FIRST DRAFT OF THE PECOS RIVER WPP UPDATE

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WPP Update Overview

- Provides an incremental update to the WPP
- WPPs are meant to be living documents and incorporate an adaptive management component

Update Includes:
- Look at implementation progress
- Discussion of new information or arising needs
- Evaluation of water quality
Drought and Reservoir Releases

- Historic drought conditions influenced conditions in the river

- River flows from New Mexico to Texas have diminished

- Red Bluff Reservoir has ceased irrigation water deliveries and suspended their 12 cfs river maintenance flow
Salinity

- **Malaga Bend Project**
  - Began pumping brine January, 2013
  - Harvests salt from water evaporation ponds
  - Will decrease brine intrusion into the Pecos River

- **Salt Source ID Project**
  - Will identify salinity sources and help better understand the hydrology between Coyanosa and Girvin
    - More on this later!
Salinity

- New Mexico to Texas Water Delivery Scheduling
  - Drought has caused New Mexico to Texas water delivery to only be irrigation tail water
  - Endangered species flow requirements influence when reservoir releases occur

- Pecos River Watershed Assessment
  - Evaluation by the USACE to solve watershed management problems employing a basin wide approach
  - Only recommendations will result from this effort
Chemical Saltcedar Control

- 1,775 previously unsprayed acres on the river planned to be sprayed as part of WPP
  - Landowner interest along the river was low
  - Regrowth treatment was a larger concern

- 2,642 previously unsprayed acres actually sprayed along the main stem and tributaries

- About 1,600 additional acres signed up for spraying
Biological Saltcedar Control

- Crete and Tunisian beetles
- First released in 2006 and every subsequent year
- To date, 187,000 beetles released at 29 sites
  - Beetles are well established and dispersing on their own
- Need for future releases is minimal; monitoring where they are is a bigger need
Saltcedar Debris Burning

- Focused on river riparian areas to remove saltcedar debris left from spraying
- As of May 22, 2013, approximately 35 river miles have been burned
Brush Control

- Brush control was the top priority for resource management in the watershed.

- EQIP fund have supported 81,311 acres of brush control since 2008.
Water Quality Management Plans

- Goal to implement 20 WQMPs in first 3 years

- Currently there are 15 certified WQMPs and 2 in the process of being approved

- Initially focused on the river, but low landowner interest prompted SWCDs to allow their development away from the river
Riparian Revegetation

- Revegetation to date has been all natural

- Revegetation program needed to speed regrowth and promote native species growth
  - Natives are better adapted to harsh climates; better competitors with saltcedar
  - Native seed stocks are practically unavailable
  - Trans Pecos Native Plant Materials Initiative
    - Effort to expand native plant availability
    - Need collaborators and demonstration plots
Dissolved Oxygen

- Assessment of the problem was a big need
  - TIAER conducted a computer based evaluation of the problem and potential strategies to improve the impairment
    - More on this later

- Artificial Riffles
  - Not viewed as a favorable solution
  - Would require numerous riffles to increase minimum DO levels and would increase hydrologic modification
Well Plugging

- The Railroad Commission reports 14,928 known inactive oil and gas wells and 315 known orphan wells
  - Orphan wells are likely to be the problem wells
- Number of orphan wells reduced by 22 since WPP implementation began
- Identifying flowing well locations remains a need
Nutrient Concerns

- Monitored nutrient levels in Red Bluff were a concern when WPP was developed.

- Recent monitoring shows nutrient levels have decreased.
  - Likely drought influenced.

- Chlorophyll-a levels remain high though.
Water Quantity

- Reservoir Release Scheduling and Canal Audits
  - Drought has prevented improvements: No Releases

- Irrigation System Improvements thru EQIP
  - 22 drip systems on 1,090 acres
  - 15 new sprinklers totaling 2,097 feet
  - 8 properties land leveled: 495 acres
  - 21 producers installed 56,049 feet of irrigation pipeline
Aquatic Life

- In 2011, TCEQ and USIBWC performed two aquatic life monitoring sampling events

- Results show that the aquatic community has remained mostly unchanged

- Another aquatic life survey is underway
Clean Rivers Program

- CRP monitoring continues to collect water quality data across the watershed
- 10 sites in the watershed were being monitored when WPP implementation began
- 9 sites will be monitored next fiscal year
  - 8 of the original 10 are still in place
    - 2 stations removed
      - 13261 near Pecos & 16379 downstream of US 90
    - 1 new station added
      - 20558 Kokernot Springs in Alpine
5 continuous water quality monitoring network stations were in place when WPP implementation began.

- Record pH, DO, temperature, conductance

- During implementation, 4 new stations added:
  - Pecos River near Red Bluff, NM
  - Pecos River near Orla, TX
  - Pecos River near Girvin, TX
  - Pecos River near Langtry, TX
Education and Outreach

- Pecos River Information Management System
Water Quality Update: DO

Dissolved Oxygen: Pecos River at IH20 Bus. (710)

Dissolved Oxygen: Pecos River at FM 1776 (709)

Dissolved Oxygen: Pecos River at SH 290 (735)

Dissolved Oxygen: Pecos River 2.5 mi. N of Val Verde Co. Ln. (729)
Water Quality Update: Conductance

Specific Conductance: Pecos River at IH20 Bus. (710)

Specific Conductance: Pecos River at FM 1776 (709)

Specific Conductance: Pecos River at SH 290 (735)

Specific Conductance: Pecos River 2.5 mi. N of Val Verde Co. Ln. (729)
Only segment between Ward Two Irrigation Turnout and US 67 (Girvin) is impaired for low DO now

Nutrient concern for elevated ammonia in Red Bluff no longer there

Chlorophyll-a concern still present

2 new bacteria concerns; limited number of samples
Implementation Schedule and Progress

- Last 4 pages of the update document show WPP implementation progress

- Some goals have been achieved and exceeded while others have fallen short

- Please review table and think about what should be added and what should be removed
Review and Comment

- 45 day review and comment period
- Comments due to Lucas by July 22\textsuperscript{nd}

- 3 ways to submit comments:
  - Email: lfgregory@ag.tamu.edu
  - Mail: 1500 Research Parkway, Ste 110
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QUESTIONS/COMMENTS