

AGENDA DATE: February 6, 2007



RESOURCE MANAGEMENT AGENCY

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HENRY HASH, DIRECTOR

MICHAEL ELLZEY, ASSOCIATE DIRECTOR

AGENDA ITEM

ITEM NO. _____
District 4

SUBJECT:

Proposition 50 Safe Drinking Water Grant Proposal for the Delft Colony Zone of Benefit.

REQUEST(S):

Authorize the submittal of the Proposition 50 Safe Drinking Water Grant Proposal for the Delft Colony Zone of Benefit.

SUMMARY:

The California Department of Health Services (DHS) has grant monies available for drinking water source protection projects to prevent contamination of the water supply. This funding is provided by Proposition 50, The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, Water Code Section 79500, *et seq.* A pre-application was submitted to DHS for a well abandonment project in the Delft Colony Water System area in 2004. In 2006, the Resource Management Agency was invited to submit a full application for funding.

The Delft Colony Public Water System is a Zone of Benefit located at Avenue 297 and Road 56 in Tulare County. The public water system serves a population of approximately 400 residents and has 99 service connections. The water supply is administered by the County of Tulare Resource Management Agency. Contamination requiring periodic treatment has been traced to improperly abandoned wells in the vicinity.

Prior to the construction of the public water system, the subdivided lots were served by individual wells. When the water system was brought into service in 1993, some of the individual wells were destroyed and the rest were provided with backflow prevention devices to protect the public water system distribution lines. The backflow protection devices have not been regularly tested or certified, and are no longer

Summary cont.

considered operational. Most of the wells identified for abandonment are non-operational but have never been properly sealed and destroyed, allowing contamination to seep into the public water system. A field survey identified twenty-nine (29) wells that need to be destroyed. Only four (4) of these wells are still in operation.

The cost of properly destroying the wells is not economically feasible for the residents of this economically disadvantaged community. The grant will pay for the proper sealing and destruction of the wells with no matching funds from the County required.

FINANCING:

DHS has allocated \$276,500 for the project. No matching funds from the County is required. However, the \$276,500 was not identified in the fiscal year 06/07 Delft Colony Water Zone of Benefit budget. Therefore, since payments by DHS are made in arrears, the revolving fund will have to provide a loan to fund the work identified in the grant proposal. Upon receipt of the DHS reimbursements, this loan will be repaid in full.

ALTERNATIVES:

None recommended.

INVOLVEMENT OF OTHER DEPARTMENTS OR AGENCIES:

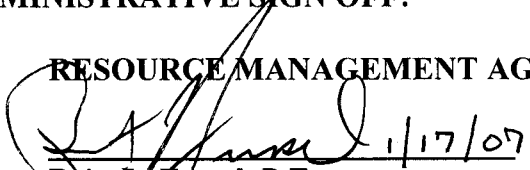
The California Department of Health Services administers the Proposition 50 grant fund monies. The Environmental Quality Division of the Health and Human Services Agency has prepared the grant proposal, assisted with identifying wells for abandonment and will assist with the overall administration of the work.


SIGNATURE REQUIREMENTS:

The County Administrative Officer/Clerk of the Board of Supervisors or authorized Deputy to attest to the Resolution.

ADMINISTRATIVE SIGN OFF:

RESOURCE MANAGEMENT AGENCY


JM Britt L. Fussel, P.E. 1/17/07
Assistant Director/County Surveyor


Henry Hash, Director

Submittal Date: January 24, 2007

BEFORE THE BOARD OF SUPERVISORS
COUNTY OF TULARE, STATE OF CALIFORNIA

RESOLUTION NO. _____

WHEREAS, the County of Tulare has the authority to construct, operate and maintain the Delft Colony Zone of Benefit water system; and

WHEREAS, the County of Tulare desires to enhance the provision and protection of the drinking water supplied to the consumers of the Delft Colony Zone of Benefit water system, therefore;

BE IT RESOLVED by the County of Tulare that, pursuant and subject to all of the terms and provisions of the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Proposition 50) and all amendments thereto, application must be made to the State of California for funding; and

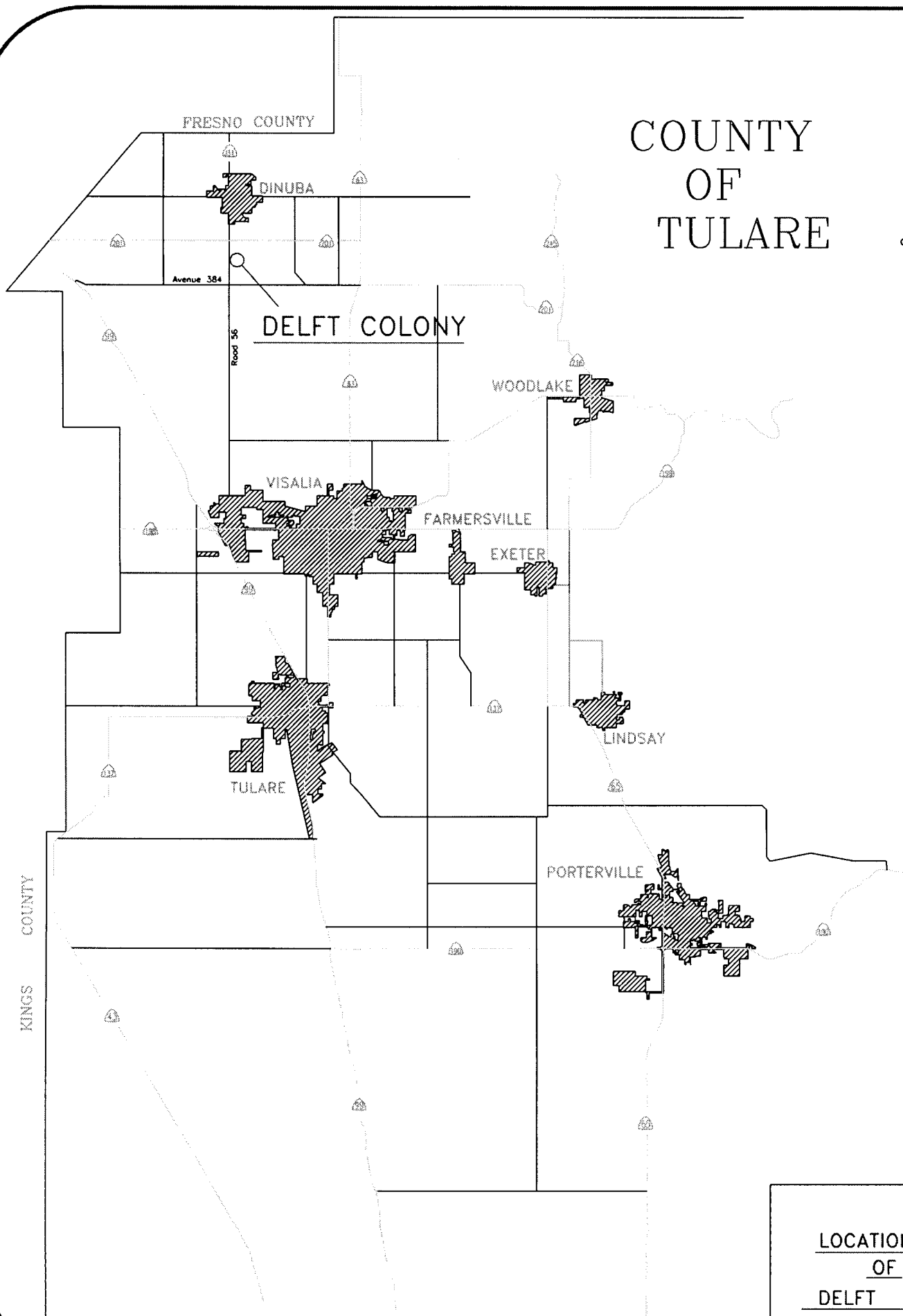
BE IT FURTHER RESOLVED that the County Administrative Officer / Clerk of the Board of Supervisors of the County of Tulare is hereby authorized and directed to cause the necessary data to be prepared, investigations to be performed and application to be signed and filed with the State of California.

Passed and adopted at a regular meeting of the County of Tulare for the Delft Colony Zone of Benefit water system on February 6, 2007.

ATTEST: C. BRIAN HADDIX
COUNTY ADMINISTRATIVE OFFICER /
CLERK OF THE BOARD OF SUPERVISORS

BY: _____
Deputy Clerk

COUNTY OF TULARE



LOCATION MAP
OF
DELFT COLONY
WATER SYSTEM

COMMUNITY WATER SYSTEM PROTECTION PROJECT

PROPOSITION 50 SAFE DRINKING WATER GRANT PROPOSAL

FOR: DELFT COLONY PUBLIC WATER SYSTEM
TULARE COUNTY
PWS ID # 5403023

Prepared for:

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
VISALIA, CALIFORNIA

Prepared by:

JAMES E. WATERS, R.E.H.S.
ENVIRONMENTAL QUALITY DIVISION
HEALTH & HUMAN SERVICES AGENCY

Introduction

The intent of this project for Delft Colony Public Water System is to facilitate compliance with the "California Safe Drinking Water Act and Related Laws" - Title 22. Compliance will be obtained by the elimination of potential hazards to the water system which consist of individual domestic wells and non-functional backflow protection devices present on properties served by the public water system. These hazards have been identified and quantified by field surveys. Proposed corrective action tasks and procedures are provided in this document.

The objective of the project is to:

- protect the public water system distribution system from contamination by individual domestic wells and unprotected services connections;
- to protect the public water system groundwater source area from contamination by out-of-service individual domestic wells;
- to protect the health and safety of residents exposed to improperly abandoned wells; and,
- to conduct a minimal ground water quality impact study of the source area utilizing the wells proposed for abandonment.

Water System Description and History

The Delft Colony Public Water System is located at Avenue 397 and Road 56 in the County of Tulare. The public water system services a population of approximately 400 residents and has 99 service connections. The water supply is administered by the County of Tulare Resource Management Agency. The permitting authority is the County of Tulare - Health and Human Services Agency, Environmental Health Division.

Prior to being served by the Delft Colony Public Water System, the subdivision lots were served by individual domestic wells. While some of the individual domestic wells were destroyed in 1993 by Self Help Enterprises, many of the wells remain today. Properties with remaining wells after 1993 were provided with backflow protection devices to protect the public water system distribution lines. The majority of the wells were non-operational at the time water services backflow protection was provided. The backflow protection devices have not been regularly tested or certified and are no longer considered to be operational.

Problem Assessment Study

This proposed corrective action project is based on an assessment of the results of a field survey and a records search conducted to identify the location of out-of-service individual domestic wells and backflow protection devices. The assessment was performed from September to November of 2004 by Craig Kiefer and Jim Waters, County of Tulare - Health and Human Services Agency, and Jimmy Yamakawa, County of Tulare – Resource Management Agency. The results of the records search and the field survey are as follows:

- A total of 29-drilled water wells were identified.
- Twenty-six of the wells were found to be present on properties served by the Public Water System. Except for one Ag well, the wells were previously used for domestic water.
- Twenty-five of the wells have been out of service for at least ten years. Four of the wells appear to be operational.
- The location of three of the wells could not be verified, but probably still exist.
- A total of 24 uncertified and non-operational backflow protection devices (RPP's) were identified.

Proposed Project Description

The project will consist of the destruction of up to 25 drilled water wells and the elimination of up to 20 backflow protection devices with associated plumbing repair.

Well Abandonments

The location of the wells to be abandoned is indicated in Exhibit A (attached). The wells will be abandoned in accordance with requirements of the County of Tulare Water Well Ordinance. The wells will be abandoned by a State of California licensed (C-57) well driller.

A review of available County water well destruction/construction permits and Well Drillers Reports for the wells to be abandoned was performed during the records search phase of the project. Based on the review, the estimated average depth of the wells to be abandoned is 150 feet and the borehole diameter average is 12 inches. The estimated cost (see Schedule 1) for well abandonment was based on the average well depth and the average bore hole diameter for the wells identified. The projected cost per well includes related tasks associated with abandonment of the wells as follows:

- obtain well abandonment permits from the County of Tulare;
- decommission and dispose of all well site equipment including electrical service, associated plumbing, pressure tank and cement pads;
- removal and disposal of any piping or debris present in the well shaft in order to clear the shaft for backfilling;
- measurement and recording of the depth and diameter of the well casing and depth to groundwater;
- backfilling of the casing using materials and methods approved by the permitting authority;
- removal of casing to a depth of 6 feet below grade;
- restoration of the site to grade;
- provide for construction equipment access and egress to property;
- restore property to original condition; and,
- prepare required well drillers report of well destruction and submit to regulatory authority.

The actual method used to destroy each well will be determined based on the evaluation of well construction specifications. The evaluation will be performed by the Contractor and the County staff. A Registered Geologist may evaluate the proposed method of destruction, if deemed necessary.

Removal of RPP's

The location of 24 Reduced Pressure Principle (RPP) backflow protection valves is shown on the subdivision schematic Exhibit B. The RPP's (20) are proposed to be eliminated following destruction of on-site water wells.

Project Oversight and Contracting

Oversight and contracting for performance of the project will be provided by the County of Tulare.

Water Quality Evaluation

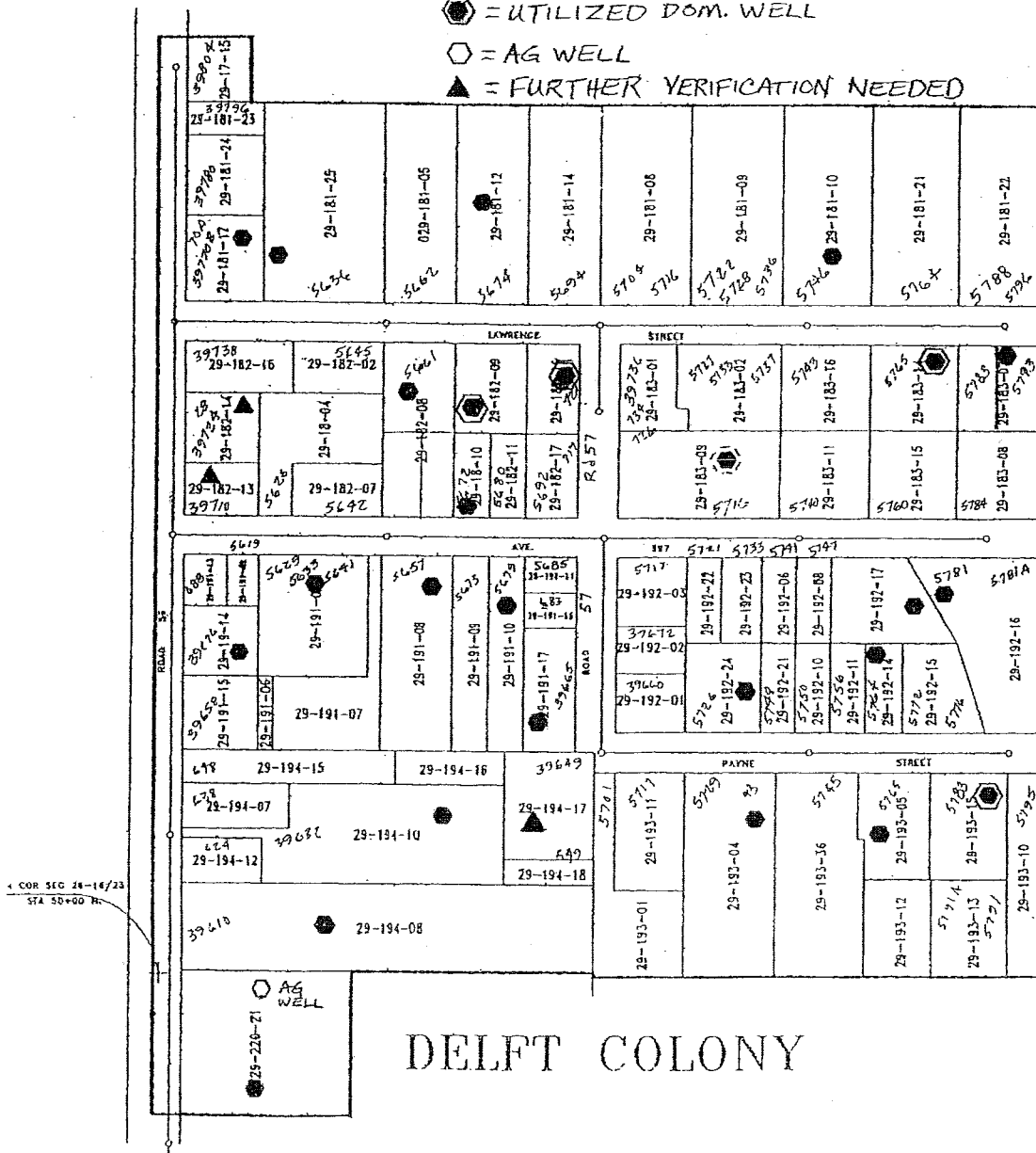
An assessment of the source area groundwater quality will be conducted to determine the potential impact of out-of-service wells on the watershed and to the wells serving the public water system. The groundwater quality assessment will be conducted and documented by the Environmental Quality Division of the County of Tulare Health and Human Services Agency. Three pumping wells will be selected for laboratory analysis of metals, minerals, volatile organic compounds, DBCP, and bacteria. Ten out-of-service wells will be selected for mineral and bacteriology analysis by State of California approved laboratories. Approved EPA Methods for drinking water analysis will be utilized.

EXHIBIT A

Well Locations Determined By
3/8/03 and 9/15/04 Field Surveys
& Well Destruction Records

DELFT COLONY ZONE OF BENEFIT
COUNTY SERVICE AREA #1

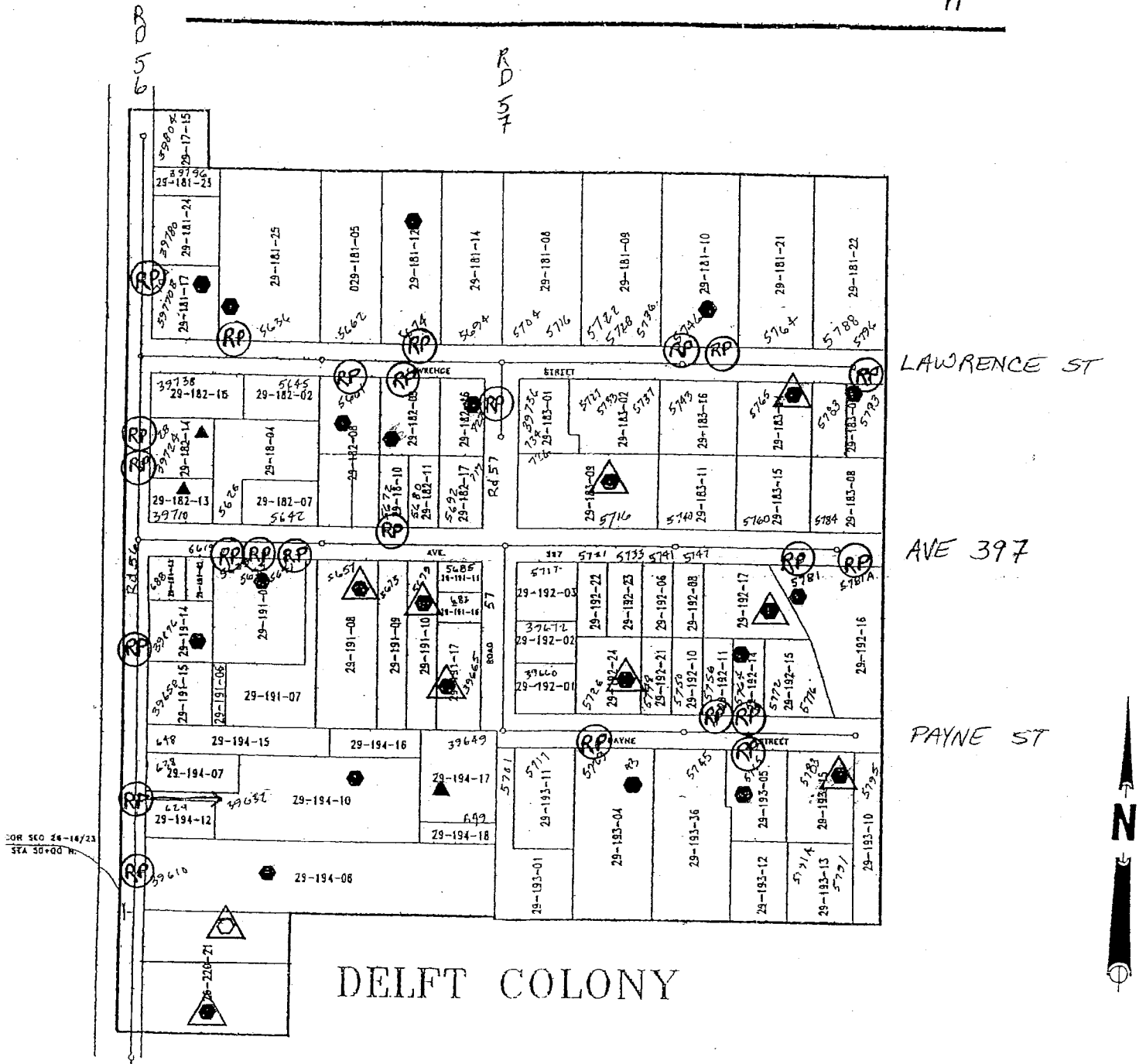
- = DOMESTIC WELL
- ⊙ = UTILIZED DOM. WELL
- ◇ = AG WELL
- ▲ = FURTHER VERIFICATION NEEDED



11/16/04
C. Kiefer

EXHIBIT B

DELFT COLONY ZONE OF BENEFIT COUNTY SERVICE AREA #1



- = DOMESTIC WELLS (25)
- = OLD AG WELL (1)
- ▲ = FURTHER VERIFICATION NEEDED TO CONFIRM WELL STATUS (3)
- ▲ = WELL ON PROPERTY WITH NO BACKFLOW PROTECTION (10)
- ⊙ = EXISTING 1" RPP BACKFLOW VALVE

9/15/04
C. KIEFER

Schedule 1
Project Cost Estimate

<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Price</u>	<u>Amount</u>
1. Destruction of wells:	Each	25	\$8,000	\$200,000
2. Removal of backflow protection devices:	Each	20	\$1,000	\$ 20,000
3. Water quality testing for selected wells and sample collection equipment:	Lump Sum			\$ 5,000
4. Services by a Registered Geologist, Engineer or Hydrologist:	Lump Sum			\$ 15,000
5. Project oversight and administration:	Lump Sum			\$ 20,000
6. Contingency:	Lump Sum			\$ 16,500
Project Total:				\$276,500