

CITY COUNCIL SPECIAL MEETING
March 7, 2006, 8:30 a.m.

ABILENE STATE SCHOOL CAMPUS, 2501 MAPLE ST.
OAKWOOD TRAILS LODGE

The City Council of Abilene, Texas met in a Special Meeting to discuss City of Abilene water issues. Mayor Archibald was present and presiding with Councilmen Sam Chase, Kris Southward, Stormy Higgins, and Councilwoman Laura Moore. Also present were City Manager Larry Gilley, City Attorney Sharon Hicks, City Secretary Jo Moore, and various members of the City staff. Councilmen Anthony Williams and John Hill were absent.

1. Mayor Archibald called the meeting to order.
2. Councilman Higgins gave the invocation.

Mayor Archibald thanked Councilman Southward for the breakfast that he and his daughter Katelyn prepared for those in attendance at today's meeting. The Mayor introduced Katelyn and gave special recognition to Goose Tatum of the Abilene State School for his excellent service in overseeing the Oakwood Trails Lodge and for his assistance during the council meetings held at the Lodge.

3. Katelyn Southward, Councilman Southward's daughter, led the Pledge of Allegiance.

Mayor Archibald welcomed those in attendance and recognized special guests from various organizations. The Mayor stated today's meeting has been called to give Council the opportunity to review water issues and to consider a Resolution in support of Tommy O'Brien's nomination to the Brazos Region G Water Planning Group Board.

4. City Manager Larry Gilley briefed the Council on the Resolution in support of Tommy O'Brien's nomination to the Brazos Region G Water Planning Group Board. Mr. Gilley noted Mike Morrison, past Assistant City Manager, previously held a position on the Brazos Region G Water Planning Group Board and Mr. Gilley explained the need for a current staff person to continue to serve on the board.

Councilman Higgins made a motion to approve the Resolution supporting Tommy O'Brien's nomination to the Brazos Region G Water Planning Group Board. Councilwoman Moore seconded the motion, and the motion carried.

AYES: Councilmen Chase, Southward, Higgins, Councilwoman Moore, and Mayor Archibald.

NAYS: None

The Resolution is numbered **5-2006** and captioned as follows:

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ABILENE, TEXAS,
ENDORING AND RECOMMENDING TOMMY O'BRIEN TO THE BRAZOS G
REGIONAL WATER PLANNING GROUP BOARD.**

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5. Mr. Gilley introduced the water issues discussion item and asked Tommy O'Brien, Director of Water Utilities to brief the Council on the water issues.

Mr. O'Brien stated the Water Issues Workshop Notebook submitted to Council, has been prepared to help guide discussions surrounding the water issues. Mr. O'Brien then introduced the presenters of today's issues. The Water Supplies Team consists of the following individuals from the firm of Lloyd Gosselink Attorneys at Law, HDR, Inc., an architectural engineering and consulting firm and Enprotec/Hibbs & Todd, Inc., a professional engineering firm specializing in the water, wastewater, environmental, civil and geotechnical markets:

- **Lloyd Gosselink Attorneys at Law**
 - Martin C. Rochelle
 - Michelle Maddox Smith
- **HDR, Inc.**
 - David Dunn, P.E.
 - Kenneth Choffel, P.E.
- **Enprotec / Hibbs & Todd, Inc.**
 - Scott F. Hibbs, P.E.

Stormwater Detention Policies

Paul Knippel, Director of Public Works briefed the Council on the Stormwater Detention Policies, explaining to Council what stormwater detention is, what it addresses and how and what it accomplishes. Mr. Knippel distributed a detention pond location map to Council.

Discussion included: 1) the observation that more rain is needed today versus the amount required 20-30 years ago, to get the same amount of water in Ft. Phantom; 2) pro's and con's of regional detention ponds and multi or site detention ponds; 3) staff noting nothing has been introduced into the system to cause a delay in the water flow to the lake; 4) regional ponds being good from a maintenance standpoint, and; 5) some developers having stated their preference for regional ponds.

Brazos G Regional Water Plan

Tommy O'Brien introduced David Dunn of HDR, Inc. Mr. Dunn gave a brief overview of the water planning process and how it will affect Abilene. Mr. Dunn reviewed the Regional Water Planning and the Interest Groups Represented as follows:

- **Regional Water Planning**
 - Started in 1997 (SB1)
 - New requirements in 2001 (SB2)
 - 16 planning regions
 - Brazos G Region:

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- 37 Counties
- 184 Retail Water Utilities
- 222 County-Aggregated uses
- 15 Wholesale Providers
- **Interest Groups Represented** (underlined names are local representatives)
 - Public – Scott Mack
 - Counties – Jon Burrows, Tim Fambrough, Mike Sutherland
 - Municipalities – Vacant (Mike Morrison), Tom Clark, Wiley Stem, Alva D. Cox
 - Agriculture – Dale Spurgin, Wayne Wilson
 - Industry – Randy Waclawczyk
 - Environment – Stephen Stark
 - Small Business – Horace Grace
 - Electric Utilities/Power Generation – Scott Diermann
 - River Authorities – Phil Ford
 - Water Districts – Terry Kelley, Kathleen Webster
 - Water Utilities – Kent Watson
 - Groundwater Conservation Districts – Mike McGuire

Mr. Dunn reviewed the Brazos G Water Planning Group voting members and the SB1 Water Planning Process. Mr. Dunn stated the plan is continuing to be updated every 5 years and discussed the concerns with the Regional Plan, the Brazos G Adopted Safe Yield Supply, the Brazos G Projections for Abilene, and the Brazos G Plan for Abilene as follows:

- **Why be concerned with Regional Plan?**
 - Funding from TWDB (grants & loans) requires “consistency” with State and regional plans
 - Permit approval from TCEQ (water rights) requires “consistency” with State and regional plans
- **Brazos G Adopted Safe Yield Supply**
 - Standard TWDB rules require use of firm yield supply from reservoirs
 - Brazos G has adopted safe yield supplies for reservoirs upstream of Possum Kingdom

Firm Yield – Maximum annual quantity that can be withdrawn from a reservoir such that the reservoir just, or nearly, goes dry during the critical period of the drought of record.

Safe Yield – Maximum annual quantity that can be withdrawn from a reservoir such that a given volume remains in storage (usually equal to the safe yield) during the critical period of the drought of record.

Brazos G Projections for Abilene

	<i>2010</i>	<i>2030</i>	<i>2060</i>
Population	125,807	133,820	127,955
Water Demands	27,898	28,719	27,376
Supplies	14,811	14,648	14,403
Deficits	(13,087)	(14,071)	(12,973)

**Note: Water demands, supplies and deficits are expressed in acre-feet per year*

Brazos G Plan for Abilene

Plan Element	Supply (acft/year)
Conservation	Varies (2,000 acft in 2020)
West Central Texas System Optimization Plan	
Priority Calls Agreements with BRA (FPH Scalping and Hubbard Creek Reservoir)	17,000 – 19,000
Cedar Ridge Reservoir w/BRA Priority Calls Agreement	29,000
Reuse (in Cedar Ridge)	5,500 – 6,500
Clear Fork Diversions into Hubbard w/BRA Priority Calls Agreement	5,000 – 7,000

Discussion included: 1) how Abilene compares in water supply to various other areas; 2) addressing what's feasible, best options and economic solutions for different areas in Texas, and; 3) where reuse water is being considered.

Water Law 101

Martin Rochelle of Lloyd Gosselink Attorneys at Law reviewed and explained the following Texas Water Codes:

- TWC 11.021 – State Water
- TWC 11.027 – Rights Between Appropriators
- TWC 11.121 – Permit Required
- TWC 11.042 – Delivering Water Down Banks and Beds
- TWC 11.046 – Return Surplus Water
- TWC 11.134 – Action on Application
- The Distinction Between Direct and Indirect Reuse
- Subordination of Senior Rights to Junior Rights
- Water Quality

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Discussion included: 1) water supply concepts and detention projects; 2) permits required and purposes for which water may be appropriated; 3) farmers rights in building of ponds on their property; 4) reuse rights; 5) return flow and discharge from Hamby issues, and; 6) the need for a subordination agreement with BRA.

Council recessed for a break at 10:10 a.m. and reconvened at 10:20 a.m.

The City of Abilene's Water Supplies

Mr. Rochelle reviewed the following water supplies for the City of Abilene:

- Fort Phantom Hill Reservoir (COA 12-4161B)
- Deadman Creek Diversion (COA 12-4165A)
- Clear Fork Scalping (COA 12-4139A)
- Hubbard Creek Reservoir
- O.H. Ivie Reservoir
- Existing reuse from Hamby WWTP (Water Use Permit No. 4266C)
- Lake Kirby (COA 12-4150A)
- Lake Abilene (COA 12-4142)

Kenneth Choffel, P.E. of HDR, Inc. reviewed the availability from the following water supplies:

- Water Supply Available from Fort Phantom Hill Reservoir with Clear Fork Scalping
- Water Supply Available from Hubbard Creek Reservoir
- Water Supply Available from O.H. Ivie Reservoir
- Existing Reuse from Hamby Wastewater Treatment Plant
- Water Supply Available from Lake Abilene and Lake Kirby
- Recent Drought has Reduced Abilene Area Water Supplies
- Comparison of Average Chloride Concentrations

Discussion included: 1) Mr. Rochelle's opinion being that the Hubbard to Ft. Phantom permit to move water not being representative of an additional water supply to Abilene; 2) how drought of record is calculated; 3) recent drought timeline being 1997 – June 2004; 4) future process and final agreement needed which will increase yield and change nature of scalping processes; 5) what results will be when skeleton agreement with BRA goes into a detailed agreement; 6) raw water contracts and potable supply available; 7) amount of water treated to get quality water, delivery issues into system; 8) demand and infrastructure limitations, not a plant problem but a choice to not process; 9) options for use of reuse water; 10) the practitioner's guide to water reuse "Good until the Last Drop"; 11) wetland and possible funding; 12) permitting issues created by amount of water moved; 13) possible scenarios for use of additional 9 million gallons of water, and; 14) water model's provided by HDR, Inc.

Councilwoman Moore left the meeting at 11:20 a.m.

The City of Abilene's Water Quality Permits

Michelle Maddox Smith of Lloyd Gosselink Attorneys at Law briefed the Council on the following permits:

- TPDES Permit
- MS4 Permit
- 210 Direct Reuse Authorization
- 210 Direct Reuse Authorization Amendment

Discussion included: 1) theoretically use of 9-13 million gallons of water is possible, with infrastructure in place, but practicality of use questioned, and; 2) Hamby irrigation, use of water for farms in area.

The City of Abilene's Water Rates

Tommy O'Brien, Director of Water Utilities reviewed the City of Abilene Water Utility Department Schedule of Rates and Charges, effective October 1, 2005, the Water Rate Comparison 10 Sister City Survey, and the Water + Wastewater Rate Comparison 10 Sister City Survey.

Discussion included: 1) basis for different charges for different size meters; 2) Abilene being at least 25% cheaper than the average of other sister cities; 3) views that water rates will have to increase, and; 4) data not available on household use of water based on number of people living in household.

Council recessed for a break from 11:55 a.m. until 12:10 p.m. to prepare to continue the workshop session through lunch.

BRA's Pending System Operations Permit

David Dunn, P.E. of HDR, Inc. presented the background and summary of the BRA System Plan, an explanation of system operations, and the impact to the Cedar Ridge Supply.

Discussion included what BRA's basis for releasing water during a drought is and why they would give up subordinate.

Interlocal Agreement Between Abilene, WCTMWD, and BRA

Scott Hibbs, P.E. of Enprotec/Hibbs & Todd, Inc. briefed the Council on the purpose of the Interlocal Agreement as follows:

- **Purpose**
 - Coordinated approach regarding water supplies within the upper Brazos River Basin
 - Enhance the current rights and preserve future water supply options for the City and WCTMWD

Mr. Hibbs reviewed Article I (regarding existing water rights), Article II (regarding future water rights, Article III (regarding reuse), and Article IV (regarding cooperation).

Discussion included: 1) scalping rights being distinguished from each other; 2) the possibility that the city would have to renegotiate at a higher cost if pending System Operation Permit to Cedar Ridge is not pursued within 13 years and deadline to meet that 13 years being 8-10 years; 3) possible legislative action that could be pursued on water supply issues, and; 4) issues involved in transferring scalping rights to Cedar Ridge.

Councilwoman Moore returned to the meeting and Councilman Southward left the meeting.

Future Water Supplies, Challenges and Opportunities

Martin Rochelle of Lloyd Gosselink Attorneys at Law reviewed the future water supplies, challenges, and opportunities as follows:

- Current Wastewater Reuse Projects and Distribution
- Expanded Reuse of Wastewater Effluent
- The Cedar Ridge Reservoir and Other Options
- A System Operations Protocol

Mr. Rochelle briefed the Council on 210 Direct Reuse Authorization, 210 Direct Reuse Authorization Amendment, and Pending Indirect Reuse Application.

Tommy O'Brien, Director of Water Utilities briefed the Council on the expanded Reuse of Wastewater Effluent and the Cedar Ridge Reservoir, including other options.

Kenneth Choffel, P.E. of HDR, Inc. expanded on the Cedar Ridge Reservoir and other options by reviewing the following:

- Location of Cedar Ridge Reservoir
- Cedar Ridge Reservoir Safe Yields
- Comparison of Average Raw Water Chloride Concentrations for Water Supply Options
- Comparison of Safe Yields of Water Supply Options Based on Recent Drought through June 2004
- Comparison of Total Project Cost of Water Supply Options
- Comparison of Average Annual Costs of Water Supply Options
- Comparison of Unit Cost of Water for Water Supply Options

Discussion included: 1) uses for 210 Direct Reuse; 2) maximizing direct 210 users being a part of the Master Plan recommendation that will come to Council; 3) are ordinances needed to govern reuses; 4) proposed cost will be anticipated; 5) reuse doesn't have to be substantially different than potable-drought resistant (drought trigger won't affect); 6) what water plants are not required to

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remove from water and expense of reverse osmosis; 7) water quality permitting issues; 8) eventually having to treat effluent water to a higher standard; 9) endangered species located in Cedar Ridge, and; 10) Cedar Ridge needs appear to be there now, but in 5 years (on paper) might not be.

Scott Hibbs, P.E. of Enptroec/Hibbs & Todd, Inc. and David Dunn, P.E. of HDR, Inc. reviewed a system operations protocol for future water supplies, challenges, and opportunities as follows:

- Evaluation of Alternative Operations
- Moving Water to Abilene
- Pumping Costs per Million Gallons from HCR and FPH
- FPH/HCR Scenario Descriptions
- Estimated FPH Levels and 18-month Pumping Costs, Diversions from HCR & FPH based on Current Operations
- Benefits and Costs of Alternative Operations

Discussion included: 1) the need to revisit what water quality is acceptable to Abilene citizens and the cost of that quality; 2) pumping cost being relative to each other; 3) currently operational cost being considered versus quality of life issues; 4) concerns that State funding could be jeopardized if water is used for recreational purposes, and; 5) consideration being given to conservation and fully utilizing existing resources.

Lake Fort Phantom Hill Development and Privatization of City-Owned Land

Jon James, Director of Planning and Development Services gave an overview of what has been proposed for the Lake Fort Phantom Hill Development and Privatization of City-Owned Land.

Discussion included: 1) phases of the project include determining if Ft. Phantom can be developed cost effectively and if there is a market to support it, and if so how can that development be accomplished; 2) doesn't appear necessary to do the study phase to determine if privatization can be done, only how to do it; 3) infrastructure and assumed risk issues; 4) preference for city not to fund development, to pass cost and risk to developers but with city encouraging development and factoring in recreation, consideration to quality of life and consistency in maintaining level of water that can be utilized, and; 5) staff noting cost to increase water level.

Mayor Archibald expressed appreciation to staff and the consultants for the information presented.

There being no further business the meeting adjourned at 3:15 p.m.

Jo Moore
City Secretary

Norm Archibald
Mayor

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