

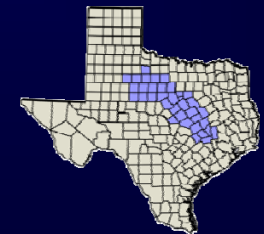
Agenda Item 6.8
Overview of the Initially Prepared
2011 Brazos G Regional Water Plan

Brazos G Regional Water Planning Group

February 3, 2010

BRAZOS G
WATER PLANNING GROUP

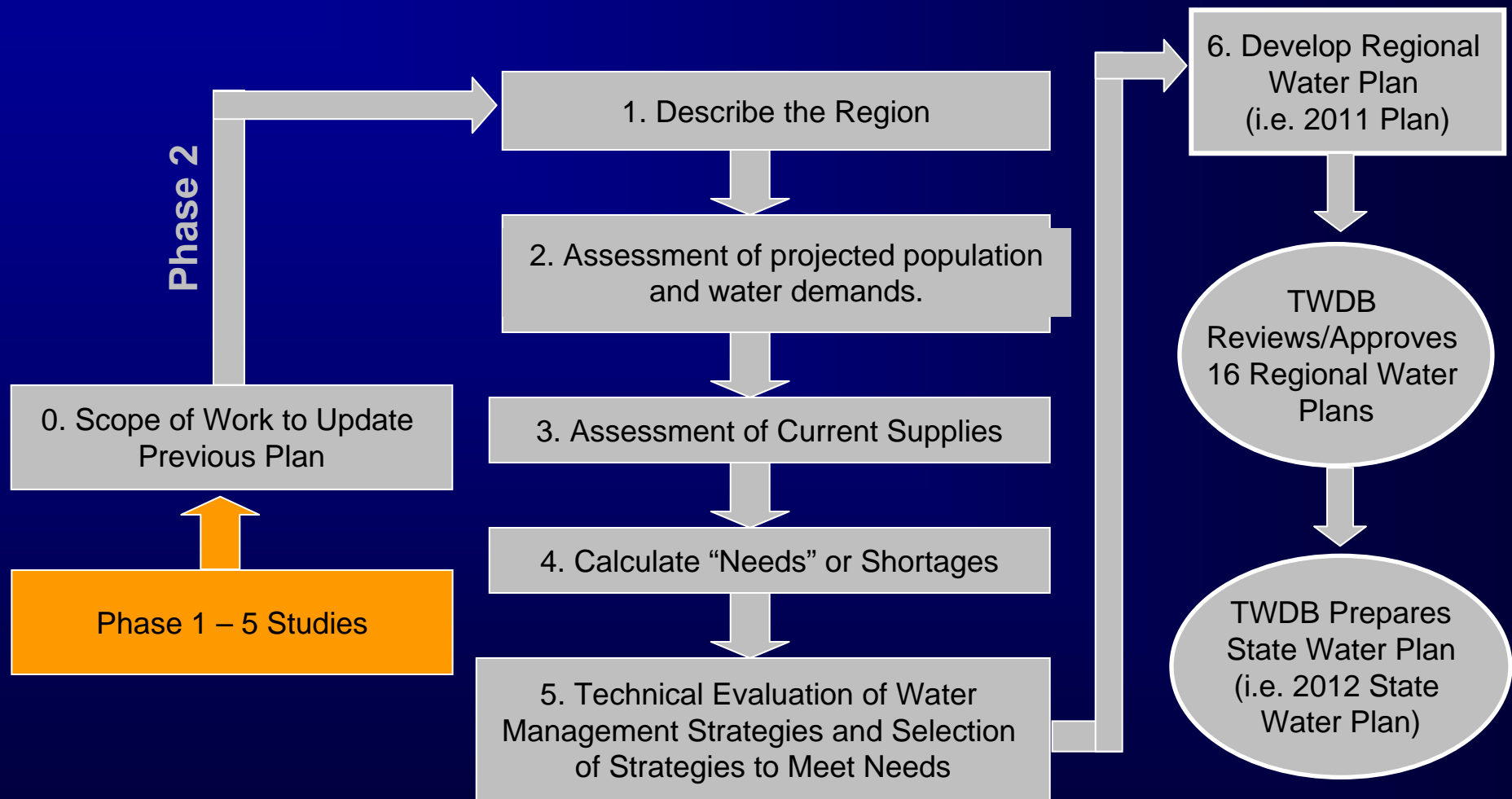
HDR



Presentation Overview

- 1. Provide overview of DRAFT IPP**
- 2. Discuss specific questions/concerns**
- 3. Next steps**

Regional Water Planning



Plan Contents

Executive Summary

Section 1. Description of Region

Section 2. Population and Water Demands

Section 3. Water Supplies

Section 4A. Comparison of Supplies and Demands

Section 4B. Evaluations of Strategies (Volume II)

Section 4C. WUG and WWP Plans

Section 5. Impacts on Water Quality and Moving Supplies from Rural Areas

Section 6. Water Conservation and Drought Management Recommendations

Section 7. Consistency with Long-Term Protection of Resources

Section 8. Legislative and Policy Recommendations

Section 9. Water Infrastructure Funding Recommendations

Section 10. Adoption of Plan

Appendices

Section Summaries

Executive Summary

- Summarizes/highlights plan elements
- Not complete

Section 1. Description of Region

- Population/water use trends, physiography, other pertinent info
- Complete (68 pages)

Section 2. Population and Water Demands

- Population projections (describes revision process)
- Per capita usage
- Water demand projections for all uses
- Complete (42 pages)

Section 3. Evaluation of Current Water Supplies

- Surface water (WAM analyses, etc.)
- Groundwater (GMA process, etc.) (Appendix B)
- Summary only (detail in Appendix C)
- Complete (54 pages)

Section Summaries

Section 4A. Comparison of Supplies and Demands

- Allocation of surface and groundwater supplies
- Constraints on supplies
- Projected needs (shortages)
- Summaries for Wholesale Water Providers
- Complete (63 pages)

Section 4B. Technical Evaluations of Water Management Strategies

- 4B.1 – Introduction
 - ✓ Technical bases for evaluations
 - ✓ Region's position on Drought Management as a strategy
 - ✓ Guidance regarding funding/permitting of small strategies
- 4B.2 – 4B.21: Volume II (actual evaluations)
- Complete (10 pages)

Section Summaries

Section 4C. Water Supply Plans

- **WUG plans presented in 37 individual county sections**
- **Wholesale Water Provider Plans**
- **Section 4C.39 – Summary table of “New” Supplies**
- **Complete (252 pages)**

Section 5. Impacts on Water Quality and Rural Areas

- **11 key water quality parameters**
- **No impacts expected to rural water users**
- **Impacts described in qualitative fashion**
- **Complete (4 pages)**

Section Summaries

Section 6. Water Conservation and Drought Management Recommendations

- Summarize conservation savings in the plan
- Presents example conservation and drought plans (Waco and Abilene) (in appendix)
- Includes statements encouraging conservation
- Complete (4 pages)

Section 7. Consistency with Long-Term Protection of the State's Water, Agricultural, and Natural Resources

- Cumulative effects analysis (streamflows)
 - ✓ Base condition compared to with-Plan condition
 - ✓ 8 locations (one in Region H)
 - ✓ Only "New" supplies included (12 strategies)
 - ✓ Generally, moderate reductions in streamflows
- Groundwater effects considered to be within Desired Future Conditions
- Complete (18 pages)

Section Summaries

Section 8. Legislative and Policy Recommendations

- Not complete, pending decisions on Feb 3, 2010

Section 9. Water Infrastructure Funding Recommendations

- TWDB will assist with survey – how will projects be funded?
- BGRWPG will need to formulate recommendations based on survey
- HDR will compile survey and include in final plan with recommendations
- Not complete, pending survey this spring

Section 10. Adoption of the Plan

- Document public participation and information dissemination
- Document procedures followed for plan adoption
- Document comments received on IPP and responses to all comments
- Not complete, pending receipt of IPP comments

Section Summaries

Appendices

- Historical/Supplemental data
- • **Aquifer Descriptions and Groundwater Availability Analyses**
- • **Comparison of Water Demands, Supplies and Needs**
- Water Rights – Permitted and Actual Use
- Detailed Description of Vegetative Regions and Biotic Provinces
- Detailed Information for Agricultural Resources
- Surface Water Supplies
- Consensus Criteria for Environmental Flow Needs
- • Social and Economic Impacts of Not Meeting Projected Water Needs
- Model Water Conservation and Drought Management Plans
- Water Conservation Case Study
- • Phase 1 Report Summaries
- • Written Comments Received Concerning the IPP

Section Summaries

Volume II – Technical Evaluations of Water Management Strategies

- **Sections 4B.2 – 4B.21**
- **Updates to 2006 evaluations**
- **New strategies evaluated**
 - ✓ **Revised BRA System Operations**
 - ✓ **Revised Lake Granger Augmentation**
 - ✓ **Champion Well Field and Oak Creek Res. Conjunctive Use**
 - ✓ **Augmentation of Millers Creek Reservoir – Downstream Dam Site**
 - ✓ **Coryell County Off-Channel Reservoir**
 - ✓ **54 Misc. Strategies (pipelines, treatment, wells)**
 - ✓ **Storage Reallocation of Federal Reservoirs**
 - ✓ **Upper Basin Chloride Control Project**
 - ✓ **Belton to Stillhouse Pipeline**
 - ✓ **Lake Aquilla Augmentation (Whitney to Aquilla)**
- **Amendment Packages from 2006 Plan**

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Conservation Strategies			
Municipal	35 WUGs	19,461	N/D ¹
Manufacturing	6 Counties	1,016	N/D
Steam-Electric	6 Counties	11,803	N/D
Mining	3 Counties	973	N/D
Irrigation	5 Counties	7,041	N/D
Total Conservation		40,294	N/D

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Reuse Strategies			
Reuse	City of Abilene	5,500	N/D
	City of Cleburne	4,533	N/D
	City of Bryan	605	\$6,485,000
	City of College Station	312	\$3,292,000
	Steam Electric – Bell County	8,407	\$17,404,000
	Steam-Electric – Robertson County	15,479	\$23,126,000
	City of Waco	15,765	N/D
	Steam-Electric – Grimes County	11,000	\$33,647,000
	Steam-Electric – Robertson County	11,000	\$23,126,000
	City of Round Rock	7,443	\$6,390,000
Total Reuse		80,044	\$113,470,000

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Water Supply from other Regions			
BCRUA	Chisholm Trail SUD	3,472	\$13,264,000
	City of Round Rock	20,928	\$147,264,000
	City of Leander	7,039	\$169,147,000
	City of Cedar Park	12,620	\$61,858,000
TRWD	Bethesda WSC	2,496	N/D
City of Arlington	Bethesda WSC	1,248	\$16,334,000
City of Grand Prairie	Johnson County SUD	6,726	\$35,646,000
Mansfield	Johnson County SUD	10,080	\$27,183,000
Total from Other Regions		64,609	\$470,696,000

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Augmentation of Existing Surface Water Supplies			
Lake Palo Pinto Off-Channel Reservoir	Palo Pinto County MWD No. 1	7,600	\$50,227,000
Millers Creek Reservoir Augmentation	North Central Texas Municipal Water District	17,582	\$46,948,000
Raise Level of Gibbons Creek Reservoir	Steam-Electric – Grimes County	3,870	\$11,312,000
BRA System Operation (Lake Granger Augmentation)	Chisholm Trail SUD	39,494	\$303,288,000
	Jonah Water SUD		
	City of Round Rock		
	Williamson County – Other		
Total Augmentation of Existing Surface Water Supplies		68,546	\$411,775,000

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
<i>New Reservoirs</i>			
Groesbeck Off-Channel	City of Groesbeck	1,755	\$10,412,000
Coryell County	BRA – Little River	3,365	\$37,489,000
Millican Panther Creek	BRA – Main Stem	194,500	\$1,159,907,000
Cedar Ridge	City of Abilene	23,380	\$285,214,000
Brushy Creek Reservoir	City of Marlin	2,400	\$36,673,000
Total New Reservoirs		225,400	\$1,529,695,000

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Systems Approaches			
BRA System Operation (Excluding Lake Granger Augmentation)	Cleburne	1,530	\$9,337,000
	Bosque County – Steam Electric	5,222	\$17,125,000
	White Bluff Community WSC	600	\$6,533,000
	City of Keene	157	\$1,847,000
	Woodrow-Osceola WSC	150	\$4,744,000
	Somervell County – Steam Electric	76,270	\$47,866,000
Total from Systems Approaches		83,929	\$87,452,000

What is In the Plan?

Strategy	WUG or WWP	New Supply by 2060 (acft/yr)	Total Project Cost (September 2008 Prices)
Groundwater Development			
Carrizo-Wilcox Aquifer – Limestone County	Manufacturing – Limestone County	75	\$347,000
	City of Kosse	100	\$624,000
	Bistone MWSD	3,600	\$12,277,000
Champion Well Field Expansion	City of Sweetwater	1,000	\$15,015,000
Carrizo-Wilcox Aquifer – Lee and Milam Counties [BRA System Operation (Lake Granger Augmentation)]	Williamson County entities, see BRA System Operation (Lake Granger Augmentation) (above)	30,832 ²	\$229,822,000
Carrizo-Wilcox Aquifer – Brazos County	City of College Station	5,400	\$28,101,000
	Wickson SUD		
Carrizo-Wilcox Aquifer – Lee County	Aqua WSC	403	\$1,364,000
	Lee County WSC	806	\$2,166,000
Carrizo-Wilcox Aquifer – Milam County	Southwest Milam WSC	966	\$3,502,000
	Mining – Milam County	100	\$715,000

What is In the Plan?

<i>Strategy</i>	<i>WUG or WWP</i>	<i>New Supply by 2060 (acft/yr)</i>	<i>Total Project Cost (September 2008 Prices)</i>
Groundwater Development			
Edwards-Trinity Nolan County	Mining – Nolan County	114	\$679,000
Trinity Aquifer – McLennan County	Chalk Bluff WSC	230	\$2,707,000
	Western Hills WSC	198	\$1,073,000
Trinity Aquifer – Hood County	Lipan	685	\$8,524,000
	Tolar	150	\$1,286,000
Trinity Aquifer – Johnson County	Parker WSC	160	\$2,045,000
Trinity Aquifer – Williamson County	City of Florence	322	\$1,087,000
Gulf Coast Aquifer – Grimes County	Steam Electric – Grimes County	5,600	\$31,630,000
Total Groundwater Development		49,742	\$342,964,000

What is In the Plan?

Total New Supply: 612,564 acre-feet per year

Total Capital Cost: exceeds \$2.956 billion

Questions/Concerns?

Next Steps

January 6: DRAFT WUG and WWP plans posted

January 12, 13, 14: Sub-regional meetings

- Obtain input from stakeholders before publication of IPP
- Make final revisions

February 3: Final review and approval of IPP

February 4 – 19: Final edits, complete missing portions

February 19 – 26: Printing

March 1: Submit IPP to TWDB

March 1 – 5: Mail plans to counties and libraries

March 8 – 12: Notice of public hearing

Mid-April: Public hearing on IPP

Spring/summer: TWDB and agency review of IPP

July: Review comments and updates to IPP

September 1: Final 2011 Plan submitted to TWDB

Questions?

Hannibal Smith, modern philosopher:

“I love it when a plan comes together.”

