



Region C Water Planning Group Meeting

TRA Central

Wastewater Treatment Plant

December 8, 2003

Agenda

- Action Item for Consideration
 - Consideration of return flows as presented by Brazos G RWPG
- Discussion Items
 - Status of water needs projections
 - Status of amendments
 - Update on Task 3 – Current Water Supplies
 - Supplemental funding

Agenda (continued)

- Water conservation activities
- Process to screen water management strategies
- Potential unique stream segments
- Status of newsletter
- Speaker comments/handouts from October meeting
- Overall status and next steps

Action Item for Consideration

Brazos G RWPG Letter to TWDB
Regarding Return Flows

Return Flows and Water Availability

- TWDB requires current water availability with no return flows (WAM Run 3)
- TWDB may consider indirect reuse of return flows as management strategies on a case-by-case basis
- Reuse is very important to Region C
 - 440,000 acre-feet per year of supply in the 2001 plan (year 2050)
 - May be more in this plan

Return Flows and Water Availability

- Region G has asked their consultant to write a letter to TWDB
 - Include return flows in determining current water availability
 - Letter has not yet been written

Return Flows and Water Availability

- For Region C
 - Inclusion of return flows in current water availability is not a key issue
 - Allowing reuse as a management strategy is a key issue
 - “case-by-case” determination of reuse is subject to arbitrary decisions

Return Flows and Water Availability

- Consultant Recommendations:
 - Review Region G letter when written
 - Discuss concerns over importance of reuse with TWDB (Jim Parks)
 - Determine further actions

Return Flows and Instream Flows

-TPWD Report-

- TPWD report on Instream Flows
 - http://www.tpwd.state.tx.us/texaswater/river_studies/index.phtml
- Pursued independently of other agencies
- Freese and Nichols plans to comment on this
- RCWPG can send comments to Tom Gooch by December 15, 2003

Return Flows and Instream Flows

-TWDB Proposed Method-

- TWDB methodology calls for a statistical comparison of flows – natural, current and future conditions (with strategies)
- Use WAM Run 8 (current conditions) and Run 3 (no return flows and full use of all water rights) to assess current flows
- Uses only WAM Run 3 to assess impacts of proposed strategies

Return Flows and Instream Flows

-TWDB Proposed Method-

- Consultant plans to comment
 - Use of WAM Run 3 is totally inappropriate for stream flow assessment
 - This methodology will **NOT** accurately reflect stream flows and is inconsistent with the regional plan
 - In Region C, municipal demands in 2060 is 2,915,772 AF/Y
 - Return flows would be 50-60% of that – 1,458,000 to 1,750,000 AF/Y
 - Plan will include specific, quantifiable reuse strategies that use some of these return flows, not all

Return Flows and Instream Flows

- Assuming that the remaining return flows somehow disappear is inconsistent with the regional plan
- The modeling results will not be meaningful, so the consultant or others will have to do meaningful analysis
- Without interpretation by the TWDB or RWPG, the potential for mis-interpretation is high
- The proper approach is to start with WAM Run 8 and update to match the plan, including appropriate return flows

Return Flows and Instream Flows

- TWDB wants gages to use in analysis for each basin in region
- Preliminary thoughts on gage recommendations
 - Trinity Basin
 - Fort Worth
 - Rosser
 - Oakwood
 - Brazos Basin – none in Region C
 - Red Basin
 - Gainesville
 - Sabine Basin – None in Region C
 - Sulphur Basin
 - North Sulphur near Cooper

Status of Water Needs Projections

Water Needs Projections

- TWDB approved the Region C request for adjustments to water needs projections on November 19 with one exception
- Exception for entities split between regions – gpcd in region with majority of population applied to both regions
 - Hickory Creek SUD
 - Johnson County Rural WSC
 - Mac Bee WSC
 - Caddo Basin SUD
 - Cash WSC
 - North Hunt WSC
 - Bethel-Ash WSC
 - Brandon-Irene WSC
 - Burleson
 - Flo Community WSC
 - Mineral Wells.

Water Needs Projections

- TWDB adjustment has minimal impact on Region C water needs

Status of Amendments

Anna and Athens

Amendments

- Anna and Athens amendments to the 2001 Region C Water Plan were approved by the TWDB in August and September
- Anna and Athens amendments to the 2002 State Water Plan were approved by the TWDB in November

Update on Task 3

Current Water Supplies

Water Availability Models (WAMs)

- Finalizing surface water availability based on WAMs (Red River WAM is being corrected by TCEQ. Available mid-Feb)
- Plan to apply new COE survey of Lake Texoma to determine yield
- Assume that previous yields of other reservoirs in Red River Basin are still appropriate for time being

Groundwater Availability Model (GAM)

- Requested TWDB rerun both Northern and Central Carrizo-Wilcox GAMs with demands as approved in October
- TWDB expects runs to be complete in January

Current Capacity to Treat/Pump Water Supplies

- Reviewed TCEQ database and Region C survey responses to determine current water treatment plant capacities
- Reviewed Region C survey responses regarding groundwater information and contacted each groundwater user to verify data and seek additional information
- Information to be summarized in spreadsheet

Impact of Recent Droughts

- Reviewing the impacts of recent droughts on the region (literature review)

Schedule to Complete Task 3

- Complete groundwater availability for Trinity, Woodbine and other aquifers by the end of December
- Finalize spreadsheet of treatment/pump capacities by end of December
- Complete study of impacts of recent droughts by end of December

Schedule to Complete Task 3

- Complete WAM analysis beginning of January
- Complete Carrizo-Wilcox groundwater availability depending on GAM results in January
- Send out summary to WUGs in early 2004

Supplemental Funding

Supplemental Funding

- TWDB released memo on December 2 regarding supplemental funding
- \$1.6 million available
- Timeline:
 - TWDB plans to publish Request for Proposals (RFP) in late January/early February
 - RWPG proposals due April 1, 2004
 - TWDB will consider funding requests in May
 - Contract amendments will be executed upon approval

Supplemental Funding

- Available for addressing changed conditions
 - Unanticipated changes to the amount of water supply available to meet needs
 - Oklahoma unavailable
 - Lowered Carrizo-Wilcox aquifer supply
 - Unanticipated changes to the volume or magnitude of water supply needs due to greater than anticipated population growth or water demands
 - Increased demands

Supplemental Funding

- Development of new technology or availability of new supplies to meet water supply needs that were not recognized when the original scope of water was developed
 - Desalination and Texoma
 - New conservation methods
 - Additional reuse
 - Wright Patman

Supplemental Funding

- Potential projects
 - Reimbursement for costs associated with Anna and Athens amendments
 - Additional water conservation studies not addressed by the TWDB's water conservation report
 - Additional reuse studies
 - Desalination of Texoma water
 - Wright Patman reallocation

Water Conservation Activities

Water Conservation Activities

- Neighborhood study
 - Received all water usage data as of 12/5/03
 - Beginning analysis
- Gathering available water conservation plans with the intent of summarizing existing water conservation efforts
- Developing model municipal water conservation plan

Process to Screen Water Management Strategies

Process to Screen Water Management Strategies

- TWDB requirement to discuss screening strategies in a RWPG meeting
- Each RWPG may determine its own screening criteria to decide which projects will be studied and considered as water management strategies
- TWDB has specified certain water management strategies that each RWPG must address

Process to Screen Water Management Strategies

- Draft document discussing our initial recommendations
- Basic understanding:
 - Only identify strategies to meet a “need”
 - List potential strategies to meet needs
 - Screen strategies with RWPG technical committee for feasibility and evaluation
 - Present final list of potential feasible strategies

Screening Criteria

- In general, a feasible strategy
 - must have an identified sponsor or authority
 - must consider the end use (water quality, distance to end use)
 - should provide a reasonable percentage of the projected need (except conservation, which will be evaluated for all needs)
 - must meet existing federal and state regulations
 - must be based on proven technology
 - must be politically and culturally acceptable
 - must be appropriate for regional water planning

Screening by Water Strategy Type

- Water conservation (must be considered for every identified need)
- Drought management measures
- Wastewater reuse

Screening by Water Strategy Type

- Expanded use of existing supplies
 - System operation
 - Conjunctive use of groundwater and surface water
 - Reallocation of reservoir storage
 - Voluntary redistribution of water resources
 - Yield enhancement
 - Water quality improvement

Screening by Water Strategy Type

- New supply development
 - Surface water resources
 - Groundwater resources
 - Brush control
 - Precipitation enhancement
 - Desalination
 - Water right cancellation
 - Aquifer storage and recovery (ASR)
- Interbasin transfers

Screening by Water Strategy Type

- Provided a memo summarizing the RCWPG's decision on the types of water management strategies in a memo dated May 29, 2003 and presented to the RCWPG on June 23, 2003

Screening Criteria Schedule

- Consultants would like input from the RCWPG by January 9, 2004
- Consultants will finalize and seek approval of screening process at next RCWPG meeting

Potential Unique Stream Segments

2006 Region C Water Plan

Regional Water Planning Guidelines

31 TAC §357.8(b)

- A regional water planning group may recommend a river or stream segment as being of unique ecological value based upon the following criteria:
 - Biological function
 - Hydrologic function
 - Riparian conservation areas
 - High water quality/exceptional aquatic life/high aesthetic value
 - Threatened or endangered species/unique communities

TPWD Ecologically Significant Segments

March 2000 TPWD Presentation

- Bois D'Arc Creek (Fannin)
- Brazos River (Parker)
- Buffalo and Lynn Creek confluence (Freestone)
- Clear Creek (Denton)
- Coffee Mill Creek (Fannin)
- Elm Fork Trinity River (Denton)
- Lost Creek (Jack)
- Purtis Creek (Henderson)
- Trinity River (Freestone)

2001 Region C Water Plan

- No river or stream segments were recommended for Legislature designation, primarily because the implications of this designation were unclear

Legislative Recommendations

2001 Region C Water Plan

- Clarify impacts of designating a unique stream segment:
 - What is the objective?
 - How would adjacent private property be affected?
 - How would future water rights be affected?
 - How would water quality regulatory programs be affected?
 - What types of activities would be restricted?
 - What area is affected by the designation?
 - Can the designation be reversed?

77th Legislature Clarification 2001

- Texas Water Code 16.051(f)

“The legislature may designate a river or stream segment of unique ecological value. This designation solely means that a state agency or political subdivision of the state may not finance the actual construction of a reservoir in a specific river or stream segment designated by the legislature under this subsection.”

However...

- Regional Water Planning 31 TAC §357.8(c)

“For every river and stream segment that has been designated as a unique river or stream segment by the legislature ... or recommended as a unique river or stream segment in the regional water plan, the regional water planning group shall assess the impact of the regional water plan on these segments.”

However (Continued)...

- Water Rights 30 TAC §297.53(a)

“In its consideration of an application for a new or amended water right to store, take, or divert state water in excess of 5,000 acre-feet per year, the commission shall ... consider whether the proposed project would affect river or stream segments of unique ecological value as identified by the applicable approved regional water plan and designated as such by the Texas Legislature ...”

Summary of Designation Implications

- Certain
 - State agency or political subdivision cannot finance construction of a reservoir in the segment.
- Possible
 - Restrictions on water management strategies?
 - Restrictions on new or amended water rights?
- Uncertain
 - Will future laws or regulations place other restrictions on designated segments?

Legislative Recommendations

2001 Region C Water Plan

- Clarify impacts of designating a unique stream segment:
 - ~~– What is the objective?~~
 - How would adjacent private property be affected?
 - How would future water rights be affected?
 - How would water quality regulatory programs be affected?
 - What types of activities would be restricted?
 - What area is affected by the designation?
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RCWPG Newsletter

Newsletter

- Fourth quarter newsletter was postponed due to budget and timing constraints
- Next newsletter scheduled for February 2004
- Feature articles might include:
 - Timeline showing highlights of 2004 planning activities (pointing out public participation opportunities)
 - Update on election of members to RCWPG

Newsletter

- Articles (continued)
 - Update on water needs projections
 - Update on water management strategies under consideration OR update on DWU's water conservation program
 - Update on the state's Water Conservation Task Force
 - Conservation tips
 - Info regarding next RCWPG meeting

Public Speaker Comments and Handouts

Public Comments

- No public comments were made at the October 6 RCWPG meeting
- No handouts from the public were provided at the October 6 RCWPG meeting

Overall Status and Next Steps

Overall Status and Next Steps

- Complete Task 3 by mid-January (except for that portion relying on the results of the GAM)
- Draft scope of work for supplemental funding
- Continue water conservation studies
- Prepare upcoming newsletter