Rubin & Hays

ATTORNEYS AT LAW

Kentucky Home Trust Building, 450 South Third Street, Louisville, Kentucky 40202-1410
Telephone (502) 569-7525 Telefax (502) 569-7555 www.rubinhays.com

CHARLES S. MUSSON
W. RANDALL JONES
CHRISTIAN L. JUCKETT

Case No: 2009-00244

June 25, 2009

RECEIVED
JUN 29 2009
PUBLIC SERVICE COMMISSION

Mr. Jeff Derouen
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

Re: Ohio County Water District - USDA, Rural Development Project

Dear Mr. Derouen:

Enclosed please find the original and ten (10) copies of the Application of the Ohio County Water District for a Certificate of Public Convenience and Necessity to construct, finance and increase rates pursuant to KRS 278.023.

Also enclosed are eleven (11) copies of the exhibits required pursuant to 807 KAR 5.069, with the **exception of the Preliminary and Final Engineering Reports, of which two copies are enclosed.**

If you need any additional information or documentation, please let us know.

Sincerely,

Rubin & Hays

By
W. Randall Jones

WRJ:jkm
Enclosures
cc: Distribution List

DISTRIBUTION LIST

Re: Ohio County Water District Waterworks Revenue Bonds, Series 2010, in the principal amount of $9,198,500

Mr. Vernon Brown
Acting State Director
USDA, Rural Development
771 Corporate Drive, Suite 200
Lexington, Kentucky 40503-5477
Telephone: (859) 224-7336

Ms. Barbara Gillum
USDA, Rural Development
1000 Commonwealth Drive
Mayfield, Kentucky 42006
Phone: (270) 247-9525
Fax: (270) 251-3596

Mr. Walt Beasley
Ohio County Water District
124 East Washington Street
Hartford, Kentucky 42347
Telephone: (270) 298-7704
Fax: (270) 298-9890

Daniel L. Shoemaker, P.E.
Tetra Tech, Inc.
800 Corporate Drive, Suite 200
Lexington, Kentucky 40503
Telephone: (859) 223-8000
Fax: (859) 224-1025

E.F. Martin, Jr., Esq.
Attorney at Law
408 South Main Street
Hartford, Kentucky 42347
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W. Randall Jones, Esq.
Rubin & Hays
Kentucky Home Trust Building
450 South Third Street
Louisville, Kentucky 40202
Telephone: (502) 569-7534
Fax: (502) 569-7555

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF OHIO COUNTY WATER DISTRICT FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT, FINANCE AND INCREASE RATES PURSUANT TO KRS 278.023.	))))))	**Case No. 2009-** 00244

APPLICATION

This Application of the Ohio County Water District ("Applicant") respectfully shows:

1. That Applicant is a water district created and existing under and by virtue of Chapter 74 of the Kentucky Revised Statutes.

2. That the post office address of Applicant is:

Ohio County Water District
c/o Harry Storm, Chairman
124 East Washington Street
Hartford, Kentucky 42347

3. That Applicant, pursuant to the provisions of KRS 278.023, seeks (i) a Certificate of Public Convenience and Necessity, permitting Applicant to construct a waterworks construction project, consisting of extensions, additions, and improvements (the "Project") to the existing water-works system of Applicant; (ii) an Order approving increased rates; and (iii) approval of the proposed plan of financing said Project.

4. The project consists of the construction and installation of a new 4 MGD water treatment plant and appurtenances to replace the existing 2 MGD plant.

5. That Applicant proposes to finance the construction and installation of the Project through (i) the issuance of $9,198,500 of its Waterworks Revenue Bonds, (ii) a USDA, Rural Development ("RD") grant in the amount of $1,500,350; (iii) an Economic Development Administration ("EDA") grant in the amount of $1,500,000; (iv) a Kentucky Infrastructure Authority ("KIA") coal grant in the amount of $550,000; (v) a Green River Regional Industrial Development Authority ("GRRIDA") contribution in the amount of $450,000; (vi) a KIA Fund F loan in the

amount of $5,000,000; and (vii) an Applicant contribution in the amount of $1,500,000. Applicant has a commitment from RD to purchase said $9,198,500 of bonds maturing over a 40-year period, at an interest rate of not exceeding 4.125% per annum, as set out in the RD Letter of Conditions, as amended, filed herewith as an Exhibit.

6. That Applicant does not contemplate having the Project constructed with any deviation from minimum construction standards of this Public Service Commission.

7. That Applicant files herewith the following Exhibits pursuant to 807 KAR 5:069 in support of this Application:

A. Copy of RD Letter of Conditions, as amended.

B. Copy of RD Letter of Concurrence in Bid Award.

C. Certified statement from the Chairman of Applicant, based upon statements of the Engineers for Applicant, concerning the following:

(1) The proposed plans and specifications for the Project have been designed to meet the minimum construction and operating requirements set out in 807 KAR 5:066 Section 4(3) and (4); Section 5(1); Sections 6 and 7; Section 8(1) through (3); Section 9(1) and Section 10;

(2) All other state approvals or permits have already been obtained;

(3) The proposed rates of Applicant shall produce the total revenue requirements set out in the engineering reports; and

(4) Setting out the dates when it is anticipated that construction will begin and end.

D. Copies of Preliminary and Final Engineering Reports.

8. That Applicant has arranged for the publication, prior to or at the same time this Application is filed, of a Notice of Proposed Rate Change pursuant to Section 2 of 807 KAR 5:069, in the newspapers of general circulation in Applicant's service area. Said Notice sets out the current rates and the proposed rates of Applicant and a short description of the Project. A copy of said Notice is filed herewith as an Exhibit.

9. That the foregoing constitutes the documents necessary to obtain the approval of the Kentucky Public Service Commission in accordance with Section 278.023 of the Kentucky Revised Statutes and in accordance with the "Filing Requirements" specified in 807 KAR 5:069, Section 1.

WHEREFORE, Applicant, the Ohio County Water District, asks that the Public Service Commission of the Commonwealth of Kentucky grant to Applicant the following:

a. A Certificate of Public Convenience and Necessity permitting Applicant to construct a waterworks project consisting of extensions, additions, and improvements to the existing waterworks system of Applicant.

b. An Order approving the financing arrangements made by Applicant, viz., the issuance of (i) $9,198,500 of its Waterworks Revenue Bonds, (ii) an RD grant in the amount of $1,500,350; (iii) an EDA grant in the amount of $1,500,000; (iv) a KIA coal grant in the amount of $550,000; (v) a GRRIDA contribution in the amount of $450,000; (vi) a KIA Fund F loan in the amount of $5,000,000; and (vii) an Applicant contribution in the amount of $1,500,000.

c. An Order approving the proposed increased rates as set out in Section 29 of the RD Letter of Conditions filed herewith as an Exhibit.

Ohio County Water District

By: _____
Chairman
Board of Water Commissioners

_____
W. Randall Jones, Esq.
Rubin & Hays
Counsel for Applicant
Kentucky Home Trust Building
450 South Third Street
Louisville, Kentucky 40202
(502) 569-7534

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF OHIO)

The undersigned, Harry Storm, being duly sworn, deposes and states that he is the Chairman of the Board of Commissioners of the Ohio County Water District, Applicant, in the above proceedings; that he has read the foregoing Application and has noted the contents thereof; that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, he believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this June 19, 2009.

Harry Storm

Harry Storm, Chairman
Ohio County Water District

Subscribed and sworn to before me by Harry Storm, Chairman of the Board of Commissioners of the Ohio County Water District, on this June 19, 2009.

My Commission expires: 5/6/2012.

Donna Bennett

Notary Public

United States Department of Agriculture
Rural Development
Kentucky State Office

June 26, 2007

Mr. Harry Storm, Chairman
Ohio County Water District
130 East Washington Street
Hartford, Kentucky 42347

Dear Mr. Storm:

This letter establishes conditions which must be understood and agreed to by you before further consideration may be given to the application. The loan and grant will be administered on behalf of the Rural Utilities Service (RUS) by the State and Area office staff of USDA Rural Development. Any changes in project cost, source of funds, scope of services or any other significant changes in the project or applicant must be reported to and approved by USDA Rural Development, by written amendment to this letter. Any changes not approved by Rural Development shall be cause for discontinuing processing of the application. It should also be understood that Rural Development is under no obligation to provide additional funds to meet an overrun in construction costs.

This letter is not to be considered as loan and grant approval or as a representation as to the availability of funds. The docket may be completed on the basis of a RUS loan not to exceed $13,802,000; a RUS grant not to exceed $1,500,350; an Economic Development Administration (EDA) grant in the amount of $1,500,000; a contribution from the Ohio County Fiscal Court in the amount of $4,000,000; and an applicant cash contribution in the amount of $1,000,000.

If Rural Development makes the loan, the interest rate will be the lower of the rate in effect at the time of loan approval or the rate in effect at the time of loan closing, unless the applicant otherwise chooses. The loan will be considered approved on the date a signed copy of Form RD 1940-1, "Request for Obligation of Funds," is mailed to you.

Please complete and return the attached Form RD 1942-46, "Letter of Intent to Meet Conditions," if you desire that further consideration be given to your application.

The "Letter of Intent to Meet Conditions" must be executed within three weeks from the date of this letter or it becomes invalid unless a time extension is granted by Rural Development.

If the conditions set forth in this letter are not met within 240 days from the date hereof, Rural Development reserves the right to discontinue the processing of the application.

In signing Form RD 1942-46, "Letter of Intent to Meet Conditions," you are agreeing to complete the following as expeditiously as possible:

1. Number of Users and Their Contribution:

There shall be 5,483 water users, all of which are existing users. The Area Director will review and authenticate the number of users prior to advertising for construction bids.

2. Grant Agreement:

Attached is a copy of RUS Bulletin 1780-12, "Water and Waste System Grant Agreement," for your review. You will be required to execute a completed form at the time of grant closing.

3. Drug-Free Work Place:

Prior to grant closing, the District will be required to execute Form AD-1049, "Certification Regarding Drug-Free Workplace Requirements (Grants) Alternative I - For Grantees Other Than Individuals."

4. Repayment Period:

The loan will be scheduled for repayment over a period not to exceed 40 years from the date of the Bond. Principal payment will not be deferred for a period in excess of two years from the date of the Bond. Payments will be in accordance with applicable KRS, which requires interest to be paid semi-annually (January 1st and July 1st) and principal will be due on or before the first of January. Rural Development may require the District to adopt a supplemental payment agreement providing for monthly payments of principal and interest so long as the bond is held or insured by RUS. Monthly payments will be approximate amortized installments.

5. Recommended Repayment Method:

Payments on this loan shall be made using the Preauthorized Debit (PAD) payment method. This procedure eliminates the need for paper checks and ensures timely receipt of RD loan payments. To initiate PAD payments, Form SF 5510, "Authorization Agreement for Preauthorized Payments," should be signed by the District to authorize the electronic withdrawal of funds from your designated bank account on the exact installment payment due date. The Area Director will furnish the necessary forms and further guidance on the PAD procedure.

6. Reserve Accounts:

Reserves must be properly budgeted to maintain the financial viability of any operation. Reserves are important to fund unanticipated emergency maintenance, pay for repairs, and assist with debt service should the need arise.

The District will be required to deposit $6,050 per month into a "Funded Depreciation Reserve Account" until the account reaches $726,000. The deposits are to be resumed any time the account falls below the $726,000.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the District's prior bond resolutions.

The monthly deposits to the Reserve Account are required to commence with the first month of the first full fiscal year after the facility becomes operational.

The District also needs to fund an account for short-lived assets by depositing a sum of $14,750 monthly into the account. The funds in the short-lived asset account may be used by the District as needed to replace or add short-lived assets in the District's water system.

7. Security Requirements:

A pledge of gross water revenue will be provided in the Bond Resolution. Bonds shall rank on a parity with existing bonds, if possible.

If this is not possible, the bond will be subordinate and junior to the existing bonds, in which case the District will be required to abrogate its right to issue additional bonds ranking on a parity with the existing bonds, so long as any unpaid indebtedness remains on this bond issue.

8. Land Rights and Real Property:

The District will be required to furnish satisfactory title, easements, etc., necessary to install, maintain and operate the facility to serve the intended users. The pipelines will be on private rights-of-way where feasible. Easements and options are to be secured prior to advertising for construction bids.

9. Organization:

The District will be legally organized under applicable KRS which will permit them to perform this service, borrow and repay money.

10. Business Operations:

The District will be required to operate the system under a well-established set of resolutions, rules and regulations. A budget must be established annually and adopted by the District after review by Rural Development. At no later than loan pre-closing, the District will be required to furnish a prior approved management plan to include, as a minimum, provisions for management, maintenance, meter reading, miscellaneous services, billing, collecting, delayed payment penalties, disconnect/reconnect fees, bookkeeping, making and delivering required reports and audits.

11. Accounts, Records and Audits:

The District will be required to maintain adequate records and accounts and submit annual budgets and year-end reports (annual audits). In addition, for the first full year in operation, the District will need to submit quarterly income and expense reports in accordance with subsection 1780.47 of RUS Instruction 1780, a copy of which is enclosed.

The enclosed audit booklet will be used as a guide for preparation of audits. The District shall be required to submit a copy of its audit agreement for review and concurrence by Rural Development prior to pre-closing the loan.

12. Accomplish Audits for Years in Which Federal Financial Assistance is Received:

The District will accomplish audits in accordance with OMB Circular A-133, during the years in which federal funds are received. The District will provide copies of the audits to the Area Office and the appropriate Federal cognizant agency as designated by OMB Circular A-133.

13. Insurance and Bonding:

The following insurance and bonding will be required:

A. Adequate Liability and Property Damage Insurance including vehicular coverage, if applicable, must be obtained and maintained by the District. The District should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.

B. Worker's Compensation - The District will carry worker's compensation insurance for employees in accordance with applicable state laws.

C. Fidelity Bond - The District will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is $726,000.

D. Real Property Insurance - The District will obtain and maintain adequate fire and extended coverage on all structures including major items of equipment or machinery located in the structures. The amounts of coverage should be based on recommendations obtained by the District from its attorney, consulting engineer and/or insurance provider. Subsurface lift stations do not have to be covered except for the value of electrical and pumping equipment therein.

E. Flood Insurance - The District will obtain and maintain adequate coverage on any facilities located in a special flood and mudslide prone areas.

14. Planning and Performing Development:

A. The engineer should not be authorized to commence work on final plans and specifications until a determination has been made that the project can be planned and constructed within the estimated cost shown in paragraph "25" of this letter. The engineer may then proceed to develop final plans and specifications to be completed no later than 210 days from this date, and prepare bid documents. The Area Director is prepared to furnish the necessary guide to follow so as to keep the project plans and documents within our guidelines and requirements. The project should not be advertised for construction bids until all easements and enforceable options have been obtained, and total funds are committed or available for the project.

B. The following documents will be submitted to Rural Development for review and must be concurred in by Rural Development prior to advertisement for construction bids:

1. Final plans, specifications and bid documents.
2. Applicant's letter on efforts to encourage small business and minority-owned business participation.
3. Legal Service Agreements.
4. Engineering Agreements.

Revision in these documents will be subject to Rural Development concurrence. Any agreements, contracts, etc. not reviewed and approved by Rural Development will not be eligible for payment from project funds or revenues from facilities financed by this Agency.

Prior to receipt of an authorization to advertise for construction bids, the District will obtain advance clearance from Bond Counsel regarding compliance with KRS 424 pertaining to publishing of the advertisement for construction bids in local newspapers and the period of time the notice is required to be published.

15. Civil Rights & Equal Opportunity:

You should be aware of and will be required to comply with other federal statute requirements including but not limited to:

A. Section 504 of the Rehabilitation Act of 1973:

Under Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), no handicapped individual in the United States shall, solely by reason of their handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Rural Development financial assistance.

B. Civil Rights Act of 1964:

All borrowers are subject to, and facilities must be operated in accordance with, Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and Subpart E of Part 1901 of this Title, particularly as it relates to conducting and reporting of compliance reviews. Instruments of conveyance for loans and/or grants subject to the Act must contain the covenant required by paragraph 1901.202(e) of this Title.

C. The Americans with Disabilities Act (ADA) of 1990:

This Act (42 U.S.C. 12101 et seq.) prohibits discrimination on the basis of disability in employment, state and local government services, public transportation, public accommodations, facilities, and telecommunications. Title II of the Act applies to facilities operated by state and local public entities that provide services, programs, and activities. Title III of the Act applies to facilities owned, leased, or operated by private entities that accommodate the public.

D. Age Discrimination Act of 1975:

This Act (42 U.S.C. 6101 et seq.) provides that no person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Rural Development financial programs must be extended without regard to race, color, religion, sex, national origin, marital status, age, or physical or mental handicap.

16. Closing Instructions:

The Office of General Counsel, our Regional Attorney, will be required to write closing instructions in connection with this loan. Conditions listed therein must be met by the District.

17. Compliance with Special Laws and Regulations:

The District will be required to conform to any and all state and local laws and regulations affecting this type project.

18. Treatment Plant/System Operator:

The District is reminded that the treatment plant and/or system operator must have an Operator's Certificate issued by the State.

19. Prior to Pre-Closing the Loan, the District Will Be Required to Adopt:

A. Form RUS Bulletin 1780-27, "Loan Resolution (Public Bodies)."

B. Form RD 400-1, "Equal Opportunity Agreement."

C. Form RD 400-4, "Assurance Agreement."

D. Form AD-1047, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transaction."

E. Form RD 1910-11, "Applicant Certification Federal Collection Policies for Consumer or Commercial Debts."

F. RD Instruction 1940-Q, Exhibit A-1, "Certification for Contracts, Grants and Loans."

G. RUS Bulletin 1780-22, "Eligibility Certification."

20. Refinancing and Graduation Requirements:

The District is reminded that if at any time it shall appear to the Government that the District is able to refinance the amount of the RUS indebtedness then outstanding, in whole or in part, by obtaining a loan from commercial sources at reasonable rates and terms, upon the request of the Government, the District will apply for and accept such loan in sufficient amount to repay the Government.

21. Commercial Interim Financing:

The District will be required to use commercial interim financing for the project during construction for the RUS loan portion of the financing, if available at reasonable rates and terms.

Before the loan is closed, the District will be required to provide Rural Development with statements from the contractor, engineer and attorneys that they have been paid to date in accordance with their contract or other agreements and, in the case of the contractor, that he has paid his suppliers and sub-contractors.

22. Electronic Funds Transfer (EFT):

The Debt Collection Improvement Act (DCIA) of 1996 requires that all federal disbursement of funds after January 1, 1999 must be made by Electronic Funds Transfer/Automated Clearinghouse (EFT/ACH). Borrowers receiving federal loan and/or grant funds by EFT will have funds directly deposited to a specified account at a financial institution with funds being available to the recipient on the date of payment. The grantee should complete Form SF-3881, "Electronic Funds Transfer Payment Enrollment Form," for each account where funds will be electronically received. The completed form(s) must be received by Rural Development at least thirty (30) days prior to the first advance of funds.

23. Disbursement of Project Funds:

A construction account for the purpose of disbursement of project funds (RUS) will be established by the District prior to start of construction. The position of officials entrusted with the receipt and disbursement of RUS project funds will be covered by a "Fidelity Bond," with USDA Rural Development as Co-Obligee, in the amount of construction funds on hand at any one time during the construction phase.

For each "construction account" as established, if the amount of RUS loan and grant funds plus any applicant contributions or funds from other sources to be deposited into the account are expected to exceed $100,000 at any time, the financial institution will secure the amount in excess of $100,000 by pledging collateral with the Federal Reserve Bank in an amount not less than the excess in accordance with 7 CFR, 1902.7(a).

During construction, the District shall disburse project funds in a manner consistent with subsection 1780.76 (e) of RUS Instruction 1780. Form RD 1924-18, "Partial Payment Estimate," or similar form approved by Rural Development, shall be used for the purpose of documenting periodic construction estimates, and shall be submitted to Rural Development for review and acceptance. Prior to disbursement of funds by the District, the Board of Directors shall review and approve each payment estimate. All bills and vouchers must be approved by Rural Development prior to payment by the District.

Form RD 440-11, "Estimate of Funds Needed for 30-Day Period Commencing _____," will be prepared by the District and submitted to Rural Development in order that a periodic advance of federal cash may be requested.

Monthly audits of the District's construction account records shall be made by Rural Development.

24. Disbursement of Grant Funds:

The RUS funds will be advanced as they are needed in the amount(s) necessary to cover the RUS proportionate share of obligations due and payable by the District. Grant funds, upon receipt, must be deposited in an interest bearing account in accordance with 7 CFR part 3016 (as applicable). Interest earned on grant funds in excess of $100 (as applicable) per year will be submitted to RUS at least quarterly.

25. Cost of Facility:

Breakdown of Costs:

Development	$ 11,700,000
Land and Rights	150,000
Legal and Administrative	75,000
Engineering	1,496,500
Interest	155,000
Environmental	15,000
Other Construction Costs & Testing	238,500
Refinancing	6,802,350
Contingencies	1,170,000
TOTAL	$ 21,802,350

Financing:

RUS Loan	$ 13,802,000
RUS Grant	1,500,350
EDA Grant	1,500,000
Ohio Co. Fiscal Court Contribution	4,000,000
Applicant Contribution	1,000,000
TOTAL	$ 21,802,350

26. Commitment of Other Project Funds:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for construction bids for the EDA grant in the amount of $1,500,000 and for the Ohio County Fiscal Court contribution in the amount of $4,000,000.

27. Use of Remaining Project Funds:

The applicant contribution and the Ohio County Fiscal Court contribution shall be considered as the first funds expended. After providing for all authorized costs, any remaining project funds will be considered to be RUS/EDA grant funds and refunded in proportion to participation in the project. If the amount of unused project funds exceeds the grants, that part would be RUS loan funds.

28. Proposed Operating Budget:

You will be required to submit to Rural Development a copy of your proposed annual operating budget that supports the proposed loan repayment prior to this agency giving you written authorization to proceed with the bidding phase. The operating budget should be based on a typical year cash flow, subject to completion of this project in the first full year of operation. Form RD 442-7, "Operating Budget," or similar form may be utilized for this purpose.

29. Rates and Charges:

Rates and charges for facilities and services rendered by the District must be at least adequate to meet cost of maintaining, repairing and operating the water system and meeting required principal and interest payments and the required deposits to debt service and/or depreciation reserve.

Water rates will be at least:

First	2,000	gallons @ $	21.13 - Minimum Bill.
Next	18,000	gallons @ $	8.78 - per 1,000 gallons.
Next	30,000	gallons @ $	7.59 - per 1,000 gallons.
Next	50,000	gallons @ $	6.39 - per 1,000 gallons.
Next	100,000	gallons @ $	5.20 - per 1,000 gallons.
All Over	200,000	gallons @ $	5.20 - per 1,000 gallons.

Wholesale rates to the City of Beaver Dam and to the City of Fordsville will be $2.68 per 1,000 gallons.

30. Review of Expenses

Upon review of the historical and proposed Operation and Maintenance expenses for the Water District, it has been noted that the expenses are excessive in relation to other similar Water Districts. Management should review all O&M costs and develop a plan to limit unnecessary or excessive expenses as possible.

31. Compliance with the Bioterrorism Act:

Prior to pre-closing the loan, the District will provide a certification they have completed a Vulnerability Assessment (VA) and prepared an emergency response plan (ERP) as required by the Safe Drinking Water Act (SDWA).

32. Floodplain Construction:

The District will be required to pass and adopt a Resolution or amend its By-Laws whereby the District will deny any water service to any future customer wishing to build on or develop property located within a designated floodplain. If a customer or developer requests service for construction in a designated floodplain, the customer or developer must provide evidence and a justification for approval by the District and Rural Development officials that there are no other alternatives to construction or development within the designated floodplain. The community must be a participant in the National Flood Insurance Program (NFIP) and the customer or developer must obtain the required permits prior to the tap on restrictions being waived.

33. Water Withdrawal Permit:

The District will be required to obtain satisfactory evidence that a revised water withdrawal permit has been secured from the Division of Water. The permit must be obtained prior to the commencement of construction on the water project.

34. Mitigation Measures:

A. The project shall be in compliance with all requirements noted in the Governor's Office for Local Development letter dated October 18, 2006, from Ms. Lee Nalley.

B. The line design and construction shall be accomplished in a way that will leave flood plains and farmland without effect after construction is complete. The Army Corps of Engineers Nationwide Permit No. 12 applies to all floodplain and wetland utility line construction.

C. The design and construction shall be in compliance with all local, state and federal environmental statutes, regulations and executive orders applicable to the project.

D. The Gillstrap Cemetery located on the 15 acre WTP site must be preserved according to instructions from the Kentucky Heritage Council. Access and a buffer zone will be part of the requirements.

35. Final Approval Conditions:

Final approval of this assistance will depend on your willingness, with the assistance of all your co-workers, to meet the conditions of this letter in an orderly and systematic manner. Then too, final approval will depend on funds being available.

If you desire to proceed with your application, the Area Director will allot a reasonable portion of time to provide guidance in application processing.

Sincerely,

KENNETH STONE
State Director

Enclosures

cc: Area Director - Princeton, Kentucky
Rural Development Manager - Owensboro, Kentucky
Green River ADD - Owensboro, Kentucky
Rubin and Hays - Louisville, Kentucky
E.F. Morgan, Jr. - Hartford, Kentucky
Tetra Tech, Inc. - Lexington, Kentucky
PSC - ATTN: Bob Amato - Frankfort, Kentucky

United States Department of Agriculture
Rural Development
Kentucky State Office

June 2, 2009

Mr. Harry Storm, Chairman
Ohio County Water District
130 East Washington Street
Hartford, Kentucky 42347

Re: Letter of Conditions Dated June 26, 2007

Dear Chairman Storm:

This letter shall serve as Amendment No. 1 to the Letter of Conditions dated 6/26/07. The purpose of this amendment is to reflect the "as bid" project costs and the revised sources of financing.

The Second Paragraph on Page 1 is revised to read as follows:

" This letter is not to be considered as loan and/or grant approval or as a representation as to the availability of funds. The docket may be completed on the basis of a RUS loan not to exceed $9,198,500, a RUS grant not to exceed $1,500,350, an Economic Development Authority (EDA) grant of $1,500,000, a Kentucky Infrastructure Authority (KIA) Coal Fund Grant of $550,000, two KIA Fund F loans in the cumulative amount of $5,000,000, a Green River Regional Industrial Development Authority (GRRIDA) cash contribution of $450,000, and an applicant cash contribution of $1,500,000.

In addition, the Ohio County Fiscal Court must agree to cover the annual debt service on $3,000,000 of the above mentioned KIA $5,000,000 Fund F loan. The projected annual amount needed to repay this $3,000,000 debt is $173,373 – and the Ohio County Fiscal Court will agree to pay this amount to the Water District for the full 20 year loan term – or until the loan is paid in full."

Paragraph numbered "6" is revised to read as follows:

" 6. Reserve Accounts:

Reserves must be properly budgeted to maintain the financial viability of any operation. Reserves are important to fund unanticipated emergency maintenance, pay for repairs, and assist with debt service should the need arise.

The District will be required to deposit $4,035 per month into a "Funded Debt Reserve Account" until the account reaches $484,000. The deposits are to be resumed any time the account falls below the $484,000.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the District's prior bond ordinances.

The monthly deposits to the Reserve Account are required to commence with the first month of the first full fiscal year after the facility becomes operational.

The District also needs to fund an account for short-lived assets by depositing a sum of $16,665 monthly into the account. The funds in the short-lived asset account may be used by the District as needed to replace or add short-lived assets in the District's water system. "

Paragraph numbered "13" is revised to read as follows:

" 13. Insurance and Bonding:

The following insurance and bonding will be required:

C. Fidelity Bond – The District will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is $484,000. "

Paragraph numbered "25" is revised to read as follows:

" 25. Cost of Facility:

Breakdown of Costs:

Development		$ 10,200,000
Land and Rights		165,000
Legal, Administrative & Environmental Fees		141,335
Engineering		1,440,303
Interest		250,000
Equipment & Misc.		110,000
Contingencies		993,712
	SUBTOTAL	$ 13,300,350
Refinance 1998 Bond Issue		3,015,000
Refinance 2000 Bond Issue		3,383,500
	TOTAL	$ 19,698,850

Financing:

RUS Loan		$ 9,198,500
RUS Grant		1,500,350
EDA Grant		1,500,000
KIA Coal Grant		550,000
GRRIDA Cash Contribution		450,000
KIA Fund F Loan		5,000,000
Applicant Contribution		1,500,000
	TOTAL	$ 19,698,850 "

Paragraph numbered "26" is revised to read as follows:

" 26. Commitment of Other Project Funds:

This Letter of Conditions is issued contingent upon a firm commitment being in effect prior to advertising for construction bids for the EDA grant in the amount of $1,500,000, for the KIA Coal grant in the amount of $550,000, for the KIA Fund F loan in the amount of $5,000,000, and for the Green River Regional Industrial Development Authority (GRRIDA) contribution of $450,000."

Paragraph numbered "27" is revised to read as follows:

" 27. Use of Remaining Project Funds:

The applicant contribution shall be considered as the first funds expended. After providing for all authorized costs, any remaining project funds will be considered to be RUS/EDA/KIA grant funds and refunded in proportion to participation in the project. If the amount of unused project funds exceeds the grants, that part would be RUS loan funds. "

Paragraph numbered "36" is added to read as follows:

"All of the Green River Regional Industrial Authority (GRRIA) funds and all of the Ohio County Water District cash contribution funds must be used toward the refinancing of the existing 1998 and 2000 bonds. RUS grant funds cannot be used to refinance debt and any RUS loan funds used for refinancing must be less than 50% (a minor portion) of the total RUS loan amount."

All other provisions of the referenced Letter of Conditions remain in full force and unchanged.

Sincerely,

Vernon C Brown

VERNON C. BROWN
Acting State Director

cc: Area Director - Madisonville, Kentucky
Green River ADD - Owensboro, Kentucky
E. F. Morgan Jr. - Hartford, Kentucky
Rubin & Hays - Louisville, Kentucky
Tetra Tech - Lexington, Kentucky
PSC - ATTN: Dennis Jones - Frankfort, Kentucky

United States Department of Agriculture
Rural Development
Kentucky State Office

June 25, 2009

SUBJECT: Ohio County Water District
Water Treatment Plant
Contract Award Concurrence

TO: Area Director
Madisonville, Kentucky

Based on the bids received and the recommendation of the consulting engineer, Rural Development concurs in the award of subject contract to the low bidder, Building Crafts, Inc., in the amount of $7,586,685.00.

If you have any questions, please contact Julie Anderson, State Engineer, at (859) 224-7348.

Julie Anderson

for VERNON BROWN
Acting State Director
Rural Development

cc: Tetra Tech, Inc
Lexington, Kentucky

Rubin and Hays
Louisville, Kentucky

CERTIFICATE OF CHAIRMAN OF OHIO COUNTY WATER DISTRICT AS TO STATEMENT REQUIRED BY SECTION 1(5) OF 807 KAR 5:069

I, the undersigned, hereby certify that I am the duly qualified and acting Chairman of the Ohio County Water District, and that said District is in the process of arranging to finance the construction of extensions, additions and improvements to the existing waterworks system of the District (the "Project"), in cooperation with Tetra Tech Inc., Lexington, Kentucky, the Engineers for the District (the "Engineers").

Based on information furnished to me by said Engineers for the District, I hereby certify as follows:

1. That the proposed plans and specifications for the Project have been designed to meet the minimum construction and operating requirements set out in 807 KAR 5:066 Section 4(3) and (4); Section 5(1); Sections 6 and 7; Section 8(1) through (3); Section 9(1) and Section 10.

2. That all other state approvals and/or permits have already been obtained.

3. That the proposed rates of the District shall produce the total revenue requirements set out in the engineering reports.

4. That it is now contemplated that construction of the Project will begin on or about August 1, 2009, and will end on or about June 30, 2011.

IN TESTIMONY WHEREOF, witness my signature this June 19, 2009.

Harry Storm
Chairman
Ohio County Water District

STATE OF KENTUCKY)
) SS
COUNTY OF OHIO)

Subscribed and sworn to before me by Harry Storm, Chairman of the Board of Commissioners of the Ohio County Water District, on this June 19, 2009.

Donna Bennett
Notary Public
In and For Said State and County

(Seal of Notary)

NOTICE OF PROPOSED RATE CHANGE

In accordance with the requirements of the Public Service Commission of the Commonwealth of Kentucky as set out in 807 KAR 5:069, Section 2, notice is hereby given to the customers of the Ohio County Water District, of a change to the District's rate schedule as set forth herein. The proposed rate change is required by USDA, Rural Development ("RD"), in connection with a loan by RD to the District to be evidenced by the issuance by the District of its Waterworks Revenue Bonds, which RD has agreed to purchase provided the District meets certain conditions of RD, including changing the water rates as set forth below:

Current Monthly Water Rates

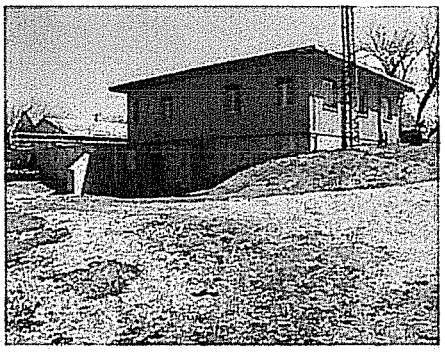
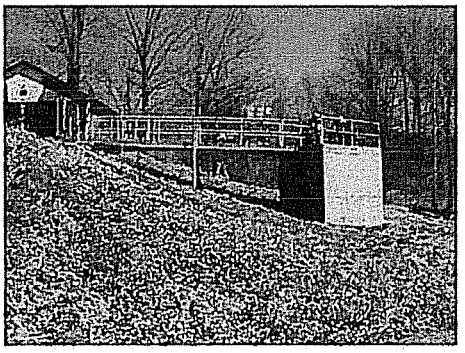
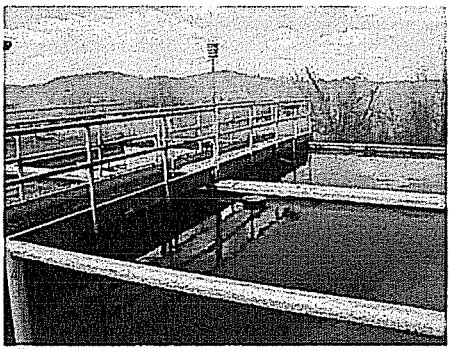
First 2,000 gallons	$19.93 minimum bill
Next 18,000 gallons	8.28 per 1,000 gallons
Next 30,000 gallons	7.16 per 1,000 gallons
Next 50,000 gallons	6.03 per 1,000 gallons
All over 100,000 gallons	4.91 per 1,000 gallons
Wholesale Rate - City of Beaver Dam	$2.53 per 1,000 gallons
City of Fordsville	$2.53 per 1,000 gallons

Proposed Monthly Water Rates

First 2,000 gallons	$21.13 minimum bill
Next 18,000 gallons	8.78 per 1,000 gallons
Next 30,000 gallons	7.59 per 1,000 gallons
Next 50,000 gallons	6.39 per 1,000 gallons
Next 100,000 gallons	5.20 per 1,000 gallons
All over 200,000 gallons	5.20 per 1,000 gallons
Wholesale Rate - City of Beaver Dam	$2.68 per 1,000 gallons
City of Fordsville	$2.68 per 1,000 gallons

The RD loan proceeds will be used in conjunction with various other monies to finance the cost of extensions, additions and improvements to the waterworks system of the District, consisting of the construction and installation of a new 4 MGD water treatment plant and appurtenances to replace the existing 2 MGD plant. Signed: Harry Storm, Chairman, Ohio County Water District.

Final Engineering Report
Treated Water System Improvements
Ohio County Water District

May 2009

TETRA TECH, INC.

Final Engineering Report
Treated Water System Improvements
Ohio County Water District

for

Ohio County Water District
124 Washington Street
Hartford, Kentucky 42347

May 2009

Prepared by:

Daniel L. Shoemaker, P.E.

Tetra Tech, Inc.
800 Corporate Drive, Suite 200
Lexington, Kentucky 40503

Phone: 859-223-8000
Fax: 859-224-1025

TETRA TECH, INC.

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I. INTRODUCTION

Ohio County Water District (OCWD) provides treated drinking water to approximately 7,500 residential, commercial, and institutional customers in McLean, Daviess, Breckinridge, and Ohio Counties, including the customers of the Cities of Beaver Dam and Fordsville, both of whom buy treated water from OCWD for resale. OCWD obtains its treated water from a combination of the District's 2 million gallon per day (MGD) water treatment plant (WTP) and a 3 MGD WTP owned by Perdue Farms, a large scale commercial chicken processing facility. Both WTPs are located in the community of Cromwell and obtain raw water from separate intakes in the Green River.

Perdue Farms, under a 1994 Agreement with multiple government entities (Ohio County Fiscal Court, Ohio County Industrial Development Authority, and OCWD – hereafter Government) has provided up to 1 MGD of treated water to OCWD. In January 2006, by Amendment 2 to the 1994 Agreement, Perdue's obligation was reduced to 550,000 gallons per day (GPD) through February 2009, at which time Perdue would have no further obligation to supply water to the District. This amendment voided original provisions that conveyed the Perdue WTP to the Government in February 2009. Likewise, original provisions requiring Ohio County Fiscal Court to pay Perdue $500,000 annually through February 2009 were rescinded.

Although these concessions resulted in a savings to the County of $2,300,000, the primary purpose for the Government parties agreeing to these concessions was to accommodate Perdue's expansion plans that are expected to add scores of new jobs in the period 2006 through 2009. However, these concessions force OCWD to proceed immediately with plans to increase its treated water capacity.

The District began studying options for increasing treated water supply early in 2004. The major items of work completed are:

- Trihalomethane (THM) and Haloacetic Acid (HAA) Evaluation
- Hydraulic Model of the Distribution System
- Preliminary Engineering Report, Existing Water Treatment Plant Capacity and Operations Improvements, dated December 2004
- Preliminary Engineering Report, Water Treatment Plant Improvements; an Update of the above report, dated September 2005
- Feasibility Analysis, Purchasing Treated Water from Owensboro Municipal Utilities and/or Grayson County Water District
- Revised Preliminary Engineering Report (PER), October 2006, recommending a new 4.0 million gallon per day (MGD) water plant with conventional treatment processes instead of upgrading the existing plant
- An April 2007 Treatment Process Addendum to the October 2006 PER that recommended more aggressive removal processes for disinfection by-products, ie, Ultra Membrane Filtration (UMF) instead of conventional media filtration and Granular Activated Carbon (GAC) polishing for dissolved organics removal
- On-site UFM and GAC pilot plant studies, 2007
- Design in 2007 and 2008 followed by receipt of construction bids in August 2008 (bids rejected due to bid cost exceeding the construction budget by 35%)
- Redesign of the new plant to achieve cost reduction and bidding the new design on May 13, 2009 (bid cost approximately 15% below original construction budget)

The purpose of this Final Engineering Report is to support OCWD's project financing plan by presenting AS-BID cost estimates, summarizing the various and multiple sources of funding and use thereof, and presenting the estimate of increased revenue required to support the resulting debt service and annual cost of operating and maintaining the water supply system.

II. PROJECT PLANNING AREA

The OCWD currently serves a population of 11,739. Most of these customers are located in Ohio County, with a smaller number of customers located in McClean, Davies, and Grayson counties. Ohio County currently wholesales water to the Fordsville and Beaver Dam water systems and has connections to provide water to North McClean County Water District and Grayson County Water District. According to analysis of population and household data from the Kentucky State Data Center, the 2000 census, and a 2002 PSC report, the population served by the OCWD is projected to grow to 13,124 people by 2025, which is an 11.8 percent increase over the 2003 population served of 11,739.

It is estimated that there are approximately 500 unserved customers in the county and 1,140 acres of undeveloped industrial property in Ohio County. OCWD is expected to serve half of the unserved customers by 2025 with the remainder being served by others. Average demand is predicted to range from 1.7 MGD in 2006 to 1.8 MGD in 2025; peak day predictions for the same years are 2.3 MGD and 2.5 MGD. Local officials predict with certainty that new industrial development will occur over the next few years. Therefore, assuming that half of the existing industrial property now available in Ohio County industrial parks will be occupied in the next 20 years, the combined residential, commercial, and industrial peak demand prediction for 2025 is 4.0 MGD.

III. EXISTING FACILITIES

A. Tanks, Pump Stations, and Mains

The treated water delivery system includes nine storage tanks. Seven are elevated and two are ground tanks. The two tanks on the eastern side of the service area, located at Windy Hill and Olaton, are filled from the high service pumps at the Perdue WTP. The transmission main between the WTP and Windy Hill Tank is 12 inch and the main extending on northward to Olaton Tank is 18 inch. Each of these tanks has storage volume of 500,000 gallons. The

remaining tanks are supplied from the high service pumps at OCWD's WTP and a combination of four booster pumping stations. Total tank storage in the OCWD system is 3,540,000 gallons. In addition, the City of Beaver Dam, a wholesale customer of OCWD, has a 250,000 gallon elevated tank. (The Rough River tank and pump station were permanently taken out of service in 2006.)

Distribution and transmission mains range in size from 2 inch to 18 inch and total almost 600 miles in length. Approximate quantities by size are tabulated below:

Pipe Diameter	Length
Less than 4"	958,000 feet
4"	723,000 feet
6"	644,000 feet
8"	480,000 feet
10"	96,000 feet
12"	71,000 feet
16"	70,000 feet
18"	33,000 feet

The above estimate includes 50,000 feet of 6-inch main constructed in the fall of 2006 to serve approximately 40 customers in Breckinridge County.

B. Water Treatment Plant

OCWD's existing WTP was constructed at Cromwell in 1965. It was built as a conventional treatment plant consisting of two 700 gallon per minute (GPM) raw water pumps, a 2,040 gallon rapid mix, a 25,860 gallon flocculation basin, two 61,000 gallon settling basins, two 180 square foot rapid sand filters, two 100,000 gallon clearwells, a 3,600 GPM backwash pump, and two 243 GPM high service pumps. Between 1965 and 1979, a third 100,000-gallon clearwell was added. In 1979, a new 32,000-gallon flocculation basin was added, as

well as two new 43,000-gallon settling basins. In 1985, a new 250,000-gallon clearwell was built to add capacity to the three existing 100,000-gallon clearwells and two sludge lagoons were constructed. In 1991, a new raw water intake and pump structure was built and two new raw water pumps were installed. In 2002, the two existing filters were refurbished. OCWD currently has two backwash pumps, three high service pumps, and two raw water pumps and the WTP is rated to treat 2.07 MGD.

Multiple deficiencies exist in OCWD's existing WTP that impair or otherwise limit hydraulic capacity to approximately 1.8 to 1.9 MGD. Clearwell capacity is insufficient and half of the existing clearwell capacity is in steel tanks that need to be replaced. Another significant problem is inadequacy of residual sludge handling and treatment facilities, plus the limited space to locate such facilities. However, the most problematic issue is the inability of the WTP process facilities and equipment to comply with Stage 1 and 2 Disinfection By-Product (DBP) regulations.

OCWD also owns high service pumping and control equipment that is located in Perdue's WTP and is used to pump treated water into OCWD's system. This equipment was installed at the Perdue WTP in 1995.

IV. NEED FOR PROJECT

The four primary issues driving the project are: pursuit of compliance with THM and HAA limits, need for increased effective clearwell capacity and improved clearwell condition, need for improvement in solids handling capabilities, and future water demand. OCWD regularly exceeds the Stage 1 THM limit of 80 parts per billion (ppb) and the Stage 1 HAA limit of 60 ppb. The Stage 2 limits will be more stringent by requiring compliance on a locational running annual average basis for each sampling point rather than on a system wide running annual average basis.

V. ALTERNATIVES CONSIDERED

Four alternatives have been studied in great detail for providing OCWD with 4.0 MGD treated water supply. Following is a brief discussion of each:

Alternate 1: Improvements and Expansion of the Existing WTP – multiple types of treatment processes at the existing OCWD WTP site were evaluated.

Alternate 2: Purchase Treated Water from Owensboro Municipal Utilities – construct a transmission main (with pumping station) to Owensboro along the Natcher Parkway to a point of connection with OMU.

Alternate 3: Partial purchase from Grayson County Water District – this alternative is a combination of Alternate 1 and construction of an 8-inch transmission main through Breckinridge County along KY 110 into Grayson County to a point of tie-in with the Water District.

Alternate 4: New WTP at a New Site.

VI. RECOMMENDED PROJECT

The recommended project is Alternate 4 as modified by the recommendations of the Treatment Process Addendum to the Revised Preliminary Engineering Report. The new plant is to be constructed on a 15 acre tract of the Porter property. The recommendation is based on: 1) financial feasibility; 2) lower cost to construct a new WTP on a new site than to upgrade/expand the old WTP or build transmission mains to Owensboro and Grayson County; 3) accessibility of the new WTP site compared to the existing site; 4) adequate land area for future expansion; and, 5) improved safety due to distance from residential neighborhoods.

VII. LAND, RIGHTS-OF-WAY, AND PERMITS

The only new site required for the project is the treatment plant site. It was acquired in 2007 by OCWD in fee simple title and is located on US 231 just north of Cromwell as shown in Figure 1. The existing treatment plant site is adequate to accommodate the upgraded raw water intake structure and therefore no additional land acquisition is required at that location.

Rights-of-way for the new raw water transmission mains consist of existing easements and one new KY Transportation Cabinet Encroachment Permit that was acquired in July 2008. In addition, a second KY Transportation Cabinet Encroachment Permit was also acquired in July 2008 for the main driveway entrance to the new treatment plant.

Environmental clearance for the project and the new plant site was initiated by completion of an Environmental Assessment (EA) that culminated in the issuance of a Finding of No Significant Impact (FONSI) by the Kentucky Department of Environmental Protection. A single finding in the Archaeological Survey was a small family cemetery located on the new plant site. Mitigation measures proposed in the EA included fencing the cemetery and designing the plant structures and operations to avoid impact. Both measures have been implemented.

KY Division of Water (DOW) reviewed and approved the proposed design of the project in April 2009 and issued a construction permit.

The final remaining permit required before proceeding with construction is the Certificate of Convenience and Necessity from the KY Public Service Commission. Upon approval of this Final Engineering Report by OCWD and the US Department of Agriculture's Rural Development (RD) (a primary funding agency for the Project), the petition for the PSC Certificate will be submitted by OCWD and it's Bond Counsel. The Certificate is expected to be issued within 15 days of the submittal date.

VIII. COSTS, FUNDING, AND RATES

Final estimates of Construction Cost, Project Cost, and first full year Operations and Maintenance Cost are shown in Appendices A, B, and C, respectively.

Appendix D presents the proposed funding plan and subsequent requirement for increased revenue to support OCWD's operations upon completion of the Project.

Included in the funding plan is retirement of debt from two prior bond issues, 1998 and 2000. It is important to note that both sources of local funds, OCWD and the Green River Regional Industrial Development Authority (GRRIDA), are exclusively dedicated and to be used solely for contribution to the retirement of the outstanding principal balance of these two bond issues. This is necessitated by RD regulations that prohibit more than 50% of their loan being used for restructuring existing debt and outright total exclusion of the other funding for such purposes. To accomplish this, OCWD must be reimbursed from other fund sources for eligible project expenditures already made. Appendix E presents a copy of OCWD's Transaction Register for the Project through May 13, 2009. The entries have been marked to show KIA Cost Classification categories and spreadsheet tallies are included to show category totals.

Finally, Appendix F shows the allocation of funds by the various sources to each KIA expense class. Each of the major funding agencies, KIA, EDA, and RD require detailed project cost accounting and tracking of expenditures plus each agency has different rules regarding eligibility of certain expenses. The proposed funding allocations should not change without approval of each agency.

FIGURE 1 – PROPOSED TREATED WATER SYSTEM IMPROVEMENTS

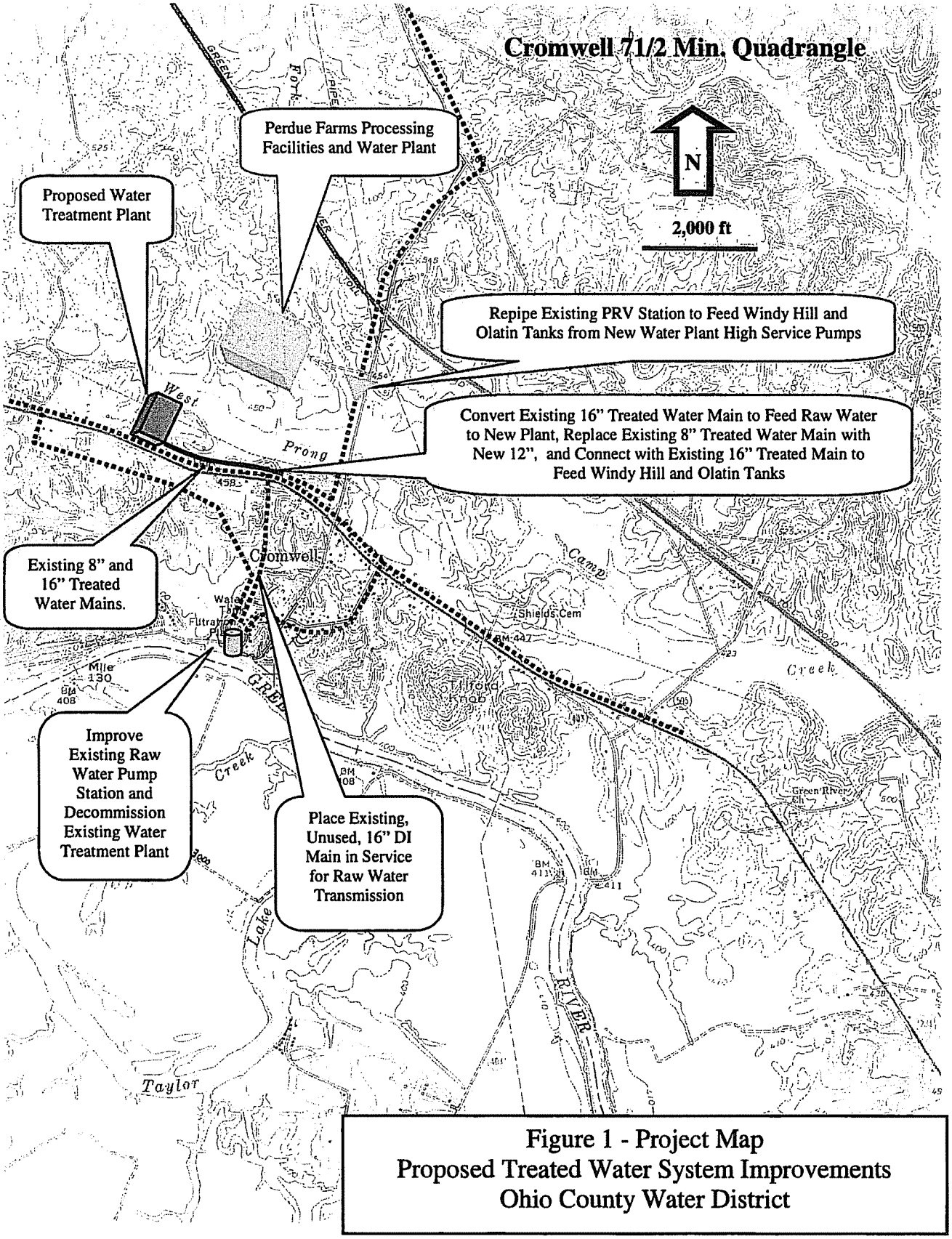


Figure 1 - Project Map
Proposed Treated Water System Improvements
Ohio County Water District

APPENDIX A
ESTIMATED CONSTRUCTION COST, AS-BID

Estimated Construction Cost, As-Bid May09
US 231, 4 MGD Water Treatment Plant
Ohio County Water District
May 20, 2009

Low Bid, Building Crafts. Inc:		
Division A - Base Bid	$7,586,685	
Division B - Additive Alternate 2A	$175,000	
Division B - Unit Price Items	$41,000	
Sub-Total, Building Crafts		$7,802,685
Add Pre-Screening by CO to Validate Zenon Warranty		$50,000
Zenon Equipment, Owner Purchased:		
Base Equipment Package	$1,991,140	
First Year Services by Zenon, Option 1	$13,900	
Sub-Total Zenon		$2,005,040
Transmission Mains by Force Account		$342,275
Estimated As-Bid Construction Cost		$10,200,000

APPENDIX B
ESTIMATED PROJECT COST, AS-BID

Estimated Project Cost, As-Bid May09
US 231, 4 MGD Water Treatment Plant
Ohio County Water District
May 25, 2009

KIA Cost Class	Item Description	Estimated Costs	
10	**Construction Cost, As-Bid**	**$10,200,000**	
	Other Project Cost:		
1	Administrative Expenses:		
	General Administrative Items	$30,000	
	Environmental Studies	$6,335	
	Interest During Construction	$250,000	
2	Legal	$40,000	
3	Land, Appraisals, Easements, & Related Expenses	$165,000	
5	Planning and Program Administrative Fees, est'd @ 1% KIA & EDA	$65,000	
6	Engineering Fees-Design and Bidding:		
	Original Design	$606,208	Note 1
	Second Design	$39,000	Note 2
7	Engineering Fees-Construction	$130,600	Note 2
8	Engineering Fees-Resident Project Representative	$423,000	Note 2
9	Engineering Fees - Other:		
	Preliminary Engineering Report	$3,000	Note 3a
	Capacity and Operations Optimization Study, Existing WTP	$0	Note 3b
	Hydraulic Model Development and System Analysis	$0	Note 3c
	Owensboro Treated Water Supply Feasibility Study	$0	Note 3d
	THM and HAA Treatability Study, Existing Plant	$0	Note 3e
	Revised Preliminary Engineering Report	$0	Note 3f
	Treatment Process Addendum for Stage 2 DBP & LT2	$11,940	
	Revised Preliminary Design Report, 4 MGD to 3 MGD	$13,877	
	Project Funding Assistance and Program Compliance	$60,000	
	Environmental Studies and Coordination of ESA and Arch. Survey	$8,807	
	Membrane and GAC Pilot Studies	$51,100	
	Geotechnical Investigations	$17,771	
	Start Up and Operations Assistance	$30,000	
	Misc. and Unanticipated Additional Services as Required	$45,000	
11	Equipment and Services (includes Pilot Units)	$60,000	
12a	Miscellaneous	$50,000	Note 4
13	Contingency, apprx 8.0%	$993,362	
	Sub-Total Other Project Cost	**$3,100,000**	
	Total Estimated Development Cost	$13,300,000	
12b	Restructuring Existing Debt, Jan 2011 Principal Balance		Note 4
	Series 1998 Bond Issue	$3,015,000	
	Series 2000 Bond Issue including 1% Redemption Charge	$3,383,500	
	Sub-Total Restructuring Cost	**$6,398,500**	
	Total Estimated Project Cost and Funding Budget	**$19,698,500**	

Note 1: Fee computed on basis of RD Fee Curve and estimated construction cost of $12,800,000 for the Original Design. Design Services 100% completed and Bid Services 40% completed.

Note 2: Fees computed on As-Bid Construction Cost, $10,200,000 , using the RD Fee curve. Bid Phase amount is the 60% of unbilled balance from the bidding phase for the Original Design.

Note 3: Fees for these items are included in the Engineering Agreement for this project but the following amounts paid under other project accounts: a) $17,000; b) $17,700; c) $31,500; d) 20,000; e) $13,800; and f) $15000

Note 4: Two line items are shown for this KIA Cost Class to facilitate tracking of debt restructing amount.

APPENDIX C
PROJECTED OPERATING EXPENSES, 2011

Updated Operation & Maintenace Cost Estimate
Ohio County Water District WTP
October 16, 2008
Revised May 26, 2009

Operating Expenses	Base Year, Existing System (2003)	2.5% Annual Inflation through 2011	Adjustments, Loss of Perdue Production & Process Changes	Projected Total, First Year, 2011	Comments
Salaries and Wages, Employees	$694,000	$138,800	$45,000	$877,800	Assumes adding one full time maintenance staff
Benefits, Employee	$143,200	$28,600	$9,733	$181,533	
Power Purchased, excluding UFM and GAC	$145,100	$29,000 *	$12,949 *	$187,049	*20% rate increase in 2008 is included; conventional processes only
Power Purchased, UFM and GAC	na	na	na	$75,000	$0.055 per kwh per Jo Ann Stephens Oct. 16, 2008; est uses $0.07
Chemicals, excluding UFM	$31,500	$6,300	$3,624	$41,424	
Chemicals, UFM	na	na	na	$25,000	
Materials and Supplies	$108,700	$21,700	$5,731	$136,131	
Reactivated GAC	na	na	na	$65,000	Replace three vessels annually w/Reactivated GAC
Services, Engineering	$22,900	$4,600	$2,492	$29,992	
Services, Accounting and Legal	$47,800	$9,600	$0	$57,400	
Services, Water Testing	$19,800	$4,000	$11,369	$35,169	
Services, Other	$110,300	$22,100	$2,492	$134,892	
Rental, Real Estate	$11,800	$2,400	$0	$14,200	
Rental, Equipment	$2,200	$400	$0	$2,600	
Transportation Expenses	$59,100	$11,800	$0	$70,900	
Insurance, Vehicles	$5,700	$1,100	$0	$6,800	
Insurance, GL	$3,200	$600	$0	$3,800	
Insurance, Workers Comp	$13,800	$2,800	$894	$17,494	
Insurance, Other	$9,500	$1,900	$0	$11,400	
Advertising	$1,100	$200	$0	$1,300	
Bad Debt	$16,700	$3,300	$0	$20,000	
Miscellaneous	$28,000	$5,600	$6,747	$40,347	
Taxes, Payroll, Employers Part	$51,000	$10,200	$3,375	$64,575	
Taxes, Other	$4,600	$900	$0	$5,500	
Operating Expense Total for Year	$1,530,000	$305,900	$104,405	$2,105,000	rounded

APPENDIX D
FINANCING PLAN AND WATER RATES

Estimated Financing Plan and Rates, As-Bid May09
US 231, 4 MGD Water Treatment Plant
Ohio County Water District
May 26, 2009

Item Description		Estimated Cost		Allocation of Funding: Restructuring	Development
Total Estimated Development Costs		$13,300,000			$13,300,000
Debt Refinancing:					
Series 1998 Bond Issue, Jan 2011 Balance		$3,015,000		$3,015,000	
Series 2000 Bond Issue, Jan 2011 Balance plus 1% Premium		$3,383,500		$3,383,500	
Total Required Funding		$19,698,500		$6,398,500	$13,300,000
Funding Source and Amount:					
Rural Development, Federal Grant		$1,500,000			$1,500,000
Economic Development Administration, Federal Grant		$1,500,000			$1,500,000
KIA Coal IEDF Grant	credit to county	$550,000			$550,000
Green River Industrial Development Authority, Grant	credit to county	$450,000		$450,000	$0
KY Infrastructure Authority, Fund F (SRF)	$3M by county	$5,000,000			$5,000,000
Ohio County Water District Contribution		$1,500,000		$1,500,000	$0
Rural Development Loan:					
New Capital Investment	$2,800,000				$2,800,000
Balance of '98 and '00 Bond Issues	$6,398,500			$4,448,500	$1,950,000
Total RD Loan	$9,198,500 chk	$9,198,500			
Refinancing portion of RD Loan			48.4%		
Total From Funding Sources		$19,698,500		$6,398,500	$13,300,000
Annual Cost					
New RD Debt @ 4.125% for 38 Yrs w/2Yr Int only		$484,000			
New KIA Debt @ 1.00% for 20 Yrs.		$277,000			
New KIA Debt Administrative Fee		$12,500			
Existing Debt:					
KIA, bal $2.1M thru 2014		$267,000			
GMAC, bal $0.02M thru 2013 @5%		$10,500			
Series '98, bal $3.0M thru 2028 @ 4.83%	(255,000 if not refi'd)	$0			
Series '00, bal $3.4M thru 2030 @ 5.35%	(266,000 if not refi'd)	$0			
Series '03, bal $1.3M thru 2023 @ 2.5 to 4.3%		$130,250			
Debt Service Coverage @	10%	$118,000			
Operation & Maintenance Expenses, 2011		$2,105,000		Note 1	
Asset Replacement and Depreciation Reserve		$200,000			
Total Estimated Annual Cost		$3,604,250			
Annual Revenue Projected, 2011					
From Operations @ Existing Rates		$3,310,000		Note 2	
Ohio County Fiscal Court, per Contract		$173,500		$3M KIA debt service and fee	
Surplus (Deficit)		($120,750)			
Rate Increase Indicated		3.65%			

Note 1 - October 2008 O&M Cost Estimate Update adjusted to 2011 using 2.5% annual inflation and including 20% electric rate increase.
Note 2 - 2009 Projections from Revised Preliminary Engineering Report, $3,306,500; 2007 sales, $3,317,984; 2008 unaudited sales, $3,305,368.

APPENDIX E
PROJECT EXPENSES PAID THROUGH MAY 13, 2009
(SHOWING KIA COST CLASSIFICATION)

OHIO COUNTY WATER DISTRICT
Transaction Detail by Account
October 1, 2006 through May 18, 2009

Type	Date	Num	Name	Memo	Amount	KIA CATEGORY
105.000 · CONSTRUCTION IN PROCESS						
105.500 · NEW WATER TREATMENT PLANT						
Check	10/10/2006	022746	MARTIN C PORTER	DEPOSIT ON LAND PURCHASE - NON-REFUNDABLE	1,000.00	3
Check	11/17/2006	3246	WESTERN KENTUCKY UNIVERSITY	TESTING - BUTLER COUNTY WELL SAMPLES	184.00	12
Check	11/17/2006	3247	CULTURAL RESOURCE ANALYSTS, INC	ARCHAEOLOGICAL SURVEY OF PROPOSED SITES	6,335.00	1
Check	11/17/2006	3252	BIGGERSTAFF, WARD & ASSOCIATES	SURVEY NEW WTP SITE	1,270.00	3
Check	12/8/2006	3304	TETRA TECH, INC	ENGINEERING SERVICES RELATED TO LAND PURCHASE 04243	1,680.87	3
Check	12/8/2006	3304	TETRA TECH, INC	REVISED PRELIMINARY ENGINEERING RPT	3,000.00	9
Check	1/12/2007	3411	FRANK MARTIN LAW OFFICE	LEGAL SERVICES	616.66	2
Check	1/19/2007	3419	TETRA TECH, INC	ENG SERVICES - SUBMITTALS TO EDA & MTGS & CONFERENCES WITH ED...	1,262.76	9
Check	1/19/2007	3419	TETRA TECH, INC	ENG SERVICES - PRELIMINARY DESIGN	8,000.00	6
Check	1/23/2007	3433	MARTIN C PORTER & ALICE E PORTER	LAND FOR WATER TREATMENT PLANT	100,000.00	3
Check	1/23/2007	3434	MARTIN C PORTER & ALICE E PORTER	LAND FOR WATER TREATMENT PLANT	48,000.00	3
Check	1/26/2007	3435	EDDIE PHELPS	CLEARING NEW WATER PLANT SITE	5,500.00	3
Check	1/26/2007	3446	OHIO COUNTY WATER DISTRICT	RECORDING DEED	34.00	1
Check	2/2/2007	3460	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO EDA GRANT	128.00	2
Check	2/2/2007	3460	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO PURCHASE OF SITE	748.00	2
Check	3/8/2007	3548	EDGES TREE SERVICE	TREE REMOVAL AT NEW WTP SITE	2,350.00	3
Check	3/16/2007	3573	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO LAND PURCHASE	150.00	2
Check	4/6/2007	3623	LIKENS & SONS PLUMBING SUPPLY	2 2"PVC SCH 80 UNIONS FOR WTP PILOT PROJECT	17.80	5
Check	4/6/2007	3628	TWIN SUPPLY, INC.	SUPPLIES FOR PILOT PLANT	552.04	5
Check	4/13/2007	3663	VOID	PUBLIC MEETING PUBLICATION	0.00	—
Check	4/13/2007	3668	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO EDA GRANT	160.00	2
Check	4/13/2007	3675	MESSENGER-INQUIRER	PUBLIC MEETING PUBLICATION	81.16	1
Check	4/20/2007	3689	CITI AADVANTAGE BUSINESS CARD	MEALS & LODGING MEETINGS WITH TETRA TECH, EDA REGARDING NEW ...	421.80	1
Check	5/11/2007	3727	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO EDA GRANT	200.00	2
Check	5/11/2007	3731	SMR LABORATORIES, INC	WTP PILOT PLANT TESTS	314.00	5
Check	5/11/2007	3742	H & W ELECTRIC COMPANY, INC	WIRING WTP PILOT PLANT	3,278.24	5
Check	5/11/2007	3744	TWIN SUPPLY, INC.	SUPPLIES FOR PILOT PLANT	38.74	5
Check	5/11/2007	3770	ZENON MEMBRANE SOLUTIONS	PILOT PLANT	14,000.00	5
Check	5/18/2007	3779	TETRA TECH, INC	PRELIMINARY DESIGN	72,000.00	6
Check	5/18/2007	3779	TETRA TECH, INC	ADDITIONAL ENGINEERING SERVICES	58,897.81	9
Check	5/18/2007	3779	ZENON MEMBRANE SOLUTIONS	PILOT PLANT	7,000.00	5
Check	6/1/2007	3816	SMR LABORATORIES, INC	TESTING SAMPLES PILOT PLANT	30.00	5
Check	6/1/2007	3823	SMR LABORATORIES, INC	TESTING SAMPLES PILOT PLANT	252.50	5
Check	6/8/2007	3834	TETRA TECH, INC	PRELIMINARY DESIGN	32,000.00	6
Check	6/8/2007	3843	TETRA TECH, INC	ADD'L ENG - FUNDING & PILOT PLANT PROJECT	4,342.54	9
Check	6/8/2007	3843	SMR LABORATORIES, INC	TESTING SAMPLES PILOT PLANT	30.00	5
Check	6/15/2007	3872	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO EDA GRANT	150.00	2
Check	6/15/2007	3875	SMR LABORATORIES, INC	TESTING SAMPLES PILOT PLANT	18.00	5
Check	6/22/2007	3911	OHIO COUNTY TIMES NEWS	NO SIGNIFICANT IMPACT NOTICE	126.00	1
Check	6/29/2007	3915	ZENON MEMBRANE SOLUTIONS	PILOT PLANT	7,000.00	5
Check	7/6/2007	3959	OHIO COUNTY TIMES NEWS	POSSIBLE IMPACT LIST	72.00	1
Check	7/6/2007	3960	SMR LABORATORIES, INC	TESTING PILOT PLANT SAMPLES	40.00	5
Check	7/20/2007	4010	ZENON MEMBRANE SOLUTIONS	PILOT PLANT	7,000.00	5
Check	7/27/2007	4019	H & W ELECTRIC COMPANY, INC	LABOR - WORK ON PILOT PLANT	105.00	5
Check	7/27/2007	4025	TETRA TECH, INC	PRELIMINARY DESIGN	60,000.00	6
Check	8/3/2007	4058	TETRA TECH, INC	ADD'L ENG - FUNDING & PILOT PLANT PROJECT	3,843.19	9
Check	8/3/2007	4056	SMR LABORATORIES, INC	PILOT PLANT TESTING	280.00	5
Check	8/10/2007	4104				

OHIO COUNTY WATER DISTRICT
Transaction Detail by Account
October 1, 2008 through May 18, 2009

Type	Date	Num	Name	Memo		Amount
Check	8/17/2007	4139	SMR LABORATORIES, INC	PILOT PLANT TESTING	5	40.00
Check	8/17/2007	4148	FARM PLAN	LOADED WTP PILOT PLANT	5	105.00
Check	9/6/2007	4209	TETRA TECH, INC	NEW WTP PRELIMINARY DESIGN	6	22,500.00
Check	9/6/2007	4209	TETRA TECH, INC	NEW WTP ADD'L SERVICES - FUNDING ASSIST & PILOT PLANT PROJECT	9	1,820.08
Check	9/14/2007	4237	EMBRY & WATTS, PLLC	SERVICES RELATED TO NEW WTP	1	300.00
Check	10/5/2007	4302	TETRA TECH, INC	NEW WTP PRELIMINARY DESIGN	6	16,400.00
Check	10/5/2007	4302	TETRA TECH, INC	NEW WTP ADD'L SERVICES - PILOT PLANT PROJECT	9	770.79
Check	11/2/2007	4365	TETRA TECH, INC	NEW WTP PRELIMINARY DESIGN	6	4,100.00
Check	11/2/2007	4365	TETRA TECH, INC	NEW WTP FINAL DESIGN	6	27,300.00
Check	11/2/2007	4365	TETRA TECH, INC	NEW WTP ADD'L SERVICES - REVISE PREL DESIGN CRITERIA, 3 MGD	9	13,677.26
Check	11/2/2007	4365	TETRA TECH, INC	NEW WTP ADD'L SERVICES - FUNDING ASSISTANCE	9	4,517.04
Check	11/2/2007	4365	TETRA TECH, INC	NEW WTP ADD'L SERVICES - PILOT PLANT PROJECT	9	9,336.43
Check	11/2/2007	4392	JIM'S LAWN MAINTENANCE	NEW WTP - FENCING CROMWELL GRAVEYARD	3	510.00
Check	11/9/2007	4412	OHIO COUNTY FARM & GARDEN CENTER	NEW WTP - SUPPLIES FOR FENCE AROUND CEMETERY	3	338.22
Check	1/11/2008	4586	TETRA TECH, INC	NEW WTP FINAL DESIGN	6	191,100.00
Check	1/11/2008	4586	TETRA TECH, INC	NEW WTP ADD'L SERVICES - FUNDING ASSISTANCE	9	155.20
Check	1/11/2008	4586	TETRA TECH, INC	NEW WTP ADD'L SERVICES - PILOT PLANT PROJECT	9	3,857.39
Check	1/11/2008	4588	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO OHIO COUNTY FISCAL COURT 4 MILLION FU...	1	133.33
Check	1/11/2008	4590	JOHNSONS SIGNS & TROPHY SHOP	CUSTOM SIGN "FUTURE HOME OF TREATMENT PLANT"	1	300.00
Check	1/25/2008	4619	TETRA TECH, INC	NEW WTP FINAL DESIGN	6	27,300.00
Check	1/25/2008	4619	TETRA TECH, INC	NEW WTP ADD'L SERVICES - FUNDING ASSISTANCE	9	856.88
Check	1/25/2008	4619	TETRA TECH, INC	NEW WTP ADD'L SERVICES - PILOT PLANT PROJECT	9	597.30
Check	2/8/2008	4658	WILLIAMS, EDWARD P	DELIVER DOCS TO TETRA TECH FOR KIA LOAN - OHIO CO FISCAL COURT	1	200.64
Check	2/26/2008	22778	KENTUCKY STATE TREASURER	BLDG INSPECTION FEE	1	939.00
Check	2/29/2008	4699	TETRA TECH, INC	NEW WTP FINAL DESIGN	6	21,840.00
Check	2/29/2008	4699	TETRA TECH, INC	NEW WTP ADD'L SERVICES - GEOTECHNICAL SERVICES	9	17,770.50
Check	2/29/2008	4699	TETRA TECH, INC	NEW WTP ADD'L SERVICES - PILOT PLANT PROJECT	9	1,448.59
Check	4/11/2008	4833	COMMONWEALTH COMMUNITY BANK	CHECKS FOR CONSTRUCTION ACCOUNT	1	-0.99
Check	4/11/2008	4834	COMMONWEALTH COMMUNITY BANK	CHECKS FOR CONSTRUCTION ACCOUNT	1	73.32
Check	4/18/2008	4837	TETRA TECH, INC	FINAL DESIGN	6	2,730.00
Check	4/18/2008	4837	TETRA TECH, INC	ADDITIONAL SERVICES - FUNDING ASSISTANCE	9	3,201.98
Check	4/18/2008	4837	TETRA TECH, INC	ADDITIONAL SERVICES - PILOT PLANT PROJECT	9	5,524.30
Check	4/30/2008	ED	CITI AADVANTAGE BUSINESS CARD	MEAL WATL, HARRY & HENRY - MTG RE KIA	1	43.81
Check	4/30/2008	ED	CITI AADVANTAGE BUSINESS CARD	MEAL WALT & TETRA TEC EMPLOYEES	1	60.83
Check	5/8/2008	4988	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED NEW WATER PLANT PROJECT	1	231.65
Check	6/13/2008	5003	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED NEW WATER PLANT PROJECT	2	200.00
Check	6/13/2008	5004	RINKER MATERIALS	LIME SAND	3	301.59
Check	7/11/2008	5091	OHIO COUNTY FARM & GARDEN CENTER	METAL CULVERT FOR DRIVEWAY	13	261.75
Check	7/11/2008	5092	TETRA TECH, INC	ENG - GRANT & LOAN ASSISTANCE	9	2,127.74
Check	7/11/2008	5092	TETRA TECH, INC	ENG - PILOT PLANT PROJECT	9	4,474.80
Check	7/11/2008	5097	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED NEW WTP - R.D. FUNDING	2	252.00
Check	7/30/2008	5138	TETRA TECH, INC	ENG - CARBON PILOT STUDIES	9	481.69
Check	7/30/2008	5138	TETRA TECH, INC	ENG - FUNDING ASSISTANCE	9	2,712.24
Check	7/30/2008	5138	TETRA TECH, INC	ENG - ROW & PERMIT ASSISTANCE	9	680.22
Check	7/30/2008	5145	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED NEW WTP - EDA CERTIFICATION	2	252.00
Check	8/8/2008	5167	TETRA TECH, INC	ENG - CARBON PILOT STUDIES	9	1,188.00
Check	8/8/2008	5167	TETRA TECH, INC	ENG - FUNDING ASSISTANCE	9	939.82
Check	8/8/2008	5176	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO BIDDING	2	200.00
Check	8/8/2008	5191	OHIO COUNTY TIMES NEWS	ADVERTISING FOR BIDS - NEW WTP	1	133.88

4:01 PM
05/18/09
Accrual Basis

OHIO COUNTY WATER DISTRICT
Transaction Detail by Account
October 1, 2006 through May 18, 2009

Type	Date	Num	Name	Memo		Amount
Check	8/28/2008	ED	CITI AADVANTAGE BUSINESS CARD	BID ADVERTISEMENT	1	602.04
Check	8/29/2008	5233	MESSENGER-INQUIRER	ADVERTISEMT FOR BIDS L59 8/13/08	1	213.05
Check	8/29/2008	5234	STEWARTS BACKHOE & DOZER	DOZER WORK AT NEW WTP SITE	3	700.00
Check	9/26/2008	5326	TETRA TECH, INC	PRELIMINARY DESIGN	6	40,760.00
Check	9/26/2008	5326	TETRA TECH, INC	FINAL DESIGN	6	57,410.00
Check	9/26/2008	5326	TETRA TECH, INC	BIDDING & NEGOTIATIONS	6	32,768.00
Check	9/26/2008	5326	TETRA TECH, INC	ADD'L SERVICES - CARBON PILOT STUDIES	9	233.20
Check	9/26/2008	5326	SULLIVAN,MOUNTJOY,STAINBACK & MILLER,P...	MTG & REVIEW CONTRTACT WITH FISCAL COURT	2	610.50
Check	10/10/2008	5363	FRANK MARTIN LAW OFFICE	SERVICES RELATED TO CONTRACT WITH OC FISCAL COURT	2	210.00
Check	10/10/2008	5366	CANN-TECH, LLC	REVIEW WTP PLANS	12	1,785.00
Check	10/10/2008	5385	OHIO COUNTY TIMES NEWS	ADVERTISEMENT FOR BIDS EXTENDED DATE	1	131.76
Check	10/31/2008	5440	J R WAUFORD & COMPANY	REVIEW NEW WTP PLANS	12	20,000.00
Check	11/7/2008	5470	SULLIVAN,MOUNTJOY,STAINBACK & MILLER,P...	REGARDING TETRA TECH CONTRACT	2	1,980.00
Check	11/14/2008	5483	CITI AADVANTAGE BUSINESS CARD	MEALS WALT, HARRY, HENRY - NASHVILLE TRIP	1	40.10
Check	11/27/2008	ED	SULLIVAN,MOUNTJOY,STAINBACK & MILLER,P...	LEGAL SERVICES REGARDING TETRA TECH CONTRACT TERMINATION	2	2,082.50
Check	12/26/2008	5602	OHIO COUNTY WATER DISTRICT	POSTAGE - MAILING TO TETRA TECH	1	11.51
Check	1/9/2009	5642	SULLIVAN,MOUNTJOY,STAINBACK & MILLER,P...	LEGAL SERVICES REGARDING TETRA TECH CONTRACT	2	610.50
Check	1/16/2009	5675	CITI AADVANTAGE BUSINESS CARD	MAILING TO TETRA TECH	1	20.81
Check	1/28/2009	ED	STORM, HARRY	MILEAGE - DOW, TETRA TECH MEETING IN FRANKFORT	1	178.50
Check	2/6/2009	5704	CITI AADVANTAGE BUSINESS CARD	MEALS WALT & HARRY TRIP TO FRANKFORD - DOW MEETING	1	46.84
Check	2/26/2009	ED	CONSTRUCTION SITE SERVICES, LLC	LOWERING LINE AT NEW WTP SITE	12	882.40
Check	3/20/2009	5830	FRANK MARTIN LAW OFFICE	SERVICES RELATED TO CONTRACT WITH GRIDDA	2	575.00
Check	3/20/2009	5845	CONSTRUCTION SITE SERVICES, LLC	SUPPLIES - NEW WTP	12	1,991.20
Check	4/9/2009	5884	CONSTRUCTION SITE SERVICES, LLC	SUPPLIES - NEW WTP	12	484.27
Check	4/9/2009	5884	MILLER CONSTRUCTION	LOWERING EXISTING WATER LINE AT NEW WTP SITE	12	510.00
Check	4/9/2009	5890	MILLER CONSTRUCTION	LOWERING EXISTING WATER LINE AT NEW WTP SITE	12	3,800.00
Check	4/9/2009	5890	FRANK MARTIN LAW OFFICE	LEGAL SERVICES RELATED TO AGREEMENTS REGARDING NEW WTP FUN...	2	1,422.80
Check	4/9/2009	5895	SULLIVAN,MOUNTJOY,STAINBACK & MILLER,P...	LEGAL SERVICES REGARDING AGREEMENT WITH OHIO COUNTY FISCAL C...	2	660.00
Check	4/17/2009	5927	OHIO COUNTY TIMES NEWS	ADVERTISEMENT FOR BIDS	1	78.38
Check	5/13/2009	5984				1,006,843.80
Total 105.500 · NEW WATER TREATMENT PLANT						1,006,843.80
Total 105.000 · CONSTRUCTION IN PROCESS						1,006,843.80
TOTAL						1,006,843.80

Refer to OCWD's Transaction Detail Report provided by Watts and Embry through May 13, 2009
Item totals shown by KIA Cost Classification
First item dated 10/10/06

Trans Regst Pg No.	KIA Class	Amount	Comments
1	3	1,000.00	Deposit on Land Purchase
1	12	184.00	
1	1	6,335.00	
1	3	1,270.00	
1	3	1,690.87	
1	9	3,000.00	Tt Proj No. 04243?
1	2	616.66	
1	9	1,262.76	
1	6	8,000.00	
1	3	100,000.00	
1	3	49,000.00	
1	3	5,500.00	
1	1	34.00	
1	2	128.00	
1	2	746.00	
1	3	2,350.00	
1	2	150.00	
1	11	17.90	pilot plant
1	11	562.04	pilot plant
1	2	150.00	
1	1	81.16	
1	1	421.90	
1	2	200.00	
1	11	314.00	pilot plant
1	11	3,278.24	pilot plant
1	11	38.74	pilot plant
1	11	14,000.00	pilot plant
1	6	72,000.00	design
1	9	56,937.81	
1	11	7,000.00	pilot plant
1	11	30.00	pilot plant
1	11	252.50	pilot plant
1	6	32,000.00	
1	9	4,342.54	
1	11	30.00	pilot plant
1	2	150.00	
1	11	19.00	pilot plant
1	1	126.00	
1	11	7,000.00	pilot plant
1	1	72.00	
1	11	40.00	pilot plant
1	11	7,000.00	pilot plant
1	11	105.00	pilot plant
1	6	50,000.00	
1	9	3,943.19	
1	11	280.00	pilot plant
2	11	40.00	pilot plant
2	11	105.00	pilot plant
2	6	22,500.00	
2	9	1,820.06	
2	1	300.00	
2	6	16,400.00	
2	9	770.79	pilot plant
2	6	4,100.00	
2	6	27,300.00	
2	9	13,877.26	revise prel design for 3 mgd
2	9	4,517.04	
2	9	9,336.43	
2	3	510.00	
2	3	339.22	
2	6	191,100.00	
2	9	155.20	funding

Sort by KIA Class

Pg No.	KIA Class	Amount	Comments	Class Total
1	1	6,335.00		
1	1	34.00		
1	1	81.16		
1	1	421.90		
1	1	126.00		
1	1	72.00		
2	1	300.00		
2	1	300.00		
2	1	200.64		
2	1	939.00		
2	1	73.32		
2	1	43.81		
2	1	80.83		
2	1	133.88	Advertising for Bids	
3	1	502.04	Bid Advertisement	
3	1	213.05		
3	1	131.76		
3	1	40.10		
3	1	11.51		
3	1	20.81		
3	1	178.50		
3	1	46.84		
3	1	78.38	Advertising for Bids	10,364.53
1	2	616.66		
1	2	128.00		
1	2	746.00		
1	2	150.00		
1	2	150.00		
1	2	200.00		
1	2	150.00		
2	2	133.33		
2	2	231.65		
2	2	200.00		
2	2	252.00		
2	2	252.00		
2	2	200.00		
3	2	610.50		
3	2	210.00		
3	2	1,980.00		
3	2	2,062.50		
3	2	610.50		
3	2	575.00		
3	2	1,422.80		
3	2	660.00		11,540.94
1	3	1,000.00	Deposit on Land Purchase	
1	3	1,270.00		
1	3	1,690.87		
1	3	100,000.00		
1	3	49,000.00		
1	3	5,500.00		
1	3	2,350.00		
2	3	510.00		
2	3	339.22		
2	3	301.59		
2	3	261.75		
3	3	700.00		162,923.43
1	6	8,000.00		
1	6	72,000.00	design	
1	6	32,000.00		
1	6	50,000.00		
2	6	22,500.00		
2	6	16,400.00		

2	9	3,857.39	pilot plant		2	6	*4,100.00*		
2	2	133.33			2	6	27,300.00		
2	1	300.00			2	6	191,100.00		
2	6	27,300.00			2	6	27,300.00		
2	9	956.86	funding		2	6	21,840.00		
2	9	597.30	pilot plant		2	6	2,730.00		
2	1	200.64			3	6	40,760.00		
2	1	939.00			3	6	57,410.00	final design	
2	6	21,840.00			3	6	32,768.00	bib & negot	606,208.00
2	9	17,770.50	geotech		1	9	3,000.00	Tt Proj No. 04243?	
2	9	1,448.59	pilot plant		1	9	1,262.76		
2	1	73.32			1	9	56,937.81		
2	6	2,730.00			1	9	4,342.54		
2	9	3,201.88	funding		1	9	3,943.19		
2	9	5,524.30	pilot plant		2	9	1,820.06		
2	1	43.81			2	9	770.79	pilot plant	
2	1	80.83			2	9	13,877.26	revise prel design for 3 mgd	
2	2	231.65			2	9	4,517.04		
2	2	200.00			2	9	9,336.43		
2	3	301.59			2	9	155.20	funding	
2	3	261.75			2	9	3,857.39	pilot plant	
2	9	2,127.74	funding		2	9	956.86	funding	
2	9	4,474.80	pilot plant		2	9	597.30	pilot plant	
2	2	252.00			2	9	17,770.50	geotech	
2	9	481.69	pilot plant		2	9	1,448.59	pilot plant	
2	9	2,712.24	funding		2	9	3,201.88	funding	
2	9	680.22	row		2	9	5,524.30	pilot plant	
2	2	252.00			2	9	2,127.74	funding	
2	9	1,188.00	pilot plant		2	9	4,474.80	pilot plant	
2	9	939.82	funding		2	9	481.69	pilot plant	
2	2	200.00			2	9	2,712.24	funding	
2	1	133.88	Advertising for Bids		2	9	680.22	row	
3	1	502.04	Bid Advertisement		2	9	1,188.00	pilot plant	
3	1	213.05			2	9	939.82	funding	
3	3	700.00			3	9	233.20	pilot plant	146,157.61
3	6	40,760.00			1	11	17.90	pilot plant	
3	6	57,410.00	final design		1	11	562.04	pilot plant	
3	6	32,768.00	bib & negot		1	11	314.00	pilot plant	
3	9	233.20	pilot plant		1	11	3,278.24	pilot plant	
3	2	610.50			1	11	38.74	pilot plant	
3	2	210.00			1	11	14,000.00	pilot plant	
3	12	1,785.00	cann-tech		1	11	7,000.00	pilot plant	
3	1	131.76			1	11	30.00	pilot plant	
3	12	20,000.00	wauford		1	11	252.50	pilot plant	
3	2	1,980.00			1	11	30.00	pilot plant	
3	1	40.10			1	11	19.00	pilot plant	
3	2	2,062.50			1	11	7,000.00	pilot plant	
3	1	11.51			1	11	40.00	pilot plant	
3	2	610.50			1	11	7,000.00	pilot plant	
3	1	20.81			1	11	105.00	pilot plant	
3	1	178.50			1	11	280.00	pilot plant	
3	1	46.84			2	11	40.00	pilot plant	
3	12	882.40	site work		2	11	105.00	pilot plant	40,112.42
3	2	575.00			1	12	184.00		
3	12	1,991.20	site work		3	12	1,785.00	cann-tech	
3	12	484.27	site work		3	12	20,000.00	wauford	
3	12	510.00	site work		3	12	882.40	site work	
3	12	3,800.00	site work		3	12	1,991.20	site work	
3	2	1,422.80			3	12	484.27	site work	
3	2	660.00			3	12	510.00	site work	
3	1	78.38	Advertising for Bids		3	12	3,800.00	site work	29,636.87
	total	1,006,944				total	1,006,944		1,006,944

APPENDIX F
FUNDING AND ESTIMATED COST BY KIA CLASSIFICATION

Drinking Water SRF Project Cost Summary

Project Title: Ohio County Water District, Water Treatment Plant

WRIS#: WX21183012

Project Budget: **Estimated** ___ **As-Bid** XXX **Revised** ___ 25-May-09

	Cost Classification	Fund F Loan FY08 and 09	EDA Grant	RD Grant	RD Loan	KIA Coal IEDF Grant	GRRIDA	Local Funds - Applicant	Total
1	Administrative Expenses				286,335				286,335
2	Legal Expenses				40,000				40,000
3	Land, Easements				165,000				165,000
4	Relocation Expense & Payments								-
5	Planning, Agency Fees	50,000	15,000						65,000
6	Engineering Fees - Design				645,208				645,208
7	Engineering Fees - Construction				130,600				130,600
8	Eng. Fees - Inspection				423,000				423,000
9	Eng. Fees - Other				241,495				241,495
10	Construction	4,950,000	1,485,000	1,500,000	1,715,000	550,000			10,200,000
11	Equipment (including Pilot Units)				60,000				60,000
12a	Miscellaneous - Other				50,000				50,000
12b	Miscellaneous - Refinancing				4,448,500		450,000	1,500,000	6,398,500
13	Contingency				993,362				993,362
	Total	5,000,000	1,500,000	1,500,000	9,198,500	550,000	450,000	1,500,000	19,698,500

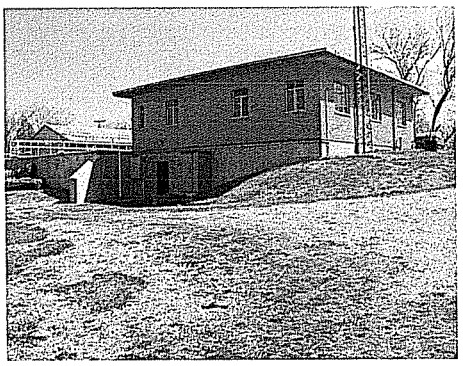
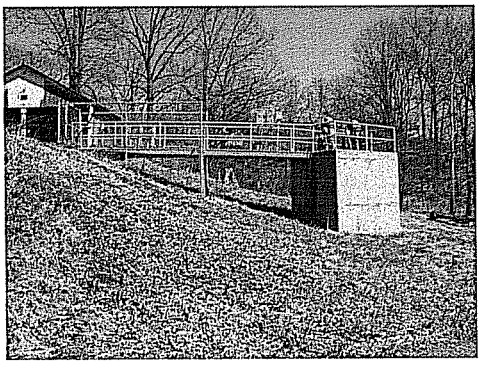
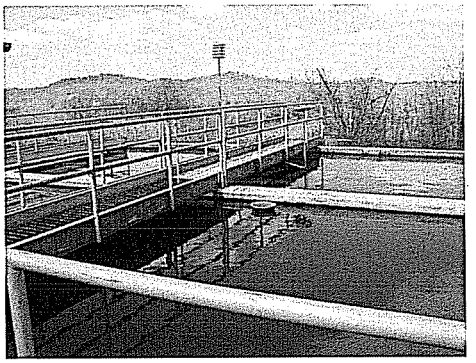
Funding Sources	Amount	Date Committed
Fund F Loan FY08 and 09	5,000,000	June 09
EDA Grant	1,500,000	August 07
RD Grant	1,500,000	June 07
RD Loan	9,198,500	June 07
KIA Coal IEDF Grant	550,000	April 08
Total	17,748,500	

Local Funding Sources	Amount	Date Committed
GRRIDA	450,000	Arpil 09
Local Funds - Applicant	1,500,000	May 09
Total	1,950,000	
Total Funding	19,698,500	

COST CATEGORIES	
TREATMENT	12,930,000
TRANSMISSION & DISTRIBUTION	370,000
SOURCE	-
STORAGE	-
PURCHASE OF SYSTEM	-
RESTRUCTURING	6,398,500
LAND ACQUISITION	-
TOTALS	**19,698,500**

Revised Preliminary Engineering Report
Treated Water System Improvements

Ohio County Water District

September 2006
(revised October 2006)

including

Treatment Process Addendum

February 2007

TETRA TECH, INC.

Revised Preliminary Engineering Report
Treated Water System Improvements

Ohio County Water District

for

Ohio County Water District
130 Washington Street
Hartford, Kentucky 42347

September 2006
(revised October 2006)

including

Treatment Process Addendum

February 2007

Prepared by:

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TETRA TECH, INC.

Treatment Process Addendum
Revised Preliminary Engineering Report, October 2006
Treated Water System Improvements
Ohio County Water District
Hartford, Kentucky

Date: February 2007

Purpose: This addendum is issued to supplement and update Section VI – Recommended Project, and Section VII – Costs, Funding, and Rates, of the Revised Preliminary Engineering Report dated October 2006.

Subsequent to completion of the preliminary engineering studies and publishing of the findings in the above referenced October 2006 report, the Ohio County Water District (OCWD) elected to conduct a reassessment of the planned treatment processes for their proposed new 4 MGD water treatment plant. The planned processes included enhanced coagulation followed by Actiflo sedimentation and conventional media filtration --- the minimal approach to achieving compliance with the Stage 2 Disinfection By-Products (DBP) Rule. Growing concerns in the drinking water industry about achieving compliance with new and future regulations kindled OCWD's desire to reconsider the minimal approach strategy in favor of more aggressive treatment technologies --- not only to reduce disinfection by products, but also to achieve more effective microbial treatment.

Approach: The reassessment project kicked off with a meeting in the OCWD's office on January 5, 2007. Participants included Kentucky Division of Water, Drinking Water Branch, representatives from Madisonville and Frankfort; OCWD's chief plant operator, manger, and two Board members; and, treatment process engineers and scientist from Tetra Tech. As a result of this meeting, Tetra Tech was directed to first prepare alternative treatment process schemes having increasing capability to reduce DBP formation, ie, comply with the Stage 2 DBP Rule; and, secondly, to add unit processes that would remove or inactivate microbial contaminants now covered under the Long Term 2 Surface Water Treatment Rule (even though degree of applicability to OCWD is not yet determined).

Alternative Treatment Processes: The following Table 1 - Summary of Alternatives for the Ohio County Water District WTP presents the alternative treatment processes developed for OCWD's consideration. This table presents for each alternative, a brief description of treatment process, expected treatment results for DBP's and microbes, estimated construction cost, and brief commentary.

From the full list of alternatives, three survived a screening process and were further considered by the OCWD Board of Commissioners and the Ohio County

Fiscal Court (a funding participant) on February 13, 2007. These three treatment process systems are shown in Table 2 – Three Primary Treatment Alternatives for the Ohio County Water District WTP and further described by the Process Flow Diagrams, Figures 1 through 3. Alternate 1A is the least costly and least aggressive in terms of ability to remove contaminants. It may require additional measures to fully comply with the Stage 2 DBP Rule and it will not comply with microbial rules if more than 3.5 Log Removal applies. Alternate 1D is predicted to meet both DBP and microbial rules by the addition of Granular Activated Carbon to absorb DBP forming organic compounds and Ultra Violet Disinfection to inactivate the microbe, cryptosporidium. Finally, Alternate 2B, which includes membrane filtration, is presented as the most aggressive treatment system. It is predicted to comply with DBP and microbial regulations, requiring the least chemical treatment and removing, not inactivating, cryptosporidium.

Selected Treatment System: After thorough consideration and discussion of the three primary alternatives, Alternate 2 B was selected unanimously by the OCWD Board of Commissioners and endorsed by several members of the Ohio County Fiscal Court. Favorable characteristics of the selected system included: 1) best available filtration technology; 2) least chemical addition; 3) greater ability to meet increasing regulatory requirements; 4) removal of microbial contaminants instead of inactivation (see Figure 4); and 5) overall higher quality of treated water. The unfavorable characteristic of the selected system is the capital cost which is highest of the three alternative systems. Table 3 presents the costs comparison of the alternatives. Despite the higher capital costs, the value of Alternate 2B was considered to be worth the extra costs. Table 3 also shows the mitigation measures that might be applied to minimize rate impact to customers.

Revised Project Cost, Funding Plan, and Rates: Estimated construction cost, project cost, operating cost, funding plan, and rate impact are included herein for the chosen treatment process alternative. These are shown as revisions to Appendix A, B, C, and E of the October 2006 Revised Preliminary Engineering Report.

Regulatory Guidance: Appendix I contains supplemental information regarding the EPA drinking water regulations that are the primary drivers for conducting this Treatment Process Reassessment. The Stage 2 Disinfection By-Products Rule and the Long Term 2 Enhanced Surface Water Treatment Rule were finalized and became effective in January 2006. Much of the guidance for implementation and achievement of compliance was released late in 2006 as shown on the documents included in Appendix I. These enclosed documents were taken from the US EPA web site.

Project Map: Figure 1, from the Revised Preliminary Engineering Report dated October 2006, is included for ease of reference in Appendix J [added to this Addendum on March 2, 2007].

Table 1 - Summary of Treatment Alternatives

Treatment Process Addendum - Ohio County Water District WTP

#	Alternative	Description	Average WTP DBP's[1]		Precursor	Average Distribution DBP's[2]		Log Removal of Cryptosporidium	Construction Cost	Comments	Implementation Considerations
			TTHM	THAA	Removal	TTHM	THAA				
1	Conventional	Construction of new 4 MGD conventional water treatment plant, dual media filtration, with sodium permanganate feed, PAC feed, covered sedimenation basins, post sedimentation free chlorination for primary disinfection	39	50	0%	61	71	3-3.5	$8,900,000	Currently proposed plan with existing technology and enhanced DBP precursor removal provided by chlorine dioxide and powdered activated carbon as needed.	Processes noted below may be added in the future to improve the removal of DBP's and cryptosporidium.
1A	+Enhanced	Construction of additional chemical feeds to provide enhanced coagulation and feed alternative disinfectant to control algae in settler	27	35	5%	54	45	3-3.5	$9,300,000	Currently proposed plan as in Alternative 1 with additional chemical feed facilities added to provide pH adjustment prior to coagulation and for the finished water to increase level of DBP removal.	Jar testing would be recommended to select optimum coagulant and verify: increased removal of DBP's, operating parameters and dosages for chemical feed system design.
1B	+Enhanced and UV Disinfection	Construction of additional chemical feeds to provide enhanced coagulation, feed alternative disinfectant to control algae in settler, construct UV disinfection system for primary disinfection and move chlorination to right before clearwell.	27	35	5%	54	45	5.5	$10,000,000	Currently proposed plan as in Alternative 1 with enhanced DBP precursor removal provided by enhanced coagulation, chlorine dioxide and powdered activated carbon. UV disinfection of entire flow for additional log reduction of cryptosporidium.	Jar testing would be recommended to select optimum coagulant and verify: increased removal of DBP's, operating parameters and dosages for chemical feed system design. Measurements of UV transmittance required to verify light intensity required to achieve 2.5 log removal.
1C	+GAC Split	Construction of a 4 MGD conventiional water treatment plant with new 2 MGD split treatment GAC contactors after media filtration and prior to chlorination	25	32	47%	47	40	3	$9,600,000	Currently proposed plan as in Alternative 1. GAC added to absorb organic DBP precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional units can be added to further reduce DBP's in the future.	Pilot testing may be required to prove design/obtain KDOW approval and is recommended to verify operating parameters, especially GAC life.
1D	+GAC Split and UV Disinfection	Construction of new 4 MGD conventional water treatment plant with 2 MGD split treatment GAC contactors after media filtration, UV for primary disinfection and chlorination for residual disinfection	25	32	47%	47	40	5.5	$10,200,000	Currently proposed plan as in alternative 1. GAC added to absorb organic DBP precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional units can be added to further reduce DBP's in the future. UV disinfection of entire flow for additional log reduction of cryptosporidium.	Pilot testing may be required to prove design/obtain KDOW approval and is recommended to verify operating parameters, especially GAC life.Measurements of UV transmittance required to verify light intensity required to achieve 2.5 log removal.
1E	+GAC Full	Construction of new 4 MGD conventional water treatment plant and GAC contactors after media filtration and prior to chlorination	14	18	62%	27	23	3.5-4.0	$10,100,000	Currently proposed plan as in Alternative 1. 4 MGD GAC contactor system added to absorb organic DBP precursors prior to chlorination.	Pilot testing may be required to prove design/obtain KDOW approval and is recommended to verify operating parameters, especially GAC life.
1F	+Nanofiltration Split	Construction of a new 4.4 MGD conventional water treatment plant with 2 MGD split treatment nanofiltration system after media filtration and prior to chlorination	20	26	45%	39	33	3-3.5	$11,800,000	Surface water treatment capacity increased to 4.4 MGD to account for membrane reject. Nanofiltration added to remove organic precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional nanofiltration skids can be added to further reduce DBP's in the future.	Pilot testing may be required to prove design/obtain KDOW approval and should be conducted to confirm nanofiltration system performance and verify operating parameters. Concentrate disposal must be permitted.
2	Conventional/ Membrane Filtration	Construction of new 4 MGD conventional water treatment plant, ultrafiltration, with sodium permanganate feed, PAC feed, covered sedimenation basins, post filtration free chlorination for primary disinfection	33	43	10%	64	55	5.5	$11,000,000	Currently proposed plan as in Alternative 1, except conventional media filtration has been replaced with membrane filtration to achieve enhanced removal of particulates and cryptosporidium	Pilot testing may be required to prove design/obtain KDOW approval and should be conducted to confirm system performance and verify operating parameters.
2A	+Enhanced	Construction of above with additional chemical feeds to provide enhanced coagulation and feed alternative disinfectant to control algae in settler	26	33	19%	51	43	5.5	$11,400,000	Alternative 2 with additional chemical feed facilities added to provide pH adjustment prior to coagulation and for the finished water to increase level of DBP removal.	Pilot testing may be required to prove design/obtain KDOW approval and should be conducted to confirm system performance and verify operating parameters.
2B	+GAC Split	Construction of new 4.2 MGD conventional water treatment plant with 2 MGD split treatment GAC contactors after ultrafiltration and prior to chlorination	23	30	43%	45	38	5.5	$11,700,000	Alternative 2 above with GAC contactors added to absorb organic DBP precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional units can be added to further reduce DBP's in the future.	Pilot testing may be required to prove design/obtain KDOW approval and should be conducted to confirm system performance and verify operating parameters.
3	Integrated Membrane	Construction of a surface water treatment plant including coagulation/flocculation, ultrafiltration, split treatment nanofiltration membrane treatment and free chlorination for primary disinfection	19	25	53%	37	31	5.5	$14,100,000	Use of membrane processes to remove crypto oocsts from the raw water, provide a higher level of solids removal, and remove precursors using nanofiltration	Pilot testing may be required to prove design/obtain KDOW approval and should be performed to demonstrate membrane and nano-filtration system performance and verify operating parameters. Concentrate disposal must be permitted.

Notes:

1. Comparative average disinfection byproducts concentrations (ug/L) based upon the historical average levels measured at the WTP and the expected removal rates of the processes proposed in each alternative. TTHM maximum contaminant level is 80 ug/L and THAA maximum contaminant level is 60 ug/L.
2. Comparative average disinfection byproducts concentrations (ug/L) based upon the historical average levels measured in the distribution system at station 274 and the expected levels of precursor removal of each of the proc

Table 2 - Three Primary Treatment Alternatives

Treatment Process Addendum - Ohio County Water District WTP

#	Alternative	Description	Average WTP DBP's[1]		Precursor	Average Distribution DBP's[2]		Log Removal of Cryptosporidium	Construction Cost	Comments	Implementation Considerations
			TTHM	THAA	Removal	TTHM	THAA				
1A	Conv. Media Filtration+Enhanced Coagulation	Construction of additional chemical feeds to provide enhanced coagulation and feed alternative disinfectant to control algae in settler	27	35	5%	54	45	3-3.5	$9,300,000	Currently proposed plan as in Alternative 1 with additional chemical feed facilities added to provide pH adjustment prior to coagulation and for the finished water to increase level of DBP removal. Additional measures may be required to comply with DBP Rule and for future Microbial compliance.	Jar testing would be recommended to select optimum coagulant and verify: increased removal of DBP's, operating parameters and dosages for chemical feed system design.
1D	Conv. Media Filtration +GAC Split + UV Disinfection	Construction of new 4 MGD conventional water treatment plant with 2 MGD split treatment GAC contactors after media filtration, UV for primary disinfection and chlorination for residual disinfection	25	32	47%	47	40	5.5	$10,200,000	Currently proposed plan as in alternative 1. GAC added to absorb organic DBP precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional units can be added to further reduce DBP's in the future. UV disinfection of entire flow for additional log reduction of cryptosporidium by inactivation.	Pilot testing may be required to prove design/obtain KDOW approval and is recommended to verify operating parameters, especially GAC life.Measurements of UV transmittance required to verify light intensity required to achieve 2.5 log removal.
2B	Membrane Filters +GAC Split	Construction of new 4.2 MGD conventional water treatment plant with 2 MGD split treatment GAC contactors after ultrafiltration and prior to chlorination	23	30	43%	45	38	5.5	$11,700,000	Alternative 2 above with GAC contactors added to absorb organic DBP precursors prior to chlorination. Half of filtered water treated to reduce capital costs. Additional units can be added to further reduce DBP's in the future. Most advance technology applied for filtration; cryptosporidium removed.	Pilot testing may be required to prove design/obtain KDOW approval and should be conducted to confirm system performance and verify operating parameters.

Notes:

1. Comparative average disinfection byproducts concentrations (ug/L) based upon the historical average levels measured at the WTP and the expected removal rates of the processes proposed in each alternative. TTHM maximum contaminant level is 80 ug/L and THAA maximum contaminant level is 60 ug/L.
2. Comparative average disinfection byproducts concentrations (ug/L) based upon the historical average levels measured in the distribution system at station 274 and the expected levels of precursor removal of each of the processes proposed in each alternative.

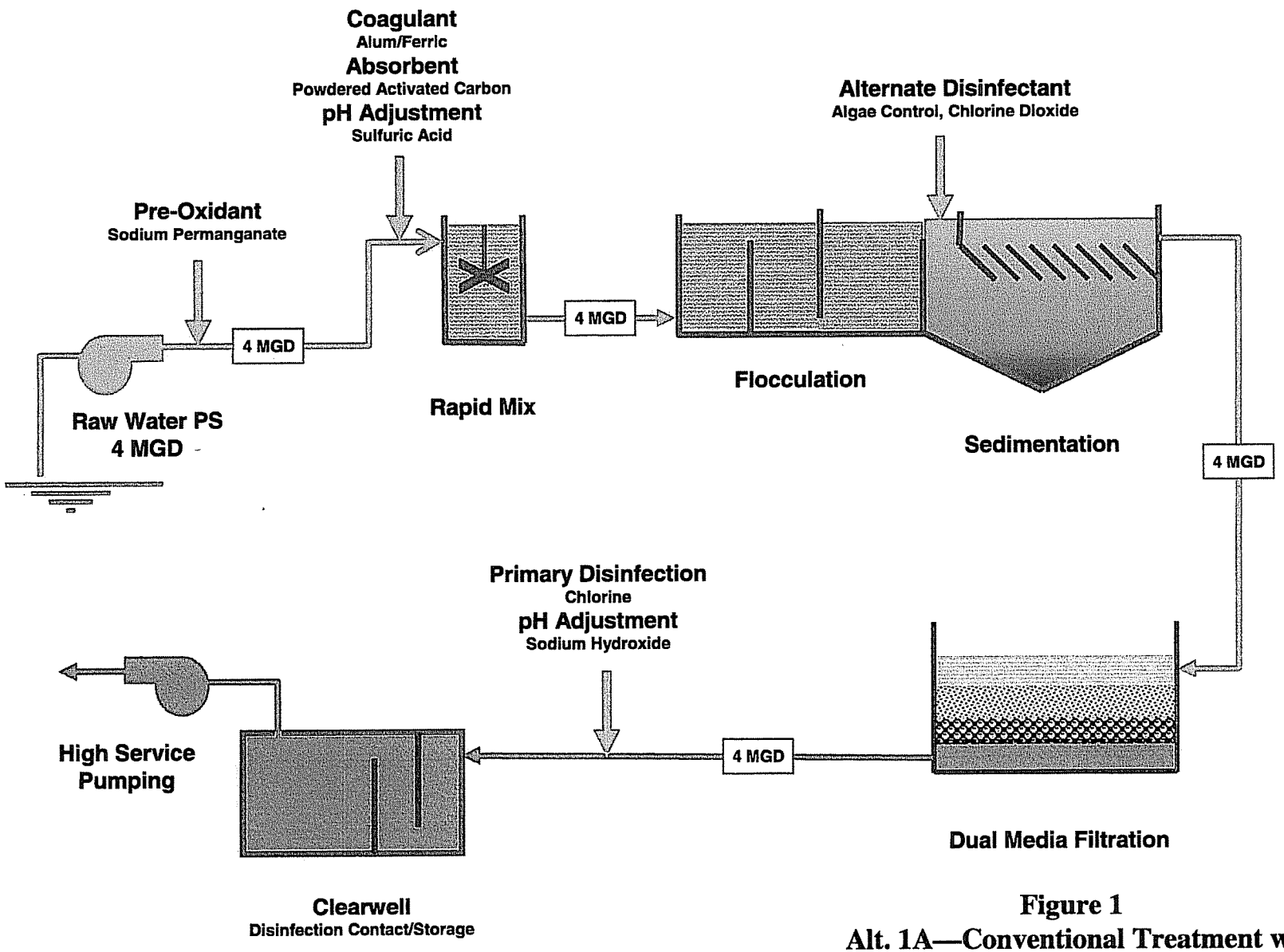


Figure 1
Alt. 1A—Conventional Treatment w/ Enhanced Coagulation and Post Filtration Disinfection.

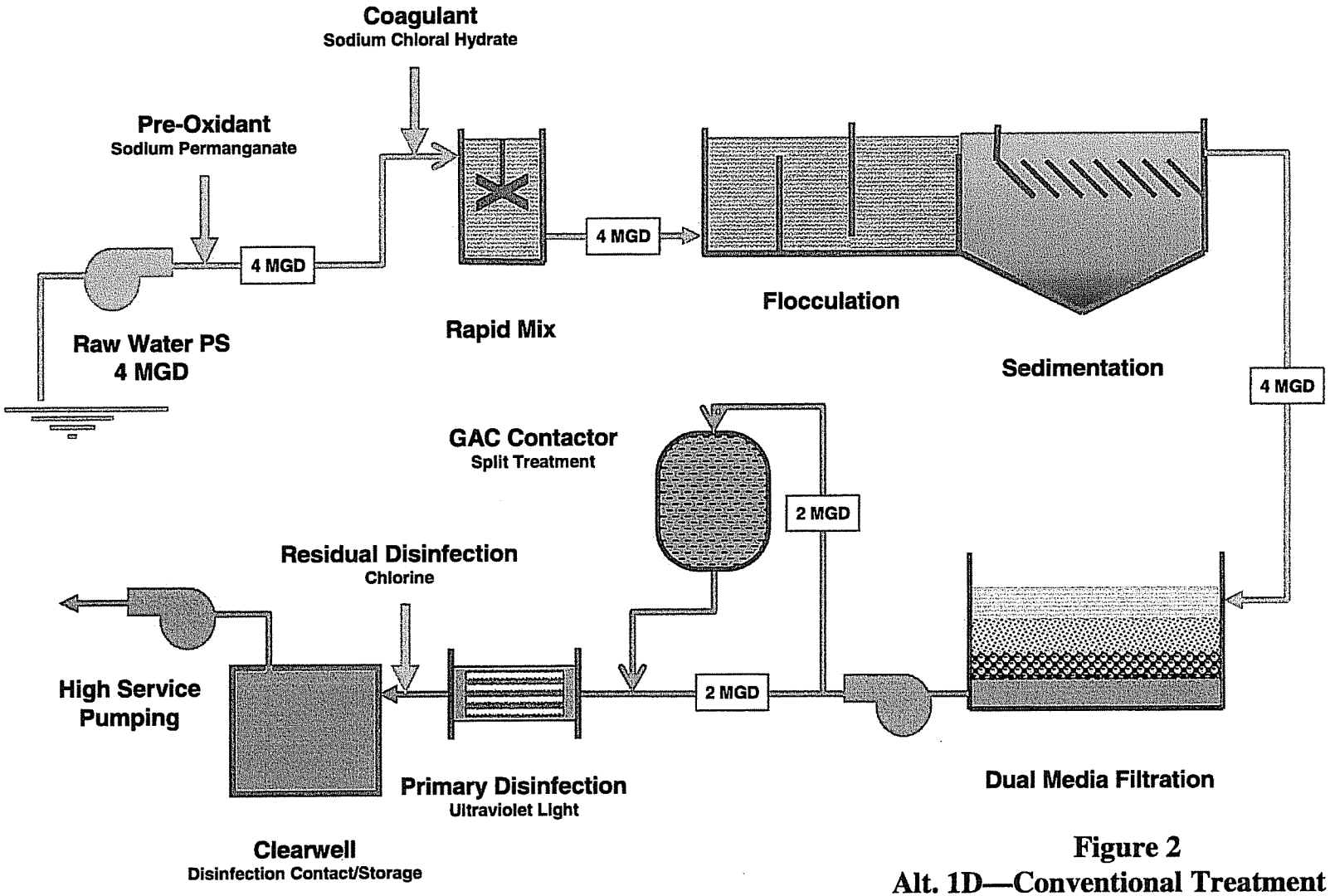


Figure 2
Alt. 1D—Conventional Treatment w/ Split Treatment GAC Contactors and UV Disinfection

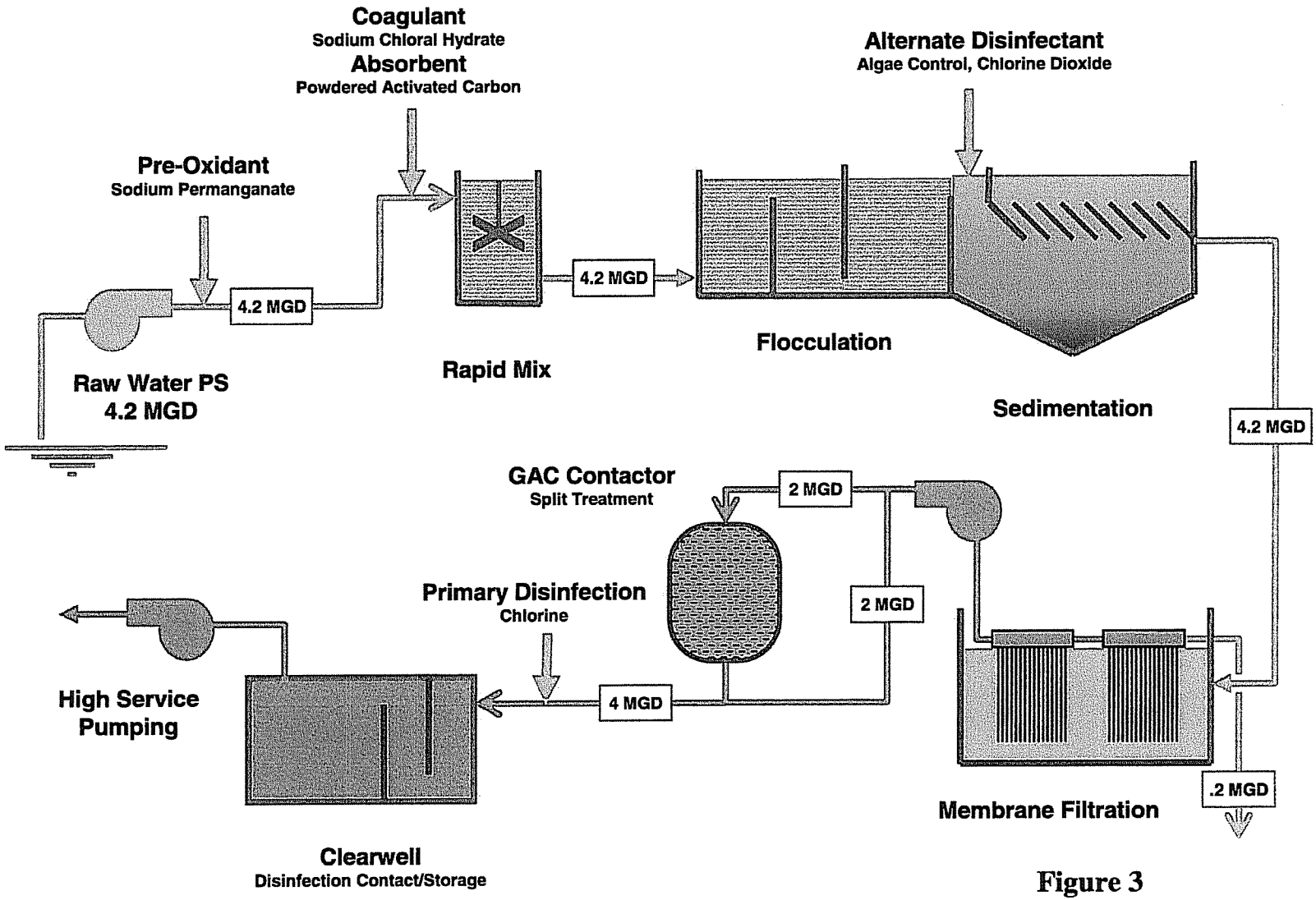
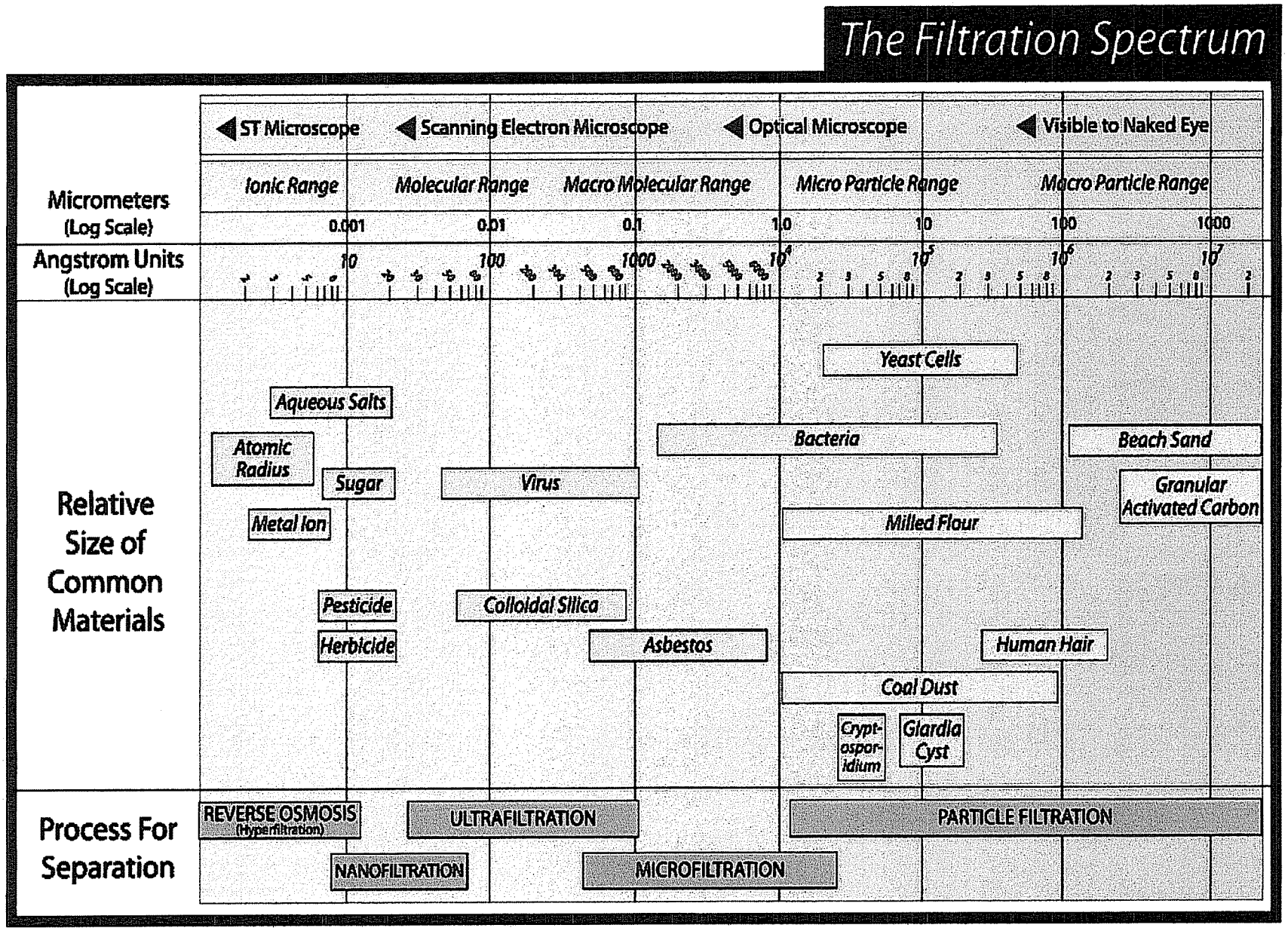


Figure 3
Alt. 2B—Conventional Treatment w/ Membrane Filtration and Split Treatment Granular Activated Carbon Contactors



Adapted from Osmonics

Figure 4

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Table 3 - Costs Comparison of Primary Treatment Process Alternatives February 13, 2007

Treatment Process Addendum - Ohio County Water District WTP

Item Description	Estimated Costs		
	Conv + Enh(1A)	+UV+GACSplit (1D)	MbFlt+Enh+GAC Spl (2B)
Construction Cost	$9,300,000	$10,200,000	$11,700,000
Sub-Total Other Project Cost	$1,660,000	$1,860,000	$2,000,000
Total Estimated Project Costs (rounded to half million)	$11,000,000	$12,500,000	$14,000,000
Project Funding			
Rural Development Loan	$4,100,000	$5,000,000	$6,000,000
Rural Development Grant	$1,000,000	$1,000,000	$1,500,000
Economic Development Grant	$1,500,000	$1,500,000	$1,500,000
Ohio County Fiscal Court Contribution	$4,000,000	$4,000,000	$4,000,000
Ohio County Water District Contribution	$400,000	$1,000,000	$1,000,000
Total Estimated Project Funding	$11,000,000	$12,500,000	$14,000,000
Annual Cost			
New Debt @ 4% for 40 Yrs.	$205,000	$250,000	$300,000
Existing Debt:			
KIA, $2.13M thru 2014	$213,000	$213,000	$213,000
GMAC, $0.06M thru 2013	$10,500	$10,500	$10,500
Series '98, $3.4M thru 2028 @ 4.85%	$254,000	$254,000	$254,000
Series '00, $3.7M thru 2030 @ 5.4%	$266,000	$266,000	$266,000
Series '03, $1.6M thru 2023 @ 2.5 to 4.3%	$132,000	$132,000	$132,000
Operation & Maintenance	$2,005,000	$2,125,000	$2,125,000
Depreciation Expense:			
Raw Water, Distribution, and General Plant	$465,000	$465,000	$465,000
New Water Treatment Plant	$275,000	$312,500	$350,000
Total Estimated Annual Cost	$3,825,500	$4,028,000	$4,115,500

Appendices

A – Revised Construction Cost Estimate

B – Revised Project Cost Estimate

C – Revised Operation & Maintenance Cost Estimate

E – Revised Funding Plan and Rate Increase Estimate

I – US EPA DBP and LT2 Guidance Documents

J – Project Map (Figure 1 from the Revised Preliminary Engineering Report)

(Appendices D, F, G, and H unchanged, see the
Revised Preliminary Engineering Report)

Appendix A
Revised Construction Cost Estimate
Treatment Process Addendum
Ohio County Water District WTP
February 2007

Treatment Alternate 2B
Coagulation + Sedimentation + Membrane Ultra Filtration + Split Flow GAC Contactor

Item	Estimated Cost
Raw Water Facilities	$415,000
Conventional Coagulation/Sedimentation Treatment	$1,415,000
Chemical Feed Facilities	$220,000
Membrane Filtration System	$2,200,000
Filtration Building	$580,000
Granular Activated Carbon Filters	$550,000
Clearwell Storage	$950,000
High Service Pumping & Transmission Mains	$250,000
16" Main to Feed Windy Hill & Olatin Tanks	$300,000
Sludge Handling and Disposal	$845,000
Control, Office, Lab & Storage Buildings	$250,000
Site Work	$115,000
Mechanical	$600,000
Electrical	$800,000
Miscellaneous	$400,000
Contractor Overhead and Profit	$800,000
Sub-Total (rounded)	$10,700,000
Construction Contingency	$1,000,000
Estimated Construction Cost	$11,700,000

Appendix B
Revised Project Cost Estimate
Treatment Process Addendum
Ohio County Water District WTP
February 2007

Item Description	Estimated Costs
Construction Cost	$11,700,000
Other Project Cost:	
Land and Rights-of-Way	$150,000
Legal and Administrative	$75,000
Interest During Construction	$125,000
Environmental Studies & Archeological Survey	$25,000
THM and HAA Treatability Study	$13,800
Capacity and Operations Optimization Study, Existing WTP	$17,700
Preliminary Engineering Report	$20,000
Owensboro Treated Water Supply Feasibility Study	$20,000
Hydraulic Model Development and System Analysis	$31,500
Revised Preliminary Engineering Report	$15,000
Treatment Process Reassessment/Addendum for Stage 2 DBP & LT2	$25,000
Pilot Testing for Stage 2 DBP/LT2 Processes	$200,000
Basic Engineering Fees	$700,000
Resident Inspection Fees	$450,000
Site Boundary Surveys	$15,000
Geotechnical Investigations	$30,000
Coagulation and Sedimentation Jar Testing	$10,000
Operation and Maintenance Manual	$40,000
Start Up and Operations Assistance	$30,000
Contingency (not including construction contingency)	$307,000
Sub-Total Other Project Cost	$2,300,000
Total Estimated Project Costs	$14,000,000

Appendix C
Revised Operation & Maintenace Costs Estimate
Treatment Process Addendum
Ohio County Water District WTP
February 2007

Operating Expenses	Annual Trend from Recent Audits	Inflation Change through 2009	Adjustments, Loss of Perdue Production & Process Changes	Projected Total, First Year, 2009
Salaries and Wages, Employees	$694,000	$104,100	$90,000	$888,100
Benefits, Employee	$143,200	$21,500	$19,500	$184,200
Power Purchased	$145,100	$21,800	$72,400	$239,300
Chemicals	$31,500	$4,700	$117,500	$153,700
Materials and Supplies	$108,700	$16,300	$25,000	$150,000
Services, Engineering	$22,900	$3,400	$3,600	$29,900
Services, Accounting and Legal	$47,800	$7,200	$0	$55,000
Services, Water Testing	$19,800	$3,000	$10,000	$32,800
Services, Other	$110,300	$16,500	$12,000	$138,800
Rental, Real Estate	$11,800	$1,800	$0	$13,600
Rental, Equipment	$2,200	$300	$0	$2,500
Transportation Expenses	$59,100	$8,900	$0	$68,000
Insurance, Vehicles	$5,700	$900	$0	$6,600
Insurance, GL	$3,200	$500	$0	$3,700
Insurance, Workers Comp	$13,800	$2,100	$1,800	$17,700
Insurance, Other	$9,500	$1,400	$0	$10,900
Advertising	$1,100	$200	$0	$1,300
Bad Debt	$16,700	$2,500	$0	$19,200
Miscellaneous	$28,000	$4,200	$6,700	$38,900
Taxes, Payroll, Employers Part	$51,000	$7,600	$6,900	$65,500
Taxes, Other	$4,600	$700	$0	$5,300
Operating Expense Total for Year	$1,530,000	$229,600	$365,400	$2,125,000

Appendix E
Revised Funding Plan and Estimated Water Rate Increase
Treatment Process Addendum
Ohio County Water District WTP
February, 2007

Item Description			Cost
Total Estimated Project Costs			$14,000,000
Refinancing Plan:			
Series 1998 Commercial Issue			$3,400,000
Series 2000 Commercial Issue			$3,700,000
Total Required Funding			$21,100,000
Funding Source and Amount:			
Rural Development Grant			$1,500,000
Economic Development Grant			$1,500,000
Ohio County Fiscal Court Contribution			$4,000,000
Ohio County Water District Contribution:			
Pay Down on '98 & '00 Bond Issues		$800,000	
New Capital Investment		$300,000	$1,100,000
Rural Development Loan:			
New Capital Investment		$6,700,000	
Balance of '98 and '00 Bond Issues		$6,300,000	$13,000,000
(percent of total RD Loan for Refinancing	48%)		
Total From Funding Sources			$21,100,000
Annual Cost			
New Debt @ 4% for 40 Yrs.			$650,000
Existing Debt:			
KIA, $2.13M thru 2014			$213,000
GMAC, $0.06M thru 2013			$10,500
Series '98, $3.4M thru 2028 @ 4.85% (refinanced)			$0
Series '00, $3.7M thru 2030 @ 5.4% (refinanced)			$0
Series '03, $1.6M thru 2023 @ 2.5 to 4.3%			$132,000
Operation & Maintenance			$2,125,000
Depreciation Expense:			
Raw Water, Distribution, and General Plant			$465,000
New Water Treatment Plant @	40 years		$350,000
Total Estimated Annual Cost			$3,945,500
Annual Revenue			
Projected in 2009, Existing Rates			$3,335,000
Surplus (Deficit)			($610,500)
Mitigation Measures:			
Postpone Depr. Recovery (until 2015, KIA-GMAC Retired)			$223,500
Additional Reduction in Depr. Recovery			$16,500
Balance to Recover with Additional Rates			($370,500)
Rate Increase Indicated			11.1%

Appendix I

US EPA Guidance Documents
Treatment Process Addendum
Ohio County Water District WTP

I – 1, Summary of Microbial and DBP Rules
I – 2, LT2 ESWTR Compliance Timeline
I – 3, Quick Reference Guide, LT2 ESWTR

Table 1.1. Summary of Microbial and DBP Rules

Surface Water Treatment Rules – Minimum Treatment Requirements[1]				
Regulation	***Giardia***	**Virus**	***Cryptosporidium***	
SWTR	3-log removal and/or inactivation	4-log removal and/or inactivation	Not addressed	
IESWTR and LT1ESWTR	No change from SWTR		2-log removal	
LT2ESWTR	No change from SWTR		0- to 2.5-log additional treatment for filtered systems[2]	
			2- or 3-log inactivation for unfiltered systems[2]	
DBP Rules – MCLs Based on Running Annual Averages (RAAs) or Locational RAAs (LRAAs)				
Regulation	**Total Trihalomethanes (TTHM) (µg/L)[3]**	**Five Haloacetic Acids (HAA5) (µg/L)[3]**	**Bromate (µg/L)[3]**	**Chlorite (µg/L)[3]**
Stage 1 DBPR	80 as RAA	60 as RAA	10	1000
Stage 2 DBPR[4]	80 as LRAA	60 as LRAA	No change from Stage 1	

[1] The term "log" means the order of magnitude reduction in concentration; e.g., 2-log removal equals a 99% reduction, 3-log removal equals a 99.9% reduction, and 4-log removal equals a 99.99-percent reduction.
[2] Specific requirements for each plant depend on source water monitoring results and current treatment practices (40 CFR 141.710 – 141.712).
[3] micrograms/liter (µg/L)
[4] Monitoring locations for LRAAs are identified from the Initial Distribution System Evaluation.

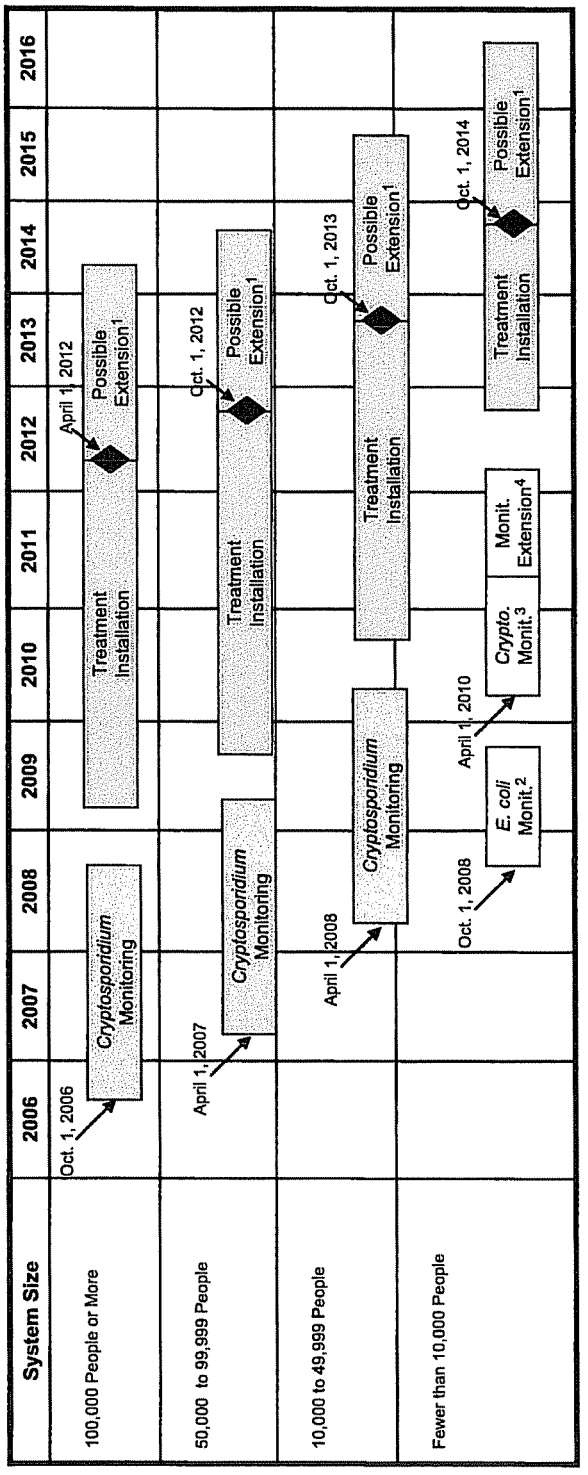
The following sections describe LT2ESWTR requirements for filtered and unfiltered PWSs.

1.3.1 Filtered PWSs

The LT2ESWTR requires filtered PWSs to conduct source water monitoring[3] to determine average *Cryptosporidium* concentrations. Based on the monitoring results, filtered PWSs will be classified in one of four possible treatment bins. A PWS's bin classification determines the extent of any additional *Cryptosporidium* treatment requirements. The rule requires filtered PWSs to comply with additional treatment requirements by using one or more management or treatment techniques from a "microbial toolbox" of options (40 CFR 141.711). UV is one option in the microbial toolbox; see the LT2ESWTR for additional options (40 CFR 141.715).

[3] The full monitoring requirements are described in the *Source Water Monitoring Guidance Manual for Public Water Systems for the Long Term 2 Enhanced Surface Water Treatment Rule* (USEPA 2006).

Figure 1.1. LT2ESWTR Compliance Timeline for Initial Source Water Monitoring and Treatment Installation



1 Two-year extension may be granted at the discretion of the state for systems requiring capital improvements.
2 *E. coli* monitoring applies only to filtered systems or unfiltered systems that are required to install filtration.
3 *Cryptosporidium* monitoring for small systems is necessary only if *E. coli* monitoring indicates an annual mean concentration greater than 50 *E. coli* per 100 mL.
4 Systems serving fewer than 10,000 people may monitor *Cryptosporidium* either by collecting two samples per month for one year or one sample per month for two years.

EPA
United States
Environmental Protection
Agency

Long Term 2 Enhanced Surface Water Treatment Rule: A Quick Reference Guide For Schedule 3 Systems

Overview of the Rule

Title	Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) 71 FR 654, January 5, 2006, Vol. 71, No. 3
Purposes	Improve public health protection through the control of microbial contaminants by focusing on systems with elevated *Cryptosporidium* risk. Prevent significant increases in microbial risk that might otherwise occur when systems implement the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR).
General Description	The LT2ESWTR requires systems to monitor their source water, calculate an average *Cryptosporidium* concentration, and use those results to determine if their source is vulnerable to contamination and may require additional treatment.
Utilities Covered	▸ Public water systems (PWSs) that use surface water or ground water under the direct influence of surface water (GWUDI). ▸ Schedule 3 systems include PWSs serving 10,000 to 49,999 people OR wholesale PWSs that are part of a combined distribution system in which the largest system serves 10,000 to 49,999 people.

Major Provisions

Control of *Cryptosporidium*

Source Water Monitoring	Filtered and unfiltered systems must conduct 24 months of source water monitoring for *Cryptosporidium*. Filtered systems must also record source water *E. coli* and turbidity levels. Filtered systems will be classified into one of four "Bins" based on the results of their source water monitoring. Unfiltered systems will calculate a mean *Cryptosporidium* level to determine treatment requirements. Systems may also use previously collected data (i.e., Grandfathered data). Filtered systems providing at least 5.5 log of treatment for *Cryptosporidium* and unfiltered systems providing at least 3-log of treatment for *Cryptosporidium* and those systems that intend to install this level of treatment are not required to conduct source water monitoring.
Installation of Additional Treatment	Filtered systems must provide additional treatment for *Cryptosporidium* based on their bin classification (average source water *Cryptosporidium* concentration), using treatment options from the "microbial toolbox." Unfiltered systems must provide additional treatment for *Cryptosporidium* using chlorine dioxide, ozone, or UV.
Uncovered Finished Water Storage Facility	Systems with an uncovered finished water storage facility must either: ▸ Cover the uncovered finished water storage facility; or, ▸ Treat the discharge to achieve inactivation and/or removal of at least 4-log for viruses, 3-log for *Giardia lamblia*, and 2-log for *Cryptosporidium*.

Disinfection Profiling and Benchmarking

After completing the initial round of source water monitoring any system that plans on making a significant change to their disinfection practices must:

- Create disinfection profiles for *Giardia lamblia* and viruses;
- Calculate a disinfection benchmark; and,
- Consult with the state prior to making a significant change in disinfection practice.

Bin Classification For Filtered Systems

Cryptosporidium Concentration (oocysts/L)	Bin Classification	Additional *Cryptosporidium* Treatment Required			Alternative Filtration
		Conventional Filtration	Direct Filtration	Slow Sand or Diatomaceous Earth Filtration	
< 0.075	Bin 1	No additional treatment required	No additional treatment required	No additional treatment required	No additional treatment required
0.075 to < 1.0	Bin 2	1 log	1.5 log	1 log	(1)
1.0 to < 3.0	Bin 3	2 log	2.5 log	2 log	(2)
≥ 3.0	Bin 4	2.5 log	3 log	2.5 log	(3)

(1) As determined by the state (or other primacy agency) such that the total removal/inactivation > 4.0-log.
(2) As determined by the state (or other primacy agency) such that the total removal/inactivation > 5.0-log.
(3) As determined by the state (or other primacy agency) such that the total removal/inactivation > 5.5-log.

For additional information on the LT2ESWTR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA web site at www.epa.gov/safewater/disinfection/lt2; or contact your state drinking water representative.

Inactivation Requirements for Unfiltered Systems

Cryptosporidium Concentration (oocysts/L)	Required *Cryptosporidium* Inactivation
≤ 0.01	2-log
> 0.01	3-log

Critical Deadlines and Requirements

For Drinking Water Systems (Schedule 3)

January 1, 2008	**Systems must submit their:** ▸ **Sampling schedule that specifies the dates of sample collection and location of sampling for initial source water monitoring to EPA electronically; or** ▸ **Notice to EPA or the state of the system's intent to submit results for grandfathering data; or** ▸ **Notice to EPA or the state of the system's intent to provide at least 5.5-log of treatment for *Cryptosporidium* for filtered systems or 3-log of treatment for unfiltered systems. Systems should consult with EPA or their state prior to submitting this notice.**
April 2008	**No later than this month, systems must begin 24 months of source water monitoring.**
April 1, 2008	**No later than this date, systems must notify the EPA or the state of all uncovered treated water storage facilities.**
June 10, 2008	**Systems submit results for first month of source water monitoring.**
June 1, 2008	**No later than this date, systems must submit monitoring results for data that they want to have grandfathered.**
April 1, 2009	**No later than this date, uncovered finished water storage facilities must be covered, or the water must be treated before entry into the distribution system, or the system must be in compliance with a state approved schedule.**
March 2010	**No later than this month, systems must complete their initial round of source water monitoring.**
September 2010	**No later than this month, filtered systems must report their initial bin classification to the EPA or the state for approval.**
September 2010	**No later than this month, unfiltered systems must report the mean of all *Cryptosporidium* sample results to the EPA or the state.**
September 30, 2013	**Systems must install and operate additional treatment in accordance with their bin classification (filtered systems) or mean *Cryptosporidium* level (unfiltered systems).†**
July 1, 2016	**Systems must submit their sampling schedule that specifies the dates of sample collection and location of sampling for second round of source water monitoring to the state.**
Ocotber 1, 2016	▸ **Systems are required to begin conducting a second round of source water monitoring.** ▸ **Based on the results, systems must re-determine their bin classification (filtered systems) or mean *Cryptosporidium* level (unfiltered systems) and provide additional *Cryptosporidium* treatment, if necessary.**

For States

July - December 2006	**States are encouraged to communicate with affected systems regarding LT2ESWTR requirements.**
April 1, 2007	**States are encouraged to communicate LT2ESWTR requirements related to treatment, uncovered finished water reservoirs, and disinfection profiling to affected systems.**
October 5, 2007	**States are encouraged to submit final primacy applications or extension requests to EPA.**
January 5, 2008	**Final primacy applications must be submitted to EPA, unless granted an extension.**
December 31, 2009	**States should begin determining *Cryptosporidium* treatment credit for primary treatments already in place.**
January 5, 2010	**Final primacy revision applications from states with approved 2-year extensions agreements must be submitted to EPA.**
June 30, 2014	**States should award *Cryptosporidium* treatment credit for toolbox option implementation.**

† States may allow up to an additional 24 months for compliance for systems making capital improvements.

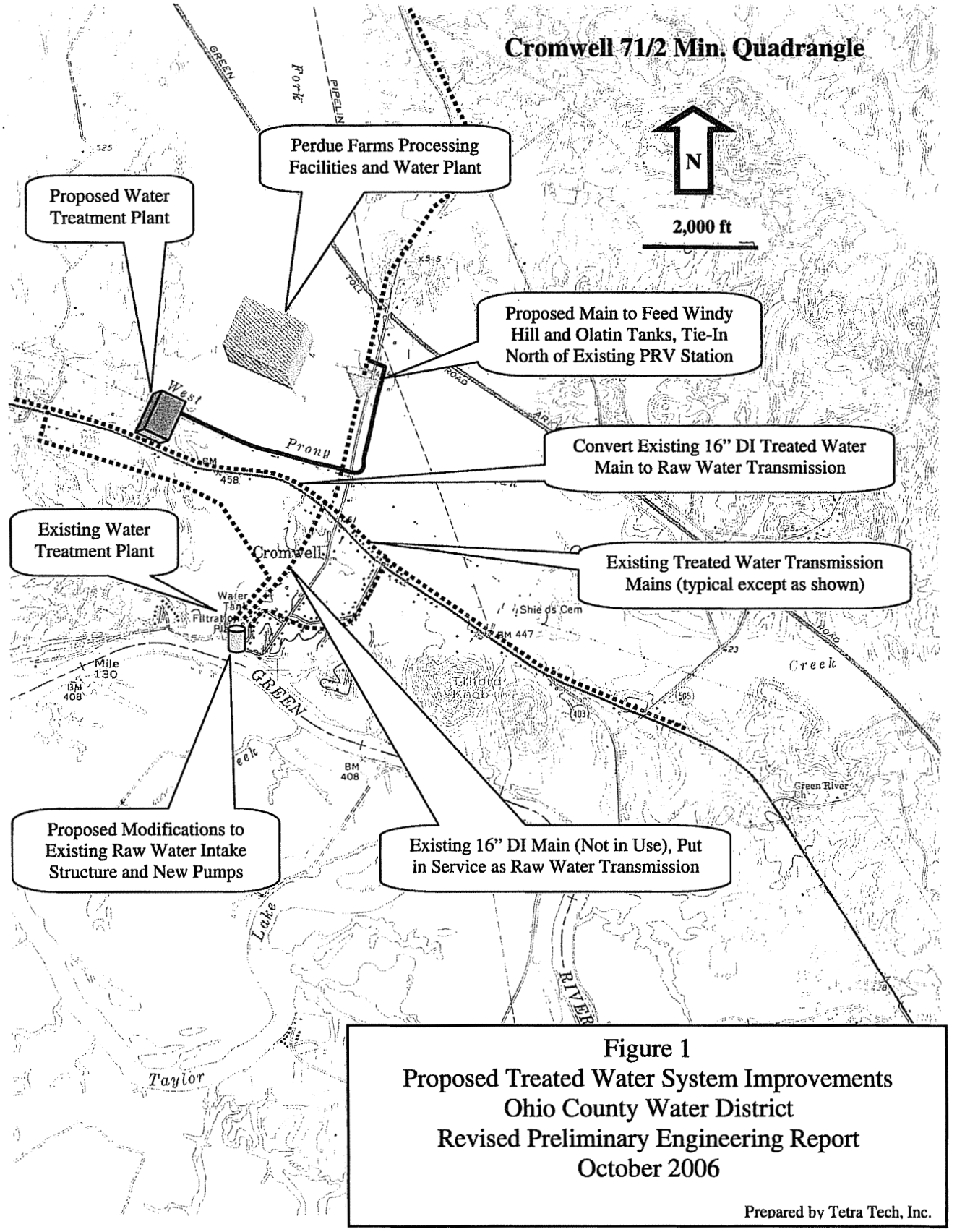
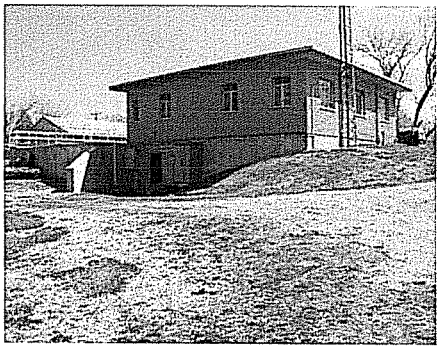
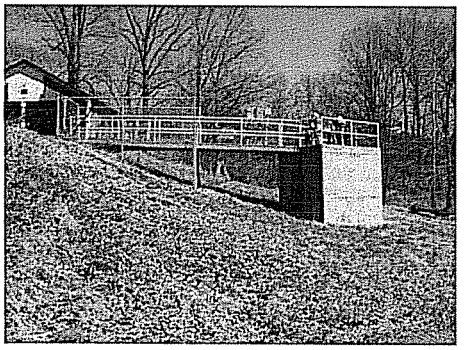
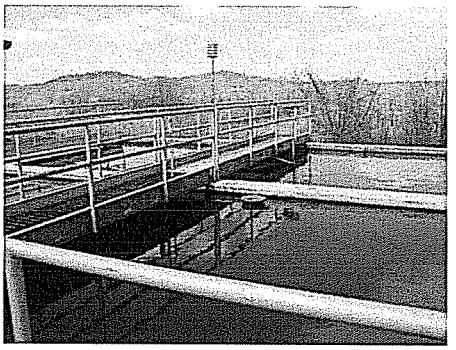


Figure 1
Proposed Treated Water System Improvements
Ohio County Water District
Revised Preliminary Engineering Report
October 2006

Prepared by Tetra Tech, Inc.

Revised Preliminary Engineering Report
Treated Water System Improvements

Ohio County Water District

September 2006
(revised October 2006)

TETRA TECH, INC.

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I. INTRODUCTION

Ohio County Water District (OCWD) provides treated drinking water to approximately 7,500 residential, commercial, and institutional customers in McLean, Daviess, Breckinridge, and Ohio Counties, including the customers of the Cities of Beaver Dam and Fordsville, both of whom buy treated water from OCWD for resale. OCWD obtains its treated water from a combination of the District's 2 million gallon per day (MGD) water treatment plant (WTP) and a 3 MGD WTP owned by Perdue Farms, a large scale commercial chicken processing facility. Both WTPs are located in the community of Cromwell and obtain raw water from separate intakes in the Green River.

Perdue Farms, under a 1994 Agreement with multiple government entities (Ohio County Fiscal Court, Ohio County Industrial Development Authority, and OCWD – hereafter Government) has provided up to 1 MGD of treated water to OCWD. In January 2006, by Amendment 2 to the 1994 Agreement, Perdue's obligation was reduced to 550,000 gallons per day (GPD) through February 2009, at which time Perdue would have no further obligation to supply water to the District. This amendment voided original provisions that conveyed the Perdue WTP to the Government in February 2009. Likewise, original provisions requiring Ohio County Fiscal Court to pay Perdue $500,000 annually through February 2009 were rescinded.

Although these concessions resulted in a savings to the County of $2,300,000, the primary purpose for the Government parties agreeing to these concessions was to accommodate Perdue's expansion plans that are expected to add scores of new jobs in the period 2006 through 2009. However, these concessions force OCWD to proceed immediately with plans to increase its treated water capacity.

Fortunately, the District began studying options for increasing treated water supply early in 2004. Since beginning this effort, a lot of work has been completed. The major items of work completed are:

- Trihalomethane (THM) and Haloacetic Acid (HAA) Evaluation; report of same title dated May 2004 on file with the Kentucky Division of Water (KYDOW), OCWD, and Tetra Tech
- Hydraulic Model of the Distribution System; maintained by Tetra Tech
- Preliminary Engineering Report, Existing Water Treatment Plant Capacity and Operations Improvements, dated December 2004; on file with OCWD and Tetra Tech
- Preliminary Engineering Report, Water Treatment Plant Improvements; an Update of the above report, dated September 2005; on file with OCWD and Tetra Tech
- Feasibility Analysis, Purchasing Treated Water from Owensboro Municipal Utilities and/or Grayson County Water District; this work was completed early in 2006 and the results are discussed in a subsequent section of this Revised Preliminary Engineering Report

Key findings from the above studies include: 1) OCWD's peak day demand by February 2009 will exceed 2.3 MGD; 2) the existing WTP, although nominally rated as 2.0 MGD, can only produce 1.8 to 1.9 MGD; 3) the existing WTP cannot meet requirements of current and upcoming drinking water regulations; 4) current sludge handling and treatment systems are insufficient; and, 5) the Ohio County Industrial Development Authority and the Fiscal Court want additional capacity for future industrial growth, beyond that expected from Perdue's operations. To resolve these deficiencies and meet future capacity requirements, a major capital program is required.

Although much work has been completed, the major effort required to meet the February 2009 deadline for replacing treated water now supplied by Perdue remains to be done – that is, design and construction of new or improved/expanded water treatment and delivery capacity.

II. PROJECT PLANNING AREA

The OCWD currently serves a population of 11,739. Most of these customers are located in Ohio County, with a smaller number of customers located in McClean, Davies, and Grayson counties. Ohio County currently wholesales water to the Fordsville and Beaver Dam water systems and has connections to provide water to North McClean County Water District and Grayson County Water District. According to analysis of population and household data from the Kentucky State Data Center, the 2000 census, and a 2002 PSC report, the population served by the OCWD is projected to grow to 13,124 people by 2025, which is an 11.8 percent increase over the 2003 population served of 11,739.

It is estimated that there are approximately 500 unserved customers in the county and 1,140 acres of undeveloped industrial property in Ohio County. OCWD is expected to serve half of the unserved customers by 2025 with the remainder being served by others (page 5 of Appendix F shows the projected residential and commercial water demand through 2025). Average demand is predicted to range from 1.7 MGD in 2006 to 1.8 MGD in 2025; peak day predictions for the same years are 2.3 MGD and 2.5 MGD. Local officials predict with certainty that new industrial development will occur over the next few years. Therefore, assuming that half of the existing industrial property now available in Ohio County industrial parks will be occupied in the next 20 years, the combined residential, commercial, and industrial peak demand prediction for 2025 is 4.0 MGD.

III. EXISTING FACILITIES

A. Tanks, Pump Stations, and Mains

The treated water delivery system includes nine storage tanks. Seven are elevated and two are standpipes. The two tanks on the eastern side of the service area, located at Windy Hill and Olaton, are filled from the high service pumps at the Perdue WTP. The transmission main between the WTP and Windy Hill Tank is 12 inch and the main extending on northward to Olaton Tank is 18 inch. Because daily demand is insufficient to adequately "turn the water

over" on a daily basis, the Olaton tank is not in service. Each of these tanks has storage volume of 500,000 gallons. The remaining tanks are supplied from the high service pumps at OCWD's WTP and a combination of four booster pumping stations. Total tank storage in the OCWD system, including the Olaton Tank, is 3,540,000 gallons. In addition, the City of Beaver Dam, a wholesale customer of OCWD, has a 250,000 gallon elevated tank. (The Rough River tank and pump station were permanently taken out of service in 2006.)

Distribution and transmission mains range in size from 2 inch to 18 inch and total almost 600 miles in length. Approximate quantities by size are tabulated below:

Pipe Diameter	Length
Less than 4"	958,000 feet
4"	723,000 feet
6"	644,000 feet
8"	480,000 feet
10"	96,000 feet
12"	71,000 feet
16"	70,000 feet
18"	33,000 feet

The above estimates include 50,000 feet of 6-inch main planned for construction in the fall of 2006 to serve approximately 40 customers in Breckinridge County.

Overall, the condition of the tanks, pump stations, and mains is good. However, water loss is higher than desirable. In 2003, total losses approached 32 percent of production. A large portion was due to breaks and flushing, but the unaccounted for losses were still high. Since then, management has aggressively pursued loss reduction measures and will have replaced all small meters by the end of 2006. OCWD conducts an active facilities and equipment replacement program using funds derived from depreciation expense recovery.

Other than the water quality problems associated with long detention time, no capital improvements are recommended at this time. It is recommended that OCWD continue its aggressive leakage reduction and facilities replacement program.

B. Water Treatment Plant

OCWD's WTP was constructed at Cromwell in 1965. It was built as a conventional treatment plant consisting of two 700 gallon per minute (GPM) raw water pumps, a 2,040 gallon rapid mix, a 25,860 gallon flocculation basin, two 61,000 gallon settling basins, two 180 square foot rapid sand filters, two 100,000 gallon clearwells, a 3,600 GPM backwash pump, and two 243 GPM high service pumps. Between 1965 and 1979, a third 100,000-gallon clearwell was added. In 1979, a new 32,000-gallon flocculation basin was added, as well as two new 43,000-gallon settling basins. In 1985, a new 250,000-gallon clearwell was built to add capacity to the three existing 100,000-gallon clearwells and two sludge lagoons were constructed. In 1991, a new raw water intake and pump structure was built and two new raw water pumps were installed. In 2002, the two existing filters were refurbished. OCWD currently has two backwash pumps, three high service pumps, and two raw water pumps and the WTP is rated to treat 2.07 MGD.

Multiple deficiencies exist in OCWD's existing WTP that impair or otherwise limit hydraulic capacity to approximately 1.8 to 1.9 MGD. Clearwell capacity is insufficient and half of the existing clearwell capacity is in steel tanks that need to be replaced. Another significant problem is inadequacy of residual sludge handling and treatment facilities, plus the limited space to locate such facilities. However, the most problematic issue is the inability of the WTP process facilities and equipment to comply with Stage 1 and 2 Disinfection By-Product (DBP) regulations.

OCWD also owns high service pumping and control equipment that is located in Perdue's WTP and is used to pump treated water into OCWD's system. This equipment was installed at the Perdue WTP in 1995. It must be removed by February 2009.

IV. NEED FOR PROJECT

The four primary issues driving the project are: pursuit of compliance with THM and HAA limits, need for increased effective clearwell capacity and improved clearwell condition, need for improvement in solids handling capabilities, and future water demand. OCWD regularly exceeds the Stage 1 THM limit of 80 parts per billion (ppb) and the Stage 1 HAA limit of 60 ppb. The Stage 2 limits will be more stringent by requiring compliance on a locational running annual average basis for each sampling point rather than on a system wide running annual average basis.

The OCWD WTP currently has sufficient chlorine contact time (CT) at the rated plant capacity of 2.07 MGD with the pre-chlorination application point downstream of the flocculation basins. However, with the pre-chlorination point moved upstream of the tube settlers, as recommended in the Trihalomethane and Haloacetic Acid Evaluation Report, the current WTP does not meet minimum CT requirements under all temperature conditions. In addition, the three existing 100,000-gallon steel clearwells are in questionable to poor condition and KYDOW has raised concerns about these clearwells. The clearwells need to be upgraded or replaced.

Currently, only approximately one third of the sludge at the Ohio County WTP facility is sent to the lagoons. The remainder of the sludge is sent directly to the creek. The sludge handling facilities at the existing Ohio County WTP are insufficient and need to be upgraded.

V. ALTERNATIVES CONSIDERED

Four alternatives have been studied in great detail for providing OCWD with 4.0 MGD treated water supply by February 2009. Following is a brief discussion of each:

Alternate 1: Improvements and Expansion of the Existing WTP – multiple types of treatment processes at the existing OCWD WTP site were evaluated. The most cost effective type of treatment appears to be Actiflo, but conventional processes were similar in cost and effectiveness. Refer to the September 2005 Preliminary Engineering Report for full details of this evaluation. Total project cost for this option is $10,000,000.

Alternate 2: Purchase Treated Water from Owensboro Municipal Utilities (OMU) – construct a transmission main to Owensboro along the Natcher Parkway to a point of connection with OMU. With this option, the purchase price of treated water was less than OCWD's estimated cost to produce, but the capital costs were 50 percent higher than other alternatives. Long term, this option is predicted to be the more favorable from a regional perspective; however, without regional incentive grants to offset the capital cost difference, financial feasibility is poor. The estimated project cost for this alternative is $18,300,000. An analysis of this alternative, assuming regional grants offset a large portion of the capital costs, is presented in Appendix H.

Alternate 3: Partial Purchase from Grayson County Water District – this alternative is a combination of Alternate 1 and construction of an 8-inch transmission main through Breckinridge County along KY 110 into Grayson County to a point of tie-in with the Water District. This project would have been constructed in two phases, the Grayson County Connection being the first phase. Alternates 2 and 3 are compared in the analysis presented in Appendix H.

Alternate 4: New OCWD WTP at a New Site – construct the Actiflo or conventional process plant at a new site. This alternate was first considered by comparing the cost of building a new treatment plant on a new site located off KY 403, approximately 1½ miles south of Cromwell. This comparison concluded that OCWD would be better served by building on a new site and one located as close as possible to the intersection of US 231 and Cromwell

Road (Appendix G-1). Subsequently two sites at that intersection were investigated, 15 acres owned by Haven in the northwest quadrant and 20 acres owned by Morris in the northeast quadrant. Morris would not consider selling his property. Appendix G-2 presents the comparison of the Haven site with the KY 403 site. Two other sites were ultimately considered and included for analysis; approximately 22 acres owned by Blacklock (abuts east boundary of Morris) and a 33 acre tract, lying west of Cromwell Road, owned by Porter. Analysis of these two sites, shown in Appendix G-3, concluded the investigation of sites. The KY 403 site includes a new raw water intake structure and requires a pumping station on Cromwell Road to supply the Windy Hill and Olatin Tanks. Each of the other site options use the existing raw water intake structure and have high service pumps inside the plant to supply the Windy Hill and Olatin Tanks. The latter also includes a high strength main to the existing point of supply from Perdue's water plant.

VI. RECOMMENDED PROJECT

The recommended project is Alternate 4, the construction of a new WTP on a 15 acre tract of the Porter property. The recommendation is based on: 1) financial feasibility; 2) lower cost to construct a new WTP on a new site than to upgrade/expand the old WTP or build transmission mains to Owensboro and Grayson County; 3) accessibility of the new WTP site compared to the existing site; 4) adequate land area for future expansion; and, 5) improved safety due to distance from residential neighborhoods.

VII. COSTS, FUNDING, AND RATES

The following tabulation shows anticipated costs for the recommended project:

Construction Cost	$ 8,100,000	See Appendix A
Project Cost	$11,100,000	See Appendix B
Operating Cost, first Year, 2009	$ 2,005,000	See Appendix C

Annual Sales Revenue projected in the first full year of operations, 2009, is $3,335,000 with existing rates as shown in Appendix D. Total annual revenue required in the first full year of

operation, including cost recovery for continuing the replacement and leak reduction programs, debt service, and operating costs, is estimated to be $3,687,400. Based on revenue projected with current rates in 2009, an increase in revenue of 11 percent is indicated as shown in Appendix E. A financial pro-forma for the recommended project is presented in Appendix F (page 8 presents a long term perspective of revenue requirements).

Figure 1 shows the general location of major facilities for the proposed new Treated Water System Improvements.

FIGURE 1 – PROPOSED TREATED WATER SYSTEM IMPROVEMENTS

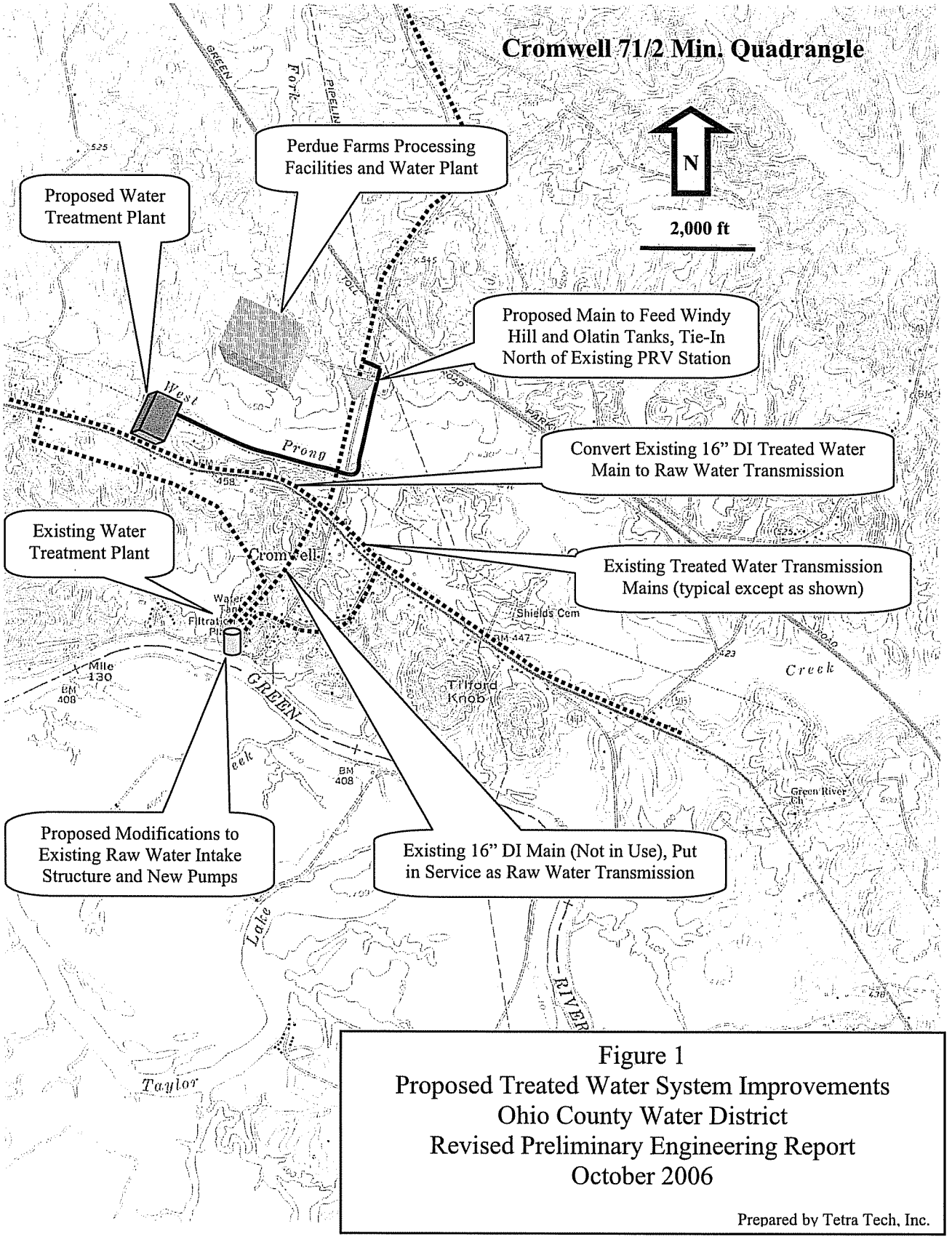


Figure 1
Proposed Treated Water System Improvements
Ohio County Water District
Revised Preliminary Engineering Report
October 2006

Prepared by Tetra Tech, Inc.

APPENDIX A
CONSTRUCTION COST ESTIMATE

Appendix A
Construction Cost Estimate
Treated Water System Improvements
Ohio County Water District
October, 2006

Item	Estimated Cost
Raw Water Facilities	$400,000
Actiflo Process Facilities	$1,371,000
Chemical Feed Facilities	$210,400
Filtration System	$1,073,300
Clearwell Storage	$937,300
High Service Pumping & Transmission Mains	$250,000
16" Main to Feed Windy Hill & Olatin Tanks	$290,000
Sludge Handling and Disposal	$842,800
Control, Office, Lab & Storage Buildings	$198,000
Site Work	$112,300
Chlorinator Station, Windy Hill Tank Site	$48,900
Mechanical	$446,400
Electrical	$682,900
Miscellaneous	$389,200
Contractor Overhead and Profit	$800,000
Estimated Construction Cost (rounded)	$8,100,000

APPENDIX B
PROJECT COST ESTIMATE

Appendix B
Project Cost and Funding
Treated Water Supply Improvements
Ohio County Water District
October, 2006

Item Description	Estimated Costs
Construction Cost	$8,100,000
Other Project Cost:	
Land and Rights-of-Way	$150,000
Legal and Administrative	$150,000
Interest During Construction	$75,000
Administrative Offices, Site and Improvements	$500,000
Environmental Studies & Archeological Survey	$22,000
THM and HAA Treatability Study	$13,800
Existing WTP Capacity, Operational Study and PER	$37,700
Owensboro Treated Water Supply Feasibility Study	$20,000
Hydraulic Model Development and System Analysis	$31,500
Revised Preliminary Engineering Report	$15,000
Basic Engineering Fees	$535,000
Resident Inspection Fees	$335,000
Site Boundary Surveys	$15,000
Geotechnical Investigations	$30,000
Enhanced Coagulation and PAC Jar Testing	$10,000
Operation and Maintenance Manual	$40,000
Start Up and Operations Assistance	$20,000
Contingency	$1,000,000
Sub-Total Other Project Cost	$3,000,000
Total Estimated Project Costs	$11,100,000
Project Funding	
Rural Development Loan	$4,100,000
Rural Development Grant	$1,000,000
Economic Development Grant	$1,000,000
Ohio County Fiscal Court Contribution	$4,000,000
Ohio County Water District Contribution	$1,000,000
Total Estimated Project Funding	$11,100,000

APPENDIX C
OPERATING EXPENSES, FIRST YEAR OF OPERATION, 2009

Appendix C
Operating Expenses
Treated Water Supply Improvements
Ohio County Water District
September 2006

Operating Expenses	Annual Trend from Recent Audits	Inflation Change through 2009	Adjustment Due to Loss of Perdue Production	Projected Total, First Year, 2009
Salaries and Wages, Employees	$694,000	$104,100	$90,000	$888,100
Benefits, Employee	$143,200	$21,500	$19,500	$184,200
Power Purchased	$145,100	$21,800	$25,900	$192,800
Chemicals	$31,500	$4,700	$72,500	$108,700
Materials and Supplies	$108,700	$16,300	$11,500	$136,500
Services, Engineering	$22,900	$3,400	$2,500	$28,800
Services, Accounting and Legal	$47,800	$7,200	$0	$55,000
Services, Water Testing	$19,800	$3,000	$8,100	$30,900
Services, Other	$110,300	$16,500	$0	$126,800
Rental, Real Estate	$11,800	$1,800	$0	$13,600
Rental, Equipment	$2,200	$300	$0	$2,500
Transportation Expenses	$59,100	$8,900	$0	$68,000
Insurance, Vehicles	$5,700	$900	$0	$6,600
Insurance, GL	$3,200	$500	$0	$3,700
Insurance, Workers Comp	$13,800	$2,100	$1,800	$17,700
Insurance, Other	$9,500	$1,400	$0	$10,900
Advertising	$1,100	$200	$0	$1,300
Bad Debt	$16,700	$2,500	$0	$19,200
Miscellaneous	$28,000	$4,200	$6,700	$38,900
Taxes, Payroll, Employers Part	$51,000	$7,600	$6,900	$65,500
Taxes, Other	$4,600	$700	$0	$5,300
Operating Expense Total for Year	$1,530,000	$229,600	$245,400	$2,005,000

APPENDIX D
SALES REVENUE, TEST YEAR USAGE

Appendix D
Sales Revenue, Test Year Usage Analysis
Treated Water Supply Improvements
Ohio County Water District

Test Period: 12 Months July 22, 2005 through July 21, 2006
All Meter Sizes Included

Monthly Rate	Volume in Gallons/Month
$19.93	Minimum 2,000
$8.28	per 1000 n 18,000
$7.16	30,000
$6.03	50,000
$4.91	o 100,000
$2.53	Wholesale, per 1000

				Residential Customers			Non-Residential Customers			Total Customers		
Monthly Water Usage		Avegage	Monthly Rate	Readings in the Period	Gallons Sold in Period	Estimated Income	Readings in the Period	Gallons Sold in Period	Estimated Income	Readings in the Period	Gallons Sold in Period	Estimated Income
0 -	0	0	19.93	1,834	0	$36,552	182	0	$3,627	2,016	0	$40,179
0 -	1,000	500	19.93	5,359	2,679,500	$106,805	552	276,000	$11,001	5,911	2,955,500	$117,806
1,000 -	2,000	1,500	19.93	8,412	12,618,000	$167,651	187	280,500	$3,727	8,599	12,898,500	$171,378
2,000 -	3,000	2,500	24.07	10,647	26,617,500	$256,273	110	275,000	$2,648	10,757	26,892,500	$258,921
3,000 -	4,000	3,500	32.35	10,772	37,702,000	$348,474	117	409,500	$3,785	10,889	38,111,500	$352,259
4,000 -	5,000	4,500	40.63	8,304	37,368,000	$337,392	83	373,500	$3,372	8,387	37,741,500	$340,764
5,000 -	6,000	5,500	48.91	6,122	33,671,000	$299,427	80	440,000	$3,913	6,202	34,111,000	$303,340
6,000 -	7,000	6,500	57.19	4,118	26,767,000	$235,508	64	416,000	$3,660	4,182	27,183,000	$239,169
7,000 -	8,000	7,500	65.47	2,554	19,155,000	$167,210	52	390,000	$3,404	2,606	19,545,000	$170,615
8,000 -	9,000	8,500	73.75	1,660	14,110,000	$122,425	39	331,500	$2,876	1,699	14,441,500	$125,301
9,000 -	10,000	9,500	82.03	1,046	9,937,000	$85,803	26	247,000	$2,133	1,072	10,184,000	$87,936
10,000 -	11,000	10,500	90.31	767	8,053,500	$69,268	19	199,500	$1,716	786	8,253,000	$70,984
11,000 -	12,000	11,500	98.59	514	5,911,000	$50,675	14	161,000	$1,380	528	6,072,000	$52,056
12,000 -	13,000	12,500	106.87	361	4,512,500	$38,580	11	137,500	$1,176	372	4,650,000	$39,756
13,000 -	14,000	13,500	115.15	256	3,456,000	$29,478	9	121,500	$1,036	265	3,577,500	$30,515
14,000 -	15,000	14,500	123.43	188	2,726,000	$23,205	7	101,500	$864	195	2,827,500	$24,069
15,000 -	16,000	15,500	131.71	144	2,232,000	$18,966	8	124,000	$1,054	152	2,356,000	$20,020
16,000 -	17,000	16,500	139.99	123	2,029,500	$17,219	4	66,000	$560	127	2,095,500	$17,779
17,000 -	18,000	17,500	148.27	103	1,802,500	$15,272	3	52,500	$445	106	1,855,000	$15,717
18,000 -	19,000	18,500	156.55	97	1,794,500	$15,185	6	111,000	$939	103	1,905,500	$16,125
19,000 -	20,000	19,500	164.83	74	1,443,000	$12,197	2	39,000	$330	76	1,482,000	$12,527
20,000	25,000	22,500	186.87	218	4,905,000	$40,738	23	517,500	$4,298	241	5,422,500	$45,036
25,000	30,000	27,500	222.67	100	2,750,000	$22,267	25	687,500	$5,567	125	3,437,500	$27,834
30,000	35,000	32,500	258.47	42	1,365,000	$10,856	17	552,500	$4,394	59	1,917,500	$15,250
35,000	40,000	37,500	294.27	39	1,462,500	$11,477	19	712,500	$5,591	58	2,175,000	$17,068
40,000	45,000	42,500	330.07	19	807,500	$6,271	21	892,500	$6,931	40	1,700,000	$13,203
45,000	50,000	47,500	365.87	11	522,500	$4,025	13	617,500	$4,756	24	1,140,000	$8,781
50,000	999,000	156,500	962.69	78	12,207,000	$75,089	145	22,692,500	$139,589	223	34,899,500	$214,679
Wholesale Customers:												
Beaver Dam, City of		10,092,800	25534.784	0	0	$0	12	121,113,600	$306,417	12	121,113,600	$306,417
Fordsville, City of		3,562,600	9013.38	0	0	$0	12	42,751,200	$108,161	12	42,751,200	$108,161
Total				63,962	278,605,000	$2,624,289	1,862	195,089,800	$639,351	65,824	473,694,800	$3,263,640
Average Rate			$50 per meter reading									
Average Per Month				5,330	23,217,083	$218,691	155	16,257,483	$53,279	5,485	39,474,567	$271,970

APPENDIX E
MONTHLY WATER RATES

Appendix E
Monthly Water Rates
Treated Water Supply Improvements
Ohio County Water District
October 2006

		Item Amount	Category Total
Revenue from Sales, Current Rates			
Test Year , July 2005 through June 2006		$3,264,000	
Projected Change through 2009		$71,000	
Revenue Total			$3,335,000
Less Cash Outlay for:			
Operating Expense			
from Appendix C			($2,005,000)
Debt Service (P & I)			
Current, multiple issues		$950,000	
New-$4,000,000 for 40 Years @	4.0%	$202,000	
Debt Service Coverage @	20%	$230,400	
Debt Service Total			($1,382,400)
Annual Facilities Replacement Program			
Recommended Minimum			($300,000)
Revenue Surplus (Deficit) at Current Rates			($352,400)
Indicated Increase in Rates (Revenue) to Offset Deficit			11%

Indicated Monthly Rates (See Note 1)

Usage Category		Gallons	Current Rate	Proposed Raate
Minimum		2,000	$19.93	$22.04
per 1000	next	18,000	$8.28	$9.15
		30,000	$7.16	$7.92
		50,000	$6.03	$6.67
	over	100,000	$4.91	$5.43
Wholesale, per 1000			$2.53	$2.80

Note 1: The rates indicated assume a uniform increase to the existing block rate structure. The final rate structure recommended may be revised pursuant to Cost of Service analyzes.

APPENDIX F
FINANCIAL PRO-FORMA

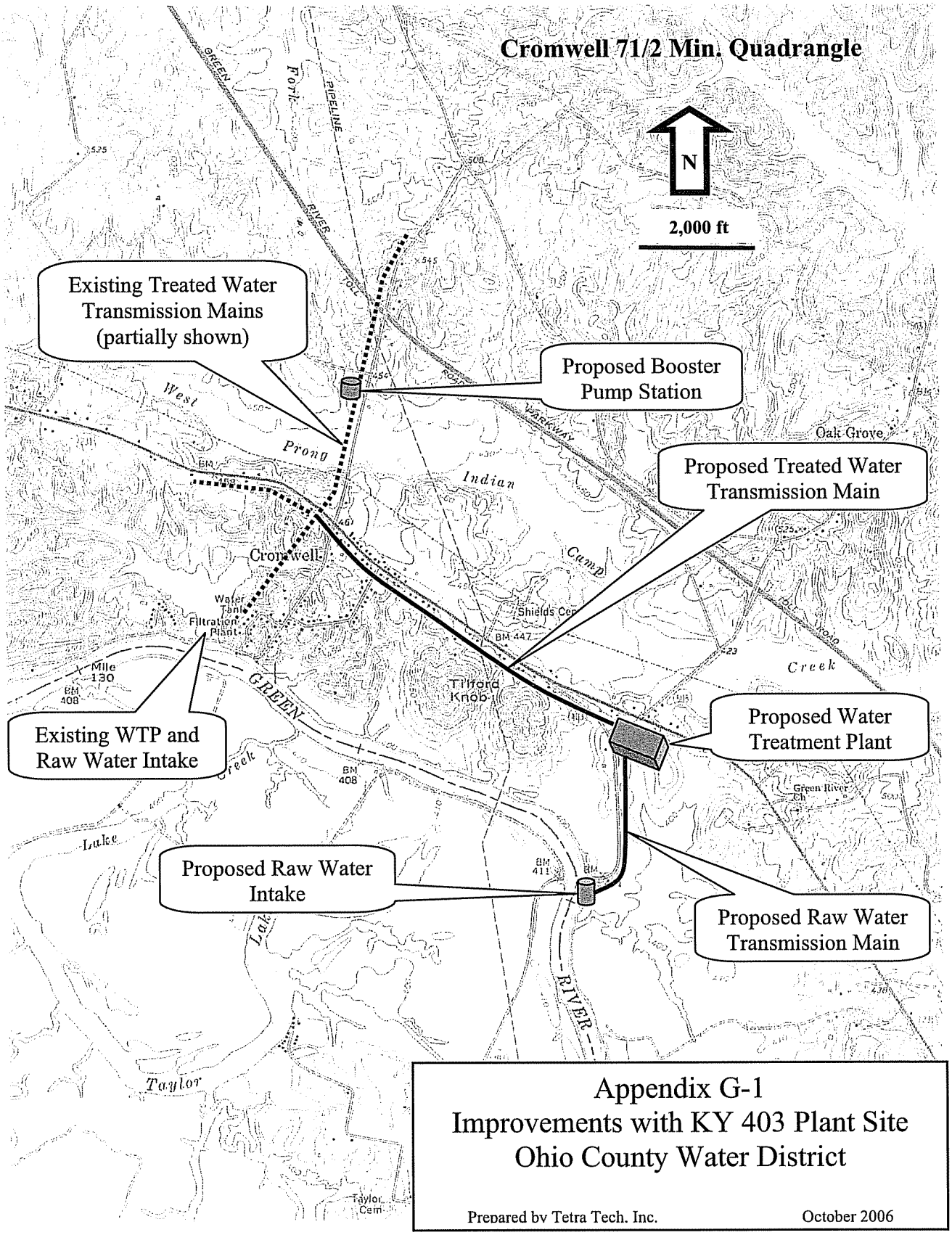
Ohio County Water District
Revenue Projections
New WTP Site Option

Year	Projected Revenue, Current Rates	5 Year Interval Rate Increase	Projected Revenue	Revenue Required WTP Option	Surplus/ (Deficit)	Cumulative Surplus (Deficit)	Average Cumulative Surplus (Deficit)
2005	3243775		3243775	3115000	128775	128775	128775
2006	3281055		3281055	3148000	133055	261830	130915
2007	3299417		3299417	3200000	99417	361247	120416
2008	3317779		3317779	3254000	63779	425026	106257
2009	3336141	11%	3703117	3761000	-57883	367143	73429
2010	3354503		3723498	3849000	-125502	241641	40274
2011	3371607		3742484	3916000	-173516	68125	9732
2012	3389969		3762866	3987000	-224134	-156009	-19501
2013	3408331		3783248	4044000	-260752	-416761	-46307
2014	3426693	8%	4077765	3971000	106765	-309996	-31000
2015	3445055		4099615	3901000	198615	-111381	-10126
2016	3462159		4119970	3980000	139970	28589	2382
2017	3480521		4141820	4041000	100820	129409	9955
2018	3498883		4163671	4114000	49671	179080	12791
2019	3517245	3%	4291039	4188000	103039	282119	18808
2020	3535607		4313441	4258000	55441	337560	21097
2021	3552711		4334308	4327000	7308	344868	20286
2022	3571073		4356710	4401000	-44290	300577	16699
2023	3589435		4379111	4469000	-89889	210689	11089
2024	3607797	3%	4509747	4400000	109747	320435	16022
2025	3626159		4532699	4473000	59699	380134	18102
2026	3641457		4551822	4543000	8822	388956	17680
2027	3658013		4572517	4614000	-41483	347473	15108
2028	3674569		4593212	4664000	-70788	276684	11529
2029	3691125	3%	4724640	4642000	82640	359324	14373
2030	3707681		4745832	4705000	40832	400156	15391
2031	3722979		4765414	4374000	391414	791570	29317
2032	3739535		4786605	4449000	337605	1129175	40328
2033	3756091		4807797	4524000	283797	1412972	48723
2034	3772647	3%	4942168	4600000	342168	1755139	58505
2035	3789203		4963856	4676000	287856	2042995	65903
2036	3804501		4983897	4752000	231897	2274892	71090
2037	3821057		5005585	4830000	175585	2450477	74257
2038	3837613		5027273	4907000	120273	2570750	75610
2039	3854169	3%	5164587	4778000	386587	2957337	84495
2040	3870725		[illegible]	[illegible]	[illegible]	3287108	91309
2041	3886023		[illegible]	[illegible]	[illegible]	3559379	96199
2042	3902579		[illegible]	[illegible]	[illegible]	3773836	99311
2043	3919135		[illegible]	[illegible]	[illegible]	3930477	100781
2044	3935691	3%	[illegible]	[illegible]	[illegible]	4146373	103659
2045	3952247		5414578	5257000	[illegible]	4303951	104974
2046	3967545		5435537	5338000	97537	4401488	104797
2047	3984101		5458219	5420000	38219	4439707	103249
2048	4000657		5480900	5503000	-22100	4417607	100400
2049	4017213	22%	6387369	5586000	801369	5218975	0
2050	4033769		6413692	6404000	9692	9692	211

This surplus applied to reduce debt for the capital improvements project projected for 2049. Make higher rate increases in preceding years to increase this amount and lower the rate increase.

APPENDIX G
PLANT SITE COMPARISONS

APPENDIX G-1
EXISTING PLANT SITE VS. KY 403 SITE



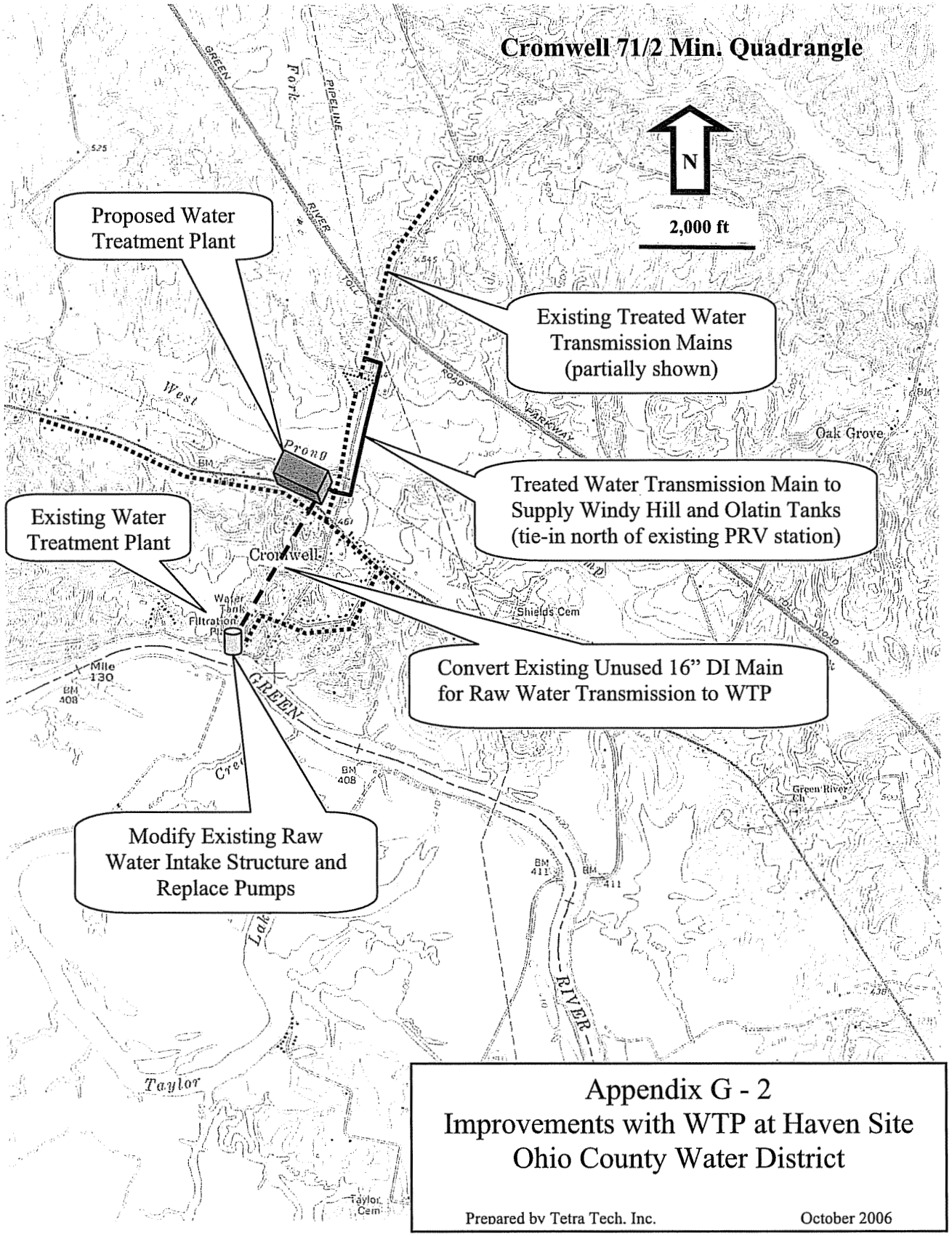
Appendix G-1
Improvements with KY 403 Plant Site
Ohio County Water District

Prepared by Tetra Tech, Inc. October 2006

Appendix G-1
Comparison of Construction Costs by Plant Site
Treated Water System Improvements
Ohio County Water District

Item	Existing Site	KY 403 Site	Comments
Raw Water Facilities	$249,600	$669,000	Existing site requires new raw water pumps, intake pipe, and screen. New site requires complete new structure plus transmission main from intake to plant. Pumps are the same for either option.
Actiflo Process Facilities	$1,505,200	$1,371,000	Existing sed basins modified for use as post Actiflo contact tankage; a new full length wall required. Two, 2 MGD, Actiflo units required for either site.
Chemical Feed Facilities	$212,000	$210,400	New structure required at either site.
Filtration System	$983,600	$1,073,300	Five filter cells required. New filter equipment required at both sites. Higher costs associated with maintaining operations while constructing the three new filters at the existing site largely offsets the extra costs for two of the five cells at the new site.
Clearwell Storage	$1,349,100	$937,300	A new Clearwell of same size is required at either site. Excavation costs are two times more costly at the existing site.
High Service Pumping & Transmission Mains	$119,000	$606,500	New high service pumps are required at either site. Structural costs are included in Clearwell cost. New site requires 6,500 feet of new transmission main ($487,000).
Sludge Handling and Disposal	$820,000	$842,800	Both sites require the same new construction for a Belt Filter Press and Sludge Thickner. Existing lagoons require upgrading; new lagoons are included for the new site.
Control, Office, Lab & Storage Buildings	$68,300	$198,100	The costs for the new site includes $130,000 to construct an equivalent amount of floor space now on the existing site.
Site Work	$140,500	$112,300	Similar work required on both sites but constraints on the existing site increase the cost.
Booster Pump Station and Chlorinator	$122,200	$122,200	These facilities are common to both options.
Mechanical, all	$476,300	$446,400	Similar work both sites, but renovation is higher.
Electrical, all	$777,624	$682,883	Similar work both sites, but renovation is higher.
Miscellaneous	$475,900	$389,200	This item includes labor costs factor for all structural work plus demolition of steel tankage for the existing site option.
Contractor Overhead and Profit @ 15%	$846,500	$848,600	Mechanical and electrical items already include this factor.
Estimated Construction Cost (rounded)	$8,150,000	$8,500,000	
Land	$0	$230,000	
Legal and Boundary Survey Fees	$0	$10,000	
Archeological Survey	$0	$10,000	Not required at existing site due to prior disturbance.
Estimated Total Cost	$8,150,000	$8,750,000	
Difference in New Site vs. Old Site		$600,000	
Engineer's recommendation		New Site	1) All new plant for $600,000 (old plant has been modified four times already); 2) adequate for future expansion; 3) two lane highway access; 4) potential crop income; 5) reduced safety risks to general public; 6) flood plain encroachment and cost are the most unfavorable features.

APPENDIX G-2
HAVEN SITE VS. KY 403 SITE



Appendix G - 2
Improvements with WTP at Haven Site
Ohio County Water District

Prepared by Tetra Tech, Inc. October 2006

Appendix G-2
Cost Comparison, Haven Site with KY 403 Site
Treated Water System Improvements
Ohio County Water District

Item	Estimated Cost	
	KY 403 Site	Haven Site
Raw Water Facilities	$668,900	$372,100
Actiflo Process Facilities	$1,371,000	$1,371,000
Chemical Feed Facilities	$210,400	$210,400
Filtration System	$1,073,300	$1,073,300
Clearwell Storage	$937,300	$937,300
High Service Pumping & Transmission Mains	$605,500	$240,900
16" Main to Feed Windy Hill & Olatin Tanks	$0	$90,000
Sludge Handling and Disposal	$842,800	$842,800
Control, Office, Lab & Storage Buildings	$198,000	$198,000
Site Work	$112,300	$112,300
Booster Pump Station and Chlorinator	$122,200	$48,900
Mechanical	$446,400	$446,400
Electrical	$682,900	$682,900
Miscellaneous	$389,200	$389,200
Contractor Overhead and Profit	$848,600	$800,000
Estimated Construction Cost (rounded)	$8,500,000	$7,800,000
Land Costs	$250,000	$300,000
Legal and Boundary Survey Fees	$10,000	$10,000
Archaeological Survey	$10,000	$10,000
Estimated Total Costs	$8,770,000	$8,120,000

Engineer's Recommendation - site constraints and high land costs are unfavorable to Haven Site, even though total costs is lower. The overhead power line and steep slope on the north essentially reduces usable acreage to approximately half of the total 15 acre site. For these reasons, the KY 403 site is preferable. However, a suitable site closer to Cromwell Road would reduce costs.

APPENDIX G-3
PORTER SITE VS. BLACKLOCK SITE

Project: OHIO CO. WATER DIST.

Subject: WTP SITE COMPARISON

Date: 10/7/06 Job No. 04243

Cal. by: DES Ckd. by:

App. by: Sheet: of

TETRA TECH, INC.

PORTER SITE

COST:

1) Land – 15 ac. @ $10,000/ac = $150,000
2) Raw Water Main (convert Ex. 16")
   - Tie-In @ US231 = 2,000
   - Block Ex. Mains, 2 ea. = 1,000
   - New Main, 500 LF ± @ $50 = 25,000
3) Treated Water Mains:
   - 8" Tie-In from Ex. 16" & 10" ~ 500LF = 10,000
   - 16" Treated Main to WINDY HILL ~ 5,800 LF = 290,000
   - 12" " " to BCBC ~ 400 LF = 16,000
   - Block Ex. Mains, 3 ea. = 1,500

TOTAL, rounded $500,000

CONSIDERATIONS: 1) Power Line on back of property, splitting property approx 70/30 with 30% on wooded sloping portion; 2) Full road frontage for optimum entrance location; 3) Favorable slope; 4) approx. 10 acres highly usable; and 5) 16"/12" main remains available from Ex. WTP to Perdue

BLACKLOCK SITE

COST:

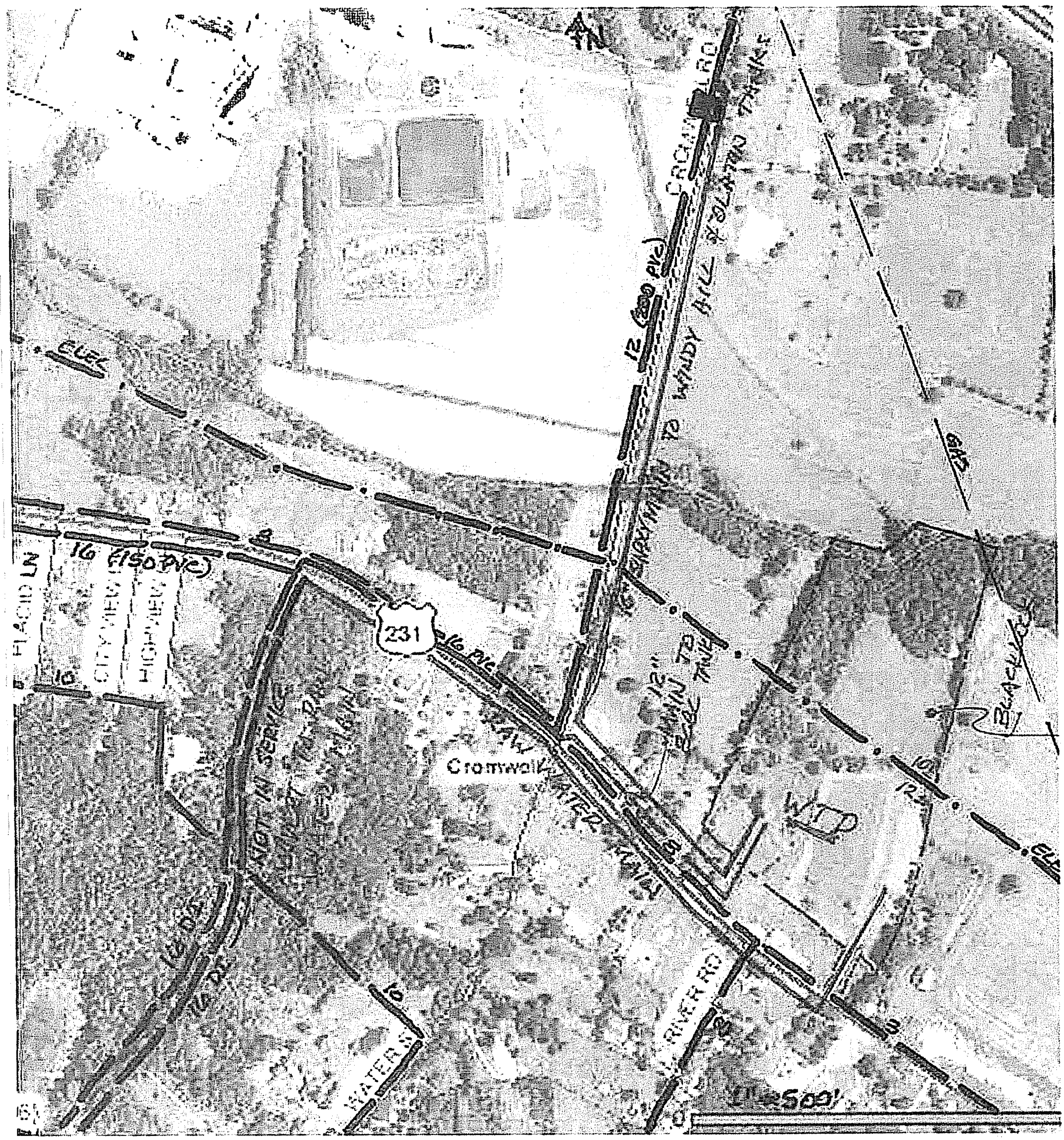
1) Land ~ 22 ac. @ $8,000/ac. = $168,000
2) Raw Water Main, 3300LF @ = 132,000
3) Treated Water Mains
   - 12" for BCBC Supply, 1,500 LF = 60,000
   - 16" for Windy Hill & Ogden, 3,500LF = 175,000

TOTAL, rounded $535,000

CONSIDERATIONS: 1) Power Line divides site approx 55/45; 2) 30' Road frontage (access); 3) somewhat low lying; 4) Approx. 12 acres highly usable 5) Uses the ex. 16"" east of Cromwell Rd for BCBC supply, therefore breaking continuity from Ex WTP and Perdue.

CONCLUSION: PORTER SITE MORE FAVORABLE

COWBOY R
PURDUE FACTORY ENTRANCE
TEE
OUT
W.T.P.
RAW
LEE DR
PLACID LN
CITY VIEW DR
HIGHVIEW DR
RETURNED BY PEER
PRICE PROPERTY
231
Cromwell
SUPPLY MAIN TO WINDY HILL
RIVER RD



ELEC
16 (150 PVC)
12 (200 PVC)
231
Cromwell
PLACID LN
RIVER RD
WTP
GAS
1"=500'

APPENDIX H
OMU OPTION VS. OCWD WTP PLUS PURCHASE FROM GRAYSON COUNTY WATER DISTRICT

Ohio County Water District
Operating Expense Projection
WTP Option

Account		Projected First Year (2009) Operating Expenses: Treatment	Distribution	Customer	Admin		Comments
Existing System Expenses:						2.5%	Annual inflation applied to Base Year costs.
Salaries and Wages, Employees		218883	302872	141316	134972		(Base Year cost data in 2003 dollars)
Benefits, Employee		47342	64783	30207	22310		
Power Purchased		86327	80577	0	0		
Chemicals		36244	0	0	0		
Materials and Supplies		11462	69307	26130	18086		
Services, Engineering		4983	2047	0	19348		
Services, Accounting and Legal		0	0	0	54932		
Services, Water Testing		16167	6570	0	0		
Services, Other		50600	61142	830	14218		
Rental, Real Estate		0	721	7678	5180		
Rental, Equipment		0	192	0	2344		
Transportation Expenses		4466	45693	10707	7069		
Insurance, Vehicles		479	4178	1231	650		
Insurance, GL		0	0	0	3711		
Insurance, Workers Comp		4351	6191	2904	2448		
Insurance, Other		0	0	0	10879		
Advertising		0	0	0	1255		
Bad Debt		0	0	19205	0		
Miscellaneous		1349	3488	4370	22981		
Taxes, Payroll and Other		17600	23900	11800	11300		
Total Ex. System Operating Expenses		500253	671661	256376	331682	in 2009 dollars	
Adjustments for Replacing Perdue Production:							
Salaries and Wages, Employees		90000	0	0	0	Add full time and part time licensed operators.	
Benefits, Employee		19466	0	0	0	41%	increase; added payroll cost.
Power Purchased		25898	0	0	0	30%	increase; add'l feed pumps, sludge equipment, mixers, sand pumps, etc.
Chemicals		72488	0	0	0	200%	increase; adding permanganate, polymer, carbon, sand, and hypochlorite.
Materials and Supplies		11462	0	0	0	100%	increase; added equipment maintenance
Services, Engineering		2492	0	0	0	50%	increase; nominal
Services, Water Testing		8084	3285	0	0	50%	increase; process control and regulations.
Insurance, Workers Comp		1789	0	0	0	41%	increase; added payroll cost.
Miscellaneous		6747	0	0	0	500%	increase; added contingincy.
Taxes, Payroll and Other		6750	0	0	0	7.5%	increase, added payroll cost
Sub-Total Adjustments		245175	3285				
Total Adjusted Operating Expenses		745428	674946	256376	331682	Total of all categories:	$2,008,431
Water Produced, Total, in 1000 gallons	616504						
Average Number of Customers for Year	5046						
Unit Cost for Operations:							
Cost per 1000 Gallons		$1.21					**Use for projecting Total Operating Cost in 2009 (Unit Cost are in 2009 Dollars)**
Cost per Customer			$134	$51	$66		