



# 2016 Llano Estacado Regional Water Plan

## Planning Group Meeting

April 15, 2015  
Lubbock, Texas



**DBS&A**  
*Daniel B. Stephens & Associates, Inc.*



High Plains  
Underground Water  
Conservation District



Espey



PARKHILL SMITH & COOPER





# Agenda Item 5 - Executive Summary

- Provides summary of 2016 Region O Plan
  - Overview of current water plan and process
  - Planning area description
  - Population and water demand projections
    - WUG category summary (handout)
  - Water availability and existing water supplies
    - Existing water supply (handout)
    - Source water balance (handout)





# Agenda Item 5 - Executive Summary

- Provides summary of 2016 Region O Plan
  - Identification of water needs
    - WUG needs or surplus (handout)
    - Second tier needs analysis (not available yet)
  - Water management strategies
    - Table ES-1 summary of recommended WMSs
  - Impacts of the regional water plan
    - Unmet needs (not available yet)





# Agenda Item 5 - Executive Summary

- Provides summary of 2016 Region O Plan
  - Drought response information, activities, and recommendations
  - Unique stream segments, reservoir sites, and other recommendations
  - Reporting of financing mechanisms for water management strategies
    - Survey to be conducted on financing for WMS implementation for final plan (results not available yet)





# Agenda Item 5 - Executive Summary

- Provides summary of 2016 Region O Plan
  - Adoption of plan and public participation
    - Public hearing on IPP later this year
    - Address comments to IPP
  - Implementation and comparison to the previous regional water plan
    - Survey being conducted on level of implementation of 2011 recommended WMSs
- Key findings and recommendations





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  - 5.0 Introduction, types of potentially feasible strategies, evaluation process
  - 5.1 Evaluations
  - 5.2 Management Supply Factor
  - 5.3 Recommended WMSs
    - Appendix 5A County summaries





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  1. Municipal Water Conservation
  2. Agricultural Water Conservation
  3. Manufacturing Water Conservation
  4. Local Groundwater Development
  5. Water Reuse
  6. Brush Management
  7. Cloud Seeding





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  8. Playa BMPs
  9. Rainwater Harvesting
  10. Drought Management
  11. Brackish Groundwater Desalination
  12. Water Transfers
  13. Water Importation
  14. Electric-Dry Power Generation







# Agenda Item 5 - Chapter 5

- Water Management Strategies
  15. Direct Potable Reuse to South WTP
  16. Direct Potable Reuse to North WTP
  17. North Fork Diversion at County Road 7300
  18. South Fork Discharge
  19. North Fork Diversion to Lake Alan Henry Pump Station
  20. Reclaimed Water to Aquifer Storage and Recovery





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  21. Bailey County Well Field Capacity Maintenance
  22. CRMWA Aquifer Storage and Recovery
  23. South Lubbock Well Field
  24. Brackish Well Field at South WTP
  25. Lake Alan Henry Phase 2
  26. Jim Bertram Lake 7
  27. Post Reservoir
  28. North Fork Scalping Operation





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  29. Conjunctive Use of Roberts County Well Field and Lake Meredith
  30. Expanded Development of Roberts County Well Field with Additional Transmission
  31. Infrastructure to Serve Areas Surrounding Lake Alan Henry





# Agenda Item 5 - Chapter 5

- Water Management Strategies
  - Potentially feasible WMSs
    - Evaluated by WUG (Table 5-1)
  - Recommended WMSs
    - All WMSs were recommended except for cloud seeding and water importation





# Agenda Item 5 - Chapter 5

- Water Conservation Recommendations
  - Municipal
    - *Administrative*: implement water loss audits and public education programs
    - *Residential indoor*: adopt indoor appliance upgrades and rebate programs
    - *Residential outdoor*: identify high-use residential outdoor water users and target water audit, education, and rebate programs at these customers
    - *Commercial*: encourage appliance upgrades and installation of commercial car wash water reclamation systems





# Agenda Item 5 - Chapter 5

- Water Conservation Recommendations
  - Agricultural
    - Continue the Texas Alliance for Water Conservation (TAWC) program public outreach and education efforts
    - Involve more Region O producers in the TAWC on-farm demonstrations
    - Consider further expanding the program to cover more of the Region O area





# Agenda Item 5 - Chapter 5

- Water Conservation Recommendations
  - Agricultural (continued)
    - Well service and equipment maintenance
    - On-farm flow metering
    - Voluntary implementation of drip/micro-irrigation systems, irrigation scheduling improvements, and other methods that are demonstrated to be practical and profitable.





# Agenda Item 5 - Chapter 5

- Water Conservation Recommendations
  - Industrial
    - Facility-specific water audits to identify and implement specific BMPs that are appropriate
    - Water waste-reducing activities (e.g., irrigation practices and scheduling, single-pass cooling, non-recycling decorative fountains, discharge of process water, and use of inefficient water softeners).
    - Install industrial submeters to help identify opportunities for conservation.







# Next Steps

- Acceptance of the draft Executive Summary and Chapter 5 for submittal
- IPP is due to the TWDB by May 1, 2015
- Number of hardcopies
  - 12 copies for the TWDB.
  - Hardcopies for Chairman Brown, Jim Steiert, and Bob Josserand. Any others?
  - Hardcopies or CDs for the County courthouses and libraries?
- Public hearing

