

# Lower Colorado Regional Water Planning Group Meeting September 9, 2009

# Agenda Item #9

## Consultant Status Report

## **Consultant Status Report Agenda Items**

- Chapter 1 (Planning Area Description) Major Updates from 2006 Plan
- Chapter 2 (Population and Water Demand) Updates since last meeting
- Supply Analysis Updates since last meeting
- Conservation and Drought Contingency Plan data
- Criteria to be used for Evaluating WMS Impacts to Environmental Flows
- Schedule and Upcoming Tasks

## Chapter 1 (Planning Area Description) Major Updates

- Update of Endangered/Threatened Species Lists (Appendix 1A)

County	2006 Plan Species	New Species	Endangered/Threatened Species Current Total
Bastrop County	19	12	31
Blanco County	22	14	36
Burnet County	22	17	39
Colorado County	22	9	31
Fayette County	17	8	25
Gillespie County	28	9	37
Hays County	39	12	51
Llano County	27	9	36
Matagorda County	38	9	47
Mills County	15	11	26
San Saba County	19	13	32
Travis County	40	10	50
Wharton County	19	7	26
Williamson County	23	16	39

Source: Texas Parks and Wildlife, January 2009

## **Chapter 1 (Planning Area Description) Major Updates**

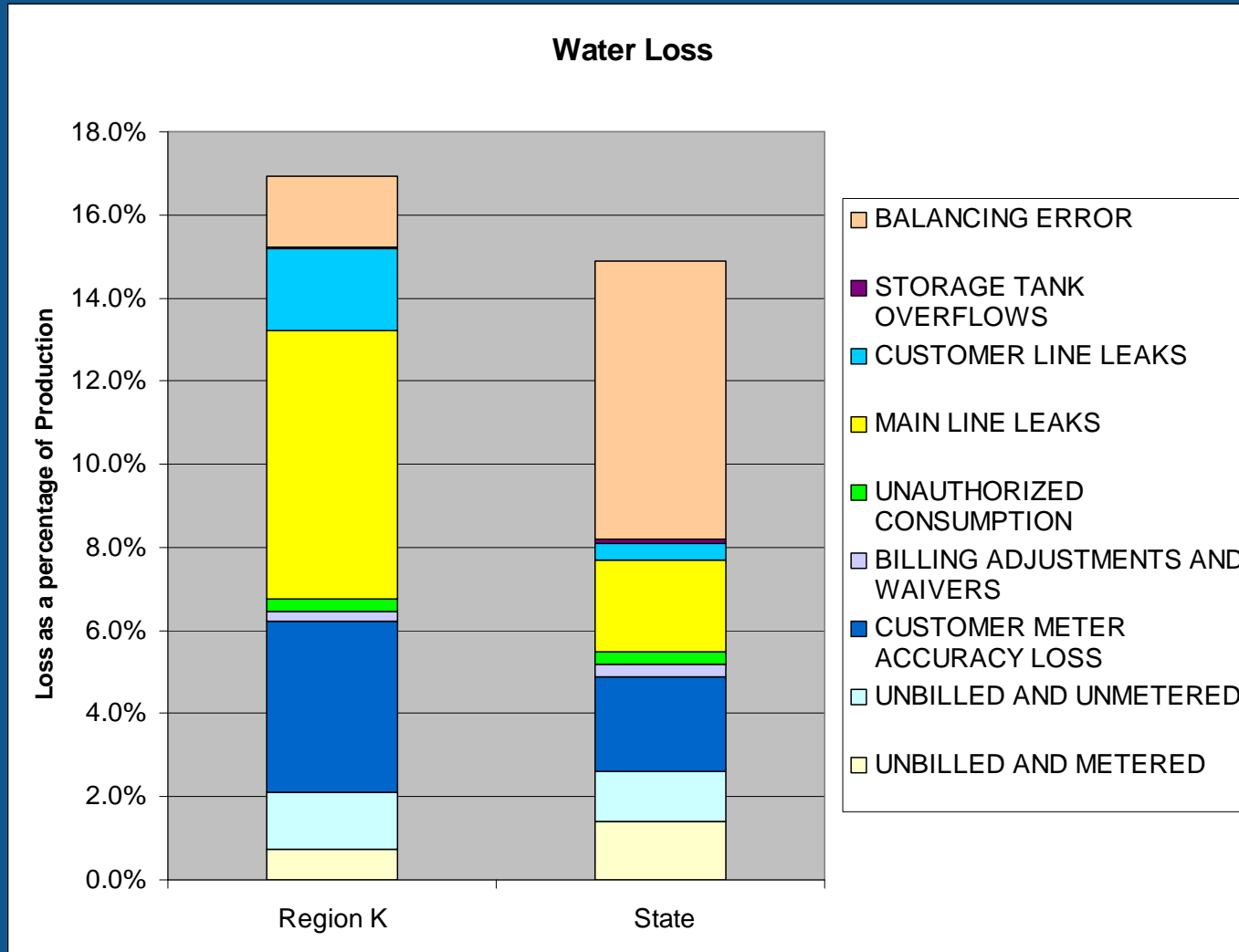
- Added Yegua-Jackson Aquifer to Minor Aquifers figure and text
- Added description of SH 130 / SH 45 corridors to population trend section
- Added discussion of 2006 FINS as an update to the 1997 FINS
- Updated stream segment water quality impairment and concerns data
- Added information regarding the LCRA WMP Highland Lakes trigger levels for allocation of interruptible supplies

## **Chapter 1 (Planning Area Description) Major Updates**

- Updated GCD information
- Added section on GMAs
- Updated Water Conservation Plan / Drought Contingency Plan information
- Added TWDB-provided data on Water Loss Audits

# Chapter 1 (Planning Area Description) Major Updates

## - Water Loss Comparison between Region K and the State



## Chapter 1 (Planning Area Description) Major Updates

- Hard copies of Draft (with track changes) available for PG members to review
- Large file size
- Can post a “clean” PDF version on Region K website if PG members wish
- If you want to make your comments electronically, email me and I will send you the Word document version.
- Otherwise, you can phone, fax, mail, email, or hand me your comments at the October 14 Region K meeting.

## Chapter 2 (Population and Water Demands)

- City of Meadowlakes (Burnet Co.) has an over-projected population...they are currently close to build-out.
- Steam-electric demands in Bastrop County may be too high. (Same demands as 2006 Plan) LCRA is verifying.
- Revisions to population/demand numbers would require another public comment period.
- Shortages for both WUGs use a strategy of purchasing water from LCRA.
- Want to keep in mind for next planning cycle.

## **Chapter 2 (Population and Water Demands)**

- Have updated Chapter 2
- Changes to
  - Methodology
  - Municipal Populations and Demands
  - Steam-Electric Demands
  - LCRA contract information
  - City of Austin service area demands
- Will mail out Chapter 2 by next week
- Same review status as Chapter 1

## Supply Analysis Updates

- City of Leander contract with LCRA has increased from 6,400 ac-ft to 24,000 ac-ft
  - Revised WAM and reran to determine impacts
  - Impacts only to “Additional Highland Lakes Contracts” and “Uncommitted System Yield” portions of Highland Lakes Firm Yield
  - No negative impact to HL firm yield

## Supply Analysis Updates

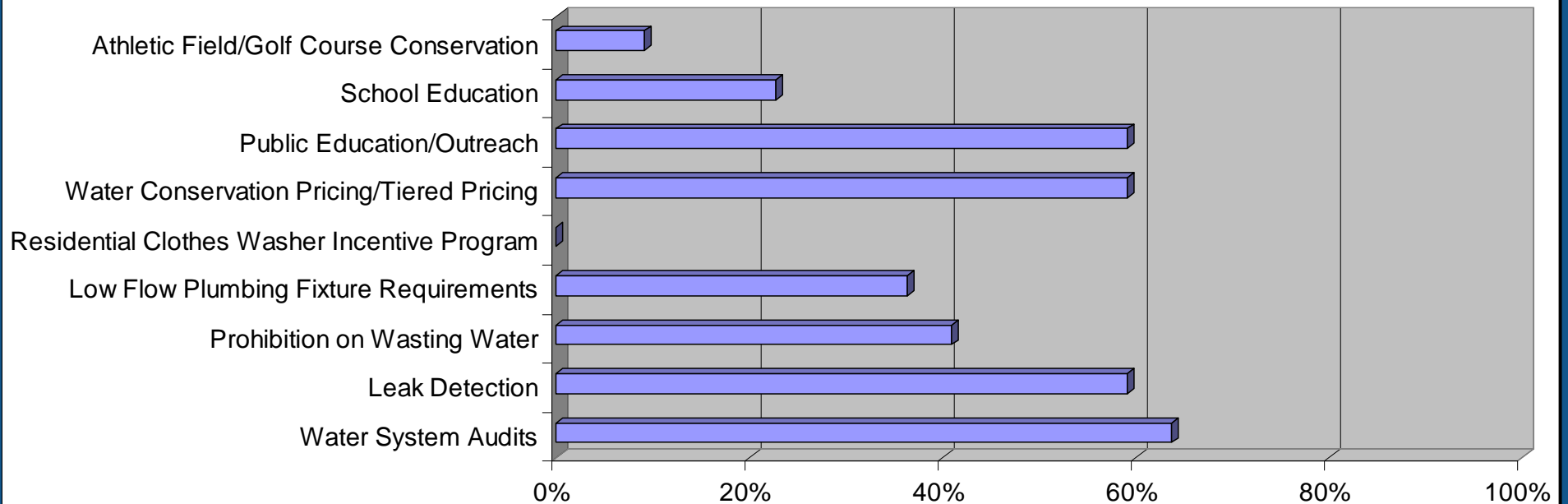
- Received information from Fayette County GCD regarding Yegua-Jackson Aquifer availability and pumpage rates for permittees.
  - Yegua-Jackson availability for Fayette County = 20,000 ac-ft/yr, split by % of basin area for Colorado, Lavaca, and Guadalupe basins.
  - Revised supply numbers using permitted pumpage rates for City of Flatonia and City of Schulenburg. (Includes supplies from Yegua-Jackson)
  - Further updates are recommended for the next planning cycle.

## **Conservation and Drought Contingency Plan Data**

- Surveys sent out to Water Utilities requesting information on:
  - Conservation Measures (current and future)
  - Effectiveness of current conservation measures
  - Water usage reduction goals (5-yr, 10-yr)
  - Drought contingency measures (and impacts)
  - Copies of Water Conservation and Drought Contingency Plans
- Responses received (to-date) from ~ 22 utilities
  - Both cities and smaller County-Other water systems

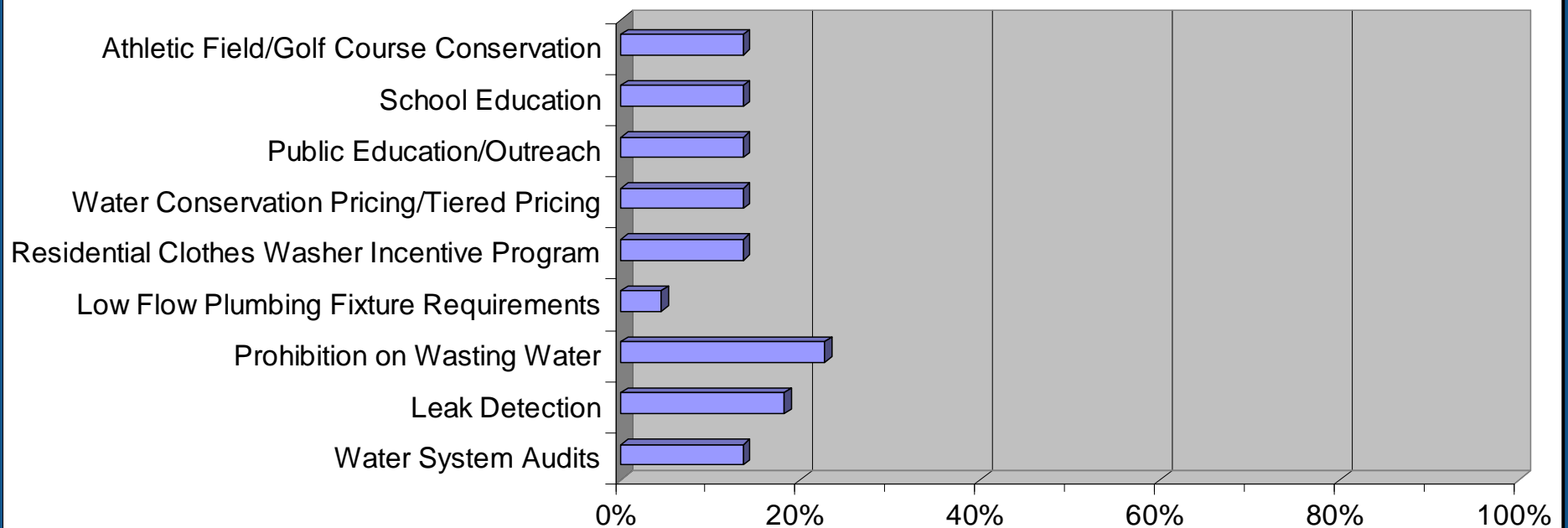
# Conservation and Drought Contingency Plan Data

## - Existing Municipal Conservation Measures



# Conservation and Drought Contingency Plan Data

## - Future Municipal Conservation Measures



## Conservation and Drought Contingency Plan Data

- Most effective conservation measure appears to be tiered pricing.
- Most common drought contingency measure is water use restrictions.
- Water usage reduction goals varied between “none planned” and “10% over 10 years”
- Impacts of Survey
  - Consider using individual responses as part of determining amount of Conservation used as a strategy for a WUG.
    - Not practical for County-Other

## **New Criteria for Evaluating Environmental Impacts of Water Management Strategies**

- Purpose of criteria: to provide a benchmark for the comparison of the streamflow in the Lower Colorado River Basin both with and without a specific water management strategy implemented
  
- Measures used in Phase 1
  - 10<sup>th</sup> Percentile
  - 7Q2 Flows
  
- Revised measures for this Phase (Phase 2)
  - Environmental Flows subcommittee met to discuss new criteria
  - Decided flow criteria determined in two LSWP-related studies represent the latest scientific investigations of environmental flow needs for the Lower Colorado River Basin
  - The Plan will state that “use of criteria does not mean all PG members endorse the results of the studies”

## **New Criteria for Evaluating Environmental Impacts of Water Management Strategies**

- Instream Flows
  - Use “Instream Flow Guidelines” report developed for LCRA and SAWS
  - Recommended criteria provided for 4 reaches
    - Austin reach
    - Bastrop reach
    - Columbus reach
    - Wharton reach
  - Subsistence Flows (minimum conditions)
  - Base Flows – dry conditions
  - Base Flows – average conditions

## New Criteria for Evaluating Environmental Impacts of Water Management Strategies

### - Instream Flow Recommended Criteria (Flow in cfs)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>AUSTIN REACH</b>												
Subsistence	50	50	50	50	50	50	50	50	50	50	50	50
<b>BASTROP REACH</b>												
Subsistence	208	274	274	184	275	202	137	123	123	127	180	186
Base-DRY	313	317	274	287	579	418	347	194	236	245	283	311
Base-AVERAGE	433	497	497	635	824	733	610	381	423	433	424	450
<b>COLUMBUS REACH</b>												
Subsistence	340	375	375	299	425	534	342	190	279	190	202	301
Base-DRY	487	590	525	554	966	967	570	310	405	356	480	464
Base-AVERAGE	828	895	1,020	977	1,316	1,440	895	516	610	741	755	737
<b>WHARTON REACH</b>												
Subsistence	315	303	204	270	304	371	212	107	188	147	173	202
Base-DRY	492	597	531	561	985	984	577	314	410	360	486	470
Base-AVERAGE	838	906	1,036	1,011	1,397	1,512	906	522	617	749	764	746

## **New Criteria for Evaluating Environmental Impacts of Water Management Strategies**

- **Bay and Estuary Freshwater Inflows**
  - Use “Matagorda Bay Health Evaluation” Study developed for LCRA and SAWS
  - Recommended criteria provided for 6 levels
    - Long-Term Average (1.4 to 1.5 million ac-ft/yr)
    - Threshold (15,000 ac-ft/month)
    - MBHE 1
    - MBHE 2
    - MBHE 3
    - MBHE 4
  - Spring Onset (3 consecutive months from Jan-May)
  - Fall Onset (3 consecutive months from Aug-Oct)
  - Intervening 6 months

## New Criteria for Evaluating Environmental Impacts of Water Management Strategies

### - MBHE Criteria (Ac-Ft)

Regime	Spring	Fall	Intervening
MBHE 1	114,000	81,000	105,000
MBHE 2	168,700	119,900	155,400
MBHE 3	246,200	175,000	226,800
MBHE 4	433,200	307,800	399,000

## New Criteria for Evaluating Environmental Impacts of Water Management Strategies

- New strategies and the LSWP strategy will be evaluated.
- Goal is to compare frequency of the “base” model meeting the criteria versus the “base plus strategy” model meeting the criteria.

### Example:

- “Base” model meets X criteria 30% of the time
- “Base plus strategy” model meets X criteria 28% of the time
- Result = negative impact
- “Significant” negative impacts of a desired strategy may require further analysis

## Upcoming Tasks

- Meeting proposed for week of Sep 28 – Oct 2 to go over proposed water management strategies in more detail – using evaluation criteria
  - Any interested PG member is welcome
- Unique Stream Segments and Reservoir Sites
  - Need committee meeting to discuss legislative recommendations

## Schedule

- Sept 9, 2009 Management Strategies  
(Ch. 1 handed out, Ch. 2 mailed out)
- Oct 14, 2009 Remaining WMS issues and WMS Impacts  
(Ch. 3 and 6 handed out, Ch. 1 and 2 comments due)
- Nov 11, 2009 Ch. 3 and 6 comments due;  
Ch. 4, 5, 7, 8, and 9 handed out
- Dec 9, 2009 Tentative Region K meeting
- Jan 13, 2010 Address Chapter comments, hand out  
Draft IPP
- Feb 10, 2010 Adopt IPP
- Late Feb 2010 Hold public hearing
- March 1, 2010 Submit IPP to TWDB
- Sep 1, 2010 Submit Adopted Region K Plan to TWDB