

Agenda Item 6.11

Coordination of Water Supplies between Brazos G and Region H

November 11, 2009



BRA System Operations - WMS

- ✓ **Pending Water Right Application at TCEQ**
 - ✓ **Seeks additional appropriation of water through system operation of water rights and reservoirs**

- ✓ **Evaluated under two tasks:**
 - ✓ **Determine maximum amount of Sys-Ops Water Available**
 - ✓ **Existing Contractual Obligations**
 - ✓ **Future Sedimentation Conditions**
 - ✓ **Brazos G 2060 Return Flow Estimates**
 - ✓ **Determine potential for Sys-Ops to meet specific WUG needs**

BRA Sys-Ops Modeling

- ✓ **Brazos G 2060 WAM – Supply Version**
- ✓ **TCEQ Brazos WAM files containing latest Sys-Ops Methodology**
 - **Includes Allens Creek Reservoir**
 - **Complex Instream Flow Requirements**
- ✓ **System Diversion simulated at Richmond**
 - **Maximizes Unregulated Flow**
 - **Allows for Releases from Multiple Reservoirs**

Brazos G – Maximum Utilization of Sys-Ops

- ✓ **Same Contract Reliability as the 2060 Supply Run**
- ✓ **Luminant Amendment – Additional 76,270 acft/yr of Sys-Ops Water taken from Granbury and Possum Kingdom**
- ✓ **Remaining Sys-Ops diversion at Richmond = 137,000 acft/yr**

Brazos G WUG needs met with Sys-Ops Water

- ✓ **BRA selected 17 WUGs in 7 Counties as candidates for Sys-Ops supply**
- ✓ **Combined WUG need – about 14,000 acft/yr**
- ✓ **Resulting Sys-Ops water available at Richmond = 125,000 acft/yr**

Brazos G 2006 Sys-Ops Analysis

Building Blocks

Brazos G 2006 Sys-Ops Analysis

Permitted
Authorization
(761,551)

Sum of Firm
Yield
(714,576)

BRA
Contractual
Commitments
(600,946)

Brazos G 2060
Return Flows
(144,105)

Brazos G
Sys-Ops
Obligations
(65,482)

Region H
Sys-Ops Amount
(~~248,650~~/ 218,650)

Brazos G 2011 Sys-Ops Analysis

**Building
Blocks**

Brazos G 2011 Sys-Ops Analysis

Permitted
Authorization
(761,551)

Sum of Firm
Yield
(726,526)

BRA
Contractual
Commitments
(670,859)

Brazos G 2060
Return Flows
(128,503)

Brazos G
Sys-Ops
Obligations
(90,197)

Region H
Sys-Ops
Amount
(125,000)

Differences in 2006 and 2011 Sys-Ops Analysis

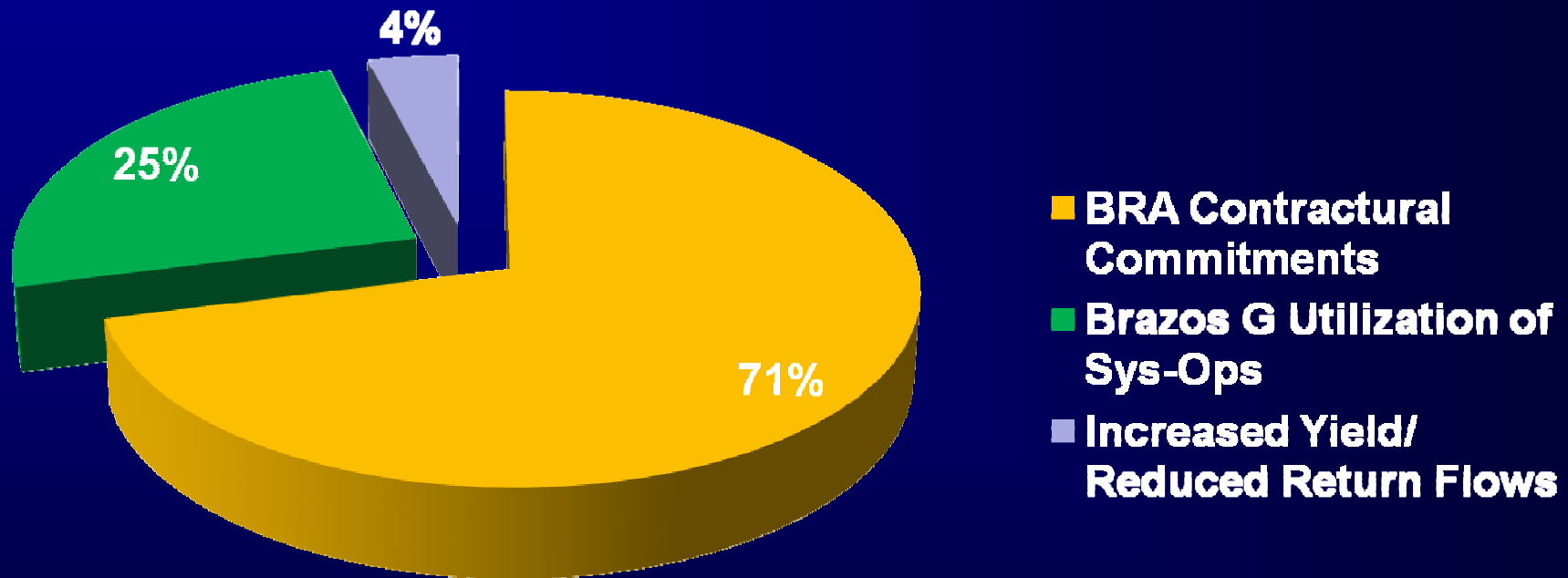
Building Blocks

Differences in 2006 and 2011 Sys-Ops Analysis



Comparisons of 2006 and 2011 Analysis

✓ Net Impact to Region H = - 93,650 acft/yr



Conclusions

- ✓ **BRA Sys-Ops Supply to Region G = 90,197 acft/yr**
- ✓ **BRA Sys-Ops Supply to Region H = 125,000 acft/yr**
 - **BRA increased contractual commitments and Luminant Amendment make up the bulk of the difference from the 2006 plan**