# EXHIBIT A

# Water Conservation Plan for the City of Euless

## April 28, 2009

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## I. OBJECTIVES

Having a dependable water supply has been a key issue in economic and land development in Texas. The growing population and economic expansion occurring in North Central Texas are placing increased demands on our water supplies. In order to meet the challenge of providing for our current and future needs we must learn to use more efficiently the water we already have. By stretching our existing supplies we can delay the need for new supplies, minimize the environmental impacts associated with developing new water resources, and postpone the high cost of building the infrastructure (dams, treatment facilities, and pipelines) necessary to capture, treat, and transport the additional water into our homes and businesses.

The objectives of this water conservation plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve efficiency in the use of water.
- To document the level of recycling and reuse in the water supply.
- To extend the life of current water supplies by reducing the rate of growth in demand.

The water conservation plan presented in this document is a model water conservation plan intended for adoption by wholesale or retail public water suppliers in Region C. This model plan includes all the elements required by TCEQ.

## II. TEXAS COMMISSION ON ENVIRONMENTAL QUALITY RULES

### II-I. Conservation Plans

The TCEQ rules governing development of water conservation plans for public water suppliers are contained in Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code which is included in Appendix B. For the purpose of these rules, a water conservation plan is defined as "A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water[1]." The elements in the TCEQ water conservation rules covered in this conservation plan are listed below.

[1]Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rules 288.1 and 288.2, and Subchapter B, Rule 288.20, downloaded from http://www.tceq.state.tx.us/assets/public/legal/rules/rules/pdflib/288a.pdf, November 2003.

## Minimum Conservation Plan Requirements

The minimum requirements in the Texas Administrative Code for Water Conservation Plans for Public Water Suppliers are covered in this report as follows:

- 288.2(a)(1)(A) – Utility Profile – Section III and Appendix C
- 288.2(a)(1)(B) – Specification of Goals – Section IV
- 288.2(a)(1)(C) – Accurate Metering – Section V-I
- 288.2(a)(1)(D) – Universal Metering – Section V-I
- 288.2(a)(1)(E) – Determination and Control of Unaccounted – Section V-III
- 288.2(a)(1)(F) – Public Education and Information Program – Section VI
- 288.2(a)(1)(G) – Non-Promotional Water Rate Structure – Section VII
- 288.2(a)(1)(H) – Reservoir System Operation Plan – Section VIII-II
- 288.2(a)(1)(I) – Means of Implementation and Enforcement – Section IX
- 288.2(a)(1)(J) – Coordination with Regional Water Planning Group – Section VIII-V

## Conservation Additional Requirements (Population over 5,000)

The Texas Administrative Code includes additional requirements for water conservation plans for cities with a population over 5,000:

- 288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting – Sections V-III, V-IV and V-V
- 288.2(a)(2)(B) – Record Management System – Section V-II
- 288.2(a)(2)(C) – Requirement for Water Conservation Plans by Wholesale Customers Section VIII-IV

## Additional Conservation Strategies

TCEQ rules also list additional optional but not required conservation strategies, which may be adopted by suppliers. The following optional strategies are included in this plan:

- 288.2(a)(3)(A) – Conservation Oriented Water Rates – Section VII
- 288.2(a)(3)(B) – Ordinances, Plumbing Codes or Rules on Water-Conserving Fixtures – Section VIII-I
- 288.2(a)(3)(F) – Considerations for Landscape Water Management Regulations – Section VIII-III

- 288.2(a)(3)(G) – Monitoring Method – Section V-V

## III. WATER UTILITY PROFILE

Appendix C to this water conservation plan is the water utility profile based on the format recommended by TCEQ. The information provided was obtained from monthly Utility Billing, Well Production, and Trinity River Authority Water Delivery reports as well as information and estimates provided by the North Central Texas Council of Governments. The data in the report is based on water use for calendar years.

## IV. SPECIFICATION OF GOALS

Current TCEQ rules require the adoption of specific water conservation goals for a water conservation plan. As part of the plan adoption, 5-year and 10-year goals for per capita municipal use, following TCEQ procedures described in the water utility profile (Appendix C) have been developed. The goals for this water conservation plan include the following:

- Strive to attain the per capita municipal water use below the specified amount in gallons per capita per day shown on the completed Excel spreadsheet using a 5-year rolling average calculation. (See 5-year and 10-year goals in Appendix E).
- Conduct water audits as required by the TCEQ and maintain unaccounted water to 12% of the total used through existing and new maintenance programs.
- Raise public awareness of water conservation and encourage responsible public behavior by a public education and information program as discussed in Section VI.

## V. METERING, WATER USE RECORDS, CONTROL OF UNACCOUNTED WATER, AND LEAK DETECTION AND REPAIR

One of the key elements in water conservation is careful tracking of water use and control of losses through illegal diversions and leaks. Careful metering of water deliveries and water use, detection and repair of leaks in the distribution system and regular monitoring of unaccounted water are important in controlling losses.

### V-I. Metering of Customer and Public Uses and Meter Testing, Repair and Replacement

Non-measuring meters and under registering meters will be field tested, checked, and replaced when found to be out of the manufacturer specifications or not meeting AWWA standards. The City of Euless has a scheduled replacement program for all meters, with two inch and above meters being replaced every ten years, smaller than two inches are replaced every 15 years.

### V-II. Record Management System

Euless classifies water customers as residential, multi-family, commercial, governmental and irrigation. This information is included in the yearly conservation report. Monthly recording and

discussion of consumption, billing and unaccounted water is discussed monthly. Euless has limited industrial water customers as a result these accounts are classified as commercial.

### V-III. Determination and Control of Unaccounted Water

Unaccounted water is the difference between water delivered to customers and metered deliveries to customers plus authorized but unmetered uses. (Authorized but unmetered uses would include use for fire fighting, releases for flushing of lines, and uses associated with new construction.) Unaccounted water can include several categories:

- Inaccuracies in customer meters. (Customer meters tend to run more slowly as they age and under-report actual use.)
- Accounts which are being used but have yet to be added to the billing system.
- Losses due to water main breaks and leaks in the water distribution system.
- Losses due to illegal connections and theft.

Unaccounted water is calculated and discussed monthly with representatives from the Utility Billing, Finance, Public Works and City Manager's Office. With the measures described in this plan, the City of Euless intends to maintain unaccounted water below 12% in 2009 and subsequent years. If unaccounted water exceeds 12%, the Public Works Department will implement a more intensive audit to determine the source(s) of and reduce the unaccounted water as funds are available. Monthly reporting and the annual water utility profile are the primary tools used to monitor unaccounted water.

### V-IV. Leak Detection and Repair

City crews and personnel will look for and report evidence of leaks in the water distribution system. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

### V-V. Monitoring of Effectiveness and Efficiency – Annual Water Conservation Report

An annual conservation report will be completed by May 1 of the following year and will be used to monitor the effectiveness and efficiency of the water conservation program and to plan conservation-related activities for the next year. This report records the water used by category, per capita municipal use, and unaccounted water for the current year and compares them to historical values.

## VI. CONTINUING PUBLIC EDUCATION AND INFORMATION CAMPAIGN

The continuing public education and information on water conservation includes the following elements:

- Insert water conservation information with water bills. Inserts will include material developed by City of Euless staff and material obtained by the TWDB, the TCEQ, Trinity

- Host an annual water forum as a means to communicate the importance of water conservation utilizing speakers and representatives from Tarrant Regional Water District, the Trinity River Authority, Texas A&M Extension Service and employees from surrounding cities with water conservation experience.

- The City of Euless provides a water conservation web page which lists the year round time of day watering restrictions. The web page is devoted to water conservation tips with links to sites (i.e. Texas Smartscape) for ideas on saving water indoors and out. Also included are yearly estimates for water loss and cost associated with various plumbing problems. Updates to the web site will be made as needed to reflect additions or changes to City of Euless Ordinances, Resolutions or recommendations. The City of Euless web site allows for residents to sign up for email notifications, which will be utilized to communicate changes as needed.

- Promotion of Texas Smartscape

- Rainwater harvesting demonstration project

## VII. WATER RATE STRUCTURE

The current water rate ordinance would not be considered "promotional". Should the efforts of this water conservation plan not achieve the desired results a tiered rate structure will be considered. The following is taken from the City of Euless Code of Ordinance Sec. 30-35:

*Water and sewer service--monthly rates.*

*The schedule of monthly rates and charges for water and sewer services furnished or caused to be furnished by the city is as follows:*

*Water service--Residential. The monthly minimum per living unit shall be as follows:*

*(1) Within corporate limits, $7.25 plus $3.11 per 1,000 gallons.*

*(2) Outside corporate limits, $10.00 plus $3.11 per 1,000 gallons.*

*Water service--Commercial and industrial.*

*(1) Within corporate limits, $7.25 plus $3.11 per 1,000 gallons.*

*(2) Outside corporate limits, $10.00 plus $3.11 per 1,000 gallons.*

*(3) Supplemental irrigation, $4.67 per 1,000 gallons.*

## VIII. OTHER WATER CONSERVATION MEASURES

### VIII-I. Ordinances, Plumbing Codes or Rules on Water Conserving Fixtures

The International Plumbing Code, 2003 Edition, as published by the International Code Council was adopted the Euless City Council August 31, 2004 by reference. Unless deleted, amended,

expanded or otherwise changed, all provisions of such Code are applicable and binding. (Ord. No. 1644)

## VIII-II. Reservoir System Operational Plan

The City of Euless does not have a reservoir. Water is purchased water from Trinity River Authority.

## VIII-III. Considerations for Landscape Water Management Regulations (Optional)

The City of Euless adopted year round water restrictions June 26, 2007 banning the use of irrigation systems between the hours of 10:00 AM and 6:00 PM, unless more restrictive measures are imposed. The Euless City Council adopted December 9, 2008 by reference the TCEQ rules for irrigation standards establishing irrigation system standards.

## VIII-IV. Requirement for Water Conservation Plans by Wholesale Customers

The City of Euless does not have wholesale water customers.

## VIII-V. Coordination with Regional Water Planning Group

In accordance with TCEQ regulations, a copy of this adopted water conservation plan will be sent to the Region C water planning group. A copy of the transmitted letter to Region C Water Planning Group is included as Appendix F.

# IX. IMPLEMENTATION AND ENFORCEMENT OF THE WATER CONSERVATION PLAN

A copy of Resolution Number 09-1309 adopting this Water Conservation Plan by the City Council of Euless April 28, 2009 is attached and made part of this plan. Resolution Number 09-1309 designates responsible officials to implement and enforce the water conservation plan. Enforcement of Resolution Number 09-1309 becomes effective immediately as adopted by the Euless City Council on April 28, 2009. Resolution 09-1309 is included as Appendix G.

# Appendix A

List of References

# Appendix A

## List of References


(1) Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rules 288.1 and 288.2, and Subchapter B, Rule 288.20, downloaded from http://www.tceq.state.tx.us/assets/public/legal/rules/rules/pdflib/288a.pdf, November 2003.

The following conservation plans and related documents were reviewed in the development of this plan.

(2) Freese and Nichols, Inc.: *Model Water Conservation Plan for North Texas Municipal Water District Member Cities and Customers*, prepared for the North Texas Municipal Water District, Fort Worth, August 2004.

(3) Texas Commission on Environmental Quality Water Utility Profile, downloaded from http://www.tnrcc.state.tx.us/permitting/forms/10218.pdf, April 29, 2004

(4) City of Austin Water Conservation Division: "City of Austin Water Conservation Plan, Developed to Meet Senate Bill 1 Regulatory Requirements," Austin, August 1999.

(5) City of Dallas Water Utilities Department: "City of Dallas Water Management Plan," adopted by the City Council, Dallas, September 1999.

(6) Freese and Nichols, Inc.: "Water Conservation and Drought Contingency Plan," prepared for the Sabine River Authority of Texas, Fort Worth, September 1994.

(7) GDS Associates, Inc.: "Water Conservation Study," prepared for the Texas Water Development Board, Fort Worth, 2002.

(8) Texas Water Development Board, Report 362, "Water Conservation Best Management Practices Guide", Austin, November 2004.

(9) City of Dallas: "City of Dallas Ordinances, Chapter 49, Section 21.1," Dallas, October 1, 2001.

# Appendix B

Texas Commission on Environmental Quality Rules on Municipal Water Conservation Plans

**Texas Administrative Code**

| | |
|---|---|
| **TITLE 30** | ENVIRONMENTAL QUALITY |
| **PART 1** | TEXAS COMMISSION ON ENVIRONMENTAL QUALITY |
| **CHAPTER 288** | WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS |
| **SUBCHAPTER A** | WATER CONSERVATION PLANS |
| **RULE §288.2** | **Water Conservation Plans for Municipal Uses by Public Water Suppliers** |

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(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public drinking water suppliers must include the following elements:

(A) a utility profile including, but not limited to, information regarding population and customer data, water use data, water supply system data, and wastewater system data;

(B) until May 1, 2005, specification of conservation goals including, but not limited to, municipal per capita water use goals, the basis for the development of such goals, and a time frame for achieving the specified goals;

(C) beginning May 1, 2005, specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use, in gallons per capita per day. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control unaccounted-for uses of water (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections, abandoned services, etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water;

(B) a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes:

(i) residential;

(ii) commercial;

(iii) public and institutional; and

(iv) industrial; and

(C) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter; if the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of this chapter.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing

substantial modification or addition;

(C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group.

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**Source Note:** The provisions of this §288.2 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

# Appendix C

## Water Utility Profile

With Definition of Terms

## Utility Statistics

WRD-264 (2-25-05)

# TEXAS WATER DEVELOPMENT BOARD

## UTILITY PROFILE

The purpose of the Utility Profile is to assist with water conservation plan development and to ensure that important information and data be considered when preparing your water conservation plan and its target and goals. Please complete all questions as completely and objectively as possible. See *Water Conservation Plan Guidance Checklist* (WRD-022) for information on other water conservation provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512-936-2391 for assistance.

## APPLICANT DATA

Name of Utility: City of Euless

Address & Zip: 201 N. Ector Dr
Euless, TX 76039

Telephone Number: 817-685-1581 Email: jackerman@ci.euless.tx.us Fax: 817-685-1617

Form Completed By: J.T. Ackerman Title: Public Works Manager

Signature: _____ Date: April 28, 2009

**Name and Phone Number of Person/Department** responsible for implementing a water conservation program:

Name: Ron Young Phone: 817-685-1646

## UTILITY DATA

### I. CUSTOMER DATA

### A. Population and Service Area Data

1. Please attach a copy of your Certificate of Convenience and Necessity (CCN) from the TCEQ

2. Service area size (square miles): 16.16

3. Current population of service area: 54,000

4. Current population served by utility: a: water 54,000
b: wastewater 54,000

5. Population served by water utility for the previous five years:

| Year | Population |
|---|---|
| 2004 | 49,950 |
| 2005 | 50,750 |
| 2006 | 52,895 |
| 2007 | 53,400 |
| 2008 | 54,000 |

6. Projected population for service area in the following decades:

| Year | Population |
|---|---|
| 2010 | 55,500 |
| 2020 | 56,724 |
| 2030 | 62,314 |
| 2040 | 65,429 |
| 2050 | 68,700 |

7. List source(s)/method(s) for the calculation of current and projected population:

Previous five years population and estimates to 2030 from North Central Texas Council of Governments, 2040 and 2050 estimates are based on a 5% increase for each decade

_____

**B. Active Connections**

1. Current number of active connections by user type. If not a separate classification, check whether multi-family service is counted as Residential _____ or Commercial _____

| Treated water users: | Metered | Not-metered | Total |
|---|---|---|---|
| Residential-Single-Family | 11,555 | _____ | 11,555 |
| Residential-Multi-Family | 12,053 | _____ | 12,053 |
| Commercial | 672 | _____ | 672 |
| Industrial | _____ | _____ | _____ |
| Public | _____ | _____ | _____ |
| Other | 423 | _____ | 423 |

2. List the net number of new connections per year for most recent three years:

| Year | 2008 | 2007 | 2006 |
|---|---|---|---|
| Residential –Single-Family | 79 | 67 | 171 |
| Residential-Multi-Family | 0 | 16 | 0 |
| Commercial | 8 | 6 | 4 |
| Industrial | _____ | _____ | _____ |
| Public | _____ | _____ | _____ |
| Other | _____ | _____ | _____ |

## C. High Volume Customers

List annual water use for the five highest volume retail and wholesale customers (Please indicate if treated or raw water delivery.)

| | Customer | Use (1,000gal./yr.) | indicate Treated **OR** Raw |
|---|---|---|---|
| (1) | City of Euless | 151,102 | Treated |
| (2) | Westdale Hills | 127,635 | Treated |
| (3) | Bear Creek | 34,062 | Treated |
| (4) | Manchester Apts | 32,878 | Treated |
| (5) | LMB Mgmt Inc | 32,807 | Treated |

## II. WATER USE DATA FOR SERVICE AREA

### A. Water Accounting Data

1. Amount of water use for previous five years (in 1,000 gal.):
   Please indicate: Diverted Water none
   Treated Water none

| Year | **2008** | **2007** | **2006** | **2005** | **2004** |
|---|---|---|---|---|---|
| January | 180,577 | 140,056 | 157,152 | 124,360 | 161,188 |
| February | 146,726 | 165,574 | 156,753 | 117,694 | 124,056 |
| March | 122,043 | 134,365 | 178,648 | 152,846 | 119,668 |
| April | 141,982 | 157,200 | 166,104 | 140,767 | 175,817 |
| May | 194,551 | 186,096 | 199,897 | 186,793 | 165,790 |
| June | 203,202 | 143,446 | 317,433 | 254,337 | 179,980 |
| July | 354,630 | 156,311 | 313,945 | 302,067 | 221,372 |
| August | 325,573 | 257,228 | 424,017 | 285,412 | 266,296 |
| September | 246,659 | 264,715 | 336,219 | 359,486 | 280,567 |
| October | 281,670 | 228,198 | 241,934 | 277,290 | 200,411 |
| November | 198,371 | 221,444 | 237,846 | 234,670 | 160,337 |
| December | 163,409 | 154,765 | 164,081 | 224,249 | 149,297 |
| Total | **2,559,373** | **2,209,399** | **2,894,031** | **2,659,972** | **2,204,779** |

Please indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from a stream or located at a point where raw water enters the treatment plant, or from water sales).

Above data is from metered water sales

2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types (See #1, Definitions of Utility Profile Terms) for the past five years.

| Year | Residential | Commercial | Industrial | Wholesale | Other | Total Sold |
|---|---|---|---|---|---|---|
| 2008 | 1,866,596 | 567,241 | | | 125,536 | 2,559,373 |
| 2007 | 1,692,769 | 436,751 | | | 79,879 | 2,209,399 |
| 2006 | 2,074,117 | 652,305 | | | 167,609 | 2,894,031 |
| 2005 | 1,193,157 | 595,179 | | | 151,636 | 2,659,922 |
| 2004 | 1,657,871 | 465,482 | | | 81,426 | 2,204,779 |

3. List previous five years records for water loss (See #2, Definitions of Utility Profile Terms)

| Year | Amount (gal.) |
|---|---|
| 2004 | 268,247 |
| 2005 | 292,051 |
| 2006 | 307,147 |
| 2007 | 402,458 |
| 2008 | 89,218 |

4. List previous five years records for annual peak-to-average daily use ratio (See #3, Definitions of Utility Profile Terms)

| Year | Average MGD | Peak MGD | Ratio |
|---|---|---|---|
| 2004 | 6.78 | 15.39 | 2.27 |
| 2005 | 8.09 | 14.45 | 1.79 |
| 2006 | 8.77 | 14.65 | 1.67 |
| 2007 | 7.16 | 13.33 | 1.86 |
| 2008 | 7.26 | 14.87 | 2.05 |

5. Total per capita water use for previous five years (See #4, Definitions of Utility Profile Terms):

| Year | Population | Total Diverted (or Treated Less Wholesale Sales (1,000 gal.) | Per Capita (gpcd) |
|---|---|---|---|
| 2004 | 49,950 | 2,473,026 | 135.6 |
| 2005 | 50,750 | 2,952,051 | 159.4 |
| 2006 | 52,895 | 3,201,178 | 165.8 |
| 2007 | 53,400 | 2,611,857 | 134.0 |
| 2008 | 54,000 | 2,648,591 | 134.4 |

6. Seasonal water use for the previous five years (**in gallons per person per day**) (See #5, Definitions of Utility Profile Terms):

| Year | Population | Base Per Capita Use | Summer Per Capita Use |
|---|---|---|---|
| 2004 | 49,950 | 4,560.00 | 9,210.94 |
| 2005 | 50,750 | 6,648.78 | 11,051.31 |
| 2006 | 52,895 | 5,592.96 | 12,719.31 |
| 2007 | 53,400 | 5,044.52 | 8,755.36 |
| 2008 | 54,000 | 5,735.13 | 10,502.51 |

## B. Projected Water Demands

Projected water supply requirements for at least the next ten years using population trends, historical water use, and economic growth, etc. Indicate sources of data and how projected water demands were determined. Attach additional sheets if necessary.

North Central Texas Council of Governments estimates the population of Euless to be approximately 56,724 by 2020 from a current estimation of 54,000. The water estimation is based on a water conservation goal of 140 gallons per person per day by year 2015 and 138 gallons per person per day by 2020.

## III. WATER SUPPLY SYSTEM

### A. Water Supply Sources

***City of Euless contracts with the Trinity River Authority***

List all current water supply sources and the amounts available with each:

| | Source | Amount Available |
|---|---|---|
| Surface Water: | _____ | _____MGD |
| Groundwater: | Trinity Aquifer – 3 wells | Capacity – 1.5 MGD |
| Contracts: | Trinity River Authority | As needed MGD |
| Other: | _____ | _____MGD |

### B. Treatment and Distribution System

1. Design daily capacity of system: _____ MGD

2. Storage Capacity: Elevated _____ MGD, Ground _____ MGD

3. If surface water, do you recycle filter backwash to the head of the plant?
   Yes _____ No _____. If yes, approximately _____ MGD.

4. Please describe the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

   The City of Euless purchases water from Trinity River Authority and operates three Trinity Aquifer wells. There are three points of entry from Trinity River Authority. The water system is single plane with Trinity River Authority controlling the storage levels of the three overhead. The overhead storage capacities are 2 X 2,000,000 and 1,000,000 with 2 X 250,000 gallons ground storage.

## IV. WASTEWATER UTILITY SYSTEM

### A. Wastewater System Data

***The City of Euless Contracts with Trinity River Authority***

1. Design capacity of wastewater treatment plant(s): _____ MGD

2. Is treated effluent used for irrigation on-site _____, off-site _____, plant washdown _____, or chlorination/dechlorination _____?
   If yes, approximately _____ gallons per month. Could this be substituted for potable water now being used in these areas _____?

3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. Please provide a sketch or map which locates the plant(s) and discharge points or disposal sites.

### B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: 100%

2. Monthly volume treated for previous three years (in 1,000 gallons):

   ***The following is billed flow from TRA for metered wastewater for the City of Euless.***

| Year | **2008** | **2007** | **2006** |
|---|---|---|---|
| January | 138,760.5 | 110,369.22 | 117,498.48 |
| February | 112,876.13 | 133,540.36 | 115,735.83 |
| March | 108,377.89 | 106,795.4 | 135,668.51 |
| April | 111,246.95 | 118,443.33 | 122,615.61 |
| May | 143,285.6 | 139,227.82 | 134,977.38 |
| June | 132,103.64 | 111,504.32 | 174,481.76 |
| July | 182,689.52 | 117,850.31 | 159,378.99 |
| August | 165,659.85 | 160,624.97 | 190,556.08 |
| September | 143,045.52 | 150,383.55 | 164,840.03 |
| October | 167,275.58 | 141,528.86 | 142,464.8 |
| November | 132,344.31 | 155,195.84 | 147,723.93 |
| December | 117,315.08 | 117,998.3 | 121,705.39 |
| **Total** | 1,654,980.57 | 1,563,462.28 | 1,727,646.79 |

## Definitions of Utility Profile Terms

1. **Residential** sales should include water sold to residential (Single and Multi-Family) class customers only.
   **Industrial** sales should include water sold to manufacturing and other heavy industry.
   **Commercial** sales should include water sold to all retail businesses, offices, hospitals, etc
   **Wholesale** sales should include water sold to another utility for a resale to the public for human consumption.

2. **Water Loss** is the difference between water a utility purchases or produces and the amount of water that it can account for in sales and other known uses for a given period. Water loss can result from:

   1. inaccurate or incomplete record keeping;
   2. meter error;
   3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
   4. leaks; and
   5. water theft and unauthorized use.

3. The **peak-day to average-day ratio** is calculated by dividing the maximum daily pumpage (in million gallons per day) by the average daily pumpage. Average daily pumpage is the total pumpage for the year (as reported in Section IIA1, p. 4) divided by 365 and expressed in million gallons per day.

4. **Total use in gallons per capita per day** is defined as total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served, then dividing by 365. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculation gallons per capita per day for targets and goals developed for the water conservation plan. Total water use is calculated by subtracting the wholesale sales from the total water diverted or treated (as reported in Section IIA1).

5. **Seasonal water use** is the difference between base (winter) daily per capita use and summer daily per capita use. To calculate **the base daily per capita use**, average the monthly diversions for December, January, and February, and divide this average by 30. Then divide this figure by the population. To calculate the **summer daily per capita use**, use the months of June, July, and August.

**Volumes expressed in 1,000 gallons unless stated otherwise. Years are expressed as calendar**

| | 2008 | 2007 | 2006 | 2005 | 2004 |
|---|---|---|---|---|---|
| **sales** | 2,559,373 | 2,209,399 | 2,894,031 | 2,659,972 | 2,204,779 |
| **consumption** | 2,648,591 | 2,611,857 | 3,201,178 | 2,952,023 | 2,473,026 |
| **efficiency** | 96.63% | 84.59% | 90.41% | 90.11% | 89.15% |

| | | | | | |
|---|---|---|---|---|---|
| **loss amount** | 89,218 | 402,458 | 307,147 | 292,051 | 268,247 |
| **avg gal loss/day/capita** | 4.53 | 20.65 | 15.91 | 15.77 | 14.71 |

| | |
|---|---|
| **5 yr avg sales** | 2,505,511 |
| **5 yr avg cons** | 2,777,335 |
| **average loss per year** | 271,824 |
| **average efficiency** | 90.21% |
| **5 yr avg/gal/day/cap/loss** | 14.31 |

| | 7/28/2008 | 8/26/2007 | 8/20/2006 | 9/5/2005 | unknown |
|---|---|---|---|---|---|
| **max daily purch/pump** | 14.87 | 13.33 | 14.65 | 14.45 | 15.39 |

| | | | | | |
|---|---|---|---|---|---|
| **avg daily purch/pump** | 7.26 | 7.16 | 8.77 | 8.09 | 6.78 |

| | | | | | |
|---|---|---|---|---|---|
| **peak day to avg day ratio** | 2.05 | 1.86 | 1.67 | 1.79 | 2.27 |

| | total treated water | population | per capita gpd |
|---|---|---|---|
| **2004** | 2,473,026 | 49,950 | 136 |
| **2005** | 2,952,051 | 50,750 | 159 |
| **2006** | 3,201,178 | 52,895 | 166 |
| **2007** | 2,611,857 | 53,400 | 134 |
| **2008** | 2,648,591 | 54,000 | 134 |
| **average** | 2,777,341 | 52,199 | 146 |

| seasonal daily use | dec | jan | feb | base per capita gpd | |
|---|---|---|---|---|---|
| **2004** | 135,814 | 139,089 | 135,497 | 91 | |
| **2005** | 202,289 | 213,445 | 182,656 | 131 | |
| **2006** | 172,748 | 166,253 | 164,365 | 106 | |
| **2007** | 157,604 | 149,808 | 146,595 | 94 | |
| **2008** | 176,700 | 177,300 | 162,162 | 106 | |
| **average** | 169,031 | 169,179 | 158,255 | 106 | |

| | jun | jul | aug | summer per capita gpd | |
|---|---|---|---|---|---|
| **2004** | 214,556 | 312,580 | 301,849 | 184 | |
| **2005** | 307,510 | 343,926 | 343,182 | 218 | |
| **2006** | 355,117 | 371,328 | 418,293 | 240 | |
| **2007** | 202,469 | 256,403 | 329,110 | 164 | |
| **2008** | 274,462 | 359,729 | 311,035 | 194 | |
| **average** | 270,823 | 328,793 | 340,694 | 200 | |

# Appendix D

Certificate of Convenience
and Necessity

**A DESCRIPTION OF**
**THE WASTEWATER SERVICE AREA**
**OF THE**
**CITY OF EULESS**
**CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN)**

**BEING** located in the City of Euless, Tarrant County, Texas, and being generally described as follows:

**BEGINNING** at the intersection of Heritage Drive and Glade Road in the City of Euless, Tarrant County, Texas;

**THENCE** along Glade Road in an easterly direction to State Highway No. 360;

**THENCE** in a southerly direction along State Highway No. 360 to State Highway No. 183;

**THENCE** along State Highway No. 183 in a westerly direction to FAA Drive;

**THENCE** in a southerly direction along FAA Drive to the south city limits line of the City of Euless and being just south of Koen Lane;

**THENCE** in a westerly direction along said city limits line to an angle point east of Dickey Drive;

**THENCE** in a southerly direction along said city limits line east of Dickey Drive to South Pipeline Road;

**THENCE** along South Pipeline Road in a westerly direction to an angle point in the city limits line east of Highland Road;

**THENCE** in a southerly direction along said city limits line to the south city limits line of the City of Euless;

**THENCE** in a westerly direction along said city limits line to an angle point west of Texas Star Parkway;

**THENCE** in a southerly direction to Trinity Boulevard;

**THENCE** in a westerly direction along Trinity Boulevard to the west city limits line of the City of Euless;

**THENCE** in a northerly direction along said city limits line to South Pipeline Road;

**THENCE** in a westerly direction along South Pipeline Road to State Highway No. 10 to the vicinity of Sotogrande Boulevard;

**THENCE** in a northwesterly direction in the vicinity of Sotogrande Boulevard to a point near Monterey Boulevard;

**THENCE** in a westerly and southerly direction to a point on the southerly city limits line south of Hollow Oak Drive;

**THENCE** in a westerly direction along the southerly city limits south of Hollow Oak Drive to the west city limits line of the City of Euless west of Woodridge Circle;

**THENCE** in a northerly direction along the said west city limits line to West Pipeline Road;

**THENCE** in an easterly direction along West Pipeline Road to the west city limits line west of Westpark Way;

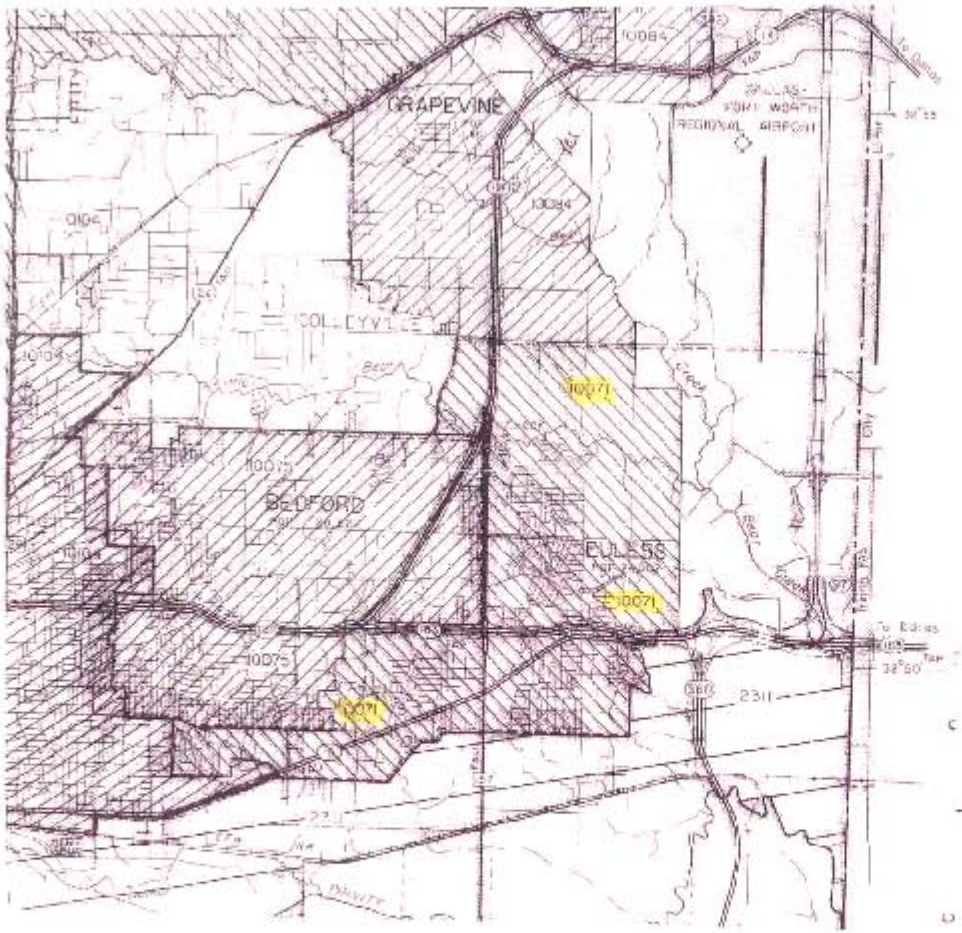
**THENCE** in a northerly direction along said west city limits line west of Westpark Way to State Highway No. 183;

**THENCE** in an easterly direction along State Highway No. 183 to Industrial Boulevard in the City of Euless;

**THENCE** in a northerly direction along Industrial Boulevard to Cheek-Sparger Road;

**THENCE** in a westerly direction along Cheek-Sparger Road to Heritage Drive;

**THENCE** in a northerly direction along Heritage Drive to Glade Road and the POINT OF BEGINNING.




WATER

WRS-220

GENERAL HIGHWAY MAP

# TARRANT COUNTY

## TEXAS

PREPARED BY THE

STATE DEPARTMENT OF HIGHWAYS

AND PUBLIC TRANSPORTATION

TRANSPORTATION PLANNING DIVISION

IN COOPERATION WITH THE

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

1976

CONTOUR INTERVAL

HIGHWAY ROUTES AS OF JAN. 1, 1975

TARRANT COUNTY TEXAS 5

CC# 10071

2011 JAN 11 PM 3:29

# Appendix E

5 & 10 Year Water
Conservation Goal

# 5 and 10 year Targets and Goals

1. Goals of the Program (5 year target and goals)

The City of Euless goals are to achieve a municipal use of 144.54 gallons per capita per day for the first 5 years beginning in the year 2009 and also achieve a municipal use water loss goal of 14.17 gallons per capita per day for the next 5 years beginning in the year 2009.

2. Goals of the Program (10 year target and goals)

The City of Euless goals are to achieve a municipal use of 141.62 gallons per capita per day for the next 10 years beginning in the year 2009 and also achieve a municipal use water loss goal of 13.88 gallons per capita per day for the next 10 years beginning in the year 2009.

3. The average five year baseline utilizing historical data is 146 gallons per capita per day.

# Appendix F

Copy of Letter to Region C
Water Planning Group

April 29, 2009

Mr. James Parks, Chair
Region C Water Planning Group
P. O. Box 2408
Wylie, Texas 75098-2408

RE: City of Euless Water Conservation Plan

Dear Mr. Parks:

Enclosed is the Water Conservation Plan for the City of Euless adopted by City Council Resolution 09-1309 dated April 28, 2009.

This plan is being submitted to you to coordinate water conservation efforts in Region C and as required by Texas Water Development Board (TWDB) and Texas Commission on Environmental Quality (TCEQ) regulations.

Sincerely,

Ronald A. Young, P.E.
Director of Public Works and Engineering

RAY:cmd

Enclosure

c: file

# Appendix G

Copy of Resolution 09-1309