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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

DEC 29 2005

PUBLIC SERVICE
COMMISSION

In the Matter of:

APPLICATION OF NORTHERN KENTUCKY)	
WATER DISTRICT FOR APPROVAL OF)	CASE NO. 2005-00551
CONSTRUCTION OF A 0.75 MG ELEVATED)	
STORAGE TANK AND ISSUANCE OF A)	
CERTIFICATE OF CONVENIENCE)	
AND NECESSITY)	

APPLICATION FOR APPROVAL OF CONSTRUCTION

Northern Kentucky Water District (NKWD), by counsel, petitions for an order approving the construction of a 0.75 MG elevated storage tank in Southern Campbell County pursuant to KRS 278.020.

In support of the application, the following information is provided:

1. NKWD's office address is 100 Aqua Drive, Box 220, Cold Spring, KY 41076. Its principal officers are listed in its current Annual Report on page 6, which is filed with the Commission as are its prior years Reports;
2. NKWD is a non-profit water district organized under Chapter 74 and has no separate articles of incorporation;
3. A description of NKWD's water system and its property stated at original cost by accounts is contained in its Annual Report, which is attached as Exhibit E.
4. NKWD serves retail customers in Kenton, Boone and Campbell Counties and

sells water at wholesale to non-affiliated water distribution systems in Kenton, Boone, Pendleton and Campbell Counties.

5. It proposes to construct an elevated water storage tank to serve the needs of the growing area in southern Campbell County and to supplement the existing storage tank known as Old State Route 4 as described in Exhibit A (Two copies of the Maps, Plans, Specifications and Bid Documents are provided as a separate bound document). The District financed the project with its 2003 Bond as approved in Case No. 2002-00105. The project has been delayed due to a dispute over transfer of the property.

6. The construction is in the public interest and is required to allow NKWD to continue to provide adequate service to its customers. The project, its cost, need and other details are contained in Exhibit A.

7. The total financing cost is approximately \$2,195,000 see Exhibits C and D.

8. Easements and rights of way are not required, see Exhibit B.

9. This service will not compete with any other utility in the area.

10. The proposed construction project, identified in Exhibit A, is scheduled to begin construction in the spring of 2006 and be completed on July 1, 2007. Board approval of the project was given on December 15, 2005, attached as Exhibit C. Bid information is included with Exhibit C. Bids expire on March 6, 2006.

11. No new franchises are required. Copies of the DOW and FAA permits are attached as Exhibit B.

12. Construction descriptions are in Exhibit A and Bid Documents. Facts relied on to justify the public need are included in the project descriptions in Exhibit A.

13. Maps of the area showing location of the proposed facilities are in Exhibit A.

14. The construction costs have been funded by the issuance of approximately

\$2,195,000 general parity bonds.

15. Estimated operating costs for operation and maintenance, depreciation and debt service after construction to the extent that there are any are shown in Exhibit D.

16. A description of the facilities and operation of the system are in Exhibit A.

17. A full description of the route, location of the project, description of construction and related information is in Exhibit A.

18. The start date for construction; proposed in-service date; and total estimated cost of construction at completion are included in Exhibits A and B.

19. CWIP at end of test year is listed in Exhibit E.

20. Plant retirements are listed in Exhibit B and E. No salvage values are included as booked.

21. The use of the funds and need for the facilities is justified based on a the engineering report included as Exhibit A

22. No rate adjustment is being proposed.

23. The following information is provided in response to 807 KAR 5:001 (8):

a. Articles of Incorporation – None. NKWD is a statutorily created water district under KRS Chapter 74;

24. The following information is supplied pursuant to 807 KAR 5:001(9):

a. Facts relied upon to show that the application is in the public interest:
See Exhibit A.

25. The following information is provided as required by 807 KAR 5:001 (11):

a. A general description of the property is contained in the Annual Report, Exhibit E.

b. No stock is to be issued; No bonds are to be issued in this case;

c. There is no refunding or refinancing;

d. The proceeds of the financing are to construct the property described in Exhibit A

e. The par value, expenses, use of proceeds, interest rates and other information is not applicable because no bonds are being issued at this time.

26. The following exhibits are provided pursuant to 807 KAR 5:001 (11)(2):

a. There are no trust deeds. All notes, indebtedness and mortgages are included in Exhibit E.

b. Property to be constructed is described in Exhibit A.

27. The following information is provided pursuant to 807 KAR 5:001(6):

a. No stock is authorized.

b. No stock is issued.

c. There are no stock preferences.

d. Mortgages are listed in Exhibit F.

e. Bonds are listed in Exhibit F.

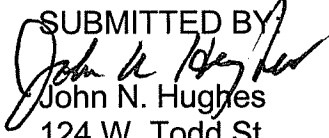
f. Notes are listed in Exhibit F.

g. Other indebtedness is listed in Exhibit F.

h. No dividends have been paid.

i. Current balance sheet; income statement and debt schedule are attached as Exhibits F and G.

For these reasons, the District requests authority to construct the facilities and for any order or authorization that may be necessary to obtain Commission approval for construction.

SUBMITTED BY

John N. Hughes
124 W. Todd St.
Frankfort, KY 40601

Attorney for Northern
Kentucky Water District

NORTHERN KENTUCKY
WATER DISTRICT

**Project – 0.75 MG Claryville Elevated
Water Storage Tank**

Campbell County
184-0416

NORTHERN KENTUCKY WATER DISTRICT
0.75 MG Claryville Elevated Water Storage Tank
184-0416

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<u>EXHIBIT</u>	<u>TITLE</u>
A	ENGINEERING REPORTS AND INFORMATION Copy of project map; Black & Veatch Design Memorandum dated November 14, 2005; Engineer's opinion of probable total construction cost; Black & Veatch plans titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 11, 2005 sealed by a P.E.; Black & Veatch specifications titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 15, 2005 and sealed by a P.E.
B	Certified statement from an authorized utility Official confirming: (1) Affidavit (2) Franchises (3) Plan review and permit status (4) Easements and Right-Of-Way status (5) Construction dates and proposed date in service (6) Plant retirements
C	BID INFORMATION AND BOARD RESOLUTION Bid tabulation, Engineer's recommendation of award, and Board resolution.
D	PROJECT FINANCE INFORMATION Customers added and revenue effect, Debt issuance and source of debt, Additional costs and operating and maintenance, Depreciation cost and debt service after construction.
E	PSC ANNUAL REPORT - 2004
F	SCHEDULE OF MORTGAGES, BONDS, NOTES, AND OTHER INDEBTEDNESS
G	CURRENT BALANCE SHEET AND INCOME STATEMENT

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Project – 0.75 MG Claryville Elevated
Water Storage Tank

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ENGINEERING REPORTS AND INFORMATION

Project Map

Preliminary Design Memorandum

Engineer's Opinion of Probable Total Construction Cost

Plans prepared by Black & Veatch titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 11, 2005

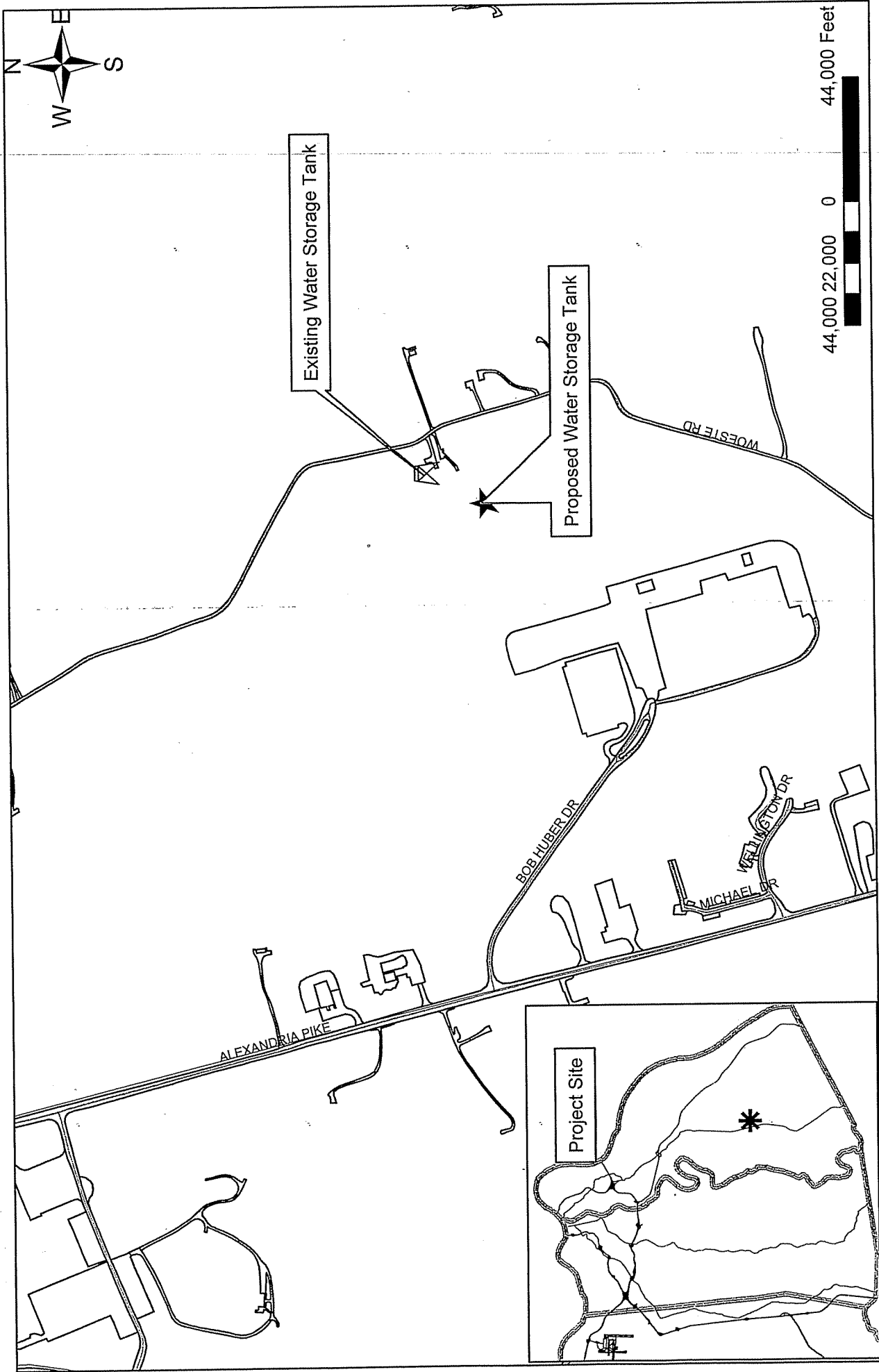
Specifications prepared by Black & Veatch titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 15, 2005

NORTHERN KENTUCKY
WATER DISTRICT

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Project Map



New Claryville Water Storage Tank

NORTHERN KENTUCKY
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Project – 0.75 MG Claryville Elevated
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Preliminary Design Memorandum

BLACK & VEATCH

DESIGN MEMORANDUM

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank

B&V Project No. 64723
B&V File A
November 14, 2005

To: Distribution

From: Sid Sengupta, Mark Magella, Steve Yakimow, Brad Spindler

A. GENERAL

This memorandum provides design criteria and layout for the design and construction of a new elevated steel pedisphere tank for the Northern Kentucky Water District (NKWD). The new tank, which is called the Claryville Tank, will be used for water storage in the Southern part of the Campbell County water system and serve as a back-up for the existing Old State Route 4 Tank. This memorandum also includes criteria for repainting of the existing Old State Route 4 tank, tank modifications and valve replacement as part of this project. Additional security and I&C items are also included as part of this project.

B. ENGINEERING SERVICES

All design, quality control and contract document preparation services for the project will be the responsibility of Black & Veatch, administered through the Cincinnati office. The Project Manager is Larry Gaddis; Sid Sengupta is the Project Engineer; Brad Spindler is the Design Engineer; Dan Kay is the Senior Engineering Technician and Debbie Duncan is the Engineering Technician. Mark Magella and Steve Yakimow are the Electrical project engineer and Instrumentation project engineer, respectively.

A geotechnical investigation was performed at the proposed elevated tank site by Thelen Associates, Inc. through a Contract with the Owner. A revised geotechnical report dated November 8, 2005 was prepared and provided to Black & Veatch by Thelen Associates, Inc. A topographic survey has been performed by Viox & Viox, Inc. through a Contract with the Owner. A copy of the site survey is available from Dan Kay.

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C. PROJECT SCHEDULE

The following schedule has been established for the project:

Begin Preliminary Engineering and Planning	April 12, 2005
Reinitiating Meeting	April 12, 2005
Design Memorandum to Client	June 29, 2005
30% Completion Milestone	July 29, 2005
90% Completion Milestone	September 16, 2005
Submit Contract Documents to KDOW for Approval	September 26, 2005
Finalize Contract Documents	November 14, 2005
Advertise for Bids	November 15, 2005
Receive Bids	December 6, 2005
Award Contract	March 23, 2006
Start Construction	March 27, 2006
Substantial Completion	October 27, 2007
Substantial Completion (if Old St. Rt. 4 work deducted)	June 27, 2007
Final Completion	November 27, 2007
Final Completion (if Old St. Rt. 4 work deducted)	July 27, 2007

The above schedule allows 90 days for the Public Service Commission to review and approve the project. Depending on the actual length of the review period, the construction start date may be changed.

D. DRAFTING STANDARDS AND PROCEDURES

All project plans will be plotted on 22 inch by 34 inch mylar with the Cincinnati office standard title block. Drafting will be conducted in accordance with standard B&V policy. Debbie Duncan will be responsible for coordinating all drafting. All drawings will be prepared in AutoCAD 2005 format. All drawings shall be signed and sealed by each respective discipline's responsible engineer/architect licensed in the State of Kentucky.

Correspondence, files, drawings, specifications, and other related information will be available on CYGNET. All members of the project team will have access to the project on CYGNET and are responsible for updating the information as necessary.

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E. CODES AND REGULATORY AGENCIES

The following codes and regulatory agencies will be applicable for this project:

- Kentucky Building Code, latest edition
- Great Lakes – Upper Mississippi River Board of State Public Health & Environmental Managers “Recommended Standards for Water Works” (Ten States Standards), 2003 edition
- Kentucky Division of Water
- NEC - National Electrical Code

F. PERMITS

Approvals permits or variances have been received from the following agencies.

- Kentucky Division of Water
- Federal Aviation Authority – FAA form 7460-1 Notice of Proposed Construction or Alteration
- Northern Kentucky Sanitation District No. 1

G. DATUM

All elevations will be USGS datum.

H. UTILITIES

Electric and gas service at the Claryville Tank site is provided by Owen County Rural Electric. Water service is provided by the Northern Kentucky Water District. Sewer service is not available at the site, but falls under the jurisdiction of Northern Kentucky Sanitation District No. 1. The project site falls under the service area of Cincinnati Bell.

J. BACKGROUND MATERIAL

Reference material for this project includes the following:

- Campbell County KY Water District, Southern Campbell County Area, Constructing Water Mains, Contract No. 17, 20 sheets, 1975, Alfred LeFeber Associates

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- Campbell County KY Water District, Southern Campbell County Area, Proposed 1.0 MG Elevated Tank, Contract No. 18, 6 sheets, 1975, Alfred LeFever Associates
- Evaluation of the 1,000,000 Gallon Steel Elevated Water Tank - Old State Route 4 Tank, dated March 29 and 30, 2004, Tank Industry Consultants
- Elevated Tank Sites, April 23, 2001, Black & Veatch
- Elevated Tank Sites (revised), January 2, 2002, Black & Veatch
- Elevated Tank Type Recommendation, March 5, 2002, Black & Veatch
- Elevated Tank Sites (revised), March 28, 2002, Black & Veatch
- Elevated Tank Comparison, April 27, 2005, Black & Veatch

Copies of these can be obtained from Debbie Duncan.

K. STANDARDS

The tank will be constructed in accordance with the following American Water Works Association (AWWA) and American Concrete Institute (ACI) standards:

- D100 AWWA Standard for Welded Steel Tanks for Water Storage (1996)
- D102 AWWA Standard for Coating Steel Water Storage Tanks (1997)
- C652 AWWA Standard for Disinfection of Water Storage Facilities (1992)
- 301 ACI Standard Specifications for Structural Concrete (1999)
- 318 ACI Building Code Requirements for Reinforced Concrete (1999)

L. NEW FACILITIES DESCRIPTION

General

This project consists of the design and Contract Document preparation for a new 750,000 gallon elevated water storage tank for the Northern Kentucky Water District (NKWD). The new tank will be utilized to meet increasing water demands in the Southern Campbell County Area, and to serve as a back-up for the existing Old State Route 4 Tank. Included in this project is design for the inclusion of security measures and provisions for future I&C requirements. The project also includes the removal of existing paints and the application of new painting systems to exterior and interior metal surfaces of the adjacent 1.0 million gallon Old State Route 4 elevated storage tank as well as additional tank modifications and valve replacement in the existing valve vault.

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Site Description

The tank will be located at 10390 Woeste Road, Alexandria, KY 41001 in Campbell County, on property adjacent to the existing 0.949-acre Old State Route 4 Tank. The new property is located west of Woeste Road (formerly Old State Road 4) approximately 0.50 miles south of Lickert Road, and consists of combined 0.099 acres and 1.435 acre parcels. The 0.099 acre site connects the existing tank site with the new 1.435 acre site. The site slopes downwards in an east-west direction, with an approximate slope of 4% at the north-eastern portion of the site, and a steeper 9% slope towards the southwest portion of the site. The tank will be built on the relatively flat area at the northeastern portion of the site. Regrading of the site will be minimized in order to preserve the stability of the slope and based on the geotechnical report recommendations. A new road will connect the old tank site with the new site.

The tank will be a single pedestal steel sphere/spheroidal-type with an approximate height of 170 feet (overflow elevation of 1017). Based on preliminary discussions with tank manufacturers, the base of the tank will be approximately 36 feet in diameter, the pedestal column will be 12 ft. in diameter, with a bowl diameter of 66 ft. Final dimensions will be determined by the tank manufacturer.

Geotechnical Investigation

The geotechnical survey of the site indicates an approximately 6-inch thick layer of topsoil underlain intermittently by a 1.5-foot thick layer of glacial silty clay. Beneath the topsoil and/or glacial silty clay layer, a 1.5 to 2.5-foot thick layer of glacial plastic clay was encountered followed by a 1.5 to 5-foot thick layer of residual clay. The residual soils were underlain by interbedded shale and limestone bedrock. The upper layers of the encountered bedrock were highly weathered.

Based on review of the revised geotechnical report dated November 8, 2005, three foundation options have been presented by Thelen & Associates – two shallow, and one deep foundation option. The two shallow foundation options consist of a ring footing that can be sized for the upper layer of highly weathered shale and limestone bedrock with a bearing capacity of 4,000 psf (elev. 851), or for a bearing capacity of 9,000 psf (elev. 847) within the lower layer of weathered bedrock. A ring grade beam on drilled shaft is the third option presented in the report for deep foundations with end bearing pressures of 30,000 (elev. 823.9) to 60,000 psf (elev. 821.9) depending on the depth of the shaft.

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The tank manufacturer is responsible for selecting the appropriate option and designing the foundation system.

Civil

The tank shall be designed in accordance with AWWA D100 and the following parameters:

Tank	Steel, Single Pedestal Sphere/Spheroid
Capacity, MG	0.75
Maximum top elevation of tank, feet	1035.0
Overflow elevation, feet	1017.0
Ground elevation, feet	864.0±
Tank height to overflow, feet	153.0±
Tank height to top, feet	171.0±
Head range below overflow, feet	40
Base diameter*, feet	36
Column diameter*, feet	12
Influent/effluent piping diameter, inches	12
Overflow diameter*, inches	12
Maximum top elevation of tank, feet	1035.0
Overflow elevation, feet	1017.0
Note: Tank dimensions with an asterisks (*) shall be determined by tank manufacturer.	

Design loads will be based on the parameters indicated in Section 3.1 of AWWA D100 Standard for Welded Steel Tanks for Water Storage (1996). Seismic loads will be based on seismic zone 1 per Figure 7 of the AWWA D100 Standard.

The tank foundation will be designed by the tank supplier and in accordance with Section 12 of AWWA D100. The foundation type, depth and design bearing pressure

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shall be as recommended in the geotechnical report prepared by Thelen Associates, Inc. to be made available to bidders with the Contract Documents.

Minimum metal thickness shall be the greatest of the following:

1. Design thickness
2. Thickness specified in Section 3.10 of AWWA D100
3. ¼ inch

A single 12-inch influent/effluent pipe will connect the tank to an existing 12-inch main connected off Old State Route 4. Based on preliminary review of the 1975 Contract No. 17 drawings, it appears that the 12-inch main runs along the northern edge of the new tank site and tie-in elevation is ± 857 ft.

The Tideflex Mixing System[®] will be installed on the tank riser pipe to promote efficient turnover. The manufacturer shall design and fabricate the mixing system and furnish to Contractor for installation, except that Elastomeric "Duckbill" Check Valves are not required as part of the system. If inlets to fill the tank are provided at multiple levels on the tank riser as designed by the manufacturer, the lowest inlet shall be below the mid-height of the tank bowl.

A new 15-foot wide asphalt driveway will connect the existing tank site with the new site. During construction, a temporary fence will be installed around the existing tank to secure the site. The roadway will be constructed along the northern and west perimeter, within the property line, to facilitate construction traffic for the new tank.

Accessories

The tank shall be provided with the following:

- The new tank will be equipped with a readily accessible sample tap at the tank base for connection to future analyzer equipment.
- A 4" PVC floor drain will be provided in the tank base slab to route any minor leakage and future analyzer flow into the overflow catch basin. The floor drain is not to be used for washdown purposes.

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- Overflow shall be routed down through the support column and discharge 2 feet above grade, outside of the tank wall. The overflow will terminate with a flap gate.
- A roof access tube at least 3 feet in diameter.
- Internal ladders from tank base to roof access hatch with intermediate landing platform and safety climb device. Platforms will be at a maximum of 20 feet or OSHA required spacing, whichever is less. Any additional design recommendations that were adopted from the Vulnerability Assessment will be provided by the District during the design phase.
- The following openings, doors and covers will be provided, with access control:
 - Hatch in roof over roof access tube
 - Hatch in roof into water containing space
 - Manhole in roof access tube at bottom of water containing space
 - Base access door and frame with lockguard and locksets at ground level, approximately 3 feet x 7 feet.
- The tank will have a one way altitude valve on the influent pipe and a check valve on the effluent pipe. The altitude valve shall control the water level in the elevated storage tank by receiving open or close commands from the SCADA system. The valve shall be non-throttling type valve and shall be controlled hydraulically by a solenoid valve. The valve shall be normally open, i.e. the valve will close upon receiving a signal from the SCADA system PLC. The valve shall be designed for one-way flow (provide check feature option) and the discharge from the tank will be through a check valve in a bypass pipeline.
- Hooks at top center of tank exterior for attachment of safety equipment.
- Mounting brackets on tank roof for installation of antennas.
- An electrical raceway, cable tray, shall extend from the tank base, through the roof access tube to the tank roof for installation of cables to antennas.

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Architectural

The NKWD logo will be displayed on the tank. The color will be a "tank white" for both the tank and column.

Protective Coatings

All surface preparation, application, inspection and testing shall be in accordance with the applicable requirements of AWWA D102.

- The exterior coating system shall consist of a three-coat epoxy/epoxy/aliphatic acrylic polyurethane system, with a total minimum dry film thickness of 8 mils.
- The interior coating system for wet surfaces shall consist of a NSF certified three coat epoxy system with a total minimum dry film thickness of 15 mils.
- The interior coating system for dry surfaces shall consist of a two coat epoxy system with a total minimum dry film thickness of 8 mils.
- No cathodic protection system will be provided.

Electrical

The electrical design will conform to Black & Veatch standards and will be designed generally as follows:

- a. Aluminum conduit will be used for exposed indoor applications.
- b. Utility grade PVC conduit will be installed in floor slabs and walls and in underground duct banks.
- c. Aluminum conduit will be used for exposed outdoor areas.
- d. Concrete encasement for electrical duct banks will have reinforcing at roadway crossings and near future construction areas.
- e. All low voltage power and control cables will be rated for 600 volts. Power and control cables will have type XHHW insulation. Lighting cables will have type THHN insulation.
- f. All free-standing electrical equipment will be installed on housekeeping pads.
- g. Spare conduits will be provided per NKWD requirements, and will include pull strings.

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Power Supply and Distribution

Power supply is delivered from the electric utility at 120/240 volts, 1 phase, 60 hertz via an outdoor, pole-mounted, utility-owned transformer. A minimum 100 amp electrical service will be provided. The service entrance main disconnect will be located at the tank's base. Power to all electrical loads will be distributed from a 120/240 volt lighting panelboard located within the lower tank base to power 120 volt loads. The lighting panel will be equipped with transient voltage surge suppression (TVSS).

Communication Requirements

No telephone communication equipment will be provided at the elevated tank. Provisions for an Owner supplied telephone line will be provided for use with the security camera system.

Lighting Requirements

Interior lighting will be provided in the base, support column and roof access tube. Interior base lighting will be industrial fluorescent fixtures. Support column and roof access tube shall be incandescent fixture.

Select fixtures will be equipped with emergency battery packs to allow safe egress from the area during a power outage. Emergency light wall packs will be provided for areas where fixture battery packs are not available.

Exterior lighting will be provided above doors of the tank base. Exterior building lighting fixtures will be quarts halogen.

Aviation obstruction lights will be provided if required by FAA.

Environmental Requirements

A grounding system will be incorporated around the exterior of the tank base.

Security Requirements

- a. Provisions for a card reader system for the main gate and main door.

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- b. Hatch intrusion alarms on all tank hatches connected to the SCADA to indicate an open hatch on the new tank.
- c. Conduits for future perimeter intrusion detection system around the entire perimeter of the Old State Road 4 Tank and the new tank that is connected to the SCADA.
- d. Design conduits for future camera system at the new tank with multiple conduits over to the existing Old State Route 4 tank.

Instrumentation and Control System

The tank's control system will consist of a PLC which will comply with the current specifications from the SCADA Phase II improvements and as approved by the NKWD Instrumentation Supervisor. The tank's control system will communicate to the Ft. Thomas Plant via MAS radio with a directional antenna and include an omni-directional antenna with tail end link radio system. The tank's instrumentation will include a pressure type level indicating transmitter that will connect to the PLC to provide remote level indication. ADGO will be specified for the SCADA integration and panel construction.

The design will include equipment and panel specifications; control descriptions; P & ID drawing; panel, radio, level transmitter, and antenna and installation details drawing.

The design will also include support systems necessary for future installation of water quality analyzers, one each as follows:

- a. Free Chlorine analyzer
- b. pH analyzer
- c. Turbidity analyzer
- d. Corrosion analyzer

NKWD will provide specifications for analyzers currently in use to assist with design requirements. All conduit, plumbing, piping, and I/O requirements for the analyzers are included in this project.

L. OLD STATE ROUTE 4 TANK

The project also includes the removal of existing paints and the application of new painting systems to exterior and interior metal surfaces of the adjacent 1.0 million gallon

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Old State Route 4 elevated storage tank. A tank inspection was conducted on August 10, 2005. The inspection report recommends the following tank modifications that are included in this project.

- a. Exterior and interior surfaces shall be blast-cleaned. Lead abatement procedures shall be followed and all blasting residue shall be considered hazardous and contained, gathered, handled, and disposed of accordingly. The exterior surfaces shall be coated with epoxy/polyurethane enamel. Interior surfaces shall be coated with epoxy paint. Painting of the Old State Route 4 tank shall be performed after the new Claryville Tank has been in service for at least one month.
- b. Replacement of the dry riser access ladder rungs and installation of new cable type fall arrest system.
- c. New cable type fall arrest system on the interior access ladder system.
- d. Replacement or repair of roof access ladder connections to the tank with bolted connections which allow for movement caused by thermal expansion and contraction of the tank shell. Connection point for personal protection devices on the interior of the tank roof, adjacent to the roof access hatch.
- e. Safety chain or other protective device on the mid-level dry riser platform between the handrail and the dry riser sidewall adjacent to the access ladder.
- f. Safety chain or other protective device on the upper dry riser platform between the handrail and the dry riser sidewall adjacent to the access ladder.
- g. Hatch cover over the floor opening to the access ladder on the interior platform.
- h. Access system to allow personnel to safely reach painter's hatch from the upper dry riser platform.
- i. Connection points or handrail on the exterior tank roof to allow personnel to safely access the roof vent and hatch.
- j. New positive/negative pressure vent with frost protection and bird screen.
- k. Replace catch basin grating.
- l. Remove existing cathodic protection system.
- m. A purpose built antenna bracket for mounting an antenna on the tank leg.
- n. Confined space entry signs installed at the main entry hatch.
- o. Seal coat the concrete foundation.

Regarding tank bowl repair, it is assumed that total 20 sq. ft. area of steel plating over is anticipated to repair damaged areas in the tank bowl. The amount of work is an assumption since there is no information available on the condition of the Old St. Rt. 4

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tank bowl bottom. The TCI tank inspection report provided at the 90% meeting did not have any additional information; it indicated that the tank was not drained and a diver did an underwater inspection which was limited in scope. A line item is provided in the bid form for unit price proposed by the Contractor in case the actual values are different after tank cleaning and inspection. Plug welds may be an option for repair that can be proposed by the Contractor based on their findings after the tank is cleaned and drained. However, due to the unknown steel plate thickness in the corroded areas, plug welds might actually burn through the steel. Hence, the base bid assumed steel plating as the recommended safe option.

In addition to the tank modifications, the existing Old State Route 4 Tank valves will be replaced. The two (2) existing check valves and four (4) gate valves will be replaced. The two (2) existing check valves will be removed and replaced with cushioned type check valves. The two 12" gate valves will be removed and replaced with two 12" AWWA butterfly valves. The two 8" gate valves will be removed and replaced with two 8" resilient seated gate valves.

N. SHEET LIST

The sheet list is provided below:

DRAWING	TITLE
-	Cover Sheet and Drawing List
L1	General – Drawing List, Legend and Abbreviations
L2	General – General Notes and Location Maps
C1	Civil – Site Plan and Details
C2	Civil – Plans, Sections and Details
C3	Civil – Piping Profile and Valve Replacement
C4	Civil – Standard Concrete Details
C5	Civil – Standard Concrete Details
C6	Civil –Miscellaneous Details
C7	Civil –Miscellaneous Details
E1	Electrical -- Legend and Abbreviations
E2	Electrical – Site Plan
E3	Electrical – Power and Lighting Plan
E4	Electrical – One-Lines, Schedules and Details

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DRAWING	TITLE
11	Instrumentation – Legend and Abbreviations
12	Instrumentation – Control System Block Diagram, P&ID and Installation Details

O. SPECIFICATION LIST

The specification list is provided below.

SECTION	TITLE
00020	Invitation to Bid
00100	Instructions to Bidders
00400	Bid Form
00410	Bid Bond
00430	List of Subcontractors
00450	Equipment Questionnaire
00480	Noncollusion Affidavit
00500	Agreement
00510	Performance Bond
00520	Payment Bond
00550	Certificate of Insurance
00552	Certificate of Property Insurance
00700	Standard General Conditions of the Construction Contract
00800	Supplementary Conditions
01015	Project Requirements
01070	Abbreviations of Terms and Organizations
01300	Submittals
01310	Construction Scheduling
01320	Construction Progress Documentation
01380	Construction Photographs
01400	Quality Control
01500	Temporary Facilities
01605	General Equipment Requirements
01612	Shipping
01614	Handling and Storage

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank

B&V Project No. 64723
November 14, 2005

SECTION	TITLE
01650	Startup Requirements
02200	Earthwork
02202	Trenching and Backfilling
02512	Asphaltic Concrete Paving
02605	Sewer Manholes
02675	Cleaning and Disinfection of Water Distribution System
02704	Pipeline Pressure and Leakage Testing
02832	Chain Link Fencing
02930	Seeding and Sodding
03100	Concrete Formwork
03200	Concrete Reinforcement
03250	Concrete Joints and Accessories
03300	Cast-in-Place Concrete
03350	Concrete Placing, Finishing and Curing
03600	Grout
03700	Concrete Repair
05520	Handrailing, Guardrailing, and Ladders
05530	Grating
05550	Anchorage in Concrete and Masonry
05990	Structural and Miscellaneous Metals
07900	Caulking
09870	Protective Coating for Steel Water Storage Tanks
13210	Elevated Tank
13210A	Tank Hydrodynamic Mixing System
13210B	Tank Modifications
13500	Instrumentation and Control System
13530	Programmable Logic Controllers
13550	Software Control Block Descriptions
13560	Instrumentation General Requirements
13561	Panel Mounted Instruments
13563	Pressure and Level Instruments
13570	Panels, Consoles, and Appurtenances
13570-S02	Wall-Mounted Panel Schedule
15010	Valve Installation

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank

B&V Project No. 64723
November 14, 2005

SECTION	TITLE
15061	Ductile Iron Pipe
15061-S01	Ductile Iron Pipe Schedule
15062	Steel Pipe
15062-F1	Steel Pipe Fittings
15062-F2	Dimensions for Steel Pipe Fittings
15093	Check Valves
15100	Miscellaneous Valves
15101	AWWA Butterfly Valves
15101-S01	AWWA Butterfly Valves Schedule
15104	Resilient-Seated Gate Valves
15104-S01	Resilient-Seated Gate Valve Schedule
15110	Altitude Valves
15111	Gate Installation
15115	Flap Gates
15140	Pipe Supports
15140-F1	Hangers and Supports
15140-F2	Hangers and Supports
15180	Valve and Gate Actuators
16050	Electrical
16100	Electrical Equipment Installation

P. DESIGN PROJECT PHASE NUMBERS

Separate phase numbers have been established for the various engineering groups as follows:

<u>Design Group</u>	<u>Project Number</u>
Cincinnati office	64723.100
Electrical	64723.110
Instrumentation	64723.120

Each Design group is responsible for ensuring that all project and time expense charges utilize the appropriate project phase number.

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank

B&V Project No. 64723
November 14, 2005

Q. CONTACT LIST

Northern Kentucky Water District
3049 Dixie Highway
Covington, KY 41017

Phone (859) 426-2734
Fax (859) 578-7893

Amy Kramer Project Manager

Northern Kentucky Water District
700 Alexandria Pike
Forth Thomas, KY 41075

Phone (859) 441-0482
Fax (859) 572-4795

Bill Wulfeck	Operations Manager
Jim Dierig	Pumping Supervisor
Amy Matracia	Instrumentation Administrator

Black & Veatch
11500 Northlake Drive Suite 205
Cincinnati, OH 45249

Phone (513) 984-6630
Fax (513) 984-6686

Larry Gaddis	Project Manager	(513) 936-5107
Sid Sengupta	Project Engineer	(513) 936-5121
Brad Spindler	Design Engineer	(317) 570-8331
Dan Kay	Engineering Technician	(513) 936-5129
Debbie Duncan	Engineering Technician	(513) 936-5145
Mark Magella	Electrical Project Engr.	(513) 936-5105
Steve Yakimow	Instr. Project Engineer	(513) 936-5111

Distribution:

Amy Kramer, NKWD
Bari Joslyn, NKWD
Bill Wulfeck, NKWD
Jim Dierig, NKWD

Amy Matracia, NKWD
Larry Gaddis, B&V
Dan Kay, B&V
Debbie Duncan, B&V

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

Engineer's Opinion of Probable Total Construction Cost

184-416



Black & Veatch Corporation

11500 Northlake Drive, Suite 205, Cincinnati, Ohio 45249, Tel: (513) 984-6630, Fax: (513) 984-6686

**NORTHERN KENTUCKY WATER DISTRICT
0.75 MG CLARYVILLE ELEVATED WATER STORAGE TANK**

**OPINION OF PROBABLE CONSTRUCTION COST
November 15, 2005**

SUMMARY

General Requirements	\$	238,800
Site Work	\$	215,800
Claryville Tank	\$	1,560,100
Old State Route 4 Tank	\$	586,100
TOTAL OPINION OF PROBABLE CONSTRUCTION COST	\$	2,600,800

General Requirements for Old State 4 Tank →
65,213 + 586,100 = \$ 651,313 total Old State

New 0.75MG Tank = \$ 1,949,487

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank
Opinion of Probable Construction Cost

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u> \$	<u>Total Cost</u> \$
<u>General Requirements</u>				
Mobilization / Demobilization		LS	\$	37,800
Supervision		LS	\$	94,500
Temporary Facilities		LS	\$	28,400
Temporary Utilities		LS	\$	18,900
Equipment Rental & Miscellaneous		LS	\$	9,500
Bonds and Insurance		LS	\$	40,200
Erosion and Sediment Control		LS	\$	9,500
Total - General			\$	238,800
<u>Site Work</u>				
Clearing and Grubbing	1	acre	7,200.00	\$ 7,200
Finish Grading & Seeding	6,000	sq yd	0.50	\$ 3,000
Compacted Fill	2,400	cu yd	10.00	\$ 24,000
Miscellaneous Concrete	10	cu yd	300.00	\$ 3,000
Filter Fabric and Riprap	5	cu yd	75.00	\$ 400
Paving	825	sq yd	35.00	\$ 28,900
Fencing	1,550	lin ft	20.00	\$ 31,000
Double Gate	1	each	2,500.00	\$ 2,500
Manhole				
Excavation	110	cu yd	12.00	\$ 1,400
Pre-cast Structure	2	each	3,500.00	\$ 7,000
Yard Piping				
12" DIP	200	lin ft	120.00	\$ 24,000
18" DIP	415	lin ft	140.00	\$ 58,100
Yard Valves and accessories				
12" Buried Gate Valve	2	each	2,500.00	\$ 5,000
Live Tap	1	LS		\$ 10,000
Subtotal - Site Work			\$	205,500
Contingencies (5%)			\$	10,300
Total - Site Work			\$	215,800
<u>Claryville Tank</u>				
Single sphere pedestal tank system	1	LS	1,300,000.00	\$ 1,300,000
Earthwork				
Excavation	1,600	cu yd	12.00	\$ 19,200
Concrete				
4' Wide Concrete Walkway	1	cu yd	350.00	\$ 400
Mowing Strip	4	cu yd	350.00	\$ 1,400
Overflow Box/Drain	1	each	2,000.00	\$ 2,000
Guardposts	6	each	800.00	\$ 4,800
Fire Hydrant	1	each	3,500.00	\$ 3,500

Northern Kentucky Water District
 0.75 MG Claryville Elevated Water Storage Tank
 Opinion of Probable Construction Cost

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u> \$	<u>Total Cost</u> \$
Interior Piping and Valves				
Tank Hydrodynamic Mixing System	1	LS	25,000.00	\$ 25,000
Fittings, supports	1	LS	5,000.00	\$ 5,000
Valves and Gates				
Butterfly Valves				
12"	4	each	2,500.00	\$ 10,000
Check Valves				
12" Air cushioned	1	each	4,400.00	\$ 4,400
Specialty Valves				
12" Altitude Valve	1	each	10,070.00	\$ 10,100
Electrical		LS		\$ 50,000
Instrumentation		LS		\$ 50,000
Subtotal - Elevated Tank				\$ 1,485,800
Contingencies (5%)				\$ 74,300
Total - Elevated Tank				\$ 1,560,100

Old State Route 4 Tank

Painting				
Lead Abatement General Requirements	1	LS	50,000.00	\$ 50,000
<u>Exterior</u> (All area quantities are approximate)				
Exterior Area - Classified as hazardous mtl.				
Blast-clean, SSPC-SP6	45,000	sq ft	5.25	\$ 236,300
Epoxy/Urethane paint system (3 coats)	45,000	sq ft	2.00	\$ 90,000
<u>Interior</u> (All area quantities are approximate)				
Interior Area - Classified as hazardous mtl.				
Blast-clean, SSPC-SP10	15,000	sq ft	5.25	\$ 78,800
Epoxy paint system (3 coats)	15,000	sq ft	2.00	\$ 30,000
<u>Dry Riser</u>				
Interior Area - Classified as hazardous mtl.				
Blast-clean, SSPC-SP10	1,500	sq ft	5.25	\$ 7,900
Epoxy paint system (3 coats)	1,500	sq ft	2.00	\$ 3,000
Subtotal - Painting				\$ 496,000
Tank Modifications				
Estimated steel plating to repair tank bowl	20	sq ft	1,200	\$ 24,000
Repair Dry Riser Access Ladder	12	each	100.00	\$ 1,200
Repair Roof Access Ladder	1	LS	500.00	\$ 500
New fall prevention devices (3)	1	LS	1,500.00	\$ 1,500
Mid-Level Dry Riser Platform Safety Chain	1	LS	200.00	\$ 200
Upper Dry Riser Platform Safety Chain	1	LS	200.00	\$ 200
Interior Platform Hatch Cover	1	LS	1,500.00	\$ 1,500
Painter's Hatch Access Platform	1	LS	2,500.00	\$ 2,500

Northern Kentucky Water District
0.75 MG Claryville Elevated Water Storage Tank
Opinion of Probable Construction Cost

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Total Cost</u>
			\$	\$
Roof Fall Protection Device Connection Points	1	LS	1,500.00	\$ 1,500
Confined space entry signs	1	LS	100.00	\$ 100
New roof vent	1	LS	6,000.00	\$ 6,000
Overflow Catch Basin Grating	1	LS	1,000.00	\$ 1,000
Antenna Mounting Bracket	1	LS	250.00	\$ 300
Miscellaneous steel modifications	1	LS	2,000.00	\$ 2,000
Disinfection	1	LS	2,000.00	\$ 2,000
Concrete repair	1	LS	1,000.00	\$ 1,000
Subtotal - Tank Modifications				\$ 45,500
Valve Replacement in Old St Rt 4 Valve Vault				
Miscellaneous Piping Replacement	1	LS	2,500.00	\$ 2,500
Valve Replacement				
12" Air cushioned Check Valve	1	each	4,400.00	\$ 4,400
8" Air cushioned Check Valve	1	each	2,700.00	\$ 2,700
12" Butterfly Valve	2	each	2,000.00	\$ 4,000
8" Resilient-Seated Gate Valve	2	each	1,500.00	\$ 3,000
Subtotal - Valve Replacement in Old St Rt 4 Valve Vault				\$ 16,600
Subtotal - Old State Route 4 Tank				\$ 558,100
Contingencies (5%)				\$ 28,000
Total - Old State Route 4 Tank				\$ 586,100
<u>Project Total</u>				
General				\$ 238,800
Site Work				\$ 215,800
Claryville Tank				\$ 1,560,100
Old State Route 4 Tank				\$ 586,100
			TOTAL	\$ 2,600,800

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

Plans and specifications prepared by Black & Veatch
titled “0.75 MG Claryville Elevated
Water Storage Tank”

Submitted as separate attachments

Northern Kentucky Water District

The following items are enclosed separately from this volume.

- Plans prepared by Black & Veatch titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 11, 2005. (5 sets)
- Specifications prepared by Black & Veatch titled "0.75 MG Claryville Elevated Water Storage Tank" dated November 15, 2005. (5 sets)

NORTHERN KENTUCKY
WATER DISTRICT

**Project – 0.75 MG Claryville Elevated
Water Storage Tank**

Campbell County
184-0416

CERTIFIED STATEMENTS

Affidavit

Franchises

Plan Review and Permit Status

Easements and Right-of-Way Status

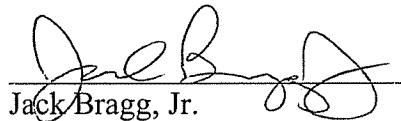
Construction Dates and Proposed Date In Service

Plant Retirements

AFFIDAVIT

0.75 MG Claryville Elevated Water Storage Tank

Affiant, Jack Bragg, Jr., being the first duly sworn, deposes and says that he is the Vice President of Finance of the Northern Kentucky Water District, which he is the Applicant in the proceeding styled above; that he has read the foregoing "0.75 MG Claryville Elevated Water Storage Tank" Application and knows the contents thereof, and that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and that as to those matters he believes them to be true.



Jack Bragg, Jr.
Vice President - Finance
Northern Ky. Water District

Subscribed and sworn to before me in said County to be his act and deed by Jack Bragg, Jr., Vice President of Finance of the Northern Kentucky Water District, this 28th day of December 2005.



NOTARY PUBLIC
Campbell County, Kentucky
My commission expires March 29, 2006

Northern Kentucky Water District

Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the plans and specifications prepared by Black & Veatch titled “0.75 MG Claryville Elevated Water Storage Tank” dated November 2005.

The District received approval from the Federal Aviation Administration on July 19, 2005 and from the Division of Water on October 14, 2005. See attached letters.

Easements and Right-of-Way Status - Easement and Right-of-Way statements are not required.

Start date of construction – assumed March 1, 2006

Proposed date in service – assumed July 1, 2007

Plant retirements – None

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

PLAN REVIEW AND PERMIT STATUS

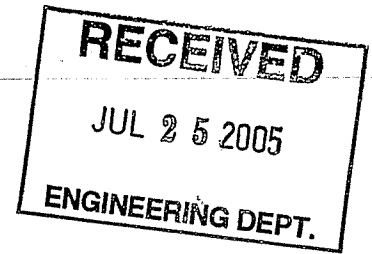
Approval Letter from Federal Aviation Administration

184-416



Federal Aviation Administration
Southwest Regional Office
2601 Meacham Blvd.-ASW-520
Fort Worth, TX 76137-0520

Aeronautical Study No.
2005-ASO-3399-OE



Issued Date: 07/19/2005

AMY KRAMER
NORTHERN KENTUCKY WATER DISTRICT
3049 DIXIE HIGHWAY
EDGEWOOD, KY 41017

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure Type: Water Tank
Location: CLARKSVILLE, KY
Latitude: 38-54-45.0 NAD 83
Longitude: 84-22-52.0
Heights: 173 feet above ground level (AGL)
1031 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1 K.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at . On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2005-ASO-3399-OE.

Signature Control No: 427812-391392

(DNE)

Alice ATL
Technician

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

PLAN REVIEW AND PERMIT STATUS

Approval Letter from Kentucky Division of Water



ENVIRONMENTAL AND PUBLIC PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

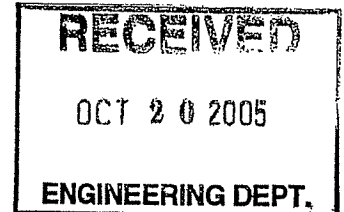
Ernie Fletcher
Governor

Division of Water
14 Reilly Road
Frankfort, Kentucky 40601-1190
www.kentucky.gov

LaJuana S. Wilcher
Secretary

October 14, 2005

Amy Kramer, PE., Engineering Manager
Northern Kentucky Water District
3049 Dixie Highway
P.O. Box 17010
Covington, KY 41017



RE: Campbell County
AI#: 2485
DW No: 0590220-05-047
0.75 MG Claryville Elevated Water Storage Tank
Activity ID: APE 2005047


Dear Mr. Kramer:

We have reviewed the plans and specifications for the above referenced project. The plans include the construction of a new 750,000 gallon elevated water storage tank in southern Campbell County area. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of this date with the requirements contained in the attached construction permit with following stipulations:

1. Overflow pipe shall be screened with a four mesh non-corrodible screen. The screen shall be installed within the overflow pipe at a location least susceptible to damage by vandalism (Recommended Standards for Water Works, 2003 edition, 7.0.7).
2. Also, a provision shall be made (using appropriate valve arrangement) to isolate and drain the tank during cleaning and maintenance.

If you have any questions concerning this project, please contact Solitha W. Dharman, PE, at (502) 564-2225, extension 572.

Sincerely,

for 
Donna S. Marlin, Manager
Drinking Water Branch
Division of Water

DSM: SWD

C: Sid Sengupta, P.E., Black & Veatch
Kenton County Health Department
Campbell County Health Department
Public Service Commission

Distribution-Major Construction
 Northern KY Water Service
 Subject Item Inventory

Activity ID No.: APE20050047

Subject Item Inventory:

ID	Designation	Description
AIOO2485		
STOR3	Water Storage Tank	0.75 MG Elevated Water Storage Tank

Subject Item Groups:

ID	Description	Components
GACT102	0.75 MG Elevated Water Storage Tank	STOR3 0.75 MG Elevated Water Storage Tank

KEY

- ACTV = Activity
- AREA = Area
- EQPT = Equipment
- PERS = Personnel
- STOR = Storage
- TRMT = Treatment

- AIOO = Agency Interest
- COMB = Combustion
- MNPT = Monitoring Point
- PORT = Transport
- STRC = Structure

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

GACT102 (0.75 MG Claryville Tank) 0.75 MG Elevated Water Storage Tank:

Monitoring Requirements:

Condition No.	Parameter	Condition
---------------	-----------	-----------

M-1	Coliform	The presence or absence of total Coliform monitored by sampling and analysis as needed shall be determined for new storage structures. With at least 1 sample taken at least 24 hours after the first construction complete sample(s), take 2 or more samples from the yard hydrant, the outlet piping from the storage structure, or a sample tap directly connected to the storage structure. Sample bottles shall be clearly identified as "special" construction tests. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:150 Section 4] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.
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Submittal/Action Requirements:

Coliform:

Condition No.	Condition
---------------	-----------

S-1	Coliform For new construction projects, the distribution system, using the most expedient method, shall submit Coliform test results to the Cabinet. Due immediately following disinfection and flushing. [401 KAR 8:150 Section 4(2)]
-----	---

Condition No.	Condition
---------------	-----------

S-2	For proposed changes to the approved plan, submit information: Due prior to any modification to the Cabinet for approval. Changes to the approved plan shall not be implemented without the prior written approval of the Cabinet. [401 KAR 8:100 Section 1(8)]
-----	---

S-3	The person who presented the plans shall submit the professional engineer's certification: Due when construction is complete to the Division of Water. The certification shall be signed by a registered professional engineer and state that the water project has been constructed and tested in accordance with the approved plans, specifications, and requirements. [401 KAR 8:100 Section 1(8)]
-----	---

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	<p>Additional Limitations: Chlorinated water resulting from disinfection of project components shall be disposed in a manner which will not violate 401 KAR 5:031. [401 KAR 8:020 Section 2(20)]</p>
T-2	<p>Condition This project has been permitted under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the applicant from the responsibility of obtaining any other approvals, permits or licenses required by this Cabinet and other state, federal and local agencies. Further, this permit does not address the authority of the permittee to provide service to the area to be served. [401 KAR 8:100 Section 1(7)]</p>
T-3	<p>Condition Unless construction of this project is begun within 1 year from the issuance date of this permit, the permit shall expire. If requested prior to the permit expiration, an official extension from the Division of Water may be granted. If this permit expires, the original plans and specifications may be resubmitted for a new comprehensive review. If you have any questions concerning this project, please contact the Drinking Water Branch at 502/564-3410. [401 KAR 8:100 Section 1(9)]</p>
T-4	<p>Condition During construction, a set of approved plans and specification shall be available at the job site at all times. All work shall be performed in accordance with the approved plans and specifications. [401 KAR 8:100 Section 1(7)(a)]</p>

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

STOR3 (Water Storage Tank) 0.75 MG Elevated Water Storage Tank:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Depth	High and low level Depth ≥ 30 ft apart should not be allowed in storage structures providing pressure to a distribution system. [Recommended Standards for Water Works 7.3.2] This requirement is applicable during the following months: All Year. Statistical basis: Maximum.
L-2	Distance	To prevent excessive erosion of storage structure foundations, the overflow and main drain shall either a) discharge to concrete or other stable surfaces (splash pads) which extend a Distance ≥ 10 ft away from the base of the storage structure or b) discharge directly into a crushed stone pit that is at least 2' x 2' x 2' which is a Distance ≥ 10 ft away from the base of the storage structure. [401 KAR 8:100 Section 1(7)] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.
L-3	Height	Tanks shall have an overflow which is a) brought down to a Height ≥ 12 and ≤ 24 in above the ground surface, b) of sufficient diameter to permit waste of water in excess of the filling rate, c) open downward, d) screened with twenty-four mesh noncorrodible screen installed within the pipe at a location least susceptible to damage by vandalism, and e) when not internal, e) i) located on the outside of the tank so that any discharge is visible, when internal, e) ii) located in the access tube. [Recommended Standards for Water Works 7.0.7] This requirement is applicable during the following months: All Year. Statistical basis: Not applicable.
L-4	Height	Tanks shall have manholes that are a) framed a Height ≥ 4 in above the surface of the roof at the opening and b) fitted with a solid watertight cover which overlaps the framed opening and extends down around the frame at least 2 inches. Manholes should be hinged at one side and shall have a locking device. [Recommended Standards for Water Works 7.0.8] This requirement is applicable during the following months: All Year. Statistical basis: Minimum.

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

Page 4 of 8

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-1	<p>Additional Limitations: The materials and designs used for storage structures shall provide stability and durability as well as protection for the quality of the stored water. Steel structures shall follow the AWWA standards wherever they are applicable. Other materials of construction are acceptable when properly designed to meet the requirements in this permit. [Recommended Standards for Water Works 7.0]</p>
T-2	<p>Additional Limitations: The safety of employees must be considered in the design of any tank. The design of tanks shall</p> <ul style="list-style-type: none">a) meet or exceed the minimum requirements of pertinent safety laws and regulations in the areas where the tanks are constructed,b) include ladders, ladder guards and balcony railings (where applicable),c) locate entrance hatches in safe places,d) provide railings or handholds where persons must transfer from an access tube to the water compartment, ande) consider confined space entry requirements. <p>Additionally, if tanks have riser pipes over 8 inches in diameter, the tanks shall have protective bars over the riser openings inside of the tank. [Recommended Standards for Water Works 7.0.12]</p>
T-3	<p>Additional Limitations: Storage structures shall be designed with reasonably convenient access to the interior for cleaning and maintenance. Where space permits, at least 2 manholes shall be provided above the waterline at each water compartment. [Recommended Standards for Water Works 7.0.8]</p>
T-4	<p>Additional Limitations: Fencing, locks on access manholes, and other necessary precautions shall be provided to prevent trespassing, vandalism, and sabotage. [Recommended Standards for Water Works 7.0.4]</p>
T-5	<p>Additional Limitations: All storage structures and their appurtenances, especially the riser pipes, overflows, and vents, shall be designed to prevent freezing. [Recommended Standards for Water Works 7.0.13]</p>
T-6	<p>Additional Limitations: Tanks shall be constructed with no openings except properly constructed vents, manholes, overflows, risers, drains, control ports, and piping for inflow and outflow. Any pipes running through the roof or sidewall must be welded or properly gasketed. [Recommended Standards for Water Works 7.0.10]</p>
T-7	<p>Additional Limitations: All finished water storage structures shall have suitable watertight roofs and sidewalls which exclude birds, animals, insects, and excessive dust. [Recommended Standards for Water Works 7.0.3, Recommended Standards for Water Works 7.0.10]</p>

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

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Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-8	<p>Additional Limitations: The roof of each storage structure shall be well drained. Downspout pipes shall not enter or pass through storage structures. Parapets or similar structures which would tend to hold water and snow on a storage structure roof shall not be approved unless adequate waterproofing and drainage are provided. [Recommended Standards for Water Works 7.0.11]</p>
T-9	<p>Additional Limitations: Storage structures shall be designed so they can be isolated from the distribution system and drained for cleaning or maintenance without necessitating loss of pressure in the distribution system. [Recommended Standards for Water Works 7.3.2, Recommended Standards for Water Works 7.0.5]</p>
T-10	<p>Additional Limitations: Storage structure drains shall discharge to the ground surface at a drainage structure inlet or splash plate. [Recommended Standards for Water Works 7.3.2, Recommended Standards for Water Works 7.0.7]</p>
T-11	<p>Additional Limitations: No drain on a storage structure may have a direct connection to a sewer or storm drain. [Recommended Standards for Water Works 7.0.5, Recommended Standards for Water Works 7.0.7, Recommended Standards for Water Works 7.3.2]</p>
T-12	<p>Additional Limitations: Main drains from storage structures shall have a twenty-four mesh noncorrodible screen installed within the drain pipe at a location least susceptible to damage by vandalism. [401 KAR 8:100 Section 1(7)]</p>
T-13	<p>Additional Limitations: Storage structures shall be designed to facilitate turn over of water. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.6]</p>
T-14	<p>Additional Limitations: Storage structures shall have sufficient capacity, as determined from engineering studies, to meet domestic demands. Additionally, if fire protection is provided, capacity shall also be sufficient to meet fire flow demands. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.1]</p>
T-15	<p>Additional Limitations: Storage structure discharge pipes shall be located in a manner that will prevent the flow of sediment into the distribution system. Additionally, removable silt stops should be provided. [Recommended Standards for Water Works 7.0.15]</p>

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

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Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-16	<p>Additional Limitations: Appropriate sampling tap(s) shall be provided to facilitate collection of water samples for both bacteriologic and chemical analyses. [Recommended Standards for Water Works 7.0.19]</p>
T-17	<p>Additional Limitations: Storage structures shall be vented. Overflows shall not be considered as vents. Open construction between the sidewall and roof is not permitted. Vents shall</p> <ul style="list-style-type: none">a) prevent the entrance of rainwater,b) exclude birds and animals, andc) exclude insects and dust (as much as compatible with effective venting). <p>Vents may use four-mesh noncorrodible screen. [Recommended Standards for Water Works 7.0.9]</p>
T-18	<p>Additional Limitations: Adequate controls shall be provided to maintain levels in storage structures. The level controls shall be acceptable to the Division of Water. Level indicating devices should be provided at a central location. Overflow and low-level warnings or alarms should be located at places in the community where they will be under responsible surveillance 24 hrs a day. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.3.3]</p>
T-19	<p>Additional Limitations: If storage structures have a catwalk over the water, the catwalk floor shall be solid with raised edges so that shoe scrapings and dirt will not fall into the water. [Recommended Standards for Water Works 7.0.14]</p>
T-20	<p>Additional Limitations: Proper protection shall be given to metal surfaces by</p> <ul style="list-style-type: none">a) paints or other protective coatings and/orb) cathodic protective devices. [Recommended Standards for Water Works 7.0.17]
T-21	<p>Additional Limitations: If cathodic protection is utilized,</p> <ul style="list-style-type: none">a) competent technical personnel should design and install the protection andb) a maintenance contract should be provided. [Recommended Standards for Water Works 7.0.17]
T-22	<p>Additional Limitations: If the interior of the storage structure is coated or lined, the coating or lining shall be of a type approved by the Division of Water for use in contact with potable water. [401 KAR 8:020 Section 2(19)]</p>

Distribution-Major Construction

Northern KY Water Service
Facility Requirements

Activity ID No.: APE20050047

Narrative Requirements:

Additional Limitations:

Condition No.	Condition
T-23	<p>Additional Limitations: Paints and coatings</p> <ol style="list-style-type: none">shall meet NSF standard 61,shall be acceptable to the Division of Water,shall be properly applied and cured, andshall not transfer any substance to the water which will be toxic or cause tastes or odors (following curing). <p>Wax coatings shall not be used in any storage structure and must be completely removed before using other paints or coatings in an existing storage structure. [401 KAR 8:100 Section 1(7), Recommended Standards for Water Works 7.0.17]</p>
T-24	<p>Additional Limitations: New water storage structures shall be thoroughly disinfected (in accordance with AWWA Standard C652) upon completion of construction and before being placed into service. To disinfect new storage structures</p> <ol style="list-style-type: none">remove all scaffolding, planks, tools, rags, and other items that are not part of the structural or operational facilities of the storage structure,clean thoroughly by sweeping, scrubbing, using high-pressure water jets, or some equivalently effective means, anduse chlorine or chlorine compounds as subsequently described. <p>Finalize disinfection by</p> <ol style="list-style-type: none">chlorination method 1, described in detail at AWWA Standard C652 Section 4.3.1,chlorination method 2, described in detail at AWWA Standard C652 Section 4.3.2, orchlorination method 3, described in detail at AWWA Standard C652 Section 4.3.3. <p>See the following conditions for abbreviated descriptions of the methods. Following the finalization of disinfection, place storage structures into service if, and only if, Coliform monitoring applicable to the storage structure does not show the presence of Coliform. If Coliform is detected, flush the tank and repeat Coliform monitoring. If Coliform is still detected, repeat disinfection and flushing as if the tank has never been disinfected. Continue the described process until monitoring does not show the presence of Coliform. [Recommended Standards for Water Works 7.0.18]</p>

Distribution-Major Construction

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Facility Requirements

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Narrative Requirements:

Condition No.	Condition
T-25	<p>If applicable, chlorination method 1 generally requires</p> <ul style="list-style-type: none">a) filling a storage structure to the overflow level with water providing a free chlorine Residual Disinfection \geq 10 ppm andb) i) completely draining the storage facility and refilling orb) ii) otherwise reducing (in accordance with method 1) the free chlorine residual to a level appropriate for distribution. [Recommended Standards for Water Works 7.0.18]
T-26	<p>If applicable, chlorination method 2 generally requires</p> <ul style="list-style-type: none">a) scrubbing or spraying the water-contact surfaces of a storage structure with a water solution having an available chlorine concentration = 200 ppm andb) purging of the strong chlorine solution and filling to the overflow level. [Recommended Standards for Water Works 7.0.18]
T-27	<p>If applicable, chlorination method 3 generally requires</p> <ul style="list-style-type: none">a) filling a storage structure to approximately 5% of the total storage volume with water having an available chlorine concentration of 50 ppm,b) continued filling of the storage structure to the overflow level with normal potable water, andc) purging the storage structure so that various disinfection by-products do not reach water consumers. [Recommended Standards for Water Works 7.0.18, 401 KAR 8:100 Section 1(7)]

FOR PTI APPLICATION

BLACK & VEATCH

SEP 29 2005

DESIGN MEMORANDUM

Northern Kentucky Water District
Claryville Tank

B&V Project No. 64723
B&V File A
September 28, 2005

To: KDOW Drinking Water Branch

From: NKWD, Black & Veatch

RECEIVED

OCT 20 2005

ENGINEERING DEPT.

A. GENERAL

This memorandum provides design criteria and layout for the design and construction of a new elevated steel pedisphere tank for the Northern Kentucky Water District (NKWD). The new tank, which is called the Claryville Tank, will be used for water storage in the Southern part of the Campbell County water system and serve as a back-up for the existing Old State Route 4 Tank. This memorandum also includes criteria for repainting of the existing Old State Route 4 tank and tank modifications as part of this project. Additional security and I&C items are also included as part of this project.

B. ENGINEERING SERVICES

All design, quality control and contract document preparation services for the project will be the responsibility of Black & Veatch, administered through the Cincinnati office. The Project Manager is Larry Gaddis; Sid Sengupta is the Project Engineer; and Brad Spindler is the Design Engineer; and Dan Kay is the engineering technician. Mark Magella and Steve Yakimow are the electrical project engineer and instrumentation project engineer, respectively.

A geotechnical investigation was performed at the proposed elevated tank site by Thelen Associates, Inc. through a Contract with the Owner. A revised

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geotechnical report dated August 2, 2005 was prepared and provided to Black & Veatch by Thelen Associates, Inc. A topographic survey has been performed by Viox & Viox, Inc. through a Contract with the Owner. A copy of the site survey is available from Dan Kay.

C. PROJECT SCHEDULE

The following schedule has been established for the project:

Begin Preliminary Engineering and Planning	April 12, 2005
Reinitiating Meeting	April 12, 2005
Design Memorandum to Client	June 29, 2005
30% Completion Milestone	July 29, 2005
90% Completion Milestone	September 16, 2005
Submit Contract Documents to KDOW for Approval	September 30, 2005
Finalize Contract Documents	November 18, 2005
Advertise for Bids	December 1, 2005
Receive Bids	December 21, 2005
Award Contract	March 23, 2006
Start Construction	March 27, 2006
Substantial Completion	October 27, 2007
Substantial Completion (if exist. tank repainting deducted)	June 27, 2007
Final Completion	November 27, 2007
Final Completion (if exist. tank repainting deducted)	July 27, 2007

The above schedule allows 90 days for the Public Service Commission to review and approve the project. Depending on the actual length of the review period, the construction start date may be changed.

D. DRAFTING STANDARDS AND PROCEDURES

All project plans will be plotted on 22 inch by 34 inch mylar with the Cincinnati office standard title block. Drafting will be conducted in accordance with standard B&V policy. Debbie Duncan will be responsible for coordinating all

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drafting. All drawings will be prepared in AutoCAD 2005 format. All drawings shall be signed and sealed by each respective discipline's responsible engineer/architect licensed in the State of Kentucky.

Correspondence, files, drawings, specifications, and other related information will be available on CYGNET. All members of the project team will have access to the project on CYGNET and are responsible for updating the information as necessary.

E. CODES AND REGULATORY AGENCIES

The following codes and regulatory agencies will be applicable for this project:

- Kentucky Building Code, latest edition
- Great Lakes – Upper Mississippi River Board of State Public Health & Environmental Managers "Recommended Standards for Water Works" (Ten States Standards), 2003 edition
- Kentucky Division of Water
- NEC - National Electrical Code

F. PERMITS

Applications for permits or approvals will be submitted to the following agencies.

- Kentucky Division of Water
- Federal Aviation Authority – FAA form 7460-1 Notice of Proposed Construction or Alteration

G. DATUM

All elevations will be USGS datum.

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H. UTILITIES

Electric and gas service at the Claryville Tank site is provided by Owen County Rural Electric. Water service is provided by the Northern Kentucky Water District. Sewer service is not available at the site, but falls under the jurisdiction of Northern Kentucky Sanitation District No. 1. The project site falls under the service area of Cincinnati Bell.

J. BACKGROUND MATERIAL

Reference material for this project includes the following:

- Campbell County KY Water District, Southern Campbell County Area, Constructing Water Mains, Contract No. 17, 20 sheets, 1975, Alfred LeFeber Associates
- Campbell County KY Water District, Southern Campbell County Area, Proposed 1.0 MG Elevated Tank, Contract No. 18, 6 sheets, 1975, Alfred LeFeber Associates
- Elevated Tank Sites, April 23, 2001, Black & Veatch
- Elevated Tank Sites (revised), January 2, 2002, Black & Veatch
- Elevated Tank Type Recommendation, March 5, 2002, Black & Veatch
- Elevated Tank Sites (revised), March 28, 2002, Black & Veatch
- Elevated Tank Comparison, April 27, 2005, Black & Veatch

Copies of these can be obtained from Debbie Duncan.

K. STANDARDS

The tank will be constructed in accordance with the following American Water Works Association (AWWA) and American Concrete Institute (ACI) standards:

- D100 AWWA Standard for Welded Steel Tanks for Water Storage (1996)
- D102 AWWA Standard for Coating Steel Water Storage Tanks (1997)
- C652 AWWA Standard for Disinfection of Water Storage Facilities (1992)
- 301 ACI Standard Specifications for Structural Concrete (1999)
- 318 ACI Building Code Requirements for Reinforced Concrete (1999)

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L. NEW FACILITIES DESCRIPTION

General

This project consists of the design and Contract Document preparation for a new 750,000 gallon elevated water storage tank for the Northern Kentucky Water District (NKWD). The new tank will be utilized to meet increasing water demands in the Southern Campbell County Area, and to serve as a back-up for the existing Old State Route 4 Tank. Included in this project is design for the inclusion of security measures and provisions for future I&C requirements. The project also includes the removal of existing paints and the application of new painting systems to exterior and interior metal surfaces of the adjacent 1.0 million gallon Old State Route 4 elevated storage tank as well as additional tank modifications.

Site Description

The tank will be located in Claryville, Kentucky, in Campbell County, on property adjacent to the existing 0.949-acre Old State Route 4 Tank. The new property is located west of Woeste Road (formerly Old State Road 4) approximately 0.50 miles south of Lickert Road, and consists of combined 0.099 acres and 1.435 acre parcels. The 0.099 acre site connects the existing tank site with the new 1.435 acre site. The site slopes downwards in an east-west direction, with an approximate slope of 4% at the north-eastern portion of the site, and a steeper 9% slope towards the southwest portion of the site. The tank will be built on the relatively flat area at the northeastern portion of the site. Regrading of the site will be minimized in order to preserve the stability of the slope and based on the geotechnical report recommendations. A new road will connect the old tank site with the new site.

The tank will be a single pedestal steel sphere/spheroidal-type with an approximate height of 170 feet (overflow elevation of 1017). Based on preliminary discussions with tank manufacturers, the base of the tank will be approximately 36 feet in diameter, the pedestal column will be 12 ft. in diameter,

with a bowl diameter of 66 ft. Final dimensions will be determined by the tank manufacturer.

Geotechnical Investigation

The geotechnical survey of the site indicates an approximately 6-inch thick layer of topsoil underlain intermittently by a 1.5-foot thick layer of glacial silty clay. Beneath the topsoil and/or glacial silty clay layer, a 1.5 to 2.5-foot thick layer of glacial plastic clay was encountered followed by a 1.5 to 5-foot thick layer of residual clay. The residual soils were underlain by interbedded shale and limestone bedrock. The upper layers of the encountered bedrock were highly weathered.

Based on review of the geotechnical report, four foundation options have been presented – two shallow, and two deep foundation options. The two shallow foundation options consist of a ring footing that can be sized for the upper layer of highly weathered shale and limestone bedrock with a bearing capacity of 4,000 psf (elev. 851), or for a bearing capacity of 9,000 psf (elev. 847) within the lower layer of weathered bedrock. Drilled shaft options are presented in the report for deeper foundations with end bearing pressures of 30,000 (elev. 823.9) to 60,000 psf (elev. 821.9) depending on the depth of the shaft. The tank manufacturer is responsible for selecting the appropriate option and designing the foundation system.

Civil

The tank shall be designed in accordance with AWWA D100 and the following parameters:

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Tank	Steel, Single Pedestal Sphere/Spheroid
Capacity, MG	0.75
Maximum Inflow, mgd	3
Ground Elevation, ft	864
Top of Foundation Elevation, ft	864.5
Overflow Elevation, ft	1017
Maximum Top Elevation of Tank, ft	1035
Tank Height to Overflow, ft	152.5
Tank Height to Top, ft	170.5
Column Diameter, ft	12
Base Diameter, ft	36
Tank Bowl Diameter, ft	66
Diameter of Influent/Effluent Piping, in	12
Overflow Diameter, in	12
Overflow, mgd	3

Design loads will be based on the parameters indicated in Section 3.1 of AWWA D100 Standard for Welded Steel Tanks for Water Storage (1996). Seismic loads will be based on seismic zone 1 per Figure 7 of the AWWA D100 Standard.

The tank foundation will be designed by the tank supplier and in accordance with Section 12 of AWWA D100. The foundation type, depth and design bearing pressure shall be as recommended in the geotechnical report prepared by Thelen Associates, Inc. to be made available to bidders with the Contract Documents.

Minimum metal thickness shall be the greatest of the following:

1. Design thickness
2. Thickness specified in Section 3.10 of AWWA D100
3. ¼ inch

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A single 12-inch influent/effluent pipe will connect the tank to an existing 12-inch main connected off Old State Route 4. Based on preliminary review of the 1975 Contract No. 17 drawings, it appears that the 12-inch main runs along the northern edge of the new tank site.

The Tideflex Mixing System[®] will be installed on the tank riser pipe to promote efficient turnover.

A new 15-foot wide asphalt driveway will connect the existing tank site with the new site. During construction, a temporary fence will be installed around the existing tank to secure the site. The roadway will be constructed along the northern and west perimeter, within the property line, to facilitate construction traffic for the new tank.

Accessories

The tank shall be provided with the following:

- The new tank will be equipped with a readily accessible sample tap at the tank base for connection to future analyzer equipment.
- A 4" PVC pipe will be provided in the tank base slab to route future analyzer flow into the overflow catch basin.
- Overflow to be routed down through the support column and discharge 2 feet above grade, outside of the tank wall. The overflow will terminate with a flap gate.
- A roof access tube at least 3 feet in diameter.
- Internal ladders from tank base to roof access hatch with intermediate landing platform and safety climb device. Platforms will be at a maximum of 20 feet or OSHA required spacing, whichever is less. Any additional design

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recommendations that were adopted from the Vulnerability Assessment will be provided by the District during the design phase.

- The following openings, doors and covers will be provided, with access control:
 - Hatch in roof over roof access tube
 - Hatch in roof into water containing space
 - Manhole in roof access tube at bottom of water containing space
 - Base access door and frame with lockguard and locksets at ground level, approximately 3 feet x 7 feet.
- The tank will have a one way altitude valve on the influent pipe and a check valve on the effluent pipe. The altitude valve shall be furnished with a stem to determine open or closed. Altitude valve position shall be tied into the SCADA System.
- Hooks at top center of tank exterior for attachment of safety equipment.
- Mounting brackets on tank roof for installation of antennas.
- An electrical raceway, cable tray, shall extend from the tank base, through the roof access tube to the tank roof for installation of cables to antennas.

Architectural

Unless otherwise directed by the District, the NKWD logo will be displayed on the tank. The color will be a "tank white" for both the tank and column.

Protective Coatings

All surface preparation, application, inspection and testing shall be in accordance with the applicable requirements of AWWA D102.

- The exterior coating system shall consist of a three-coat epoxy/epoxy/aliphatic acrylic polyurethane system, with a total minimum dry film thickness of 8 mils.
- The interior coating system for wet surfaces shall consist of a NSF certified three coat epoxy system with a total minimum dry film thickness of 15 mils.
- The interior coating system for dry surfaces shall consist of a two coat epoxy system with a total minimum dry film thickness of 8 mils.
- No cathodic protection system will be provided.

Electrical

The electrical design will conform to Black & Veatch standards and will be designed generally as follows:

- a. Rigid galvanized steel conduit (RGS) will be used for exposed indoor applications.
- b. Utility grade PVC conduit will be installed in floor slabs and walls and in underground duct banks.
- c. PVC coated rigid steel conduit will be used for exposed outdoor areas.
- d. Concrete encasement for electrical duct banks will have reinforcing at roadway crossings and near future construction areas.
- e. All low voltage power and control cables will be rated for 600 volts. Power cable will have type XHHW insulation. Multiconductor control cables and lighting cables will have type THHN insulation.
- f. All free-standing electrical equipment will be installed on housekeeping pads.
- g. Spare conduits will be provided per NKWD requirements, and will include pull strings.

Power Supply and Distribution

Power supply is delivered from the electric utility at 120/240 volts, 1 phase, 60 hertz via an outdoor, pole-mounted, utility-owned transformer. A minimum 100 amp electrical service will be provided. The service entrance main disconnect

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will be located at the tank's base. Power to all electrical loads will be distributed from a 120/240 volt lighting panelboard located within the lower tank base to power 120 volt loads. The lighting panel will be equipped with transient voltage surge suppression (TVSS).

Communication Requirements

No telephone communication equipment will be provided at the elevated tank. Provisions for an Owner supplied telephone line will be provided for use with the security camera system.

Lighting Requirements

Interior lighting will be provided in the base, support column and roof access tube. Interior base lighting will be industrial fluorescent fixtures. Support column and roof access tube shall be incandescent fixture.

Select fixtures will be equipped with emergency battery packs to allow safe egress from the area during a power outage. Emergency light wall packs will be provided for areas where fixture battery packs are not available.

Exterior lighting will be provided above doors of the tank base. Exterior building lighting fixtures will be quartz halogen.

Aviation obstruction lights will be provided if required by FAA.

Environmental Requirements

A grounding system will be incorporated around the exterior of the tank base.

Security Requirements

- a. Provisions for a card reader system for the main gate and main door.

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- b. Hatch intrusion alarms on all tank hatches connected to the SCADA to indicate an open hatch on the new tank.
- c. Conduits for future perimeter intrusion detection system around the entire perimeter of the Old State Road 4 Tank and the new tank that is connected to the SCADA.
- d. Design conduits for future camera system at the new tank with multiple conduits over to the existing Old State Route 4 tank.

Instrumentation and Control System

The tank's control system will consist of a PLC which will comply with the current specifications from the SCADA Phase II improvements or as approved by the Instrumentation Supervisor. The tank's control system will communicate to the Ft. Thomas Plant via MAS radio and include an omni-directional antenna with tail end link. The tanks' instrumentation will include a pressure type level indicating transmitter that will connect to the PLC to provide remote level indication. ADGO will be specified for the SCADA integration and panel construction.

The design will include equipment and panel specifications; control descriptions; P & ID drawing; panel, radio, level transmitter, and antenna and installation details drawing.

The design will also include support systems necessary for future installation of water quality analyzers, one each as follows:

- a. Free Chlorine analyzer
- b. pH analyzer
- c. Turbidity analyzer
- d. Corrosion analyzer

OWNER will provide specifications for analyzers currently in use to assist with design requirements. All conduit, plumbing, piping, and I/O requirements for the analyzers are included in this project.

L. REPAINTING OF EXISTING TANK

The project also includes the removal of existing paints and the application of new painting systems to exterior and interior metal surfaces of the adjacent 1.0 million gallon Old State Route 4 elevated storage tank. A tank inspection was conducted on August 10, 2005. The inspection report recommends the following tank modifications that are included in this project.

- a. Exterior and interior surfaces shall be blast-cleaned. Lead abatement procedures shall be followed and all blasting residue shall be considered hazardous and contained, gathered, handled, and disposed of accordingly. The exterior surfaces shall be coated with epoxy/polyurethane enamel. Interior surfaces shall be coated with epoxy paint. Painting of the Old State Route 4 tank shall be performed after the new Claryville Tank has been in service for at least one month.
- b. Replacement of the dry riser access ladder rungs and installation of new cable type fall arrest system.
- c. New cable type fall arrest system on the interior access ladder system.
- d. Replacement or repair of roof access ladder connections to the tank with bolted connections which allow for movement caused by thermal expansion and contraction of the tank shell. Connection point for personal protection devices on the interior of the tank roof, adjacent to the roof access hatch.
- e. Safety chain or other protective device on the mid-level dry riser platform between the handrail and the dry riser sidewall adjacent to the access ladder.
- f. Safety chain or other protective device on the upper dry riser platform between the handrail and the dry riser sidewall adjacent to the access ladder.
- g. Hatch cover over the floor opening to the access ladder on the interior platform.

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- h. Access system to allow personnel to safely reach painter's hatch from the upper dry riser platform.
- i. Connection points or handrail on the exterior tank roof to allow personnel to safely access the roof vent and hatch.
- j. New positive/negative pressure vent with frost protection and bird screen.
- k. Replace catch basin grating.
- l. A purpose built antenna bracket for mounting an antenna on the tank leg.
- m. Confined space entry signs installed at the main entry hatch.
- n. Seal coat the concrete foundation.

N. PRELIMINARY SHEET LIST

The preliminary sheet list is provided below:

DRAWING	TITLE
-	Cover Sheet and Drawing List
L1	General – Drawing List, Legend and Abbreviations
L2	General – General Notes and Location Maps
C1	Civil – Site Plan and Details
C2	Civil – Plans, Sections and Details
C4	Civil – Standard Concrete Details
C5	Civil – Standard Concrete Details
C6	Civil – Mechanical, Ventilation, Plumbing, and Miscellaneous Details
C7	Civil – Mechanical, Ventilation, Plumbing, and Miscellaneous Details
E1	Electrical – Legend and Abbreviations
E2	Electrical – Site Plan
E3	Electrical – Power and Lighting Plan
E4	Electrical – One-Lines, Schedules and Details

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DRAWING	TITLE
I1	Instrumentation – Legend and Abbreviations
I2	Instrumentation – Control System Block Diagram, P&ID and Installation Details

O. PRELIMINARY SPECIFICATION LIST

A preliminary specification list is provided below.

SECTION	TITLE
00020	Invitation to Bid
00100	Instructions to Bidders
00400	Bid Form
00410	Bid Bond
00430	List of Subcontractors
00450	Equipment Questionnaire
00480	Noncollusion Affidavit
00500	Agreement
00510	Performance Bond
00520	Payment Bond
00550	Certificate of Insurance
00552	Certificate of Property Insurance
00700	Standard General Conditions of the Construction Contract
00800	Supplementary Conditions
01015	Project Requirements
01070	Abbreviations of Terms and Organizations
01300	Submittals
01310	Construction Scheduling
01320	Construction Progress Documentation
01380	Construction Photographs
01400	Quality Control
01500	Temporary Facilities

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SECTION	TITLE
01605	General Equipment Requirements
01612	Shipping
01614	Handling and Storage
01650	Startup Requirements
02200	Earthwork
02202	Trenching and Backfilling
02372	Drilled Piers
02605	Sewer Manholes
02675	Cleaning and Disinfection of Water Distribution System
02704	Pipeline Pressure and Leakage Testing
02832	Chain Link Fencing
02901	Landscaping
02930	Seeding
03100	Concrete Formwork
03200	Concrete Reinforcement
03250	Concrete Joints and Accessories
03300	Cast-in-Place Concrete
03350	Concrete Placing, Finishing and Curing
03600	Grout
03700	Concrete Repair
05520	Handrailing, Guardrailing, and Ladders
05550	Anchorage in Concrete and Masonry
05990	Structural and Miscellaneous Metals
07900	Caulking
09870	Protective Coating for Steel Water Storage Tanks
13210	Elevated Tank
13210A	Tank Hydrodynamic Mixing System
13210B	Tank Modifications
13500	Instrumentation and Control System
13530	Programmable Logic Controllers
13550	Software Control Block Descriptions
13560	Instrumentation General Requirements

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SECTION	TITLE
13561	Panel Mounted Instruments
13563	Pressure and Level Instruments
13570	Panels, Consoles, and Appurtenances
13570-S02	Wall-Mounted Panel Schedule
15010	Valve Installation
15061	Ductile Iron Pipe
15061-S01	Ductile Iron Pipe Schedule
15062	Steel Pipe
15062-F1	Steel Pipe Fittings
15062-F2	Dimensions for Steel Pipe Fittings
15093	Check Valves
15100	Miscellaneous Valves
15101	AWWA Butterfly Valves
15101-S01	AWWA Butterfly Valves Schedule
15110	Altitude Valves
15111	Gate Installation
15115	Flap Gates
15140	Pipe Supports
15140-F2	Hangers and Supports
15140-F2	Hangers and Supports
15180	Valve and Gate Actuators
16050	Electrical
16100	Electrical Equipment Installation
16640	Cathodic Protection System

Northern Kentucky Water District
Claryville Tank

B&V Project No. 64723
September 28, 2005

P. DESIGN PROJECT PHASE NUMBERS

Separate phase numbers have been established for the various engineering groups as follows:

<u>Design Group</u>	<u>Project Number</u>
Cincinnati office	64723.100
Electrical	64723.110
Instrumentation	64723.120

Each Design group is responsible for ensuring that all project and time expense charges utilize the appropriate project phase number.

Q. CONTACT LIST

Northern Kentucky Water District
3049 Dixie Highway
Covington, KY 41017

Phone (859) 426-2734
Fax (859) 578-7893

Amy Kramer Project Manager

Northern Kentucky Water District
700 Alexandria Pike
Forth Thomas, KY 41075

Phone (859) 441-0482
Fax (859) 572-4795

Bill Wulfeck Operations Manager
Jim Dierig Pumping Supervisor
Amy Matricia Instrumentation Administrator

DESIGN MEMORANDUM

Northern Kentucky Water District
Claryville Tank

B&V Project No. 64723
September 28, 2005

Black & Veatch

11500 Northlake Drive Suite 205
Cincinnati, OH 45249

Phone (513) 984-6630

Fax (513) 984-6686

Larry Gaddis	Project Manager	(513) 936-5107
Sid Sengupta	Project Engineer	(513) 936-5121
Brad Spindler	Design Engineer	(317) 570-8331
Dan Kay	Engineering Technician	(513) 936-5129
Debbie Duncan	Engineering Technician	(513) 936-5145
Mark Magella	Electrical Project Engr.	(513) 936-5105
Steve Yakimow	Instr. Project Engineer	(513) 936-5111

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

BID INFORMATION AND BOARD RESOLUTION

Bid Tabulation

Engineer's Recommendation of Award

Board Resolution

ITEMS CONCERNING BID INFORMATION AND BOARD RESOLUTION

- The Bid opening was scheduled for December 6, 2005 and bid tabulation is attached. The project included construction of the new 0.75 MG Claryville Tank as well as rehabilitation and repainting an existing 1 MG Old State 4 Tank (a.k.a. South County Tank). The existing tank rehabilitation and repainting will be paid from the District's annual operating and maintenance budget. The new tank will be funded through Bond 2003. A summary of the project costs is provided below:

o Land Survey	\$ 4,500
o Geotechnical Engineering	\$ 20,000
o Design Engineering	\$ 145,000
o Construction Engineering	\$ 100,000
o Property Acquisition	\$ 1,700
o Contractor's Bid	\$2,298,300
o Misc. & Contingencies	\$ <u>275,500</u>
Total Project Cost	\$2,845,000

Old State 4 Tank 2007 O&M Budget \$ 650,000

Total New Claryville Tank \$2,195,000 financed through 2003 Bond

- The Engineer's Recommendation of Award is attached.
- The Board Resolution from the December 15, 2005 meeting is attached.

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

Bid Tabulation

BID TAB

Northern Kentucky Water District
0.75 MG Claryville Elevated
Water Storage Tank

December 6, 2005
2:00pm

<u>CONTRACTOR</u>	<u>BID AMOUNT</u>	<u>Alt. A</u>	<u>Alt. B</u>	<u>Alt. C</u>
CB& I Constructors, Inc.	2,298,300.00	554,000.00	1,000.00	1,000.00
Caldwell Tanks	2,378,000.00	582,000.00	18,000.00	12,000.00
Maguire Iron	3,055,450.00	1,148,000.00	10,000.00	10,000.00

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

Engineer's Recommendation of Award

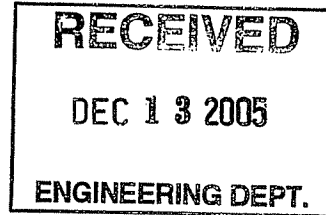


BLACK & VEATCH

11500 Northlake Drive
Suite 205
Cincinnati, Ohio 45249 USA

Tel: (513) 984-6630
Fax: (513) 984-6686

Black & Veatch Corporation



Northern Kentucky Water District
Claryville and South County Tanks

December 7, 2005

Ms. Amy Kramer, P.E.
Northern Kentucky Water District
3049 Dixie Highway
P.O. Box 17010
Covington, Kentucky 41017

Dear Ms. Kramer:

As requested by the District, Black & Veatch has reviewed the bid submitted by C B & I Constructors, Inc. for the above-referenced project. It is our opinion that the bid complies with the requirements stated in the Bidding Documents. We are unaware of any issues or concerns regarding this bidder, and therefore recommend award of the project construction contract to C B & I.

Please feel free to contact me if there are any questions.

Very truly yours,

BLACK & VEATCH CORPORATION

Larry Gaddis, P.E.
Project Manager

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

Board Resolution

**Northern Kentucky Water District
Board of Commissioners Meeting
December 15, 2005**

A regular meeting of the Board of Commissioners of the Northern Kentucky Water District was held on December 15, 2005 at the District's Aqua Drive office. All Commissioners except Commissioner Koester were present. Also present were Ron Lovan, Richard Harrison, Bari Joslyn, Mark Lofland, Jack Bragg, Dee Browning, Frances Robinson, Mary Carol Wagner, Bill Wulfeck, David Peat, Jim Dierig, Bob Buhrlage, Don Gibson, Scott Shepherd, Dom Viletto, Mary Willenborg, and Charles Pangburn.

Commissioner Wagner called the meeting to order.

Ms. Browning of the District staff led those in attendance in the Pledge of Allegiance.

The Board recognized Dee Browning on the occasion of her retirement for her more than twenty years of dedicated and faithful service to the District.

Ms. Joslyn of the District staff delivered a presentation to the Board on the Partnership for Safe Water.

Mr. Shepherd of the District staff presented a construction update on the Central Facility. Mr. Harrison of the District staff presented a budget summary and scheduling update for the Central Facility.

Ms. Mary Willenborg addressed the Board regarding the notice provided for water service disruption on Turkeyfoot Road.

The Board recognized the following members of the District staff: Chris Lawson for earning a Bachelor's degree, Amy Matracia for earning a Bachelor's degree and Jack Bragg for earning a Master's degree.

The Board reviewed articles published and correspondence received since the last regular Board meeting on November 17, 2005.

On motion of Commissioner Sommerkamp, seconded by Commissioner Jackson, the Commissioners present unanimously approved the minutes for the regular Board meeting held on November 17, 2005.

On motion of Commissioner Jackson, seconded by Commissioner Collins, and after discussion, the Commissioners present unanimously approved the expenditures of the District for the month of November, 2005.

On motion of Commissioner Sommerkamp, seconded by Commissioner Macke, and after discussion, the Commissioners present awarded the 36-inch Water Main Replacement Project, Phase II, in the City of Taylor Mill to Paul Rack Excavating and Paving and authorized the execution of contract documents.

On motion of Commissioner Macke, seconded by Commissioner Sommerkamp, and after discussion, the Commissioners present unanimously approved the acceptance of bids from Ferguson Waterworks, Viking Supply and Hughes Supply for the purchase of 36-inch valves.

On motion of Commissioner Collins, seconded by Commissioner Sommerkamp, and after discussion, the Commissioners present unanimously approved the award of the 0.75 MG Claryville Tank project, including the repainting and rehabilitation of the South County Tank, to CB&I Constructors Inc., authorized an increase in the project budget to \$2,195,000.00, and authorized the execution of contract documents. ←

On motion of Commissioner Sommerkamp, seconded by Commissioner Collins, and after discussion, the Commissioners present unanimously authorized the purchase of distribution inventory materials from the vendors listed on the attached bid summary.

On motion of Commissioner Sommerkamp, seconded by Commissioner Collins, and after discussion, the Commissioners present unanimously approved the following 2006 schedule for regular monthly Board meetings: For the months of January and February, 2006, the meeting will be held at 100 Aqua Drive in Cold Spring, Kentucky on the 3rd Thursday of the month, commencing at 12:30 p.m. For the month of March, 2006, the meeting will be held at 100 Aqua Drive in Cold Spring, Kentucky on March 30, 2006, commencing at 12:30 p.m. For the months of April through December, 2006, the meetings will be held at the new Central Facility at 2835 Crescent Springs Road in Erlanger, Kentucky on the 3rd Thursday of each month, commencing at 12:30 p.m.

The Board reviewed the District's financial reports and Department reports.

On motion of Commissioner Collins, seconded by Commissioner Jackson, the Commissioners present unanimously agreed to go into executive session under the provisions of KRS § 61.810(1)(b) to discuss a possible acquisition.

The Board returned to open session.

Other matters of a general nature were discussed.

On motion of Commissioner Collins, seconded by Commissioner Sommerkamp, and there being no further business to come before the Board, the meeting was adjourned.

CHAIR

SECRETARY

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

PROJECT FINANCE INFORMATION

Customers Added and Revenue Effect

Debt Issuance and Source of Debt

Additional Costs for Operating and Maintenance

Depreciation Cost and Debt Service After Construction

Northern Kentucky Water District

There will be zero new customers added and no revenue effect as a result of the 0.75 MG Claryville Elevated Water Storage Tank project. The project will allow for maintenance on the existing Old State 4 Tank (also called South County Tank) and for increases in future water demand. Rehabilitation and repainting of the existing 1 MG tank is included in this project.

The amount of debt issuance and source is \$2,195,000 from Bond 2003, which was part of Rate Case 2002-0105. The original project budget when the original BAN was issued in 2001 was \$1,750,000. The 2001 BAN was paid by Bond 2003.

Increases in labor in material costs since the time the BAN was issued have necessitated an increase in the budget that will be covered from remaining contingencies in Bond 2003. The project was delayed by a lengthy process from the land donor, Sara Lee Foods, related to title challenges associated with financing liens.

Additional operating and maintenance costs incurred for the 0.75 MG Claryville Elevated Water Storage Tank are as follows:

Annual O&M

Power	\$1,000
Labor	\$2,000
Maintenance	<u>\$25,000</u>
	\$27,000

Annual depreciation and debt service after construction are as follows:

Depreciation	\$36,583/year over 60 years
Debt Service	\$158,000/year

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

PSC ANNUAL REPORT - 2004

WATER

CLASS A & B
WATER DISTRICTS AND ASSOCIATIONS

ANNUAL REPORT

OF

Northern Kentucky Water District

TO THE

PUBLIC SERVICE COMMISSION

OF THE

COMMONWEALTH OF KENTUCKY

211 SOWER BOULEVARD
P. O. BOX 615
FRANKFORT, KENTUCKY 40602

FOR THE CALENDAR YEAR ENDED DECEMBER 31, 2004

KENTUCKY PUBLIC SERVICE COMMISSION
REPORT OF GROSS OPERATING REVENUES DERIVED FROM INTRA-KENTUCKY
BUSINESS FOR THE YEAR ENDING DECEMBER 31, 20 04

Northern Kentucky Water District 100 Aqua Dr, Cold Spring, KY 41017
(Utility Reporting) (Address)

FEIN # (Federal Employer Identification Number)

Table with 10 columns containing the digits: 6, 1, -, 1, 3, 1, 1, 6, 9, 5

(DO NOT INCLUDE TAXES COLLECTED)

- (1) Gross Revenues of Electric Utility.....\$
(2) Gross Revenues of Gas Utility.....\$
(3) Gross Revenues of Water Utility.....\$ 30,931,917.00
(4) Gross Revenues of Sewer Utility.....\$
(5) Other Operating Revenues.....\$ 1,253,333.00
*** TOTAL GROSS REVENUES.....\$ 32,185,250.00

OATH

State of...Kentucky.....)
) ss.
County of...Carrick.....)

Ronald J. Barrow being duly sworn, states that he/she is
(Officer)
V.P. Finance of the Northern Kentucky Water District that the above
(Official Title) (Utility Reporting)
report of gross revenues is in exact accordance with Northern Kentucky Water Dist., and that such
(Utility Reporting)
books accurately show the gross revenues of Northern Kentucky Water District, derived from
(Utility Reporting)
Intra-Kentucky business for the calendar year ending December 31, 20 04

[Signature] VP
(Officer) (Title)

This the 18th day of April, 2005
Kimberly A. Robertson Pendleton June 26, 2005
(Notary Public) (County) (Commission Expires)

NOTE: ANY DIFFERENCE BETWEEN THE AMOUNT OF THE GROSS REVENUES SHOWN IN THE
ANNUAL REPORT AND THE AMOUNT APPEARING ON THIS STATEMENT MUST BE
RECONCILED ON THE REVERSE OF THIS REPORT.

Title Page

	Name of Respondent	Addr Line 1	Addr Line 2	City	State	Zip
Water Districts/Associations Annual Report of Respondent	Northern Kentucky Water District	100 Aqua Dr		Cold Spring	KY	41076

Principal Payment and Interest Information

	Amount	Yes/No	PSC Case No.
Amount of Principal Payment During Calendar Year	\$4,694,000.00		
Is Principal Current?		Y	
Is Interest Current?		Y	
Has all long-term debt been approved by the Public Service Commission?		Y	

Services Performed by Independent CPA

	Yes/No	A/C/R
Are your financial statements examined by a Certified Public Accountant?		
Enter Y for Yes or N for No	Y	
If yes, which service is performed?		
Enter an X on each appropriate line		
Audit		X
Compilation		
Review		

Additional Requested Information

Name	Electronic Info
Northern Kentucky Water District	www.nkywater.org
Ron Barrow Andy Remlinger	Rbarrow@nkywater.org Aremling@nkywater.org

Name of Utility and Web Address

Contact Name and Email Address

Additional Information Required

Case Num	Date	Explain
96-234	08/26/1996	Merger of Campbell Co Water District and Kenton Co Water District No. 1. Effective date of merger: 1/1/97
97-330	09/02/1997	Defeasance of former Campbell Co. Ky Water District Bonds. Principal of issue \$9,630,000.
92-482	03/14/1992	Subdistrict A# of customers at 12/31/04 -476 Surcharges billed 2004 \$65,997. Accumulated surcharges billed as of 12/31/04 \$ 1,078,440 Remaining debt service \$722,347
94-482	01/26/1995	Subdistrict B# of customers at 12/31/04 -265 Surcharges billed 2004 \$62,920. Accumulated surcharges billed as of 12/31/04 \$ 586,432 Remaining debt service \$1,643,451
95-582	02/08/1996	Subdistrict R# of customers at 12/31/04 -234 Surcharges billed 2004 \$52,027. Accumulated surcharges billed as of 12/31/04 \$ 442,311 Remaining debt service \$1,038,989.
95-582	02/08/1996	Subdistrict RL# of customers at 12/31/04 -84 Surcharges billed 2004 \$38,594. Accumulated surcharges billed as of 12/31/04 \$ 352,563 Remaining debt service \$716,894.
97-468	09/04/1998	Per item 7 on the order. See attached exhibit ML 1.
2000-329	07/21/2000	Subdistrict C # of customers at 12/31/04 - 863 Surcharges billed 2004 \$232,911.
2000-171	05/05/2002	Subdistrict D# of customers at 12/31/04 - 120 Surcharges billed 2004 \$41,925. Accumulated surcharges billed as of 12/31/04 \$ 89,835.
2001-198	06/27/2001	Defeasance of the former Kenton Co. Water District No. 1 bonds and Newport WW

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004

Additional Information Required

Case Num	Date	Explain
2002-363	10/01/2002	Defeasance of the former Kenton County water district bonds. Principal of the issue is \$10,575,000.
2002-468	03/01/2003	Defeasance of the former Kenton County water district bonds. Principal of the issue is \$1,615,000.
2002-105	04/30/2003	Water rate increase.
2002-105	06/01/2003	Issue of 2003 B Bonds. Principal is \$30,270,000.
2003-404	12/02/2003	Defeasance of the former Kenton County water district bonds. Principal is \$23,790,000.
2003-224	11/17/2004	Issue of 2004 Bonds. Principal is \$10,455,000.
2003-224	08/01/2004	Water rate increase.
2003-430	03/08/2004	Purchase of Taylor Mill, KY Water Works.

Major Water Projects

<p>Provide details about each major water project which is planned but has not yet been submitted for approval to the Public Service Commission.</p>	
<p>For the limited purpose of this report, a "Major Project" is defined as one which is not in the ordinary course of business, and will increase your current utility plant by at least 20 percent.</p>	
<p>Brief Project Description: (improvement, replacement, building construction, expansion. If expansion, provide the estimated number of new customers):</p>	<p>N/A</p>
<p>Projected Costs and Funding Sources/Amounts:</p>	<p>N/A</p>
<p>Approval Status: (Application for financial assistance filed, but not approved; or application approved, but have not advertised for construction bids)</p>	<p>N/A</p>
<p>Location: (community, area or nearby roads)</p>	<p>N/A</p>

History-Legal Name (Ref Page: 4)

1. Exact name of utility making this report. (Use the words "The", "Company" or "Incorporated" only when part of the corporate name.)	Northern Kentucky Water District
--	----------------------------------

History-Location (Ref Page: 4)

	name	Address	city	state	zip	Phone
Give the location, including street and number, and TELEPHONE NUMBER of the principal office in KY.	Ron Barrow	100 Aqua Dr.	Cold Spring	KY	41076	578-9898
principal office in KY						
Give name, title, address and TELEPHONE NUMBER of the officer to whom correspondence concerning this report should be addressed.	Ron Barrow	100 Aqua Dr.	Cold Spring	KY	41076	578-9898
Location where books are located	Same					

History-Date Organized (Ref Page: 4)

Date of Organization	Date
	01/01/1997

History - Counties (Ref Page: 5)

	County
List Counties in which you furnish water service	
	Campbell
	Kenton
	Pendleton
	Boone

Contacts (Ref Page: 6)

	Title	Last Name	First Name	Bus. Addr.	Salary	Term Expires
Person to send correspondence:	V.P. Finance	Barrow	Ron	100 Aqua Dr		
Person who prepared this report	Controller	Remlinger	Andy	Same		
Officers and Managers						
	Chair	Wagner	Douglas	Same	\$6,000.00	08/26/2005
	Secretary	Koester	Joseph	Same	\$6,000.00	07/26/2008
	Treasurer	Collins	Andrew	Same	\$6,000.00	08/28/2007
	Commissioner	Sommerkamp	Patricia	Same	\$6,000.00	08/21/2005
	Commissioner	Jackson	Frank	Same	\$6,000.00	08/28/2007
	Commissioner	Macke Jr.	Fred	Same	\$6,000.00	08/26/2008

History-Laws of Organization (Ref Page: 4)

If a consolidated or merger company, name all contingent and all merged companies. Give reference to charters or general laws governing each, and all amendments of same.	List	
Date and Authority for each consolidation and each merger.		N/A
		N/A

History-Departments (Ref Page: 4)

State whether respondent is a water district or association	List	Name all operating departments other than water
		Non-profit water utility, Special District of the State of KY
		N/A

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
UTILITY PLANT		
Utility Plant (101-106)	\$230,563,427.00	\$251,669,683.00
Less: Accumulated Depreciation and Amortization (108-10)	\$43,600,901.00	\$48,288,707.00
Net Plant	\$186,962,526.00	\$203,380,976.00
Utility Plant Acquisition Adjustments (Net) (114-115)	\$4,670,831.00	\$4,469,711.00
Other Utility Plant Adjustments (116)		
Total Net Utility Plant	\$191,633,357.00	\$207,850,687.00
OTHER PROPERTY AND INVESTMENTS		
Nonutility Property (121)		
Less: Accumulated Depreciation and Amortization (122)		
Net Nonutility Property		
Investment in Associated Companies (123)		
Utility and Other Investments (124-125)	\$22,693,230.00	\$25,215,898.00
Sinking Funds (126)		
Other Special Funds (127)		
Total Other Property and Investments	\$22,693,230.00	\$25,215,898.00
CURRENT AND ACCRUED ASSETS		
Cash (131)	\$1,814,079.00	\$831,017.00
Special Deposits (132)		
Other Special Deposits (133)	\$10,807,415.00	\$11,453,379.00
Working Funds (134)		
Temporary Cash Investments (135)		
Accounts and Notes Receivable, Less Accumulated Provision for Uncollectible Accounts (141-144)	\$3,987,193.00	\$4,717,008.00
Accounts Receivable from Associated Companies (145)		
Notes Receivable from Associated Companies (146)		
Materials and Supplies (151-153)	\$1,167,917.00	\$1,241,337.00
Stores Expense (161)		
Prepayments (162)	\$3,404,915.00	\$2,894,399.00
Accrued Interest and Dividends Receivable (171)		

Balance Sheet - Assets and Other Debits (Ref Page: 7)

	Previous Year	Current Year
Rents Receivable (172)		\$4,900,000.00
Accrued Utility Revenues (173)	\$4,200,000.00	
Misc. Current and Accrued Assets (174)		\$26,037,140.00
Total Current and Accrued Assets	\$25,381,519.00	
DEFERRED DEBITS		
Unamortized Debt Discount and Expense (181)		\$3,045,263.00
Extraordinary Property Losses (182)	\$2,879,128.00	
Preliminary Survey and Investigation Charges (183)		
Clearing Accounts (184)		
Temporary Facilities (185)		
Misc. Deferred Debits (186)	\$5,704,290.00	\$5,216,390.00
Research and Development Expenditure (187)		\$0.00
Total Deferred Debits	\$8,583,418.00	\$8,261,653.00
TOTAL ASSETS AND OTHER DEBITS	\$248,291,524.00	\$267,365,378.00

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
EQUITY CAPITAL		
Appropriated Retained Earnings (214)	\$28,290,322.00	\$31,029,357.00
Retained Earnings From Income before contributions (215.1)	\$31,295,466.00	\$30,416,476.00
Donated Capital (215.2)	\$35,827,157.00	\$40,195,514.00
Total Equity Capital	\$95,412,945.00	\$101,641,347.00
LONG-TERM DEBT		
Bonds (221)	\$146,954,000.00	\$153,125,000.00
Required Bonds (222)		
Advances from Associated Companies (223)		
Other Long-Term Debt (224)		\$2,625,000.00
Total Long Term Debt	\$146,954,000.00	\$155,750,000.00
CURRENT AND ACCRUED LIABILITIES		
Accounts Payable (231)	\$1,695,146.00	\$1,799,189.00
Notes Payable (232)	\$100,000.00	\$3,705,000.00
Accounts Payable to Associated Co. (233)		
Notes Payable to Associated Co (234)	\$1,150.00	\$2,250.00
Customer Deposits (235)		
Accrued Taxes (236)		
Accrued Interest (237)	\$2,492,758.00	\$2,593,452.00
Matured Long-Term Debt (239)		
Matured Interest (240)		
Tax Collections Payable (241)		
Misc. Current and Accrued Liabilities (242)	\$1,566,720.00	\$1,810,263.00
Total Current and Accrued Liabilities	\$5,855,774.00	\$9,910,154.00
DEFERRED CREDITS		
Unamortized Premium on Debt (251)	\$68,805.00	\$63,877.00
Advances for Construction (252)		
Other Deferred Credits (253)		
Total Deferred Credits	\$68,805.00	\$63,877.00
OPERATING RESERVES		

Balance Sheet - Equity Capital and Liabilities (Ref Page: 9)

	Previous Year	Current Year
Accumulated Provision For:		
Property Insurance (261)		
Injuries and Damages (262)		
Pensions and Benefits (263)		
Miscellaneous Operating Reserves (265)		
Total Operating Reserves	\$248,291,524.00	
Total Equity Capital and Liabilities		\$267,365,378.00

Comparative Operating Statement (Ref Page: 11)

	Previous Year	Current Year
UTILITY OPERATING INCOME		
Operating Revenues (400)	\$28,200,811.00	\$32,185,250.00
Operating Expenses (401)	\$18,249,662.00	\$19,429,652.00
Depreciation Expenses (403)	\$4,817,466.00	\$5,128,169.00
Amortization of Utility Plant Acquisition Adjustment (406)	\$201,120.00	\$201,120.00
Amortization Expense (407)	\$240,708.00	\$378,960.00
Taxes Other Than Income (408.10-408.13)	\$485,241.00	\$519,707.00
Utility Operating Expenses	\$23,994,197.00	\$25,657,608.00
Utility Operating Income	\$4,206,614.00	\$6,527,642.00
Income From Utility Plant Leased to Others (413)		
Gains (Losses) from Disposition of Utility Property (414)	\$0.00	
Total Utility Operating Income	\$4,206,614.00	\$6,527,642.00
OTHER INCOME AND DEDUCTIONS		
Revenues From Merchandising, Jobbing and contract work (415)		\$791,405.00
Costs and Expenses of Merchandising, Jobbing and Contract Work (416)		
Interest and Dividend Income (419)	\$910,431.00	
Allowance for funds Used During Constructions (420)	\$314,577.00	\$31,138.00
Nonutility Income (421)		
Miscellaneous Nonutility Expenses (426)		
Total Other Income and Deductions	\$1,225,008.00	\$822,543.00
TAXES APPLICABLE TO OTHER INCOME		
Taxes Other Than Income (408.20)		
Total Taxes Applicable to Other Income		
INTEREST EXPENSE		
Interest Expense (427)	\$5,244,744.00	\$5,344,406.00
Amortization of Debt Discount and Exp. (428)	\$155,906.00	\$150,663.00
Amortization of Premium on Debt (429)	(\$6,678.00)	(\$4,928.00)
Total Interest Expense	\$5,393,972.00	\$5,490,141.00

Comparative Operating Statement (Ref Page: 11)

	Previous Year	Current Year
EXTRAORDINARY ITEMS		
Extraordinary Income (433)	\$685,841.00	
Extraordinary Deductions (434)	\$685,841.00	
Total Extraordinary Items	\$723,491.00	\$1,860,044.00
NET INCOME BEFORE CONTRIBUTIONS		

Statement of Retained Earnings 2002 (Ref Page: 12)

Description	Total
Appropriated Retained earnings (214) (state balance and purpose of each appropriated amount at year end.)	
	\$9,493,992.00
	\$18,347,429.00
Bond Proceeds	
Debt Service and Reserve	
Improvement Replacement & Repair	
	\$3,187,936.00
	\$31,029,357.00
Total Appropriated Retained Earnings	
Retained Earnings From Income Before Contributions (215.1)	
Balance beginning of year	
Balance transferred from Net Income Before Contributions (435)	
Changes to account:	
Appropriations of Retained Earnings (436)	
Adjustments to Retained Earnings (439) (requires Commission approval prior to use):	
Credits	
Debits	
	(\$2,739,034.00)
Balance End of Year	
	\$30,416,476.00

Statement of Retained Earnings (cont. 215.2) (Ref Page: 12)

Description	Tapping Fees	Grants	Other	Total
Donated Capital (215.2)				
Balance Beginning of the Year	\$4,098,560.00	\$4,038,030.00		\$27,690,567.00
Credits				
Proceeds from capital contributions (432)	\$636,458.00			\$2,010,571.00
Other Credits (explain)		\$1,721,328.00		
Debits (explain - requires Commission Approval)				
Balance End of Year	\$4,735,018.00	\$5,759,358.00		\$29,701,138.00
				\$40,195,514.00

Net Utility Plant (Accts. 101-106) (Ref Page: 13)

	\$241,419,276.00
Utility Plant in Service (101)	
Utility Plant Leased to Others (102)	
Property Held for Future Use (103)	
Utility Plant Purchased of Sold (104)	\$10,250,407.00
Construction Work in Progress (105)	
Completed Construction Not Classified (106)	
Total Utility Plant	\$251,669,683.00

Accumulated Depreciation (Acct. 108) (Ref Page: 13)

Description	Total
Balance First of Year	\$43,600,901.00
Credit during year	
Accruals Charged to Account 108.1	\$5,128,169.00
Accruals Charged to Account 108.2	
Accruals Charged to Account 108.3	
Accruals Charged to Other Accounts (specify) (specify)	
Salvage Value Recovered on Plant Retired	
Other Credits	
(specify)	
Total Credits	\$5,128,169.00
Debits during year:	
Book Cost of Plant Retired	\$440,363.00
Cost of Removal	
Other Debits	
(specify)	
Total Debits	\$440,363.00
Balance at End of Year	\$48,288,707.00

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intangible Plant (g)	Supply & Pump. Plant (h)	Water Treatment (i)	Trans. and Distr. (j)	General Plant
Organization (301)									
Franchises (302)									
Land and Land Rights (303)	\$605,416.00			\$605,416.00		\$29,200.00	\$72,496.00	\$205,403.00	\$298,317.00
Structures and Improvements (304)	\$64,795,086.00	\$721,352.00		\$65,516,438.00		\$16,869,144.00	\$36,092,640.00	\$7,660,361.00	\$4,894,293.00
Collecting and Impounding Reservoirs (305)									
Lakes, Rivers and Other Intakes (306)	\$1,524,592.00			\$1,524,592.00		\$1,524,592.00			
Wells and Springs (307)									
Infiltration Galleries and Tunnels (308)									
Supply Mains (309)	\$2,307,853.00			\$2,307,853.00		\$2,307,853.00			
Power Generation Equipment (310)									
Pumping Equipment (311)	\$8,593,303.00	\$68,529.00		\$8,661,832.00		\$2,500,885.00	\$833,197.00	\$5,327,750.00	
Water Treatment Equipment (320)	\$9,217,263.00	\$68,165.00		\$9,285,428.00			\$9,285,428.00		
Distribution Reservoirs and Standpipes (330)	\$7,440,741.00	\$60,000.00		\$7,500,741.00			\$7,500,741.00		
Transmission and Distribution Mains (331)	\$97,415,462.00	\$9,277,113.00	\$508,065.00	\$106,184,510.00				\$106,184,510.00	
Services (333)	\$17,333,403.00	\$1,453,871.00		\$18,787,274.00					\$18,787,274.00

Water Utility Plant Accounts (Ref Page: 14)

	Prev Year (c)	Additions (d)	Retirement (e)	Current Yr(f)	Intangible Plant (g)	Supply & Pump, Plant (h)	Water Treatment (i)	Trans. and Distr. (j)	General Plant
Meters and Meter Installations (334)	\$6,010,470.00	\$527,198.00		\$6,537,668.00				\$6,537,668.00	
Hydrants (335)	\$4,022,074.00	\$528,768.00		\$4,550,842.00				\$4,550,842.00	
Backflow Prevention Devices (336)									
Other Plant and Misc. Equipment (339)	\$1,284,556.00	\$2,089,520.00		\$3,374,076.00					\$3,374,076.00
Office Furniture and Equip. (340)	\$2,229,306.00	\$123,223.00		\$2,352,529.00					\$2,352,529.00
Transportation Equipment (341)	\$2,291,316.00	\$330,881.00	\$110,123.00	\$2,512,074.00					\$2,512,074.00
Stores Equipment (342)									
Tools, Shop and Garage Equip (343)	\$284,376.00			\$284,376.00					\$284,376.00
Laboratory Equipment (344)									
Power Operated Equipment (345)	\$526,361.00	\$16,188.00		\$542,549.00					\$542,549.00
Communication Equipment (346)									
Miscellaneous Equipment (347)									
Other Tangible Plant (348)	\$891,078.00			\$891,078.00					\$891,078.00
Total Water Plant	\$226,772,656.00	\$15,264,808.00	\$618,188.00	\$241,419,276.00		\$23,231,674.00	\$53,784,502.00	\$149,253,808.00	\$15,149,292.00

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg Yr (c)	Cr-Chg/Dep Exp (d)	Other Credits (e)	Charges-Plant Ref (f)	Other Charges (g)	Balance End Yr (h)
Organization (301)						
Franchises (302)						
Land and Land Rights (303)						\$11,350,180.00
Structures and Improvements (304)	\$9,710,026.00	\$1,640,154.00				
Collecting and Impounding Reservoirs (305)						\$601,663.00
Lake, River and Other Intakes (306)	\$524,176.00	\$77,487.00				
Wells and Springs (307)						
Infiltration Galleries and Tunnels (308)						\$339,414.00
Supply Mains (309)	\$316,103.00	\$23,311.00				
Power Generating Equipment (310)						\$3,408,410.00
Pumping Equipment (311)	\$3,068,121.00	\$340,289.00				
Water Treatment Equipment (320)	\$2,296,198.00	\$421,478.00				\$2,717,676.00
Distributions Reservoirs and Standpipes (330)	\$2,408,903.00	\$133,504.00				\$2,542,407.00
Transmission and Distribution Mains (331)	\$11,749,001.00	\$1,139,204.00		\$330,240.00		\$12,557,965.00
Services (333)	\$5,456,873.00	\$375,998.00				\$5,832,871.00
Meters and Meter Installations (334)	\$1,337,808.00	\$152,612.00				\$1,490,420.00
Hydrants (335)	\$1,106,589.00	\$86,660.00				\$1,193,249.00
Backflow Prevention Devices (336)						
Other Plant and	\$923,506.00	\$220,127.00				\$1,143,633.00

Analysis of Accumulated Depreciation and Amortization by Primary Acct (Ref Page: 15)

	Balance Beg Yr (e)	Cr-Chg Dep Exp (d)	Other Credits (e)	Charges-Plant Ret (f)	Other Charges (g)	Balance End Yr (h)
Office Furniture and Equip (340)	\$1,529,385.00	\$226,866.00				\$1,756,251.00
Transportation Equipment (341)	\$1,715,148.00	\$228,166.00		\$110,123.00		\$1,833,191.00
Stores Equipment (342)						
Tools, Shop and Garage Equip (343)	\$270,144.00	\$3,569.00				\$273,713.00
Laboratory Equipment (344)						
Power Operated Equipment (345)	\$364,801.00	\$33,680.00				\$398,481.00
Communication Equipment (346)						
Miscellaneous Equipment (347)						
Other Tangible Plant (348)	\$824,119.00	\$25,064.00				\$849,183.00
Totals	\$43,600,901.00	\$5,128,169.00	\$0.00	\$440,363.00	\$0.00	\$48,288,707.00

Accumulated Amortization (Acct. 110) (Ref Page: 16)

Description	Total
Balance First of Year	
Credit during year	
Accruals Charged to Account 110.1	
Accruals Charged to Account 110.2	
Other Credits	
(specify)	
(specify)	
(specify)	
Total Credits	
Debits during year:	
Book Cost of Plant Retired	
Other Debits	
(specify)	
Total Debits	
Balance end of Year	

Utility Plant Acquisition Adjustments (Accts. 114-115) (Ref Page: 16)

Description	Total
Acquisition Adjustments (114)	
(specify)	
Original District 9/14/55	\$263,366.00
(specify)	
District # 2 & 3 12/31/73	\$18,712.00
(specify)	
Mentor District	\$10,741.00
(specify)	
City of Cold Spring	\$228,253.00
(specify)	
City of Silver Grove	\$24,853.00
(specify)	
Newport Water Works	\$4,970,211.00
(specify)	
Newport Water Works	\$5,516,136.00
(specify)	
Total Plant Acquisition Adjustments	
Accumulated Amortization (115)	
(specify)	
Original District 9/14/55	\$263,366.00
(specify)	
District # 2 & # 12/31/73	\$18,712.00
(specify)	
Mentor District 9/1/76	\$10,741.00
(specify)	
City of Cold Spring	\$228,253.00
(specify)	
City of Silver Grove	\$24,853.00
(specify)	
Newport Water Works	\$500,500.00
(specify)	
Newport Water Works	\$1,046,425.00
(specify)	
Total Accumulated Amortization	
Net Acquisition Adjustments	\$4,469,711.00

Investments and Special Funds (Ref Page: 17)

Description (a)	Face or Par Value (b)	Year End Book Cost
Investment in Associated Companies (123)		
Total Investment in Associated Companies		
Utility Investments (124)		
I R. & R	\$0.00	\$3,187,936.00
Debt Service	\$0.00	\$5,812,970.00
Debt Service Reserve	\$0.00	\$12,534,354.00
Total Utility Investments		\$21,535,260.00
Other Investments (125)		
Boone/Florence Settlement	\$0.00	\$3,680,638.00
Total Other Investments		\$3,680,638.00
Sinking Funds (126)		
Total Sinking Funds	\$0.00	
Other Special Funds (127)		
Total Other Special Funds	\$0.00	

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004
 Accounts and Notes Receivable - Net (Accts 141-144) (Ref Page: 18)

Description	Total
Accounts and Notes Receivable	
Customer Accounts Receivable (141)	\$4,222,200.00
Other Accounts Receivable (142)	
Assessments	\$37,251.00
Other	\$457,557.00
	\$494,808.00
Total Other Accounts Receivable	
Notes Receivable (144)	
Total Notes Receivable	
Total Accounts and Notes Receivable	\$4,717,008.00
Accumulated Provision for Uncollectible Accounts (143)	
Balance First of Year	
Add:	
Provision for uncollectibles for current year	
Collections of account previously written off	
Other	
(specify)	
Total Additions	
Deduct accounts written off during year:	
Other	
(specify)	
Total Deductions	
Balance end of Year	
Total Accounts and Notes Receivable - Net	\$4,717,008.00

Materials and Supplies (151-153) (Ref Page: 19)

	Total
Plant Materials and Supplies (151)	\$1,241,337.00
Merchandise (152)	
Other Materials and Supplies (153)	
Total Materials and Supplies	\$1,241,337.00

Prepayments (Acct. 162) (Ref Page: 19)

	Description	Total
Prepaid Insurance		\$637,903.00
Prepaid Rents		
Prepaid Interest		
Prepaid Taxes		
Other Prepayments (Specify)	Water Tower Painting	\$2,256,496.00
Total Prepayments		\$2,894,399.00

Miscellaneous Deferred Debits (Acct. 186) (Ref Page: 20)

	Total
Miscellaneous Deferred Debits (186)	
Deferred Rate Case Expense (186.1)	\$399,249.00
Other Deferred Debits (186.2)	\$4,817,141.00
Regulatory Assets (186.3)	
Total Miscellaneous Deferred Debits	\$5,216,390.00

Unamortized Debt Discount and Expense and Premium on Debt (Accts 181 and 251) (Ref Page: 20)

Description	Amt Written Off during year	Year End Balance
Unamortized Debt Discount and Expense (181)		
Bond Issue Cost 1997 Bonds	\$4,916.00	\$87,664.00
Bond Discount 1997 Bonds	\$6,735.00	\$120,108.00
Bond Discount 1998 Bonds	\$7,570.00	\$181,049.00
Bond Issue Cost 1998 Bonds	\$3,148.00	\$75,284.00
Bond Issue Cost 2001 Bonds	\$3,700.00	\$80,783.00
Bond Discount 2001 Bpnds	\$13,039.00	\$284,674.00
Bond Issue Cost 2002 A Bonds	\$13,731.00	\$303,226.00
Bond Discount 2002 A Bonds	\$27,209.00	\$600,866.00
Bond Issue Cost 2002 B Bonds	\$9,300.00	\$120,514.00
Bond Issue Cost 2003 A Bonds	\$1,620.00	\$42,410.00
Bond Discount 2003 A Bonds	\$1,088.00	\$29,453.00
Bond Issue Cost 2003 B Bonds	\$11,760.00	\$274,430.00
Bond Discount 2003 B Bonds	\$8,520.00	\$199,513.00
Bond Issue Cost 2003 C Bonds	\$14,940.00	\$232,773.00
Bond Discount 2003 C Bonds	\$7,404.00	\$111,701.00
Discount 2004 BAN	\$5,868.00	\$9,778.00
Issue Costs 2004 BAN	\$8,253.00	\$13,747.00
Bond Discount 2004 Bond	\$1,320.00	\$196,582.00
Bond Issue Cost 2004 Bond	\$542.00	\$80,708.00
	\$150,663.00	\$3,045,263.00
Total Unamortized Debt Discount and Expense		
Unamortized Premium on Debt (251)		
Premium on 2002 B Bonds	\$4,928.00	\$63,877.00
Total Unamortized Premium on Debt	\$4,928.00	\$63,877.00

Extraordinary Property Losses (Acct. 182) (Ref Page: 21)

Description	Total
Extraordinary Property Losses (182)	
(Specify)	
Total Extraordinary Property Losses	

Advances for Construction (Acct. 252) (Ref Page: 21)

	Total
Balance First of Year	
Add credits during year	
Deduct charges during year	
Balance end of year	

Bonds - Account 221 (Ref Page: 23)

Par Value of Actual Issue (1)	Cash Realized on Actual Issue (2)	Par Val of Amt. Held by or for Respondent (3)	Actually Outstanding at Close of Year (4)	Interest During Year Accrued (\$)	Interest During Year Actually Paid (6)
\$11,225,000.00	\$11,131,694.00		\$7,080,000.00	\$337,964.00	\$352,358.00
\$2,287,000.00	\$2,287,000.00		\$2,220,000.00	\$111,400.00	\$111,600.00
\$16,325,000.00	\$15,835,250.00		\$15,565,000.00	\$737,825.00	\$741,325.00
\$45,485,000.00	\$44,121,624.00		\$44,790,000.00	\$2,185,934.00	\$2,192,402.00
\$10,575,000.00	\$10,525,204.00		\$9,585,000.00	\$365,193.00	\$370,881.00
\$1,615,000.00	\$1,583,553.00		\$1,580,000.00	\$65,354.00	\$65,529.00
\$30,270,000.00	\$30,068,115.00		\$29,445,000.00	\$1,078,533.00	\$1,233,200.00
\$23,790,000.00	\$23,532,357.00		\$22,360,000.00	\$718,141.00	\$511,129.00
\$11,355,000.00	\$11,141,619.00		\$10,045,000.00	\$487,447.00	\$491,999.00
\$10,455,000.00	\$10,276,366.00		\$10,455,000.00	\$48,737.00	\$0.00
\$163,382,000.00	\$160,502,782.00		\$153,125,000.00	\$6,136,528.00	\$6,070,423.00
Total					

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004

Schedule of Bond Maturities (Ref Page: 23)

Bond Numbers (7)	Maturity Date (8)	Interest Rate (9)	Principal Amt (10)	Amounts Paid (11)	Remaining Bonds Outstanding (12)
Registered	2007	4.7000	\$6,575,000.00	\$4,145,000.00	\$2,430,000.00
Registered	2022	4.7500	\$4,650,000.00	\$0.00	\$4,650,000.00
Registered	2007	4.7000	\$2,070,000.00	\$1,310,000.00	\$760,000.00
Registered	2012	4.7500	\$1,490,000.00	\$0.00	\$1,490,000.00
Registered	2013	4.8000	\$340,000.00	\$0.00	\$340,000.00
Registered	2014	4.8500	\$360,000.00	\$0.00	\$360,000.00
Registered	2028	4.8750	\$7,095,000.00	\$0.00	\$7,095,000.00
Registered	2039	5.0000	\$2,287,000.00	\$67,000.00	\$2,220,000.00
Registered	2002	2.7000	\$285,000.00	\$285,000.00	\$0.00
Registered	2003	3.0000	\$235,000.00	\$235,000.00	\$0.00
Registered	2004	3.2500	\$240,000.00	\$240,000.00	\$0.00
Registered	2005	3.4500	\$230,000.00	\$0.00	\$230,000.00
Registered	2006	3.6000	\$215,000.00	\$0.00	\$215,000.00
Registered	2007	3.7500	\$195,000.00	\$0.00	\$195,000.00
Registered	2008	3.9000	\$170,000.00	\$0.00	\$170,000.00
Registered	2009	4.0000	\$155,000.00	\$0.00	\$155,000.00
Registered	2010	4.1000	\$75,000.00	\$0.00	\$75,000.00
Registered	2011	4.2000	\$80,000.00	\$0.00	\$80,000.00
Registered	2012	4.3500	\$80,000.00	\$0.00	\$80,000.00
Registered	2013	4.4500	\$735,000.00	\$0.00	\$735,000.00
Registered	2014	4.5500	\$770,000.00	\$0.00	\$770,000.00
Registered	2015	4.6700	\$810,000.00	\$0.00	\$810,000.00
Registered	2016	4.7500	\$845,000.00	\$0.00	\$845,000.00
Registered	2017	4.8200	\$890,000.00	\$0.00	\$890,000.00
Registered	2018	4.8500	\$930,000.00	\$0.00	\$930,000.00
Registered	2019	4.9000	\$980,000.00	\$0.00	\$980,000.00
Registered	2020	4.9500	\$1,030,000.00	\$0.00	\$1,030,000.00
Registered	2023	5.0000	\$3,410,000.00	\$0.00	\$3,410,000.00
Registered	2026	5.1000	\$3,965,000.00	\$0.00	\$3,965,000.00
Registered	2014	4.5000	\$7,000,000.00	\$695,000.00	\$6,305,000.00

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004

Schedule of Bond Maturities (Ref Page: 23)

Bond Numbers (7)	Maturity Date (8)	Interest Rate (9)	Principal Amt (10)	Amounts Paid (11)	Remaining Bonds Outstanding (12)
Registered	2015	4.6500	\$1,035,000.00	\$0.00	\$1,035,000.00
Registered	2019	4.7500	\$7,885,000.00	\$0.00	\$7,885,000.00
Registered	2027	5.0000	\$29,565,000.00	\$0.00	\$29,565,000.00
Registered	2006	3.0000	\$2,010,000.00	\$990,000.00	\$1,020,000.00
Registered	2009	3.5000	\$1,950,000.00	\$0.00	\$1,950,000.00
Registered	2010	3.7500	\$775,000.00	\$0.00	\$775,000.00
Registered	2017	4.0000	\$5,840,000.00	\$0.00	\$5,840,000.00
Registered	2004	1.2000	\$35,000.00	\$35,000.00	\$0.00
Registered	2005	1.3800	\$35,000.00	\$0.00	\$35,000.00
Registered	2006	1.7500	\$35,000.00	\$0.00	\$35,000.00
Registered	2007	2.2000	\$35,000.00	\$0.00	\$35,000.00
Registered	2008	2.6000	\$35,000.00	\$0.00	\$35,000.00
Registered	2009	3.0000	\$40,000.00	\$0.00	\$40,000.00
Registered	2010	3.3000	\$40,000.00	\$0.00	\$40,000.00
Registered	2011	3.5500	\$40,000.00	\$0.00	\$40,000.00
Registered	2012	3.7000	\$40,000.00	\$0.00	\$40,000.00
Registered	2013	3.8500	\$45,000.00	\$0.00	\$45,000.00
Registered	2014	3.9500	\$45,000.00	\$0.00	\$45,000.00
Registered	2015	4.0500	\$45,000.00	\$0.00	\$45,000.00
Registered	2016	4.1500	\$50,000.00	\$0.00	\$50,000.00
Registered	2017	4.2500	\$50,000.00	\$0.00	\$50,000.00
Registered	2022	4.5000	\$295,000.00	\$0.00	\$295,000.00
Registered	2027	4.5500	\$365,000.00	\$0.00	\$365,000.00
Registered	2032	4.6000	\$385,000.00	\$0.00	\$385,000.00
Registered	2008	2.0000	\$4,305,000.00	\$825,000.00	\$3,480,000.00
Registered	2009	2.2500	\$915,000.00	\$0.00	\$915,000.00
Registered	2010	2.7500	\$940,000.00	\$0.00	\$940,000.00
Registered	2011	3.0000	\$965,000.00	\$0.00	\$965,000.00
Registered	2014	3.1300	\$3,085,000.00	\$0.00	\$3,085,000.00
Registered	2015	3.2500	\$1,095,000.00	\$0.00	\$1,095,000.00

Schedule of Bond Maturities (Ref Page: 23)

Bond Numbers (7)	Maturity Date (8)	Interest Rate (9)	Principal Amt (10)	Amounts Paid (11)	Remaining Bonds Outstanding (12)
Registered	2016	3.5000	\$1,135,000.00	\$0.00	\$1,135,000.00
Registered	2019	4.0000	\$3,675,000.00	\$0.00	\$3,675,000.00
Registered	2028	4.1300	\$14,155,000.00	\$0.00	\$14,155,000.00
Registered	2006	2.0000	\$3,770,000.00	\$1,430,000.00	\$2,340,000.00
Registered	2007	2.2500	\$1,215,000.00	\$0.00	\$1,215,000.00
Registered	2008	2.5000	\$1,235,000.00	\$0.00	\$1,235,000.00
Registered	2009	2.7500	\$1,270,000.00	\$0.00	\$1,270,000.00
Registered	2010	3.0000	\$1,305,000.00	\$0.00	\$1,305,000.00
Registered	2011	3.2500	\$1,350,000.00	\$0.00	\$1,350,000.00
Registered	2013	3.5000	\$2,840,000.00	\$0.00	\$2,840,000.00
Registered	2018	4.0000	\$7,980,000.00	\$0.00	\$7,980,000.00
Registered	2019	4.1300	\$1,665,000.00	\$0.00	\$1,665,000.00
Registered	2020	4.2500	\$1,160,000.00	\$0.00	\$1,160,000.00
Registered	2006	2.0000	\$545,000.00	\$0.00	\$545,000.00
Registered	2007	2.1250	\$285,000.00	\$0.00	\$285,000.00
Registered	2008	2.3750	\$290,000.00	\$0.00	\$290,000.00
Registered	2009	2.6250	\$295,000.00	\$0.00	\$295,000.00
Registered	2011	3.0000	\$620,000.00	\$0.00	\$620,000.00
Registered	2012	3.2500	\$325,000.00	\$0.00	\$325,000.00
Registered	2013	3.3750	\$335,000.00	\$0.00	\$335,000.00
Registered	2014	3.5000	\$345,000.00	\$0.00	\$345,000.00
Registered	2019	4.0000	\$1,955,000.00	\$0.00	\$1,955,000.00
Registered	2029	4.5000	\$5,460,000.00	\$0.00	\$5,460,000.00
Total			\$163,382,000.00	\$10,257,000.00	\$153,125,000.00
(The total of Column 12 must agree with the total of col 4)					

Notes Payable (Accs 232 and 234) (Ref Page: 24)

Description	Nominal Date of Issue	Date of Maturity	Int. Rate	Int. Payment	Principal Amt Per Bal Sheet
Account 232 - Notes Payable					
Kenton County Fiscal Court			0.0000		\$100,000.00
2004 A BAN			1.7000	\$30,643.00	\$3,605,000.00
			0	\$30,643.00	\$3,705,000.00
Total Account 232					
Account 234 - Notes Payable to Associated Companies					
			0		
Total Account 234					

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004

Accounts Payable to Associated Companies (Acct. 233) (Ref Page: 24)

Show Payable to Each Associated Company Separately (Specify)	Description	Total
Total		

Taxes Accrued (Acct. 236) (Ref Page: 25)

	Total
Balance First of Year	
Accruals Charged:	
Utility regulatory assessment fees (408.10)	
Property taxes (408.11)	\$519,707.00
Payroll taxes (employer's portion) (408.12)	
Other taxes and licenses (408.13)	
Taxes other than income, other income and deductions (408.20)	
Total taxes accrued	\$519,707.00
Taxes paid during year:	
Utility regulatory assessment fees (408.10)	
Property taxes (408.11)	
Payroll taxes (employer's portion) (408.12)	\$519,707.00
Other taxes and licenses (408.13)	
Taxes other than income, other income and deductions (408.20)	
Total Taxes Paid	\$519,707.00
Balance end of year	\$0.00

Accrued Interest (Account 237) 2002 (Ref Page: 25)

Description of Debt (a)	Balance Beg of Year (b)	Interest Accrued (c)	Interest Paid (d)	Balance End of Year (e)
Long Term Debt:				
Series 1997	154013.0000	\$337,964.00	\$352,358.00	\$139,619.00
Series 1998	207276.0000	\$487,447.00	\$491,999.00	\$202,724.00
2000 RUS Loan				
Series 2001	18700.0000	\$111,400.00	\$111,600.00	\$18,500.00
Series 2002 A	310635.0000	\$737,825.00	\$741,325.00	\$307,135.00
Series 2002 B	916736.0000	\$2,185,934.00	\$2,192,402.00	\$910,268.00
Series 2003 A	157377.0000	\$365,193.00	\$370,881.00	\$151,689.00
Series 2003 B	27391.0000	\$65,354.00	\$65,529.00	\$27,216.00
Series 2003 C	591166.0000	\$1,078,533.00	\$1,233,200.00	\$436,499.00
Series 2004	109464.0000	\$718,141.00	\$511,129.00	\$316,476.00
Notes Payable:				
Customer Deposits:				
Other				
		\$48,737.00	\$0.00	\$0.00
		\$68,005.00	\$0.00	\$68,005.00
		\$45,964.00	\$30,643.00	\$15,321.00
Less: Accrued Interest		(\$19,268.00)		
Less: Interest Pd by surcharges		(\$473,142.00)		
Less: Interest Capitalized		(\$364,944.00)		
Total Acct No 237	2492758.0000	\$5,344,406.00	\$6,101,066.00	\$2,593,452.00

Miscellaneous Current and Accrued Liabilities (Acct. 242) (Ref Page: 26)

Description	Balance End Year
Accrued Payroll Taxes	\$2,462.00
Accrued Payroll	\$142,233.00
Accrued Sales Taxes	\$231,903.00
Accrued Pension	\$105,449.00
Accrued Vacation./ Sick	\$775,639.00
Subdistrict surcharges payable	\$552,577.00
Total Miscellaneous Current and Accrued Liabilities	\$1,810,263.00

Regulatory Commission Expense(Acct 666 and 667) (Ref Page: 26)

Description of Case (Docket No.) (a)	Total Incurred During Year (b)	Amt Transferred to Acct 186.1 (c)	Expensed During Year Acct (d)	Expensed During Year Amount (e)
Rate Case 2002-105	\$0.00	\$217,659.00	667	\$145,116.00
Rate Case 2003-224	\$42,018.00	\$165,526.00	667	\$20,692.00
Rate Case 2005	\$16,064.00	\$16,064.00		
Total	\$58,082.00	\$399,249.00		\$165,808.00

Water Operating Revenue (Ref Page: 27)

	Beginning Year Customers	Year End Customers	Amount
Operating Revenues			
Unmetered Water Revenue (460)	0	0	\$0.00
Metered Water Revenue (461)			
Sales to Residential Customers (461.1)	640,100	71,414	\$19,120,614.00
Sales to Commercial Customers (461.2)	4,667	4,611	\$4,656,279.00
Sales to Industrial Customers (461.3)	109	123	\$2,128,080.00
Sales to Public Authorities (461.4)	440	477	\$1,741,092.00
Sales to Multiple Family Dwellings (461.5)	1,334	1,460	\$2,269,494.00
Sales through Bulk Loading Stations (461.6)	1	1	\$5,081.00
Total Metered Sales	70,561	78,085	\$29,920,640.00
Fire Protection Revenue (462)			
Public Fire Protection (462.1)	0	0	\$0.00
Private Fire Protection (462.2)	380	380	\$58,730.00
Total Fire Protection Revenue	380	380	\$58,730.00
Other Sales to Public Authorities (464)	0	0	\$0.00
Sales to Irrigation Customers (465)	0	0	\$0.00
Sales for Resale (466)	0	3	\$952,550.00
Interdepartmental Sales (467)	2	0	\$0.00
Total Sales of Water	70,943	78,468	\$30,931,920.00
Other Water Revenues			
Guaranteed Revenues (469)	0	0	\$0.00
Forfeited Discounts (470)			
Miscellaneous Service Revenues (471)			\$0.00
Rents from Water Property (472)			\$621,870.00
Interdepartments Rents (473)			\$0.00
Other Water Revenues (474)			\$178,800.00
Total Other Water Revenues			\$1,253,330.00
Total Water Operating Revenues			\$32,185,250.00

Water Utility Expense Accounts (Ref Page: 28)

	Current Year (c)	Supply and Exp- Op. (d)	Supply and Exp- Maint. (e)	Water Treatment Exp- Op. (f)	Water Treatment Exp- Maint. (g)	Trans and Dist. Exp-Op (h)	Trans and Dist. Exp-Maint. (i)	Customer Accs Exp. (j)	Admin and Gen Exp.
Salaries and Wages-E employees (601)	\$6,825,557.00		\$12,780.00	\$1,490,841.00	\$441,881.00	\$816,843.00	\$1,744,322.00	\$1,612,985.00	\$705,905.00
Salaries and Wages-Officers, Directors and Majority Stockholders (603)	\$607,016.00			\$94,140.00		\$98,800.00		\$85,738.00	\$328,338.00
Employee Pensions and Benefits (604)	\$2,040,251.00			\$428,703.00	\$63,633.00	\$339,188.00	\$420,848.00	\$494,831.00	\$293,048.00
Purchased Water (610)									
Purchased Power (615)	\$1,881,129.00	\$612,287.00		\$262,590.00		\$932,764.00			\$73,488.00
Fuel for Power Production (616)									
Chemicals (618)	\$813,694.00			\$808,560.00			\$5,134.00		
Materials and Supplies (620)	\$1,522,598.00		\$18,927.00	\$155,288.00	\$171,383.00	\$89,612.00	\$681,405.00	\$231,058.00	\$174,925.00
Contractual Services - Eng. (631)	\$113,634.00			\$26,700.00		\$65,894.00	\$9,285.00		
Contractual Services - Acct. (632)	\$15,875.00								\$15,875.00
Contractual Services - Legal (633)	\$115,926.00			\$6,121.00		\$22,765.00		\$7,930.00	\$79,110.00
Contractual Services - Management Fees (634)	\$1,511.00								\$1,511.00
Contractual	\$3,736,186.00	\$813.00	\$25,718.00	\$636,708.00	\$199,569.00	\$222,238.00	\$1,756,234.00	\$295,424.00	\$599,482.00

Water Utility Expense Accounts (Ref Page: 28)

	Current Year (e)	Supply and Exp- Op. (d)	Supply and Exp- Maint. (e)	Water Treatment Exp- Op. (f)	Water Treatment Exp- Maint. (g)	Trans and Dist. Exp- Op (h)	Trans and Dist. Exp- Maint. (i)	Customer Accts Exp. (j)	Admin and Gen Exp.
Contractual Services - Other (636)					\$443.00				\$9,567.00
Rental of Bld./Real Property (641)									
Rental of Equipment (642)	\$10,010.00								\$4,326.00
Transportation Expenses (650)	\$303,918.00		\$33,245.00		\$155.00	\$31,659.00	\$166,362.00	\$68,171.00	
Insurance - Vehicle (656)	\$85,301.00		\$15,647.00			\$41,420.00		\$22,090.00	\$6,144.00
Insurance - General Liability (657)	\$234,177.00		\$76,506.00			\$122,891.00		\$23,187.00	\$11,593.00
Insurance - Worker's Compensation (658)	\$245,080.00		\$51,694.00			\$72,441.00		\$54,002.00	\$66,943.00
Insurance - Other (659)	\$131,120.00		\$30,480.00						\$100,640.00
Advertising Expenses (660)	\$10,282.00								\$10,282.00
Regulatory Commission Exp.									
-	\$165,808.00								\$165,808.00
Amortization of Rate Case (666)									
-Other (667)	\$49,888.00								\$49,888.00
Water Resource Conservation Expense (668)									
Bad Debt (670)	\$431,209.00								\$431,209.00
Miscellaneous	\$89,482.00		\$6,019.00		\$107.00	\$9,370.00	\$9,347.00	\$14,391.00	\$50,248.00

Pumping and Water Statistics - part one (Ref Page: 29)

	Water Purchased For Resale (Omit 000's) (b)	Water Pumped from Wells (Omit 000's) (c)	Total Water Pumped and Purchased (Omit 000's) (d)	Water Sold To Customers (Omit 000's) (e)
January			804,648	607,248
February			782,428	526,516
March			795,327	827,258
April			769,432	552,857
May			870,170	691,922
June			929,201	875,908
July			984,897	446,110
August			933,746	813,017
September			898,814	1,055,725
October			864,683	707,149
November			761,170	588,303
December			795,154	913,222
Total for the year			10,189,670	8,605,235

Pumping and Water Statistics - part two (Ref Page: 29)

	Gallons	Date
Maximum Gallons pumped by all methods in any one day (Omit 000's)	36,900	07/06/2004
Minimum Gallons pumped by all methods in any one day (Omit 000's)	21,900	11/11/2004

Pumping and Water Statistics - part three (Ref Page: 29)

	List
If water is purchased indicate the following: Vendor	
Point of Delivery	
If water is sold to other water utilities for redistribution, list names of such utilities below:	City of Walton Bullock Pen Water District Pendleton County Water District

7000200 Northern Kentucky Water District 01/01/2004 - 12/31/2004

Sales For Resale (466) (Ref Page: 30)

Company	Gallons (Omit 000's)	Avg. Rate Per 1000 Gallons (Cents)	Amount
City of Taylor Mill	89,369	\$2.40	\$206,667.80
City of Walton	156,185	\$2.40	\$365,224.98
Bullock Pen Water District	79,839	\$2.40	\$187,001.66
Pendleton County Water District	82,643	\$2.40	\$194,043.31
Total	408,036		\$952,937.75

Water Statistics (Ref Page: 30)

	Gallons (Omit 000's)	Percent
1. Water Produced, Purchased and Distributed		
2. Water Produced	10,189,670	
3. Water Purchased		
4. Total Produced and Purchased	10,189,670	
6. Water Sales:		
7. Residential	4,196,478	
8. Commercial	1,679,934	
9. Industrial	913,293	
10. Bulk Loading Stations		
11. Resale	408,036	
12. Other Sales	1,407,494	
13. Total Water Sales	8,605,235	
15. Other Water Used		
16. Utility/water treatment plant	242,423	
17. Wastewater plant		
18. System flushing	183,432	
19. Fire department	8,300	
20. Other	143	
21. Total Other Water Used	434,298	
23. Water Loss:		
24. Tank Overflows		
25. Line Breaks	70,695	
26. Line Leaks		
27. Other	1,079,442	
28. Total Line Loss	1,150,137	
Note: Line 13 + Line 21 + Line 28 must equal Line 4		
32. Water Loss Percentage		
33. Line 28 divided by Line 4		11.2800

Plant Statistics (Ref Page: 31)

	Give the following information	
Number of fire hydrants, by size		Kenton County 5,798, Campbell County 2,474
Number of private fire hydrants, by size		Private Hydrants 48
If produced whether water supply is river, impounded streams, well, springs, artificial lake, or collector well		Rivers: Ohio River and Licking River
If produced whether supply is by gravity, pumping or a combination		Plants are pumped. Distribution is a combination of pumped and gravity
Type, capacity, and elevation of reservoirs at overflow and ground level		See attached schedule 33A
Miles of main by size and kind		See attached schedule 33B
Types of filters: gravity or pressure, number of units and total rated in capacity in gal. per min.		S.Ft. Thomas Treatment Plant; 12-gravity, each 560 sq feet @ 5 gallons per sq foot per minute. Taylor Mill Treatment Plant; 8-gravity, each 560 sq feet @ 5 gallons per sq foot per minute. Memorial Parkway Treatment Plant; 3-gravity, each 612 sq feet 25 gallons per sq foot per minute attached schedule 33B
Type of disinfectant; number of units and capacity in pounds per 24 hours		See attached schedule 33C
Station Equipment. List each pump, giving type and capacity, HP of driving unit and character of driving unit (steam/electric/int. combustion) also whether pump is high/low duty		See attached schedule 33D
Quantity of fuel used: coal in lbs., gas in cu. ft., oil in gals., and electric in KWH		N/A
Give description and total cost of any sizable additions or retirements to plant and service outside the normal system of growth for the period covered by this report		Purchase of the Taylor Mill Water System. See Case No. 2004-0021
Capacity of clear well		Ft. Thomas Treatment Plant; 1 - 3 million gallons, and 1
Peak month, in gallons of water sold		July - 984,897,000 gals
Peak day, in gallons of water sold		July 6, 2004 - 36.9 million gallons

Plant Statistics - Part B (Ref Page: 31)

Type
Choose one to indicate the type of Water Supply

Plant Statistics - Part C (Ref Page: 31)

Type
Choose one to indicate the type of Water Supply Method

Water Storage Facilities
Northern Kentucky Water District
Updated: 3/2/2005

Storage Location	Address	City Location	Type Of Storage	Year In Service	Structure Height (Feet)	Base Elevation (Feet)	Top Elevation (Feet)	Overflow Elevation (Feet)	Normal Elevation (Feet)	Normal Elevation (Feet)	Diameter (Feet)	Capacity (Gallons)
Aqua Drive	100 Aqua Drive	Cold Spring	Hydropillar		184			1017				2,000,000
Barrington Road	2 Barrington Road	Ft. Wright	Hydropillar	1969	141	916.5	1057.5	1046.7	1045.0	1040.0	74	1,000,000
Bromley	1674 Highwater Road	Bromley	Ground Storage	1966	103	670.0	773.0	764.0	763.0	750.0	75	3,000,000
Dayton Avenue	2816 Dayton St.	Dayton	Ground Storage		50			829.0				500,000
Devon	US 25	Florence	Hydropillar	1991	156	939.5		1082.0		1042.0	100	2,000,000
Dudley Pike	796 Dudley Pike	Edgewood	Ground Storage	1964	59	831.0	889.5	876.0	874.0	866.0	140	5,000,000
Dudley Pike	796 Dudley Pike	Edgewood	Ground Storage	1990	59	831.0	889.5	876.0	874.0	866.0	140	5,000,000
Ft. Thomas Plant	700 Alexandria Pike	Ft. Thomas	Cleanwell	1936	31	734.0	765.3	764.5	762.0	760.0		3,000,000
Ft. Thomas Plant	700 Alexandria Pike	Ft. Thomas	Cleanwell	1990	35	730.0	778.5	764.5	763.5	757.5	130	3,500,000
Harrison Ave.	2361 Harrison Ave.	Bellevue	Ground Storage		60			829.0				600,000
Ida Spence	Tower Place	Covington	Elevated Tank	1952	175	840.0	1015.0	1005.0	1003.0	1000.0	57	500,000
Independence	5885 Madison Pike	Independence	Hydropillar	1981	137	943.5		1080.0		1039.5	74	1,000,000
Industrial Park	Industrial Rd. & US 25	Florence	Hydropillar	1961	146	945.5	1091.5	1083.5	1081.0	1062.0	50	500,000
John's Hill Road	Knollwood Dr.	Highland Hts.	Elevated Tank		113			1017.0				500,000
Kenton Lands Rd.	25 Kenton Lands Road	Erlanger	Elevated Tank	1953	158	896.0	1054.0	1045.0	1043.0	1033.0	50	500,000
Lumley Tank	R47 Lumley Ave.	Fort Thomas	Elevated Tank		187			1017.0				275,000
Main St. Tank	Main St. & US 27	Alexandria	Elevated Tank		152			1017.0				300,000
Memorial Pkwy. Plant	2055 Memorial Pkwy.	Fort Thomas	Cleanwell					741.0				3,000,000
Old St. 4 Tank	Old St. Road #4	Claryville	Elevated Tank		143			1017.0				1,000,000
Rosford Tank	Marion Dr.	Fort Thomas	Elevated Tank		191			1017.0				300,000
South Newport Tank	Kentucky Drive	Newport	Elevated Tank		155			965.0				1,000,000
Taylor Mill Plant	608 Grand Ave.	Taylor Mill	Cleanwell		15	509.5	524.5	522.0	520.0	518.0		1,000,000
Taylor Mill Standpipe	5907 Taylor Mill Rd.	Taylor Mill	Standpipe		143			1010.0	130.0	110.0		329,000
Total storage owned by NKWSD:											35,804,000	

NORTHERN KY. WATER SERVICE DISTRICT
MILES OF MAIN ANALYSIS

Size	Type	Prior Years	2003 Additions	2003 Retirements	2003 YTD TOTAL	2003 Miles	2003 Percent	2004 Additions	2004 Retirements	2004 YTD TOTALS	2004 Miles	2004 Percent
2"	Cast Iron	45.00			45.00	0.01	0.001%			45.00	0.009	0.001%
3"	Cast Iron						0.000%				0.000	0.000%
4"	Cast Iron	400,690.68	2,308.00	5,870.00	397,128.68	75.21	7.402%	1,240.00	875.00	397,483.68	75.283	7.227%
6"	Cast Iron	1,859,561.38	804.00	7,009.00	1,853,356.38	351.01	34.547%	95,753.36	9,529.00	1,939,580.74	367.345	35.266%
8"	Cast Iron	929,042.93	11,587.00	1,800.00	938,829.93	177.81	17.500%	168,204.24	609.00	1,106,435.17	209.550	20.117%
10"	Cast Iron	89,794.10			89,794.10	17.01	1.674%	46,057.44		135,851.54	25.729	2.470%
12"	Cast Iron	566,530.32	18,207.00	940.00	583,797.32	110.57	10.882%	12,557.16	5,109.00	591,245.48	111.978	10.750%
16"	Cast Iron	279,570.80	590.00		280,160.80	53.06	5.222%	8,410.28	55.00	288,516.08	54.643	5.246%
18"	Cast Iron	3,345.00			3,345.00	0.63	0.062%			3,345.00	0.634	0.061%
20"	Cast Iron	127,988.79	20.00		128,008.79	24.24	2.386%	1,540.00		129,548.79	24.536	2.355%
24"	Cast Iron	85,677.00	8,573.00	1,188.00	93,062.00	17.63	1.735%	4,460.00		97,522.00	18.470	1.773%
30"	Cast Iron	28,563.00			28,563.00	5.41	0.532%			28,563.00	5.410	0.519%
36"	Cast Iron	22,434.21			22,434.21	4.25	0.418%	2,365.00	2,538.00	22,261.21	4.216	0.405%
42"	Cast Iron	17,845.00			17,845.00	3.38	0.333%			17,845.00	3.380	0.324%
20"	Concrete	6,050.00			6,050.00	1.15	0.113%			6,050.00	1.145	0.110%
24"	Concrete	21,530.00			21,530.00	4.08	0.401%			21,530.00	4.077	0.391%
36"	Concrete	35,000.00			35,000.00	6.63	0.652%			35,000.00	6.629	0.636%
2"	Galvanized	375.00			375.00	0.07	0.007%			375.00	0.071	0.007%
4"	Transite	50,335.00			50,335.00	9.53	0.938%			50,335.00	9.533	0.915%
6"	Transite	96,598.00			96,598.00	18.30	1.801%		120.00	96,478.00	18.272	1.754%
1 1/2"	Steel	226.00			226.00	0.04	0.004%			226.00	0.043	0.004%
2"	Steel	677.00			677.00	0.13	0.013%			677.00	0.128	0.012%
4"	Steel	83.00			83.00	0.02	0.002%			83.00	0.016	0.002%
6"	Steel	11.00			11.00	0.00	0.000%			11.00	0.002	0.000%
8"	Steel	31.00			31.00	0.01	0.001%			31.00	0.006	0.001%
10"	Steel	15.00			15.00	0.00	0.000%			15.00	0.003	0.000%
12"	Steel	1,681.00			1,681.00	0.32	0.031%			1,681.00	0.318	0.031%
16"	Steel	582.00			582.00	0.11	0.011%			582.00	0.110	0.011%
24"	Steel	5,227.00			5,227.00	0.99	0.097%		3,178.00	5,272.00	0.998	0.096%

NORTHERN KY. WATER SERVICE DISTRICT
MILES OF MAIN ANALYSIS

Size	Type	Prior Years	2003			2003 YTD TOTAL	2003 Miles	2003 Percent	2004		2004 YTD TOTALS	2004 Miles	2004 Percent
			Additions	Retirements	Retirements				Additions				
3/4"	Copper	52.00			52.00	0.01	0.001%			52.00	0.010	0.001%	
1"	Copper	3,787.00			3,787.00	0.72	0.071%			3,787.00	0.717	0.069%	
1 1/2"	Copper	4,150.00			4,150.00	0.79	0.077%			4,150.00	0.786	0.075%	
2"	Copper	12,648.30			12,648.30	2.40	0.236%			12,648.30	2.396	0.230%	
1"	Plastic	2,973.00			2,973.00	0.56	0.055%			2,973.00	0.563	0.000%	
1 1/2"	Plastic	2,292.00			2,292.00	0.43	0.043%			2,292.00	0.434	0.054%	
2"	Plastic	63,783.00	2,385.00		66,168.00	12.53	1.233%	2,120.00		68,288.00	12.933	0.042%	
3"	Plastic	115,886.00		900.00	114,986.00	21.78	2.143%			114,986.00	21.778	1.242%	
4"	Plastic	29,539.00			29,539.00	5.59	0.551%			29,539.00	5.595	2.091%	
6"	Plastic	111,854.60	11,492.00		123,346.60	23.36	2.299%	7,320.00		130,666.60	24.747	0.537%	
8"	Plastic	310,389.00	37,534.00		347,923.00	65.89	6.485%	36,101.00		384,024.00	72.732	2.376%	
12"	Plastic	2,139.00	3,700.00		2,139.00	0.41	0.040%			2,139.00	0.405	6.982%	
TOTAL		5,289,002.11	97,201.00	17,708.00	5,364,795.11	1,016.06	100.0%	386,123.48	22,013.00	5,728,910.59	1085.02	100.0%	

Northern Kentucky Water District
 Chlorinators and Sodium Hypochlorite Feeders In System & Location
 Updated 3/2/2005

33 C

Location	# of Units	Form of Chlorine	Type	Capacity (ea.)
Bromley Pump Station	1	Sodium Hypochlorite	Jesco Pump	1.3 GPH
West Covington Pump Station	1	Sodium Hypochlorite	Penn Process	2.3 GPH
Bristow Road Pump Station	1	Sodium Hypochlorite	Watson Marlow	5 GPH
Dudley Pump Station	2	Sodium Hypochlorite	US Filter Wallace & Tiernan Encore 700	12 GPH
Fort Thomas Treatment Plant	8	Sodium Hypochlorite	US Filter Wallace & Tiernan Encore 700	77 GPH
Taylor Mill Treatment Plant	2	Sodium Hypochlorite	US Filter Wallace & Tiernan Encore 700	5 GPH
	3	Sodium Hypochlorite	US Filter Wallace & Tiernan Encore 700	22.5 GPH
Ohio River Pump Station	4	Sodium Hypochlorite	Tuthill 21MIF22C59X75300	28.7 GPH
Memorial Pky Treatment Plant	1	Sodium Hypochlorite	Watson Marlow	9.1 GPH
	2	Sodium Hypochlorite	Seepex	8 GPH

PUMP STATION LOCATION	CITY LOCATED	NO. OF UNITS	PUMP TYPE	YEAR INSTALLED	HORSE POWER	VOLTS REQUIRED	PUMP CONTROL	RATING PER PUMP (GPM)	TDH (FEET)	SERVICE TYPE
Ohio River Raw Water Pumping Station #1 (Feeds FTTP)	Brent	1 *	VT	1997	1250	4160	AUTO	8,400	430	HIGH
		2	VT			Out of service			430	HIGH
		3	VT	1997	1250	4160	AUTO	8,400	430	HIGH
		4	VT	1997	1250	4160	AUTO	8,400	430	HIGH
		5	VT	1999	1250	4160	AUTO	8,400	430	HIGH
		6 *	VT	1994	1250	4160	AUTO	9,000	430	HIGH
Latonia Ave. and 35th St.	Covington (Const. 1953)	1	HC	2002	75	440	AUTO	500	400	HIGH
		2	HC	2002	75	440	AUTO	500	400	HIGH
Bromley	Bromley	1	VT	1968	60	440	AUTO	500	340	HIGH
		2	VT	1986	75	440	AUTO	700	315	HIGH
		3	VT	1986	75	440	AUTO	700	340	HIGH
Licking River Raw Water Pumping Station	Taylor Mill	1	VT	1990	350	440	AUTO	8333	126	LOW
		2	VT	1971	250	440	AUTO	6250	126	LOW
		3	VT	1993	150	440	AUTO	4900	94	LOW
Taylor Mill Treatment Plant	Taylor Mill	1	VT	2001	600	2300	AUTO	6945	250	HIGH
		2	VT	1954	450	2300	AUTO	3472	385	HIGH
		3	VT	1954	700	2300	AUTO	3472	385	HIGH
		4	VT	1974	1250	2300	AUTO	6945	490	HIGH
		5	VT	1974	1250	2300	AUTO	6945	490	HIGH
		6	VT	1982	600	2300	AUTO	6945	250	HIGH
Dudley Pike 1040 System	Edgewood	1	VT	1965	250	440	AUTO	2825	270	HIGH
		2	VT	1965	250	440	AUTO	2825	270	HIGH
		3	VT	1965	250	440	AUTO	2825	270	HIGH
		4	VT	1979	250	440	AUTO	2222	375	HIGH
Dudley Pike 1080 System	Edgewood	5	VT	1990	600	460	AUTO	6000	282	HIGH
		6	VT	1990	600	460	AUTO	6000	282	HIGH
		7	VT	1990	600	460	AUTO	6000	282	HIGH
		8	VT	1994	600	460	AUTO	5000	282	HIGH
Richardson Rd.	Independence	1	VT	1981	400	440	AUTO	2100	515	HIGH
		2	VT	2001	400	440	AUTO	2100	515	HIGH
		3	VT	1998	400	440	AUTO	2100	515	HIGH
Hands Pike	Covington	1	VT	1983	75	440	AUTO	500	426	HIGH
		2	VT	1983	75	440	AUTO	500	426	HIGH
West Covington	Covington	1	VC	1987	40	440	AUTO	1600	60	LOW
		2	VC	1987	40	440	AUTO	1600	60	LOW
Bristow Rd. (Peerless Pumps)	Independence	1	VT	2002	75	480	AUTO	2900	65	LOW
		2	VT	2002	75	480	AUTO	2900	65	LOW
		3	VT	2002	75	480	AUTO	2900	65	LOW
Newport PS Variable Speed	Fort Thomas	1	VT	2000	500	440	AUTO	4200	372	HIGH
		2	VT	2000	500	440	AUTO	4200	372	HIGH
		3	VT	2000	500	440	AUTO	4200	372	HIGH
US 27 10 MGD	670 Alex. Pk. Fort Thomas	1	VT	1990	350	440	AUTO	3500	300	HIGH
		2	VT	1990	350	440	AUTO	3500	300	HIGH
		3	VT	1990	350	440	AUTO	3500	300	HIGH
Ripple Creek	Cold Spring	1	VC	1991	75	440	AUTO	2050	100	LOW
		2	VC	1991	75	440	AUTO	2050	100	LOW
Ohio River Raw Water Pumping Station #2 (Feeds MPTP)	Fort Thomas	1	VT	1987	800	2400	AUTO	5500	365	HIGH
		2	VT	1999	800	2400	AUTO	5000	365	HIGH
		3	VT	2002	800	2400	AUTO	4000	365	HIGH
Memorial Parkway Treatment Plant Raw Water Pumps	Fort Thomas	1	VC	1961	125	460	AUTO	5300	64	LOW
		2	VC	1961	75	440	AUTO	3675	64	LOW
		3	VC	1961	75	440	AUTO	3675	64	LOW
Carothers Rd. Pump Stn.	Newport	1	VT	1996	150	460	AUTO	1800	263	HIGH
		2	VT	1996	150	460	AUTO	1800	263	HIGH

OATH

Commonwealth of Kentucky)
) ss:
County of Campbell)

Ronald J. Barrow makes oath and says
(Name of Officer)

that he/she is V.P. Finance of
(Official title of officer)

Northern Kentucky Water District
(Exact legal title or name of respondent)

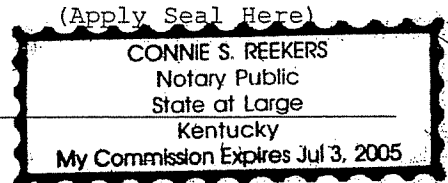
that it is his/her duty to have supervision over the books of account of the respondent and to control the manner in which such books are kept; that he/she knows that such books have, during the period covered by the foregoing report, been kept in good faith in accordance with the accounting and other orders of the Public Service Commission of Kentucky, effective during the said period; that he/she has carefully examined the said report and to the best of his/her knowledge and belief the entries contained in the said report have, so far as they relate to matters of account, been accurately taken from the said books of account and are in exact accordance therewith; that he/she believes that all other statements of fact contained in the said report are true; and that the said report is a correct and complete statement of the business and affairs of the above-named respondent during the period of time from and including

January 1, 2004, to and including December 31, 2004

Ronald J. Barrow
(Signature of Officer)

Subscribed and sworn to before me, a Notary, in and for
the State and County named in the above this 30th day of March, 2005

My Commission expires July 3, 2005



Connie S. Reekers
(Signature of officer authorized to administer oath)

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

SCHEDULE OF MORTGAGES, BONDS, NOTES, AND
OTHER INDEBTEDNESS

Northern Kentucky Water District

For schedule of mortgages, bonds, notes, and other indebtedness see schedule pages titled "Ref. Page 23" in Exhibit E.

NORTHERN KENTUCKY
WATER DISTRICT

Project – 0.75 MG Claryville Elevated
Water Storage Tank

Campbell County
184-0416

CURRENT BALANCE SHEET AND INCOME
STATEMENT

Northern Kentucky Water District
Balance Sheet
As of November 30, 2005

	<u>2005</u>	<u>2004</u>
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	\$ 6,350,435	3,531,503
Accounts Receivable		
Customers	2,810,018	3,485,594
Unbilled Customers	4,900,000	4,200,000
Other	425,263	191,468
Assessments Receivable	37,251	38,913
Inventory Supplies for New Installation and Maintenance, at Cost	1,281,975	1,195,388
Prepaid Expenses	851,403	819,349
TOTAL CURRENT ASSETS	\$ 16,656,345	13,462,215
RESTRICTED ASSETS		
Bond Proceeds Fund	\$ 18,618,092	10,157,651
Debt Service Reserve Account	12,419,141	12,995,235
Debt Service Account	5,027,145	4,016,050
Improvement, Repair & Replacement	3,497,411	2,663,166
Boone/Florence Settlement Account	3,732,055	4,121,098
TOTAL RESTRICTED ASSETS	\$ 43,293,844	33,953,200
NONCURRENT ASSETS		
Miscellaneous Deferred Charges	\$ 9,695,414	10,530,060
Capital Assets:		
Land, System, Buildings and Equipment	\$ 248,991,315	240,916,183
Construction in Progress	19,041,846	12,200,863
Total Capital Assets before accumulated depreciation	\$ 268,033,161	253,117,046
Less Accumulated Depreciation	(54,359,493)	(49,140,566)
Total capital assets, net of accumulated depreciation	\$ 213,673,668	203,976,480
TOTAL NONCURRENT ASSETS	\$ 223,369,082	214,506,540
TOTAL ASSETS	\$ 283,319,271	261,921,955

Northern Kentucky Water District
Balance Sheet
As of November 30, 2005

	<u>2005</u>	<u>2004</u>
LIABILITIES AND RETAINED EARNINGS		
CURRENT LIABILITIES		
Current Portion of Long Term Debt	\$ 4,806,000	4,400,000
Accounts Payable	1,759,706	1,361,259
Accrued Payroll & Liabilities	261,314	153,454
Other Accrued Liabilities	77,114	127,030
TOTAL CURRENT LIABILITIES	\$ 6,904,134	6,041,743
CURRENT LIABILITIES PAYABLE		
FROM RESTRICTED ASSETS		
Accounts Payable	\$ 271,777	92,066
Accrued Interest Payable	2,429,245	1,635,971
TOTAL CURRENT LIABILITIES PAYABLE	\$ 2,701,022	1,728,037
LONG-TERM DEBT		
Long-Term Portion of Bonded Indebtedness	\$ 144,145,000	148,725,000
Bond Anticipation Notes Payable	21,585,000	3,605,000
Note Payable - Taylor Mill Purchase	2,125,000	2,625,000
Deferred Note Payable	100,000	100,000
TOTAL LONG-TERM DEBT	\$ 167,955,000	155,055,000
TOTAL LIABILITIES	\$ 177,560,156	162,824,780
RETAINED EARNINGS	\$ 105,759,115	99,097,175
TOTAL LIABILITIES AND RETAINED EARNINGS	\$ 283,319,271	261,921,955

Northern Kentucky Water District
 Income and Expense Report Summary
 For the Eleven Months Ending November 30, 2005

Description	Nov 2004	Nov 2005	Nov Budget	Variance Over (Under)	YTD 2004	YTD 2005	YTD Budget	Variance Over (Under)	2005 Budget
TOTAL INCOME	\$2,482,319	\$2,551,641	\$3,017,050	(15.4%)	\$29,604,477	\$33,054,363	\$33,187,538	(0.4%)	\$36,204,584
TOTAL O & M EXPENSES	\$1,347,627	\$1,722,773	\$1,721,167	0.1%	\$17,770,567	\$18,721,763	\$18,932,833	(1.1%)	\$20,654,000
TRANSFER TO DEBT SERVICE	\$824,535	\$872,117	\$872,117	0.0%	\$9,069,885	\$9,593,288	\$9,593,287	0.0%	\$10,465,405
AVAILABLE FOR TRANSFER TO OPERATING CAPITAL	\$310,157	(\$43,249)	\$423,766	(110.2%)	\$2,764,025	\$4,739,312	\$4,661,418	1.7%	\$5,085,179

Northern Kentucky Water District
Income and Expense Report - Detail
For the Eleven Months Ending November 30, 2005

Description	Nov 2004	Nov 2005	Nov Budget	Variance Over (Under)	YTD 2004	YTD 2005	YTD Budget	Variance Over (Under)
INCOME								
Operating Income								
Water Sales	\$ 2,250,671	\$ 2,213,162	\$2,766,667	(20.0%)	\$ 26,998,263	\$ 29,505,795	\$30,433,333	(3.0%)
Forfeited Discounts	73,558	54,325	49,000	10.9%	551,277	684,085	\$539,000	26.9%
Rents from Water Property	37,615	48,410	44,000	10.0%	410,478	489,788	\$484,000	1.2%
Other Water Revenues	31,485	28,325	12,500	126.6%	146,281	316,150	\$137,500	129.9%
Total Operating Income	\$2,393,329	\$2,344,222	\$2,872,167	(18.4%)	\$28,106,299	\$30,995,818	\$31,593,833	(1.9%)
Non-Operating Income								
Interest Income	\$44,851	\$151,006	\$91,667	64.7%	\$943,354	\$1,507,704	\$1,008,333	49.5%
Miscellaneous	7,590	19,864	16,667	19.2%	152,785	148,802	\$183,333	(18.8%)
Total Non-Operating Income	\$52,441	\$170,870	\$108,334	57.7%	\$1,096,139	\$1,656,506	\$1,191,666	39.0%
Boone Florence Settlement Transfer	\$36,549	\$36,549	\$36,549	0.0%	\$402,039	\$402,039	\$402,039	0.0%
TOTAL INCOME	\$2,482,319	\$2,551,641	\$3,017,050	(15.4%)	\$29,604,477	\$33,054,363	\$33,187,538	(0.4%)
EXPENSES								
O & M Expenses								
Source of Supply, Water Treatment, Pumping & Storage	\$588,026	\$801,110	\$627,196	27.7%	\$7,057,605	\$7,550,818	\$6,899,154	9.4%
Engineering & Distribution	357,093	381,837	525,529	(27.3%)	5,117,677	5,269,811	\$5,780,820	(8.8%)
Customer Service	245,757	288,108	297,825	(3.3%)	3,061,461	3,149,691	\$3,276,076	(3.9%)
Administration	156,752	251,717	270,617	(7.0%)	2,533,824	2,751,443	\$2,976,783	(7.6%)
Total O & M Expenses	\$1,347,627	\$1,722,773	\$1,721,167	0.1%	\$17,770,567	\$18,721,763	\$18,932,833	(1.1%)
Transfer to debt service	\$824,535	\$872,117	\$872,117	0.0%	\$9,069,885	\$9,593,288	\$9,593,287	0.0%
TOTAL EXPENSES	\$2,172,162	\$2,594,890	\$2,593,284	0.1%	\$26,840,452	\$28,315,051	\$28,526,120	(0.7%)
AVAILABLE FOR TRANSFER TO OPERATING CAPITAL	\$310,157	(\$43,249)	\$423,766	(110.2%)	\$2,764,025	\$4,739,312	\$4,661,418	1.7%

Northern Kentucky Water District
Expense Report by Division Actual to Budget
For the Eleven Months Ending November 30, 2005

Division	November Actual	November Budget	Variance Over (Under)	YTD Actual	YTD Budget	Variance Over (Under)	2005 Budget 12 Months	Explanation
WORK OF SUPPLY, WATER TREATMENT, PUMPING & STORAGE	\$801,110	\$627,196	27.7%	\$7,550,818	\$6,899,154	9.4%	\$7,526,350	Nov. tower painting bill, increased cost of electricity and chemicals.
ENGINEERING & DISTRIBUTION	381,837	525,529	(27.3%)	5,269,811	\$5,780,820	(8.8%)	6,306,350	Lower billing for Maintenance of mains for November.
CUSTOMER SERVICE	288,108	297,825	(3.3%)	3,149,691	\$3,276,076	(3.9%)	3,573,900	
ADMINISTRATION	251,717	270,617	(7.0%)	2,751,443	\$2,976,783	(7.6%)	3,247,400	
TOTAL O AND M	\$1,722,773	\$1,721,167	0.1%	\$18,721,763	\$18,932,833	(1.1%)	\$20,654,000	

Northern Kentucky Water District
Expense Report by Department Actual to Budget
For the Eleven Months Ending November 30, 2005

Department	November Actual	November Budget	Variance Over (Under)	YTD Actual	YTD Budget	Variance Over (Under)	2005 Budget 12 Months	Explanation
SOURCE OF SUPPLY								
Licking River Pump Station	\$4,024	\$6,408	(37.2%)	\$68,296	\$70,488	(3.1%)	\$76,900	
Ohio River Pump Station # 1	44,263	46,292	(4.4%)	504,355	\$509,212	(1.0%)	555,500	
Ohio River Pump Station # 2	3,555	7,042	(49.5%)	85,811	\$77,482	10.8%	84,500	YTD Electric cost up at Newport. Work on raw water intake, pump service.
TOTAL SOURCE OF SUPPLY	\$51,842	\$59,742	(13.2%)	\$658,461	\$657,162	0.2%	\$716,900	
WATER QUALITY								
Fl. Thomas Treatment Plant	\$187,832	\$180,475	4.1%	\$2,194,952	\$1,985,225	10.6%	\$2,165,700	Increased use and costs of Chemicals at FTTP.
Taylor Mill Treatment Plant	52,400	50,642	3.5%	631,411	\$557,061	13.3%	607,700	Increased use and costs of Chemicals at TMTP.
Memorial Parkway Treatment Plant	71,508	68,942	3.7%	796,435	\$758,362	5.0%	827,300	
Laboratory	62,298	57,758	7.9%	640,876	\$635,338	0.9%	693,100	
Instrumentation	25,849	23,112	11.8%	278,218	\$254,232	9.4%	277,350	Higher labor and benefits costs.
Sludge	22,769	17,417	30.7%	222,677	\$191,583	16.2%	209,000	Increased Materials and supplies.
TOTAL WATER QUALITY	\$422,655	\$398,346	6.1%	\$4,764,569	\$4,381,800	8.7%	\$4,780,150	
TOTAL PUMPING & STORAGE	\$326,613	\$169,108	93.1%	\$2,127,788	\$1,860,192	14.4%	\$ 2,029,300	Water lower painting bill \$ 180,630.00 from Utility Service Co.
TOTAL SOS, WQ, P & S	\$801,110	\$627,196	27.7%	\$7,550,818	\$6,899,154	9.4%	\$7,526,350	

Northern Kentucky Water District
Expense Report by Department Actual to Budget
For the Eleven Months Ending November 30, 2005

Department	November Actual	November Budget	Variance Over (Under)	YTD Actual	YTD Budget	Variance Over (Under)	2005 Budget 12 Months	Explanation
ENGINEERING & DISTRIBUTION								
Engineering	\$95,529	\$107,921	(11.5%)	\$1,108,303	\$1,187,131	(6.6%)	\$1,295,050	
Distribution	286,309	417,608	(31.4%)	4,161,508	\$4,593,689	(9.4%)	5,011,300	
TOTAL ENGINEERING & DISTRIBUTION	\$381,837	\$525,529	(27.3%)	\$5,269,811	\$5,780,820	(8.8%)	\$ 6,306,350	
CUSTOMER SERVICE								
Field Service	\$65,230	\$63,892	2.1%	\$676,332	\$702,812	(3.8%)	\$ 766,700	
Meter Shop	25,821	26,492	(2.5%)	282,262	\$291,412	(3.1%)	317,900	
Courier/Maintenance	4,933	4,754	3.8%	52,782	\$52,295	0.9%	57,050	
Account Service	100,199	110,162	(9.0%)	1,061,603	\$1,211,782	(12.4%)	1,321,950	Lower than expected Postage -Account service.
Meter Reading	26,271	28,142	(6.6%)	276,613	\$309,562	(10.6%)	337,700	
Flushing	25,594	24,162	5.9%	271,652	\$265,782	2.2%	289,950	
Other	40,062	40,221	(0.4%)	528,446	\$442,431	19.4%	482,650	Increase in bad debt write-off.
TOTAL CUSTOMER SERVICE	\$288,108	\$297,825	(3.3%)	\$3,149,691	\$3,276,076	(3.9%)	\$ 3,573,900	

Northern Kentucky Water District
Expense Report by Department Actual to Budget
For the Eleven Months Ending November 30, 2005

Department	November Actual	November Budget	Variance Over (Under)	YTD Actual	YTD Budget	Variance Over (Under)	2005 Budget 12 Months	Explanation
ADMINISTRATION								
Executive Management	\$59,879	\$41,429	44.5%	\$474,133	\$455,721	4.0%	\$ 497,150	Consulting fees on Property Insurance plus temp services.
Board of Commissioners	8,529	10,708	(20.4%)	108,509	\$117,792	(7.9%)	128,500	
Accounting	16,871	24,400	(30.9%)	231,964	\$268,400	(13.6%)	292,800	
H. R. , Information Systems, Safety	98,463	109,896	(10.4%)	958,089	\$1,208,854	(20.7%)	1,318,750	
Other	67,976	84,183	(19.3%)	978,748	\$926,017	5.7%	1,010,200	YTD includes Black and Veatch Depreciation study cost, Bottled water evaluation, and AWWA subscription costs.
TOTAL ADMINISTRATION	\$251,717	\$270,617	(7.0%)	\$2,751,443	\$2,976,783	(7.6%)	\$ 3,247,400	
TOTAL O & M	\$1,722,773	\$1,721,167	0.1%	\$18,721,763	\$18,932,833	(1.1%)	\$20,854,000	

Northern Kentucky Water District
Expense Report by Account Actual to Budget
For the Eleven Months Ending November 30, 2005

Account	November Actual	November Budget	Variance Over (Under)	YTD Actual	YTD Budget	Variance Over (Under)	2005 Budget	Explanation
O & M Expenses								
Salaries & Wages	\$643,885	\$639,900	0.6%	\$6,819,256	\$7,038,900	(3.2%)	\$7,678,800	
Employee Pension & Benefits	204,733	198,221	3.3%	\$2,217,717	\$2,180,429	1.7%	2,378,650	
Taxes Other than Income Taxes	39,770	48,483	(18.0%)	\$479,552	\$533,317	(11.2%)	581,800	
Purchased Power	119,862	159,933	(25.0%)	\$1,797,429	\$1,759,267	2.1%	1,919,200	
Chemicals	68,774	61,000	12.7%	\$914,425	\$671,000	26.6%	732,000	Increased use of chemicals at all plants because of higher production and turbidities..
Materials & Supplies	111,146	122,779	(9.5%)	\$1,405,810	\$1,350,571	3.9%	1,473,350	
Contractual Services	374,352	343,275	9.1%	\$3,313,462	\$3,776,025	(14.0%)	4,119,300	Ida Spence Tank painting bill paid in November \$180,630.00
Rent	835	708	17.9%	\$9,854	\$7,792	20.9%	8,500	
Transportation	40,722	22,904	77.8%	\$371,873	\$251,946	32.2%	274,850	Increased fuel prices, reflected in higher Visa Billing.
Insurance	55,263	60,742	(9.0%)	\$631,883	\$668,158	(5.7%)	728,900	
Advertising	1,062	917	18.0%	\$9,989	\$10,063	(0.9%)	11,000	
Bad Debt Expense	37,237	34,167	9.0%	\$469,154	\$375,833	19.9%	410,000	Increase in bad debt write-off since new billing system implementation. Under budgeted.
Miscellaneous	3,348	6,612	(49.4%)	\$44,699	\$72,737	(62.7%)	79,350	
Regulatory Commission Assessment	21,745	21,525	1.0%	\$236,669	\$236,775	(0.0%)	258,300	
Total O & M Expenses	\$1,722,773	\$1,721,167	0.1%	\$18,721,763	\$18,932,834	(1.1%)	\$20,654,000	

Northern Kentucky Water District
Income Report Actual to Projected
For the Eleven Months Ending November 30, 2005

Description	November Actual	November Projected	Variance	YTD Actual	YTD Projected	Variance	Explanation
Water Sales	\$ 2,213,162	\$ 2,766,667	(20.0%)	\$ 29,505,795	\$ 30,433,333	(3.0%)	
Forfeited Discounts	54,325	49,000	10.9%	684,085	\$ 539,000	26.9%	Increased penalties from late payments.
Rents from Water Property	48,410	44,000	10.0%	489,788	\$ 484,000	1.2%	
Other Water Revenues	28,325	12,500	126.6%	316,150	\$ 137,500	129.9%	Increase in Turn-on and Returned check fees.
Total Operating Revenues	\$2,344,222	\$2,872,167	(18.4%)	\$30,995,818	\$31,593,833	(1.9%)	
Non-Operating Income (Expense)							
Interest Income	\$151,006	\$91,667	64.7%	\$1,507,704	\$ 1,008,333	49.5%	Higher interest income because of higher interest rates.
Miscellaneous	19,864	16,667	19.2%	148,802	\$ 183,333	(18.8%)	
Total Non-Operating Income	\$170,870	\$108,334	57.7%	\$1,656,506	\$1,191,666	39.0%	
TOTAL INCOME	\$2,515,092	\$2,980,501	(15.6%)	\$32,652,324	\$32,785,499	(0.4%)	

Northern Kentucky Water District
Expense Report by Division Actual to Actual
For the Eleven Months Ending November 30, 2005

Division	November 2005	November 2004	Variance Over (Under)	YTD 2005	YTD 2004	Variance Over (Under)	Explanation
SOURCE OF SUPPLY, WATER TREATMENT, PUMPING & STORAGE	\$801,110	\$588,026	36.2%	\$7,550,818	\$7,057,605	7.0%	Nov. tower painting bill, increased cost of electricity and chemicals.
ENGINEERING & DISTRIBUTION	381,837	357,093	6.9%	5,269,811	5,117,677	3.0%	Larger expenses for supplies and labor for maintenance of Mains in 2005.
CUSTOMER SERVICE	288,108	245,757	17.2%	3,149,691	3,061,461	2.9%	Increase in Bad Debt expense.
ADMINISTRATION	251,717	156,752	60.6%	2,751,443	2,533,824	8.6%	Increase in visa gas charges. Special projects of Bottled water evaluation, Telecommunication assessment.
TOTAL O AND M	\$1,722,773	\$1,347,627	27.8%	\$18,721,763	\$17,770,567	5.4%	

Northern Kentucky Water District						
Expense Report by Account Actual to Actual						
For the Eleven Months Ending November 30, 2005						
Account	November 2005	November 2004	Variance Over (Under)	YTD 2005	YTD 2004	Variance Over (Under)
O & M Expenses						
Salaries & Wages	\$643,885	\$548,259	17.4%	\$6,819,256	\$6,538,773	4.3%
Employee Pension & Benefits	204,733	166,567	22.9%	\$2,217,717	\$1,933,431	14.7%
Taxes Other than Income Taxes	39,770	38,690	2.8%	\$479,552	468,028	2.5%
Purchased Power	119,882	127,983	(6.3%)	\$1,797,429	1,728,156	4.0%
Chemicals	68,774	42,132	63.2%	\$914,425	720,699	26.9%
Materials & Supplies	111,146	124,624	(10.8%)	\$1,405,810	1,362,600	3.2%
Contractual Services	374,352	162,604	130.2%	\$3,313,462	3,423,804	(3.2%)
Rent	835	0	0.0%	\$9,854	9,199	7.1%
Transportation	40,722	27,507	48.0%	\$371,873	259,594	43.3%
Insurance	55,263	53,550	3.2%	\$631,883	639,271	(1.2%)
Advertising	1,082	412	162.4%	\$9,989	8,177	22.2%
Bad Debt Expense	37,237	30,432	22.4%	\$469,154	391,535	19.8%
Miscellaneous	3,348	3,543	(5.5%)	\$44,699	92,927	(51.9%)
Regulatory Commission Assessment	21,745	21,322	2.0%	\$236,659	194,374	21.8%
Total O & M Expenses	\$1,722,773	\$1,347,627	27.8%	\$18,721,763	\$17,770,567	5.4%

Higher labor costs YOY but only .6% higher than budget for the month.
 Increase in health insurance costs.
 Increased YTD charges for Electric power at Dudley, Ohio River stations and FTTP.
 Increased use of chemicals at all plants because of higher production and turbidities.
 Higher gasoline and repair costs.
 Increase in bad debt write-off since new billing system implementation. Under budgeted.
 Most current rate case write off did not start until late 2004.

Northern Kentucky Water District
Income Report Actual to Actual
For the Eleven Months Ending November 30, 2005

Description	November 2005	November 2004	Variance	YTD Nov 2005	YTD Nov 2004	Variance	Explanation
Water Sales	\$ 2,213,162	\$ 2,250,671	(1.7%)	\$ 29,505,795	\$ 26,998,263	9.3%	
Forfeited Discounts	54,325	73,558	(26.1%)	684,085	551,277	24.1%	YTD Increase over last year reflects rate increase and Taylor Mill revenue.
Rents from Water Property	48,410	37,615	28.7%	489,788	410,478	19.3%	Increased penalties from late payments.
Other Water Revenues	28,325	31,485	(10.0%)	316,150	146,281	116.1%	Increase in Turn-on and Returned check fees.
Total Operating Revenues	\$2,344,222	\$2,393,329	(2.1%)	\$30,995,818	\$28,106,299	10.3%	
Non-Operating Income (Expense)							
Interest Income	\$151,006	\$44,851	236.7%	\$1,507,704	\$943,354	59.8%	
Miscellaneous	19,864	7,590	161.7%	148,802	152,785	(2.6%)	Higher interest income because of higher interest rates.
Total Non-Operating Income	\$170,870	\$52,441	225.8%	\$1,656,506	\$1,096,139	51.1%	
TOTAL INCOME	\$2,515,092	\$2,445,770	2.8%	\$32,652,324	\$29,202,438	11.8%	