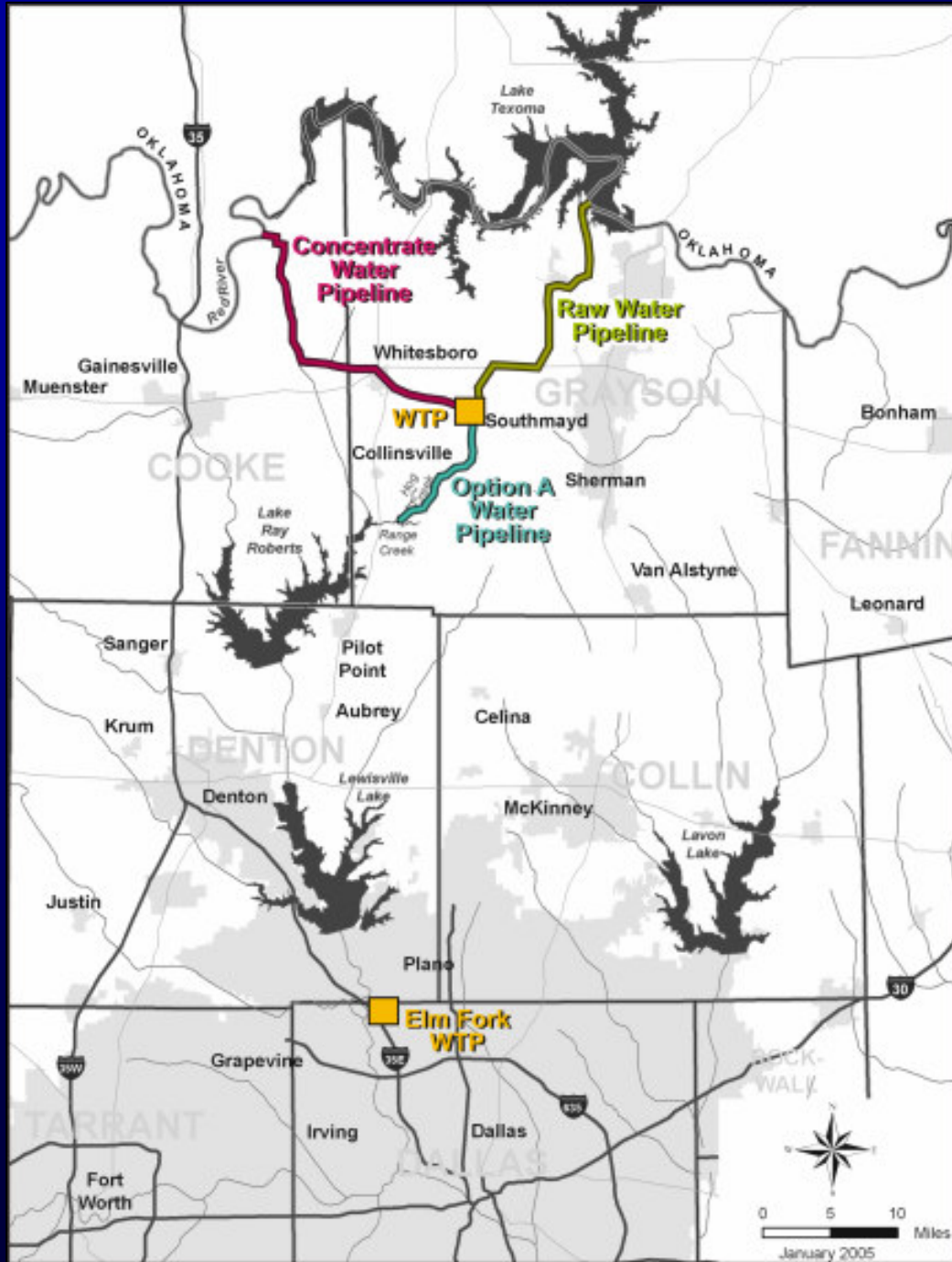


Cost Evaluation of Two Options to Deliver Lake Texoma Water to City of Dallas

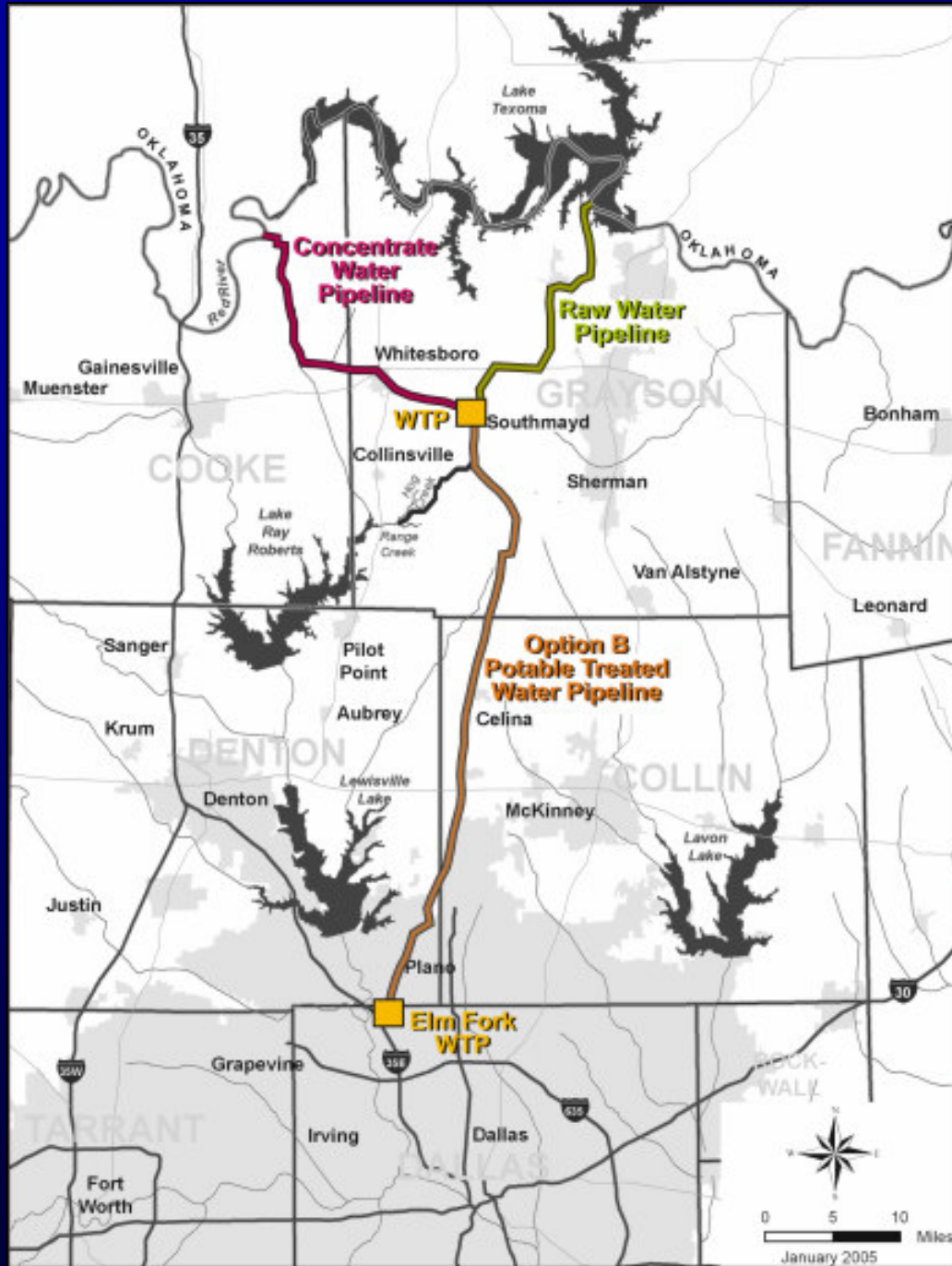
**Ken Choffel, P.E.
HDR Engineering, Inc.**

February 17, 2005



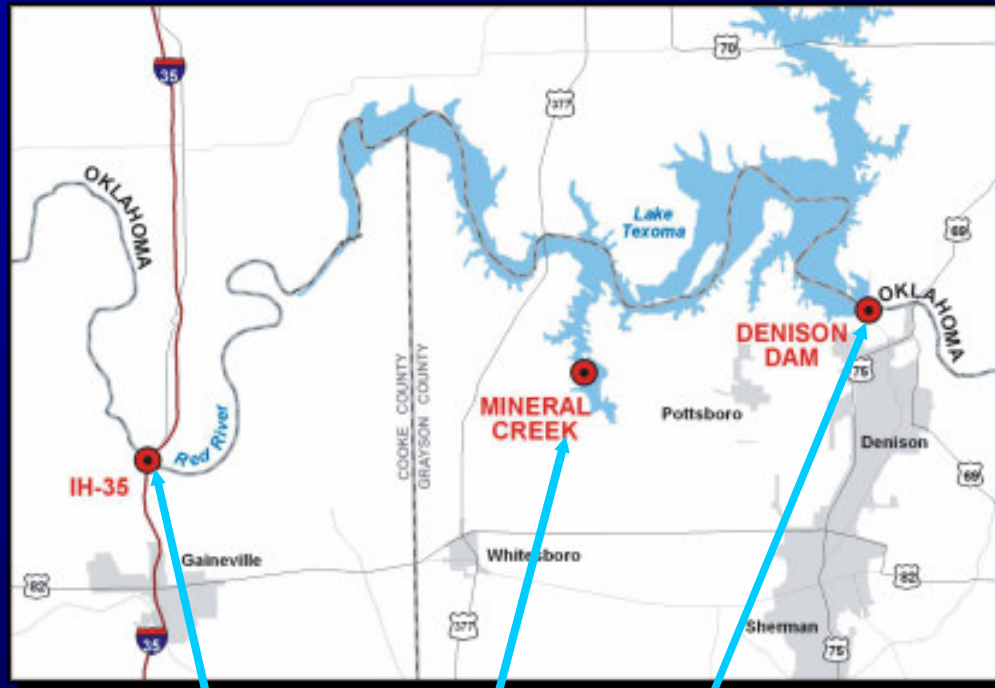


***Option A —
Lake Texoma to
Lake Ray Roberts***



***Option B —
Lake Texoma to
Elm Fork WTP***

Lake Texoma Water Quality



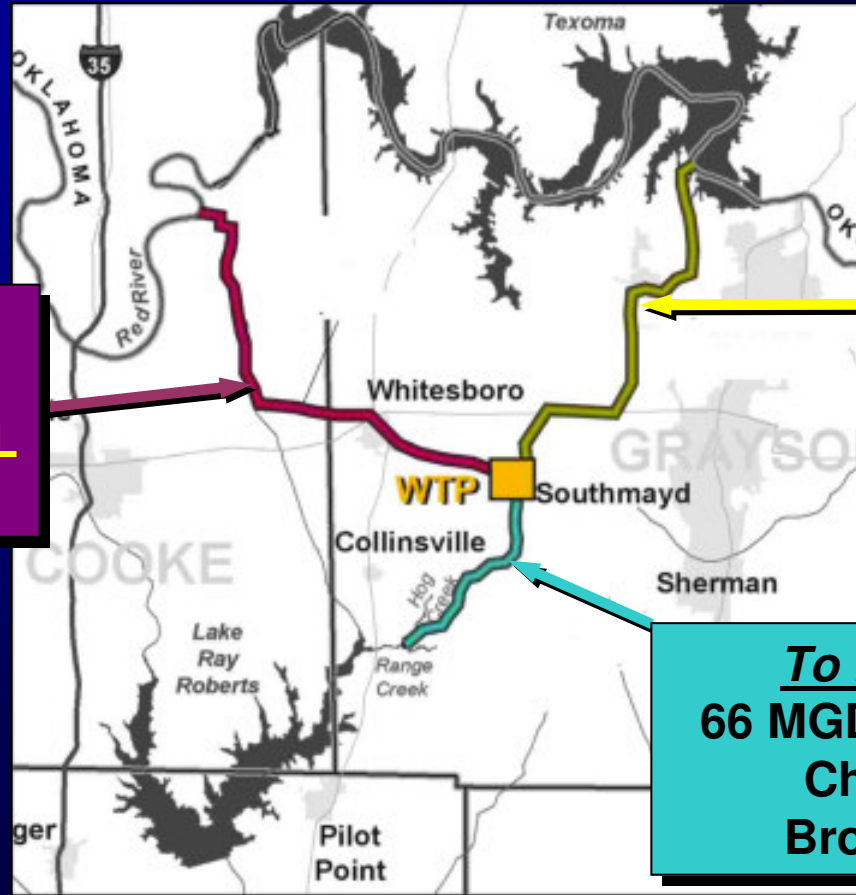
Drinking Water Standard or Treatment Requirement

Chloride (mg/L)	1,406	421	344	300
Bromide (mg/L)	1.37	0.50	0.74	0.20

Stream Standards for Discharge

<i>Stream Segment</i>	<i>Chloride (mg/L)</i>	<i>Sulfate (mg/L)</i>	<i>TDS (mg/L)</i>
Above Lake Texoma	2,000	1,200	6,000
Lake Texoma	600	300	1,500
Lake Ray Roberts	80	60	500

Option A — Water Production Rates



Concentrate
14.3 MGD
Chloride = 2,050 mg/L
Sulfate = 1,510 mg/L

Raw Water
80.3 MGD
(89,900 acft/yr)

To Lake Ray Roberts
66 MGD (82% of Raw Water)
Chloride = 80 mg/L
Bromide = 0.14 mg/L

Option B — Water Production Rates



Concentrate
8 MGD
Chloride = 2,050 mg/L
Sulfate = 1,510 mg/L

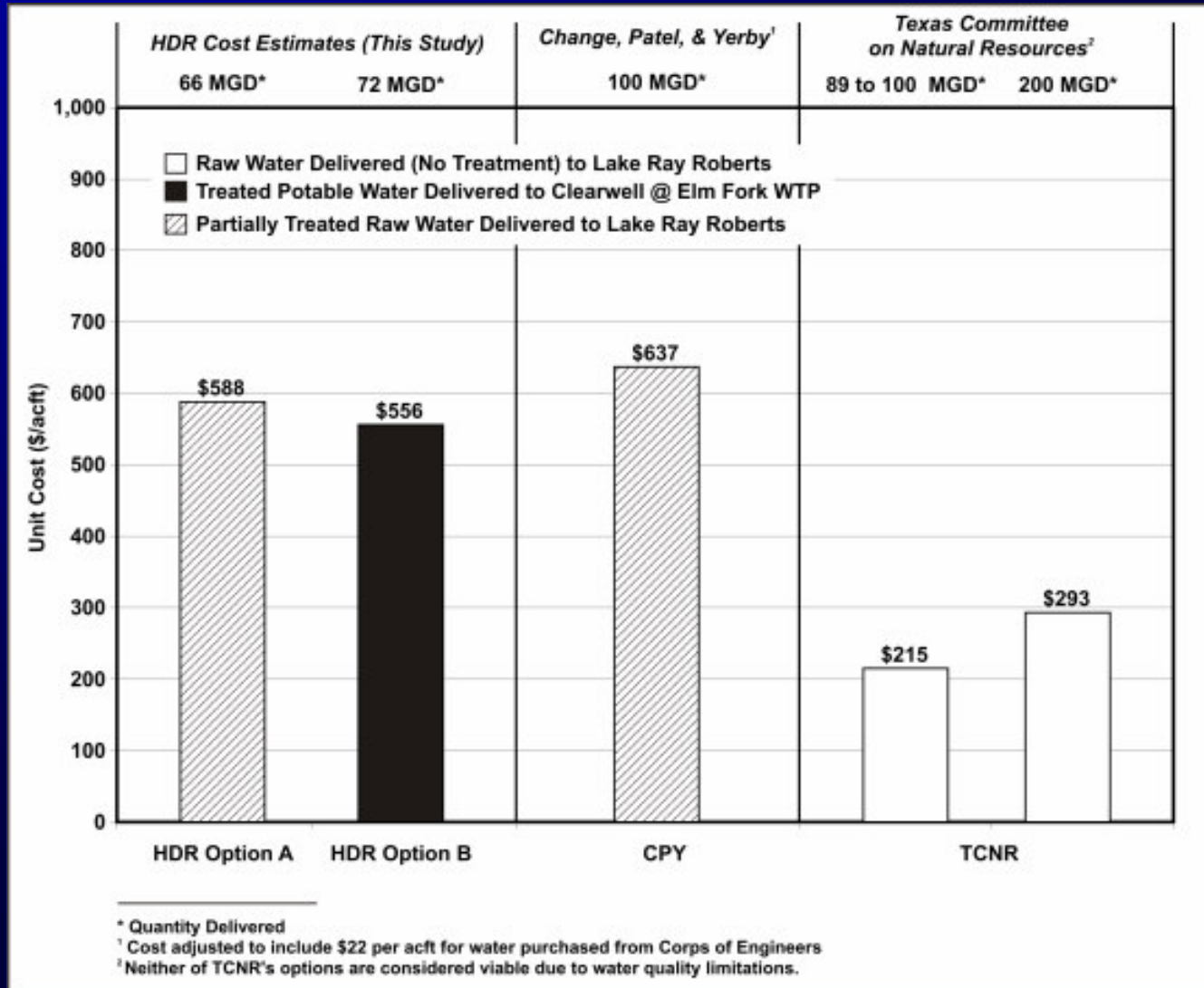
Raw Water
80.3 MGD
(89,900 acft/yr)

To Elm Fork WTP Clearwell
72.3 MGD (90% of Raw Water)
Chloride = 250 mg/L
Bromide = 0.43 mg/L

Summary of Costs

	<i>Option A</i>	<i>Option B</i>
Total Project Cost	\$291,200,000	\$366,400,000
Annual Cost	\$43,460,000	\$45,020,000
Debt Service	48%	59%
O&M	52%	41%
Quantity of Water Provided (MGD & acft/yr)	66 73,930	72.3 80,990
Unit Cost of Water (acft)	\$588	\$556
Unit Cost of Water (per 1,000 gallons)	\$1.80	\$1.71

Comparison of Unit Cost of Water with Previous Cost Estimates



Contracting and Permitting

- ❑ **Red River Compact (1978)**
 - **50% Texas**
 - **50% Oklahoma**

- ❑ **Water Resources Act of 1986**
 - **Additional 150,000 acft for Texas Subject to Reallocation Study**
 - **Lake Texoma Advisory Committee (1988)**

- ❑ **U.S. Army Corps of Engineers**
 - **Reallocation Study and Contracting Issues**
 - **Section 404 Permit**

- ❑ **Texas Commission on Environmental Quality**
 - **Water Rights Permit — Interbasin Transfer**
 - **Discharge Permit — Water Quality**