FINAL

ENVIRONMENTAL IMPACT STATEMENT

FOR

CONSTRUCTION OF WASTEWATER FACILITIES

RED OAK, TEXAS
WPC-TEX-533

IMPACT STATEMENT NUMBER 7103

Prepared By

OFFICE OF GRANTS COORDINATION, REGION VI
ENVIRONMENTAL PROTECTION AGENCY
DALLAS, TEXAS

APPROVED BY:

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May 26, 1972

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LOCATED AT END OF REPORT

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EXHIBIT No. 1 - Transverse Mercator Projection

EXHIBIT No. 2 - Sewer System for Red Oak, Texas

EXHIBIT No. 3 - Red Oak Creek, Water Quality Data

EXHIBIT No. 4 - Permit to dispose of Wastes

EXHIBIT No. 5 - Estimated Population, Red Oak, Texas

EXHIBIT No. 6 - Summary of Costs

EXHIBIT No. 6A- Cost Estimate Proposed Project

EXHIBIT No. 7 - Revised Project Cost estimate for Sewer System for the City of Red Oak, Texas

EXHIBIT No. 8 - Well Water Analysis

EXHIBIT No. 9 - Classification of Irrigation Waters

EXHIBIT No. 10- Hearing Commission Report

EXHIBIT No. 11- Attendance List - City of Red Oak

EXHIBIT No. 12- State Health Department Field Report

SUMMARY

( ) Draft Environmental Statement
(X) Final Environmental Statement

Environmental Protection Agency
Region VI, Air and Water Programs Division
Dallas, Texas

1. Name of Action
   Administrative Action (X)
   Legislative Action ( )

2. The proposed action consists of federal grant assistance as authorized by Section 8 of the Federal Water Pollution Control Act. The City of Red Oak, Ellis County, Texas has applied for federal funds to aid in constructing a complete wastewater treatment system. The portions of this system eligible for federal funds include the wastewater interceptors and treatment plant. The treatment plant will employ an extended aeration process including pretreatment grit removal, flow measurement, and effluent chlorination. The treatment process will take place in an oxidation ditch followed in series by a clarifier. The biologically active solids from the aeration unit will be collected in the clarifier and returned to the oxidation ditch to aid in stabilizing the raw sewage. Sludge drying beds will be constructed on the site with ample volume to handle clarifier sludge accumulations and waste sludge from the treatment process.

3. The total project includes all facilities necessary for the collection, transportation, and treatment of wastewater

generated in the City of Red Oak, Texas. Discharge of the treated effluent will be to an unnamed tributary of Red Oak Creek. The project is designed to eliminate the septic tanks that are presently contributing to pollution of surface water and creating potential health hazards in the area. The alternatives being considered are intended to improve the health and welfare of the people residing within the city while enhancing the water quality of Red Oak Creek and its tributaries. The final selection of the most feasible alternate is contingent on thorough evaluation of both economic and ecological aspects to assure that the project concepts will minimize adverse effects on the human environment without unduly burdening the citizens.

4. The alternatives being considered include:

   a. Grant rejection - The proposed project might be financed without federal grant aid if federal requirements will impose total project costs that are not within funds available to the City of Red Oak. The Project would be designed to meet the requirements of the Waste Control Order issued by the Texas Water Quality Board and consistent with design criteria established by that agency. It is assumed that this project would be the same as the one proposed.

   b. Provide advanced waste treatment facilities to supplement effective secondary treatment, further improving the quality of the effluent to a degree that will exceed current criteria formulated by the Texas Water

Quality Board.

c. Construct an interceptor to transport waste water to the Trinity River Authority's regional treatment facility.

d. Total retention ponds sufficiently large to preclude effluent discharge to a receiving stream.

e. Irrigate a privately owned golf course with the treated effluent, thus precluding discharge to a receiving stream.

f. Hauling raw waste by truck to a regional treatment facility.

g. Discharge of treated effluent to a receiving stream with lesser aesthetic value.

h. A "no action" concept of continued use of septic tanks.

5. List of Federal, State, and local agencies from which comments have been solicited. (Attached)

6. The Draft Environmental Impact Statement was made available to the Council on Environmental Quality on February 25, 1972.

The Final Environmental Impact Statement was made available to the Council on Environmental Quality on [redacted].

JUN 5 1972

Federal Agencies

Forest Service

Bureau of Outdoor Recreation

Army Corps of Engineers

Soil Conservation Service

Geological Survey

Department of Housing & Urban Development

Office of Economic Opportunity

Department of Health, Education & Welfare

EDA

State Agencies

Office of the Governor

Texas Air Control Board

State Department of Health

Texas Industrial Commission

Texas Parks & Wildlife Department

Texas Water Quality Board

Texas Highway Department

Railroad Commission of Texas

Texas Water Rights Commission

Texas State Historical Survey Committee

Department of Agriculture

General Land Office

State Agencies

Texas Animal Health Commission

Forest Service

State Soil & Water Conservation Board

Texas Tourist Development Agency

Texas Water Development Board

Association of Texas Soil & Water Conservation Districts

Texas Conservation Council, Inc.

Bureau of Economic Geology

Texas Council for Wildlife Protection

Texas Forestry Association

Individuals and Local Agencies

Wisenbaker and Fix

Mrs. Ed Prude

Honorable F.P. McCalman, Mayor

Robert N. Tharp, Regional Manager, Trinity River Authority

North Central Texas Council of Governments

Honorable Milton Hartsfield

David Fearis, M.D.

Mr. Don Shields

Red Oak Creek Landowners Association

Mrs. Franklin Wright

ENVIRONMENTAL IMPACT STATEMENT

I. Description of the Proposed Action

The City of Red Oak, Ellis County, Texas, located approximately 23 miles south of Dallas (Exhibit No. 1), plans to construct a wastewater collection and treatment system to serve its residents. The city's proposal calls for a complete collection system, interceptors, and extended aeration treatment plant. Discharge of the treated effluent will be to a tributary of Red Oak Creek. The facilities will be designed for 2000 population equivalent expected in the late 1980's, but initial service will be to the approximately 800 current residents of Red Oak. All of the proposed facilities will lie in or near the developed areas of the City of Red Oak. (Exhibit No. 2)

At present, the City has no municipal sewerage facilities. A preliminary plan for the proposed system was prepared by the city's consulting engineers in 1958, but the project was found to be cost prohibitive at that time. The present proposal, based on a Red Oak Creek discharge, has been found to be financially acceptable to the City. The project has been reviewed and approved by the Texas Water Quality Board, Texas State Department of Health and the North Central Texas Council of Governments. Documents from these agencies are included in this statement. These documents refer to an oxidation ditch - stabilization pond system which was originally proposed by the City. Since these agencies approved a pond system, it is expected that they will approve a clarifier

in lieu of the ponds. Review of the plans by the Environmental Protection Agency, following the grant application, indicated a need for an Environmental Impact Statement to respond to the objections of some downstream landowners. This review studied the design, economics, and ecological aspects of the project and initially concluded that total retention or reuse would be the best interim solution pending connection to a regional system when financially practical. These conclusions were then made conditions of the $55,550 Grant Offer made on 30 June 1971. EPA representatives further recommended using plant effluent to irrigate a nearby golf course as an effluent reuse alternative.

The following is an excerpt from a statement presented at the Public Hearing held in Duncanville, Texas, on October 8, 1971. This statement was prepared to clarify the position of the Environmental Protection Agency on the Conditions of the Grant Offer.

> Although the grant offer was made contingent on these conditions, additional alternatives may prove feasible for further consideration. However, the City of Red Oak will be responsible for justifying any other alternative with due consideration given to economics and the effect on the human environment.
>
> The Environmental Protection Agency will give approval to any such proposal that is judged to be the best course of action consistent with national environmental goals.

In accordance with this statement the Environmental Protection Agency and the City's engineers conducted a more detailed study of the irrigation system proposal and concluded

that this alternative was ecologically and financially impractical. A review of all alternatives concluded that the City's proposal was the most practical and the reuse-retention condition was dropped from the Grant Offer.

The City's existing treatment facilities are comprised of septic tanks owned and operated by the residents of the city. Due, in part, to the poor permeability of the calcareous clay soil of the region, these facilities are hydraulically overloaded. Sewage pools have been observed in several sections of the city.

In addition, these pools represent a potentially serious public health hazard. Representatives of the EPA and the Texas State Department of Health have observed these conditions on several occasions and a copy of the Health Department report is given in Exhibit No. 12.

Among the most seriously affected areas of the City are the schools. This daily concentration of people has taxed the soil system's limited absorption capacity and overflows are evident. To help alleviate this condition, and the odors associated with it, the Red Oak Independent School District has recently added 1000 feet of lateral lines to the school's drain fields. This is only a temporary solution, however, since the schools are expanding rapidly as evidenced by a proposed high school addition.

The aesthetic value and sanitary quality of Red Oak Creek is also endangered by the septic tank seepage occurring in the

City. Runoff flushes these pools and carries the sewage to the creek where it may pose a threat to the health of anyone using the creek for recreational or agricultural purposes. Increased seepage could have a significantly degrading effect on the stream, producing an aesthetically unpleasant change in the area.

II. Environmental Impact of the Proposed Action

The project, as proposed, will affect the environment in four specific areas:

1. ecological disruption during construction;
2. land-use;
3. population growth;
4. effect of effluent on Red Oak Creek.

A. Ecological disruption, as a result of construction, is a problem common to all wastewater facilities projects. Installation of the collection system in the developed areas of the City will have little or no ecological impact other than the short-term impact of being unsightly and inconvenient to the local residents. Construction of the interceptor will be along a route through undeveloped land. Any damage done along this line will be short-term since no permanent above ground facilities will be needed and the restorative provisions of the contract specifications will return the area to near pre-construction conditions.

In most cases, construction of a wastewater treatment plant will have a long-term ecological impact. Removal of trees and shrubs, site excavation and road building, and the installation

of numerous permanent structures will drive off most animal life and destroy the natural setting of the area.

The proposed Red Oak plant, however, is part of an interim plan and, while construction will result in the condition mentioned previously, removal of the plant's structures followed by proper landscaping will return the site to its natural state. For this reason, the overall impact of the plant on ecological development in the area of the site can be regarded as short-term.

B. Land use changes, like the ecological disruption that results from construction, can be regarded as having only a short-term environmental impact. In the developed areas of the City, no land use changes are anticipated since the sewers will be designed to serve the land as it is presently used. The undeveloped lands adjacent to the interceptors will be limited in development by the location of the line; on the other hand, this same line will stimulate development of the adjacent land. The land adjacent to the treatment plant will be adversely affected by the presence of the facilities, since the existence of a plant is aesthetically objectionable to landowners and developers. However, these facilities are regarded as an interim solution and should be closed before extensive development begins in the general area of the plant.

C. The population growth trend, like land development, will be beneficially stimulated by the installation of a sewerage

system. The removal of the aesthetically objectionable seepage will help to improve the City's residential image thus drawing prospective homeowners to the area. Exhibit No. 5 shows a population projection to the year 2,000. It can be seen that the rate of population growth increased after 1962, the year of completion of a major highway (Interstate Highway No. 35E) connecting Red Oak and downtown Dallas. The construction of a sewerage system, combined with the introduction of a modern highway for commuting, will make Red Oak a desirable site for residential development. This development should effect an increase in the population growth rate which may exceed the projection presented in Exhibit No. 5

D. The controversial aspect of this project is its overall effect on the quality of the proposed receiving stream, Red Oak Creek. In considering the overall effect on the stream, four questions must be answered.

1. What is the present quality of the stream?
2. What is the safe assimilative capacity of the stream?
3. How effective is the proposed treatment?
4. How will plant operation affect the effluent quality?

1. What is the present quality of the stream?

In response to the first question, no detailed analysis of the stream's quality is available. Exhibit No. 3 gives the results of two samples analyzed to determine some of the stream's physical and chemical characteristics. As evidenced by these results, the stream appears to be acceptable for most uses.

The apparent good quality of the stream is further evidenced by varied uses which include swimming, cattle watering, and some reported crop irrigation. In addition, the stream basin's pleasing environs attracts hikers, picnickers, and other groups and individuals who enjoy the stream's natural setting.

One consideration regarding present quality that has not been fully developed is the effect of septic tank seepage on the stream. No analysis of the stream in the Red Oak area has been conducted to determine the degree to which the stream has been contaminated by runoff carrying raw or partially treated wastes from leaking septic tanks. Natural drainage from the City is carried to Red Oak Creek but the strength of the wastes contained in the runoff is unknown. As evidenced by the present quality of the stream, the wastes reaching the stream are apparently having no significant effect. However, if the City's population continues to grow, this condition may change adversely and visible stream damage will result.

2. What is the safe assimilative capacity of the stream?

As in the previous question, no precise response is possible due to the lack of detailed data on the stream's flow and quality. Exhibit No. 3 gives some indication of the flows in the stream as well as some indication of the stream's assimilative capabilities.

The analysis of the first sample shows the water quality in Red Oak Creek below the discharge from the Cedar Hill treatment plant. This plant consisted of a primary clarifier, trickling filter, and oxidation pond. It produced treated effluent (50,000 gpd) meeting the TWQB 20 mg/l BOD_5 and TSS standards. The plant was phased out in 1970, following connection of the City's collection system to the Trinity River Authority's (TRA) regional facilities. These notes infer that the effluent had a negligible effect on the stream at this rate of flow. Exhibit 3 also shows the results of tests conducted on samples taken at a point below the cattle feed lot located between Red Oak and Rockett. These samples were taken after closing the Cedar Hill plant, and the results infer that, at this rate of flow, the stream is relatively unpolluted.

In addition to the available data, a literature review indicated that, in general, streams with low discharge, shallow flow, high velocity, and areas of riffles, such as Red Oak Creek, will have the highest rates of reaeration. This indicates that the stream should be able to recover quickly from an oxygen sag induced by point loads such as a treatment plant outfall.

During periods of low flow the rate of reaeration will remain high due to the decreased depth of flow. This results in increased turbulence in the areas of riffles which effects an increase in reaeration.

This process will keep the flow from becoming septic unless large, deep pools are encountered; a condition which is not expected on Red Oak Creek.

Based on the stream's physical characteristics, the available flow and quality data, and the fact that an upstream treatment plant's effluent had little effect on the stream, it is believed that the stream will be able to assimilate the organic loading from the proposed plant without significant adverse changes in the area.

3. How effective is the proposed treatment?

The City proposes to construct an extended aeration wastewater treatment plant. This process is a modification of the widely used activated sludge process. Exhibit No. 2 shows a diagram of a Huisman Orbal Activated Sludge Process plant which is one alternative being considered by the City.

The extended aeration process proposed for Red Oak will employ some form of oxidation ditch followed by a clarifier. Raw sewage will be aerated, mixed, and retained in the ditch while stabilization of the wastes begins. The wastewater will then be carried to the clarifier where the biologically active flocs and any other solids will be settled. This material, along with a portion of the clarifier effluent, will be returned to a point near the head end of the oxidation ditch to seed the raw wastes with active microorganisms and to be recirculated through the plant for additional treatment. Liquid clarifier effluent will be carried to a chlorinator for treatment as prescribed by the State. Following

chlorination, the treated effluent will be discharged to the stream, approximately 300 feet above Red Oak Creek.

The extended aeration process generally includes maximum sludge recirculation techniques. In small plants, such as Red Oak, all of the settled sludge is recirculated. This permits nearly complete biological oxidation of the organic load. In theory, the only solids that will build up in the system, will be the nonbiodegradable residues of the sludge. When sufficient build up has occurred, the solids are drained from the clarifier onto sand beds where it dries in a few days. This wasted sludge will be stable and odorless since it will consist primarily of nonbiodegradable residues from an aerobic treatment system.

In 1960, the U.S. Department of Health, Education and Welfare released the results of a study covering 59 extended aeration treatment plants. This report stated that the plants were averaging 86% BOD_5 removal with minimum operation and maintenance problems.

The City of Forney, Texas is presently operating a 150,000 gpd, extended aeration treatment plant which is removing approximately 91% of the influent BOD_5, producing a clear, inoffensive effluent, and operating without odor or noise nuisances.

Based on the HEW report and the data available from the Forney, Texas treatment plant, it can be concluded that the extended aeration treatment process can effectively produce an acceptable effluent that will meet the TWQB permit standards.

4. How will plant operation affect the effluent quality?

A key factor in effective plant operation is the plant operator. The training and skills of the operator will determine whether the plant will be an asset or a detriment to the community. The degree of training required for plant operators is specified by the TWQB.

The North Central Texas Council of Governments, in conjunction with local, State, and Federal Agencies, and local Universities, conducts operation training schools and seminars where operators are familiarized with waste treatment techniques. The accessibility of such schools will make it possible for the Red Oak plant operator to receive an excellent education in plant operation. Thus, the Red Oak plant should not adversely affect the environment due to a lack of operator training.

After considering the apparent quality of the stream, its estimated assimilative capacity, the effectiveness of the proposed process, and availability of operator training, it is assumed that the proposed Red Oak plant will produce an effluent that will not significantly detract from the overall value of Red Oak Creek.

Based on the available information, a final determination of the actual effect of a 20-20 effluent on the stream cannot be made until after the treatment plant is operating. The TWQB will conduct a monitoring program to measure any changes in the quality of the stream due to the effluent. If the

Board determines that there is a significant adverse effect, they can require the City to upgrade the facilities to produce a higher quality effluent. This authority is granted under Section (e) of the Standard Provision of the Permit (Exhibit No. 4).

The proposed facilities can be easily upgraded to produce an improved quality effluent; extensive design flexibility is one feature of this type plant. Should the 20-20 standard effluent prove ecologically damaging, the addition of final filters, chemical treatment, or another type of advanced waste treatment would produce an effluent of more acceptable quality. To satisfy the Public Health Department's requirements governing recreational uses of the stream, additional chlorination units may be installed to reduce the bacterial concentration of the effluent. This increased chlorine concentration could have an adverse impact on the stream as discussed in the next section.

Elimination of the septic tanks and installation of a sewerage system would help to conserve water as a natural resource. The present practice of subsurface disposal has resulted in surface pollution and probable contamination of the ground water. Elimination of the septic tank systems would remove these problems and, at the same time, make the treated plant effluent available as surface water for use downstream. The proposed plant would discharge 200,000 gpd (0.31 cfs) as the average daily flow at design capacity. This flow would be negligible during flood conditions. No flooding is anticipated at the plant site.

III. Adverse Impact Which Cannot be Avoided Should the Proposal be Implemented.

No significant, unavoidable, adverse impacts are expected as a result of this project.

The project's effect on land-use, ecological disruption during construction, and the expected effect of the effluent on the stream have been discussed previously and the impact of each is expected to be negligible and/or short-term.

There are six potentially adverse aspects associated with the proposed treatment plant.

1. Odor production
2. Noise production
3. Insect propagation
4. Build up of organic sediments in the stream
5. Effect of chlorine on the stream
6. Plant shutdown's effect on the stream (future TRA connection).

1. The unpleasant odors associated with treatment plants are the products of anaerobic decomposition. The proposed extended aeration plant will employ aerobic decomposition throughout. Septic odors may result, however, from prolonged electrical power failures, mechanical breakdowns, or excessive sludge build up in the system; all of which are unlikely.

These conditions result in a decrease in aeration which may lead to anaerobic conditions and septic odors. In order to avoid these conditions, a stand-by power supply and spare parts for on-site repair of machines will be required. Proper plant operation should be adequate to avoid excessive solids

build up.

2. The treatment plant will be designed to minimize noise by enclosing or muffling all primary noise producers (motors, pumps, and blowers).

3. Insect propagation is generally confined to areas of standing water. The turbulent conditions of a mechanically aerated oxidation ditch would be unsuited for insect propagation. Any surface-dwelling insects or larvae present in the clarifier would pass through the weirs to the chlorination tank where contact with chlorine and turbulence would destroy them. Liquid sludge in the drying beds would dewater quickly and be removed before insect nesting could become firmly established. For these reasons, no insect nuisance problems are expected at the plant and no extensive use of insecticides at the plant site should be necessary.

4. The proposed treatment process will effectively produce an effluent with less than 20 mg/l TSS. This concentration should not cause an excessive build-up of bottom sediment in Red Oak Creek.

5. Chlorination will be included to disinfect the effluent before discharging it to the stream. In order to protect the stream's recreational value, tests should be conducted during plant start-up to determine the best chlorine residual to maximize fecal coliform reduction while minimizing the effect of chlorine on aquatic organisms in the receiving stream.

6. The nutrients in the plant effluent will stimulate the growth of additional plants and aquatic organisms in and along the stream. The sudden cut-off of this nutrient source could, but is not expected to, result in the destruction of a large portion of these plants and organisms. The sudden presence of large quantities of decaying matter could seriously degrade the stream. This problem can be avoided by gradually reducing the volume of plant effluent over a period of time. The TRA interceptor is expected to connect to the Red Oak system at the head end of the treatment plant. This will facilitate a phased shutdown of the plant. The need for a phased shutdown must be determined at the time plans for the TRA connection are finalized. In view of the available data, a phased shutdown is not expected in Red Oak.

In considering the TRA connection, no data is presently available to aid in determining what effect the removal of approximately 100,000 gallons of water per day from the Red Oak Creek basin will have on the ecology of the area. A geological report states that the City's potable water comes from two wells penetrating the Woodbine Formation (1000 feet deep). This strata is overlain by a layer of Austin Chalk which is practically impervious. The Woodbine aquifer is recharged through an outcropping of the formation west of Ellis County. From this information it is evident that the transfer of flow to the TRA system will not affect aquifer recharge.

Ground water studies in the Red Oak area do not indicate

the percentage of creek flow contributed by the present subsurface disposal system. Since all drainage from the City carries to Red Oak Creek, it is assumed that the TRA connection will effect a slight decrease in stream flow. An inspection of the stream above and below Red Oak found no apparent difference in flows. Based on these observed flow volumes, no significant impact is expected due to the diversion of flow from the basin.

IV. Alternatives to the Proposed Action

The following alternatives were considered.

a. Grant rejection. Should Federal grant conditions significantly raise the cost of the proposed project, the City of Red Oak may reject the Federal grant offer and finance the project through other means. In this way a possible cost savings to the City may result. Under this plan, the City may elect to construct the minimum plant required to produce 20-20 standard effluent. For this alternative it will be assumed that the City will construct the facilities as proposed in the grant application. Exhibit No. 6 shows a cost comparison of the alternatives proposed here, and it indicates that alternative a, the proposed action, is the least expensive.

b. Provide the facilities of alternative (a) with advanced waste treatment facilities to supplement effective secondary treatment. This advanced waste treatment may be nothing more than the addition of final filtration or chemical treatment to produce a better quality effluent. As indicated

previously, a detailed study of the effect of the effluent upon the stream is required to determine how extensive advanced waste treatment must be in order to produce an effluent of accpetable quality. This determination of degree of treatment required must be made based on the data gathered by the Texas Water Quality Board monitoring program.

c. Construct an interceptor to transport wastewater to the Trinity River Authority's regional treatment facility. This alternative represents the ideal solution. It combines acceptable waste treatment available at the TRA's regional plant, with a plan that would be acceptable to all parties from an ecological point of view. Unfortunately, at the present time, the TRA's system has not reached a point close enough to Red Oak to permit a financially feasible connection. Meetings held with representatives of TRA indicate that an expansion of this system is planned for 1978, and for this reason a grant condition requires connection to this system as soon as it becomes practical. Based on this future connection, it is felt that the treatment facilities within the City of Red Oak proposed for the immediate future represent only an interim solution to the overall problem; therefore, an extensive treatment plant is not considered practical since the cost of construction would be an

irretrievable outlay on the part of the City.

d. Total retention ponds sufficiently large to preclude any effluent discharge to any stream. This proposal would be acceptable to the downstream landowners and to EPA, since no stream pollution would result if this proposal were implemented. Unfortunately, the cost of such a facility would be prohibitive since approximately 45 acres of land would be required for ponds. This is a result of the very low net evaporation rate in this part of the country (about 28.7 in./yr.).

e. Irrigate a privately-owned golf course with the treated effluent, thus precluding discharge to a receiving stream. This alternative also meets EPA's requirements; i.e., total retention or reuse.

As previously mentioned, a more detailed study of this proposal has been completed by EPA and the consulting engineers and it has been found that the revised costs of this proposal may be prohibitive to the city. The original estimate differs from the revised estimate in three specific areas; first, the original estimate covered a basic irrigation system employing movable plastic hoses whenever possible; second, the original estimate did not include an automated control system to meet the Texas State Department of Health's ban on day-time irrigation; and third, the original system did not include the extensive safety features that are required by the Texas State Department of Health. Such features include valves which prevent discharge by unauthorized persons.

The revised estimate is given in Exhibit No. 7.

The proposed future TRA connection would result in the closing of the Red Oak Plant and the termination of irrigation with treated effluent. The value of any unsalvageable material used in the holding pond, pump station, and plant-to-golf course force main would represent an irretrievable loss to the city.

A survey of the soil and water characteristics of the area has disclosed that the extended use of effluent as supplemental irrigation water may have a harmful effect on the soil The City of Red Oak presently obtains its potable water from two nearby wells. These wells penetrate to a depth of approximately 1,000 feet and extend into the water-bearing Woodbine Formation. This formation is comprised of sandstone interbedded with shale and sandy shale. An analysis of samples taken from these wells is presented in Exhibit No. 8. It indicates a high sodium concentration and high specific conductance while the calcium and magnesium concentrations are very low. These factors produce a high sodium adsorption ratio (SAR).

Analysis of the upper layers of soil indicates a high concentration of calcareous clay. The Texas Water Development Board Report Number 62, Ground Water Resources of Ellis County, Texas, is the source of this soil and water analysis data. The report also points out that, when soil with a high calcium

content is irrigated for extended periods with water having a high SAR, sodium replaces calcium in the clay. This phenomenon results in soil deflocculation producing a soil that is relatively impermeable to water. Hybrid turf grasses used to sod golf course greens require ideal growing conditions and are especially sensitive to soil water concentrations. Exhibit No. 9 is a table reprinted from the report and shows the suggested limits for SAR and salinity in supplemental irrigation water. It can be seen that all Woodbine sources are unacceptable for extended irrigation. This report indicates that the average 35-inch rainfall is the only acceptable source of irrigation water available. Any contract between the golf course owner and the city will probably include a clause which permits the owner to discontinue irrigation with the effluent, if such action proves harmful to the golf course vegetation. If the owner took this action, the city would be forced to discharge into Red Oak Creek until such time as another alternative could be implemented.

f. Haul the wastes by truck to a regional treatment facility. This would have the effect of meeting all the requirements of EPA, the downstream landowners, and the City of Red Oak from an ecological standpoint. Unfortunately, this alternative would be cost-prohibitive in that the trucks would be low in initial cost, but would be high in operating cost; therefore, any initial savings would be quickly negated by the operation and maintenance costs of such a system. In addition, spills or leaks from the trucks would be a source of odor nuisances to the people along the truck route.

g. Discharge to a stream with less aesthetic value. This proposal would, in effect, relocate the problem rather than solve it. While this may not generate objections from downstream landowners, it will still have the same ecological and aesthetic value on the stream while increasing the cost of transporting the effluent to the second stream.

h. A no action concept of continued use of septic tanks. This alternative would satisfy the requirements of the downstream landowners in that no treated effluent would be discharged to the stream. However, an increased use of septic tanks within the area would increase the amount of sewage seeping into the stream and aesthetically undesirable conditions would worsen. The potentially serious health hazards present within the City of Red Oak as a result of the septic tank seepage is the reason for rejecting this alternative.

Based on all the data available, the proposed project represents the optimum alternative to the problems of sewage treatment within the City of Red Oak, Texas. Adoption of the proposal would create an aesthetically acceptable condition within the City, while producing an effluent meeting the Texas Water Quality Board 20-20 standards. A monitoring program by the Texas Water Quality Board and by the City of Red Oak to study the effect of the effluent upon Red Oak Creek will aid in determining the exact degree of treatment required to produce a non-degrading effluent. While this may not, in effect, resolve all of the objections raised by the downstream landowners, it would serve as a temporary solution to the problem until such time as the City is financially capable of constructing a connecting line to the Trinity River Authority's Regional system.

V. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Adoption of the proposal will enhance the environment for future generations by eliminating the danger of septic tank seepage within the City of Red Oak. The proposed system will improve the health conditions of the present and future residents of the City. The final effluent from the plant is not expected to have an adverse effect on the creek or the surrounding environment. As an interim facility, the discharge will have no long-range effect on the stream's ecosystem and no significant changes in stream productivity are anticipated. In fact, there is the possibility that water quality in the creek could improve in the near future, since the introduction of a limited supply of nutrients to the stream can stimulate the growth of microorganisms important to in-stream purification.

The overall effect of the project should be the enhancement of long-term productivity. The collection system should increase land values, accelerate land development, and encourage population growth. These facts should greatly outwigh the short-term, adverse effects the treatment plant will have on nearby land pending the TRA connection.

The costs for constructing the collection systems will be shared by the present and future residents of the City. The treatment plant costs will also be shared by the residents, but the plant may be closed (TRA connection) before the bonds are retired. This will impose the responsibility for these bonds on residents who did not directly benefit from the plant's presence. It may be reasoned, however, that these residents

are contributing to the healthy environment that they found in Red Oak when they arrived.

The potentially serious threat to the health and welfare of the residents created by the existing treatment facilities justifies immediate action on the proposal.

VI. Irreversible and Irretrievable Commitments of Resources Which Would be Involved in the Proposed Action Should it be Implemented

No phase of the proposed project appears to be irreversible. Complete land restoration at the plant site would be possible by the removal of any structures present. The effluent is expected to have a negligible effect on Red Oak Creek; thus, any change that did occur would be reversible through normal biological recovery. Such recovery would begin following the closing of the treatment plant.

The treatment facilities would represent an irretrievable commitment of resources since the construction materials would be unsalvageable. In addition, the cost of construction and some of the plant land value would represent an irretrievable commitment of funds.

VII. A Discussion of Problems and Objections Raised by Other Federal, State, and Local Agencies and by Private Organizations and Individuals in the Review Process

The following summary of comments from downstream landowners was received during the review process leading up to this Environmental Impact Statement.

COMMENT 1 - The discharge represents a public health hazard to the people who use the creek for swimming, fishing, picnicking, hunting, and camping.

RESPONSE - As stated in the report, the effluent is not expected to significantly degrade the stream and disinfection by chlorination will greatly reduce any potential health hazard.

COMMENT 2 - The value of property located along the creek will diminish if the stream is used to convey treated sewage from the City.

RESPONSE - The effluent is not expected to degrade the stream and, therefore, should not affect land values. Should some value decrease result, the TRA connection will negate it and return the land to its normal value. Stream degradation due to uncontrolled discharges and non-point sources that are presently contributing to stream pollution is a more realistic problem.

COMMENT 3 - Potable water lines cross the creek at several locations downstream from the point of discharge. If a break occurred in one of these lines, the water could become contaminated with the sewage and harm those ingesting the water. Several wells, located in the creek bottomland, might likewise become contaminated.

RESPONSE - These wells and water lines should not be adversely affected by the effluent since chlorination will greatly reduce the concentration of potential disease-producing organisms.

Well infiltration by stream water carrying treated sewage plant effluent does not necessarily mean the well will be contaminated. Bacterial contamination of the well will be restricted by three factors: filtering, sorption and attenuation.

1. The benthic and sedimentary layer of the stream bottom will have a filtering effect on the bacteria, trapping most before they can enter the soil.

2. Bacteria not trapped by filtration will have a tendency to become attached to soil particles by the process of sorption.

3. Bacterial attenuation (loss of potency) occurs with time and the slow passage through the soil will have a decaying effect on bacteria.

Studies of bacterial infiltration have concluded that most pathogenic organisms will not survive travel over 100 feet through most soils. Considering the three factors listed above, this distance does not seem unreasonable for this area.

In the event floods cover the well's physical surface structure, well contamination by direct seepage may result. This seepage will occur primarily in poorly or improperly constructed and operated wells. Should such seepage occur, the well should be disinfected before it is placed back in operation. This should be done regardless of whether the stream is carrying plant effluent.

COMMENT 4 - The sewage will be harmful to fish in the creek.

RESPONSE - The effluent nutrients will increase the stream's productivity slightly and a minimal increase in the size and number of fish present should result. During low flow conditions, some species of fish may be adversely affected by the effluent and will therefore migrate to a more acceptable environment. The periods during which these fish would be absent from the affected area are expected to be short-term and reversible.

COMMENT 5 - The creek water would be detrimental to crops if it was used for irrigation.

RESPONSE - The Texas State Department of Health's policy on crop irrigation restricts the use of plant effluent on food crops that may be consumed in a raw state. Since cotton and sorghum are the leading area crops, effluent irrigation is not expected to be a problem.

COMMENT 6 - The towns of Ferris, Forreston, and Lancaster have the same treatment system as Red Oak has proposed and the odor and pollution downstream is objectionable.

RESPONSE - City of Ferris: No flow or loading data was available for this study. Reports indicate that there were some odor problems but no explanation was available. City officials reported that on-site operation was limited to two daily spot checks at the plant. The city's Consulting Engineers reported that a minority housing area near the plant employs a septic tank system. The area soil is clay in flat terrain and overflows, spills and odors are common. Since no plant problems were known to the engineers, these odors seem to explain, in part, the plant's apparent odor problem. City of Forreston: The Forreston Sewer Service Corporation discharges 10,000 gpd of treated effluent from a package extended aeration treatment plant. Average BOD is 3.5 mg/l and TSS is 24 mg/l. The City recently hired a plant operator to further improve its effluent. An inspection trip on March 7, 1972, found no odors or stream pollution in the area. City of Lancaster: No data was available and no records were kept on this plant.

RESPONSES TO COMMENTS SUBMITTED BY

MEMBERS OF THE RED OAK CREEK LANDOWNERS'ASSOCIATION

COMMENT 1 - The plant effluent will significantly degrade water quality in Red Oak Creek.,

RESPONSE - As stated throughout the Impact Statement, the proposed facilities are expected to produce an effluent that should not significantly degrade water quality in Red Oak Creek. Noticeable effects will be infrequent and of short duration, limited primarily to periods of zero on low natural flows affording minimum dilution.

A primary reason for assuming negligible effects on the stream is the fact that the plant's initial flow will be less than 50% of its design capacity. This overdesign factor will result in extended retention periods, minimum flow rates through the clarifier, and approximately 95% solids reduction and recycling to the oxidation ditch. The increased sludge age that will result will permit maximum stabilization of carbonaceous and nitrogenous wastes. As a result, the effluent BOD is expected to be below 12 mg/l. This high quality effluent is not expected to degrade water quality in Red Oak Creek.

The oxidation ditch-stabilization pond system originally proposed for Red Oak has been found to be acceptable to EPA in most project applications. However, the present quality of water in Red Oak Creek justified installation of a more effective type of plant (oxidation ditch-final clarifier and chlorination) to protect the stream from degradation. Since this upgraded plant is considered acceptable, EPA does not

intend to impose additional requirements which would raise the project costs and force the City to abandon the project or reject Federal participation. If the City is forced to reject the grant funds, they may elect to construct the originally proposed plant, which has already been approved by the Texas Water Quality Board.

COMMENT 2 - The City can connect to the TRA system for $1/person.

RESPONSE - The additional cost to the City for this alternative is approximately $90,000. The present population is less than 1,000. No basis for this $1/person cost increase is clear.

COMMENT 3 - Plant design capacity will be achieved within 3 years of completion.

RESPONSE - Exhibit No. 5 is considered a liberal estimate of population increase and does not support a 3 year plant design life.

COMMENT 4 - Why isn't the effluent being recycled for use as drinking water for Red Oak?

RESPONSE - Effluent will not be recycled because there is no water shortage in the area to justify the expense of recycling.

COMMENT 5 - Breaks occur in the Rockett Water Supply Corporation lines at the points where they cross Red Oak Creek. These breaks will allow contamination of the lines.

RESPONSE - A representative of the firm supplied the following information:

1. Line breaks are infrequent (3 or 4 in the past 5 or 6 years).

2. Pipes are laid in a concrete encasement beneath the stream beds. This casing prevents direct contact between pipe and stream water during normal flow conditions. Flow can reach unprotected pipe only during flood conditions when maximum dilution of wastes occurs, thus reducing the possibility of contamination.

3. Pipes are PVC and are prone to crack rather than break.

4. Line pressure varies between 70 and 150 psi at all times. This high pressure would force water out of the pipe and prevent stream water from entering.

5. All repairs include disinfection by chlorination. The residual chlorine in the water system is reportedly sufficient to maintain safe water quality in the lines.

Based on the information presented in Items 1-5, no contamination of the potable water lines by treated effluent seems likely.

Chlorination and detention time in the treatment units will greatly reduce the concentrations of pathogenic organisms so that no health hazards should result from discharge of effluent to Red Oak Creek.

COMMENT 6 - Stream water carrying treated effluent will have an adverse effect on dairy cattle that drink the water.

RESPONSE - The Texas State Department of Health does not impose quality standards on drinking water used by cattle. Department officials are more concerned with cattle wallowing or walking in

such water due to the possibility of contamination of the udders or teat canals. In order to determine potential health problems, field inspections are made by Department personnel. In the event these inspections reveal potential problems, fencing and other barrier devices will eliminate the problem of cattle entering the stream.

COMMENT 7 - The cities of Palmer, Balch Springs, and Kleberg are operating treatment plants that are producing odors.
RESPONSE - The City of Balch Springs (Dallas County WCID No. 6) operates a trickling filter plant, discharging 284,000 gpd of treated effluent meeting the Texas Water Quality Board 20-20 standards. District officials contacted know of no odor problems other than the infrequent, short duration problems associated with mechanical breakdowns.

The City of Kleberg (Dallas County WCID No. 7) operates an activated sludge treatment plant employing aerobic treatment throughout. The plant discharges 228,000 gpd of treated effluent meeting the Texas Water Quality Board 20-20 standards. District officials know of no odor problems at the plant.

The City of Palmer reportedly operates an acceptable plant meeting Texas Water Quality Board standards. Odors occur at the plant occasionally due to line blockage caused by discharges from a commercial establishment. State officials attribute the odors to septic sewage that builds up in these blocked sewers. No plant process problems are known.

The Texas Water Quality Board representatives reported that all three plants have infrequent, short-term odor problems attributed to mechanical breakdowns. None of the plants are hydraulically or organically overloaded.

RESPONSE TO COMMENTS BY

TEXAS PARKS AND WILDLIFE DEPARTMENT

An activated sludge process such as the proposed oxidation ditch produces an effluent with a very low nitrogenous oxygen demand. Prolonged aeration of 6 to 10 hours coupled with sludge age in excess of 20 days allows nitrification to occur in the oxidation ditch. Studies have shown that sludge ages such as those anticipated in the proposed process effect substantially complete nitrification.

The ultimate oxygen demand in terms of BOD_5 and COD is exceptionally low in effluents produced by oxidation ditch facilities with extended aeration capability.

It should be noted, however, that a high quality effluent is possible only as long as the treatment facilities are not overloaded. For this reason, the effluent should be closely monitored by the Texas Water Quality Board.

During extreme low flow conditions, most fish species will migrate to an area of the stream where the quantity of water is sufficient. This will occur regardless of whether or not an effluent is discharged. However, the discharge of effluent will increase total flow in the stream and might produce an acceptable environment for some fish species that would migrate to another location if the effluent were not increasing streamflow.

Discharge of a nitrified effluent is not expected to adversely affect the natural dissolved oxygen profile of the stream.

RESPONSE TO COMMENTS BY

BUREAU OF OUTDOOR RECREATION

The lack of current detailed water quality data is a problem here as always when an impact statement is prepared. A stream study to gather this data would require several months since the critical period would probably occur during the summer months. The question is whether or not further delay of the project until this data is obtained would be justified. In this statement, engineering judgment and stream flow data on similar streams receiving effluent from similar plants were used as a basis for the analysis.

The cause and effect of "urban sprawl" is a problem beyond the scope of this impact statement for an interim treatment facility designed for a 2000 population equivalent. The statement includes a general analysis of land use and population projections.

The Texas Water Quality Board has the legal authority to impose additional conditions or new terms as outlined in the Standard Provisions of the Permit to Discharge.

Substitution of the words "will require for "can require" infers that the EPA would encroach on the authority of the Texas Water Quality Board.

VIII. CONCLUSIONS OF THE ENVIRONMENTAL PROTECTION AGENCY

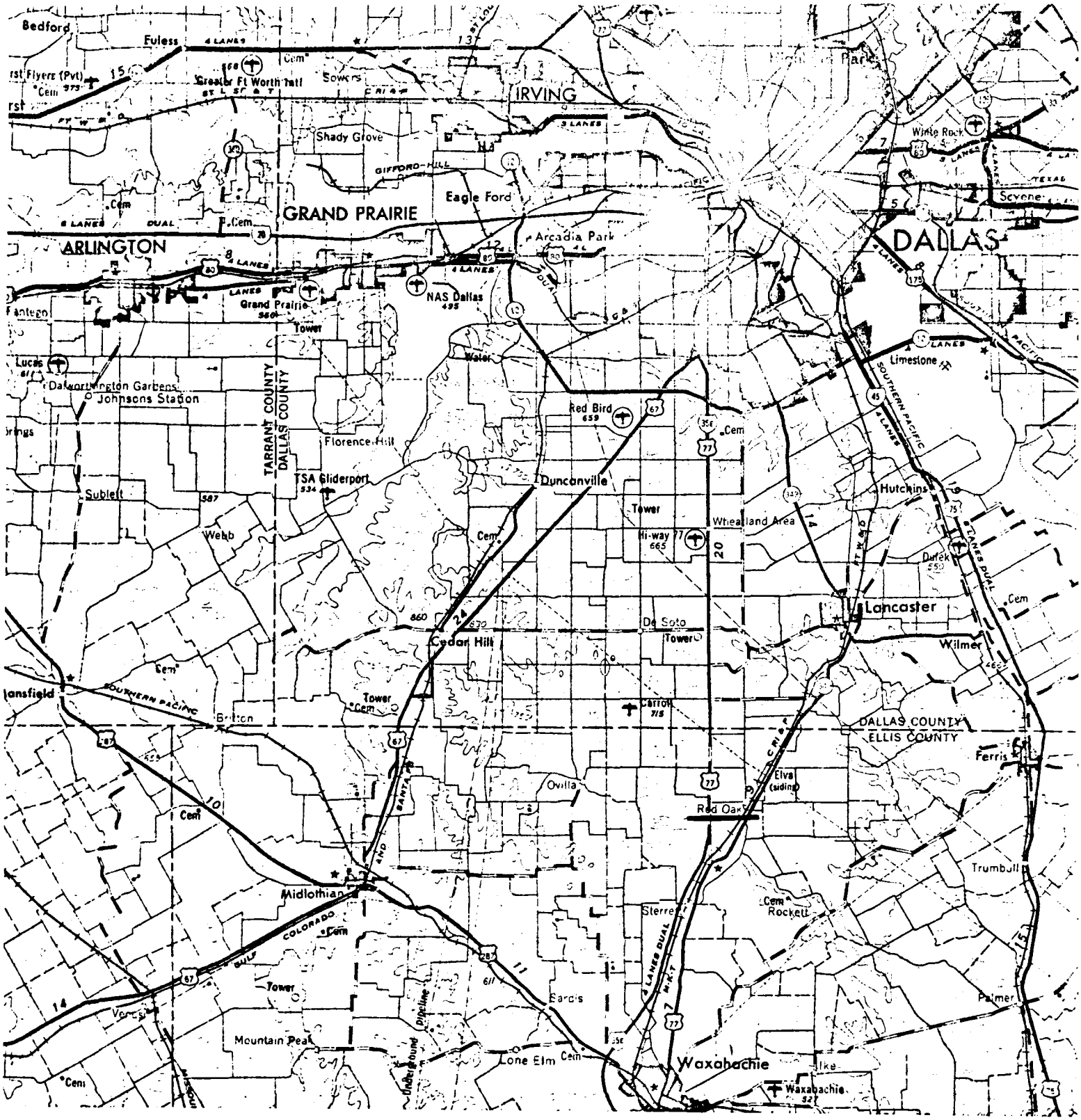
Review and comment prompted by the preparation of a detailed environmental statement for the project has revealed the acute desire of landowners to preserve the aesthetic and recreational value of Red Oak Creek.

The Environmental Protection Agency and the Texas Water Quality Board recognizes the need for enhancing water quality in the stream and for safeguarding against future degradation of the stream. The EPA and TWQB have required the City of Red Oak to revise the type of treatment facilities originally proposed; that is, a more efficient and virtually "fail-safe" treatment scheme will be required.

The Huisman Orbal Activated Sludge System will be employed, followed by effluent chlorination and polishing ponds. The polishing ponds will further ensure that pathogenic organisms do not enter the receiving stream from treated wastewater effluent. In addition, the ponds will serve as emergency holding ponds to eliminate bypassing of untreated wastewater during emergency conditions. The treated wastewater stored in the polishing ponds will be available for irrigation purposes to supplement existing water sources during periods of water shortage.

The increased project costs due to these revisions are justified by the reduction in adverse environmental effects that will result.

The project as revised, is consistent with local, state, and national environmental goals.



Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 Nautical Miles

CONTOUR INTERVAL 50 FEET

TRANSVERSE MERCATOR PROJECTION

Exhibit No. 1

1960 MAGNETIC DECLINATION FOR THIS SHEET VARIES FROM 9°30' EASTERLY FOR THE CENTER OF THE WEST EDGE TO 8°45' EASTERLY FOR THE CENTER OF THE EAST EDGE. MEAN ANNUAL CHANGE IS 0°02' WESTERLY.

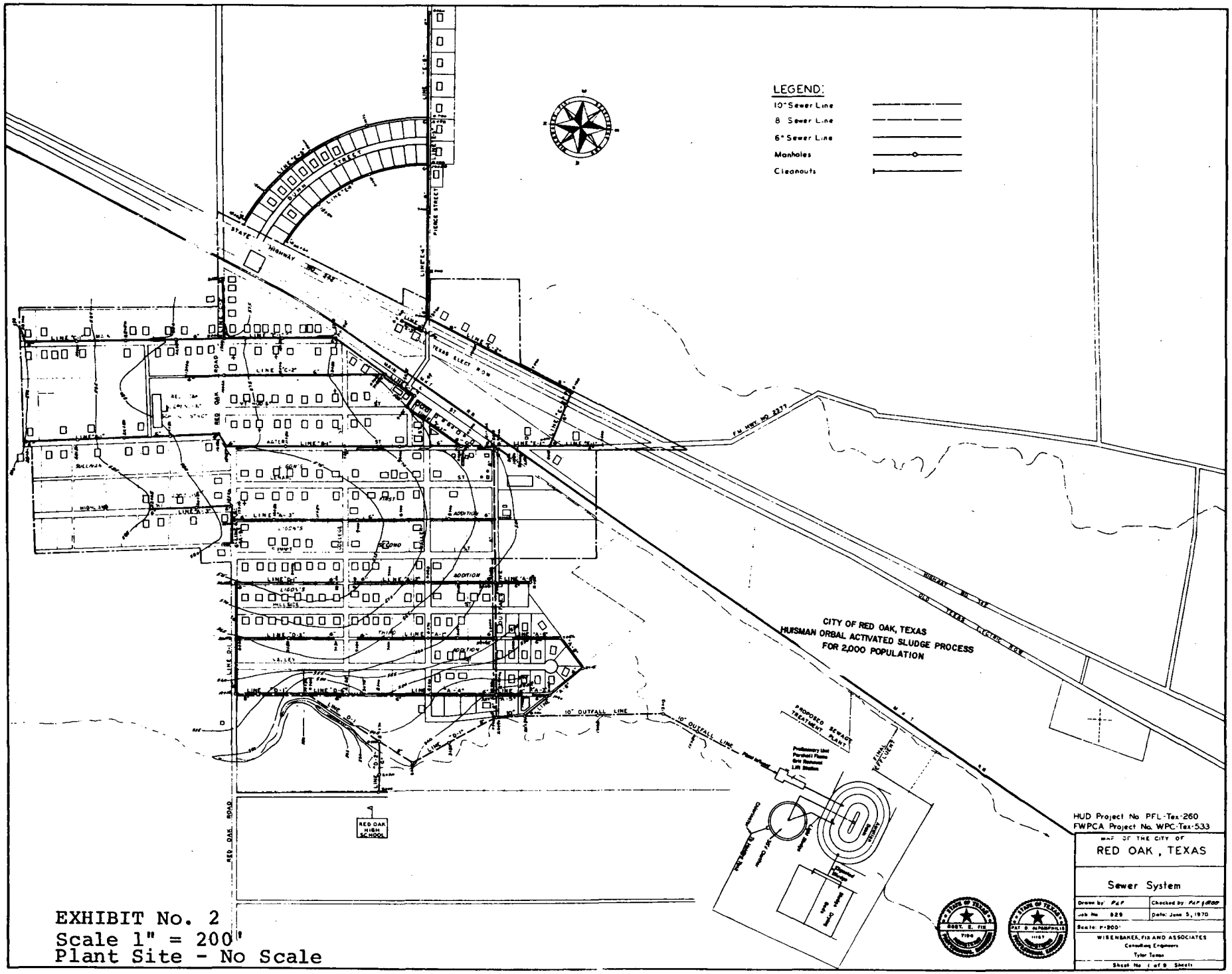


EXHIBIT No. 2
Scale 1" = 200'
Plant Site - No Scale

Exhibit No. 3

Red Oak Creek

Water Quality Data *

Sample Location	Below Cedar Hill[1]	Between Red Oak and Rockett (Feed Lot)[2]
Date	4/30/69	9/29/70
Time	1:00 p.m.	10:45 a.m.
Temp °F	58	65
Flow (gpd)	150,000	200,000
pH	7.7	8.1
DO mg/1	7.0	4.0
BOD mg/1	2.0	3.5
Ammonia N mg/1	Negligible	< 1
Conductivity micromhos/cm	672	465
TSS mg/1	<10	23
COD mg/1	--	20
TOD mg/1	--	<20
TC mg/1	--	50
TOC mg/1	--	25

* Supplied by TWQB
1 Cedar Hill Plant in operation
2 Cedar Hill Plant closed

PERMIT NO. 11119

PAGE NO. 1

TEXAS WATER QUALITY BOARD

1108 LAVACA STREET
AUSTIN, TEXAS 78701

PERMIT to dispose of wastes under provisions of Article 7621d-1, Vernon's Texas Civil Statutes

I. Name of Permittee

1. Name — City of Red Oak
2. Address — P. O. Box 393
3. City — Red Oak, Texas 75151

II. Type of Permit: Regular xxx Amended

III. Nature of Business Producing Waste
Municipal Sewerage System

IV. General Description and Location of Waste Disposal System

Description: Oxidation ditch including bar screen, Parshall flume and two 1.15 acre stabilization ponds.

Location: Approximately ¼ mile south of Red Oak, Texas and immediately west of M.K. & T. Railroad which point is west of cemetery on State Highway 342.

V. Conditions of the Permit

1. Character, volume and disposal area(s) or point(s) of discharge authorized under this Permit. The conditions on the reverse side are a part of this Permit and apply for all purposes.

Character: Treated municipal sewage effluent.

Volume: Not to exceed an average of 100,000 gallons per day;
Not to exceed a maximum of 250,000 gallons per day;
Not to exceed a maximum of 145 gallons per minute.

Quality:

Item	NOT TO EXCEED Monthly Average	24 Hr. Daily Composite	Individual Sample
B.O.D.	20 mg/l	25 mg/l	30 mg/l

Point of Discharge: Into an unnamed branch adjacent to the plant site in Ellis County, Texas; thence into Red Oak Creek; thence into the Trinity River in the Trinity River Basin.

2. Special Provisions
SEE ATTACHMENT

3. This permit becomes effective August 28, 1970 and is valid until amended or revoked by the Board.

ISSUED this 28th day of August 1970

Joe P. Tolar
Executive Director

For the Board

WQ17
ind

Exhibit No. 4

Standard Provisions

(a) This permit is granted in accordance with the Texas Water Quality Act of 1967 (Article 7621d-1, V.T.C.S.) and the rules adopted by the Board, and is granted subject to the rules of the Board, the laws of the State of Texas, and further orders of the Board issued in accordance with said rules and laws.

(b) In the event the permittee discharges wastes which exceed the quantity or quality authorized by this permit, the permittee shall give immediate notice to the office of the Board.

(c) Acceptance of this permit constitutes an acknowledgement and agreement that the permittee will comply with all the terms, provisions, conditions, limitations and restrictions embodied in this permit and with the rules of the Board, the laws of the State of Texas, and further orders of the Board. Such agreement is a condition precedent to the granting of this permit.

(d) This permit cannot be transferred without prior notification to the Board.

(e) This permit is issued subject to the terms of Section 11(f), Article 7621d-1, V.T.C.S., which reads in part as follows:

> "The permittee may be required, for good cause, from time to time, after notice to the permittee and after public hearing initiated by the Board, to conform to new or additional conditions and terms imposed by the Board following such hearing. The Board shall allow the permittee a reasonable time to conform to such new or additional terms and conditions; provided, however, that upon application of the permittee, the Board, in its discretion, may grant the permittee an additional period of time within which to conform to such new or additional terms and conditions. Such permit or amended permit shall never become a vested right in the permittee, and it may be revoked or suspended for good cause shown, after notice to the permittee and after public hearing initiated by the Board, in the event of the permittee's failure to comply with the terms and conditions of such permit as issued or as amended."

(f) The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

(g) (The provisions of this paragraph (g) of the Standard Provisions of this permit apply only to drinking water supply systems and sewage disposal systems designed for public use as contemplated in Section 12, Article 4477-1, V.T.C.S.) There may be substituted for the foregoing features of the plant other mechanisms, equipment, or treatment methods on prior approval of the State Health Department, provided such substitutions do not result in a reduction of the efficiency and operating safety of the plant nor result in the discharge of a lesser quality of effluent than that authorized under the permit.

FILE COPY
DEC 21 1970
TEXAS WATER QUALITY BOARD

SPECIAL PROVISIONS:

This order is granted subject to the policy of the Board to encourage the development of area-wide waste collection, treatment and disposal systems. The Board reserves the right to amend this order in accordance with applicable procedural requirements to require the system covered by this order to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this order in any other particular to effectuate the Board's policy. Such amendments may be made when, in the judgment of the Board, the changes required thereby are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

These public sewerage facilities shall be operated and maintained by a sewage plant operator holding a valid certificate of competency issued under the direction of the Texas State Health Department as required by Section 20 (a) of Article 4477-1, Vernon's Texas Civil Statutes.

The City shall comply with the provisions of Board Order No. 69-1219-1 relative to monitoring and reporting data on effluent described in "Conditions of the Waste Control Order".

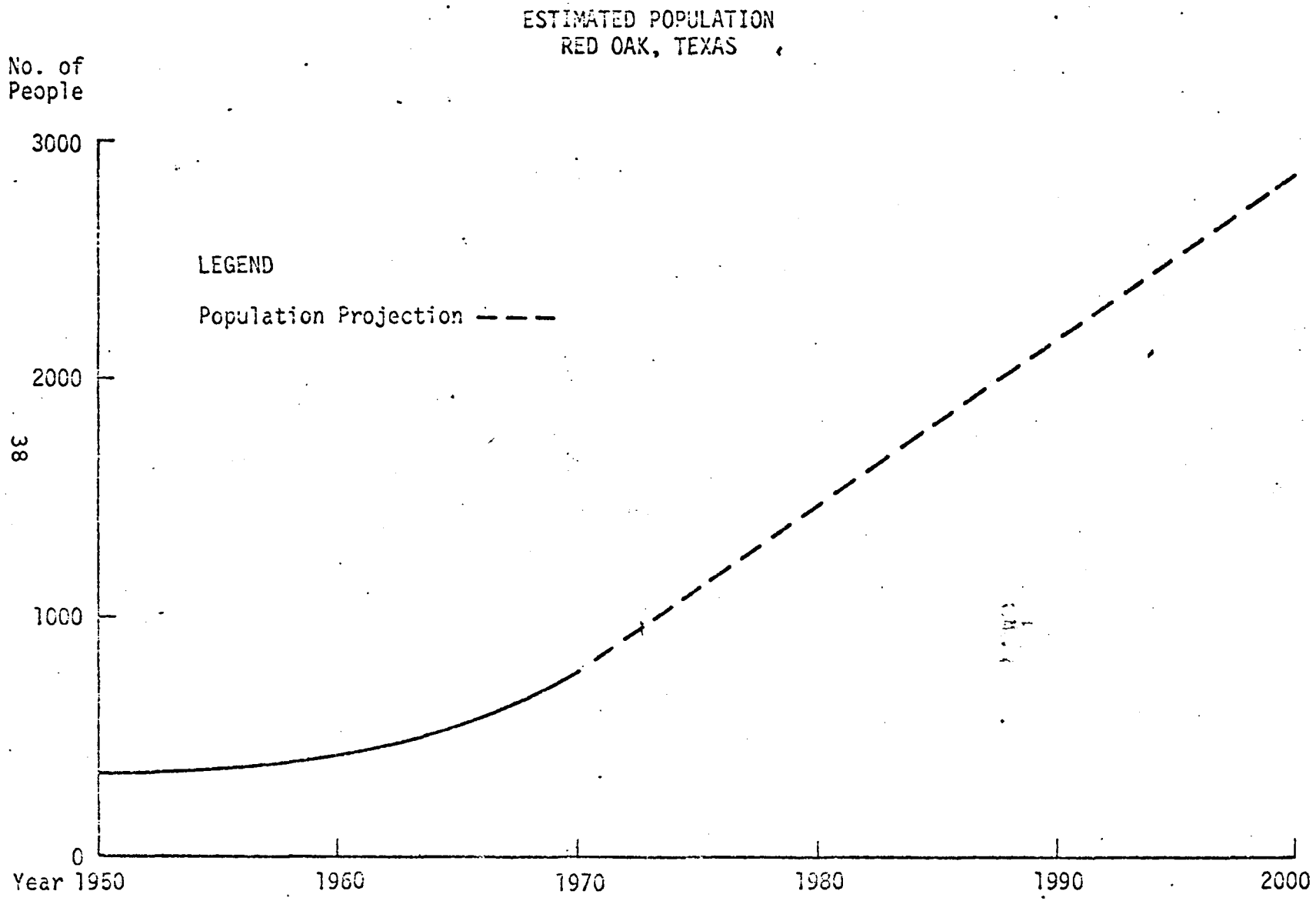

ESTIMATED POPULATION
RED OAK, TEXAS
No. of People
3000
2000
1000
0
LEGEND
Population Projection
Year 1950
1960
1970
1980
1990
2000

Exhibit No. 5

Exhibit No. 6

Summary of Costs

	Total Project Cost[1] ($)	PL 660 Grant ($)	Cost to Red Oak ($)	O&M Costs (¢/1000 gallon)
1. Proposed Project *	400,000	119,000	281,000	10
2. A.W.T.	510,000	175,000	335,000	15 to 20
3. TRA Regional System	635,000	206,000	429,000	31
4. Total Retention Ponds	808,000	197,000	611,000	negligible
5. Irrigate Golf Course with effluent	534,000	194,000	340,000	10
6. Hauling to TRA's STP	792,000	33,000	759,000	--

[1]Includes costs for treatment facilities and conveyance and collection system.

* See Exhibit No. 6

COST ESTIMATE
PROPOSED PROJECT

		Total	Eligible
1.	Construction:		
	(a) Lateral sewer lines	$113,000	0
	(b) Outfall sewer lines	43,000	43,000
	(c) Sewage treatment plant (2,000 PE)	125,000	125,000
	(d) Subtotal for Construction	$281,000	$168,000
2.	Technical Services:		
	(a) Engineering fee	25,000	17,000
	(b) Inspection fee	13,000	8,000
	(c) O & M manual	2,000	2,000
	(d) Subtotal for Technical Services	38,000	27,000
3.	Legal & Fiscal Fees	$ 9,000	5,600
4.	Administrative	1,000	700
5.	Government Field Expense	2,200	0
6.	Site	40,000	0
7.	Contingency	26,800	15,200
8.	Totals	400,000	216,500

0.55 x $216,500 = $119,075 Grant Offer Possible

EXHIBIT No. 6A

WISENBAKER, FIX, & ASSOCIATES
Consulting Engineers
Tyler, Texas
December 14, 1971

REVISED PROJECT COST ESTIMATE FOR SEWER SYSTEM FOR THE CITY OF RED OAK, TEXAS*

EPA Project No. WPC-Tex-533
HUD Project No. PFL-Tex-260

ITEM	TOTAL PROJECT	PORTION ELIGIBLE FOR PL 660 GRANT
1. Construction:		
(a) Lateral sewer lines	$ 113,000	0
(b) Outfall sewer lines	43,000	$ 43,000
(c) Sewage treatment plant (2,000 GPD)	125,000	125,000
(d) Effluent irrigation system	126,000	126,000
(e) Subtotal for Construction	$ 407,000	$ 294,000
2. Technical Services:		
(a) Engineering fee	34,600	25,000
(b) Inspection fee	15,000	10,500
(c) O & M manual	2,000	2,000
(d) Subtotal for Technical Services	$ 51,600	$ 37,500
3. Legal & Fiscal Fees	8,000	5,600
4. Administrative	1,000	700
5. Government Field Expense	2,200	0
6. Site	40,000	0
7. Contingency	24,200	15,200
8. TOTALS	$ 534,000	$ 353,000

Method of Financing:		
PL 660 Grant	(55% x $353,000)	$ 194,000
State Loan	(25% x $353,000)	88,000
HUD Loan		150,000
Additional Funds Required by City		102,000
TOTAL ESTIMATED PROJECT COST		$ 534,000

*Includes effluent irrigation system.

Exhibit No. 7

DEC 16 1971

WISENBAKER, FIX, & ASSOCIATES
Consulting Engineers
Tyler, Texas
December 14, 1971

ESTIMATED COST OF IRRIGATION SYSTEM

FOR RED OAK SEWAGE TREATMENT

PLANT EFFLUENT

EPA Project No. WPC-Tex-533

1. Pumping Station:		
3 - Turbine pumps (360 GPM @ 327' TDH)		
1 - Turbine pump (100 GPM @ 231' TDH)		
1 - 300 Gallon steel pressure tank		
1 - Electric panel w/switches		
1 - "Nu-Matic" pressure tank control		
1 - 3" Pressure relief switch & by-pass valve		
1 - 200 amp Disconnect switch		
1 - Flume, header, welded fittings, valves & piping		
1 - Metal pump station building w/conc. slab		
Lump Sum for Item No. 1		$ 18,816
2. Irrigation Piping: (160 psi - rubber gasket joints)		
2,000' - 8" PVC		
6,200' - 6" PVC		
5,400' - 4" PVC		
4,300' - 3" PVC		
4,000' - 2½" PVC		
8,800' - 2" PVC		
Lump Sum for PVC Pipe	$ 51,500	
4" Bore under railroad	750	
Cast iron & PVC fittings	2,610	
320' - 4" Aluminum irrigation pipe w/valve & fittings	1,756	
Subtotal for Item No. 2		$ 56,616
3. Irrigation Sprinklers:		
107 - #13 Aqua Dial sprinkler		
6 - #14 Aqua Dial sprinkler		
160 - #15 Aqua Dial sprinkler		
12 - Aqua Dial controller		
160 - #5110 Aqua Dial valves (1½")		
113 - #5110 Aqua Dial valves (1")		
2 - #5181 Aqua Dial check valves (3/8")		
19 - #44 Aqua Dial quick coupling valve (1")		
6 - #44C-3/4" Aqua Dial double-keyed couplers (1" x 3/4")		
6 - #72 Aqua Dial brass hole ells (1" x 3/4")		
Lump Sum for Item No. 3		$ 31,935
4. Control Tubing:		
350,000 - PVC Control tubing (¼")		

DEC 16 1971

Estimated Cost of Irrigation System

For Red Oak Sewage Treatment

Plant Effluent (Continued)

4. Control Tubing: (Continued)		
¼" Brass compression fittings & controller filters		
Lump Sum for Item No. 4		$ 9,173
5. Miscellaneous Items:		
Swing joints for sprinkler heads	$ 2,460	
Gate valves (misc. sizes)	1,252	
Steel pipe & bridging for creek crossing	1,800	
Subtotal for Item No. 5		$ 5,512
Estimated Construction Cost		$ 122,052
Estimated Sales Tax (on material only)		3,850
Total Estimated Construction Cost		$ 125,902

SUMMARY OF PROJECT COST

1. Construction Contract		$ 125,902
2. Technical Services:		
(a) Engineering fee	$11,000	
(b) Inspection fee	3,000	
(c) Subtotal		14,000
3. Legal & Fiscal		2,500
4. Administrative		500
5. Contingency		7,098
6. Total Estimated Project Cost		$ 150,000

Method of Financing:

(a) PL 660 Grant (55% of $150,000)	= $ 82,500
(b) State Loan (25% of $150,000)	= 37,500
(c) City Funds from other sources (20% of $150,000)	= 30,000
(d) Total Project Cost	= $150,000

DEC 16 1971

Exhibit No. 8

Well Water Analysis

Well No.	1	2
Date	6/9/65	9/24/62
Ca mg/l	3	2
Mg mg/l	1.8	1
Na mg/l	496	460
HCO_3 mg/l	604	608
Ionic Concentration %Na	98	98
Sodium Adsorption Ratio	56	55
Specific Conductivity	2180	2145

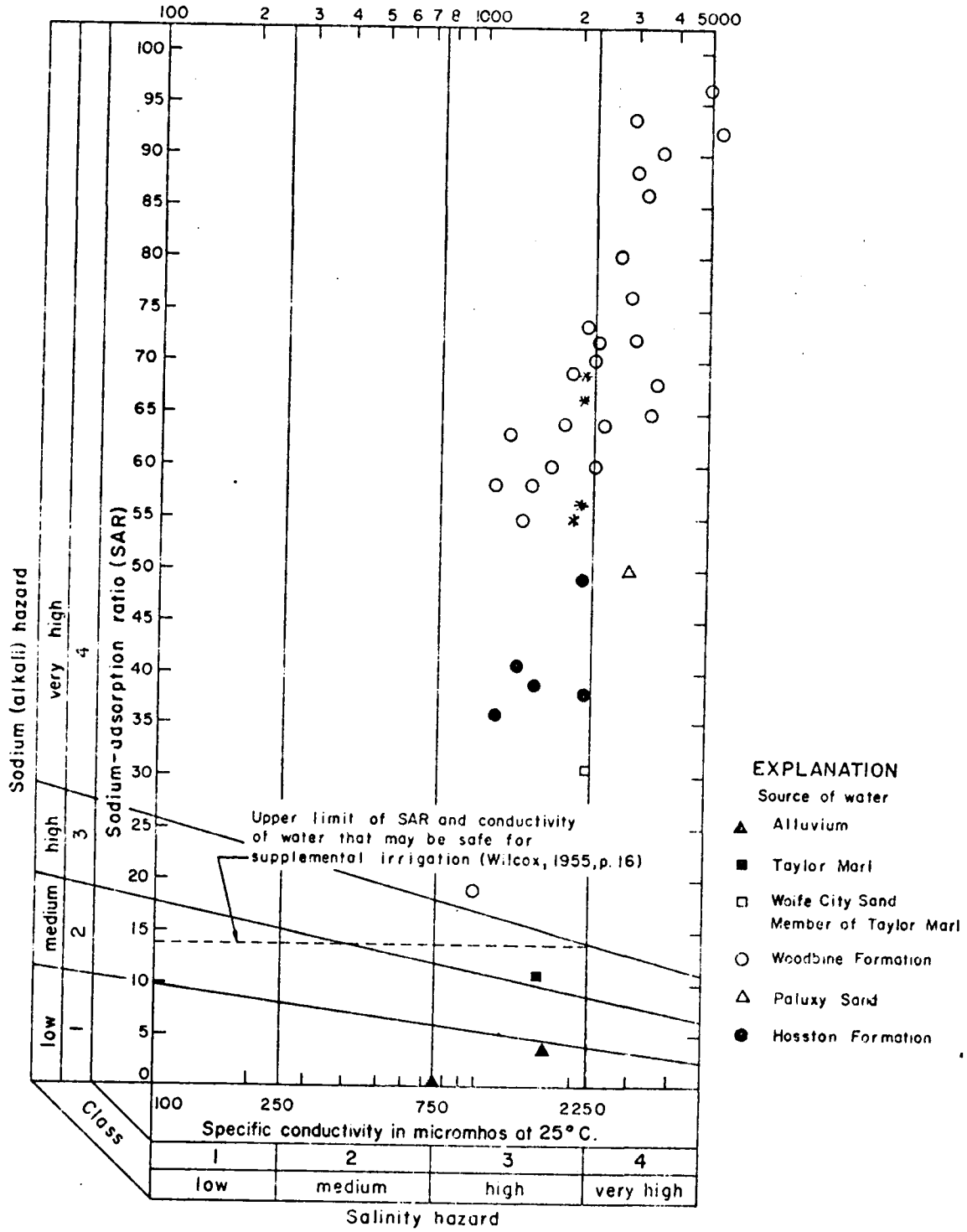


Exhibit No. 9
Classification of Irrigation Waters

U. S. Geological Survey in cooperation with the Texas Water Development Board

HEARING COMMISSION REPORT

SYNOPSIS

I. Applicant

A. Name: City of Red Oak
B. P. O. Box 393, Red Oak, Texas

II. Discharge

A. Volume: An average of 100,000 gallons per day
B. Type: Treated domestic sewage
C. Course: Into an unnamed tributary, thence to Red Oak Creek, thence to the Trinity River in the Trinity River Basin.

III. Hearing

A. Date: July 14, 1970
B. Location: Austin, Texas
C. Hearing Commission: Lee H. Mathews, Presiding Officer, John M. Johnston, Technical Services
D. Appearances: See attached attendance sheet

IV. Findings

A. The need for a sewerage system for the City of Red Oak is acute; presently inadequate septic tanks pose a potentially serious health and pollution problem.
B. The City is financially unable to join the Tenmile Regional Sewerage System at the present; the City's proposal for a local system is the more desirable alternative.
C. Although some recreational and other uses are made of the receiving waters (Red Oak Creek), an effluent conforming to the conditions and terms of the proposed Waste Control Order should not adversely affect those uses.

V. Recommendations

A. Waste Control Order Granted: Yes
B. Effective Date: August 28, 1970
C. Status: Final Approval
D. Special Provisions:
1. Area-wide treatment clause
2. Certified operator clause
3. Self-reporting clause

Exhibit No. 10

ATTENDANCE LIST - CITY OF RED OAK

Public Hearing, July 14, 1970

1. Proponents:

Robert E. Fix, P. E.
Ronnie B. Johnson, City Attorney
Lester Watkins, Builder
Don Shields, Supt. of Schools
A. Hardy Eubanks III, Financial Advisor
J. M. Hart, Mayor
Glendon E. Haney, City Councilman

2. Opponents:

James K. Presnal, Attorney
Horace E. Carter
W. A. Fuller
C. E. Spain, Jr.
LaVoy Strain
T. M. Harper
S. L. Adais
Charles L. Prude
Pete Clopton
Lu Prude

3. Observer:

Sam Kinch, Jr., Reporter, The Dallas Morning News

Exhibit No. 11

SUMMARY OF THE EVIDENCE

The City of Red Oak, Texas has made application before the Texas Water Quality Board for an initial Waste Control Order authorizing the discharge of treated domestic sewage from facilities located approximately ½ mile south of the city. A public hearing was held on July 14, 1970 in Austin, Texas during which evidence was received pertaining to the application. The applicant was represented by several city officials; numerous landowners and other interested parties appeared in protest.

The applicant has submitted an affidavit from the publisher of The Waxahachie Daily Light attesting that notice of the public hearing was published within the statutorily prescribed time period. Notice was also given to interested parties in accordance with established policy of the Texas Water Quality Board.

City officials and Mr. Robert Fix, Consulting Engineer, testified to the following:

1. The need for a sewerage system in Red Oak is critical. The present population (about 750) is now served by septic tanks which for the most part do not function properly. Overflows and seepage are common; raw sewage often collects in ditches and holes throughout the city. Much of this seepage finally collects in Red Oak Creek.
   Commissioners Note: A letter received from Dr. David Leslie of the Ellis County Health Department recommends approval of a sewerage system for Red Oak because of the serious septic tanks problem in the city.

2. The City proposes to install treatment facilities comprised of an oxidation ditch, bar screen, and two stabilization ponds. The plant will be designed to serve 1,000 persons; a flow measuring device will be installed. The State Health Department has approved the plans and specifications for the proposed facilities.

3. Red Oak Creek, the receiving stream for the effluent, contains water most of the year - some recreational use has been noted. The creek contains some septic tank discharge and treated sewage from at least one other city: Cedar Hill
   Examiner's Note: It has been reported that Cedar Hill will eventually join the Tenmile Regional Sewerage System and thus eliminate its discharge into Red Oak Creek.

4. The Trinity River Authority has been consulted about a possible tie-in to the Regional System. In 1968 the Authority informed city officials that the estimated cost of connection was $220,000.00; this cost to cover the construction of the necessary outfall lines and lift station. Other projected costs would raise the figure to $411,000.00 total cost (based on 1968 cost figures). If, however, the City builds its own plant and system of lines, total cost would be about $241,000.00; thus the cost to the City of a tie-on with the Tenmile System is 71% higher than the City's proposal. In terms of anticipated water and sewer rates, the City's plan embodied in this application will result in about a $84.00 per year charge per person for water and sewer services; a contract with the Trinity River Authority would increase these rates to approximately $144.00 per year. (See addendum for a breakdown of anticipated costs.)

   The above computations do not take into consideration any increases in estimated construction costs of the Tenmile outfall lines and pump station since 1968 nor the costs of right-of-ways for the pump station and lines. A requirement by the Board that the City join the Tenmile system would necessitate the resubmission of the City's approved Department of Housing and Urban Development loan agreement, and the resubmission of the City's request for a PL 660 Grant. Due to the urgency of the City's sewage problem, the additional delay that the resubmissions would entail would not be in the best interests of Red Oak.

Protestants owning land in the vicinity of the proposed treatment plant and Red Oak Creek presented testimony that can be summarized as follows:

1. Red Oak Creek is a source of recreation for the area. Uses include swimming, picnicking, and fishing; additionally, children often play in and around the creek.

2. Discharging effluent into the creek will cause health and odor problems, especially in the dry weather months when water pools in the stream bed and stagnates. In wet weather, the effluent may contribute to overflow problems.

3. The necessity of preserving Red Oak Creek as an important natural resource for the area should override the cost consideration of connecting to the Tenmile Regional System.

4. The value of property located along the creek will diminish if the stream is used to convey treated sewage from the city.

A letter of protest was received from Vernon C. Coffey who feels that water contaminated with treated sewage would harm cattle that water at the creek and destroy other domestic uses of the water. The writer urges a tie-on to the regional sewerage system.

A petition signed by over 160 residents of the surrounding area was presented to the Hearing Commission. These residents protest the use of Red Oak Creek by the City for sewage discharge because (a) sewage discharges are a continuing nuisance; (b) the value of adjacent property will be reduced; (c) sewage effluent will contaminate Red Oak Creek; (d) springs feeding the creek will be contaminated; (e) the adulteration of the creek's waters will restrict the normal uses of the stream.

Governmental units that have commented on this application include the North Central Texas Council of Governments, the Commissioners Court of Ellis County, and the Texas Parks and Wildlife Department. The NCTCOG recommends that "the proposed project is urgently needed, and it is reasonable to expect that it will be consistent with area-wide comprehensive planning and functional programming." The Ellis County Commissioners Court adopted a resolution at its June 23, 1970 meeting opposing the granting of all applications that propose to discharge waste into Bear Creek or Red Oak Creek. The resolution recommends that such applicants be required to connect to the Trinity River Authority's sewerage system.
Examiner's Note: A letter written by Hon. Milton Hartsfield, County Judge of Ellis County and received after the public hearing states that the Commissioners Court "did not have in consideration" the Red Oak treatment plant when the resolution was passed. Apparently, then, the Commissioners Court would not object to the building of the City's plant.)
The Parks and Wildlife Department will offer no objection to the application provided the applied for parameter for suspended solids (25 mg/l monthly average, 30 mg/l 24-hour daily composite, 30 mg/l individual sample) can be reduced to normally acceptable limits (20, 25 and 30 mg/l respectively).

Findings and Recommendations

The Hearing Commission makes the following findings:

1. Septic tanks presently serving the City of Red Oak are inadequate; they pose a potentially serious pollution and health hazard to the community. Septic tank seepage is currently degrading the quality of water in Red Oak Creek and threatening the water supply in the City.

2. It is economically impractical to require the City of Red Oak to attempt to contract with the Trinity River Authority's Tenmile Creek Sewerage System. A balancing of the interests involved indicates that the City should not have to bear the economic hardship and untimely delays in construction that would be entailed by a tie-in to a regional system. Representatives of the Trinity River have recommended that the City proceed with its plans to build a separate treatment plant; eventually the City can join the regional system when economics and population growth so indicate.

3. A properly constructed and maintained treatment plant of the type proposed by the applicant should not adversely affect normal uses of Red Oak Creek. Such a plant would eliminate present septic tank seepage into the creek from the City of Red Oak.

In light of the consideration given all the evidence, the Hearing Commission recommends that an initial Waste Control Order be granted in accordance with the terms and conditions of the proposed Waste Control Order attached hereto.

Lee H. Mathews

Lee H. Mathews, Presiding Officer
August 14, 1970

LHM:ha

ADDENDUM

ESTIMATED COST OF SEWERAGE

SYSTEM FOR CITY OF RED OAK, TEXAS

	Using Local Sewage Plant	Joining 10-Mile Creek Regional System
1. Construction Costs:		
a. Lift Station and line to regional system	-	$ 220,000
b. Sewage Plant	$ 50,000	-
c. Local outfall line	37,168	37,168
d. Lateral sewer lines	85,390	85,390
e. Subtotal	$ 172,558	$342,558
2. Other Project Costs	68,442	68,442
3. Total Estimated Project Cost	$241,000	$411,000

*1968 Estimate by Trinity River Authority based on 8 inch outfall line which would be inadequate in 15 years.

411
241
170

NAME: City of Red Oak
ADDRESS: P. O. Box 393
CITY: Red Oak, Texas 75151

TYPE OF WASTE CONTROL ORDER: Regular

NATURE OF BUSINESS PRODUCING WASTE: Municipal sewerage system

GENERAL DESCRIPTION AND LOCATION OF WASTE DISPOSAL SYSTEM:

Description: Oxidation ditch including bar screen, Parshall flume and two 1.15 acre stabilization ponds.

Location: Approximately ½ mile south of Red Oak, Texas and immediately west of M.K. & T, Railroad which point is west of cemetery on State Highway 342.

CONDITIONS OF THE WASTE CONTROL ORDER:

Character: Treated municipal sewage effluent

Volume: Not to exceed an average of 100,000 gallons per day;
Not to exceed a maximum of 250,000 gallons per day;
Not to exceed a maximum of 145 gallons per minute.

Quality:

Item	NOT TO EXCEED Monthly Average	24-hour Daily Composite	Individual Sample
B.O.D.	20 mg/l	25 mg/l	30 mg/l

Point of Discharge: Into an unnamed branch adjacent to the plant site in Ellis County, Texas; thence into Red Oak Creek; thence into the Trinity River in the Trinity River Basin.

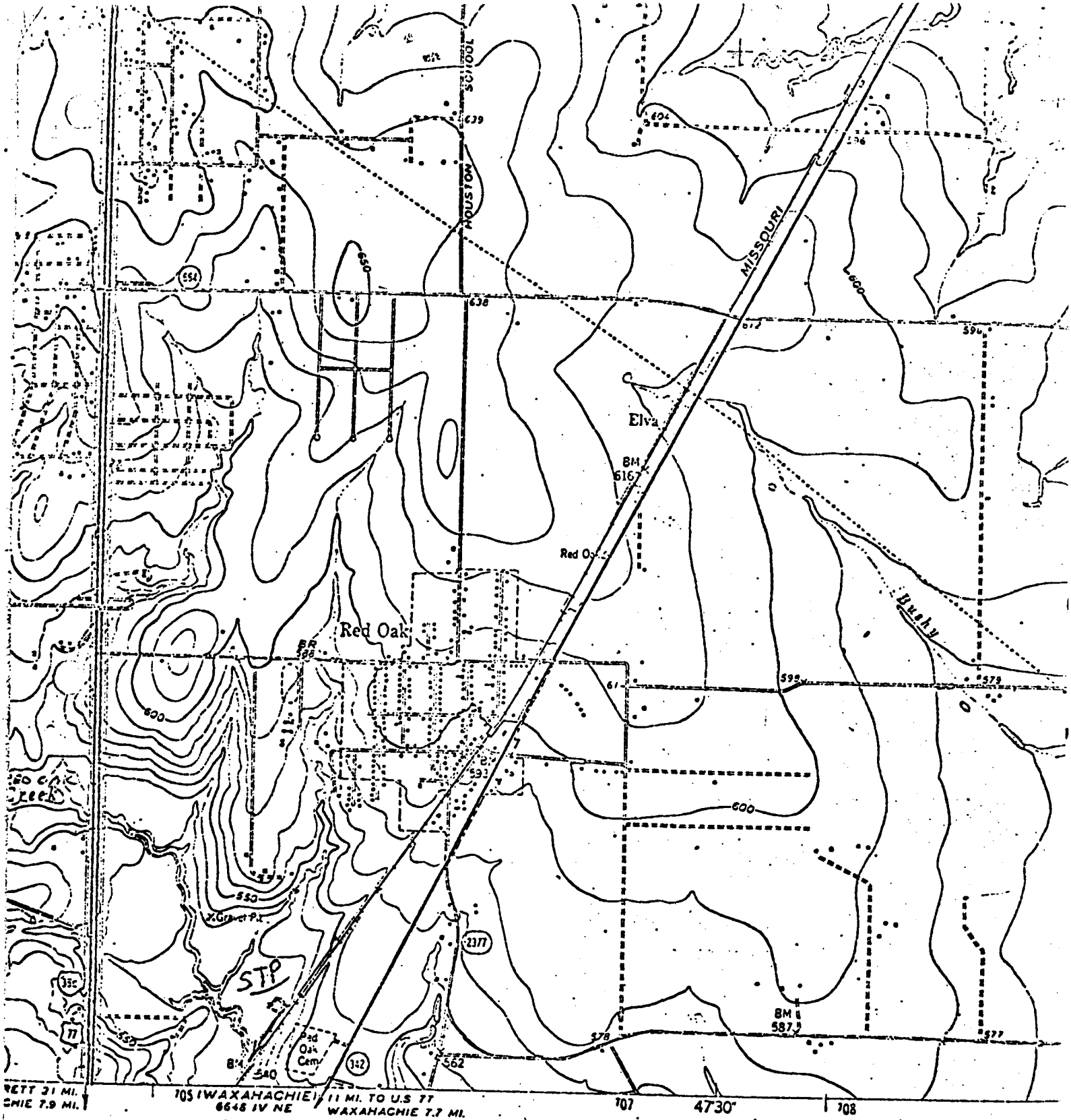
SPECIAL PROVISIONS:

This order is granted subject to the policy of the Board to encourage the development of area-wide waste collection, treatment and disposal systems. The Board reserves the right to amend this order in accordance with applicable procedural requirements to require the system covered by this order to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this order in any other particular to effectuate the Board's policy. Such amendments may be made when, in the judgment of the Board, the changes required thereby are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

These public sewerage facilities shall be operated and maintained by a sewage plant operator holding a valid certificate of competency issued under the direction of the Texas State Health Department as required by Section 20 (a) of Article 4477-1, Vernon's Texas Civil Statutes.

The City shall comply with the provisions of Board Order No. 69-1219-1 relative to monitoring and reporting data on effluent described in "Conditions of the Waste Control Order".

JMJ:ns



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

Red Oak

Exhibit No. 12

June 24, 1971

S-DMC

Mr. Don T. Shields
Superintendent of Schools
P. O. Box 117
Red Oak, Texas 75154

RE: Red Oak Elementary School
Sewage Disposal

Dear Mr. Shields:

Mr. Ron Freeman, P.E., regional representative for the Texas State Department of Health, inspected sewage disposal facilities at the elementary school at Red Oak on June 17, 1971. He reports that you were in his company during the inspection, as well as Mrs. W. B. Bond, a nearby resident to the school, and Mr. David Leslie, R.S., of the Ellis County Health Department.

A review of Mr. Freeman's evaluation of the school's sewage handling facilities indicates that a health hazard does exist, since sewage can be observed flowing on the surface of the ground. This condition, we understand, has existed for a number of years.

Corrective action must be taken to prevent continued exposure of students to sewage. The most desirable and effective way to dispose of the wastewater generated at the school is to discharge into a community collection system. We have been advised that the funding for a proposed sewerage facility for the City of Red Oak has been delayed. If assurance cannot be given by the City, or other agencies involved, that the sewerage system will be installed in the very near future, the school should repair and enlarge the present facility to the degree that it will serve the demand placed upon it without creating a public health nuisance. If a definite commitment from the City is not forthcoming, the school should wait no longer than two weeks prior to the beginning of the fall semester to start construction on the renovation and expansion of the septic tank disposal system.

Enclosed are copies of bulletins dealing with the design of septic tank systems. It is recommended that you maintain close liaison with Mr. Leslie as you progress toward the solution of this problem. You may also wish to engage the services of a Professional Engineer.

Sincerely,

David M. Cochran, P.E., Chief
Plans and Specifications
Division of Wastewater Technology
and Surveillance

DMC/dec

ccs: Honorable J. M. Hart, Mayor
City of Red Oak
Miss Lucy Chapman, City Secretary
City of Red Oak
Trinity River Authority
Water Quality Office, EPA
ATTN: Hendon Crane, P.E.
Mr. and Mrs. W. B. Bond
Ellis County Health Department
Local Health Services
Region II
Texas Water Quality Board
ATTN: Robert G. Fleming, P.E.

bcc: Wisenbaker, Fix and Associates
Consulting Engineers

STATE DEPARTMENT OF HEALTH

AUSTIN TEXAS

INTER-OFFICE

JUN 1971
RECEIVED
WASTEWATER TECHNOLOGY AND SURVEILLANCE

FROM: Ron Freeman, P.E., Region II

TO: Henry L. Dabney, P.E., Director, Division of Wastewater Technology and Surveillance

SUBJECT: Complaints at Rankin and Red Oak, Ellis County

The Writer contacted Mr. and Mrs. Bill Rankin, Owners of the private water well in Rankin, Mr. John Thomas, Route 4, Ennis, Texas, who lives adjacent to the Rankin property, and Mr. David Leslie, R.S., Ellis County HHealth Department, on Thursday, June 17th in regard to a complaint involving wastewater from the Thomas's septic tank polluting the Rankin's private water well. Mr. Leslie, who is acting City Manager at Waxahachie, did not have the time to accompany the Writer to Rankin.

An inspection of the well and surrounding area revealed that the field lines serving the septic tank were not functioning properly as raw sewage was ponding at the surface of the ground which is approximately 15 feet from the dug well, 38 feet in depth. It was pointed out to the Rankin's that the well is to close to the field lines even is operating properly. Therefore, a new well should be dug or continuous chlorination facilities provided if the well is to be used for drinking purposes.

Mr. Thomas was not to receptive to the Writer's suggestions that the septic tank system be repaired or the pollution of the neighbors well but did state that the lines would be repaired within 30 days. In addition to the health hazard involved in contaminating the well, the Writer explained the hazards concerning fly and mosquito breeding with the wastewater standing on top of the ground within 20 feet of his residence. The Writer urged that immediate action be taken to correct the problem. Samples for bacteriological analysis were collected at the Rankin's Residence.

Mr. Leslie stated that if corrective measures are not taken in the near future, the County HHealth Department would issue a notice to Mr. Thomas to correct the matter. Once again, the Writer encouraged immediate action as it was felt that 30 days was too long a time to correct the unsanitary condition. Mr. Leslie assured the Writer that corrective measures would be taken by the Health Department.

Mrs. W.B. Bond, Mr. David Leslie, R.S., and Mr. Don T. Shields, School Superintendent at Red Oak, were contacted while the Writer was in Red Oak on Thursday, June 17th. According to those contacted as well as the adjoining residents, the wastewater flows constantly during the school year although dry at this time since school is out for the summer. Arroximately 2000 feet of field lines and two large septic tanks are presently in use according to Mr. Shields. Some of the field lines are fairly old and not operating properly therefore Mr. Shields has suggested to the School Board that additional lines embedded with large rock be installed. Mr. Shields indicated that the Board was not to receptive to the idea. Until a sewer system can be obtained, this seems to be only solution since the Board is reluctant to spend much money for permanent improvements. The soil conditions are such that a septic tank system is very undesirable. Mr. Shields requested a letter from the State Health Department requesting that immediate improvements be made to eliviate the unhealthy conditions created by the overflowing septic tank system. Also, he welcomes any suggestions which might improve the problem, in paticular, the addition of additional field lines. It was suggested that such improvements be made as soon as possible since school is out and the ground is not saturated. Any correspondence to Mr. Shields should be addressed to P.O.Box 117, Red Oak, Texas 75154. This problem existing at the elementary school has been in existence for many years according to Mr. Leslie.

SIGNED Ron Freeman

APPENDIX A

EXECUTIVE DEPARTMENT

DIVISION OF PLANNING COORDINATION

BOX 12428, CAPITOL STATION

AUSTIN, TEXAS 78711

PHONE 512 475-2427

PRESTON SMITH
GOVERNOR

ED GRISHAM
DIRECTOR

March 30, 1972

Mr. Ancil A. Jones
Air and Water Programs Division
Environmental Protection Agency
1600 Patterson Street, Suite 1100
Dallas, Texas 75201

Dear Mr. Jones:

The Office of the Governor, Division of Planning Coordination (the State Planning and Development Clearinghouse), and affected Texas State agencies have reviewed the draft environmental impact statement for construction of wastewater facilities at Red Oak, Texas.

The Texas Parks and Wildlife Department disagrees, in part, with the environmental assessment presented for this project. The specific areas of contention concern the impact on fish in Red Oak Creek and the assimilative capacity of the stream. The comments of the Texas Parks and Wildlife Department are enclosed.

Other State agencies responding concurred with the present content of the draft statement.

Thank you for the opportunity to review this draft environmental impact statement.

Sincerely,

Ed Grisham

Ed Grisham
Director

EG:jsb

Enclosure

cc: Mr. James U. Cross, TP&WD

APR 10 1972

GORDON FULCHER
CHAIRMAN

LESTER CLARK
VICE-CHAIRMAN

J. DOUG TOOLE

HARRY P. BURLEIGH

TEXAS WATER QUALITY BOARD

JAMES U. CROSS

J. E. PEAVY, MD

BYRON TUNNELL

HUGH C. YANTIS, JR.
EXECUTIVE DIRECTOR

PH. 475-2651
A.C. 512

314 WEST 11TH STREET 78701
P.O. BOX 13246 CAPITOL STATION 78711
AUSTIN, TEXAS

May 24, 1972

Re: Red Oak, Texas
WPC-Tex-533

Environmental Protection Agency
Water Quality Office, Region VI
1600 Patterson Street, Suite 1100
Dallas, Texas 75201

Attention: Mr. Dan Sherwood

Gentlemen:

This letter will confirm the conference which was held on May 23, 1972, with representatives of the City of Red Oak, Wisenbaker, Fix, and Associates Consulting Engineers, the Texas Water Quality Board, and Mr. Dan Sherwood of your staff. It was necessary that we hold this conference by telephone because Mr. Sherwood was unable to be here in our office due to mechanical difficulties experienced by the airline on which he had proposed to travel to Austin. Prior to our telephone conference involving Mr. Sherwood, we held a conference here in our office with the representatives mentioned above. Present at the conference were: Mayor Perry McCalman, Councilwoman Lucy Chapman, Councilman M. E. Brown, Councilman Lester Watkins, City Attorney Ronnie B. Johnson, Robert E. Fix, Wisenbaker, Fix, & Associates; Pat dePhamphilis, Wisenbaker, Fix, & Associates; Nick Classen, and Joe Copeland, Water Quality Board.

The following is a summary of the conduct of the conference:

Consulting Engineer Robert E. Fix explained the latest proposal for treatment facilities at Red Oak. The facilities will include a bar screen and comminutor, the Huisman-Orbal activated sludge process with clarifier, sludge drying beds, chlorine contact

26 MAY 1972

chamber designed for 20 minutes contact time at peak flow, and will also include the two oxidation ponds that were proposed in the original design. Sludge will be pumped to the drying beds. Part of the plant effluent can still be used for irrigation of the golf course, if desired. In the event of power failure, the wastewater can flow by gravity through all of the units to the ponds. It was suggested that a bypass line be incorporated in the design so that the final clarifier could be de-watered for maintenance, if necessary. Mayor McCalman expressed acceptance of the proposal for the city and the City Attorney, Ron Johnson, concurred in the decision. We (TWQB) stated that the process was an acceptable one capable of producing a good quality of effluent and that we could foresee no problem in granting approval to the plans and specifications.

Mr. Sherwood stated that the proposal sounded satisfactory and that EPA would concur with our approval. He said that the final Environmental Impact Statement would be filed on or about June 2, 1972, with the Council on Environmental Quality and that no administrative action could be taken by EPA for 30 days following the filing of the statement. He stated, however, that the city could advertise for bids prior to about July 3 if they so desired, and that the contract could be tentatively awarded pending formal approval by EPA.

The engineers stated that they were having to revise the entire proposal and scrap the original plans and specifications; that plans would be ready for advertising about July 15 and that construction would begin about September 1. A wage determination was requested during this telephone conference.

Mr. Sherwood went on to say that the EPA Executive Office will stand by this proposal and will approve a surface discharge of the effluent. He said that EPA is continuing to receive letters of complaint from the downstream landowners, and that they have assured the downstream landowners that the plant operation and effluent quality will be monitored at reasonable intervals after the plant goes into operation. He asked that we establish some reasonable inspection and monitoring schedule involving our field personnel and so advise him. We have discussed this matter with Mr. Dick Whittington, our Director of Field Operations, and he has assured us that his field personnel will inspect this plant and monitor the effluent at reasonable intervals.

Please advise us if additional information is needed to clarify any of the points that were discussed during this conference. We will look forward to receiving a copy of the final Environmental Impact Statement in the near future. Incidentally, your assistance in processing a request for a new wage determination for this project will be appreciated.

Sincerely yours,

Nicholas W. Classen

Nicholas W. Classen, P.E.
Municipal Services

NWC:mr

ccs: Honorable Perry McCalman, Mayor
Mr. Ronnie B. Johnson, City Attorney
Wisenbaker, Fix, & Associates
TWQB District 4

26 MAY 1972

TEXAS
PARKS AND WILDLIFE DEPARTMENT

COMMISSIONERS

JACK R. STONE
CHAIRMAN, WELLS

HARRY JERSIG
SAN ANTONIO

PEARCE JOHNSON
AUSTIN

JAMES U. CROSS
EXECUTIVE DIRECTOR

JOHN H. REAGAN BUILDING
AUSTIN, TEXAS 78701

COMMISSIONERS

BOB BURLESON
TEMPLE

JOE K. FULTON
LUBBOCK

MAX L. THOMAS
DALLAS

March 13, 1972

Mr. Ed Coker
Division of Planning Coordination
Executive Department
Capitol Station
Austin, Texas 78711

RECEIVED

MAR 14 1972

Div. of Plan. Coord.

Re: Draft Environmental Impact Statement for Wastewater Facilities at Red Oak, Texas

Dear Mr. Coker:

We have reviewed the draft environmental impact statement for construction of wastewater facilities at Red Oak, Texas, and are only in partial agreement with the assessment presented. Specifically, we do not agree with statements concerning the impact on fish in Red Oak Creek or statements concerning the assimilative capacity of the stream.

Red Oak Creek is an intermittent stream and will provide little or no dilution of wastes during the dry season. During that period, it is likely that solids will accumulate in slack water areas and the diurnal oxygen fluctuation will be exaggerated.

It is also misleading to assume that BOD_5 of the effluent will indicate the ultimate oxygen demand. The nitrogenous oxygen demand, not included in BOD_5, will exert a demand possibly as great as the BOD_5. Additionally, chlorine residual in the stream can combine with ammonia from the waste discharge to form chloramines which are toxic to fish in very low concentrations.

The net result of the interaction of these factors will be to produce a segment of stream which fish and other aquatic life will avoid, at least in conditions of low stream flow. Therefore, the assessment of the impact statement which indicates the only effect on fish will be a minimal size increase is misleading.

It is probable that the environmental impact will be small, and as an interim plan, we do not disagree with the need for the facility. We would not, however,

like to see the assessment based on the assumption that there will be no degradation of the stream when, in fact, degradation will occur.

We appreciate having had the opportunity to comment on this draft statement.

Sincerely,

JAMES U. CROSS
Executive Director

TEXAS FOREST SERVICE

File 5.329-E

College Station, Texas 77843
March 1, 1972

Arthur W. Busch
Regional Administrator
Environmental Protection Agency
1600 Patterson, Suite 1100
Dallas, Texas 75201

Dear Mr. Busch:

This agency finds no objection to the contents of your draft of an environmental impact statement for construction of wastewater facilities, Red Oak, Texas. This is in response to your circular letter of February 25th.

Very truly yours,

Paul R. Kramer, Director

By: Mason C. Cloud

MC/co

RECEIVED
MAR 3 1972
EPA-REGION VI
Office Regional
Administrator

7 MAR 1972

TRINITY RIVER AUTHORITY OF TEXAS

701 GATEWAY PLAZA • 2723 AVENUE E EAST
P. O. BOX 5768
ARLINGTON, TEXAS 76011
TELEPHONE: (AREA CODE 817) 265-3151

JOHN M. SCOTT
PRESIDENT

A. C. SPENCER
VICE-PRESIDENT

BEN H. CARPENTER
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EXECUTIVE COMMITTEE

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ASSISTANT
GENERAL MANAGER

ALBERT E. HALL
PROJECTS
CONSTRUCTION MANAGER

JAMES L. STRAWN
PROJECTS
DEVELOPMENT MANAGER

March 28, 1972

Mr. Arthur W. Busch
Regional Administrator
Environmental Protection Agency
Region VI
1600 Patterson, Suite 1100
Dallas, Texas 75201

Dear Mr. Busch:

In response to your letter of February 25, 1972, we have reviewed the draft of the environmental statement prepared by your staff for construction of wastewater facilities for the City of Red Oak, Texas.

We generally concur with the environmental statement and offer no suggested additions or modifications to the draft.

Thank you for providing the Authority with the opportunity to review the draft of this environmental statement.

Sincerely,

James L. Strawn

James L. Strawn
Development Manager

JLS:db

MAR 30 1972

APR 10 1972

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. Box 648
Temple, Texas 76501

March 27, 1972

Mr. Arthur W. Busch
Regional Administrator
Environmental Protection Agency
1600 Patterson, Suite 1100
Dallas, Texas 75201

Dear Mr. Busch:

We have completed our review of the draft environmental statement on a complete wastewater treatment system for the City of Red Oak, Ellis County, Texas, dated February 25, 1972.

The statement adequately describes the effect of the proposed project on land use and management and upstream water resources.

We appreciate the opportunity to review and comment on this statement.

Sincerely,

for Clyde W. Graham
State Conservationist

APR 06 1972

MAR 30 1972

APR 3 1972

APR 10 1972

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Region 3
517 Gold Avenue S.W.
Albuquerque, New Mexico 87101

1940
April 7, 1972

Environmental Protection Agency
Region VI
1600 Patterson, Suite 1100
Dallas, Texas 75201

Gentlemen:

We have reviewed the draft environmental statement for the proposed waste-water treatment facilities to be located near Red Oak, Texas.

The statement is well prepared and all items wherein the Forest Service can lend expertise have been adequately considered. We have no suggested revisions or additions.

We appreciate the opportunity to review this well prepared statement.

Sincerely,

J W Koskella

for WM. D. HURST
Regional Forester

RECEIVED
APR 10 1972
VI

APR 07

APR 10 1972

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102

SWFED-PR

27 March 1972

Mr. Arthur W. Busch
Regional Administrator
Environmental Protection Agency
1600 Patterson, Suite 1100
Dallas, Texas 75201

RECEIVED
MAR 28 1972
EPA-REGION VI
Office Regional
Administrator

Dear Mr. Busch:

As requested by your letter, the draft environmental statement for the proposed wastewater facilities, Red Oak, Texas, has been reviewed by the Fort Worth District, U. S. Army Corps of Engineers.

We concur with the basic text of the draft environmental statement. However, the following comments are offered to assist you in the revision of this environmental statement.

a. Section I, "Description of the Proposed Action", could be strengthened by including additional material covering the hydrologic aspects of the study area. The flora and fauna of the study area could be discussed in more detail.

b. Section V, page 29, paragraph 1. Although productivity, in terms of biomass, may indeed be increased, there will be dramatic changes in the nature of the organisms present. Algae will flourish, especially filamentous forms, blue greens, etc. Sport fishes, where present now, will disappear and be replaced by those more tolerant to low oxygen levels which will be occurring as the nutrient levels increase. Bottom sediments will trap nutrients which will be present for quite some time after the release of sewage effluent ceases. This length of time will depend on the scouring action of the natural flows of the stream.

c. Section VII, page 31, Response to Comment 5. The previous comment, b., is also applicable to Comment 5. Also the response to this comment is somewhat deceptive because it fails to point out that quality

MAR 28 1972

of stream organisms is more important than quantity. The discharge of effluent into the creek would create a very productive body of water, yet the desirability of fish harvested from the creek would be questionable.

Thank you for the opportunity to review and comment on this statement. It is hoped these comments will be helpful in preparing the final environmental statement.

Sincerely yours,

D. L. Orendorff

D. L. ORENDORFF
Chief, Engineering Division

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
1114 COMMERCE STREET
DALLAS, TEXAS 75202

March 24, 1972

OFFICE OF
THE REGIONAL DIRECTOR

Our Reference: EI# 0272-107

Mr. Arthur W. Busch
Regional Administrator
Environmental Protection Agency
1600 Patterson, Suite 1100
Dallas, Texas 75201

Re: Construction of Wastewater Facilities, Red Oak, Texas
WPC-TEX-533

Dear Mr. Busch:

Pursuant to your request, we have reviewed the Environmental Impact Statement for the above project proposal in accordance with Section 102(2)(C) of P. L. 91-190, and the Council on Environmental Quality Guidelines of April 23, 1971.

Environmental health program responsibilities and standards of the Department of Health, Education, and Welfare include those vested with the United States Public Health Service and the Facilities Engineering and Construction Agency. The U. S. Public Health Service has those programs of the Federal Food and Drug Administration, which include the National Institute of Occupational Safety and Health and the Bureau of Community Environmental Management (housing, injury control, recreational health and insect and rodent control).

Accordingly, our review of the Draft Environmental Statement for the project discerns no adverse health effects that might be of significance where our program responsibilities and standards pertain, provided that appropriate guides are followed in concert with state, county, and local environmental health laws and regulations.

We therefore have no objection to the authorization of this project insofar as our interests and responsibilities are concerned.

Very truly yours,

Jerry D. Stephens

Jerry D. Stephens
Environmental Impact
Coordinator

MAR 27 1972

ORD-EI-1

United States Department of the Interior

BUREAU OF OUTDOOR RECREATION
MID-CONTINENT REGION
BUILDING 41, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO:

D6427 EIS
Wastewater Treatment
Red Oak, Texas

APR 4 1972

RECEIVED
APR 6 1972
Assistant for Congressional & Intergovernmental Relations

Mr. Arthur W. Busch
Regional Administrator
Environmental Protection Agency
Region VI
1600 Patterson, Suite 1100
Dallas, Texas 75201

Dear Mr. Busch:

We have reviewed the draft environmental impact statement for the proposed wastewater treatment facilities to be located near Red Oak, Texas as requested in your letter of February 25, 1972. Our comments are based entirely on the environmental impact data that you provided without the benefit of an on-site inspection.

We wish to compliment you on the general quality of the draft statement. The narrative is well written and makes clear what is intended and the general effects that the project work will have on the environment. We also feel that a sincere effort was made here to thoroughly explore all possible solutions to the sewage problem at Red Oak. There are, however, several specific comments we wish to offer.

We recommend that the word "beneficially" be dropped from the last sentence on page 12. Population growth is not always beneficial to an area. The growth of Red Oak with its close proximity to Dallas could represent a continuation of undesirable urban sprawl.

On page 14 it is indicated that no current detailed data exists on the assimilative capacity of Red Oak Creek. It would seem logical that such data should be obtained before proceeding with construction of the project.

On page 19 we suggest the sentence "...they can require the city to upgrade facilities to produce a less harmful effluent" be changed to read "they will require the city to upgrade the facilities to produce a less harmful effluent."

APR 10 1972

The statement is unclear as to the exact location of the treatment facilities in relation to the receiving tributary. Mention is made of possible flood conditions in the area. If the facilities lie in the flood plain of the tributary, the statement should include discussion of measures taken to protect plant operations from flooding.

On page 32 it is indicated that opponents of the project believe the treatment facilities could create odor and pollution problems downstream. As evidence, they cite existing problems at similar plants in Ferris, Forreston, and Lancaster, Texas. We are pleased that the final statement will include a review of these other facilities. In lieu of current recreation use on Red Oak Creek, objectionable odor or pollution could create undesirable conditions from a recreation standpoint.

The alternative of irrigating a privately owned golf course with the treated effluent would seem wise from a recreation standpoint. This, of course, is assuming that the vegetation will not be harmed by the effluent. The suggestion that the contract between the owner of the golf course and the city contain a clause allowing him to discontinue irrigation if necessary is an excellent solution to this possible problem.

The statement does not include discussion of possible design alternatives for the wastewater facilities. Such alternatives should be included in order to assure that the most aesthetically advantageous design is selected.

Our comments should be regarded as those of the Mid-Continent Regional Office of the Bureau and not the official position of the Bureau of Outdoor Recreation or the Department of the Interior.

Thank you for affording us the opportunity to comment.

Sincerely yours,

Alan O'Neill

for Maurice D. Arnold
Regional Director

cc: BOR, Washington
Attn: Division of Resource
Area Studies

March 27, 1972

ENVIRONMENTAL PROTECTION AGENCY

Gentlemen;

My name is C.E.Spain, Jr. and I am president of the Red Oak Creek Landowners Association, Ellis County.

We have had members at every meeting in fegard to the Red Oak sewage problem and we have spent a great amount of money trying to prevent the pollution of Red Oak Creek. I am sure that this is a surprise to you, since no mention of our organization is included in your report- a fact which does not surprise us since throughout this affair we have been treated as second class citizens with no rights whatever.

In your report as in every report regarding this matter, you explain that the city of Red Oak cannot go to the Trinity River Authority Sewage System because of lack of money. This is based on the fact that Red Oak has about 600 citizens. On the other hand, their need is based on a projected population of 2000 in the near future. No city or business can base its ability to expand on its present finances, Any city,in so doing, will find its facilities always behind the times.

Secondly, you state that no damage to Red Oak Creek is expected from the effluent being dumped into it. Why isn't it expected? Have you looked at any of the creeks where sewage has been dumped for a number of years? I do not believe that this statement is believed by anyone, including the people who made the statement.

My opinion of the report is that it is a poor cover-up for the failure of the ENVIRONMENTAL PROTECTION AGENCY to live up to its job of protecting the environment. If this is a sample of your work, I personally begrudge every tax dollar that is spent by your Agency.

C.E. Spain Jr.

C.E. Spain, Jr.-President,
Red Oak Creek Landowners
Association

Rte. I
Waxahachie, Texas

march 27. 1972

To Dallas Environmental Protection agency:-

Dear Sirs!

I have lived on or near Red Oak Creek most of my 60 years of life. I have as a youngster swam and played on Red Oak Creek. Now my niece and nephews swim in it. The creek is a pretty clean stream of water now. The Creek is my property line now. I would sure love to see this stream of water kept clean.

I have been working in Dallas for a number of years, and I have crossed ten mile creek at Lancaster twice a day and in doing so before the sewage was taken out of ten mile I could hardly stand the odor. Would you

people like to have the Red Oak creek smell like the ten mile used to smell? Don't tell me that these streams that sewage is put into does not smell bad. Balch Springs for instance, also Kleberg sewage.
I have a nice home here on Red Oak creek and would like to see the sewage kept out of the creek. The price of my property will go way down and the odor will be terrible
Please lets clean up the streams that are polutted instead of messing up more of them

Olin P. Brown
Rt 1
Waxahachie Texas
75165

Environmental Protection agency.

Dear Sirs

I moved to the country in 1951 We wanted to be close to the Red Oak Creek when we could go fishing and when we have the young ones visiting us we could go to the creek & have fun. Lots of the old settlers settled close to the Red Oak Creek for Cattle water & to enjoy the beauty of the creek

Now their children have inherited the places & they too love the creek & fresh air. Red Oak wants to use the Red Oak Creek for sewage. We all know the odor that will follow. You can drive by Ferris or Palmer & the odor is sure. Bad and that

is why we want to keep the Red Oak Creek clean so the people won't have to smell the odor

Why Pollute the Stream when we are striving for Anti Pollution

Thank

Hayden Jackson
RR 1
Wapahachie Texas
75165

Route # 3
Waxahachie, Texas 75165
March 28, 1972

Environment Protection Agency:

As a landowner along Red Oak Creek, I want to protest your recent decision concerning the Red Oak Sewage Plant. One has only to look at similar situations such as Ten Mile Creek before the Trinity River Disposible Plant was installed near Ferris. The Creek was once used by many people in the Dallas area, but was soon so polluted that no one used it nor the area (land) surrounding this creek. Red Oak Creek is one of the few creeks in this area on which there is sufficient recreational area and clean unpolluted water. My three sons learned to swim in this creek some 15 years ago and even today fish and swim in it. Boy Scouts from Palmer, Dallas, and Lancaster come to my property at least 15 times during the year for two to four day outings on the creek. If this creek is polluted, you will have had a part in depriving these young men from the opportunity of enjoying the out-doors. Also, many church and civic groups come to this creek to enjoy the clean environment found along this creek. I personally feel that you are making a mistake when you allow a city to dump into an unpolluted creek when for only about a dollar a person more, the city could link up with a sewage pipe system (Trinity River Project-Ferris,Texas) and save thereselves money at the same time. Red Oak is growing so fast that a sewage plant such as the one planned for Red Oak Creek will be out-dated in less than three years. Please use common sense and deny them the right to dump in our creek.

Sincerely,
Wilton A. Fuller

Box 12
Palmer, Texas 75152
March 28, 1972

Environmental Protection Agency
Dallas, Texas

C/o C.E. Spain - Rockette, Texas

Sirs:

I hope and pray that you will not be misled and deceived into believing that dumping any type of sewage (treated or raw) into Red Oak Creek will do anything but harm the creek and the land around this beautiful creek. My father raised me on a farm near this creek and I am now living in a mobile home situated abouted a 100 yards from the creek. I am High School Principal at Palmer High School and I know that the majority of our students depend upon this Creek for out-door recreation. Please!!!!!! Help save this Recreation area for our youth by denying Red Oak the right to dump their waste in our creek. They can easily go to a piped sewage line running to the Trinity River through Ferris-----this will only cost a small amount compared to the damage and eventual destruction of this beautiful creek. Thank you for your cooperation.

Sincerely,

Howard J. Fuller

Dear Sir.

Since so much time and money is being spent to fight pollution, I can't understand why Red Oak was given permission to dispose of its sewage into the Red Oak Creek.

There are several areas along the creek that are used for picnics, camping, hiking and just plain fun. Could you camp or picnic beside the Trinity River? This river have the same odor.

If this isn't stopped, come on down for a swim. I'll have the whole creek to yourself.

Regards,
The R.L. Adams

Route 1 - Box 56
Palmer, Texas 75152
March 29, 1972

Dallas Environmental Protection Agency
Dallas, Texas

Gentlemen:

It seems strange to me that, at this particular day and age, when emphasis is placed on keeping lakes, streams, etc., as clean as possible, anyone would want to pour "treated sewage" into Red Oak Creek.

If, as stated in your draft, the quality of the water is so improved after treatment of the sewage, why not re-cycle it for the use of the town of Red Oak instead of putting it in the Creek?

There are many reasons why

We oppose the dumping of "treated sewage" into Red Oak Creek. To name a few:

1. Our Rockett Corp. water line crosses the Creek and has been known to break during flooding. Who among you would want to use water from the line for quite sometime after the "treated sewage" was allowed to enter it?

2. Who among you would want to swim in, picnic near, or eat fish caught in Red Oak Creek if the "treated sewage" is put in it?

3. Land de-valuation. People are buying land, all over the nation, for homesites to be near unpolluted streams. It stands to

reason that the value will go down if the streams aren't fit for recreational purposes.

Why should the Red Oak Creek land owners and those who use the area for recreation, have to "pay the price" to take care of Red Oak town's sewage?

I suppose it would make it easier for the "developers" to continue building in Red Oak if taxes can be kept down by imposing on Red Oak Creek land owners. But why should we have to "pay that price"

If Red Oak had no alternative, it would be different. But since they do — please don't make us pay

the price of taking care of
their sewage -

Yours truly,
Mrs Ralph L Evans

Red Oak, Texas. March 31, 1972

Mr. C. E. Spain, Jr.
Chairman Red Oak, Creek Landowners Assn.,

Dear Mr. Spain:

As a landowner and living within the adjacent limits of the Red Oak Creek area I wish to make a few comments regarding the recent decision of the E. P. A giving th city of Red Oak permission to dump the effluent into Red Oak creek.

This community was established in the year 1846 and the generations since that date have enjoyed benefits of having a pure stream of water in which many hundreds of kids have used the many swimming holes for their pleasure.

If the order is allowed to stand many cattle raisers will be forced to seek sources o water supply other than the "tainted water" of Red Oak Creek.

I am enclosing a clipping taken from the Dallas News of March 30, 1972, regarding clean water, The House of Representatives in Washington passed a bill approving $24 billion dollars aming at cleaning up the nation's water ays.

It simply does not make good sense to pollute a fine stream like Red Oak creek and then spend untold amount of money to correct it a few years later.

Please lets keep our clean water clean instead of making it unsafe for man or beast to drink.

I am against polluting any clean strean where ever it might be.

Please make it clear to the E. P. A. our desire to reconsider their action and give us a fair break in the matter of water pollution.

Yours very truly

Glenn R. Bell

$24 Billion Approved for Clean Water

WASHINGTON (AP) — The House Wednesday passed a $24.6-billion water-pollution-control bill aimed at cleaning up the nation's waterways, perhaps by 1981. The vote was 378 to 14.

The measure, believed to be the largest single nondefense authorization ever approved by the House, now goes before a joint conference of the House and Senate Public Works Committees to iron out differences between the House version and one passed last November by the Senate.

Rep. John A. Blatnik, D-Minn., chairman of the House Public Works Committee that wrote the bill, said "as soon as possible after the Easter recess, we hope to proceed to conference with the Senate in order to expedite final enactment of legislation that will enable America to restore and preserve the integrity of her waters."

A spokesman for the Environmental Policy Center said it was "a fraud on the public to pass a dirty-water bill in a clean-water wrapping."

Significant differences between the House and Senate versions are expected to delay for some time agreement between conferees.

The House bill calls for $18.3 billion to be spent from fiscal 1973 to 1975 for the federal share of constructing sewage-treatment works and, for the first time, sewage-collection systems. The total called for by the Senate is only $14 billion.

The House bill calls also for the best available technology to purify wastes discharged into waterways. After Congress received the study, it would decide whether to impose a 1981 deadline for utilizing the best means available.

The Senate bill rigidly adopts the 1981 deadline and calls also for all discharges into waterways to end by 1985. The House, in contrast, considers 1985 to be a national goal, not a governmental policy.

In addition, the House bill would abloshi the 1899 Refuse Act permit system requiring industries to receive a permit before discharging wastes into navigable waterway. The permit system would be replaced by a federal-state permit system in which state would issue permits to industries complying with federal guidelines.

The Senate version also establishes a federal-state permit system but retains the 1899 Refuse Act system which House spokesman called duplicative.

Route 1
Waxahachie, Texas
March 29, 1972

Environmental Protection Agency
Dallas, Texas

Dear Sirs,

I am a Landowner and live on Red Oak creek in the little community of Rockett, Texas. I understand you directly require all claims of damage to Red Oak creek by release of the effluent from Red Oak sewage plant. How can you say there will be no damage when you can look at other creeks and streams in the State of Texas that have been polluted in this same way. Red Oak Creek is one of the few creeks in the metropolitan area of Dallas that is not polluted and is still used for recreational purposes (swimming, fishing, hunting & camping). Please help us keep it that way.

There is one question I would like to ask, if the effluent from Red Oak sewage plant is released in Red Oak Creek would you want this water to run by your home, would you eat the fish caught from this stream and would you let your children swim in this water?

Sincerely,

Mrs. A. S. Buchanan
Route 1, Box 41A
Palmer, Texas

Dear Sirs,

It is my hope that letter will be read by the persons whose job it will be to settle the question of the Red Oak Sewage Disposal.

I could list many reasons why the use of Red Oak Creek for this disposal is completely unthinkable but I'll mention only the one that is personal with me.

I grew up in Dallas, and as a child never knew the joy that my five boys know, of swimming, fishing, or just exploring the Creek and its banks. My husband was born and has lived his whole life in Rockett, as have our boys. So as you see our plans for the future include this area, which though it is just a small spot on the map to you, is the most important spot on the earth to us.

So how can you even

consider spoiling it when there is another alternative offered. It is my understanding that with the growth potential this system will be obsolete in a few years anyway.

Please help us to keep our properties free from pollution, in this age when ecological needs have become so apparent.

Sincerely yours,
Mrs. A. S. Buchanan

Red Oak, Texas
March 28, 1972

Dear Sirs:

I am writing in regard to the proposed sewage system in Red Oak, Texas. This proposal is under your consideration at this time.

I am nineteen years old and have lived in Red Oak all my life. My family own a farm along the banks of Red Oak Creek. This creek has been a special place to me as long as I can remember. Summer after summer my family and many friends have used this creek for recreational purposes. Each Fourth of July our church groups spend much of the week end on our farm. At other times, during the year, we have other parties or just a picnic. It seems that never a week goes by without there being a picnic or a camp along the creek banks.

I have enjoyed many an enjoyable hour along Red Oak Creek and I sure hate to see it polluted. I hate to think of giving up the beautiful memories of walking along the banks of the creek looking into the clear waters at the many fish that swim freely. Many mornings I have risen well before the sun an made my way to the banks of Red Oak Creek to find a nice spot to hunt squirrels.

I have hunted or fished the banks of this creek as far back as I can remember. My father and his father did the same. I would truly like to think that my children could do the same and not worry about getting sick from the waste materials that might get put in there by the city of Red Oak.

Many of the world's paradises have been destroyed and some have been preserved. I don't think that this creek should be preserved but just left alone. The wonders of the world are left alone and they are not hurting anybody and people are able to enjoy them. I think this creek is a wonder of God and think that it should be left alone. Not polluted but to be enjoyed by everyone.

Yours truly,

Gary Coffey

Gary Coffey
"A concerned citizen"

Red Oak, Texas
March 30, 1972

Dear Sirs:

After reading the impact statement on the proposed Red Oak Creek Sewage System, I was very disappointed in the reversing of your decision to utilize the discharge waters on the Red Oak Golf Course. Also removing the stipulation of having the city of Red Oak to join the TRA by the year 1979. In all the meetings, concerning the project, these two items were emphasized by your agency. I realize this was contrary to what the Texas Quality Board had already agreed to, and a permit was granted before downstream land owners were advised or consulted. At all of the Texas Quality Board meetings, they stipulated that when they made a decision it was beyond question by any individual or any other agency. I appreciated the original stand the EPA took regarding everyone's views, but in the final analysis I interpreted the impact statement as EPA yielding to the Texas Quality Board almost entirely. I have great respect for those members on the TQWB, but for the past (twenty) 20 years I have had to pass by the city of Lancaster's disposal pland and would almost gag by sewage gas odors and observed the discolorationof the water downstream and the disappearing of all game and catfish that were present before Lancaster discharged into Ten Mile Creek. Also, I cross the Trinity River twice daily and it is a duplication of Ten Mile Creek. I am also aware that there has been a Texas Quality Board that has been in existence for a number of years. I am thankful that Lancaster has joined the TRA and think this is the most practical, feasible and economical solution for the city of Red Oak. If the state water board will permit conditions, as I mentioned above, to exist and if EPA, which is apparently going to condone what the TQB dictates, then when can we ever begin to start on this mammouth problem of pollution. Can we search our hearts and consciences and truthfully say this is the price we have to pay for progress and let it stop there?

May I ask what rights or resources I have as a citizen and a downstream land owner in case the city does pollute Red Oak Creek? Is there anyone beside EPA or TQWB that could be contacted that would be of any assistance in this matter? I hope and pray that I never have to contact anyone on the above mentioned subject. However, if the city of Red Oak runs affluent in the creek, such as Cedar Hill, Lancaster and Ferris prior to joining the TRA, then I would feel justified in contacting the director of EPA or president of United States.

Respectfully,

Vernon G. Coffey

Vernon G. Coffey

Palmer, Texas
March 30, 1972

Environmental Protection Agency
1600 Patterson, Suite 1100
Dallas, Texas 75201

Gentlemen:

After reading your recent report concerning the problems of Red Oak, Texas and the use of Red Oak Creek to carry the effluent from their proposed sewage system, it would seem that we, the landowners along the creek, have again been sold out, and have nothing to say about this matter..

When your agency entered the picture, we had hopes that we were going to be helped in preventing the pollution of a stream which is used by many for recreation, as well as providing water for cattle and various other uses.

Your report states that the effluent from the Red Oak sewage system would improve the quality of the water. However, we have talked to people who are in this kind of work and they say it is impossible to control the amount of effluent which would go into the creek, especially in the overflow season. Therefore, it most definitely would be a pollution and environmental problem,and certainly the value of the land along the creek would be lowered considerably.

It seems that the rural people of this country are a forgotten people, with no protection of any kind, and that this matter has, due to the fact that this is election year, become a political football. We are tax paying citizens, but can do nothing to protect our own property against this threat.

Since cleaning up our environment and ridding the streams of pollution is your field of endeavor, it would seem that you, of all people would not endorse this project.

We sincerely hope and ask that you study this matter extensively, and consider the far reaching results of letting yet another stream become polluted.

Sincerely,

C. R. Farrar
Mrs. C. R. Farrar

C. R. Farrar
Mrs. C. R. Farrar

Palmer Tex. 3-30-72.

Environmental Protection Agency.
Dallas Texas.

Gentlemen:- I am writing you in regard to the sewige of Red Oak being put in Red Oak Creek. This seems a rather cruel thing to pollute our community in this manner. Many people are moving out of the cities to get out of pollution, and as you may know, Red Oak population is increasing by leaps and bounds. Many of our people live very near the creek banks. Now what do you think this would do to them to have human excretion run at their door?

Our creek is used for stock water swimming, fishing, picnic and general recreation, and also remember we people in the country don't have nice parks, pools ect. like the cities do. We don't want our water improved ~~in~~ with Red Oaks filth, but most of all - We are paying a high price to have deep ~~well~~ well pure water. The main water line crosses the creek a number of times. It frequently

would it
breaks and fills with human excretion
and all other filth, who of you would
want to drink from those pipes?
Please think of the scripture in
the Bible "Do unto others as you
would have them do unto you."
Many of us have all our life
savings here and realize it will
no doubt lower the value of
our property.
Please give this letter your
most careful consideration.

Respectfully
Mrs C. F. Farrar

March 18, 1972

To - Dallas Env. Protection agency
Red Oak Landowners association
or to Whom it Concerning Members.
and the E. P. A. in Dallas.

Dears Sirs: I am asking you to reconsider all the Rockett people about about letting Red Oak dump or empty their sewage into the Red Oak creek as we all here so near the creek. Part of us on ~~[illegible]~~ or near the banks of the creek, or within a few hundred feet of the creek. We know it will contaminate our water and have an odor all the time. of which we may catch ~~diseases~~ of some kind and kill our fish.

Please dont turn a deaf ear to our plea. If this

war first the reverse I am sure Red Oak would object to us doing so to them.

Let them prepare a place and bear the expense of their own sewerage and not us.

I am pleading for you all to please dont let them do this to us. as ~~to~~ our little town is just about three miles from where they will dump ~~its~~ in. and there are a few houses all the ~~way~~ from there to Rockett, near the creek.

Please hear our plea again and reconsider it in our favor.

Thanks if you do reconsider our plea.

Mrs. H. C. Humphries.

Roscoe Tex

Colmesneil Tex 3/17/72
Rt 1 Box 39

Dear Sir

I'm a citizen of Ellis county, I have lived on or near Red oak creek all of my life. I started fishing on it when I was about 5 yr old swim and fished on it when. The dry year came we drank water out of it. It is the only no polluted stream there is that I know of. There are bass, channel cats, bream, there are as many people that come by my house that to fish in the weeks from april to octobers that you would think you were in a large city of 50 or 60 thousands I can remember when the trinity rivers was full of fish, but looks at now, you can smell it for miles so when they dump the sewage in this small creek you have kill the people that lives down or near

it is very injustice to the people who live on are near the only none pollutted stream, I beg you to think if you were the people who live in two hundred yds of this pure clear stream, as to your that is my care I hope to appeal that you will consider this as a very true picture, for our children and the people who wish for clean air and pure water

Thanks, I wish to be a none partisan,

yours respectfully.

Fred Farrow

Palmer

R1 Box 39. Tel

County fair

of Dallas Texas?"

I believe I can answer that question for you without fear of contradiction. No! Why? Because if your son or daughter did swim in that eyesore full of filth, their lifespan would be very short indeed.

Just as you would protect your children from deadly drugs, so will I protect my children from the poison and filth the government is threatning our beautiful creek with.

Whether politicians know it or not, this creek they are going to allow to be ruined is still a lovely place used by many many people each year as a place to relax and be with their families.

This is an urgent plea to please stop this pollution of a creek that could hold so many more memories for so many more people. If not for me, do it for my children and other children that are too young to understand now but will have to live with it in later years. Please don't make another Trinity River out of Red Oak Creek.

Sincerely,

Glen Farrar

March 24, 1972

To the ENVIRONMENTAL PROTECTION AGENCY

I am a member of the Red Oak Creed Landowners Association (Ellis County). I have lived my entire life on this Red Oak Creek and I own my home on its banks. I pay taxes to midstream on this Creek. Let me state to you, I owe the city of Red Oak nothing in regard to having their sewage dumped on me and also on my neighbors. Red Oak city has many $ 30,000 new homes, not to mention the numerous $ 25,000 structures. They have a thriving new bank. Apparently, they are second-rate in having no regard to their neighbors downstream. Have they led the Environmental Protection Agency to believe that they cannot afford to pay their own obligation? They can go to Trinity River Authority Disposal System. Why is the E.P.A letting the city of Red Oak defeat the purpose of the E.P.A. and also the purpose of the Trinity River Authority?

Raymond C Humphries

Raymond C. Humphries
Rte. I
Waxahachie, Texas

March 28, 1972

Environmental Protection Agency
Dallas, Texas

Dear Sirs:

My home is on Red Oak Creek and the homesite was chosen because of the beauty and the white rock bottom of the creek in our particular area. This has made our location one of the best for good family fun, swimming, and picnicking.

We are concerned to learn that dispite our efforts to preserve this creek, a Federal grant will permit its pollution by the effluent from the proposed Red Oak sewage system. What has happened to the agency that was set up to clean up the creeks and rivers? This one will not have to be cleaned up later if it is not allowed to become polluted now. Is this the agency that is now financing the pollution of our water ways?

Very truly yours,

Charles & Loretta Prude

MR. AND MRS. CHARLES L. PRUDE & FAMILY
Route 1
Palmer, Texas 75152

cc: General William D. Ruckelshaus
Washington, D.C. 20204

March 28, 1972

Environmental Protection Agency
Dallas, Texas

Dear Sirs:

I have recently purchased a homesite in the Red Oak Creek area. It has been brought to my attention by the people in the community of the existing situation in regard to the proposed sewage system by the city of Red Oak. My wife and I were very disturbed to find the whole community involved in a protest to prevent the pollution of the creek. I find myself very much in sympathy with the cause.

In the past my children have enjoyed swimming and fishing in this creek and I fully expected to give this same privilege to my grandchildren. We are very disturbed to find the creek will be unsuitable for recreational purposes if this effluent is allowed to enter the creek. This is a pollution free creek at this point and we are astonished and confused to learn that the agency which was set up and designed to protect our environment and clean up the polluted creeks and rivers has totally disregarded the pleas of the landowners to protect one of the few remaining pollution free creeks.

We want to register our opposition to the pollution of the creek by the effluent from the sewage system.

Very truly yours,

Ronald and Gladys Whitehead

Ronald Whitehead
Gladys Whitehead
Route 1
Palmer, Texas 75152

cc: General William D. Ruckelshaus
Washington, D. C. 20204

Palmer, Texas
March 29, 1972

To whom it may concern:

We are landowners on the Red Oak Creek. We are strenuously opposed to Red Oaks sewage being dumped into the creek.

We do not believe that any disposal plant can improve the quality of the water. We know it will not be good drinking water for the cattle. The fish in the creek will die. It will certainly not be a good swimming or picnicking place. We are sure the odor will be evident for miles around and especially to the unfortunate people who live by the creek.

We have heard the views on this matter from landowners on other creeks which had sewage dumped into them.

We would do anything to prevent the pollution of Red Oak creek but if we can't prevent it perhaps Red Oak will be hearing from the landowners again when the damages start from the pollution.

Yours truly
Wade & Lillie Mae Farrar
Rte. 1, Palmer, Texas

3451 Cedarhurst Drive
Dallas, Texas 75233
March 25, 1972

The Environmental Protection Agency
Dallas, Texas

Dear Sir:

I am amazed that you, the Environmental Protection Agency, have completely disregarded and refuted the numerous protests that the landowners on Red Oak Creek have made over the possible releasing of treated sewage in Red Oak Creek.

The term we hear is "economically unfeasible" on every consideration of their disposing of their sewage with the exception of dumping their effluent in Red Oak Creek which solves their problem with the least expense to them but totally without regard or consideration for landowners whose deed lines center the creek.

Some 42 acres, approximately 1/2 mile in length, which centers Red Oak Creek to the south has been in the family since 1911. Our water supply comes from a 35 foot well with a 10 foot basin of water which is some 200 yards from the creek. The well has a 6 foot wall but when the creek overflows there is some seepage of water. Do you tell me that the effluent from Red Oak sewage plant will not effect my well, but instead improve my water?

Real Estate people say the value of property on Red Oak Creek will definately decrease in value when it becomes a carrier of treated effluent. Will my legal rights not be abused by the city of Red Oak, the state of Texas and the Federal Government by decreasing the value of my property and depriving me of recreational facilities of the creek that I have enjoyed in the past?

My property on Red Oak Creek is very near and dear to me and there is much hostility within me to think that the Federal Government would approve a grant that would put sewage in one of our very few remaining unpolluted streams when there are other alternatives for the city of Red Oak.

Yours truly,

Evelyn Farrar Byrd

Evelyn Farrar Byrd

March 21, 1972

TO WHOM IT MAY CONCERN:

Even though I live in Red Oak, Texas and know that we need the new sewage system and will benifit from it. I am against the way the Dallas Environmental Protection Agency agrees to dispose of the sewage in the Red Oak Creek.

My Mother lives in Rockett, Texas, only four houses from the Red Oak Creek, where the sewage will be dumped. I feel sorry for her and the people living in this community. I stand to inherit this property, where my Mother lives, and may move to the town of Rockett to live, therefore I have an interest.

I hope you will please give this matter more consideration and look into this situation fully, before you decide to let them dump this sewage in the Red Oak Creek. I feel sure there are other ways of disposing of this sewage, as other towns and communities have other facilities. Please re-consider this matter.

Yours truly,

Virginia Runnels

Virginia Runnels
206 N. Hillside
Red Oak, Texas

Donald M. Runnels

Donald Runnels
206 N. Hillside
Red Oak, Texas

March 24, 1972

TO WHOM IT MAY CONCERN:

This letter is written in protest of any effluent or sewage being put into Red Oak Creek other than natural rainfall and elements.

The property along the drainage of this creek is owned by property owners who pay taxes on same to the center of running stream if owned on one side. Also the property in which I am interested has a well that could draw seepage water from this creek as it is located about three hundred yards from the stream of water on creek level and is the only source of water for the home.

I was born and raised on the stream and have used it for recreation and helped maintain its upkeep for over fifty years and I protest any changes in condition of waste being disposed of in this stream.

Yours truly,

J. R. Farrar

J. R. Farrar
115 W University
Waxahachie, Texas 75165

March 25, 1972

ENVIRONMENTAL PROTECTION AGENCY

I have lived my entire life on the banks of Red Oak Creek, Ellis County, in the community of Rockett which is located three miles downstream from the City of Red Oak, Texas.

Why should my home and my community be down-graded because the city of Red Oak desires to take the cheap route for sewage disposal? They are no poverty stricken people. Did the delegates from the Environmental Protection Agency really drive through the town to see the new homes, the new churches, the new bank, etc.? Numerous new homes and a major gasoline station are under construction this very day.

I resent your recommendation to allow the City of Red Oak to take a cheap alternative at my expense and at the expense of my community.

Clara Farrar

Clara Farrar

Route I
Waxahachie, Texas
75165

Dear Sirs:

I was raised in Rockett Texas. Most of that time was spent on Red Oak Creek. I could swim in it, fish in it, and even drink the water from it. I couldn't count the times that I have drank my fill of it. I grew up on that creek. I still love to fish and hunt in the same places as I did as a child. It has always been a beautiful place to me, except for the junkpile in the middle of it. Now we have eliminated that junkpile with the help of county officials. We plan to keep the trash away.

Many years have passed since I caught my first fish and swam my first stroke in Red Oak Creek. I now have a daughter 2 years old. I had so many plans to take her to the creek and teach to swim, fish, and hunt just as I did. The memories I have of my days on that creek are very dear to me. I would like for my daughter to share my memories and to make some of her own. I want my playground to be her playground.

One simple way of understanding what I feel is to ask yourself, "Would <u>you</u> let your children swim in the Trinity River south

Great Commonwealth
LIFE INSURANCE COMPANY

ARNOLD L. REED
PRESIDENT AND
CHAIRMAN OF THE BOARD

1500 DAVIS BUILDING
DALLAS, TEXAS 75202

March 21, 1972

Dallas Environmental
Protection Agency

Gentlemen:

I am a property owner affected by the discharge of the flowing into Red Oak Creek, the creek passing directly through my property. Cattle and other livestock currently drink out of the creek waters. Additional uses of the waters, outside of drinking purposes, are for fishing, recreation, camping, picnicking, public rest and play areas.

In the past, water supply lines from Rockett Water Supply Corporation have burst during heavy rains, thus allowing the potable waters to the customers and users of the Rockett Water Supply to be mixed with sewage effluent.

The discharge of effluent, without limitation, into the Red Oak Creek will destroy all present uses of the creek.

Your consideration of all the factors surrounding the Red Oak Sewage problem should definitely dictate against the use of Red Oak Creek as a sewage disposal facility.

Very truly yours,

Arnold L. Reed

ALR:mc

Rusk, Texas
March 17, 1972

TO WHOM IT MAY CONCERN:

I am an heir at law of A.C. (Ike) Prude, Jr. and own an interest in the Prude Homestead Farm through which Red Oak Creek flows. It has come to my attention that the discharge from the proposed Red Oak Sewerage Plant is to be dumped into Red Oak Creek.

My plans for the future are that I would like to build my retirement home on my Father's Homestead Tract. I know from other experiences that if the sewerage discharge from a sewerage is dumped into Red Oak Creek that it will not only destroy the natural beauty of this creek and in my opinion will kill all fish and vegetation along the creek. A portion of our land is subject to overflow from Red Oak Creek from time to time and this will mean that the sewerage discharge from the Sewerage Plant will overflow our bottom land along Red Oak Creek. The history of these sewerage plants is that they operater waits until a heavy rain comes and then cleans out the sewerage plant by dumping everything into the creek. Please protect my property from this injustice.

Respectfully,

Marguerite Prude Tolar

Marguerite Prude Tolar
P.O. Box 264
Rusk, Texas 75785

March 27, 1972

General William D. Ruckelshaus
Consumer Protection and Environmental Health Services
Department of Health, Education and Welfare
200 C Street SW
Washington, D.C. 20204

Dear General Ruckelshaus:

Attached is a copy of your last correspondence to us regarding the proposed Red Oak sewage system and it's pollution of Red Oak Creek, however, in view of recent developments, we as landowners on Red Oak Creek, want to register further opposition to the pollution of Red Oak Creek by this system and the town of Red Oak.

The report from EPA in Dallas admits that the creek is virtually pollution free at this point, however, EPA plans to support the plan to drain the effluent from the system into the creek. In view of all the publicity toward cleaning up our air and water resources, we are at a loss to understand why a further effort was not or has not been made to work out another solution to the problem.

Another point that has failed to receive any consideration is the fact that some of the water supply pipes for the Rockett Water Supply Corporation cross the creek. In the past some of the pipes have been broken during heavy rains. If the creek is polluted, some of this effluent will be induced into the water system should a break occur. When this system was constructed, it is my understanding that the supply pipes could not be laid within a certain number of feet of a sewage drain or line, however, our objection to the effluent in the creek because of our water pipes has been ignored.

The discharge of the effluent to another stream in the area was mentioned in the report, however, this was dismissed as posing the same problem as the use of Red Oak Creek. But in view of the indication from EPA that the effluent will be such that it will enhance the quality of the creek water and be such an advantage, perhaps this could be considered further. Perhaps the people on one of the other creeks would welcome such an addition to their surroundings. WE DON'T WANT IT!

At the rate the town of Red Oak is growing, we feel sure the system will not handle the need and the creek will be damaged even more.

In view of all the publicity made in your name for clean air and pure water, we felt you should be made aware of the situation at this point. Can any thing else be done??

Very truly yours,

Edward L. Prude

Mr. and Mrs. Edward L. Prude
R 1 Box 49
Palmer, Texas 75152

Lee and Lorraine Prude

and Mr. and Mrs. Lee Prude
Route 1
Palmer, Texas

cc: Environmental Protection Agency
Dallas, Texas

ENVIRONMENTAL PROTECTION AGENCY

~~WATER QUALITY OFFICE~~

WASHINGTON, D.C. 20242

Water Programs

AUG 9 1971

Mr. C.E. Spain, Jr., President
Red Oak Creek Landowners Association
Route 1
Waxahachie, Texas 75165

Dear Mr. Spain:

Mr. Ruckelshaus has asked that I bring you up to date on the latest developments concerning the Red Oak Creek sewage treatment alternative proposals. We are aware of your organization's opposition to the discharge of sewage effluent to Red Oak Creek. You will therefore be gratified to know that our Regional Office has recommended the following conditions be incorporated in the construction grant now being processed for Red Oak.

1. An amended waste control order shall be obtained from the TWQB.

2. Effluent from the treatment facility constructed by this project shall be retained or reused with no discharge to Red Oak Creek or its tributaries.

3. Effluent from said facility shall be chlorinated as required to protect the public health in accordance with the requirements of the Texas State Department of Health and the TWQB.

4. A plan for the implementation of a connection to the Ten Mile Creek Regional Sewerage System should be submitted at the time of the completed expansion of this facility in 1978.

The region has further recommended that the irrigation of the golf course with effluent from the modified treatment system is the most desirable alternative to the solution of Red Oak's pollution difficulties.

We look forward to the successful implementation of this project and thank you for the concerted effort and interest of the citizens of Red Oak.

Sincerely yours,

Eugene Jensen

Deputy Assistant Administrator
for Water Programs

Rockett Community — March 27, 1972

Dear Sir, or to whom we hope is concerned;

My name is Larry Strain a resident of this Community, Rockett, having lived here some Seven years, which has been very pleasant for my three Sons my little girl, wife and myself Seeing we all love the Outdoor life,

Red Oak Creek is not just another little muddy Tributary to the Trinity River and we pray God it does not become a little Trinity.

Red Oak Creek is a Spring fed, The water is very clear and fish is easily seen in water 6 foot deep, which any Fly Fisherman appreciates I spend many pleasant hours fishing or making Flies to fish with in this Stream and catch a good Stringer of Black Bass Bluegill, Red Ear and wormouth.

I have caught fish in the Rockies, in Colorado which were very good, and enjoyed myself very much, and was very impressed at the way their Streams were kept clear of Garbage and Refuse,

and I cannot see why this cannot be done here at home, I am a Sportsman and an American who loves his Country and I am just trying to do something for my Country

Yours truly

Larry Strain

P.S. no Sewage Please!

VIRGINIA E. DUFF
ATTORNEY AT LAW
FERRIS, TEXAS 75125

March 28, 1972

Environmental Protection Agency
Region VI
1600 Patterson, Suite 1100
Dallas, Texas 75201

Gentlemen:

As a resident of Ellis County within the proximity of five miles of Red Oak Creek for the past forty years, I wish to express my objections to the discharge into Red Oak Creek of the effluent from a sewage treatment plant to be located south of the City of Red Oak.

My objections are based on the many uses of the Creek which have been outlined in detail to you at the previous Hearings, such uses as irrigation, picnic area, fishing, cattle watering and residential purposes.

Red Oak Creek is one of the most beautiful creeks in our area and hundreds of pioneers and their descendants have been baptized in its beautiful white-rock-bottom swimming holes.

I am no chemist or water engineer and can offer no expert testimony on the damage to be done by the proposal to discharge the effluent into a stream which leads to the Creek, but I would like for you to take into consideration from past experience when similar plans have been executed if they have been successful and have their waters and odors been satisfactory to the extent that it would be desireable to you to reside on its banks and enjoy the water as these landowners have been enjoying for these many years.

Trusting that your decision will be in favor of the landowners along Red Oak Creek who are fighting so hard to preserve that which is so valuable and dear to them.

Yours very truly,

Virginia E. Duff

Virginia E. Duff

cc: Gen. Wm. D. Ruckelshaus
Consumer P & E Health Service
Department of Helath, Education & Welfare
200 C St. SW
Washington, D.C. 20204

March 28, 1972

Environmental Protection Agency
Dallas, Texas

Dear Sirs:

In this day of all this talk about clean air and pollution free streams, I want to go on record as opposing the discharge of the effluent from the proposed City of Red Oak Sewage Plant emptying into Red Oak Creek. Not only would it detur recreation, devalue the property, it would be a step backward in our effort to keep our streams clean.

Our Commissioners Court passed a resolution, number 4377 dated June 23, 1970, opposing the pollution of the streams in Ellis County and this order has never been recended. Attached is a copy of the resolution for your records..

A new sewage plant less than three years old just like the one proposed for the City of Red Oak is now polluting Grove Creek southeast of Palmer, Texas. This is enough evidence for me to believe this plant would do the same for Red Oak Creek.

Very truly yours,

Jack Risinger

Jack Risinger
County Commissioner
of Ellis County, Precinct I
Palmer, Texas 75152

cc: General William D. Ruckelshaus
Washington, D. C. 20204

MINUTES OF THE COMMISSIONERS COURT
ELLIS COUNTY, TEXAS, TUESDAY, JUNE 23, 1970

IN RE: WASTE CONTROL IN THE BEAR CREEK AND THE RED OAK CREEK WATERSHED
ORDER #4377

Motion by Commissioner Risinger, seconded by Commissioner Ralston, that the following resolution be adopted by the Ellis County Commissioners Court:

WHEREAS, various parties are making applications to flow sewage into the Bear Creek and the Red Oak Creek Watershed and, WHEREAS, such plans will pollute the creeks in the Watershed;

NOW, THEREFORE, BE IT RESOLVED, the Ellis County Commissioners Court opposes the granting of such applications and requests said parties be required to connect to the Trinity River Authority sewage disposal system.

All those in favor say "Aye." All those opposed, "No." Motion carried and it so ordered.

(Certified copy to Mr. Paul Berry)

MILTON HARTSFIELD, COUNTY JUDGE