell for Bob Hebert, Zach Holland for John Howard, and Paul Nelson for Kathy Jones

**MEMBERS ABSENT:** Carl Masterson, James Morrison, William Teer, and Steve Tyler

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

**PRESIDING:** Mark Evans, Chair

**CALL TO ORDER REGULAR MEETING AT 10:05 A.M.**

A quorum was present.

**INTRODUCTIONS**

Mr. Evans welcomed everyone and alternates were announced.

**REVIEW AND APPROVE MINUTES OF JUNE 6, 2012 MEETING**

The minutes for the June 6, 2012, meeting were presented. Motion was made by Mr. C. Harold Wallace, seconded by Mr. David Bailey, to approve the minutes. The motion carried unanimously.

**RECEIVE PUBLIC COMMENTS ON SPECIFIC ISSUES RELATED TO AGENDA ITEMS 4 THROUGH 10**

Mr. Justin Bower, H-GAC, expressed his personal comments regarding Agenda Item 7. Mr. Bower specifically pointed out that he is concerned about the population projections for rural cities. He continued by offering to meet with the consultant team regarding numbers.

**RECEIVE PRESENTATION FROM THE TEXAS WATER FOUNDATION REGARDING PROPOSED PILOT PROJECT TO QUANTIFY WATER CONSERVATION SAVINGS IN REGION H**

Senator Kip Averitt advised the group about a project he and Carol Baker are implementing with the Texas Water Foundation. He stated that the concept of the project is to quantify conservation strategies in the Region H plan so that their impact can be correctly understood. He continued by expressing his gratitude towards the planning group. He then discussed another component of the project; how to engage in conservation efforts without negatively affecting revenue. Discussion ensued regarding the cost of the project.

Recommendation was made by Mr. Ron Neighbors for the Region H Planning Group to fully endorse, support, and encourage the proposed pilot project to quantify water conservation savings in Region H. Mr. John Bartos seconded the motion. The motion carried unanimously. Discussion continued. Mr. Jace Houston indicated that he would draft a letter from the Region H Planning Group in support of the pilot project.

#### **RECEIVE UPDATE FROM CONSULTANT TEAM REGARDING THE SCHEDULE AND MILESTONES FOR THE FIRST PHASE OF DEVELOPMENT OF THE 2016 REGION H REGIONAL WATER PLAN**

Mr. Jason Afinowicz updated the group on the Texas Water Development Board schedule and milestones. He stated that the group is scheduled to review population demands in December and continued by reviewing the dates for Phase 2 Planning.

#### **RECEIVE UPDATE FROM CONSULTANT TEAM AND NON-POPULATION DEMANDS COMMITTEE REGARDING GALVESTON COUNTY MANUFACTURING DEMAND PROJECTIONS RECOMMENDED FOR THE 2016 REGION H REGIONAL WATER PLAN AND CONSIDER APPROVING SUBMITTAL TO TWDB**

Mr. Afinowicz updated the group on a follow-up item from the last meeting. He specified that the TWDB is comfortable with the non-population demands, but they are still in the review process.

Recommendation was made by Mr. Robert Istre to approve submittal of the recommended Galveston County manufacturing water demand projections to the TWDB. Mr. Kevin Ward seconded the motion. The motion carried unanimously.

#### **RECEIVE UPDATE FROM CONSULTANT TEAM AND POPULATION DEMANDS COMMITTEE REGARDING DRAFT POPULATION PROJECTIONS FOR USE IN DEVELOPMENT OF THE 2016 REGION H REGIONAL WATER PLAN**

Mr. Mike Reedy gave a presentation on the population and demand projections development process. He specifically stated that the Regional Groundwater Study provides the population projections for a five-county area, and the TWDB provides population projections for remaining counties. He then provided an overview of the projects for Brazoria, Fort Bend, Galveston, Harris, and Montgomery.



### **RECEIVE PRESENTATION FROM TOM MICHEL ON STATUS OF BRAZOS RIVER AND ASSOCIATED BAY AND ESTUARY SYSTEM STAKEHOLDER COMMITTEE PROGRESS**

Mr. Tom Michel updated the group on the Brazos River and associated Bay and Estuary System Stakeholder Committee. He presented the group with a memorandum regarding the Brazos River BBASC Report. He concluded by stating that the committee had completed the majority of the process and had adopted the consensus report on 19 gauges along the Brazos River and 1 gauge on the San Bernard River.

### **RECEIVE REPORT REGARDING RECENT AND UPCOMING ACTIVITIES RELATED TO COMMUNICATIONS AND OUTREACH EFFORTS ON BEHALF OF THE REGION H PLANNING GROUP**

Mr. Afinowicz discussed recent community outreach activities. He indicated that the consultant team spoke at the *North Houston Association (06/28)*, the *Water Resource Stress Conference (08/16)*, and the *Region H Legislative Reception (08/21)*. He also mentioned the *Water Efficiency Network (09/20)*.

### **AGENCY COMMUNICATIONS AND GENERAL INFORMATION**

Ms. Temple McKinnon stated that they are working on outreach to entities, tracking implementation, and rule revision.

Mr. Evans stated that he would be involved in the Regional Chairs conference call.

### **RECEIVE PUBLIC COMMENTS**

No public comments were received.

### **NEXT MEETING**

December 5, 2012  
San Jacinto River Authority  
General and Administration Building  
1577 Dam Site Road  
Conroe, Texas 77304

**ADJOURNED AT 12:02 P.M.**



## Agenda Item 4

Consider approval of a Region H Local Contribution Account Grant Policy and a grant application from the Texas Water Foundation for a proposed pilot project to quantify water conservation savings in Region H.





**A. Description of the proposed project:**

On behalf of the Texas Water Foundation and Averitt & Associates, please accept this letter as your invitation to participate in the **Region H Project** – a regional plan designed to quantify and measure ongoing conservation efforts throughout Region H.

This game-changing project will, for the first time, quantify the results of the conservation initiatives implemented by each water supplier. The benefits of participating in the Project include, but are not limited to:

- Quantifiable information and data to allow water planners to more accurately predict future water needs;
- Proof that conservation is a source of water that can replace expensive infrastructure projects;
- Reliable and assessable results of conservation efforts for the Harris-Galveston Subsidence District;
- Necessary data for an effective and accurate cost-benefit analysis when considering various conservation-oriented policies.

As we proceed to measure conservation efforts, many more benefits will be derived. The Region H Project is a two-year project that will establish consistent procedures and result in a unified regional report.

We are anxious to work with you to make conservation a tangible source of water, rather than a vague concept that does not help us plan for our future water needs.

**B. Relationship of the proposed project to current water planning criteria or strategies:**

The Region H Plan calls for conservation strategies to account for twelve percent of future needs. Currently, there is no way to track whether or not that goal can be achieved.

The Region H Project will compile, quantify and measure data on conservation strategies throughout the entire Region. Our goal is to recruit a broad base of water utilities in order to create an accurate picture of the conservation efforts taking place throughout the Region, thereby compiling adequate data to evaluate the conservation of the Region as a whole.

**C. Local support for the project, such as letters of endorsement, multiple participants, or additional funding:**

The Region H Project has gained widespread support from the water entities throughout the area. A partial listing of organizations that have indicated support, in one form or another include:

Region H Planning Group  
Harris-Galveston Subsidence District  
San Jacinto River Authority  
Lone Star Groundwater Conservation District  
West Harris County Regional Water Authority  
North Fort Bend Regional Water Authority  
City of Houston  
City of Conroe  
Association of Water Board Directors  
George and Cynthia Mitchell Foundation  
Meadows Foundation

**D. Estimated cost of the proposed project:**

*A pro-forma budget of the Region H Project.*

Potential Funding Sources:

Mitchell Foundation	100,000
Participant Fees at \$3000	600,000
Meadows Foundation	75,000
Region H Planning Group	?
Harris-Galveston Subsidence District	?
North Ft. Bend Regional Water Authority	?
Association of Water Board Directors	?
Houston Endowment	?
	<hr/>
	<u>\$1,400,000</u>

Salaries:

Director	105,000	
Information Tech	100,000	
Administrative	50,000	
Recruiter	75,000	
Data Collection (4Teams)	<u>300,000</u>	
Total Salaries		630,000
Payroll Tax, Ins		160,000
Consultants (3)		120,000
Fiduciary Fee (TWF)		36,000
Management Fee (A&A)		240,000

Overhead:

Travel	12,000	
Rent	18,000	
Office Supply	5,000	
Insurance	3,000	
Professional Fees	2,000	
Public Relations	10,000	
Utilities	8,000	
Computer Expense	1,000	
Conference Fees	1,000	
Postage and Delivery	1,000	
Bank Charges	300	
Dues & Subscription	700	
Miscellaneous	<u>2,000</u>	
Total Overhead		64,000

Capital Outlays:

Furniture	15,000	
Computers (8)	20,000	
Software	<u>100,000</u>	
Total Capital		135,000

**TOTAL** \$1,385,000.00

**E. Estimated time required to complete the project:**

The Project will take two years to implement. Preliminary reports will be available at the end of the first year.

After the two-year implementation phase is complete, the reporting process will continue on an annual basis. Updates may include changes in demographics, adding or subtracting conservation strategies, and improvements in software design.

**F. Ability to manage and complete the project:**

Kip Averitt will oversee and manage this project. He will serve as your primary point of contact and will manage all subcontractors during the project period. Senator Averitt's tenure in both the Texas House of Representatives and the Texas Senate offers the benefit of long-term relationships and respect of key decision makers across the state. Senator Averitt has owned and operated several business ventures and understands the various aspects of building coalitions and successful collaborations. Many of the challenges ahead are directly related to economics and finance, and Senator Averitt's MBA in Finance, CPA certification, and extensive business experience give him the unique ability to understand and resolve these issues.

Carole Baker has been the recipient of countless awards for her work in water conservation. Her accomplishments have yielded water conservation legislation that is now included in state water planning efforts. In her role as Director of Intergovernmental Relations at the Harris-Galveston Subsidence District for over two decades, she handled public information and outreach programs and assisted with conservation and drought planning.

Leaving nothing to chance, we will engage consultants who bring much to the table. We will utilize the Alliance for Water Efficiency (AWE) for training and to assist with the implementation of the tracking tool. The professionals at AWE have abundant experience with this technology and will train our staff and assist with fieldwork.

**G. Regional nature of project (i.e. project or study area is regional versus local):**

The Region H Project will recruit participants from all corners of the Region H footprint. Region H covers all or part of 15 counties and contains 219 cities and over 800 municipal utility districts. Our goal is to make sure all areas of the Region are well represented in the project. We will invite every water utility to participate. Over a two-year implementation period we anticipate a large participation rate among the utilities. Furthermore, we will continue to recruit even after the two-year implementation phase.



**H. Scope and potential benefits of project (i.e. project or study has the potential to create a significant or broad benefit to the Region H Water Plan):**

The primary goal of the Region H Project is to measure and quantify the conservation efforts of water utilities within Region H. Each utility will be provided with a report, which will show the costs and benefits of the conservation strategies they are undertaking, as well as information about other entities for comparison purposes. Ultimately, the reports will provide decision makers with the information they need to properly evaluate their options on water conservation, which will be seen as a tangible supply of water.

On a regional basis, we will prepare a report for the benefit of the Region H Planning Group, which will demonstrate the progress of the Region on its conservation goals and contain projections of future savings. It will provide planners with a more realistic outlook of the financial benefit of the expansion of conservation.

**I. Incorporation of conservation measures and commitment to water conservation:**

The entire purpose of the project is to demonstrate to individual utilities the value of various conservation efforts in order to make water conservation a viable, tangible water supply. We will put conservation at the beginning of our planning processes, rather than as an afterthought.

**J. The degree to which the project is consistent with the approved regional water plan:**

The Region H Project will fill a vacuum in the current Region H Plan. Reports generated by this project will facilitate a more precise evaluation of future water needs by providing a more accurate picture of the projected results of ongoing conservation efforts. It will also show projected benefits of a more aggressive conservation effort. Comparing costs of more conservation efforts with costs of infrastructure projects will be beneficial to water planners.

The Region H Project is a game changing initiative that will supplement decision makers' information on the value of water conservation. We will show that conservation can be a valuable supply of water. Ultimately, water conservation will be a mainstay of planning for our future water needs.

We respectfully ask that the Region H Planning Group participate as a funding partner on this project. Your favorable consideration of contributing \$50,000 to the project will allow us to get into the field and start producing reports.

Thank you for your consideration.



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Kip Averitt



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Carole Baker

## **REGION H LOCAL CONTRIBUTION ACCOUNT GRANT POLICY**

This policy shall constitute the general procedures of the Region H Water Planning Group (“Region H” or “Planning Group”) with regard to the granting of funds from the Region H Local Contribution Account. This policy does not restrict Region H from taking any other actions ordered by the voting members, nor does this policy create any procedural rights for any person inside or outside the Region H planning area. Nothing in this policy allows the president or any committee of Region H to expend funds except as authorized by action of the Planning Group. Furthermore, nothing in this policy in any way obligates the Planning Group to approve a grant request, regardless of the availability of funds.

### **Purpose**

It is the intent of the Planning Group that funds obtained from local contributions to the Region H planning effort be used for the purpose of supporting the preparation of the Region H Water Plan including the development of the data, projections, and water management strategies contained therein.

### **Grant Application Information**

Applicants may submit and the Planning Group may consider grant applications at any time, depending on availability of funds. Applicants should submit application(s) in a form that is designed to address the criteria outlined in this policy for considering grant applications. The Planning Group or the Executive Committee may request from the applicant additional information or personal testimony, as needed, to evaluate the application.

### **Eligibility**

The Planning Group will consider only those grant applications submitted by political subdivisions, water-related non-profit foundations, or water-related stakeholder groups engaged in activities related to water planning, conservation, or supply. Funding of specific grant requests shall be at the discretion of the Planning Group from funds in the Local Contribution Account.

### **Criteria for Consideration of Grant Applications**

Grant applications will be evaluated considering, as appropriate and applicable, the following criteria:

- (A) description of the proposed project;
- (B) relationship of the proposed project to current water planning criteria or strategies;
- (C) local support for the project, such as letters of support, multiple participants, or additional or matching funds;
- (D) estimate of the cost of the proposed project;

- (E) estimated time required to complete the project;
- (F) ability to manage and complete the project;
- (G) regional nature of project (i.e. project or study area is regional versus local);
- (H) scope and potential benefits of project (i.e. project or study has the potential to create a significant or broad benefit to the Region H Water Plan);
- (I) incorporation of conservation measures and commitment to water conservation;
- (J) the degree to which the project is consistent with the approved regional water plan; and
- (K) other criteria that the Planning Group determines to be applicable based on the specific application.

### **Planning Group Consideration of Grant Applications**

All grant applications will be initially submitted to the Executive Committee for consideration. Those applications approved for further consideration by the Executive Committee will then be presented to the Planning Group along with a recommendation that the application be granted or denied in whole or in part. Applications will be scheduled on the agenda for consideration at the earliest practical date. The applicant and other interested parties known to the Planning Group shall be notified of the time and place of such meeting.

### **Planning Group Action on Grant Applications**

At the conclusion of the meeting to consider the application, the Planning Group may resolve to grant or deny, in whole or in part, the application. In considering the application, the Planning Group will utilize the criteria listed above for consideration of grant applications. The Planning Group is not obligated to approve any grant application, regardless of the availability of funds.

If the application is approved, the Planning Group may authorize the Region H Administrative Agency to expend funds from the Local Contribution Account in accordance with the resolution or motion approving the application or to enter into a contract or agreement with the applicant. Such contract or agreement may include:

- (1) a detailed statement of the purpose for which the money is to be used;
- (2) the total amount of money to be paid from the Local Contribution Account under the contract;
- (3) the time for completion of the project; and/or
- (4) any other terms and conditions required by the Planning Group.

## Agenda Item 5

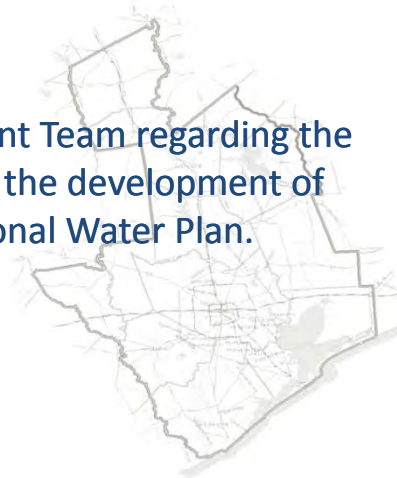
Receive update from Consultant Team regarding the schedule and milestones for the development of the 2016 Region H Regional Water Plan.



Agenda Item 5  
2016 RWP Schedule and Milestones



Receive update from Consultant Team regarding the schedule and milestones for the development of the 2016 Region H Regional Water Plan.



Agenda Item 5  
2016 RWP Schedule and Milestones

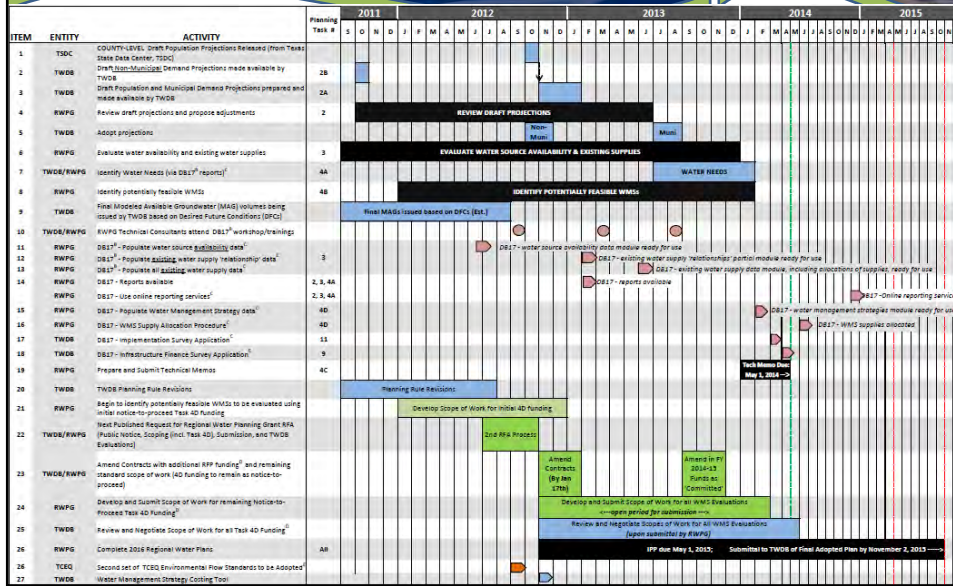


### Phase 2 Planning

- **Funding Authorization**
  - Approved October 17, 2015
- **Contract Amendment**



# Agenda Item 5 2016 RWP Schedule and Milestones



# Agenda Item 5 2016 RWP Schedule and Milestones



Date	Scheduled Events/Tasks
2012	Non-Population Demands County-Wide Population Projections Available Surface Water Supplies (Less Brazos Basin) WMS Selection
12/2012	Review Population Demands
Q1/2013	Detailed WUG Population and Demands Accelerated 4D WMS Studies
2013-2014	Shortages, WMS, and RWP Chapters
05/01/2014	DUE DATE: Technical Memorandum to TWDB
05/01/2015	DUE DATE: Initially Prepared Plan to TWDB
11/02/2015	DUE DATE: Final Adopted Plan to TWDB



# Texas Water Development Board

P.O. Box 13231, 1700 N. Congress Ave.  
Austin, TX 78711-3231, [www.twdb.texas.gov](http://www.twdb.texas.gov)  
Phone (512) 463-7847, Fax (512) 475-2053

October 17, 2012

Mr. Jace Houston  
General Manager  
San Jacinto River Authority  
P.O. Box 329  
Conroe, Texas 77305-0329

email: [reed@sjra.net](mailto:reed@sjra.net)

Re: Texas Water Development Board's 4<sup>th</sup> Regional Water Planning Cycle, TRD-201203832,  
TWDB Grant Application 00003251

Dear Mr. Houston:

Congratulations! The Texas Water Development Board's six-member governing Board approved your application in the amount of \$1,417,302 at its regularly scheduled meeting on Wednesday, October 17, 2012.

A contract amendment will be prepared for your signature shortly. If you have any questions or concerns, please contact me at (512) 936-6079.

Sincerely,



David Carter  
Agency Contract Administrator

## Our Mission

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

## Board Members

Billy R. Bradford Jr., Chairman  
Joe M. Crutcher, Vice Chairman

Melanie Callahan, Executive Administrator

Lewis H. McMahan, Member  
Edward G. Vaughan, Member

Monte Cluck, Member  
F.A. "Rick" Rylander, Member



## Agenda Item 6

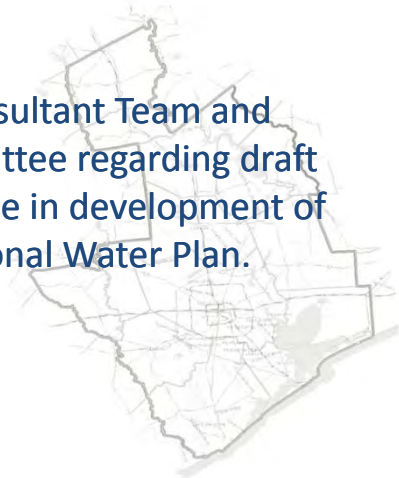
Receive update from Consultant Team and Population Demands Committee regarding draft population projections for use in development of the 2016 Region H Regional Water Plan.



## Agenda Item 6 Population and Demand Committee



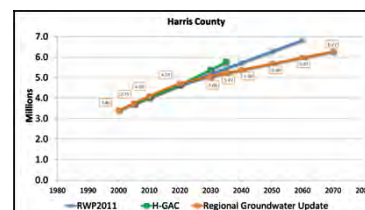
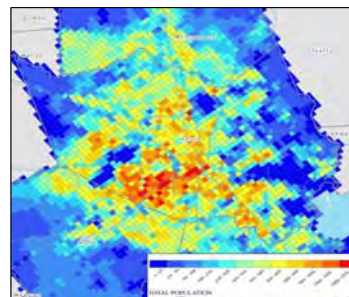
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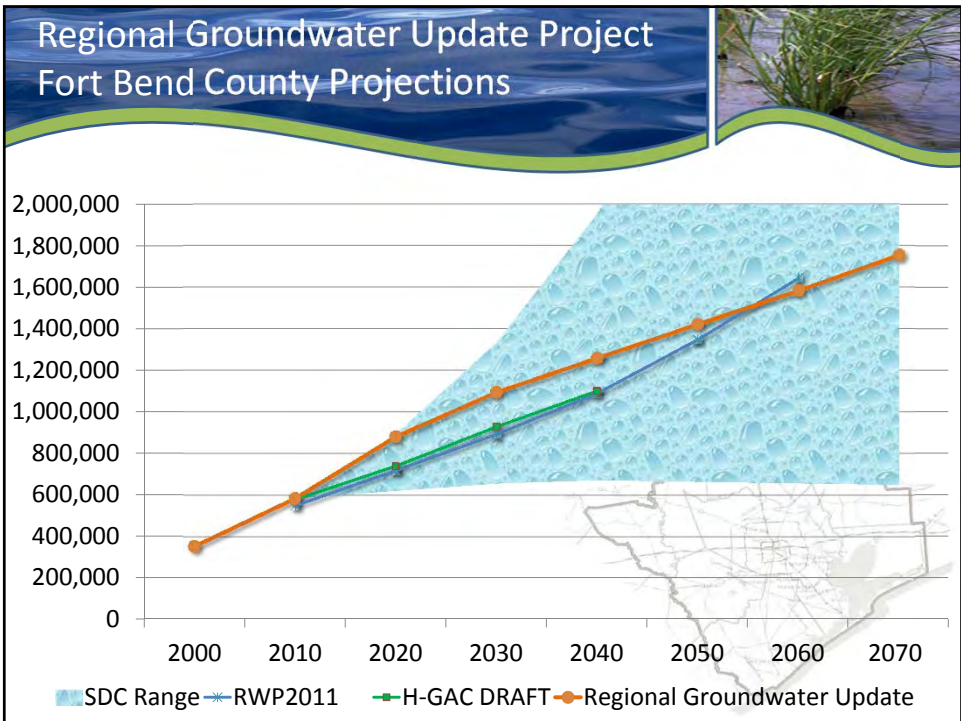
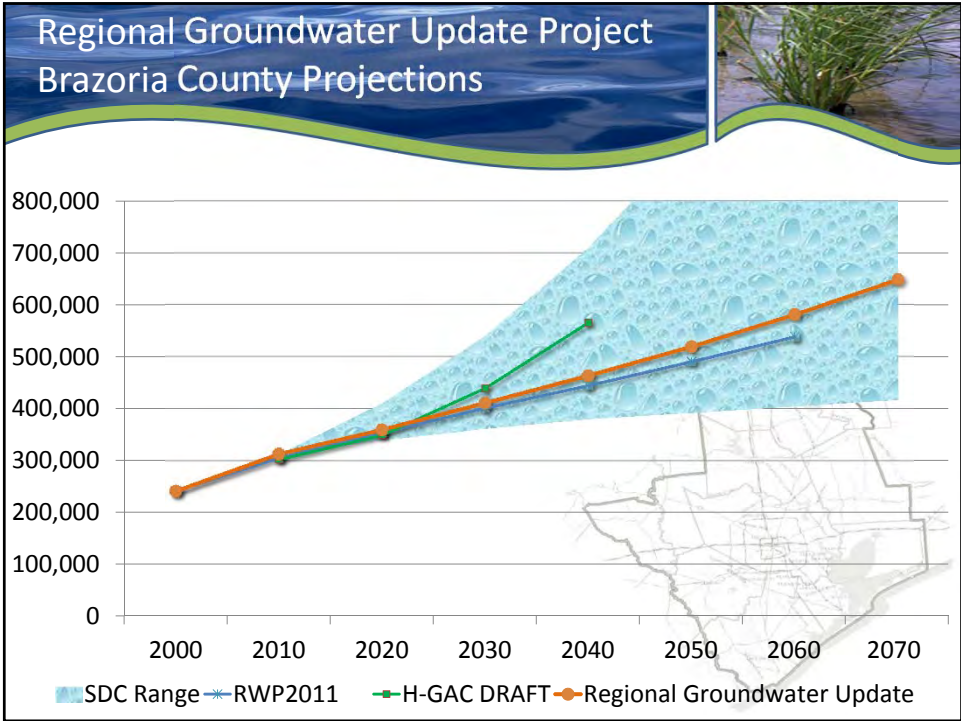


## Update from Last Meeting

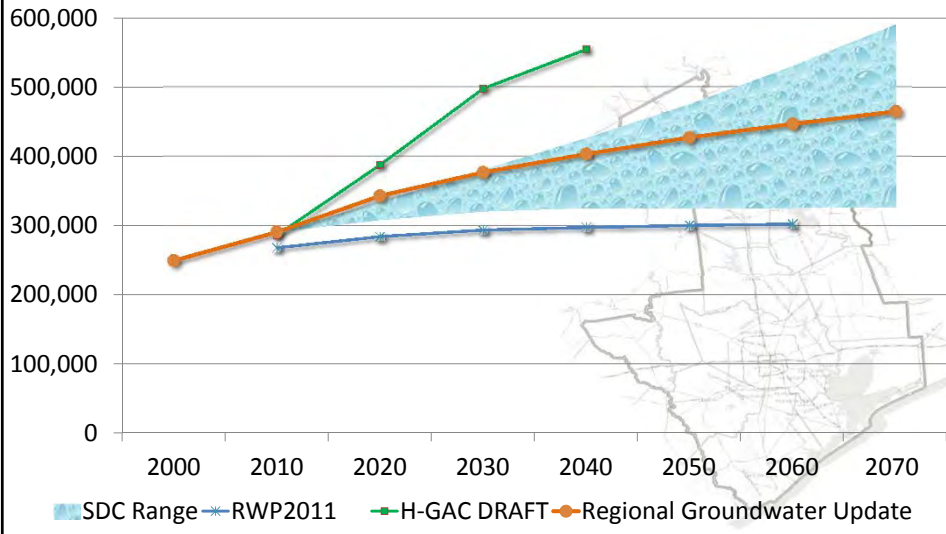


- County-Wide Projections
  - State Data Center Projections
  - Review by TWDB
- WUG-Level Projections
- Per Capita Demands

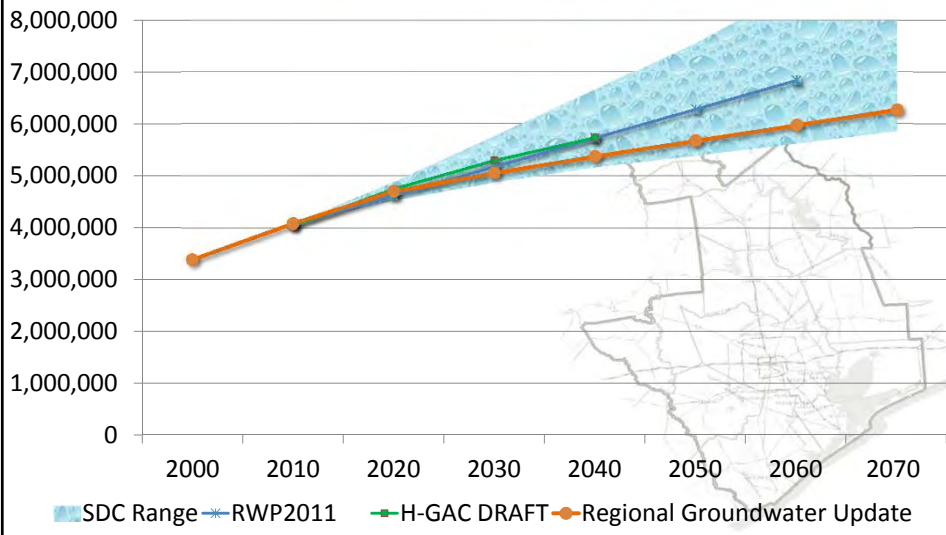




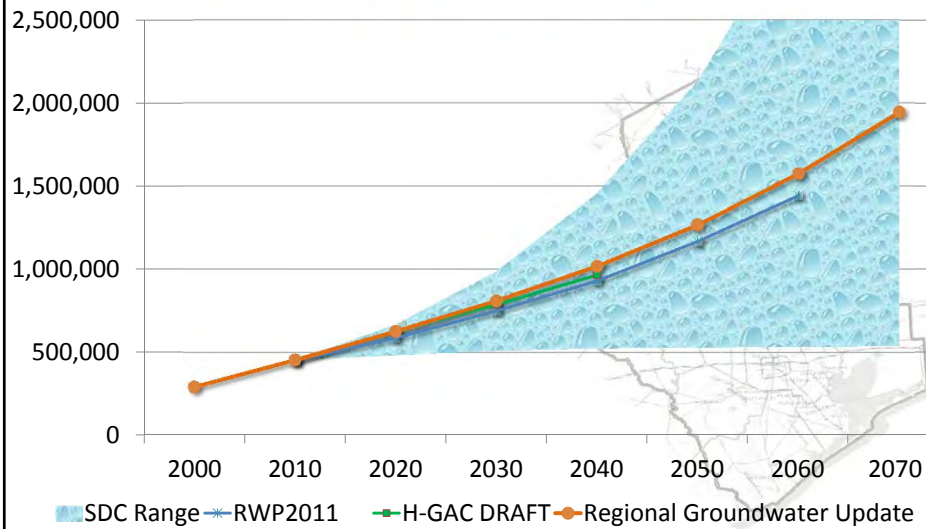
## Regional Groundwater Update Project Galveston County Projections



## Regional Groundwater Update Project Harris County Projections



## Regional Groundwater Update Project Montgomery County Projections



## TWDB Review of County-Wide Projections



- Review of SDC and 5-County Area Projections
- TWDB Approves Region H Recommendations
  - Recognizes similar results
  - Minor differences
- TWDB Will Not Provide Draft Projections
  - Provide projections for WUGs outside of 5-County Area
  - Provide GPCD estimates



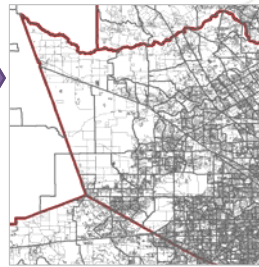


## Regional Groundwater Update

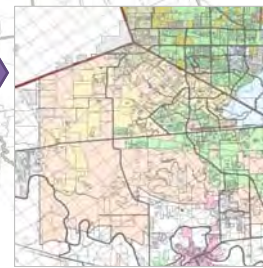
Tract Level Population Projections  
(1,039)



Pop. Distributed to Census Blocks  
(114,200)



Entity Overlay



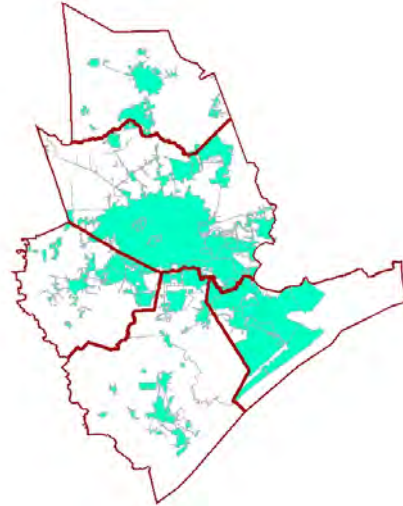
## Five-County Region H Projections

- Based on Regional Groundwater Update, but...
- Must also conform to Regional Planning rules and purpose
- Necessitates spatially distributing populations to WUG level
- Challenge – Need comprehensive WUG layer

## WUG Boundary Layer Development



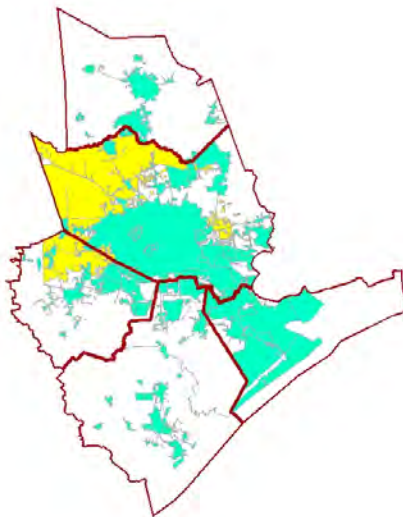
- City Boundaries/Census Designated Places



## WUG Boundary Layer Development



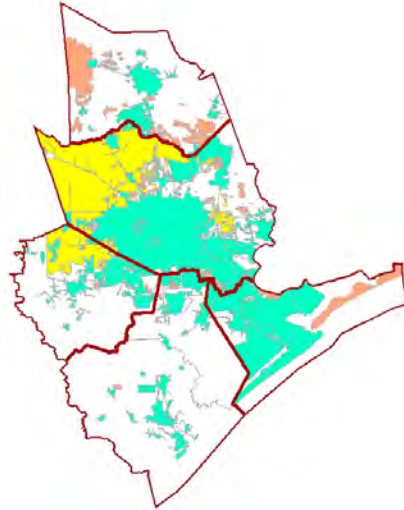
- City Boundaries/Census Designated Places
- Water Authorities



## WUG Boundary Layer Development



- City Boundaries/Census Designated Places
- Water Authorities
- Municipal Utility Districts

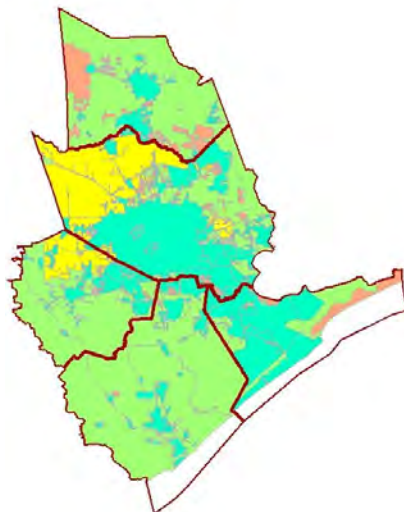


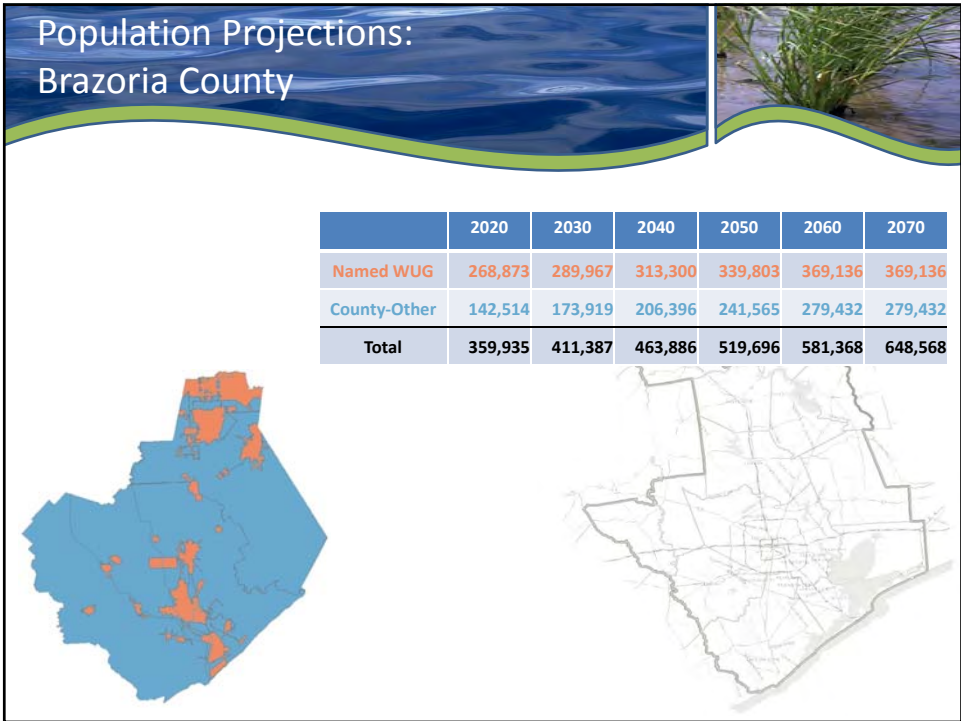
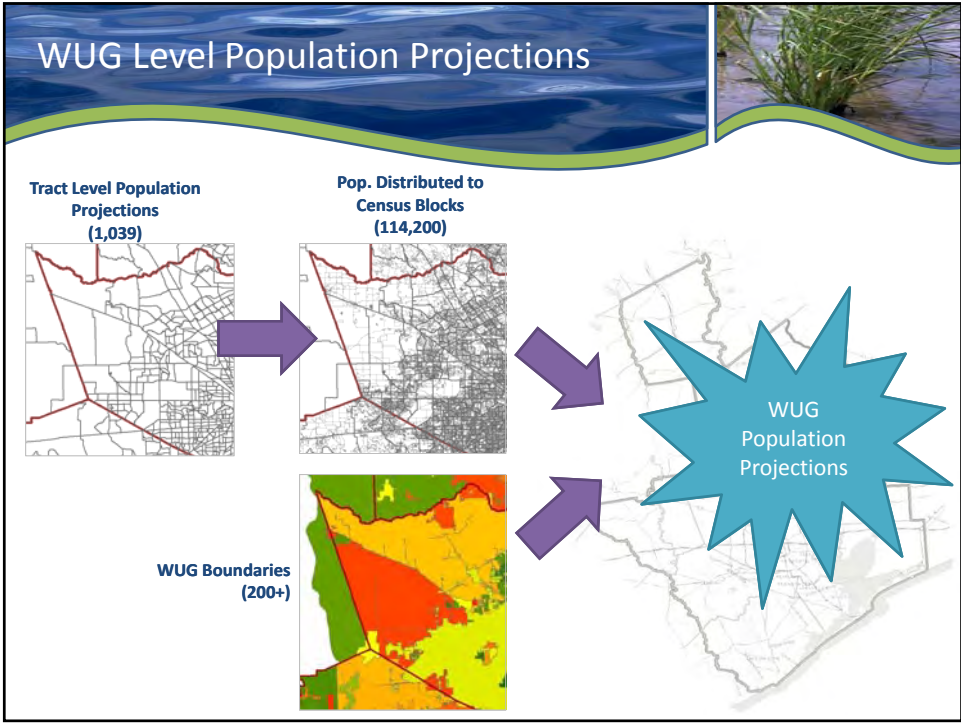
## WUG Boundary Layer Development



- City Boundaries/Census Designated Places
- Water Authorities
- Municipal Utility Districts
- County-Other

+ overlap corrections  
+ consolidating CRUs

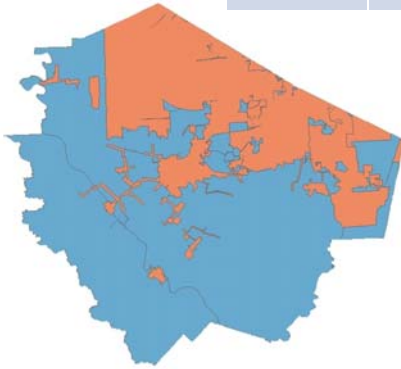




## Population Projections: Fort Bend County



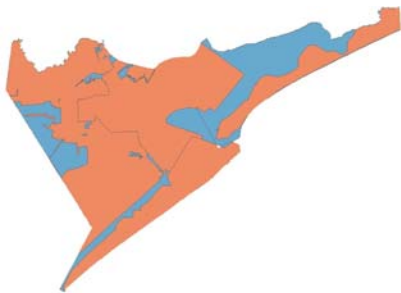
	2020	2030	2040	2050	2060	2070
Named WUG	715,451	834,749	905,586	967,452	1,019,078	1,062,543
County-Other	166,515	260,374	353,721	454,482	564,704	692,620
<b>Total</b>	<b>881,966</b>	<b>1,095,123</b>	<b>1,259,307</b>	<b>1,421,934</b>	<b>1,583,782</b>	<b>1,755,163</b>



## Population Projections: Galveston County



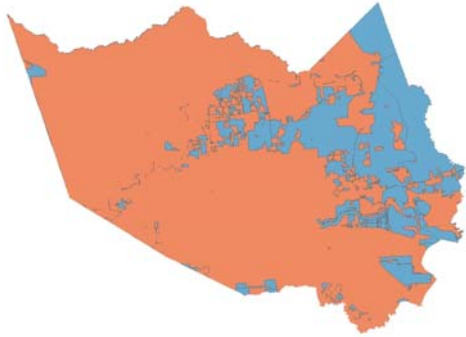
	2020	2030	2040	2050	2060	2070
Named WUG	326,659	358,318	383,000	405,039	422,990	439,495
County-Other	16,911	19,055	20,820	22,508	24,136	25,698
<b>Total</b>	<b>343,570</b>	<b>377,373</b>	<b>403,820</b>	<b>427,547</b>	<b>447,126</b>	<b>465,193</b>



## Population Projections: Harris County



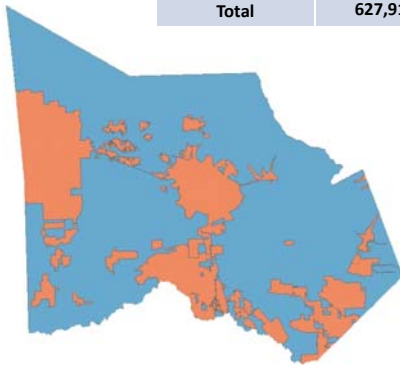
	2020	2030	2040	2050	2060	2070
Named WUG	4,383,671	4,680,665	4,954,959	5,217,704	5,477,542	5,741,729
County-Other	324,199	377,479	421,140	460,538	496,526	530,615
<b>Total</b>	<b>4,707,870</b>	<b>5,058,144</b>	<b>5,376,099</b>	<b>5,678,242</b>	<b>5,974,068</b>	<b>6,272,344</b>



## Population Projections: Montgomery County



	2020	2030	2040	2050	2060	2070
Named WUG	332,982	381,806	432,111	487,582	554,084	627,685
County-Other	294,935	429,446	587,167	780,334	1,022,051	1,318,378
<b>Total</b>	<b>627,917</b>	<b>811,252</b>	<b>1,019,278</b>	<b>1,267,916</b>	<b>1,576,135</b>	<b>1,946,063</b>



## Per-Capita Demands

- With Population, Provide Demands
- TWDB to Develop for State
  - 2006, 2009, or 2011 data, by WUG
  - Include built-in conservation savings
- Other Alternatives
  - Results of Groundwater Update
  - Developed for “Average Year” Conditions
- Committee Recommends TWDB Estimates

## Next Steps: Population Demand Projections

- Refinement of WUG-level population projections
- Remaining county-level and WUG-level projections from TWDB
- Demands based on per-capita use
- Public comments
- Submittal to TWDB





**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Brazoria County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Alvin	Brazoria	San Jacinto-Brazos	City - CDP	24,236	26,830	28,832	31,157	34,065	37,803	42,709
Angleton	Brazoria	San Jacinto-Brazos	City - CDP	18,862	19,064	19,208	19,342	19,482	19,629	19,785
Bailey's Prairie	Brazoria	Brazos	City - CDP	213	217	228	237	247	256	265
Bailey's Prairie	Brazoria	San Jacinto-Brazos	City - CDP	514	531	558	567	577	586	596
Brazoria	Brazoria	Brazos	City - CDP	668	677	682	686	691	696	701
Brazoria	Brazoria	Brazos-Colorado	City - CDP	2,351	2,444	2,530	2,599	2,656	2,704	2,747
Brazoria County MUD #2	Brazoria	San Jacinto-Brazos	MUD	5,341	5,348	5,348	5,351	5,355	5,359	5,363
Brazoria County MUD #21	Brazoria	San Jacinto-Brazos	MUD	3,094	3,707	3,867	4,168	4,469	4,770	4,968
Brazoria County MUD #3	Brazoria	San Jacinto-Brazos	MUD	3,652	3,653	3,659	3,717	3,775	3,833	3,911
Brazoria County MUD #4	Brazoria	San Jacinto-Brazos	MUD	1,997	2,002	2,004	2,019	2,034	2,050	2,059
Brazoria County MUD #6	Brazoria	San Jacinto-Brazos	MUD	3,156	3,158	3,158	3,169	3,180	3,192	3,207
Brookside Village	Brazoria	San Jacinto-Brazos	City - CDP	1,523	1,691	1,849	2,373	3,006	3,769	4,689
Clute	Brazoria	San Jacinto-Brazos	City - CDP	11,211	11,440	11,830	12,255	12,706	13,189	13,705
County Other	Brazoria	Brazos	County	5,150	6,189	7,213	8,741	10,262	11,820	13,460
County Other	Brazoria	Brazos-Colorado	County	16,553	22,659	27,824	32,579	37,153	41,725	46,445
County Other	Brazoria	San Jacinto-Brazos	County	63,449	81,146	107,477	132,599	158,981	188,020	219,527
Danbury	Brazoria	San Jacinto-Brazos	City - CDP	1,715	1,722	1,722	1,722	1,723	1,723	1,724
Freeport	Brazoria	Brazos	City - CDP	1,110	1,297	1,480	1,659	1,836	2,001	2,137
Freeport	Brazoria	Brazos-Colorado	City - CDP	3	6	9	12	14	16	17
Freeport	Brazoria	San Jacinto-Brazos	City - CDP	10,936	11,560	12,156	12,685	13,169	13,644	14,145
Hillcrest	Brazoria	San Jacinto-Brazos	City - CDP	730	730	731	733	734	736	737
Holiday Lakes	Brazoria	San Jacinto-Brazos	City - CDP	1,107	1,109	1,110	1,112	1,115	1,117	1,119
Iowa Colony	Brazoria	San Jacinto-Brazos	City - CDP	1,170	2,312	2,635	3,115	3,546	3,941	4,187
Jones Creek	Brazoria	Brazos-Colorado	City - CDP	2,020	2,042	2,068	2,088	2,102	2,113	2,121
Lake Jackson	Brazoria	Brazos	City - CDP	172	181	221	297	383	479	588
Lake Jackson	Brazoria	San Jacinto-Brazos	City - CDP	26,677	27,127	27,875	28,636	29,460	30,354	31,326
Manvel	Brazoria	San Jacinto-Brazos	City - CDP	5,179	11,619	18,954	25,612	33,127	41,930	52,829
Oyster Creek	Brazoria	San Jacinto-Brazos	City - CDP	1,111	1,131	1,154	1,182	1,217	1,259	1,310
Pearland	Brazoria	San Jacinto-Brazos	City - CDP	86,811	95,540	102,021	110,302	119,256	129,061	138,361
Richwood	Brazoria	San Jacinto-Brazos	City - CDP	3,510	3,647	3,797	3,948	4,109	4,282	4,467
Sweeny	Brazoria	Brazos-Colorado	City - CDP	3,684	3,704	3,716	3,731	3,747	3,765	3,785
Varner Creek UD	Brazoria	Brazos	MUD	1,356	1,529	1,532	1,534	1,536	1,537	1,539
West Columbia	Brazoria	Brazos	City - CDP	3,312	3,321	3,329	3,340	3,353	3,367	3,383
West Columbia	Brazoria	Brazos-Colorado	City - CDP	593	602	610	619	630	642	656
<b>Brazoria County Total</b>				<b>313,166</b>	<b>359,935</b>	<b>411,387</b>	<b>463,886</b>	<b>519,696</b>	<b>581,368</b>	<b>648,568</b>

**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Fort Bend County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Arcola	Fort Bend	San Jacinto-Brazos	City - CDP	1,642	1,874	2,848	3,748	4,605	5,302	5,999
Beasley	Fort Bend	Brazos	City - CDP	48	49	72	114	171	250	357
Beasley	Fort Bend	Brazos-Colorado	City - CDP	593	617	655	734	842	990	1,194
County Other	Fort Bend	Brazos	County	38,029	117,587	181,225	244,273	308,824	375,464	448,026
County Other	Fort Bend	Brazos-Colorado	County	6,163	10,685	17,788	30,318	48,633	75,430	114,671
County Other	Fort Bend	San Jacinto	County	795	946	1,179	1,387	1,498	1,559	1,617
County Other	Fort Bend	San Jacinto-Brazos	County	21,330	37,297	60,182	77,743	95,527	112,251	128,306
Fairchilds	Fort Bend	Brazos	City - CDP	763	783	915	1,026	1,186	1,422	1,778
Fort Bend County MUD #116	Fort Bend	Brazos	MUD	2,298	2,505	2,843	3,340	3,729	4,118	4,506
Fort Bend County MUD #129	Fort Bend	Brazos	MUD	2,249	2,680	3,848	4,933	5,838	6,471	6,475
Fort Bend County MUD #23	Fort Bend	San Jacinto-Brazos	MUD	10,276	11,693	12,464	12,884	13,305	13,725	14,145
Fort Bend County MUD #25	Fort Bend	Brazos	MUD	1,164	1,180	1,186	1,190	1,194	1,199	1,203
Fort Bend County MUD #25	Fort Bend	San Jacinto-Brazos	MUD	8,082	8,232	8,316	8,459	8,628	8,801	8,978
Fulshear	Fort Bend	Brazos	City - CDP	469	813	1,513	2,014	2,450	2,838	3,191
Fulshear	Fort Bend	San Jacinto-Brazos	City - CDP	665	11,293	12,242	12,918	13,475	13,946	14,352
Greatwood	Fort Bend	Brazos	City - CDP	11,538	12,140	12,601	12,669	12,736	12,803	12,870
Houston	Fort Bend	San Jacinto	City - CDP	23,047	25,294	27,280	28,259	29,151	29,866	30,305
Houston	Fort Bend	San Jacinto-Brazos	City - CDP	15,110	16,295	16,804	17,836	18,725	19,463	20,127
Katy	Fort Bend	San Jacinto	City - CDP	1,677	6,908	16,048	16,136	16,205	16,259	16,302
Meadows Place	Fort Bend	San Jacinto	City - CDP	4,279	4,288	4,380	4,475	4,571	4,668	4,768
Meadows Place	Fort Bend	San Jacinto-Brazos	City - CDP	381	381	381	381	382	384	385
Missouri City	Fort Bend	Brazos	City - CDP	4,087	7,198	9,893	12,538	14,701	16,075	16,740
Missouri City	Fort Bend	San Jacinto	City - CDP	8,363	10,014	11,747	13,444	14,174	14,632	15,298
Missouri City	Fort Bend	San Jacinto-Brazos	City - CDP	49,302	58,637	71,707	84,738	97,048	104,776	109,256
Needville	Fort Bend	Brazos	City - CDP	1,285	1,285	1,297	1,314	1,340	1,379	1,437
Needville	Fort Bend	Brazos-Colorado	City - CDP	1,538	1,551	1,577	1,608	1,655	1,725	1,830
New Territory	Fort Bend	Brazos	City - CDP	15,186	15,186	15,186	15,223	15,259	15,296	15,333
North Fort Bend Water Authority	Fort Bend	Brazos	Authority	1,329	9,656	14,722	18,830	22,680	26,407	30,135
North Fort Bend Water Authority	Fort Bend	San Jacinto	Authority	107,015	148,140	176,426	180,480	182,392	184,084	186,052
North Fort Bend Water Authority	Fort Bend	San Jacinto-Brazos	Authority	58,354	131,782	163,735	180,433	193,344	203,542	211,721
Pearland	Fort Bend	San Jacinto-Brazos	City - CDP	720	3,495	3,766	4,691	5,615	6,543	7,621
Pecan Grove	Fort Bend	Brazos	City - CDP	12,992	14,816	15,005	15,337	15,629	15,892	16,132
Pecan Grove	Fort Bend	San Jacinto-Brazos	City - CDP	2,971	7,327	7,419	7,905	8,266	8,534	8,702
Plantation MUD	Fort Bend	Brazos	MUD	3,948	3,948	3,948	3,948	3,948	3,948	3,948
Pleak	Fort Bend	Brazos	City - CDP	1,044	1,350	1,580	1,691	1,797	1,907	2,034
Richmond	Fort Bend	Brazos	City - CDP	11,679	12,400	12,890	13,510	14,375	15,236	16,093
Rosenberg	Fort Bend	Brazos	City - CDP	30,618	40,381	42,520	44,831	47,204	49,946	53,226

Region H Regional Water Planning Group  
**DRAFT** Water User Group (WUG) Population Projections  
 Fort Bend County

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Rosenberg	Fort Bend	Brazos-Colorado	City - CDP	-	3	40	97	174	281	428
Sienna Plantation	Fort Bend	Brazos	City - CDP	3,534	4,966	6,376	7,822	9,268	10,714	12,318
Sienna Plantation	Fort Bend	San Jacinto-Brazos	City - CDP	10,187	13,481	17,217	24,291	31,365	38,440	44,698
Simonton	Fort Bend	Brazos	City - CDP	814	884	1,047	1,369	1,623	1,826	1,992
Stafford	Fort Bend	San Jacinto	City - CDP	4,962	5,207	5,467	5,759	6,097	6,487	6,939
Stafford	Fort Bend	San Jacinto-Brazos	City - CDP	12,421	12,554	12,774	13,086	13,421	13,784	14,176
Sugar Land	Fort Bend	Brazos	City - CDP	37,491	42,074	46,645	52,714	59,008	64,494	68,081
Sugar Land	Fort Bend	San Jacinto	City - CDP	4,195	4,199	4,201	4,202	4,204	4,205	4,207
Sugar Land	Fort Bend	San Jacinto-Brazos	City - CDP	37,131	44,016	48,842	49,999	50,769	51,195	51,657
Weston Lakes	Fort Bend	Brazos	City - CDP	2,482	2,621	2,791	3,019	3,247	3,475	3,704
WHCRWA	Fort Bend	San Jacinto	Authority	11,129	11,255	11,535	11,591	11,656	11,750	11,850
<b>Fort Bend County Total</b>				<b>585,375</b>	<b>881,966</b>	<b>1,095,123</b>	<b>1,259,307</b>	<b>1,421,934</b>	<b>1,583,782</b>	<b>1,755,163</b>

**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Galveston County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Bacliff MUD	Galveston	San Jacinto-Brazos	MUD	7,034	7,310	7,416	7,524	7,633	7,742	7,850
Bayou Vista	Galveston	San Jacinto-Brazos	City - CDP	1,537	1,538	1,541	1,544	1,546	1,548	1,549
Bolivar Peninsula SUD	Galveston	Neches-Trinity	MUD	2,394	2,943	3,480	4,118	4,875	5,771	6,835
Clear Lake Shores	Galveston	San Jacinto-Brazos	City - CDP	1,063	1,525	1,579	1,579	1,579	1,579	1,579
County Other	Galveston	Neches-Trinity	County	20	38	50	66	86	110	138
County Other	Galveston	San Jacinto-Brazos	County	14,040	16,873	19,005	20,754	22,422	24,026	25,560
Dickinson	Galveston	San Jacinto-Brazos	City - CDP	18,680	19,103	20,048	21,121	22,176	23,223	24,269
Friendswood	Galveston	San Jacinto-Brazos	City - CDP	25,497	27,724	29,656	31,856	34,254	36,885	39,790
Galveston	Galveston	San Jacinto-Brazos	City - CDP	47,743	51,260	54,643	57,846	60,955	63,941	67,085
Galveston County WCID #1	Galveston	San Jacinto-Brazos	MUD	3,886	3,691	3,917	4,071	4,188	4,299	4,408
Hitchcock	Galveston	San Jacinto-Brazos	City - CDP	6,961	8,604	10,217	11,248	12,053	12,692	13,205
Jamaica Beach	Galveston	San Jacinto-Brazos	City - CDP	983	989	998	1,007	1,017	1,030	1,044
Kemah	Galveston	San Jacinto-Brazos	City - CDP	1,773	4,685	6,166	6,392	6,572	6,719	6,842
La Marque	Galveston	San Jacinto-Brazos	City - CDP	14,509	20,111	21,970	22,429	22,810	23,133	23,414
League City	Galveston	San Jacinto-Brazos	City - CDP	81,988	106,764	120,273	130,742	139,323	144,257	147,634
San Leon MUD	Galveston	San Jacinto-Brazos	MUD	4,912	5,547	6,066	6,466	6,866	7,266	7,667
Santa Fe	Galveston	San Jacinto-Brazos	City - CDP	12,222	12,524	12,895	13,356	13,825	14,300	14,783
Texas City	Galveston	San Jacinto-Brazos	City - CDP	45,099	51,369	56,474	60,714	64,373	67,607	70,539
Tiki Island	Galveston	San Jacinto-Brazos	City - CDP	968	972	979	987	994	998	1,002
<b>Galveston County Total</b>				<b>291,309</b>	<b>343,570</b>	<b>377,373</b>	<b>403,820</b>	<b>427,547</b>	<b>447,126</b>	<b>465,193</b>

**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Harris County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Baytown	Harris	San Jacinto	City - CDP	2,929	3,131	3,181	3,246	3,313	3,380	3,447
Baytown	Harris	Trinity-San Jacinto	City - CDP	64,757	67,692	68,729	69,892	71,071	72,267	73,479
Bellaire	Harris	San Jacinto	City - CDP	16,855	17,135	18,622	20,250	22,020	23,952	26,059
Blue Bell Manor Utility Company	Harris	San Jacinto	MUD	2,879	2,879	2,982	3,152	3,336	3,525	3,689
Bunker Hill Village	Harris	San Jacinto	City - CDP	3,633	3,803	4,105	4,431	4,784	5,164	5,575
Central Harris County Regional Water Authority	Harris	San Jacinto	Authority	44,672	50,418	55,097	58,372	61,420	64,232	67,191
Chimney Hill MUD	Harris	San Jacinto	MUD	5,504	5,504	5,589	5,665	5,750	5,843	5,946
Clear Brook City MUD	Harris	San Jacinto-Brazos	MUD	15,665	17,670	18,631	20,075	21,345	22,532	23,648
Consumers Water Inc	Harris	San Jacinto	MUD	675	676	707	745	777	804	828
Consumers Water Inc	Harris	Trinity-San Jacinto	MUD	230	230	232	235	236	237	238
County Other	Harris	San Jacinto	County	221,007	279,964	326,287	363,645	397,333	427,894	456,580
County Other	Harris	San Jacinto-Brazos	County	11,140	16,501	19,725	22,213	24,447	26,788	29,152
County Other	Harris	Trinity-San Jacinto	County	24,205	27,734	31,467	35,282	38,758	41,844	44,883
Crosby MUD	Harris	San Jacinto	MUD	2,517	2,603	2,768	2,823	2,877	2,932	2,988
Deer Park	Harris	San Jacinto	City - CDP	10,537	10,775	11,128	11,302	11,480	11,662	11,849
Deer Park	Harris	San Jacinto-Brazos	City - CDP	21,473	23,480	24,846	26,180	27,373	28,469	29,506
El Dorado UD	Harris	San Jacinto	MUD	2,738	2,807	2,930	3,057	3,184	3,233	3,233
El Lago	Harris	San Jacinto-Brazos	City - CDP	2,706	2,733	2,750	2,762	2,773	2,785	2,797
Fountainview Subdivision	Harris	San Jacinto	MUD	1,928	1,929	1,941	1,953	1,966	1,980	1,995
Friendswood	Harris	San Jacinto-Brazos	City - CDP	10,308	11,925	14,393	16,073	17,783	19,431	21,257
Galena Park	Harris	San Jacinto	City - CDP	10,887	10,887	11,092	11,303	11,520	11,742	11,969
Green Trails MUD	Harris	San Jacinto	MUD	1,743	1,820	1,828	1,846	1,860	1,870	1,877
Greenwood UD	Harris	San Jacinto	MUD	4,107	4,741	5,452	5,518	5,586	5,654	5,725
Harris County MUD #11	Harris	San Jacinto	MUD	2,775	3,203	3,293	3,411	3,537	3,673	3,819
Harris County MUD #119	Harris	San Jacinto	MUD	5,923	5,927	6,119	6,346	6,590	6,758	6,908
Harris County MUD #132	Harris	San Jacinto	MUD	4,795	5,006	5,079	5,122	5,154	5,177	5,195
Harris County MUD #151	Harris	San Jacinto	MUD	5,874	5,990	6,051	6,101	6,138	6,165	6,185
Harris County MUD #152	Harris	San Jacinto	MUD	7,566	8,154	8,360	8,658	8,890	9,063	9,191
Harris County MUD #153	Harris	San Jacinto	MUD	6,843	7,027	7,031	7,053	7,069	7,081	7,090
Harris County MUD #154	Harris	San Jacinto	MUD	5,635	5,851	5,917	6,072	6,238	6,416	6,607
Harris County MUD #158	Harris	San Jacinto	MUD	4,951	4,992	4,992	4,992	4,992	4,992	4,992
Harris County MUD #180	Harris	San Jacinto	MUD	5,033	5,788	6,279	6,651	6,715	6,715	6,715
Harris County MUD #189	Harris	San Jacinto	MUD	2,615	3,982	4,224	4,383	4,552	4,729	4,916
Harris County MUD #261	Harris	San Jacinto	MUD	1,034	1,036	1,044	1,046	1,048	1,049	1,050
Harris County MUD #46	Harris	San Jacinto	MUD	3,822	4,017	4,025	4,028	4,030	4,031	4,032
Harris County MUD #5	Harris	San Jacinto	MUD	6,091	6,280	6,599	7,023	7,477	7,965	8,489

**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Harris County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Harris County MUD #50	Harris	San Jacinto	MUD	2,176	2,177	2,199	2,245	2,277	2,284	2,292
Harris County MUD #55	Harris	San Jacinto-Brazos	MUD	14,011	14,071	14,923	15,664	16,582	18,055	19,802
Harris County MUD #8	Harris	San Jacinto	MUD	4,486	4,595	4,596	4,597	4,598	4,598	4,600
Harris County UD #14	Harris	San Jacinto	MUD	1,829	3,025	3,311	3,603	3,944	4,364	5,005
Harris County UD #15	Harris	San Jacinto	MUD	3,523	3,603	3,926	4,364	4,797	5,258	5,612
Harris County WCID #1	Harris	San Jacinto	MUD	5,628	5,696	5,884	6,120	6,356	6,593	6,829
Harris County WCID #1	Harris	Trinity-San Jacinto	MUD	212	220	226	239	253	266	279
Harris County WCID #133	Harris	San Jacinto	MUD	5,323	5,324	5,375	5,614	6,056	6,533	7,047
Hedwig Village	Harris	San Jacinto	City - CDP	2,557	2,580	2,771	2,975	3,194	3,429	3,683
Hilshire Village	Harris	San Jacinto	City - CDP	746	749	791	857	951	1,051	1,160
Houston	Harris	San Jacinto	City - CDP	1,936,484	2,064,279	2,220,602	2,374,857	2,528,947	2,686,749	2,851,123
Houston	Harris	San Jacinto-Brazos	City - CDP	120,606	137,465	156,807	175,590	195,004	215,556	238,661
Houston	Harris	Trinity-San Jacinto	City - CDP	154	242	253	260	265	269	272
Humble	Harris	San Jacinto	City - CDP	15,133	17,243	20,928	23,603	25,590	27,068	28,170
Hunters Creek Village	Harris	San Jacinto	City - CDP	4,367	4,461	4,817	5,202	5,619	6,068	6,553
Jacinto City	Harris	San Jacinto	City - CDP	10,553	10,603	10,908	11,224	11,546	11,879	12,222
Jersey Village	Harris	San Jacinto	City - CDP	7,620	7,723	7,790	7,936	8,096	8,272	8,465
Katy	Harris	San Jacinto	City - CDP	11,269	13,337	14,032	14,556	15,018	15,438	15,830
Kings Manor MUD	Harris	San Jacinto	MUD	870	895	906	926	940	951	959
La Porte	Harris	San Jacinto	City - CDP	2,195	2,225	2,289	2,350	2,411	2,474	2,538
La Porte	Harris	San Jacinto-Brazos	City - CDP	31,605	32,120	32,485	32,942	33,374	33,787	34,191
League City	Harris	San Jacinto-Brazos	City - CDP	1,572	2,919	3,304	3,542	3,720	3,849	3,944
Loungorn Town UD	Harris	San Jacinto	MUD	923	1,273	1,292	1,302	1,309	1,315	1,319
Mason Creek UD	Harris	San Jacinto	MUD	6,609	6,610	6,610	6,610	6,610	6,610	6,610
Missouri City	Harris	San Jacinto	City - CDP	5,606	5,650	6,439	7,082	7,773	8,529	9,352
Mount Houston Road MUD	Harris	San Jacinto	MUD	3,382	5,017	6,179	7,015	7,637	8,101	8,442
Nassau Bay	Harris	San Jacinto-Brazos	City - CDP	4,002	4,091	4,149	4,202	4,256	4,310	4,366
NHCRWA	Harris	San Jacinto	Authority	563,564	725,280	773,946	813,595	847,301	877,034	904,208
North Belt UD	Harris	San Jacinto	MUD	1,676	1,788	1,799	1,846	1,897	1,952	2,011
North Channel Water Authority	Harris	San Jacinto	Authority	78,823	82,326	84,755	86,983	89,193	91,387	93,192
North Fort Bend Water Authority	Harris	San Jacinto	Authority	8,539	8,697	8,748	8,790	8,831	8,873	8,914
North Green MUD	Harris	San Jacinto	MUD	2,971	4,072	4,127	4,181	4,241	4,300	4,355
Northwest Park MUD	Harris	San Jacinto	MUD	16,570	16,782	17,493	18,300	19,114	19,950	20,824
Parkway UD	Harris	San Jacinto	MUD	5,633	5,970	6,282	6,328	6,375	6,421	6,468
Pasadena	Harris	San Jacinto	City - CDP	115,114	118,765	122,380	125,922	129,514	133,172	136,947
Pasadena	Harris	San Jacinto-Brazos	City - CDP	33,929	35,676	36,461	37,199	37,936	38,705	39,501

Region H Regional Water Planning Group  
**DRAFT** Water User Group (WUG) Population Projections  
Harris County

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Pearland	Harris	San Jacinto-Brazos	City - CDP	3,721	14,127	17,440	20,943	23,539	25,464	26,892
Piney Point Village	Harris	San Jacinto	City - CDP	3,125	3,178	3,495	3,847	4,234	4,659	5,127
Rolling Fork PUD	Harris	San Jacinto	MUD	1,989	2,143	2,183	2,216	2,240	2,257	2,271
Sagemeadow UD	Harris	San Jacinto-Brazos	MUD	6,234	6,352	6,801	7,367	7,921	8,476	9,043
Seabrook	Harris	San Jacinto-Brazos	City - CDP	11,952	12,797	13,005	13,238	13,476	13,717	13,963
Shoreacres	Harris	San Jacinto-Brazos	City - CDP	1,493	1,493	1,505	1,527	1,550	1,573	1,596
South Houston	Harris	San Jacinto	City - CDP	16,983	16,983	17,562	18,161	18,782	19,425	20,088
Southside Place	Harris	San Jacinto	City - CDP	1,715	1,734	1,865	2,007	2,159	2,323	2,500
Spring Valley Village	Harris	San Jacinto	City - CDP	3,715	3,870	4,202	4,541	4,885	5,258	5,660
Stafford	Harris	San Jacinto	City - CDP	310	310	333	342	351	361	372
Sunbelt FWSD	Harris	San Jacinto	MUD	16,280	16,510	17,366	18,196	19,148	20,247	21,453
Taylor Lake Village	Harris	San Jacinto-Brazos	City - CDP	3,544	3,557	3,618	3,654	3,690	3,727	3,765
The Woodlands	Harris	San Jacinto	City - CDP	2,384	16,144	17,484	19,174	20,436	21,378	22,083
Tomball	Harris	San Jacinto	City - CDP	10,753	12,742	13,457	14,110	14,677	15,182	15,644
Trail of the Lakes MUD	Harris	San Jacinto	MUD	6,908	9,058	9,453	9,578	9,671	9,740	9,791
Waller	Harris	San Jacinto	City - CDP	446	478	492	513	540	574	617
Webster	Harris	San Jacinto-Brazos	City - CDP	10,400	15,071	16,187	17,079	17,776	18,329	18,773
West Harris County MUD #6	Harris	San Jacinto	MUD	2,213	2,428	2,628	2,750	2,841	2,909	2,959
West University Place	Harris	San Jacinto	City - CDP	14,787	14,972	16,123	17,377	18,728	20,185	21,758
WHCRWA	Harris	San Jacinto	Authority	390,700	555,456	583,011	603,266	619,938	634,059	646,374
Windfern Forest UD	Harris	San Jacinto	MUD	4,163	4,288	4,302	4,311	4,317	4,321	4,324
Woodcreek MUD	Harris	San Jacinto	MUD	2,332	2,340	2,354	2,375	2,396	2,420	2,445
<b>Harris County Total</b>				<b>4,092,459</b>	<b>4,707,870</b>	<b>5,058,144</b>	<b>5,376,099</b>	<b>5,678,242</b>	<b>5,974,068</b>	<b>6,272,344</b>

**Region H Regional Water Planning Group**  
**DRAFT Water User Group (WUG) Population Projections**  
**Montgomery County**

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Benders Landing Water System	Montgomery	San Jacinto	MUD	1,660	5,094	8,091	11,167	14,243	17,304	17,304
Cleveland	Montgomery	San Jacinto	City - CDP	9	30	36	51	69	92	120
Conroe	Montgomery	San Jacinto	City - CDP	56,207	77,926	93,516	107,457	120,314	134,086	148,830
Consumers Water Inc	Montgomery	San Jacinto	MUD	1,752	2,026	2,199	2,422	2,736	3,121	3,440
County Other	Montgomery	San Jacinto	County	186,424	294,935	429,446	587,167	780,334	1,022,051	1,318,378
Crystal Springs Water Company	Montgomery	San Jacinto	MUD	87	113	119	146	179	221	273
Cut and Shoot	Montgomery	San Jacinto	City - CDP	1,070	1,311	1,421	1,666	1,990	2,419	2,986
Dobbin-Plantersville WSC	Montgomery	San Jacinto	MUD	5,656	8,335	11,255	15,183	20,335	27,097	35,974
East Plantation UD	Montgomery	San Jacinto	MUD	1,061	1,074	1,105	1,300	1,495	1,723	1,783
Houston	Montgomery	San Jacinto	City - CDP	4,050	4,839	6,934	9,275	11,538	13,736	14,375
Indigo Lake Water System	Montgomery	San Jacinto	MUD	2,129	2,934	4,050	5,820	8,319	11,846	17,602
Kings Manor MUD	Montgomery	San Jacinto	MUD	1,856	1,909	1,963	2,061	2,133	2,187	2,227
Lake Windcrest Water System	Montgomery	San Jacinto	MUD	2,172	2,544	2,868	3,645	4,731	6,250	8,377
Magnolia	Montgomery	San Jacinto	City - CDP	1,393	3,105	3,729	4,545	5,740	7,492	10,211
Montgomery	Montgomery	San Jacinto	City - CDP	621	2,676	4,985	6,185	7,393	8,625	10,565
Montgomery County MUD #18	Montgomery	San Jacinto	MUD	2,838	4,676	6,041	6,868	7,695	8,522	10,527
Montgomery County MUD #19	Montgomery	San Jacinto	MUD	1,991	1,996	2,009	2,023	2,039	2,057	2,076
Montgomery County MUD #8	Montgomery	San Jacinto	MUD	2,656	2,963	3,173	3,560	3,947	4,333	5,205
Montgomery County MUD #83	Montgomery	San Jacinto	MUD	1,120	1,494	1,544	1,595	1,646	1,698	1,734
Montgomery County MUD #89	Montgomery	San Jacinto	MUD	3,669	4,254	4,346	4,413	4,761	5,261	5,429
Montgomery County MUD #9	Montgomery	San Jacinto	MUD	2,961	3,240	3,377	3,849	4,320	4,792	5,744
Montgomery County MUD #94	Montgomery	San Jacinto	MUD	2,407	3,441	3,480	3,857	4,234	4,609	4,609
Montgomery County UD #2	Montgomery	San Jacinto	MUD	1,363	1,391	1,423	1,498	1,598	1,732	1,910
Montgomery County UD #3	Montgomery	San Jacinto	MUD	1,790	1,825	2,134	2,154	2,459	3,114	3,967
Montgomery County UD #4	Montgomery	San Jacinto	MUD	2,555	3,069	4,004	4,037	4,634	5,924	7,607
Montgomery County WCID #1	Montgomery	San Jacinto	MUD	2,895	2,989	3,279	3,602	3,960	4,360	4,805
New Caney MUD	Montgomery	San Jacinto	MUD	8,126	8,923	9,867	10,884	12,099	13,563	15,342
Oak Ridge North	Montgomery	San Jacinto	City - CDP	3,049	3,121	3,265	3,485	3,610	3,655	3,670
Panorama Village	Montgomery	San Jacinto	City - CDP	2,170	2,557	2,601	2,773	3,002	3,309	3,718
Patton Village	Montgomery	San Jacinto	City - CDP	1,557	2,175	2,363	2,624	2,955	3,375	3,908
Point Aquarius MUD	Montgomery	San Jacinto	MUD	1,633	1,655	1,663	1,779	1,935	2,143	2,420
Porter WSC	Montgomery	San Jacinto	MUD	15,147	25,185	31,483	37,835	44,073	50,332	55,511
Rayford Road MUD	Montgomery	San Jacinto	MUD	7,719	7,878	8,217	8,878	9,615	10,395	10,672
River Plantation MUD	Montgomery	San Jacinto	MUD	1,905	2,107	2,244	2,742	3,239	3,786	3,994
Roman Forest	Montgomery	San Jacinto	City - CDP	1,538	1,553	1,571	1,755	1,991	2,291	2,674
Shenandoah	Montgomery	San Jacinto	City - CDP	2,134	2,959	3,854	4,226	4,476	4,764	5,130
Southern Montgomery County MUD	Montgomery	San Jacinto	MUD	7,214	7,488	7,767	7,960	8,115	8,239	8,369



Region H Regional Water Planning Group  
**DRAFT** Water User Group (WUG) Population Projections  
 Montgomery County

WUG	County	Basin	WUG Level	Census 2010 Population	Population Projections					
					2020	2030	2040	2050	2060	2070
Splendor	Montgomery	San Jacinto	City - CDP	1,615	1,821	1,989	2,381	2,878	3,506	4,300
Spring Creek UD	Montgomery	San Jacinto	MUD	6,248	7,307	8,058	8,502	9,295	10,279	10,600
Stagecoach	Montgomery	San Jacinto	City - CDP	538	541	645	1,049	1,632	2,553	4,142
Stanley Lake MUD	Montgomery	San Jacinto	MUD	2,425	2,586	2,906	3,766	4,910	6,413	8,295
The Woodlands	Montgomery	San Jacinto	City - CDP	91,462	100,003	105,894	111,674	118,464	128,339	140,330
Westwood North WSC	Montgomery	San Jacinto	MUD	1,930	1,967	2,083	2,322	2,561	2,801	3,143
Willis	Montgomery	San Jacinto	City - CDP	5,662	6,533	6,768	7,296	8,025	9,036	10,442
Woodbranch	Montgomery	San Jacinto	City - CDP	1,282	1,369	1,487	1,801	2,199	2,704	3,345
<b>Montgomery County Total</b>				<b>455,746</b>	<b>627,917</b>	<b>811,252</b>	<b>1,019,278</b>	<b>1,267,916</b>	<b>1,576,135</b>	<b>1,946,063</b>



## Agenda Item 7

Receive presentation from Consultant Team regarding the role of conservation in past regional planning cycles.



Agenda Item 7  
Conservation in Region H RWPs



Receive presentation from Consultant Team regarding the role of conservation in past regional planning cycles.



Common Questions

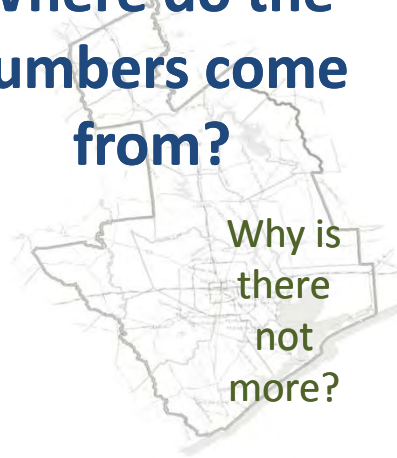


*How do we meet those high targets?*

**Where do the numbers come from?**

What IS the number, anyway?

Why is there not more?



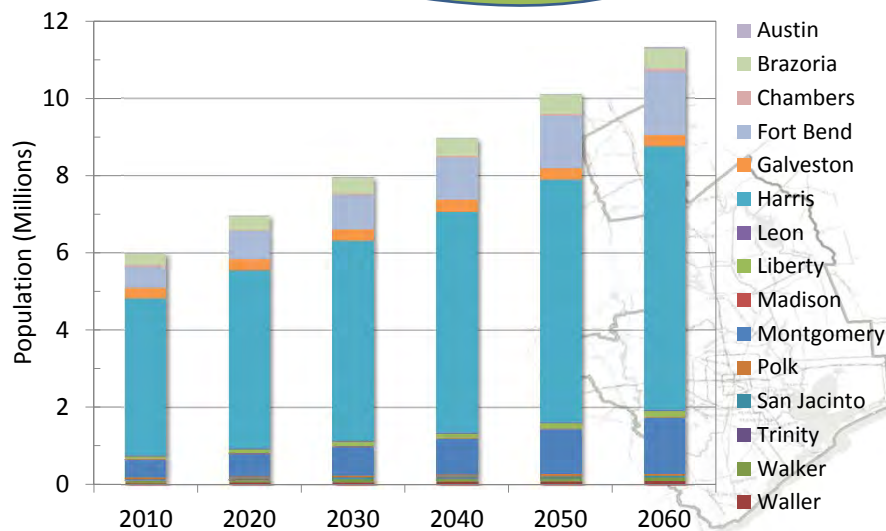
## What is Region H?

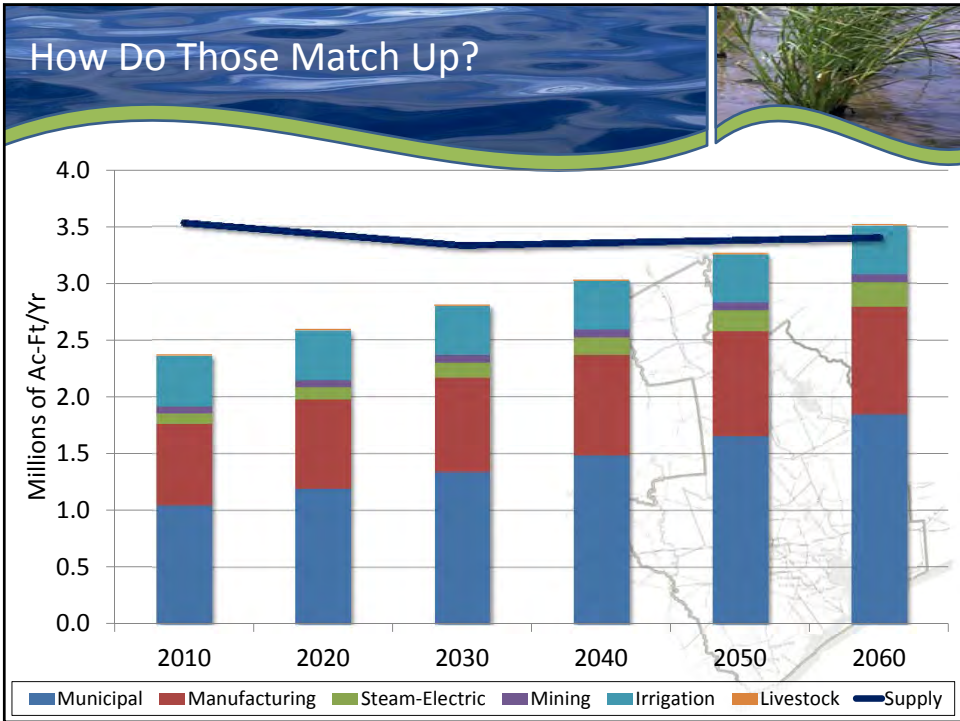
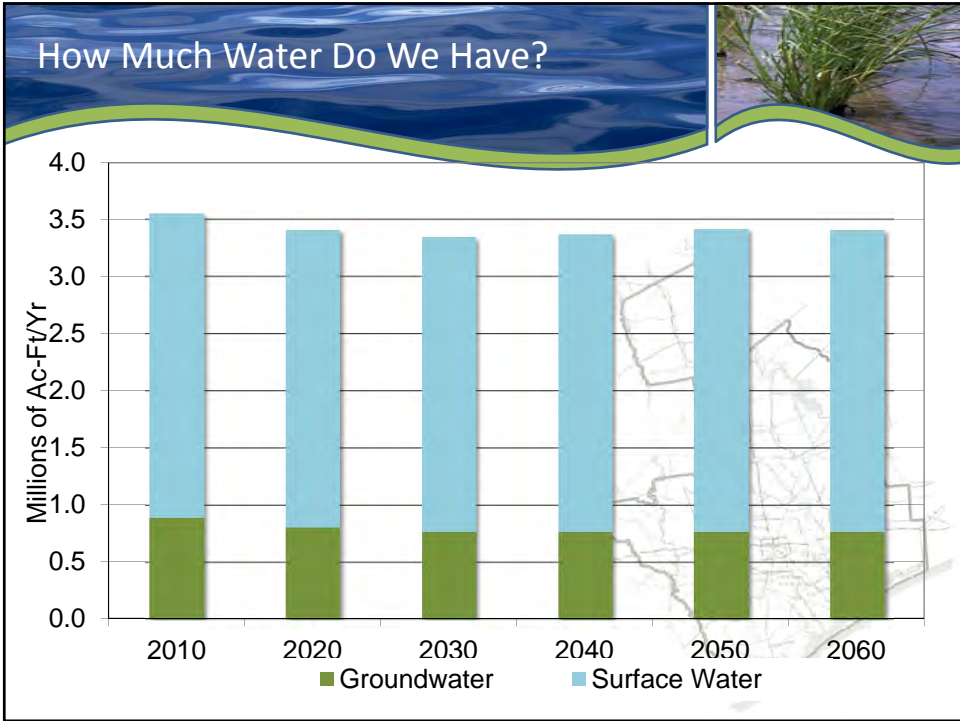
- Regional water planning group
- Input to State Water Plan
- 26 planning group members
- Plan for water demands, supplies, and strategies
- Consultants who aid in plan development

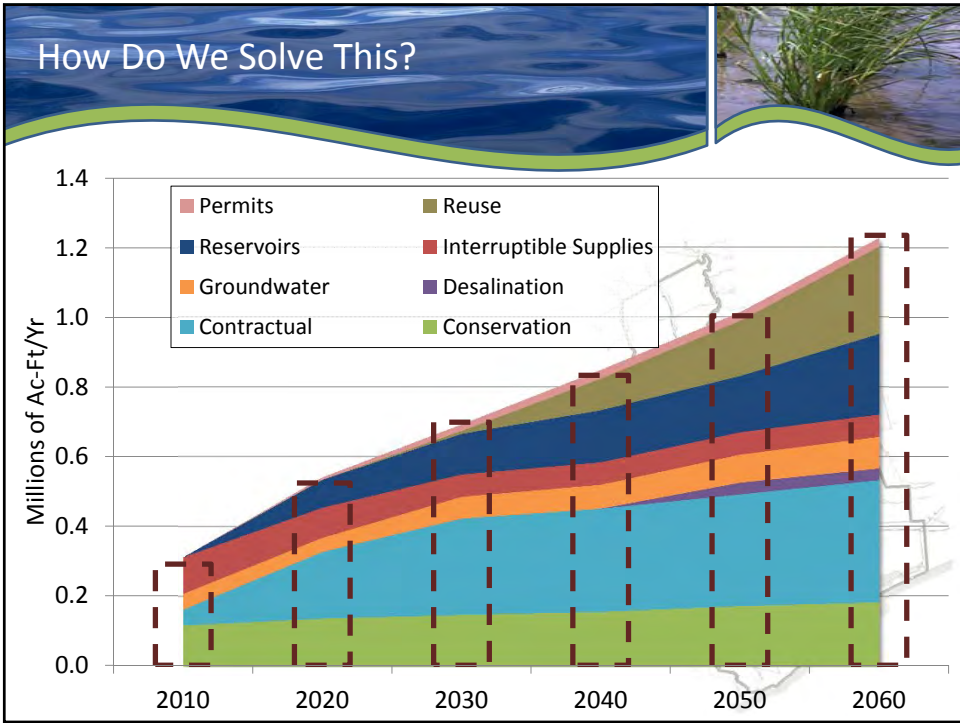
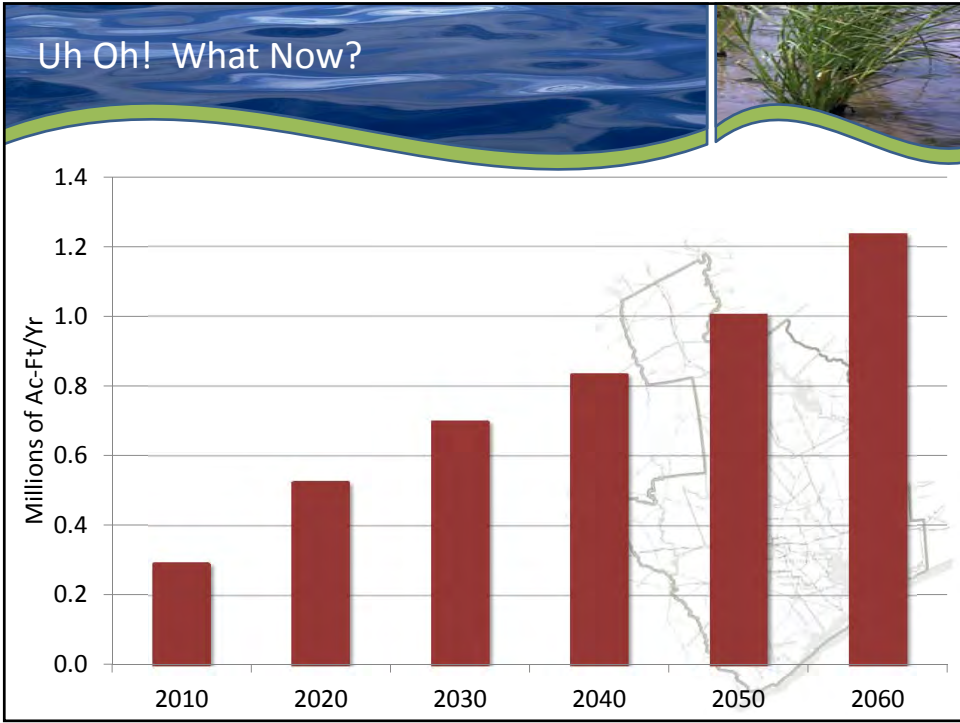
*Did I mention planning?*



## How Many People Do We Have?

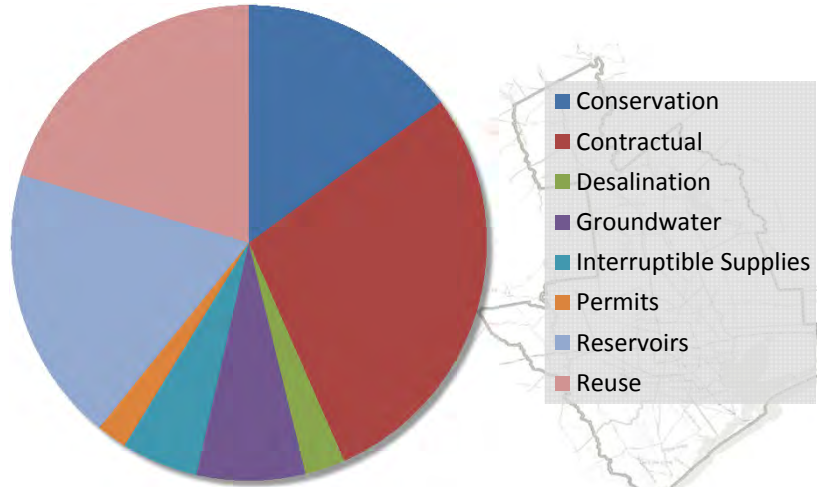




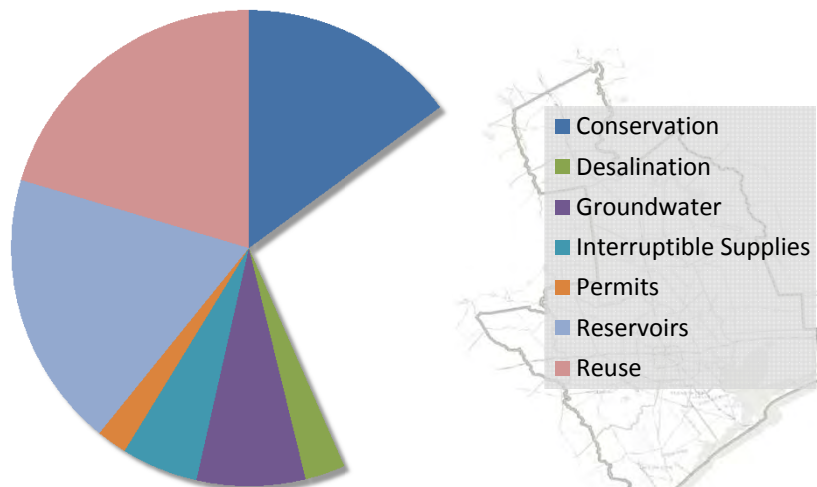




## 2011 Regional Water Plan Management Strategies



## 2011 Regional Water Plan Management Strategies



## Why Conservation?

- Cheap
- Ongoing efforts
- Public participation
- Minimal impacts
- Delay/eliminate projects
- Sustainable
- Right thing to do



## Why *NOT* Conservation?

- Uncertainty



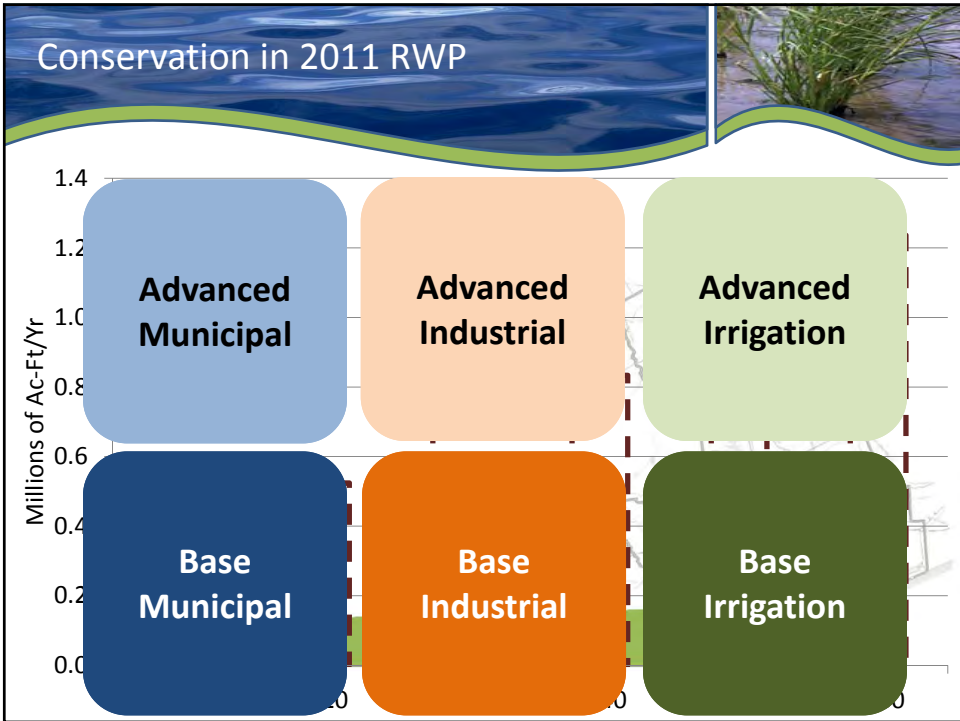
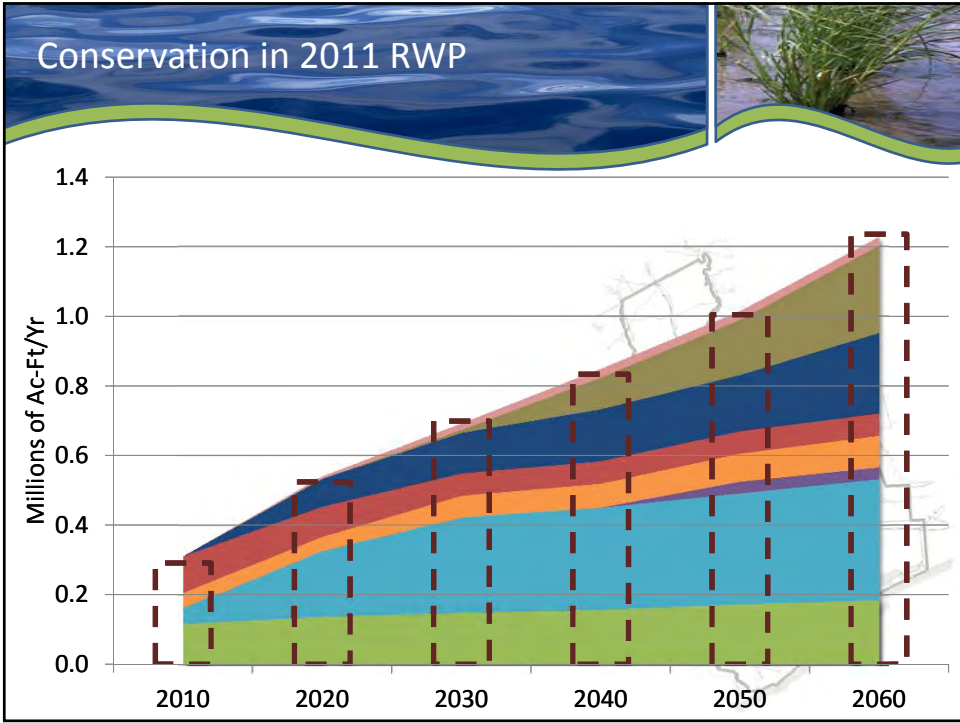
BUT THERE'S GOOD NEWS!

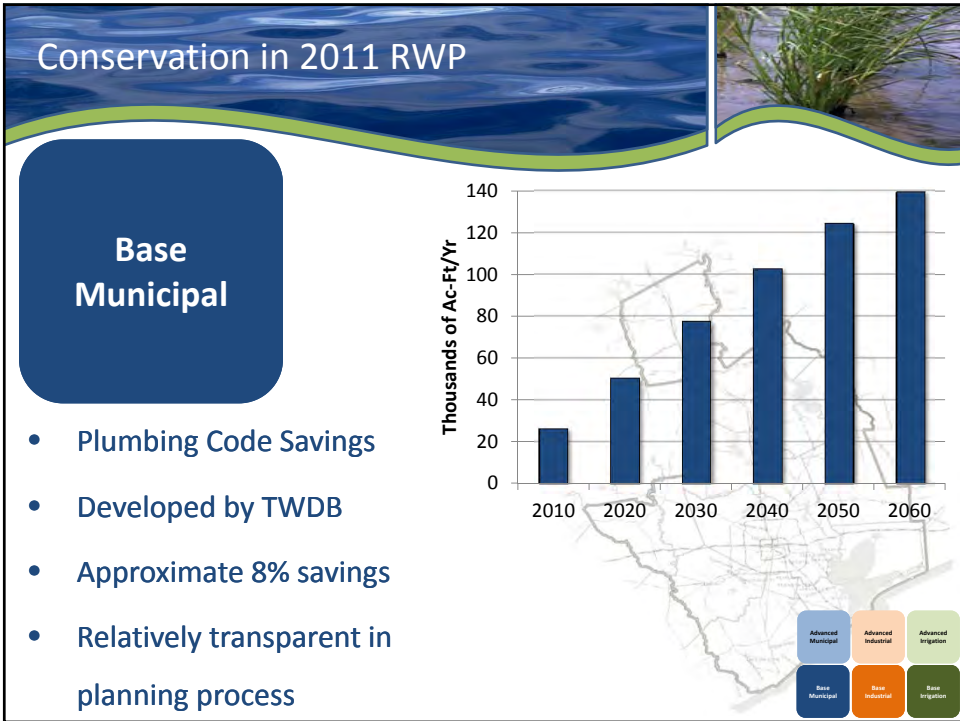
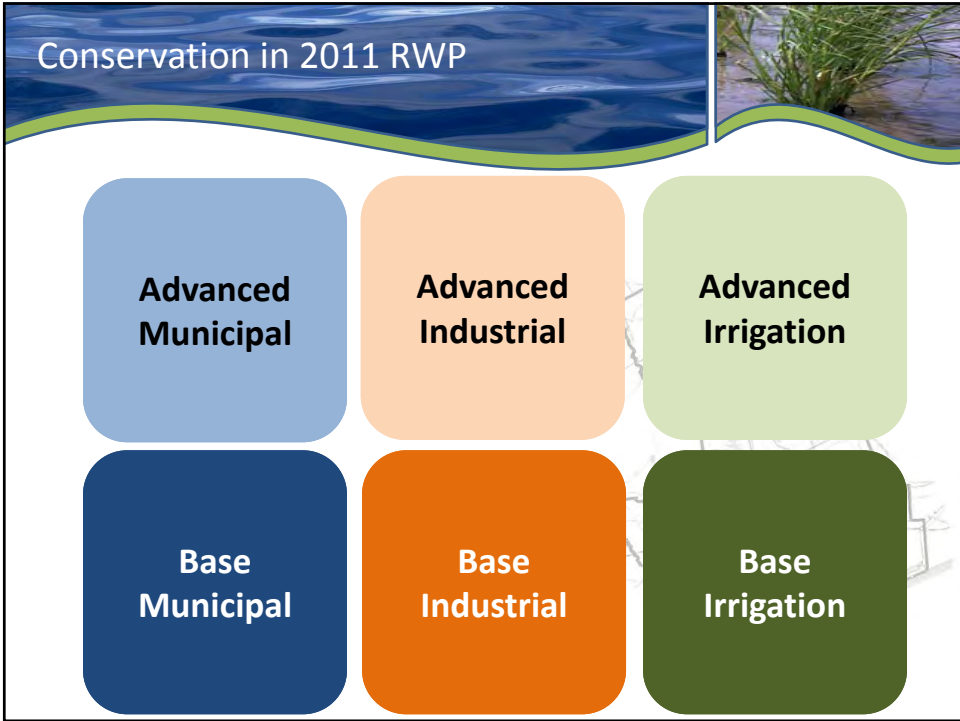


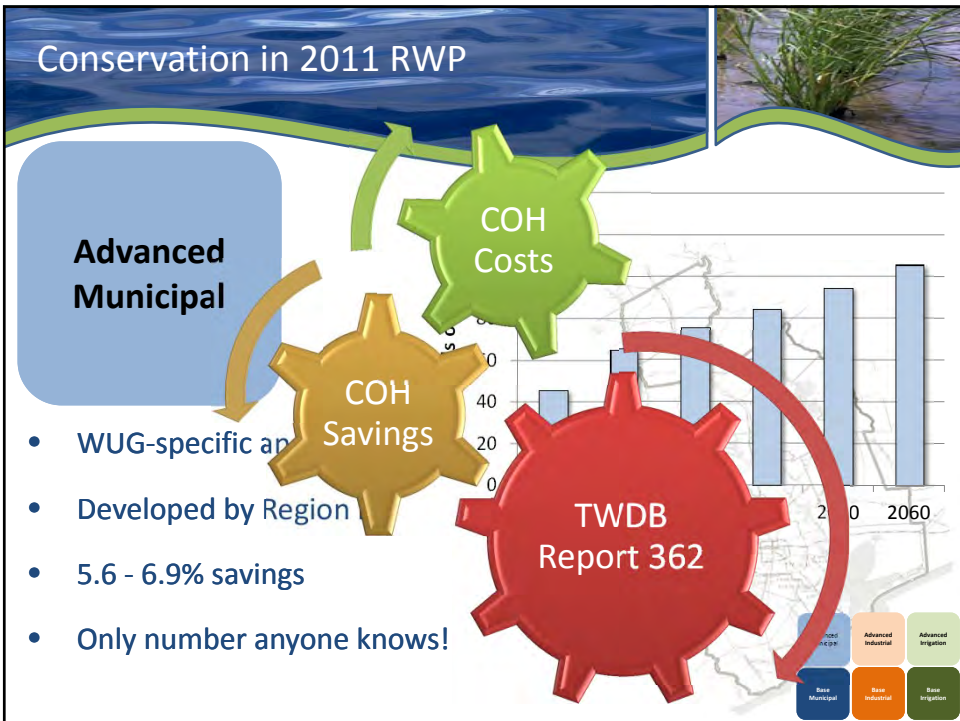
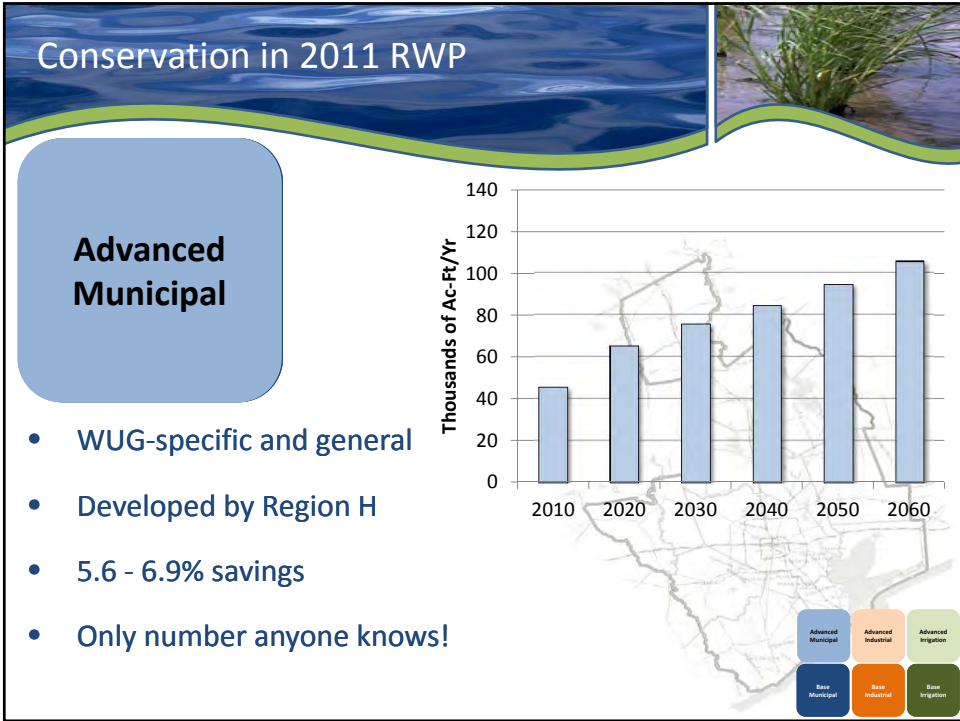
Region H Approach

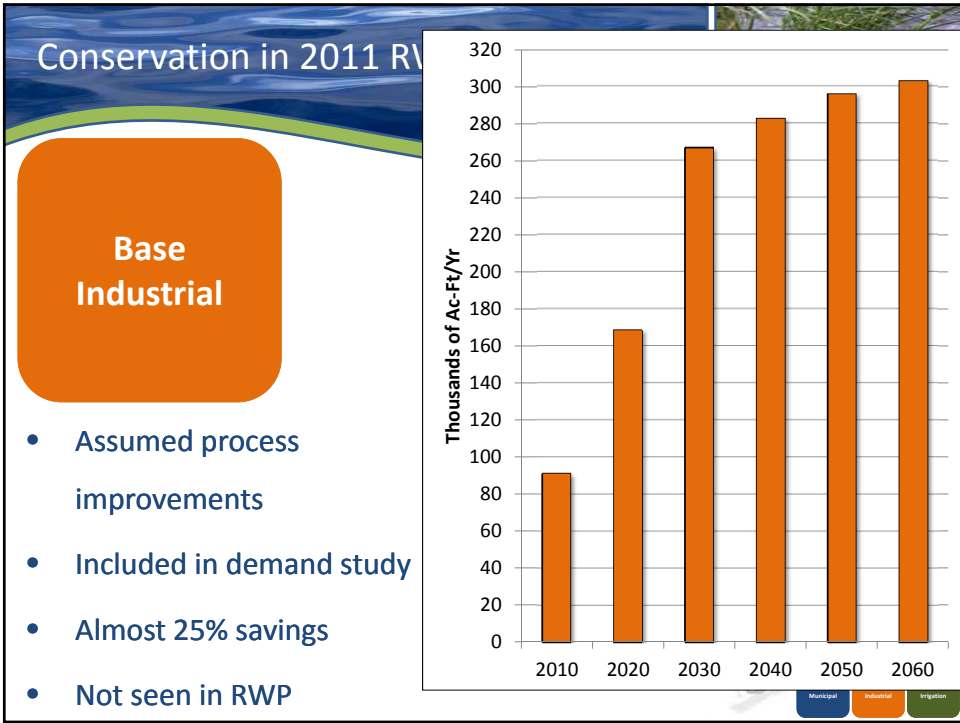
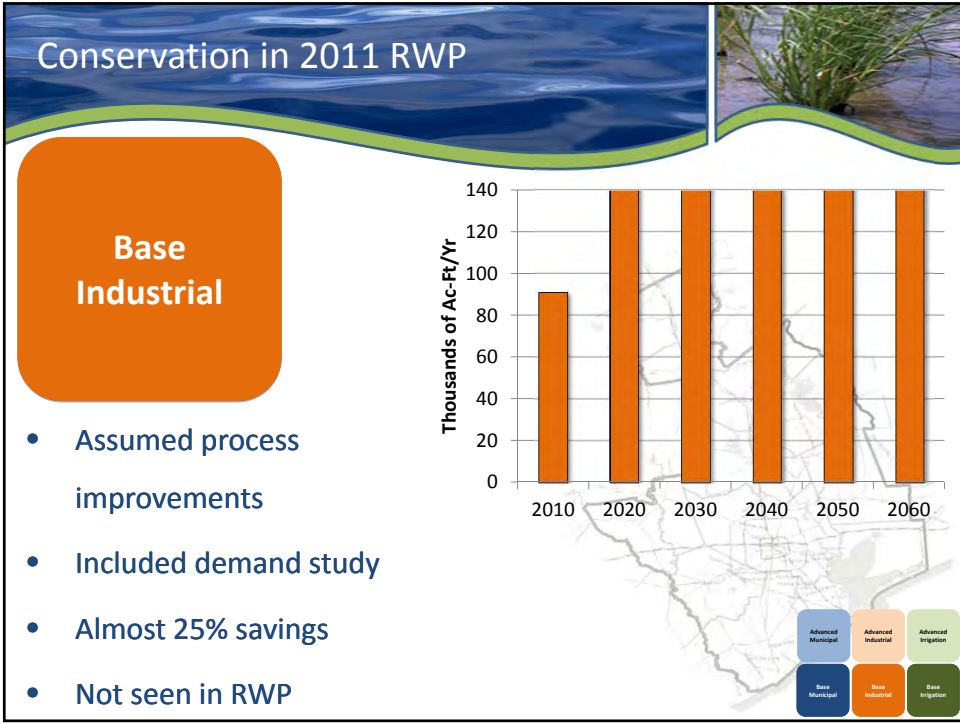
- Reasonable Levels
- All Appropriate Sectors









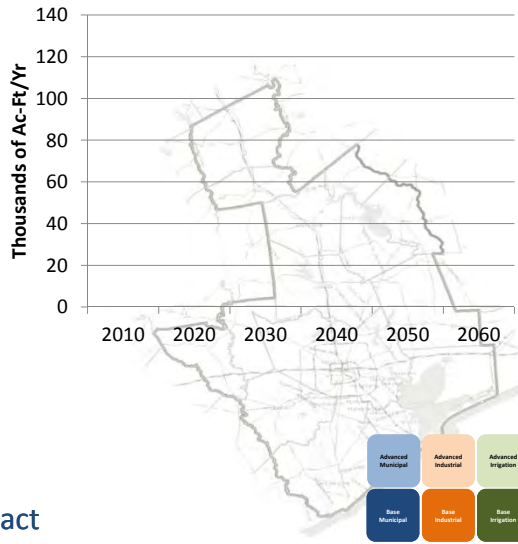


## Conservation in 2011 RWP



### Advanced Industrial

- Limited specific cases
- Developed by one specific industry
- 0.06% savings
- In the plan, but limited impact

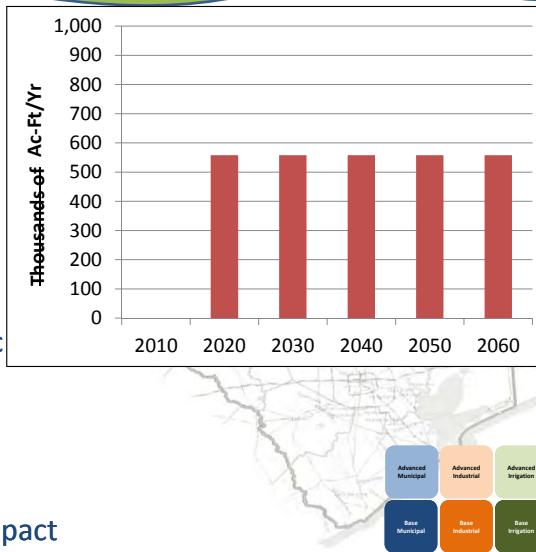


## Conservation in 2011 RWP



### Advanced Industrial

- Limited specific cases
- Developed by one specific industry
- 0.06% savings
- In the plan, but limited impact





## Conservation in 2011 RWP



### Base Irrigation

- Some practices already under way on a case by case basis
- Theoretically included in demand development
- No known savings

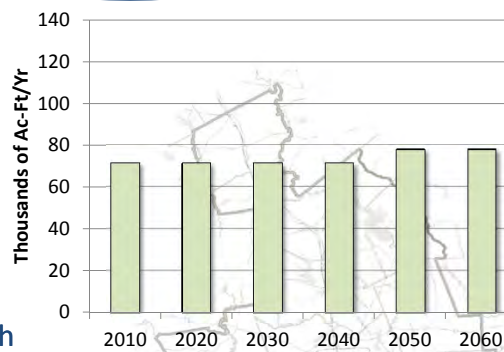


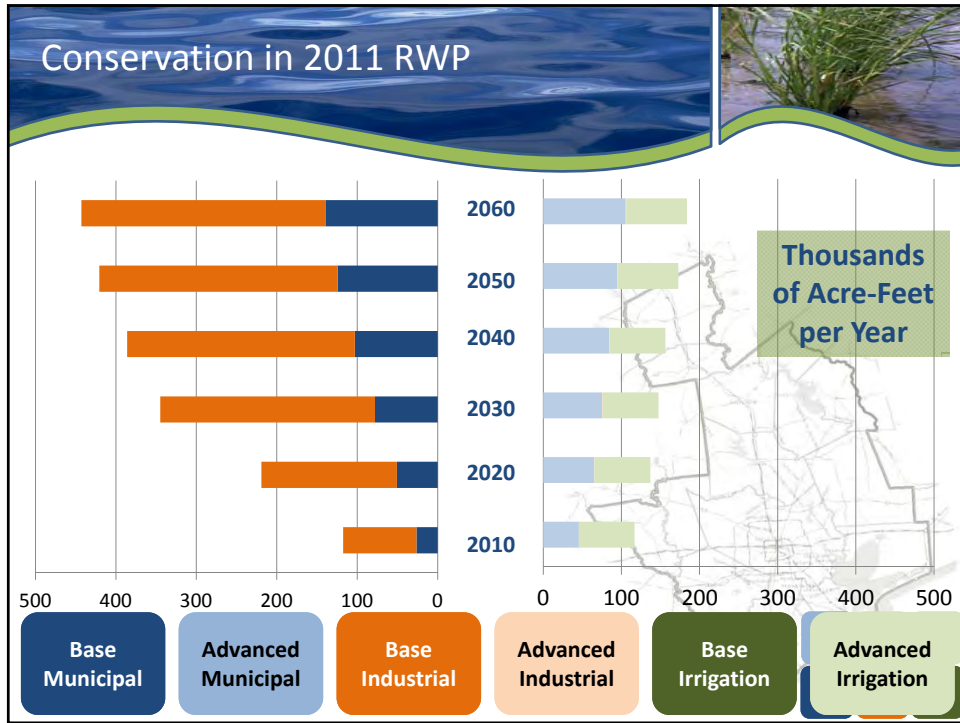
## Conservation in 2011 RWP



### Advanced Irrigation

- On-farm and conveyance
- Developed by Region H with resources from TAMU
- Up to 18% savings
- Specific WMS in Plan





### Where Can We Improve?

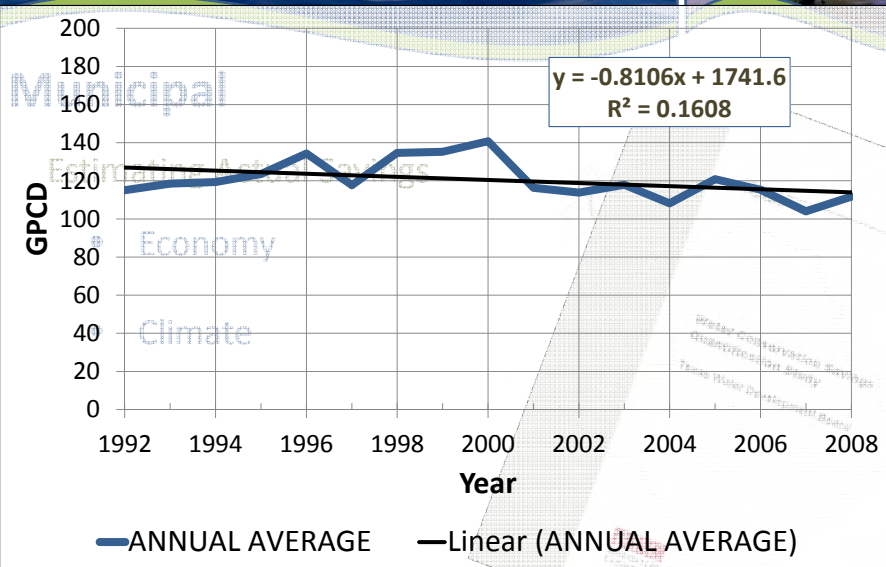
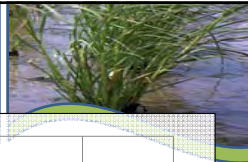
<b>Municipal</b>	<b>Data, data, data...</b>
<b>Industrial</b>	<b>Reaching out to industry</b>
<b>Irrigation</b>	<b>Accounting for progress</b>



## Municipal

### A Wealth of Data

- Water Loss
- Water Conservation Implementation



Toward Estimates that Work



## Industrial

Reaching Out

- Conservation as a business model



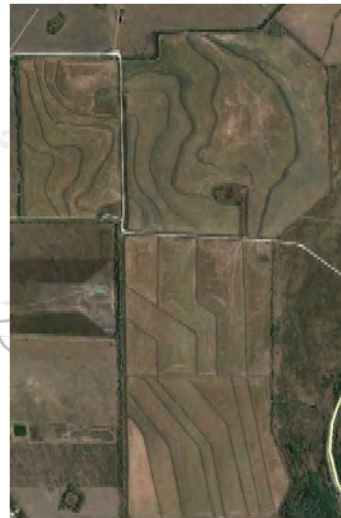
Toward Estimates that Work



## Irrigation

Realistic Expectations

- Evaluate current improvements
- Options for implementation



## Wrap Up: Region H Conservation...



### **Is...**

- Planning instrument
- Conservative
- Target to exceed
- Work in progress
- Constantly improving

### **Is Not...**

- Implementation plan
- Ambitious
- Target to meet
- Final answer
- Unchanging Number





## Agenda Item 8

Consider and take action to approve the development and submittal of a letter of support for the Luce Bayou Interbasin Transfer Project.







**REGION H WATER PLANNING GROUP**  
**Senate Bill 1 - Texas Water Development Board**

c/o San Jacinto River Authority  
P. O. Box 329, Conroe, Texas 77305  
Telephone 936-588-1111 Facsimile 936-588-3043

December 5, 2012

**Agricultural**  
Robert Bruner  
Pudge Wilcox

**Counties**  
John Blount  
Judge Mark Evans, Chair  
Judge Art Henson

**Electric Generating Utilities**  
Ted Long

**Environmental**  
John R. Bartos,  
Executive Committee

**Groundwater Management Areas**  
David Bailey  
Kathy Jones

**Industries**  
Gená Leathers  
Glynn Leiper

**Municipalities**  
Jun Chang  
Robert Istre

**Public**  
Carl Masterson

**River Authorities**  
John Hofmann  
Jace Houston, Secretary  
Kevin Ward

**Small Businesses**  
Judge Bob Hebert  
John Howard  
Steve Tyler

**Water Districts**  
Marvin Marcell  
Ron Neighbors, Vice-Chair  
Jimmy Schindewolf

**Water Utilities**  
James Morrison  
William Teer  
C. Harold Wallace,  
Executive Committee

Mr. Jayson M. Hudson  
Regulatory Branch, CESWG-PE-RB  
U.S. Army Corps of Engineers (Corps)  
P.O. Box 1229  
Galveston, Texas 77553-1229

**Subject: Luce Bayou Interbasin Transfer Project (LBITP)**  
Draft Environmental Impact Statement (DEIS)  
Department of the Army (DA) Permit Application No. SWG-2009-00188

Dear Mr. Hudson:

The Region H Water Planning Group (Region H) held a regular public meeting on December 5, 2012 at which official action was taken to recommend the submittal of a letter of support for the Luce Bayou Interbasin Transfer Project (LBITP). This letter is submitted on behalf of Region H for support of the Luce Bayou Interbasin Transfer Project and the above referenced Draft Environmental Impact Statement (DEIS) for the project currently under review by your agency.

Region H is responsible for the development of the long-term Regional Water Plan and represents the water needs of our 15 county region including Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Leon, Liberty, Madison, Montgomery, Polk, San Jacinto, Trinity, Walker, and Waller Counties. Region H represents approximately a quarter of the State's population and has the largest combined municipal and industrial water needs in the State. The Luce Bayou Interbasin Transfer Project is a cornerstone water project in the Region H Regional Water Plan and is critical to meeting the long-term water needs of our very important region.

We offer our support for the project and respectfully request that your agency provide a favorable review of the DEIS, allowing this critical water supply project to be implemented for the benefit of our region.

Sincerely,

Mark Evans  
Chair, Region H Water Planning Group



## Agenda Item 9

Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Planning Group.



Agenda Item 9  
Community Outreach



Receive report regarding recent and upcoming activities related to communications and outreach efforts on behalf of the Region H Planning Group.



Agenda Item 9  
Community Outreach



- Water Efficiency Network  
September 20<sup>th</sup>



