Q: What facilities are currently or will soon be available with which to provide sewer service to Glenbrook Estates and other portions of the service area requested by the Town of Prosper in this docket?

A: I have attached as Exhibit RP-2 a topographic map of the U.S. Highway 380 corridor area to the immediate west of the Town of Prosper. The map identifies the boundaries of Fishtrap Properties' Glenbrook Estates residential development as well as those of Denton County Fresh Water Supply District Nos. 8A, 8B, 9 and 10. I have also shown the location of Upper Trinity Regional Water District's existing River Bend Wastewater Treatment Plant and the force main and lift stations serving these existing fresh water supply district developments and Upper Trinity Regional Water District's gravity flow trunk line (Interceptor) which is currently pending the award of construction contracts in the Doe Branch Watershed, approximately 150 feet from Fishtrap Properties' Glenbrook Estates Development. This trunk line was designed and will be constructed by Denton County Fresh Water Supply District No. 10 in order to serve currently projected needs within the Doe Branch Watershed up to the City of Celina with gravity flow wastewater service, the most cost effective form of wastewater collection and transmission. At present, the Interceptor is designed to transmit wastewater by gravity flow to Upper Trinity Regional Water District's Doe Branch Lift Station, situated approximately 6,500 linear feet from the Glenbrook Estates development, which, in turn, will pump such wastewater to Upper Trinity Regional Water District's River Bend Wastewater Treatment Plan. The River Bend plant is presently constructed for 1.5 MGD or 5,000 residential

connections, but will ultimately provide for at least 10 MGD flow to serve approximately 33,300 residential connections. Upper Trinity Regional Water District's Doe Branch Wastewater Treatment Plant, which is presently in the permit process at the TCEQ, is proposed to be constructed at its current lift station site and can eventually be sized to treat all wastewater originating within the Doe Branch Watershed from Upper Trinity Regional Water District customers between Celina and the plant site. Once constructed, this facility will receive wastewater for treatment from the Doe Branch Watershed entirely by gravity flow, including portions of District 10 which is located in the service area requested by the Town and portions of District 10 which is located directly across FM 1385 from the Glenbrook Estates development. The map also identifies major water supply lines constructed by Upper Trinity Regional Water District and Mustang SUD in this area.

Q: How can these facilities be made available for service to Fishtrap's Glenbrook Estates development?

A: It is my understanding that Mustang has contracted with Fishtrap Properties to provide such service from these facilities as shown in the agreements appended to Mr. Dowdall's testimony. The 24" water line to serve the property is already in place directly across FM 1385 from Glenbrook Estates. I anticipate that the Doe Branch Interceptor will be completed and operational in 2005. Mustang already controls 100 living units equivalents in the Upper Trinity Regional Water District treatment plant's capacity with

which to initiate service to Glenbrook Estates. Additional capacity may be purchased when and if needed in either an expansion of the River Bend plant or the construction of the Doe Branch plant.

Q: Will there be sufficient capacity in the Doe Branch Interceptor to provide service to Glenbrook and other developments within the Doe Branch Watershed?

A: Yes. Pate Engineers designed this trunk line to meet regional wastewater needs within the watershed all the way North to the City of Celina in accordance with the Upper Trinity Regional Water District's Regional Interceptor Alignment Study completed by Alan Plummer Associates, Inc. in 2003, a true and correct copy of which I have attached as Exhibit RP-3. This study is the culmination of years of coordinated planning efforts for the provision of wastewater treatment and transmission service to Northeast Denton County by Upper Trinity Regional Water District, Mustang and a variety of stakeholders in this region.

Q: Does this complete your direct testimony?

A: Yes, subject to the right to amend, revise or supplement my testimony should additional evidence or changed circumstances arising between now and the time of hearing so require.

SOAH DOCKET No. 582-03-1994
TCEQ DOCKET NO. 2002-1350-UCR

APPLICATION OF THE TOWN OF PROSPER TO AMEND SEWER CERTIFICATE OF CONVENIENCE AND NECESSITY NO. 20888 IN DENTON COUNTY, APPLICATION NO. 34004-C	§ § § § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

LIST OF EXHIBIT ATTACHMENTS TO
PRE-FILED TESTIMONY OF ROBERT D. PETITT, JR., P.E.

RP-1 Robert D. Petitt, Jr., Resume

RP-2 Facilities Map on US Highway 380 Corridor

RP-3 Upper Trinity River Water District's Regional Interceptor Alignment Study

ROBERT D. PETITT, Jr., P.E., R.P.L.S.
Petitt & Associates, Inc.

Years of Experience: 25

Education
B.S., Civil Engineering, 1978
University of Houston

Continuing Education
Environmental Engineering, Graduate Studies, 1991
Georgia Tech

Professional Registration
Registered Professional Engineer
1983, TX, 52809

Registered Professional Land Surveyor
1982, TX, 4087

Organizations
American Society of Civil Engineers
Texas Society of Professional Surveyors
American Railway Engineering and Maintenance Association, Committee 14, Yards and Terminals

Professional Experience

Mr. Petitt has been an owner/principal with three engineering firms since 1984: Dannenbaum Engineering Corporation, Carter & Burgess, Inc. and Petitt & Associates.

Mr. Petitt has extensive experience in project management, engineering design, permitting and construction management of numerous civil engineering assignments. This experience includes design of industrial and commercial developments, mixed-use and residential developments; railway improvements; roadways and thoroughfares; bridges; and infrastructure improvements such as water distribution and treatment systems, sanitary sewer and collection systems, drainage improvements and storm water management facilities. Mr. Petitt held the position of Land Design and Development Manager for one of the country's largest home builders where he managed the design and construction of a $30-million annual construction budget for residential subdivision developments.

Awards and special recognition include receiving the Outstanding Civil Engineering Achievement Award from the American Society of Civil Engineers Texas Section for the AT&SF Railway Intermodal and Consolidated Transportation Center project. This project was joint effort between Ross Perot Jr.'s, Hillwood Development Company and the Santa Fe Railroad. This project also received the Eminent Conceptors Award from the Consulting

EXHIBIT
RP-1

Engineers Council in Texas. This is the states top engineering award for all disciplines of engineering.

The following is a list of representative project experience by category:

COMMERCIAL & INDUSTRIAL PROJECTS

- Huddle House Restaurants; Project Engineer. Design of site development improvements for 20+ restaurant sites throughout the southeast.
- Waffle House Restaurants; Project Engineer. Design of site development improvements for 15 restaurant sites throughout the southeast.
- Dal Mac Industrial Park, Fort Worth, TX; Project Director. Design and Permitting of a rail served industrial business park in Fort Worth, Texas.
- Pinebrook Commerce Center, Gwinnett County, GA; Project Manager. Designed infrastructure improvements for 225-acre business park including construction of first regional detention facility in Atlanta area, widening Satellite Blvd. and Boggs Road to 5-lane entailing wetlands permitting and LOMR processing with FEMA.
- Town Center Project, Cobb County, GA; Project Manager. Provided design of a 22-acre commercial development.
- Westlake Business Park, Charlotte, NC; Project Manager. Provided design/construction of infrastructure improvements for 240-AC rail-served business park encompassing design, permitting and construction of Westinghouse Commons Blvd. and Westlake Drive, including water, sewer, storm drainage, alignment studies.
- North Loop Business Park, Houston, TX; Project Engineer. Design and permitting of a 200 acre rail served light industrial business park.
- Numerous Site Improvements projects such as MAACO Paint, HI-LO Auto Parts, Burger King, K-Mart, numerous shopping centers and office parks.
- Vantage Office Parks, Houston & Harris County, TX; Project Engineer. Design and permitting of site development improvements for over 10 office parks throughout the Houston area.

RESIDENTIAL PROJECTS

- Waterford Oaks Park & Subdivision, Cedar Hill, TX; Project Engineer. Designed and engineered entry features, streetscape and park improvements for the 300-acre Waterford Oaks private development in Cedar Hill, Texas.

- Fairview/Fairview West, Corinth, TX; Project Engineer. Design of 450-acre residential community development.

- Waterchase Estates, Fort Worth, TX; Project Manager. Design and permitting of 68 acre residential community along the West Fork of the Trinity River.

- Hidden Island, Carrollton, TX; Project Manager. Design and permitting of a 35 acre residential community along Indian Creek in Carrollton, Texas.

- Willow Lakes, Argyle, TX; Project Manager. Planning, zoning, design and permitting of a 800 acre residential community located in southwest Denton County and in the City of Argyle, Texas.

- The Colony, The Colony, TX; Project Manager. Design of 2,500-acre mixed-use development.

- Timbercreek Square, Lewisville, TX; Project Engineer. Design and permitting of a 300-acre mixed-use development.

- Mountain Oaks, DeKalb County, GA; Project Manager. Development of a 177-acre residential community.

- Town Lake, Cherokee County, GA; Project Manager. Design and permitting of 450-acre mixed-use development.

TRANSPORTATION PROJECTS

- AT&SF Railway Intermodal Facility, TX; Project Manager. Performed locational and operational studies, conceptual and schematic yard layout, preliminary planning, design development, final design and construction management for award-winning 160-acre container- and trailer-on-flat-car facility. **This project received the Outstanding Civil Engineering Award for 1994 from the Texas Section of the American Society of Civil Engineers and the Eminent Conceptors Award from the Consulting Engineers Council in 1994.**

- Automobile Mixing Center, Kansas City, MO; Project Manager. This project consisted of performing fast track engineering, surveying, track, electrical, mechanical and civil design, permitting and construction management services for a new 110 acre automobile mixing and railcar storage facility. The mixing center concept has revolutionized the rail and automobile industry as relates to transporting automobiles from the factories to the dealerships.

- Fostoria Automobile Mixing Center Design, Fostoria, OH; Project Manager. Design, Permitting and Construction Management of a 100 acre automobile mixing center for the Norfolk Southern Corporation.

- Bissonnet Road, Houston, TX; Project Engineer. Design of roadway and utility improvements for Bissonnet Road from Fondren to South Gessner.

- High-Speed Rail Demonstration Project (Seattle to Vancouver, British Columbia), Seattle, WA; Project Manager. Provided preliminary and final engineering, environmental assessment and permitting as relate to restoration of passenger rail service between Seattle, WA and Vancouver, British Columbia.

- Memphis Joint Intermodal Facility Study, Memphis, TN; Project Manager. Conceptual planning and cost estimates for a 1000 acre joint intermodal facility along with operational studies and recommendations for railroad improvements as relates to providing access to the proposed facility. This facility would serve all of the railroads operating in Memphis and provide expansion opportunities for a useful life of 25 years.

- Norfolk Southern Railroad & Ford Motor Company Automobile Loading Center, Chesapeake, VA; Project Director. Provided design, permitting and construction management for a Automobile Loading Center for Ford Motor Company and the NSRR.

- Louetta Road, Harris County, TX; Project Engineer. Alignment studies, right-of-way acquisition mapping, paving, drainage utility improvements and bridge designs for 4 miles of major thoroughfare.

  Rail Tex Carthage Intermodal Facility, Carthage, MO; Project Director. Provided construction documents for a freight rail intermodal facility in Carthage, MO.

UPPER TRINITY REGIONAL WATER DISTRICT

NORTHEAST DENTON COUNTY REGIONAL WASTEWATER TREATMENT SYSTEM

DOE BRANCH INTERCEPTOR ROUTE SELECTION STUDY

March 19, 2003

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS • DESIGNERS • SCIENTISTS

CCN/20888/CO

UPPER TRINITY REGIONAL WATER DISTRICT

NORTHEAST DENTON COUNTY REGIONAL WASTEWATER TREATMENT SYSTEM

DOE BRANCH INTERCEPTOR ROUTE SELECTION STUDY

March 19, 2003

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS • DESIGNERS • SCIENTISTS

EXHIBIT
RP-3

STATE OF TEXAS
ALAN R. TUCKER
79101
REGISTERED PROFESSIONAL ENGINEER

3-19-03

TABLE OF CONTENTS

CHAPTER I
EXECUTIVE SUMMARY

This route selection study by Upper Trinity Regional Water District (District) is to determine a sanitary sewer interceptor route for the Doe Branch Drainage Basin. The proposed major interceptor will collect and convey wastewater to the District's proposed Doe Branch Water Reclamation Plant (see Plan Sheet in Appendix). The DBWRP is one of three treatment plants proposed in the Northeast Denton County Regional Wastewater Treatment System. The District initiated the interceptor route selection study due to projected population growth in the vicinity and north of Highway 380. A recommended alignment for the interceptor is presented along with major lateral interceptors for projected future developments in the service area. The proposed interceptor will generally parallel Doe Branch Creek from Celina to the District's DBWRP and proposed service customers include the following entities:

- City of Celina
- Mustang SUD
- Denton County FWSD 10

Further, the Doe Branch System could serve the City of Prosper if the City so desired. The route evaluation included a research of previous work, available information and projected or proposed developments and the scope of work for the study of the approximately 61,000 linear foot interceptor included the following:

- Identify interceptor route.
- Use aerial photograph and USGS maps to identify possible route options.
- Site visits to further identify possible alignments, areas of dense habitat or wetlands.
- Collect property ownership information along potential routes.
- Meet with local entities and developers.
- Evaluate hydraulic impacts of wastewater collection routes.
- Evaluate easement width to accommodate pipeline.
- Consider other pipeline and utility easements that might be used for common easement.
- Develop a preliminary opinion of probable project cost.
- Make recommendation for interceptor route to serve Doe Branch Drainage Basin up to Celina.

EVALUATION

Two recent projects for which the District retained the services of Alan Plummer Associates, Inc. concluded the DBWRP to have a projected average design build-out flow of 15 MGD that will ultimately serve approximately 150,000 persons. The DBWRP would be capable of treating flows from the entire Doe Branch Drainage Basin. A number of routes were considered in this evaluation, to connect the City of Celina and nearby entities to the proposed DBWRP. The recommended alignment for the Doe Branch Interceptor is presented as Alignment A on the Plan Sheet in the Appendix.

Alignment A would be a gravity line generally parallel to Doe Branch Creek with major secondary trunk lines that collect flow from sub-basin areas or individual developments. Secondary lines or meter stations are proposed based on current planned developments or likely developments.

PRELIMINARY OPINION OF PROBABLE COSTS

The preliminary total opinion of probable project cost is approximately $19,126,000 in 2003 dollars and is based on recent project costs with inflation adjustment utilizing the latest engineering index. Project costs may vary depending on market conditions at the time of construction.

CONCLUSIONS AND RECOMMENDATIONS

Alignment A is recommended based on investigation of the Doe Branch Basin through visual inspection, previous findings, proposed developments, property ownership, topography, and developed or wooded areas. The following was concluded from the study:

- Alignment A would parallel Doe Branch Creek with a gravity interceptor.
- No lift station is needed for Alignment A.
- Majority of Doe Branch Basin served by Alignment A.
- Obtain 60-foot permanent easement from DBWRP to Fish Trap Road.
- Obtain 40-foot permanent easement north of Fish Trap Road.
- Evaluate secondary trunk interceptor as developments are proposed.
- Consider cost-sharing with Love Tract developer for initial interceptor.

CHAPTER II
INTRODUCTION

This route selection study by Upper Trinity Regional Water District (District) is to determine a sanitary sewer interceptor route to serve the Doe Branch Drainage Basin within the Northeast Denton County Regional Wastewater Treatment System. The proposed interceptor will transport wastewater from local utilities and cities to the proposed Doe Branch Water Reclamation Plant (DBWRP).

BACKGROUND

The District was created in 1989 by the Texas Legislature to serve water, wastewater, stormwater and solid waste needs in Denton County. To plan for proposed development northeast of Lake Lewisville in the Doe Branch Drainage Basin, the District retained the services of Alan Plummer Associates, Inc. (APAI) to conduct a route selection study for a wastewater interceptor from the City of Celina to the District's proposed DBWRP. Figure II-1 presents a map of the Study area. The proposed DBWRP is located west of Doe Branch Creek and south of Highway 380. The Doe Branch Drainage Basin extends northeast from the proposed plant and includes the southern half of the City of Celina and significant portions of the service areas for Mustang SUD and the City of Prosper.

On Figure II-2 are the locations of a number of development projects currently in progress or properties planned for development along the Highway 380 corridor and to the northeast in the Doe Branch area. In several instances, work is already underway to design water and sewer services to proposed developments.

PREVIOUS ENGINEERING REPORTS

The District retained the services of APAI for two recent projects: a feasibility study for providing regional wastewater trunk collection and treatment facilities northeast of Lake Lewisville; and for a site location study for the wastewater treatment plant, the DBWRP, to serve the Doe Branch Drainage Basin.

ALAN PLUMMER ASSOCIATES, INC.

ENVIRONMENTAL ENGINEERS • DESIGNERS • SCIENTISTS

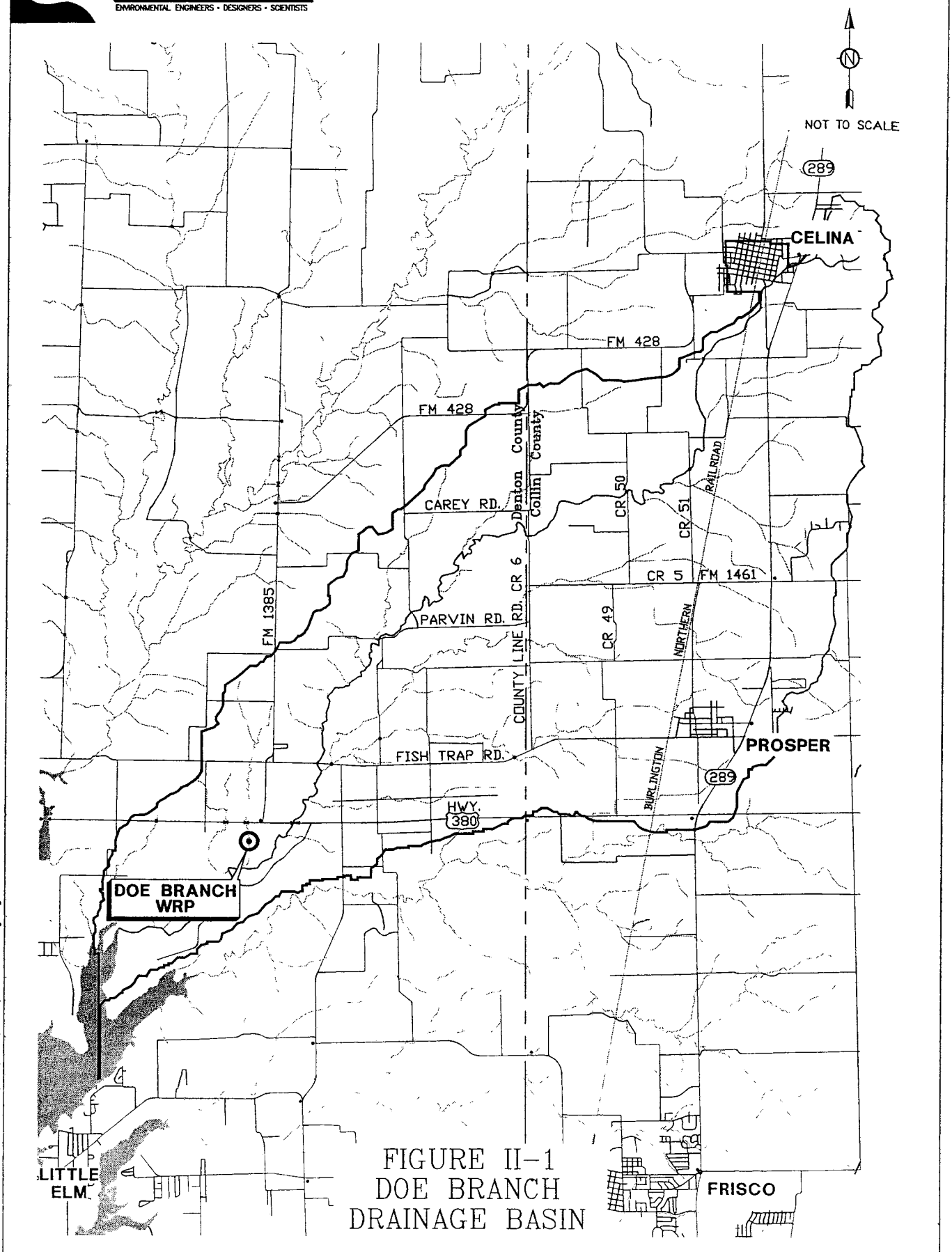

FIGURE II-1
DOE BRANCH
DRAINAGE BASIN

01/28/03-13:02 L:\Projects\449\3100\ACAD\FIGURE 2-1.dwg.dwg

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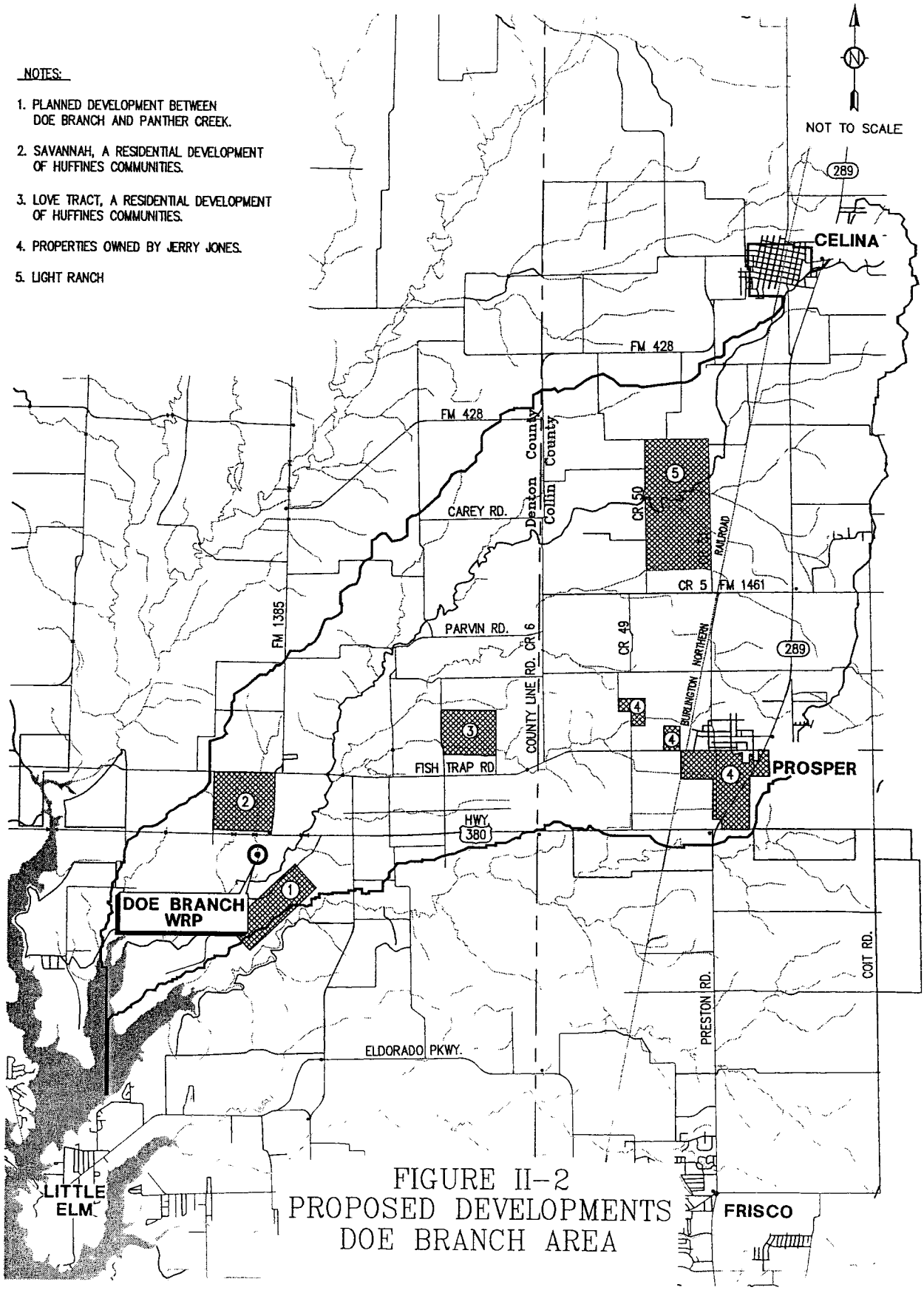

FIGURE II-2
PROPOSED DEVELOPMENTS
DOE BRANCH AREA

01/28/03-13:16 L:\Projects\449\3100\ACAD\FIGURE 2-2.dwg.dwg

Doe Branch and Little Elm Creek Drainage Basins

The feasibility study, completed April 2000, identified and prioritized improvements that will be required to accommodate the projected growth within the Doe Branch and Little Elm Creek Drainage Basins. The primary purpose of the study was to identify and evaluate alternatives for meeting the near-term (five year) need for wastewater service in existing communities and for known land development projects in a manner that will be consistent with projected long-term wastewater needs of the Study Area. One of the tasks performed in the study identified wastewater demand projections of the service area for planned build out. The existing and proposed wastewater facilities including proposed collection systems were also evaluated. Projected wastewater flows for the Doe Branch Drainage Basin are discussed in Chapter IV.

Also, in this study, it was determined that a new gravity sewer interceptor, with its route generally along Doe Branch, should be considered between the City of Celina and the proposed DBWRP located south of Highway 380 at FM 1385. Construction of the Doe Branch gravity interceptor was recommended to convey flows from future growth within the Doe Branch Drainage Basin up to and including Celina. These developments include proposed housing and commercial developments, local entities and surrounding municipalities. A regional plant could also offer an opportunity to Celina and Prosper to divert flows from their existing wastewater treatment plants.

Doe Branch Water Reclamation Plant

The second study, completed July 2002, was to determine a suitable location for the wastewater treatment plant to serve the Doe Branch Drainage Basin. A location site was recommended that would be large enough to allow gravity service from most of the service area with enough space for expansion to serve ultimate planned development. The site south of Highway 380 was recommended. The average design build out flow is projected to be 15 million gallons per day (MGD). The District has submitted a Texas Pollutant Discharge Elimination System (TPDES) permit application prepared by APAI for the first phase of the DBWRP with service anticipated to begin in summer 2003.

PROJECT SCOPE

The District requested a route selection study for an interceptor to the proposed regional treatment plant on Doe Branch from the City of Celina. This study for the approximately 61,000 linear foot interceptor included the following:

- Identification of interceptor route options.
- Use aerial photograph and USGS maps to identify possible route options.
- Site visits to further identify possible alignments, areas of dense habitat or wetlands.
- Collect property ownership information along potential routes.
- Meeting with local entities and developers.
- Evaluate hydraulic impacts of wastewater collection routes.
- Evaluate easement width to accommodate pipeline.
- Consider other pipelines and utilities easements that might be used for common easement.
- Develop preliminary opinion of probable project cost.
- Make recommendation for interceptor route to serve Doe Branch Drainage Basin up to Celina.

CHAPTER III

INVESTIGATION OF DOE BRANCH DRAINAGE BASIN

This chapter discusses the information gathered, field reconnaissance to identify potential interceptor routes and the route alignments evaluated. The goal is to propose interceptor alignments that would service the greatest area of proposed developments and be capable of gravity flow to the proposed Doe Branch Water Reclamation Plant (DBWRP). The results of the evaluation are detailed later in the chapter along with proposed interceptor alignments.

The evaluation included gathering aerial, topographic and property information, visual inspection of accessible portions of the basin, visual inspection of wooded areas, documentation of any developed areas, and notation of potential solutions to avoid developed areas or areas not conducive for placement of a interceptor. For the proposed alignments, this chapter presents a description of the alignment, the physical and hydraulic barriers associated with the route, and the number of properties or impacts of the route on individual property owners. Chapter IV discusses the hydraulic evaluation of the proposed alignments.

PREVIOUS FINDINGS

This study builds on information obtained for the Eastside Wastewater Treatment Plant Site Location Study for the Upper Trinity Regional Water District (District) completed by Alan Plummer Associates, Inc. (APAI) July 2002. For the previous study, a U.S. Geological Survey (USGS) map was used in conjunction with a floodplain map to identify potential sites for the treatment plant. A preferred site was chosen and a water reclamation plant, the DBWRP, is being designed for the chosen site. The DBRWP is intended to serve the Doe Branch Drainage Basin. The Doe Branch Drainage Basin is approximately bounded by Highway 289 on the east, the City of Celina and FM 428 on the north, FM 1385 on the west and Highway 380 on the south with a total of approximately 45 square miles (28,897 acres). Figure III-1 depicts the Doe Branch Basin with the basin boundary, USGS 10-foot contours, and roadways.

For this study, the most recently available aerial photograph was purchased (May 2002) and USGS contours, as well as, other information were overlain on the aerial to determine potential interceptor routes. Other information includes jurisdictional areas, proposed developments and property ownership that are discussed in the following sections. All information was then compiled on one Plan Sheet for the report. The Plan Sheet is included in the Appendix.

EXISTING JURISDICTIONS

In the Doe Branch Drainage Basin there are several large and small existing CCN jurisdictional areas. The large existing CCNs for sewer include those of Celina, Mustang SUD and Prosper. The Mustang SUD CCN is for water and sewer service. In some areas, Mustang SUD overlaps with other CCNs. Figure III-2 illustrates the existing CCN areas. The cities of Celina and Prosper have existing wastewater treatment plants. The Celina WWTP, on the northwest side of the City, discharges to a tributary of Elm Fork Creek which is outside the Doe Branch Drainage Basin. The Prosper WWTP on the west side of the city discharges to a tributary of Doe Branch Creek that is north of Fish Trap Road and flows westward to Doe Branch. These cities could send their discharges to a Doe Branch interceptor.

The City of Celina expects rapid growth in their CCN area within a few years and the City is currently developing a master plan for wastewater collection. Celina is considering expanding their service area west to FM 1385 although a portion of this area is within the Mustang SUD and could be served by Mustang. The master plan will consider future expansions of Celina's WWTP to accommodate increased flow within their current service area or abandoning the facility at some point for inclusion in a District system. Celina expects that the southern portion of their CCN, south of the existing city limits, would be served by inclusion in a District system.

The Love Tract developer (see Figure II-2) proposes a new CCN for the area bounded by Parvin Road, County Line Road, Highway 380 and FM 1385. This area is in the design phase for initial development and is discussed in more detail in the section, Planned Developments.

FLOODPLAIN, WOODED OR WETLANDS AREAS

Federal Emergency Management Agency (FEMA) floodplain maps were obtained for the drainage basin. The FEMA 100-year floodplain boundary was transferred onto the aerial basin map to determine which areas are within the 100-year floodplain. On the aerial photograph, areas that are heavily wooded or may potentially be wetlands are visible. These areas were noted for field investigation. Creeks or jurisdictional waters of the U.S. and wetlands traversed may require a U.S. Army Corps of Engineers (USACE) Section 404 permit. A wetlands delineation will determine which areas are jurisdictional. In general, the USACE prefers that construction stay at least 50-feet from the creek bank to preserve riparian cover and maintain a buffer along a creek channel. Avoiding

jurisdictional, wetlands and riparian cover areas will minimize required mitigation that can add significant cost to the project.

PROPERTY INFORMATION

Denton Central Appraisal District in Denton, Texas and Central Appraisal District of Collin County in McKinney, Texas tax records were consulted to determine the current ownership of potentially affected properties near Doe Branch Creek. The parcel information was compiled and incorporated into an overlay for the aerial basin map. The exact number of property tracts and its details are not known since title searches were not performed. Tax record abstract property owner identification based on current records of potentially affected properties in the Doe Branch Basin is presented on Figure III-3 included in the Appendix.

PLANNED DEVELOPMENTS

Huffines Partners is in the design stage for 2200 housing units in an area east of Doe Branch and north of Fish Trap Road on what is being called the Love Tract. A wastewater interceptor is proposed from the development to the DBWRP along the west side of Doe Branch Creek. The interceptor would cross the creek at Fish Trap Road and continue to the east along the north side of the southernmost tributary that extends eastward north of Fish Trap Road. An 18-inch diameter line is proposed. The developer would like the District to work with them on the interceptor section that would run from Fish Trap Road south to DBWRP. As of November 2002, Pate Engineers, the engineer for the development project, was surveying for the planned development and has sketched out a proposed route that is pending approval from the landowner. The majority of the development is on the property of one landowner, Mahard Egg Farms. The routing of the proposed development interceptor was chosen to stay within this landowner's property so the number of easements to obtain would be minimized. The interceptor will cross another landowner's property south of Highway 380 prior to reaching the DBWRP site.

Another development under construction by Valerian Properties named Savannah will be a 2,400 home community immediately west of FM 1385 and north of Highway 380. A portion of the wastewater from this development would be treated at the DBWRP conveyed through a separate interceptor.

The City of Celina is preparing a wastewater master plan that will consider potential developments within the City's CCN area. One development, expected to be designed in 2003 and ready for occupancy in 2005, would be located north of CR 5 (FM 1461) and west of the Burlington Northern Railroad line along CR 51 on the Light Ranch Property (see Figure II-2). This development that may be designated as MUD #1, will cover 1,100 acres and initially have 2,400 housing units. This development will need wastewater service and Celina expects it to connect to the District's system.

A proposed development south of Highway 380, on a peninsula between Doe Branch Creek and Panther Creek, may include up to 1800 homes. This development, labeled 1 on Figure II-2, plans to be served by Mustang SUD. Other recent major land acquisitions in the Doe Branch Basin are shown on Figure II-2 in Chapter II.

SUMMARY OF FIELD INVESTIGATION

APAI evaluated available data and conducted field investigations along Doe Branch Creek and within the Doe Branch Drainage Basin to identify potential interceptor alignments. Prior to the field investigation, an initial route parallel to Doe Branch Creek was selected based on inspection of the aerial photograph and from discussions about potential developments. The Plan Sheet in the Appendix depicts all the compiled information on the aerial photograph, at 1-inch equals 1000 feet scale. Compiled information includes FEMA 100-year floodplain, CCN areas and property ownership with public roadways labeled and the boundary of the drainage basin marked. The initial route was then field checked where accessible at road crossings for creek crossings, utility conflicts, individual properties and density of improvements, environmental impacts, and topography conducive to gravity flow.

The initial route projected to extend from the south of Celina to the proposed District DBWRP paralleling Doe Branch Creek was refined after field investigation and is presented as Alignment A on the Plan Sheet. In general, the route parallels the west side of Doe Branch Creek from the DBWRP south of Highway 380 to north of Fish Trap Road. Between Fish Trap Road and Parvin Road, the route would cross to the east side of Doe Branch Creek. Then, further up in the Doe Branch Basin in the vicinity of County Line Road, the route returns to the west side of the creek and follows the west side of the creek to the south side of the city of Celina. Alignment A1 is a slight variation of Alignment A for a section of the alignment in the vicinity of Parvin Road. Some specific findings during field investigation follow.

Since the Love Tract development is in the design stage for an interceptor from Fish Trap Road to the DBWRP primarily through one landowners property, we investigated paralleling that route. North of Fish Trap Road, the development alignment turns to the east along a southern tributary of Doe Branch Creek. At Fish Trap Road, we found two parallel creek channels for Doe Branch. The western channel is shallow and mostly vegetated with willows and sits within a wide floodplain. The eastern channel is a well-defined channel at least 8 to 10 feet deep that is heavily vegetated. The western channel is the named channel according to the USGS quadrangle map. The proposed interceptor route for the Love Tract development is between these two channels. We investigated an area where there is a series of connections between the two channels approximately 2000 feet north of Fish Trap Road. There has been channel cutting during flood periods, as well as, man-altered channels in this vicinity. This area would be favorable for crossing through as it is not heavily wooded and then continuing the alignment upstream to the north along the east side of Doe Branch Creek.

At Parvin Road, Doe Branch Creek is well-defined and well vegetated, but the riparian buffer is not very wide due to agricultural uses. The interceptor alignment could be routed outside the vegetation buffer to avoid vegetation mitigation. In the vicinity of Smiley Road north of Parvin Road, there are a number of smaller developed properties with houses and horse barns. Staying on the east side of the creek away from these properties could minimize the number of easements to write. Where Doe Branch Creek crosses under County Line Road, there are also a number of small property tracts. The creek at County Line Road is a defined channel that doesn't appear very deep and has a wide moderately vegetated buffer. Moving the alignment to the west side of the creek on the west side of County Line Road would allow the interceptor to service the larger tracts on the north side of the creek east of County Line Road. The alignment would then parallel the west side of the creek all the way until it reaches its terminus on the south side of Celina. Alignment A1, an alternate leg of A, following Parvin Road and CR 5 to the east and then north along CR 50 would cross fewer properties than the Alignment A route along the creek, however, Alignment A1 crosses more than 300 feet of higher topography where an interceptor would be approximately 20 feet deep.

PROPOSED ROUTES

The initial Doe Branch alignment was adjusted to reflect field observations and the proposed alignment was placed parallel to the Love Tract development proposed alignment from Fish Trap Road to the DBWRP. The Plan Sheet included in the Appendix depicts the proposed alignment as Alignment A. Alternate A as discussed above approximately parallels Doe Branch Creek from the

proposed DBWRP to city of Celina. An alternate alignment designated Alignment A1 diverges from Alignment A at Parvin Road continuing east along Parvin, north along County Line Road, then east along CR 5 and finally north along CR 50 before rejoining the route of Alignment A. Alignment A1 is about 200 feet longer than Alignment A. If Alignment A is built, a trunk line along Parvin Road and CR 5 is proposed to be built by others to serve developments south of Celina such as the proposed MUD #1 on the Light Ranch property.

The alignment labeled Alignment B to the Love Tract development would serve that development and be built by the developer. To serve areas west of Doe Branch, a line built by others along Parvin Road to the west could connect to a stub-out at Parvin Road. These preliminary interceptor and trunk alignments would all be gravity lines.

Separate lines would be built to serve the areas directly north of the DBWRP where the Savannah development is under construction. The proposed development south of DBWRP on the peninsula between Doe Branch Creek and Panther Creek will build a force main to connect to the main alignment south of Highway 380.

CHAPTER IV
HYDRAULIC EVALUATION OF ALIGNMENTS

This chapter presents a preliminary evaluation of the proposed main alignment and secondary trunk alignments. Also, provided is a preliminary evaluation of the pipeline sizing. A survey of the proposed alignment area during the detailed design phase will be required to confirm this preliminary evaluation.

PROJECTED BASIN FLOW

The July 2002 report of the site location study for the Doe Branch Water Reclamation Plant (DBWRP) projected wastewater flows in the Doe Branch Drainage Basin for the District. The Doe Branch Drainage Basin includes most of the cities of Celina and Prosper and is generally rural with a total of approximately 45 square miles (28,897 acres) in Denton and Collin Counties. The DBWRP is proposed to be located at the downstream end of the basin to allow for mostly gravity service to the facility as shown on the Plan Sheet in the Appendix. The average design flow for build-out predicted in the July 2002 report is 15 MGD. Based on growth population projections, total build-out for the Doe Branch Drainage Basin will be approximately 150,000 persons. A majority of this population will contribute residential wastewater flows with only a small percentage of commercial and industrial flows. It is projected that the primary initial development in this drainage basin will be residential development including single-family homes, apartments and other related facilities.

The Doe Branch Drainage Basin may be sub-divided into various sub-basin areas that feed the main alignment and could be individually metered. The initial evaluation of several different alignment options resulted in one primary alignment, Alignment A, with an alternate leg, Alignment A1, to carry flows from Celina to the proposed DBWRP. APAI evaluated the primary interceptor routes with three potential secondary branches by others connected at different points along the primary interceptor to serve sub-basin areas. The Plan Sheet in the Appendix illustrates the proposed alignments. Alignment A was evaluated based on basin-wide population projections. The secondary branches to Alignment A will need to be hydraulically evaluated and sized for proposed developments as that information is developed. The final alignments for each of the secondary alignments will also be determined based on its connection point to the primary interceptor.

Additionally, two separate interceptors are proposed to convey flows from areas within the basin, but not adjacent to the main alignment to the DBWRP. These are immediately north and south of the proposed DBWRP and are designated with metering stations (MS-6 and MS-7) on the Plan Sheet.

HYDRAULIC EVALUATION OF PROPOSED INTERCEPTOR

The hydraulic evaluation of Alignment A and secondary alignments determined if the interceptors would flow by gravity or if an auxiliary pump station will be required along the alignment. Based on topographic information obtained from the United States Geological Survey, the grade elevation along the Alignment A has an elevation difference of approximately 130 feet. The highest grade elevation on Alignment A is at the upstream end of the interceptor, on the south side of Celina. The elevation is approximately 675 feet. Alignment A terminates at the proposed DBWRP where the ground elevation is approximately 545 feet. A ground profile of the Alignment A is presented as Figure IV-1. Initial evaluation found Alignment A may be built without lift stations. The interceptor would generally follow the grade elevation with approximately three to five feet of cover material with the exception of some locations where there are sudden changes in elevations, like creek crossings. The initial assumption of constructing Alignment A without lift stations will be further evaluated in the detailed design phase when a survey is completed along the proposed alignment.

Alternate Alignment A1 has the same overall elevation difference as Alignment A between Celina and the DBWRP. The ground profile for Alignment A1 is presented in Figure IV-2. Where Alignment A1 diverges from Alignment A along CR 50 the interceptor may have over 20 feet of ground cover to maintain gravity slope. This depth of cover would continue for approximately 300 feet (See stations 390 to 420 on Figure IV-2).

Manholes are recommended at all points of change in alignment, sharp grade change or size of pipe, at line intersections and at the end of all sewer lines that may be extended in the future. In areas of straight run, the maximum spacing for manholes 800-1000 feet depending on the pipe size. Special consideration is required for manholes installed in the flood plain in order to minimize infiltration of storm water. These manholes will either have to be extended above the flood plain elevation or the manhole covers will have to be sealed.

Flow Metering Concept

The proposed Alignment A and secondary branches will be owned, operated and maintained by the UTRWD. All sewer flows from within the drainage basin will be metered at different points along the proposed interceptors. Based on the drainage basin maps developed in the previous study, wastewater flows from sub-areas of the basin would be metered for each separate service customer area. Thus, there are five (5) proposed metering manholes (1 through 5 on the Plan Sheet) along the primary alignment. Also, there are two additional metering manholes (6 and 7 on the Plan Sheet) to received flows from areas immediately north and south of the proposed DBWRP. Each trunk branch will be equipped with a flow meter that will be located at the end of the branch. A Parshall flume is the recommended meter type for wastewater flows due to its ease of operation, low clogging potential, accurate measurement and low maintenance. The Parshall flume is typically located in a manhole upstream of the entry point into the main interceptor . Each Parshall flume structure would be equipped with connections for local and remote flow measurement readouts.

Sub-Areas Projected Wastewater Flows

The projected built-out wastewater flow for the Doe Branch Drainage Basin is approximately 15 MGD of average daily flow. This total flow is measured at the DBWRP influent splitter box. This total flow will be contributed from sub-areas either in series to the primary interceptor or through a separate interceptor that conveys flow directly to the DBWRP. The projected wastewater loads from sub-areas are based on projected population to various collection points in the Doe Branch Basin. The potential collection points from anticipated developments have been designated as metering stations 1 through 7. The projected average non-cumulative flow rate anticipated from sub-areas at the potential metering stations, shown on the Plan Sheet, are as follows:

Meter Station 1A:	County Road 50 (potential Celina entry)	3.65 MGD
Meter Station 1:	County Line Road	1.51 MGD
Meter Station 1B:	County Line Road (alternative to MS-1)	5.16 MGD
Meter Station 2:	Parvin Road Lateral	2.83 MGD
Meter Station 3:	West Parvin Road Lateral	0.55 MGD
Meter Station 4:	Fish Trap (Love Tract) Lateral	1.03 MGD
Meter Station 5:	Highway 380 Manhole	2.90 MGD
Meter Station 6:	From peninsula south of DBWRP	1.51 MGD
Meter Station 7:	From Savannah development	0.99 MGD

Table IV-1 summarizes projected population and housing units for metering station areas for the Doe Branch Drainage Basin compiled from the District's July 2002 report. The total projected wastewater flows and the cumulative flows are also included.

Projected Capacity Requirements

Based on the preliminary evaluation of population estimates in the Doe Branch Drainage Basin, Alignment A will need to increase in pipe diameter to accommodate connecting flows as the alignment approaches the DBWRP. According to state regulations, all sanitary sewers shall be designed and constructed with slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second. It is recommended that velocities do not exceed 10 feet per second, to prevent excessive scouring of pipe material. The velocities are determined using the minimum acceptable Manning's formula "n-value" of 0.013. The "n-value" used takes into consideration the slime, grit and grease layers that will affect hydraulics or hinder flow as the pipe matures.

To meet flows and minimum velocity, Alignment A is proposed to begin with an 30-inch diameter pipe south of the City of Celina. The 30-inch pipe will be approximately 13,000 feet. Near CR 50 where sub-areas would contribute flow, the interceptor would increase to 36-inch diameter all the way to Meter Station 1 for a total of approximately 14,450 feet. The interceptor would then increase to a 42-inch diameter pipe for approximately 16,500 feet to Meter Station 3. The 42-inch pipe would accommodate flows from north and east of Parvin Road. The interceptor from Meter Station 3 to Meter Station 5 is proposed to be 48-inch diameter and accommodate flows from Meter Station 3 and sub-areas north and east of Highway 380. At Fish Trap Road, the pipe would pass Meter Station 4, which includes flow from the Love Tract development. The 48-inch diameter pipe will be approximately 17,300 feet. Meter Station 5 is proposed to be located just north of Highway 380 on the west side of Doe Branch and will measure the cumulative flow from all meter stations north along the main alignment. The 48-inch diameter pipe will terminate at the DBWRP headworks influent box.

Metering stations 6 and 7 will each have a separate alignment connecting the southern portions and northern portions, respectively, of sub-basin areas adjacent to the DBWRP. Meter Station 7 is proposed to be located directly north of the DBWRP on the south side of Highway 380 while Meter Station 6 is proposed to be located across the Doe Branch Creek southeast of the DBWRP. Flows

from Meter Station 6 will need to be pumped through a force main to the main interceptor near Highway 380 due to the lower grade elevations at that Station and to avoid crossing U.S. Army Corps of Engineers property.

TABLE IV-1
POPULATION AND FLOW PROJECTIONS FOR
UTRWD DOE BRANCH SANITARY SEWER INTERCEPTOR
ALIGNMENT A

Manhole Metering Station	*Service Area*, acres*	*Build-Out Population***	*Total Flow, Average Daily, MGD*	*Cumulative Average Daily Flows, MGD*	*Recommended Line Size, Inches*	*Cross Sectional Area, ft²*	*Average Daily Flow Velocity, ft/sec*	*Velocity of peak flow in average flow pipe design, ft/sec*
Manhole Metering Station	*Service Area*, acres*	*Build-Out Population***	*Total Peak Flow, MGD*	*Cumulative Peak Flows, MGD*	*Recommended Line Size, Inches*	*Cross Sectional Area, ft²*	*Peak Flow Velocity, ft/sec*	*Velocity of average flow in peak flow pipe design, ft/sec*
City of Celina to MS-1A	6031	36,419	14.56	14.56	30	4.91	4.59	1.15
MS-1A to MS-1	3099	14,012	6.02	20.58	36	7.07	4.50	1.13
MS 1A to MS-1B	3099	14,012	6.02	20.58	36	7.07	4.50	1.13
MS-1 to MS-2	5764	27,960	11.31	31.89	42	9.62	5.13	1.28
MS-2 to MS-3	2203	5,472	2.19	34.08	42	9.62	5.48	1.37
MS-3 to MS-4	2095	10,301	4.12	38.20	48	12.57	4.70	1.18
MS-4 to MS-5	5069	29,061	11.63	49.83	48	12.57	6.14	1.54
Sub-Basin South of 380 to MS-6	2800	14,400	6.02	6.02	21	2.41	3.87	0.97
Sub-Basin North of 380 to MS-7	1835	9,439	3.94	3.94	21	2.41	2.54	0.64
Total	28897	147,064	60					

*Acreage data is developed from scaled USGS maps of the drainage basin area.

**Population Projections are based on figures in the Eastside Wastewater Treatment Plant Site Location study developed by Alan Plummer Associates, Inc. dated July 2002.

CHAPTER V

PRELIMINARY OPINION OF PROBABLE COST

The preliminary opinion of probable construction cost for the Doe Branch interceptor was evaluated based on numerous criteria. The opinion of probable cost does not include any of the secondary branches due to incomplete information on their final lengths and sizes and other various uncertainties. Operation and maintenance costs were also investigated and are discussed later in this chapter.

The preliminary opinion of probable construction cost for the Doe Branch Interceptor, Alignment A, is anticipated to be approximately $ 19,126,000 as presented in Table V-1. The probable construction cost for the Alignment A interceptor has generally been based on bids received for other recent District projects plus a 20 percent project contingency to cover items unforeseen at this time. The bid costs were also adjusted for 2003 based on the latest ENR inflation indexes. Changes to the recommended alignment resulting from easement negotiations or changed conditions may result in changes in the project cost. Cost associated with easement acquisitions is highly variable and will greatly depend on market conditions at the time of the acquisition. The opinion of probable cost reflects the construction the entire length of the interceptor from the City of Celina to the proposed Doe Branch Water Reclamation Plant (DBWRP).

For the Love Tract development a sanitary sewer interceptor, Alignment B, is being designed for its proposed development and for later development within the area bounded by Highway 380 on the south, FM 1385 on the west, Parvin Road on the north and County Line Road on the east. The interceptor routed through this proposed development will be designed and built by the developer. Therefore, the probable construction cost for this line has not been evaluated. Since the developer intends to route alignment B all the way to the proposed DBWRP and parallel alignment A, the District and the developer may want to discuss the possibilities of cost sharing this portion of the alignment. With this cost sharing option, the District could choose to eliminate the parallel line and have only one main pipeline downstream of Fish Trap Road. Although the pipeline will be larger in size, the cost sharing of this segment of the alignment will decrease the opinion of probable cost both for the District and the developer.

Table V-1

Upper Trinity Regional Water District
Northeast Denton County Regional Wastewater System
Doe Branch Sanitary Sewer Interceptor

Preliminary Opinion of Probable Project Cost

Item No.	Description	Unit	Amount	Unit Cost ($)	Item Cost ($)
1	30 inch sewer pipe	LF	13,000	$100.00	$1,300,000
2	36 inch sewer pipe	LF	14,450	$120.00	$1,734,000
3	42 inch sewer pipe	LF	16,500	$140.00	$2,310,000
4	48 inch sewer pipe	LF	17,300	$160.00	$2,768,000
5	Meter Manhole with meter	EA	7	$80,000.00	$560,000
6	Meter Telemetry	EA	7	$30,000.00	$210,000
7	Road Crossing Bore 36-inch	LF	250	$600.00	$150,000
8	Road Crossing Bore 42-inch	LF	200	$700.00	$140,000
9	Road Crossing Bore 48-inch	LF	250	$850.00	$212,500
10	Manhole	EA	120	$3,000.00	$360,000
11	Stone Rip Rap	CY	3,000	$100.00	$300,000
12	Pipeline Markers	EA	200	$75.00	$15,000
13	Access Gates	EA	10	$600.00	$6,000
14	Doe Branch Creek Crossing (x2)	LS	1	$90,000.00	$90,000
15	Pollution System	LF	61,250	$1.50	$91,875
16	Trench Safety	LF	61,250	$1.50	$91,875
17	Mitigation	LS	1	$30,000.00	$30,000
	SUBTOTAL			Subtotal	$10,369,250
	Construction Contingencies			20%	$2,073,850
	Construction Cost			Subtotal	$12,443,100
	ENGINEERING, SURVEYING & CONSTRUCTION ADMIN			20%	$2,488,620
	PERMITTING				$30,000
	EASEMENT AND LAND ACQUISITION [1]				$4,164,658
	TOTAL OPINION OF PROBABLE PROJECT COST (2003 DOLLARS)				$19,126,378

1. Assumed cost at 75% of $50,000/acre for a 60' or 40' wide permanent easement and 50% of $50,000/acre for a 50' wide temporary easement.

The location, number, and size of developments in other portions of Doe Branch Basin have not been planned with exception of those discussed in Chapter III. The exact location and size of secondary trunk lines such as Alignments B or along Parvin Road to the east or west will be determined by developers as the area builds out. The connections for alignments at Parvin Road are proposed connections and may vary depending on where the development occurs in the area. The first of these developments may be the one described in Chapter III as MUD #1. The alignment most likely will be designed and built by developers and, therefore, an opinion of probable construction cost has not been evaluated. It is anticipated that once the trunk lines are built, these secondary alignments would be maintained by the District.

West of Doe Branch Creek a secondary branch to MS-3 may be constructed to provide service to areas west. Another area west of the creek currently under development, the Savannah project, is planning to build an interceptor directly to the DBWRP location. These connecting interceptors are expected to be constructed by the developer and, therefore, probable construction costs were not evaluated for the District.

OPERATION AND MAINTENANCE COST

The operation and maintenance (O&M) cost are expected to be minimal compared to the project cost because the proposed alignments will flow by gravity. However, there will be costs associated with the maintenance of the metering stations along the interceptors. These metering stations use only a small amount of electricity to operate the local and remote flow measurement readouts. Due to the low O&M cost, it was not included in the projected probable cost evaluation of this study.

CHAPTER VI
CONCLUSIONS AND RECOMMENDATIONS

Alignment A would provide the District with a gravity interceptor to the Doe Branch Water Reclamation Plant (DBWRP) from the City of Celina capable of servicing the areas most likely to be developed in future years. The alignment roughly parallels Doe Branch Creek through a mostly rural area with minimal development. During the study, Alignment A was adjusted to minimize elevation changes, traverse fewer properties based on county abstract records, avoid heavily vegetated areas along the creek, and to accommodate developments currently in the design or planning stages. Local entities were interviewed to determine where near term development is planned. The total opinion of probable project cost is approximately $ 19,126,000. Alignment A1 is a viable alternate, but it is slightly longer and has a 300 foot section where the interceptor would be over 20 feet deep, however, it does traverse fewer properties along Parvin Road and CR 5 than Alignment A along the creek.

RECOMMENDATIONS

To collect wastewater flows from the Doe Branch Basin and the city of Celina interceptor Alignment A is recommended for the major alignment. Water will be delivered to the Doe Branch Basin through another route. Alignment A would only be a wastewater alignment thereby avoiding complications with adjacent proximity to water mains. Alignment A will allow for gravity service to the proposed DBWRP and would be capable of collecting wastewater from the majority of the basin. The portion of Alignment A from Fish Trap Road to the proposed DBWRP location is already planned for the Love Tract development.

A 60-foot permanent easement is recommended from the proposed DBWRP to Fish Trap Road where the alignment coincides with the Love Tract Alignment B. North of Fish Trap Road a 40-foot permanent easement is recommended. It is our understanding that an 18-inch interceptor is planned for construction to the Love Tract development, Alignment B, and this line will need to be paralleled along the main alignment when service is extended. Alternatively, the District may participate in an upsized main to avoid a parallel line later. The 60-foot permanent easement would allow for paralleling the initial interceptor. Construction easements would be an additional 50-feet wide.

UPPER TRINITY
REGIONAL WATER DISTRICT

P.O Drawer 305 • Lewisville, TX 75067

(972) 219-1228 • Fax (972) 221-9896

State of Texas

County of Denton

I, Tammy Naylor, Senior Executive Secretary of the Upper Trinity Regional Water District, as authorized by the District's Executive Director, hereby certify that the:

Northeast Denton County Regional Wastewater Treatment System
Doe Branch Interceptor Route Selection Study
Dated March 19, 2003

is a true and correct copy of a public record of the Upper Trinity Regional Water District, filed, recorded, compiled and maintained in the regular and official course of business of the Upper Trinity Regional Water District. Given under my hand and seal this 16th day of April, 2004.

Tammy Naylor
Senior Executive Secretary

CCN/20888/CO

SOAH DOCKET NO. 582-03-1994
TCEQ DOCKET NO. 2002-1350-UCR

APPLICATION OF THE TOWN OF PROSPER TO AMEND SEWER CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN) NO. 20888 IN DENTON COUNTY, APPLICATION NO. 34004-C	§ § § § § §	BEFORE THE STATE OFFICE OF AMINISTRATIVE HEARINGS

PREFILED TESTIMONY
OF
THOMAS E.TAYLOR

ON BEHALF OF

FISHTRAP PROPERTIES
AND
GLENBROOK WATER SUPPLY CORPORATION

AUGUST 15, 2003

EXHIBIT NO. 4

SOAH DOCKET NO. 582-03-1994
TCEQ DOCKET NO. 2002-1350-UCR

APPLICATION OF THE TOWN OF PROSPER TO AMEND SEWER CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN) NO. 20888 IN DENTON COUNTY, APPLICATION NO. 34004-C	§ § § § §	BEFORE THE STATE OFFICE OF . AMINISTRATIVE HEARINGS

PREFILED DEPOSITION TESTIMONY
OF
THOMAS E. TAYLOR

BY MR. KERRY RUSSELL:

Q. (10:45 a.m.) Mr. Taylor, I'm Kerry Russell. I'm an attorney for the Town of Prosper, one of the participants in this proceeding, and I think you're generally familiar with it. And we're here to take your deposition today. Any you realize you're under oath, giving testimony today the same as you would be if we were having the trial in this matter? (Taylor Deposition. Page 4, beginning line 6; all future references will be to the Taylor Deposition and page and line will be given only at the start of each part of the deposition quoted and parts will be separated and indicated by a three dot ellipse)

A. Yes.

Q. Okay. And would you please state your full name and your business address for the record, please, sir.

A. I'm Thomas Taylor, executive director of Upper Trinity Regional Water District and our offices and where we're located here is 900 North Kealy in Lewisville, Texas.

Q. . . .Would you just give a general overview of what Upper Trinity is and how it works?. . . (from page 4, line 1 to page 12, line 25)

. . .

Q. (BY MR. RUSSELL) That will be fine. Mr. Taylor, I'm going to mark -- hand you what I've marked as Taylor Exhibit 2, and would you identify that. . .

A. It's a letter from the Town of Prosper on Prosper's letterhead addressed to me regarding utility service to Dowdall tract that's apparently of interest to the Town of Prosper.

Q. And I'll represent for the record that it appears to be the tract that's within the area of concern of this proceeding. (From Page 8, line 22 to page 9, line9)

. . .

A. Anyway, Upper Trinity was formed in 1989 as a legislatively created regional agency. Texas legislature created us in 1989, and it's a member governed agency. There are 25 members all – each of which is a governmental agency, each of which is a utility agency. Plus Denton County which has a statutory seat on our board, has two statutory seats, for a total of 27 board members. Each member gets a seat on the board. Denton County gets .2(sic) seats on the board even though they're not a utility agency by statute.

So governed by a board of directors, appointed by members and the County. In addition to our members, we also have some customers that are

not member agencies. And they can be either governmental – the customers can either be governmental or a bona fide utility to be a nonprofit corporation or an investor owned utility. But only the governmental agencies are eligible for membership. We provide water and wastewater service plus a few other miscellaneous services related to water and wastewater all of which is provided at wholesale. We provide no retail service.

We supply service to the utilities who are responsible for local service to retail customers –

Q. And does - -

A. - - throughout the Denton County area with some area in Dallas, Collin, Wise, and Cooke Counties, relatively small areas that are within our general area of interest.

Q. Does Upper Trinity have statutory limits on its jurisdiction?

A. We have boundaries established by statute, and the boundaries - - and the boundaries include - - boundaries - - boundary line is - - the district includes all of Denton County plus any incorporated - - all of the incorporated area within our members. So if a member is partly or wholly outside Denton County such as the City of Irving, our boundaries include all of the City of Irving. Such as Carrollton is half in Dallas County and half in Collin County. It includes the whole City of Carrollton. (page 13, line 13 to page 15, line 2)

. . .

A. So that establishes the boundary of Upper Trinity, our boundaries of the district. There are no boundaries of our service area.

Q. (BY MR. RUSSELL) Okay. That was going to lead to my next question. Do you generally provide wastewater treatment service by drainage basins, or do you jump over drainage basins? Is there – or do you have any concerns in that regard?

A. We provide wastewater service and water service according to a master plan that evolves over time. But we had an original throughtout (sic) plan before we were even created, and we were created to carry out that plan, and then that plan has been updated from time to time. And the water service is without - - without - - the plan for water service is just to cover the whole district with minor exceptions, which we can get into if you wish, plus an area that's been somewhat assigned to us or agreed by mutual agreement under the Senate Bill 1 planning process.

Q. Okay.

A. It's where the - - some of the fringe areas comes in and - - what I described in terms of boundaries and certainly our service area. The wastewater service is generally but not totally organized by drainage basins. But with there being several lakes here - - there are three major lakes in Denton County, each of which interrupts the normal drainage flow. So we're not able to limit our plans to reflect just the drainage basin. We have to serve the geography.

So it's - - it goes beyond normal drainage patterns in order to accomplish that recognizing the interruption that the lakes cause. (page 15, line 7 to page 16, line 13)

. . .

Q. (BY MR. RUSSELL) Could you describe your educational background for me, Mr. Taylor, starting with where you graduated from high school?

A. I graduated from high school in Malvern, Arkansas. I graduated from the University of Arkansas Bachelor of Science in civil engineering. Attended graduate school at SMU and practiced engineering and utility management at the City of Dallas as head of the Dallas water system. Retired from the City of Dallas and have been working on this project most of the time since then.

Q. Are you a registered engineer in Texas?

A. Yes. Registered professional engineer.

Q. And you're currently employed by Upper Trinity - -

A. Yes.

Q. What's the full name?

A. Upper Trinity Regional Water District.

Q. Upper Trinity Regional Water District. And how would you characterize your job responsibilities for Upper Trinity?

A. I am the executive director reporting to the board of directors. The board sets the long range plans and policies of the district, and my resonsibiity is to carry out the executive responsibilities of the district, to plan, direct, manage the utility programs that are part of Upper Trinity. So I apply my managerial ability and my engineering ability, and plan and manage utility programs generally of a water and wastewater mixture.

Q. Sounds like you're the right person for the job up here given the growth in the area.

This proceeding is about a sewer CCN application that the City of Prosper has filed for an area that's bounded by its city limits totally within Denton County.

Mr. Russell: I believe, Sal, that's as accurate of a description as I can give.

Q. (BY MR. RUSSELL) It's not all within the Prosper city limits, but it's bounded. Are you generally familiar with that area I'm describing, Mr. Taylor?

A. I'm aware of the - - more of the area within Denton County. Much of the City of Prosper, of course, extends into Collin Count. But the area you're talking about is the Denton County portion?

Q. Yes, sir. Only the Denton County portion

A. Denton County portion, I'm generally aware of that. As I understand it, there's approximately a ten-foot strip that defines the area that you're talking about.

Q. That's correct, sir.

A. Most of the area's actually outside the City of Prosper, but bounded by that ten-foot strip.

Q. That's correct.

A. Okay. I'm generally familiar with that because we've had several discussions with the Town of Prosper over the years. In fact, the Town of Prosper was one of the founding members of - -

Q. Really?

A. - - Upper Trinity. They were a member of Upper Trinity. They were a charter member of Upper Trinity.

Q. They're not still a member, though, are they?

A. No. There was a ten-year provision and statute, and members - - anyone could sign up that met certain qualifications for that ten-year period. And then theyh had to make the election. They would make a decision at the end of the ten-year period of whether they wanted to stay as a permanent member or not, and they voluntarily elected to not continue their membership.

Q. I did not realize that.

When I talk about the area, obviously feel free to ask me to define the area that I'm speaking of when I ask you a question. But unless it's something that I try to relate to separately, I'll be talking about this area that's under consideration for this CCN. And I believe you told me earlier that Upper Trinity provides only wholesale wastewater treatment service; is that correct?

A. Water and wastewater. (from page 18, to page 21, line 9)

. . .

Q. Is the Town of Prosper the type of governmental entity that could request service from Upper Trinity for this area?

A. Exactly.

Q. And would Upper Trinity be willing to provide service to this area through the Town of Prosper?

A. Yes.

Q. Okay. And that would include both water and wastewater?

A. Yes. And I might - - I'm volunteering this, but I might add just for clarification that much of what we're doing in that vicinity is a result of Prosper's suggestion

and direction to us when they were a member to - - to make the kinds of plans that we're making. They were very vocal and very insistent that we get with it and start planning for that area since is was urgent, they needed it. So we started moving that direction while they were members, and then they opted out of membership.

Q. Do you have any idea why they opted out?

A. It would be pure speculation. It was never understandable to me.

Q. It's politics I guess is the best way to put it.

A. That's probably the closest explanation.

Q. Okay. Do you - - and this will give you a chance maybe to explain a little more what you just said to me a little bit. Do you feel like Upper Trinity's in a better position to provide water and wastewater service for that area in questin than any other provider?

A. Yes. Definitely yes.

Q. And why do you think so?

A. For water service, it would be because we have the water supply. We have an adequate water supply for many years to come, and our physical facilities are very close by.

Q. If - - if I'm not mistaken - -

A. In the proximity, we have water facilities with major new facilities coming soon.

On the wastewater side, it would be because it's in the drainage basin that could flow off of gravity. It's the lowest cost form of service to our

plant that's currently underway. It's in a permitting procedure for a new plant. In that basin - - and even before that permit is granted, we have a lift station that's under construction to lift it to an existing facility that's already operating nearby.

Q. Okay.

A. So the reason is availability of service and fits within our master plan concept.

(from page 27, line 12 to page 29, line 11)

(Deposition Exhibit 5 marked)

Q. (BY MR. RUSSELL) We'll get back to some - - follow up with that in a minute. But I want to go ahead and introduce a couple of exhibits because as I ask you questions, it may be easier for you to refer to these exhibits. And these are a couple of maps that you gave me before we started the deposition, and I'm going to hand you what I've marked as Taylor Exhibit 5. And would you identify that for the record, Mr. Taylor?

A. This is a recent representation - - map representation of our existing service facilities for water showing existing lines and lines that are currently in the planning stage within the confines of our boundary and service area. It's reasonably up to date. It shows that we are serving approximately 18 cities today off of those pipelines and pump stations and have plans to serve several additional cities within our service area.

Q. Okay. And is this - - is this exhibit fairly up to date?

A. This is fairly up to date. It's within the - - within the month.

Q. Okay.

A. Thirty days of being up to date.

(Deposition Exhibit 6 marked)

Q. (BY MR. RUSSELL) I'm going to go ahead and place that in the record. And let me ask you to identify what's been marked as Taylor Exhibit 4, please sir.

MR. LEVATINO: NO. I think it's Taylor Exhibit 6.

Q. (BY MR. RUSSELL) Taylor Exhibit 6. I'm glad Mr. Levatino and Mr. Boyle are here to keep me straightened out. I can't even count these days.

MR. LEVATINO: And for the record, we just finished with Exhibit 5 - -

MR. RUSSELL: YES.

MR. LEVATINO: - - the water - -

MR. RUSSELL: YES

MR. LEVATINO: - - system map.

MR. RUSSELL: Actually I'm going to leave it over here where Mr. Taylor can get hold of it for the purposes of being able to refer to them if he needs to.

Q. (BY MR. RUSSELL) Now, Mr. Taylor, if you would, go ahead and identify Exhibit 6 for the record, please sir.

A. In contrast with Exhibit Number 5 which is - - covers the water map for our entire service area, this is the wastewater map for just the northeast portion of our service area, and it focuses on the area generally north of us and then generally east of the Elm fork of the Trinity River.

Q., Okay. And does any of your water supply come from Lake Lewisville?

A. Yes.

Q. Okay. And that's the same lake where the plants - - the two plants you just described to me ultimately discharge? Is that wrong?

A. The two plants I just described.

Q. You - - you just mentioned ago talked to me about the new Doe Branch plant and I believe there was another facility that I was going to ask you the name of that - - that would supply this area with wastewater treatment service.

A. The - - we have three plants for the northeast area that are in our master plan. All three are shown on this map. Riverbend plant is operating today. It's operational. It's just north of U.S. 380. And the Doe Branch - - proposed Doe Branch is just south of U.S. 380 on the - - the Doe Branch. Then we have a third plant that's under construction that's south of 380 off of Naylor Road, generally an area we call the peninsula, that south of the town of Crossroads.

MR. LEVATINO: For the record, when he refers to northeast, I assume that he means northeast Denton County?

THE WITNESS: But it's not all Denton County. Part of it's in Collin County. It's the northeast portion of our service area.

MR. LEVATINO: Okay.

THE WITNESS: Generally within northeast Denton County.

Q. (BY MR. RUSSELL) Okay. And does the Riverbend plant have a discharge permit?

A. Yes.

Q. And what size is that discharge permit?

A. 500,000 gallons with the permit pending for an increase.

Q. A permanent amendment pending for an increase?

A. Yes.

Q. And how much is the increase?

A. Something in the excess to 2 million gallons. I don't have the precise amount. (from page 30, line 8 to page 33, line22)

. . .

Q. Where does the Riverbend plant drain? The discharge, where does it drain to?

A. The Riverbend plant discharges into the Little Elm creek arm of Lewisville Lake.

Q. Okay. And the Doe Branch -- the new Doe Branch 10 plant, where will it discharge?

A. It will discharge into the Doe Branch arm area of Lewisville Lake. (from page 34 lines 5 to 12)

. . .

Q. Riverbend plant. Have there been any technical problems related to the construction or operation of that plant?

A. Just the usual construction problems related to a project of that sort. . (page 36, lines 14 to 17.)

. . .

Q. Yes, sir. Yes, sir. I think I understand what you're talking about there in Lake Lewisville and some of these arms.