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PUBLIC SERVICE  
COMMISSION

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NORTHERN KENTUCKY	)	
WATER DISTRICT FOR APPROVAL OF	)	CASE NO. 2007-00074
CONSTRUCTION OF A BACKWASH TREATMENT	)	
SYSTEM 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 backwash treatment system at its Taylor Mill Treatment Plant pursuant to KRS 278.020.

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

1. NKWD's office address is 2835 Crescent Springs Rd., Erlanger, KY 41018-0640. 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 backwash treatment facilities at its Taylor Mill Treatment Plant as described in Exhibit A (Two copies of the Maps, Plans, Specifications and Bid Documents are provided as a separate bound document). The District is financing the Engineering costs with \$200,000 of proceeds from its 2006 Bond Issuance; the remainder of the cost is with \$711,000 from the 2006 Bond and \$1,189,000 of Bond Anticipation Notes (BAN) to be issued in 2007 for a total project cost of \$2,100,000.

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 will provide additional options to the spent water treatment scheme currently used by the District. The project, its cost, need and other details are contained in Exhibit A.

7. The total project cost is approximately \$2,100,000, see Exhibits B 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 project, identified in Exhibit A, is scheduled to begin construction in May, 2007 and be completed by May, 2008. Board approval of the project was given on February 15, 2007, attached as Exhibit C. Bid information is included with Exhibit B. Bids expire on May 7, 2007.

11. No new franchises are required. The DOW permit is 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 will be funded by the issuance of BANS and previously



issued 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 Exhibits E and F.

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.

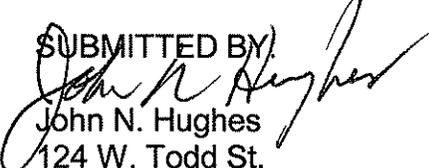
i. Current balance sheet; income statement and debt schedule are attached as Exhibits F and G.

k. The facilities being constructed will be reflected in USoA Accounts as shown in Exhibit D.

For these reasons, the District requests authorization to construct the facilities and



any other 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*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

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**NORTHERN KENTUCKY WATER DISTRICT**  
**Taylor Mill Treatment Plant Backwash Treatment System**  
**184-0441**

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<b><u>EXHIBIT</u></b>	<b><u>TITLE</u></b>
A	<b>ENGINEERING REPORTS AND INFORMATION</b> Copy of project map, Preliminary engineering report; Engineer's opinion of probable total construction cost; CH2M Hill plans titled "Taylor Mill Treatment Plant Backwash Treatment System" dated December, 2006, sealed by a P.E.; CH2M Hill specifications titled "Taylor Mill Treatment Plant Backwash Treatment System" dated December, 2006 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	<b>BID INFORMATION AND BOARD RESOLUTION</b> Bid tabulation, Engineer's recommendation of award, Board resolution.
D	<b>PROJECT FINANCE INFORMATION</b> 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	<b>PSC ANNUAL REPORT - 2005</b>
F	<b>SCHEDULE OF MORTGAGES, BONDS, NOTES, AND OTHER INDEBTEDNESS</b>
G	<b>CURRENT BALANCE SHEET AND INCOME STATEMENT</b>

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80000 SERIES  
30% P.C.W.

Case No. 2007-\_\_\_\_  
Exhibit     A    

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NORTHERN KENTUCKY  
WATER DISTRICT

Project

Taylor Mill Treatment Plant Backwash Treatment System

Kenton County  
184-0441

ENGINEERING REPORTS AND INFORMATION

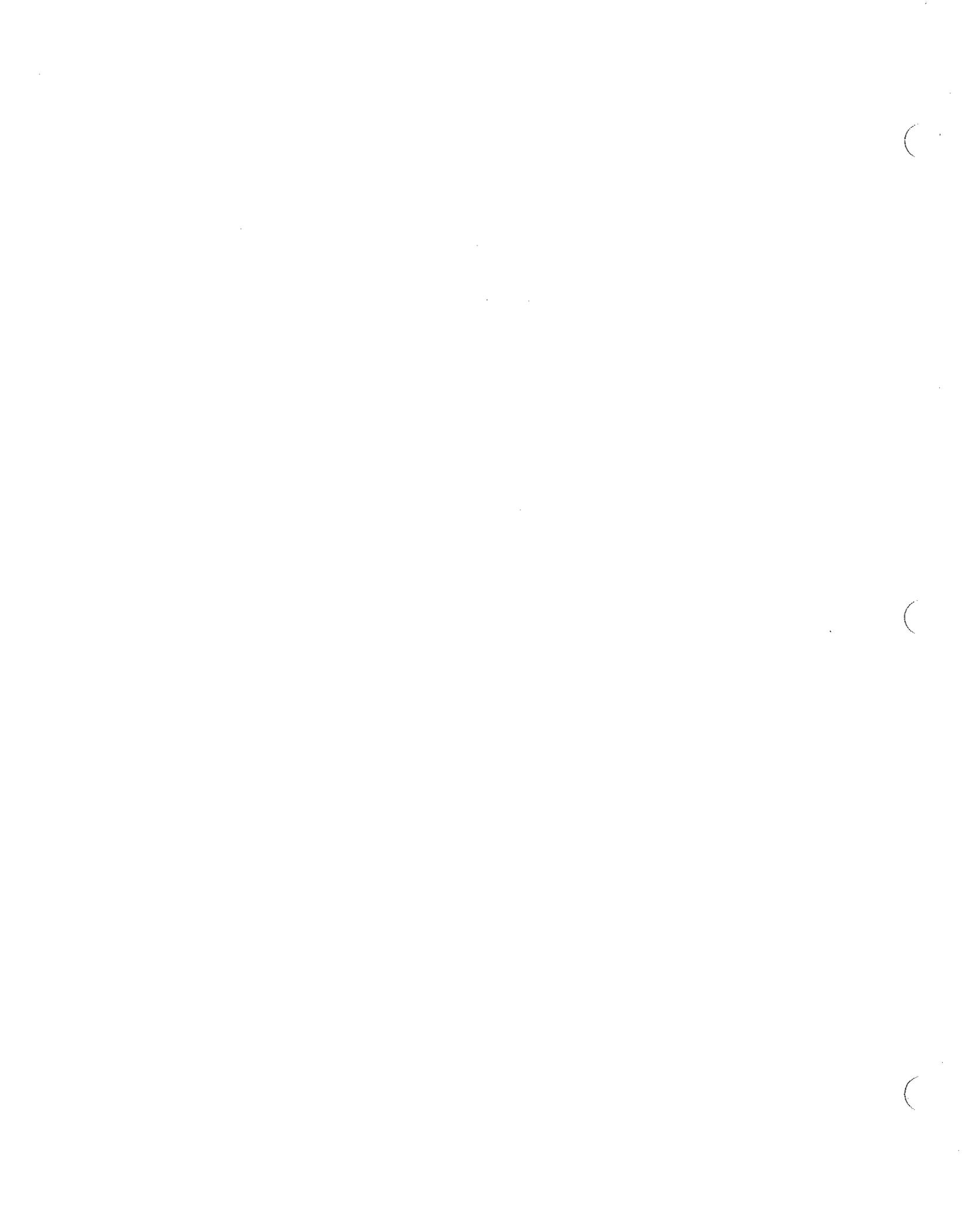
Project Map

Preliminary Design Memorandum

Engineer's Opinion of Probable Total Construction Cost

Plans prepared by CH2M Hill titled "Taylor Mill Treatment Plant Backwash  
Treatment System" dated December, 2006

Specifications prepared by CH2M Hill titled "Taylor Mill Treatment Plant  
Backwash Treatment System" dated December, 2006



Case No. 2007-\_\_\_\_  
Exhibit     A    

NORTHERN KENTUCKY  
WATER DISTRICT

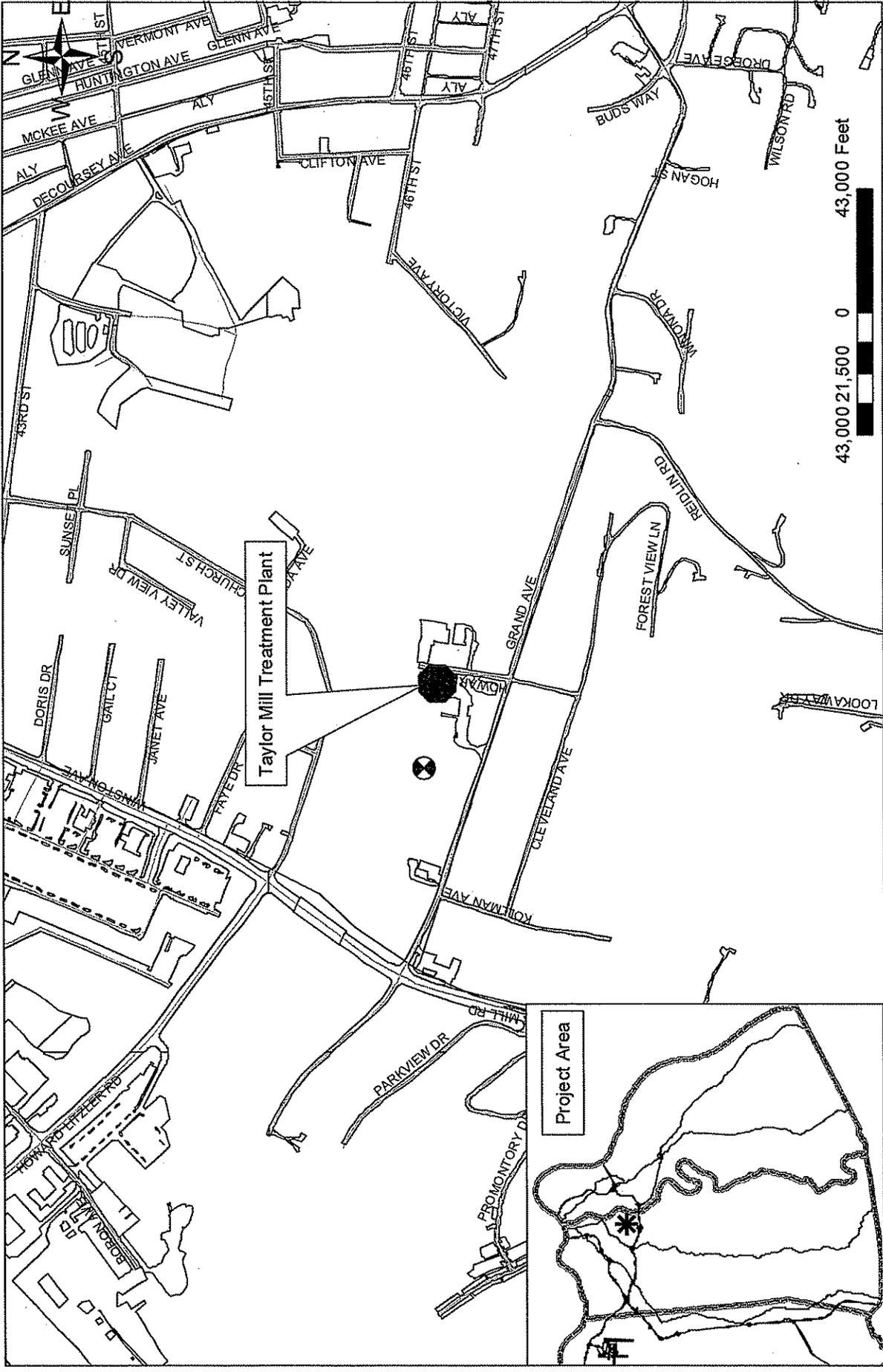
*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Project Map





# Taylor Mill Treatment Plant

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Case No. 2007-\_\_\_\_  
Exhibit     A    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Preliminary Design Memorandum

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# Taylor Mill Water Treatment Plant Backwash Recycle Evaluation

PREPARED FOR: Northern Kentucky Water District  
PREPARED BY: Russell Ford/CH2M HILL  
COPIES: Frank Duran/CH2M HILL  
DATE: August 18, 2005  
PROJECT NUMBER: 332885.A1.ED

## Background

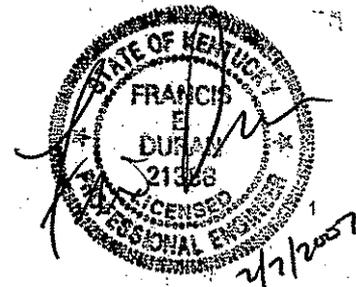
### Overview

The Taylor Mill Treatment Plant (TMTP) has a design rated capacity of 10 million gallons per day (mgd). In the past, the plant has discharged process wastewater consisting of spent backwash water and sedimentation basin sludge to the Banklick Creek. However, this discharge failed to comply with the Clean Water Act water quality requirements, and so the Kentucky Division of Water ordered the Northern Kentucky Water District to rectify the situation.

In 1989, the District constructed the current sludge treatment facility. The system consists of a spent backwash tank (approximate usable volume of 204,000 gallons), a sludge tank, and belt filter presses. The solids are pressed through the belt filter presses and then hauled to a sanitary landfill. The supernatant from the sludge holding tanks is decanted into the holding tank for spent backwash water. Initially the blended sludge supernatant and spent backwash water were recycled to the head of the TMTP, but this caused taste and odor issues in the finished water, resulting in complaints from customers. To solve the problem, the District received an Industrial Wastewater Discharge Permit from the Sanitation District No. 1 (SD #1) of Northern Kentucky and began sending the liquid waste stream to the sanitary sewer system. The cost of discharging to the sanitary sewer system has steadily increased over the years and now costs the District roughly \$250,000 annually.

In 2001, the District also constructed a filter-to-waste facility to accept the filter-to-waste discharge from the filters. This facility consists of tank with approximately 224,000 gallons of storage and four submersible pumps. The filter-to-waste discharge is either recycled to the head of the plant or dechlorinated and discharged to Banklick Creek.

Figure 1 is an overview of the current spent process wastewater treatment scheme.



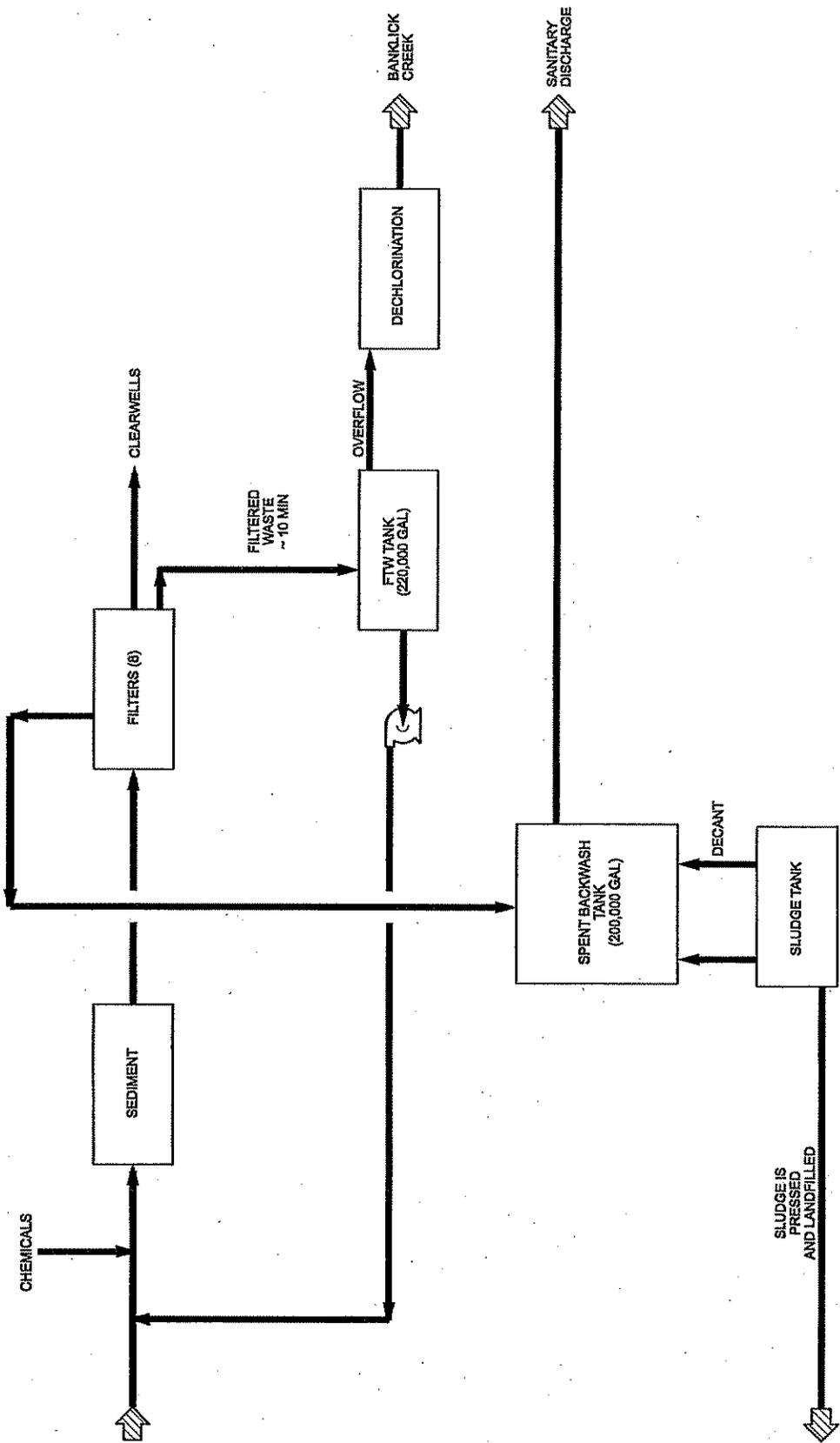


FIGURE 1  
 EXISTING SPENT  
 BACKWASH FLOW SCHEMATIC  
 TAYLORMILL TREATMENT PLANT

## Current Plant Operations

The TMTP currently is operated Monday through Friday, although it can be operated for 24 hours per day, 7 days per week. When the plant is shutdown, the filters are backwashed (this typically occurs on Friday or Saturday). On Monday, the filters are again backwashed and then operated in a filter-to-waste mode for about 10 minutes at the flow rate at which the plant expects to operate during the week. The plant has eight dual media filters, each with 270 square feet of area. The design filtration rate is 5 gallons per minute per square foot (gpm/ft<sup>2</sup>). It is estimated that the filter-to-waste volume per filter is 13,500 gallons. Table 1 summarizes the spent backwash water produced during the period June 2004 through June 2005. The average spent backwash volume is about 20,000 gallons per filter.

TABLE 1

Summary of Spent Backwash Water Volumes from June 2004 through June 2005

Total Wash	Volume <sup>a</sup> of Spent Backwash Water (gal.)							
	Filter No. 1	Filter No. 2	Filter No. 3	Filter No. 4	Filter No. 5	Filter No. 6	Filter No. 7	Filter No. 8
Avg	19,490	19,606	20,935	19,677	19,870	20,022	20,315	18,968
Min	9,000	9,000	13,000	9,000	9,000	9,000	10,000	12,000
Max	38,000	31,000	44,000	27,000	28,000	35,000	28,000	26,000

<sup>a</sup>Volume does not include filter-to-waste discharge

Besides the filter backwash flow, the sludge dewatering system decant and belt press filtrate flows into the spent backwash tank. The flow from these sources ranges from a minimum of 1,000 gpd up to 10,000 gpd when the belt filter presses are operating.

## Purpose

This memorandum evaluates options the District can use to reduce or eliminate the expense of discharging the liquid wastestream to SD #1. The project involves evaluating the feasibility of using pretreatment such as inclined plate settlers, Actiflo®, or microfiltration to improve the water quality such that water can either be either discharged to the Banklick Creek or recycled to the head of the TMTP.

## Critical Success Factors

At the project kickoff meeting on July 11, 2005, the District was asked how it would define the project as a success. The District gave the following responses:

- Selected equipment would be reliable and easy to maintain.
- No additional staff would be needed for operations or maintenance.
- Treatment system would be easily automated and require minimal operator attention.
- Treatment system would be flexible and able to treat varying process wastewater quality.
- The project must be able to be completed in 2006.
- Total project costs must be less than \$1,389,000.
- Present worth analysis of the treatment solution indicates the project is less than the present worth of continuing to discharge to SD #1 and paying the annual fee of about \$250,000.

These critical success factors are incorporated throughout this memorandum to guide selection of the recommended solution for handling process wastewater at the Taylor Mill plant.

## Regulatory Requirements

The following regulatory requirements apply to the project:

- USEPA Filter Backwash Rule
- SD #1 discharge requirements
- Banklick Creek discharge requirements

### Filter Backwash Rule

The Filter Backwash Rule is a regulation for filtered surface water supplies that recycle part of or their entire filter spent backwash, thickener supernatant, or liquids from dewatering processes through a drinking water plant. The rule was promulgated in June 2001. The essence of the rule is that recycle streams need to be passed through the entire treatment plant process (that is, treated as raw water) or an alternate recycle location as approved by the state. The rule was developed to reduce the risk of illness from microbial pathogens in drinking water, particularly *Cryptosporidium*.

The Filter Backwash Rule<sup>1</sup> requires the following reporting requirement to the Kentucky Division of Water:

- A plant schematic showing the origin of all recycle flows, the hydraulic conveyance used to transport them, and the location where they are recycled into the plant
- Typical recycle flow (in gallons per minute [gpm]), highest observed plant flow experienced in the previous year (gpm), design flow for treatment plant (gpm), and the state-approved operating capacity for the plant where the state has such determinations

The rule requires that the following information be collected and maintained for review by the state:

- Copy of recycle notification and information submitted to the state
- List of recycle flows and the frequencies with which they are returned
- Average and maximum backwash flow rate through the filters, and average and maximum duration of the filter backwash process in minutes
- Typical filter run length and a written summary of how filter length is determined (head loss, turbidity, or time)
- The type of treatment provided for the recycle flow
- Data on the physical dimensions of the equalization or treatment units, typical and maximum hydraulic loading rates, type of treatment chemicals used, average dose and frequency of use, and frequency at which solids are removed from treatment units where such units are used.

<sup>1</sup> Federal Register, Vol. 66, No. 111, Friday, June 8, 2001/Rules and Regulations, pp. 31086–31105.

It should be noted that the Filter Backwash Rule does not indicate at what point a hydraulic surge becomes a concern. This is because each treatment processes is unique and, therefore, the rule gives states some discretion to determine if and when a surge should be mitigated.

Therefore, determining the acceptable recycle rate for the TMTP will be based on treatability testing and discussions with the Kentucky Division of Water.

### SD #1 Discharge Requirements

Based on discussions with District personnel, it is our understanding that there are no preset discharge requirements established by SD #1. Payment to SD #1 is based on two factors: a base fee for volume of discharge and a surcharge based on the quality of discharge. The District pays a base fee of \$1.52 per 100 cubic feet (\$0.002 per gallon) for sewer usage. A surcharge fee is added to this amount based on the following formula:

$$\text{Surcharge Fee } (\$/100 \text{ cf}) = \frac{A(SS-300) + B(BOD-240) + C(TKN-30)}{1,000,000}$$

where:

A, B, C = numerical unit cost factors for each constituent  
 SS = suspended solids  
 BOD = biochemical oxygen demand  
 TKN = total Kjeldahl nitrogen

Since the process wastewater from the TMTP has insignificant concentrations of BOD and TKN, the only factor that enters into the equation is suspended solids.

The current surcharge cost for the TMTP process wastewater discharge is

$$\text{Surcharge Fee } (\$/100 \text{ cf}) = \frac{748.5084 (SS-300)}{1,000,000}$$

The suspended solids in the process wastewater range from 315 mg/L to 4,334 mg/L, with an average of 1,611 mg/L.<sup>2</sup>

### Banklick Creek

Based on information provided by District staff, the following regulatory requirements apply to discharging to Banklick Creek:

- Monthly average of total suspended solids (TSS) of 30 mg/L
- Daily maximum of TSS of 50 mg/L
- pH within range of 6 to 9

There are no restrictions on the volume of process wastewater that can be discharged into the creek, from a regulatory perspective.

<sup>2</sup> Memorandum to Bari Joslyn, August 23, 2004. Subject: Taylor Mill Treatment Plant, Filter Backwash and Sludge Filtrate Disposal Evaluation.

## Sizing of Backwash Recycle System

The sizing of the backwash recycle system is critical because the District has said that the backwash system cannot be the limiting factor for capacity at the TMTP. The following assumptions were used to size the process wastewater treatment system:

- The total usable storage in the spent backwash tank is 204,000 gallons.
- Total usable storage in the filter-to-waste tank is 224,000 gallons.
- On average, the filters are backwashed twice a week and operated to filter to waste once a week. The total volume of backwash water to be addressed is 257,000 gallons, based on backwashing all eight filters at their maximum spent backwash volumes (see Table 1).
- Filter to waste operates for 10 minutes, and the maximum rate of operation is 5 gpm/ft<sup>2</sup>, or 13,500 gallons per filter. The combined filter-to-waste volume for all eight filters is 108,000 gallons.
- The estimated decant water from the sludge process ranges from 1,000 to 10,000 gpd if the belt filter presses are operating.
- The backwash sequence (start to stop) for a filter is about 20 to 40 minutes. By optimizing treatment capacity based on actual treatment capacity and available storage of 204,000 gallons in the spent backwash tank, and by evaluating the duration of the backwash sequence, treatment capacities of 196 gpm (at 40 minutes duration) and 394 gpm (at 20 minutes duration) are needed.
- The system should be able to treat the backwash from one filter in 2 hours or less, which would require a treatment capacity of 366 gpm (based on the maximum amount of spent backwash produced by Filter No. 3). Considering just the mean of the maximum values, the treatment capacity would need to be 265 gpm.

Based on these assumptions, the maximum installed treatment capacity is required to be 400 gpm. This will provide the capability of handling one filter backwash wash, under maximum backwash flow conditions and treating the maximum volume of sludge decant in a 2-hour period and to provide flexibility to vary the duration of the backwash sequence. There are two options available to the District regarding the level of treatment capacity to install. Furthermore, for flexibility of operation, two treatment trains should be installed, each capable of producing at least 200 gpm. The following two options that we developed meet these criteria:

- **Option 1**—Firm capacity of 400 gpm by installing two 400-gpm treatment trains. With both treatment trains operating, there would be 800 gpm of capacity. Under maximum conditions, the spent backwash from a single filter can be treated in 2 hours or less. The spent backwash tank would have more than 95 percent of its usable volume available by the time the last filter is backwashed. Under average backwash conditions, the spent backwash from a filter would be processed in 1 hour. With only one unit operating and the second unit in standby mode, the spent backwash water from a single filter could be treated in less than 2 hours. By the time the last filter was backwashed, the spent backwash tank would have roughly 32 percent of its available storage (65,000 gallons) to

handle other process waste flows. All the spent backwash water could be treated within 3 hours after the last filter was backwashed.

- **Option 2**— Capacity of 400 gpm by installing two 200-gpm treatment trains. With only one train operating, there would be 200 gpm of capacity. If one treatment train were down for maintenance, under maximum conditions, the spent backwash from a filter could be processed in about 4 hours or less. The spent backwash tank would have about 1 percent of its available storage (6,200 gallons) to handle other process waste flows. While this is not ideal, backwashes during a maintenance event can be spaced to every hour, which would result in having about 18 percent of the available storage (35,800 gallons). Under average backwash conditions, the spent backwash tank would have 51 percent of its available storage (104,000 gallons).

Option 1 provides the most long-term flexibility to the District, especially during for draining the sedimentation basins for maintenance. Option 1 also gives the District the ability to backwash and treat the entire spent backwash within a typically operator shift. Option 2, however, provides a lower, yet, more consistent recycle flow when the TMTP goes to more continuous operation.

Assuming the treated process wastewater is returned to the filter-to-waste tank, it is recommended that the filter-to-waste tank be empty before starting to backwash the eight filters at the end of the operation week. This would allow six treated spent backwashes to reside in the tank over the weekend. When TMTP starts up on Monday, the treated process wastewater can be recycled to the head of the plant. The spent backwash water from the remaining two filter backwashes can either be recycled to the head of the plant through the filter-to-waste tank or dechlorinated and discharged to Banklick Creek.

## Review and Evaluation of Treatment Technologies

When process wastewater was recycled to the head of the plant without treatment, the major impact to the treatment process was that the solids (and the taste and odors causing compounds that were bound to them) were not removed. Therefore, a critical design requirement for the process wastewater treatment system is to make sure that solids are removed from the spent backwash water prior to recycle. Three treatment technologies are being evaluated for use in the TMTP backwash recycle system:

- Inclined plate settlers
- Sand-ballasted flocculation and clarification (also known as Actiflo®)
- Membrane filtration using a microfiltration membranes

All three treatment processes are expected to be able to meet the water quality goals for the Banklick Creek discharge permit. Figure 2 provides a revised process wastewater flow schematic which includes a general item for how treatment would fit into the overall TMTP flow pattern. As shown on Figure 2, the effluent from the backwash treatment process will be discharged to the filter-to-waste tank. From that location, the water can either be recycled to the head of the plant thorough the existing filter-to-waste recycle pumps or dechlorinated and discharged to Banklick Creek. Each process is described below.

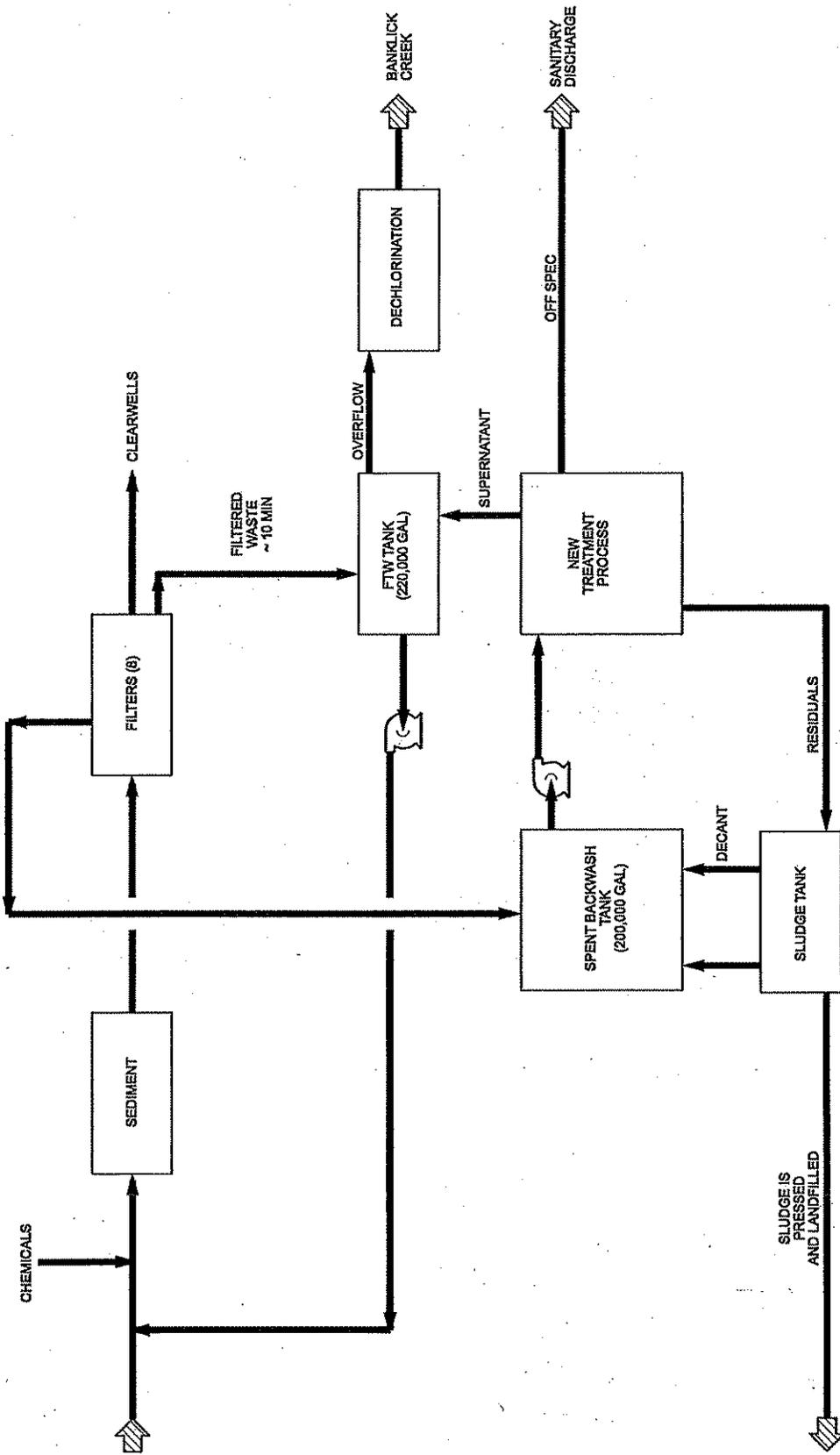


FIGURE 2  
 PROPOSED SPENT  
 BW TREATMENT SCHEME  
 TAYLORMILL TREATMENT PLANT

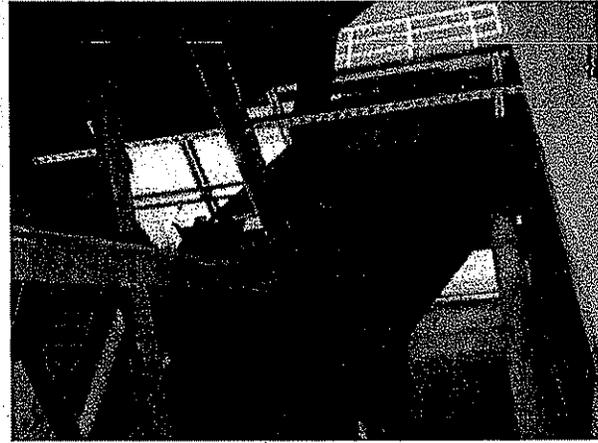
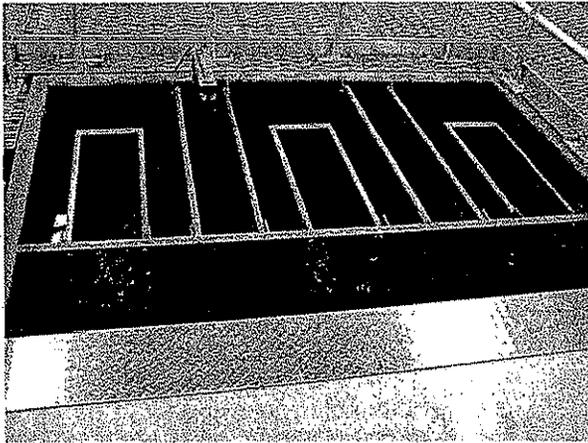
### Inclined Plate Settlers

Inclined settling is accomplished using plates in a tank, where the water flow is countercurrent to produce a clarified effluent. Countercurrent inclined settlers apply the flocculated water upward through the channels formed by the inclined surfaces. Major components of the inclined plate settlers are the following:

- The inclined plate settler
- Inlet distribution
- Plate settlers
- Effluent collection
- Sludge removal

The advantage to inclined plate settlers is that increased surface loading rates can be used to achieve proper settling. For this application, the plates can be purchased as package units, as shown in Figure 3. Plate settlers are a very robust high-rate settling process that can handle a wide variety of incoming water quality. They most resemble conventional settling in terms of operation. To improve solids removal, a polymer is added to the incoming flow. Typical loading rates for inclined plate settlers are 0.03 to 0.4 gpm/ft<sup>2</sup> of active plate surface area. The active plate area typically is 90 percent of the total plate area.

FIGURE 3  
Package Inclined Plate Settler



### Actiflo®

Actiflo® is a ballasted-floc clarification system that uses microsand-enhanced flocculation and lamella settling to produce a clarified effluent. The District uses this process at its Memorial Parkway Treatment Plant. Advantages of this process include very high loading rates that can significantly reduce surface area requirements.

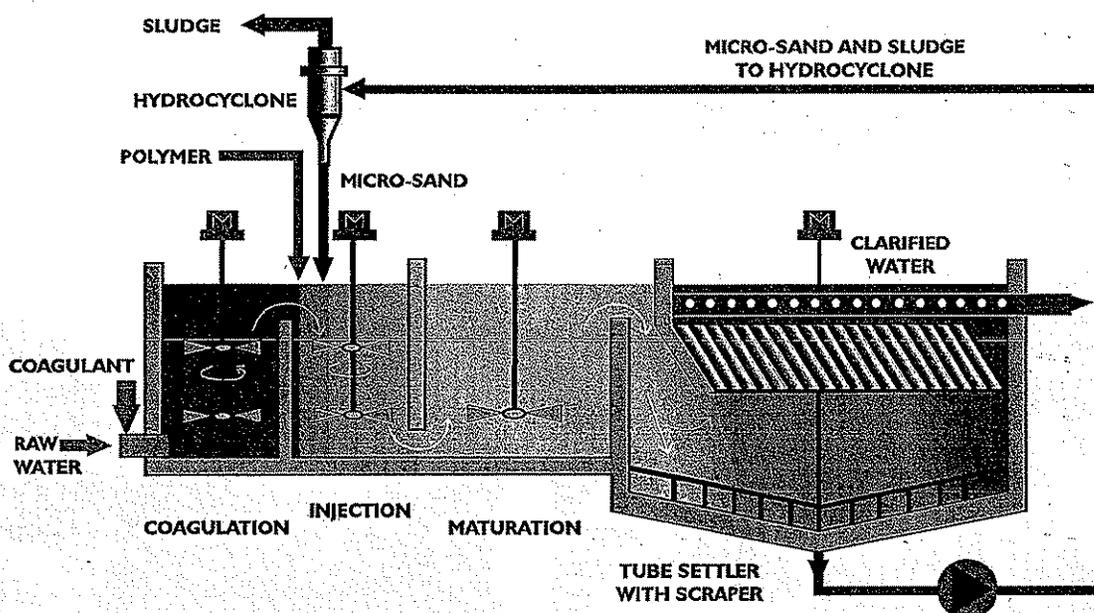
This process responds exceptionally well to changes in water quality, and has consistently demonstrated its ability to accommodate very high solids loading while producing a settled water turbidity of 0.2 to 0.8 nephelometric turbidity unit.

Disadvantages of this process includes high operational cost due to the significant amount of energy required, when compared to other conventional processes, and the need to

replenish the microsand on regular intervals due to loss in the separation process. The process is wholly dependent on polymer addition to attach the flocs to the microsand. Too little polymer and the system does not work. Too much polymer and carryover blinds downstream processes. The ballasted-floc clarifier consists of the following subsystems, as shown in Figure 4:

- Rapid mix or coagulation tank
- Injection tank
- Maturation tank
- Settling tank
- Sand recirculation pump
- Hydrocyclone

FIGURE 4  
Ballasted Floc Clarifier



Rapid mixing occurs upstream of the unit where a coagulant is added, followed by an injection tank, where microsand and a polymer are added in a high-energy mixing environment. Following this is a maturation zone, where a lower-energy mixing takes place to build the floc and attach it to the sand. The detention time for all these steps is about 6 to 10 minutes. The water then enters the settling tank where the microsand flocs settle out quickly, and it is further clarified with tube settling before overflow into the effluent channels. The microsand sludge at the bottom of the settling tank is pumped to a hydrocyclone, where it is separated from the sludge by centrifugal force. The sand is then returned to the head of the process for reintroduction in the injection tank. The separated sludge is removed at concentrations of 0.1 to 0.2 percent for further treatment.

Typical surface loading rates for the ballasted floc clarifier can range from 15 to 30 gpm/ft<sup>2</sup>, which significantly reduce surface area requirements.

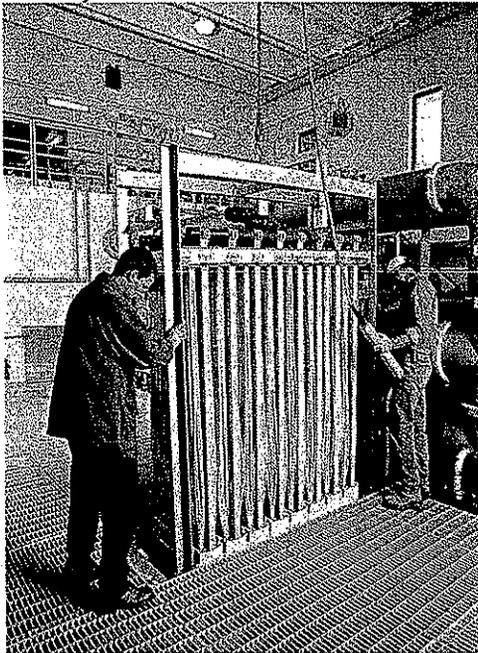
## Microfiltration/Ultrafiltration

Microfiltration/ ultrafiltration is a positive barrier to particles and pathogens. Microfiltration membranes typically operate at feed pressures up to about 30 psi, have pore size ratings of about 0.1 to 0.2 micron, and remove particles including turbidity, bacteria, and protozoa (such as *Giardia lamblia* and *Cryptosporidium*). The ultrafiltration membranes operate at feed pressures up to about 45 psi. They remove particles similar to microfiltration and also some viruses and dissolved organics.

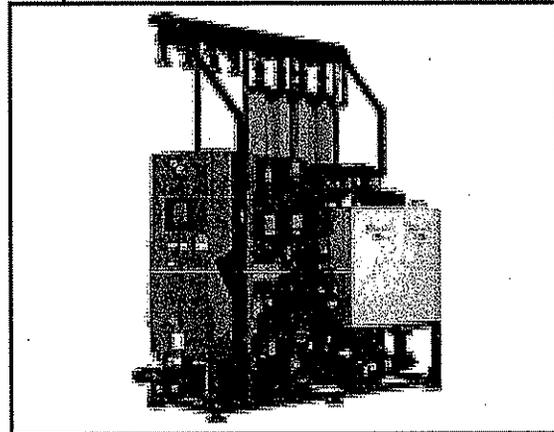
These systems can be purchased as pressure vessels (as manufactured by Pall) or as immersed systems as manufactured by Zenon and US Filter. For the purpose of this evaluation, the Pall Aria and Zenon 500 series systems were evaluated.

**FIGURE 5**  
*Microfiltration Systems*

*Zenon System*



*Pall System*



The advantage of a microfiltration/ ultrafiltration process is that all particulates greater than the membrane pore size are removed, regardless of pretreatment conditions. A disadvantage to the membranes is that they have many mechanical components, and provisions must be made for chemical cleanings. These systems typically are cleaned in place with a weak acid to remove inorganics or weak base to remove organics from the membrane surface.

## Summary of Capital Costs

As noted, the design for the backwash treatment system will consist of two 400-gpm treatment trains (Option 1) to provide the most flexibility to the TMTP. Table 2 presents the engineer's opinion of probable capital and operating costs for each treatment system considered. The costs were developed based on input from equipment manufacturers and other recently installed similar treatment units.

**TABLE 2**  
**Engineer's Opinion of Probable Costs**

System Component	Train No. 1— Plate Settlers	Train No. 2— Actiflo	Train 3a—Pall Membranes	Train 3b—Zenon Membranes
Major equipment				
Plate settlers	\$180,000			
Actiflo®		\$874,000		
Membranes			\$750,000	\$1,340,000
Chemical feed equipment and pumps	\$45,000	\$15,000	\$5,000	\$5,000
Installation	\$90,000	\$356,000	\$302,000	\$538,000
Building	\$0	\$75,000	\$470,000	\$410,000
Sitework	\$100,000	\$70,000	\$63,000	\$65,000
Piping and valves	\$42,000	\$139,000	\$159,000	\$236,000
Electrical	\$21,000	\$70,000	\$80,000	\$118,000
Instrumentation and control	\$21,000	\$70,000	\$80,000	\$118,000
Contingency	\$100,000	\$334,000	\$382,000	\$566,000
<b>Construction cost</b>	<b>\$599,000</b>	<b>\$2,003,000</b>	<b>\$2,291,000</b>	<b>\$3,396,000</b>
<b>Operations and maintenance cost</b>	<b>\$4,600/yr</b>	<b>\$22,500/yr</b>	<b>\$43,300/yr</b>	<b>\$50,700/yr</b>
<b>Present Worth (6%, 20 years) [\$]</b>	<b>\$652,450</b>	<b>\$2,261,073</b>	<b>\$2,787,647</b>	<b>\$3,977,524</b>

**Note:**

Construction cost is based on providing two 400-gpm treatment trains.

Construction costs are budgetary in nature and accurate to within  $\pm 30\%$ . Detail design needs to be completed to obtain cost suitable for comparison of bidding alternatives.

Operations and maintenance costs based on operating each process 2 days per week per year.

O & M costs include power, chemicals, and maintenance material.

The inclined plate settlers result in the lowest capital costs, lowest operating costs, and lowest present worth for the treatment systems investigated. They can address many of NKWD's requirements for the backwash treatment system, as follows:

- The plates have minimal moving parts and will be reliable and easily maintained.
- No additional staff will be required to operate or maintain the system.
- Treatment system will be easily automated and require little attention.
- Water quality goals for plant recycle or discharge to Banklick Creek will be met.
- Maintenance requirements are low.
- The system can handle spent backwash water or additional sludge flows from the basin cleanings.

It is recommended that the inclined plates be considered for use as the process wastewater treatment system. It is also recommended that the process design criteria for the inclined plates be verified during pilot testing. The testing protocol is provided in Appendix A.

## Comparison of Inclined Plates to Current Discharge Costs

A cost comparison of the recommended treatment alternative versus the "do nothing" option was performed. The analysis is based on the present worth of each option (6 percent interest over 20 years). The present worth of the inclined plates is as follows:

- Capital costs \$599,000
- Annual operating costs \$4,600 per year
- Present worth \$652,450

The present worth for continuing to discharge to SD #1 is based on the actual cost paid by the District in 2004.

- Base charge \$153,934 per year
- Surcharge \$114,361 per year
- Power for pumping \$1,400 per year (estimated)
- Total annual cost \$269,695 per year
- Present worth of sewer discharge \$3,093,375

Based on this cost comparisons, the inclined plate settling treatment system has considerably lower present worth costs than the "do nothing" option. Furthermore, recent discussion the District has had with SD #1 discovered that there are plans to increase the base charge at a rate of 15 percent a year for the next 3 years with potentially more increases continuing for the next 7 years. SD #1 has not indicated any plans to modify the surcharge fee for suspended solids.

## Recommended Solution

Based on the information provided herein, it is recommended that that the inclined plate settlers be used for backwash treatment at the TMTP in lieu of continuing to discharge to SD #1 based on the present worth of the solution and increasing sewer discharge fees. Figure 2 is a generalized schematic of the system. Spent backwash water will continue to be sent to the spent backwash tank. The water inside the spent backwash tank will be pumped (using the pumps that currently send water to the sanitary sewer to the top of the inclined plate settler. The effluent from the plate settler will flow by gravity to the filter-to-waste tank, where it can be recycled or discharged to the Banklick Creek.

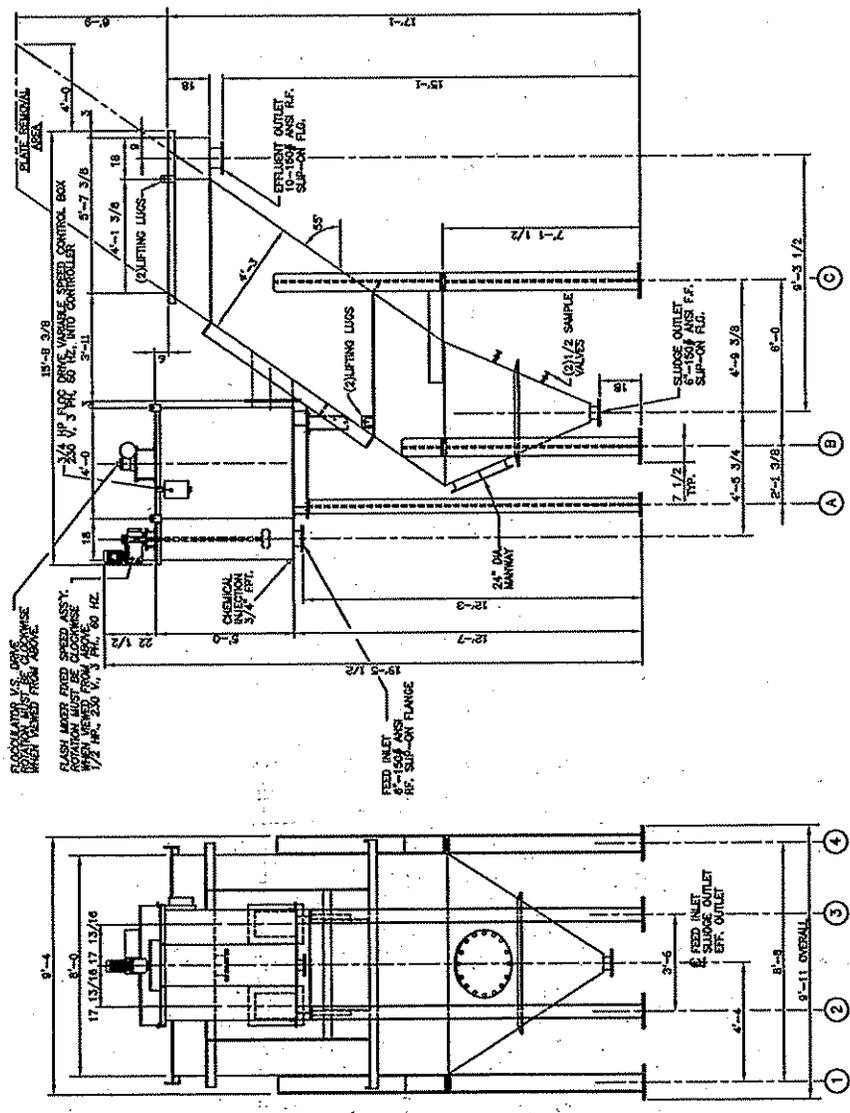
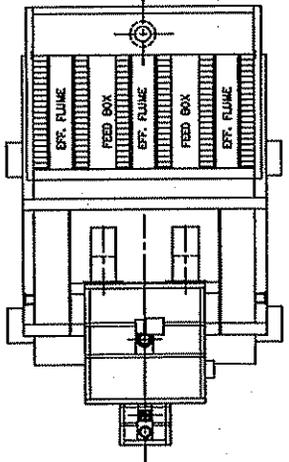
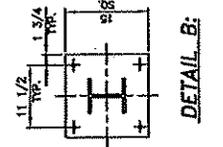
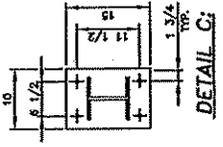
The plate settler can be installed outside, but it is recommended that heat tracing and insulation be placed on piping and appurtenances. Exhibit A is a shop drawing of typical inclined plate settler equipment from the manufacturer.

There are several manufacturers of inclined plates, so the District will be able to have competition during the bidding phase of the project.

Manufacture	Web Address
Parkson Corporation (Lamella Gravity Settler)	<a href="http://www.parkson.com">www.parkson.com</a>
Meurer	<a href="http://www.meurerresearch.com">www.meurerresearch.com</a>
US Filter	<a href="http://www.usfilter.com">www.usfilter.com</a>

NOTES:

1. MATERIALS OF CONSTRUCTION:  
LAMELLA TANK: 1/4" PL. A-36 C.S.  
FLOOR: 3/4" PL. A-36 C.S.  
STRUCTURAL: A-36 C.S.
2. SEE PART SPECIFICATIONS FOR PREPARATION AND FINISHES.
3. USE ASBESTOS FREE GASKETS AND O-RINGS.
4. ALL BOLT NUTS AT 150# FLANGED PIPE CONNECTIONS STRADDLE NORMAL CENTERLINES.
5. ONLY ALL EXTERNAL STIFFENERS TOP AND BOTTOM.
6. CUSTOMER TO PROVIDE ALLOWANCE FOR A MINIMUM OF 1" OF GROUT BELOW BASE PLATES.



LOADING DIAGRAM

FOR REFERENCE ONLY  
NOT FOR CONSTRUCTION

Part No.	Qty.	Description	Reference	Unit	Remarks
<b>PARKSON CORPORATION</b>					
Lamella® Gravity Settler					
GENERAL ARRANGEMENT					
MODEL 860/55 W/C" FLOC.& MIX. TANK					
Drawn By: [Signature]					
Checked By: [Signature]					
Date: 10-17-84					
Scale: 3/8" = 1'-0"					
Part No. <b>LGN860FC</b>					

SHIPPING WEIGHT  
LAMELLA TANK: 14,500 LBS.  
FLOC. & MIX. TANK: 2,600#  
WEIGHT BILL OF LIQUID  
LAMELLA TANK: 45,000 LBS.  
FLOC. & MIX. TANK: 9,400#

This drawing and all pertinent information is the property of PARKSON CORPORATION and is loaned subject to return upon demand and must not be reproduced, copied, or used for any purpose other than that for which it is specifically furnished without expressed written consent of PARKSON CORPORATION.

**Appendix A**  
**Pilot Testing Protocols**

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# Pilot Testing Protocols for Taylor Mill Treatment Plant Backwash Treatment System

PREPARED FOR: Northern Kentucky Water District

PREPARED BY: CH2M HILL

DATE: August 18, 2005

## Introduction

The purpose of the pilot testing program is to verify the performance of the inclined plate settling system for treating spent backwash water at the Taylor Mill Treatment Plant (TMTP). Verification will consist of assessing loading rates and polymer types and dosages needed to produce an acceptable treated spent backwash water quality.

## Pilot Testing Goals

This section documents the goals for the pilot-scale testing. The goals have been prioritized based on our understanding of the District's need to accomplish the following:

- Optimize sizes of unit process to attain the most cost-effective water treatment process for the process wastewater, which includes the spent backwash water, sedimentation basin blow down, and sludge thickener decant.
- Meet treatment goals for discharge to Banklick Creek or for recycle to the head of the TMTP.

It is important to define performance goals when conducting a pilot test so that it can be determined if the testing objectives are met. Table 1 lists the major water quality evaluation criteria and goals for the testing.

TABLE 1  
Performance Goals for TMTP Pilot Study

Parameter	Performance Factor	Evaluation Criteria	Goal
Plate settler effluent water quality	pH	6 to 9	6 to 9
Plate settler effluent water quality	Turbidity (steady-state)	<2 NTU	<1 NTU
Plate settler effluent water quality	Suspended solids	50 mg/L	<30 mg/L
Plate settler effluent water quality	Color	20	<10

The goal is defined as the preferred outcome of the pilot study. In many cases, it will be necessary to operate the pilot testing equipment outside the preferred outcome but still at levels that meet water quality goals. These are referred to as evaluation criteria.

## Jar Tests

Jar testing will be used to acquire preliminary data and to focus the pilot testing on areas required to meet the study objectives. Specifically, the objectives met using bench-scale testing that can affect the pilot study include the following:

- Verify that water does not contain compounds that may interfere with treatment.
- Verify optimum coagulant or polymer conditions.

Three different polymers should be evaluated for use in treatment—a nonionic, a cationic, and an anionic—to determine which one performs the best for settling the water. All polymers should be of high molecular weight. As each polymer manufacturer has a different name and brand, it is recommended that the District contact local polymer manufacturer representatives and have them provide samples of all three.

## Testing Procedure

For these tests (Tables 1 to 3), pH will be allowed to vary in response to coagulant or polymer dosage. Polymer dosages should vary from 0.1 to 2 mg/L.

The general procedure for all jar tests is as follows:

- Introduce the chemicals during a 30-second rapid mix stage at 100 rpm on the six-paddle jar test apparatus.
- Flocculate at the appropriate mixing speeds (G-value of approximately 30 to 50 sec<sup>-1</sup>) and detention times (3 to 5 minutes) to simulate full-scale operation. Record pH at the midpoint of flocculation. Visually compare the size of floc particles and the clarity of the water between floc. Note the observation.
- Allow the floc to settle for 30 minutes, and measure pH again at the end of the settling period. Observe how the floc settles. Is it quick or slow? Is the floc heavy or light? Note the observation. During settling, do not activate the lights in the jar test stand as the heat can induce density currents that may hinder settling.
- Record initial and settled parameters for pH, turbidity, color, suspended solids, and UV<sub>254</sub>. A sample jar test recording sheet is provided.

**TABLE 1**  
Coagulation Conditions for Jar Tests 1, 2, and 3: Nonionic Polymer, Cationic, and Anionic Polymer

Jar	pH	Polymer Dosage (mg/L)
1	No adjustment	0.1
2	No adjustment	0.5
3	No adjustment	0.9
4	No adjustment	1.3
5	No adjustment	1.7
6	No adjustment	2.0

**TABLE 2**  
Coagulation Conditions for Jar Test 4: Optimum Polymer, More Refined Dosage Range

Jar	pH	Polymer Dosage (mg/L)
1	No adjustment	To be determined
2	No adjustment	To be determined
3	No adjustment	To be determined
4	No adjustment	To be determined
5	No adjustment	To be determined
6	No adjustment	To be determined

**TABLE 3**  
Coagulation Conditions for Jar Test 5: Effects of Recycle

Jar	% Recycle <sup>a</sup>	Coagulant Dosage (mg/L)
1	0	Current plant conditions
2	2	Current plant conditions
3	4	Current plant conditions
4	6	Current plant conditions
5	8	Current plant conditions
6	10	Current plant conditions

<sup>a</sup>Represents the treated process wastewater divided by the total plant flow.

Jar Test No. 5 is designed to evaluate the effect of plant recycle on coagulation. The process wastewater should be treated with the optimum polymer dosage and allowed to settle in the jar. Then plant raw water should be added at the appropriate percentages to make up the percent recycle. The current plant coagulation regime should be used. The jar testing procedures should simulate current plant operation (that is, longer flocculation time and settling time). The settled water should be run through a 0.45- $\mu$ m Whatman filter and then analyzed for pH, turbidity, color, suspended solids, and UV<sub>254</sub>.

## Pilot Testing Methodology

Once the jar testing is complete, a pilot plant can be operated at the TMTP. The spent backwash water from the spent backwash tank will be pumped to the pilot testing unit. The selected polymer from the jar tests will be added ahead of the plate settlers at the optimum dose. The treated process water will then be returned to sewer. Depending on the pilot unit available, the pilot testing flows could range from 10 to 60 gpm.

The pilot testing will focus on the following areas:

- Plate performance
- Solids dewaterability from the inclined plates

Sample Jar Testing Data Recording Sheet

Test Information		Raw Water Characteristics	
Client		Sample Location	
Source		Sample Time	
Project Number		Temperature	
Series Number		pH	
Analyst		Turbidity	
Date		Alkalinity	
Time		UV254	

Reagent Characteristics					
Type	Acid	Base	Coagulant	Polymer	
Chemical					
Stock Strength					

Jar #		1	2	3	4	5	6
Target pH							
Alkalinity	mg/L as CaCO <sub>3</sub>						
Volume		2.0L	2.0L	2.0L	2.0L	2.0L	2.0L
	Stock Added						
	Dose						
	Stock Added						
	Dose						
	Stock Added						
	Dose						
	Stock Added						
	Dose						
	Stock Added						
	Dose						
pH after coag addition							
Final pH							
Rapid Mix	RPM						
	Duration						
Flocculation	RPM						
	Duration						
	RPM						
	Duration						
	RPM						
	Duration						
Floc Observations							
Settling Period		30 min					
Settling Observations							
pH							
Turbidity	NTU						
TOC	mg/L						
UV254	cm <sup>-1</sup>						
Sludge Vol	mL						

Table 4 summarizes the pilot test runs to be conducted. It is expected that once the pilot testing equipment is onsite and operational, the pilot testing program can be completed in 2 weeks. Therefore, the total testing study could be completed in 3 weeks.

**TABLE 4**  
Pilot Testing Plan for TMTP Process Wastewater Testing

Week	Objective	Clarification Loading Rate	Other
1	Perform bench-scale testing		Evaluate three polymers
2	Verify performance of plates	0.3 gpm/ft <sup>2</sup> for plates	
3	Verify performance of plates	0.4 gpm/ft <sup>2</sup> for plates	

## Data Collection and Analysis

### Data to Be Collected

Table 5 summarizes the frequency of the data to be collected during pilot testing. Table 6 summarizes the types of analyses to be performed for each sample.

**TABLE 6**  
Sampling Program for Pilot Testing

Parameter	Process Wastewater	Clarification Effluent	
Turbidity	4	4	
Color	3	3	
pH	3	3	
Alkalinity	1	1	
Temperature	3	3	
Particle count	3	3	
Iron and manganese	3	3	
Aluminum	3	3	
Total suspended solids	1	1	Composite sample during run

**Note:**

The numbers refer to the number of times a day that samples are collected. A run consists of a 12-hour run time. About 4 runs will be completed each week.

**TABLE 6**  
Analysis Type for Parameters

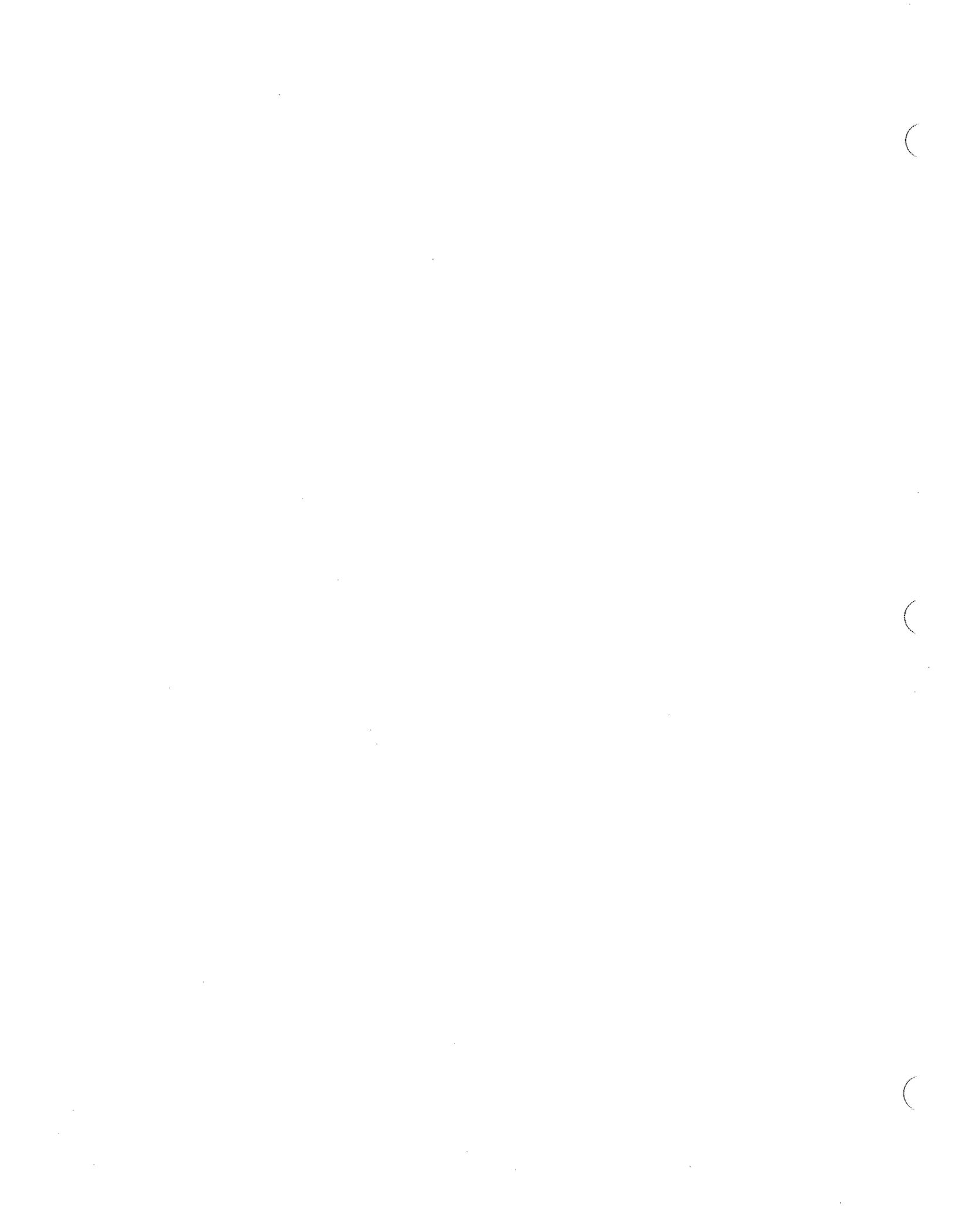
Parameter	Grab	Laboratory (Offsite)	Hach Kit (Onsite) (Method #)
Turbidity	X		
Color			X (8025)
pH			X (8156)
Alkalinity			X (8221)
Temperature			X (8375)
Particle count	X		
Iron and manganese		X (one per week)	X (8008,8034)
Aluminum		X	X
Total suspended solids		X	

### Sludge Dewaterability

The characteristics of the sludge produced by the clarification processes during the pilot study will be observed and analyzed for percent solids. The resulting data from these tests will help determine the expected solids concentrations for the sludge produced and how effective treatment will be to increase the solids concentration. Composite samples of the sludge should be collected once per day for testing of percent solids.

### Data Review

The pilot plant data should be reviewed after the first week of operation to verify that the testing is achieving the testing objectives. If desired by the District, the data can be sent to CH2M HILL for review and discussion in a timely manner to assist the piloting team prepare for the next week's planned pilot test runs and adjust the protocol if necessary.



Case No. 2007-\_\_\_\_  
Exhibit     A    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Engineer's Opinion of Probable Total Construction Cost

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Northern Kentucky Water District  
 Taylor Mill Treatment Plant  
 Backwash Treatment System  
 Engineer's Opinion of Probable Construction Costs

**Base Bid**

Description	Estimated Cost	Percent of CC
Mobilization	\$85,000	5%
Bonds, Insurance, Fees	\$105,000	6%
Site work	\$95,000	5%
Building	\$330,000	18%
Process Equipment	\$810,000	45%
Electrical	\$140,000	8%
Process Piping and Valves	\$145,000	8%
SCADA System Improvements	\$75,000	4%
<b>Total</b>	<b>\$1,785,000</b>	<b>100%</b>

**Alternates**

Description	Estimated Cost
Replacement Roofing for Existing Sludge Bldg.	\$40,000
Sludge Polymer System	\$70,000



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Case No. 2007-\_\_\_\_  
Exhibit     A    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Plans and specifications prepared by CH2M Hill titled  
“Taylor Mill Treatment Plant Backwash Treatment  
System”

Submitted as separate attachments

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The following items are enclosed separately from this volume.

- Plans prepared by CH2M Hill titled "Taylor Mill Treatment Plant Backwash Treatment System" dated December, 2006. (5 sets)
- Specifications prepared by CH2M Hill titled "Taylor Mill Treatment Plant Backwash Treatment System" dated December, 2006. (5 sets)

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80000 SERIES  
30% P.C.W.

NORTHERN KENTUCKY  
WATER DISTRICT

Project

Taylor Mill Treatment Plant Backwash Treatment System

Kenton County  
184-0441

CERTIFIED STATEMENTS

Affidavit

Franchises

Plan Review and Permit Status

Easements and Right-of-Way Status

Construction Dates and Proposed Date In Service

Plant Retirements

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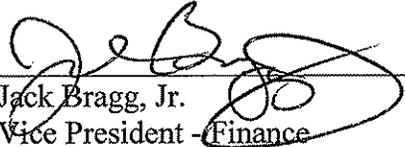
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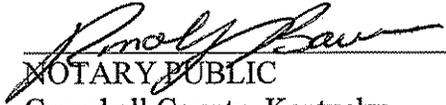
**AFFIDAVIT**

**Taylor Mill Treatment Plant Backwash Treatment System**

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 "Taylor Mill Treatment Plant Backwash Treatment System" 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  
19 day of February 2007.

  
\_\_\_\_\_  
NOTARY PUBLIC  
Campbell County, Kentucky  
My commission expires 4-17-07

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# Northern Kentucky Water District

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Franchises required – None

Plan Review and Permit Status - The District has reviewed and approved the plans and specifications prepared by CH2M Hill titled “Taylor Mill Treatment Plant Backwash Treatment System” dated December, 2006.

The District received approval from the Division of Water on December 19, 2006. See attached letter.

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

Start date of construction – assumed May, 2007

Proposed date in service – assumed May, 2008

Plant retirements – No plant retirements.

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Case No. 2007-\_\_\_\_  
Exhibit     B    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

PLAN REVIEW AND PERMIT STATUS

Approval Letter from Kentucky Division of Water

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184-441  
permits



## ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

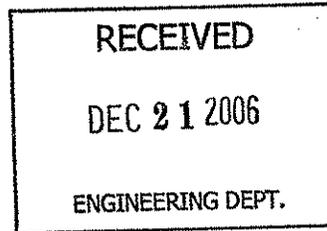
**Ernie Fletcher**  
Governor

DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
14 REILLY ROAD  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-2150  
FAX (502) 564-4245  
www.dep.ky.gov  
December 19, 2006

**Teresa J. Hill**  
Secretary

**Lloyd R. Cress**  
Commissioner

Amy Kramer, P.E., Design Engineering Manager  
Northern Kentucky Water District  
2835 Crescent Springs Road  
P. O. Box 18640  
Erlanger, Kentucky 41018



RE: DW # 0590220-06-046  
AI #: 2485  
APE #: 20060046  
Water Treatment Plant Improvements  
Taylor Mill WTP Backwash Treatment System

Dear Ms. Kramer:

We have completed the review of the plans and specifications for the above referenced project. The plans proposed the Installation of a backwash treatment system for the Taylor Mill Water Treatment Plant. It consists of installing a lamella plate settler-type treatment process to allow its effluent to return to the head of the plant or be discharge to Banklick Creek after dechlorination. The effluent of the backwash treatment system will be discharged according to the existing Kentucky Pollutant Discharge Elimination System (KPDES) permit. This is to advise that plans and specifications for the above referenced project are APPROVED with respect to sanitary features of design, as of the date of this approval letter, with the following stipulations:

When this project is completed, the owner shall submit a written certification to the Division of Water that the above referenced water supply facilities have been constructed and tested in accordance with the approved plans and specifications and the above stipulations. Such certification shall be signed by a licensed professional engineer.

This approval has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this approval does not relieve the applicant from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies.

Unless construction on this project commences within one year from the date of this approval letter, Northern Kentucky Water District shall request an official extension from the Division of Water prior to the first anniversary of this approval letter, or re-submit the original plans and specifications for a new comprehensive review.

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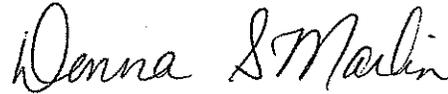
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RE: DW # 0590220-06-046  
AI #: 2485  
APE #: 20060046  
Taylor Mill WTP Backwash Treatment System  
Page 2

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

Sincerely,



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

DSM: SWD  
Enclosures

C: Frank Duran, PE, CH2M HILL  
Kenton county Health Department  
KPDES Branch, Div of Water  
Julie Roney, Supervisor, Technical Assistance Section  
Florence Field Office

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184-441 permit



Building Codes Administration • Infrastructure Engineering • Current Planning • LINK GIS Administration • Long-Range Planning

01/29/07

KENTON COUNTY WATER DIST #1  
2835 CRESCENT SPRINGS  
ERLANGER, KY 41018



Re: Permit Number 07010107  
608 Grand Ave, Taylor Mill  
Water treatment equipment  
**Revisions Request**

The Northern Kentucky Area Planning Commission has reviewed the above referenced project. Before authorization for the construction can be issued, there are some items that need to be addressed to ensure compliance with the Kentucky Building Code.

We request three (3) complete sets of revised plans be submitted for review. If you would like, the original submitted plans are available for pick up at our office. Revised plans that are not complete sets will not be reviewed (do not submit individual pages / sheets that were revised). Only noted items can be submitted by addendum.

Corrected plans should be submitted to this office as soon as possible. If corrected plans are not received within six (6) months from date of this letter, this office will consider the application for permit void. Once the application for permit has become void, the plans on record will be destroyed.

The following items require correction and or additional information. Please note that the electrical and or plumbing plans were not reviewed for compliance with the National Electric Code or the Kentucky Plumbing Code. All plumbing, electrical wiring and equipment will be subject to the approval of the corresponding certified inspectors.

**Revisions / Additional Information Needed:**

1. Please revise plans demonstrating that the design loads meet the value(s) for importance factors as prescribed in table 1604.5 of the 2002 KBC.

Should you have any questions concerning this issue, please feel free to call me at Northern Kentucky Area Planning Commission (859) 957-2408.

Sincerely,

Tim Tholemeier  
Building Official

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184-444  
Permit

To: Ms. Amy Kramer



**NKAPC**  
Northern Kentucky  
Area Planning Commission

**Permit Application/  
Information Check List**

Ph 859.957.2408 Fax 859.331.8987

Date: 1-22-07 Project: New Conil Bldg  
Address: 608 Grand Ave City: Taylor Mill

Item	Required	Submitted	Approved	Comments
Contractor's Occupational License		X		
Contractor's Worker's Compensation		X		
Contractor's Federal Tax ID		X		
Site Plans: copies ( )				
Building Plans: copies (4)	✓			
Encroachment Permit				
Land Disturbance Permit (disturbing one acre or more)				
Health Dept Permit (on-site disposal system)				
Approved Plat / Deed				
Electrician's Worker's Compensation				
Electrician's Authorization Form				
Electrician's Federal Tax ID				
Electrician's Occupational License				
Electricians Liability Insurance				
Homeowner's Electrical Affidavit				
Electrical Plans: copies ( )				

List of all Subcontractors to be Used on the Project  Yes  Must be submitted prior to final inspection

Fees Paid: (\$ 1000<sup>00</sup> )  Cash  Check # 1017  Credit Card  Balance Due: (\$ )

Conditions / Notes / Other Information Needed: Amy, the above information is what we will need on the contractor that's chosen to do the work.

- Items noted above must be submitted before application can be processed.
- Items noted above must be submitted before permit can be issued.
- Additional information is not needed at this time but may be required following zoning, building plan, and/or electrical plan review.
- A copy of this form was provided to the applicant in person.
- A copy of this form was mailed to the applicant.
- A copy of this form was faxed to the applicant.

Plans sent to fire department on 1 / 1  N/A

*J. Shivers*  
Clerk Signature

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

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2. It is essential to ensure that all entries are supported by appropriate evidence and documentation.

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3. The second part of the document outlines the procedures for conducting regular audits to verify the accuracy of the records.

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80000 SERIES  
30% P.C.M.

441

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Case No. 2007-\_\_\_\_  
Exhibit     C    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

BID INFORMATION AND BOARD RESOLUTION

Bid Tabulation

Engineer's Recommendation of Award

Board Resolution

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ITEMS CONCERNING BID INFORMATION AND BOARD RESOLUTION

- The Bid opening was scheduled for February 6, 2007 and bid tabulation is attached. Bids expire May 7, 2007. The project includes construction of a building to house a system to treat the spent filter backwash water that will allow the clarified water to be discharged to surface water under a KPDES permit or recycled to the head of the treatment plant. A summary of the project costs is provided below:

○ Design Engineering	\$ 195,000
○ Construction Engineering	\$ 50,000
○ Contractor's Bid	\$1,700,000
○ Misc. & Contingencies	\$ <u>155,000</u>
Total Project Cost	\$2,100,000

**Total Taylor Mill**

**Treatment Plant Backwash Treatment System**

**\$200,000 financed through Bond 2006 for Engineering**

**\$711,000 financed through Bond 2006**

**\$1,189,000 financed through BAN 2007**

- The Engineer's Recommendation of Award is attached.
- The Board Resolution from the February 15, 2007 meeting is attached.

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Case No. 2007-\_\_\_\_  
Exhibit     C    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Bid Tabulation

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# BID TABULATION

## Taylor Mill Backwash Treatment System

February 6, 2007  
2:00 p.m.

<u>Contractor</u>	<u>Base Bid Amount</u>	<u>Alternate 1 Roof Replacement</u>	<u>Alternate 2 Polymer System</u>
Arnold, Dugan & Meyers	\$1,700,000	\$32,000	\$95,000
Building Crafts, Inc.	\$1,744,477	\$30,600	\$91,300
Ulliman Schutte Construction	\$1,757,000	\$44,000	\$107,000

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Case No. 2007-\_\_\_\_  
Exhibit     C    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Engineer's Recommendation of Award

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CH2M HILL  
300 E-Business Way  
Suite 400  
Cincinnati, OH 45241  
Tel 513-489-0779  
Fax 513-489-0807

February 8, 2007

Northern Kentucky Water District  
PO Box 18640  
2835 Crescent Springs Road  
Erlanger, Kentucky 41018

Attn: Amy Kramer  
Design Engineering Manager

Subject: Taylor Mill Treatment Plant  
Backwash Treatment System Project  
Bid Award Recommendation Letter

Dear Ms. Kramer,

On February 6, 2007, at 2:00 pm in NKWD offices, bids were received for the subject project. The bids received were as follows:

Contractor	Base Bid Amount	Alternate 1 – Roof Replacement	Alternate 2 – Sludge Polymer System
Arnold, Dugan & Meyers	\$1,700,000	\$32,000	\$95,000
Building Crafts, Inc.	\$1,744,447	\$30,600	\$91,300
Ulliman Schutte Construction	\$1,757,000	\$44,000	\$107,000

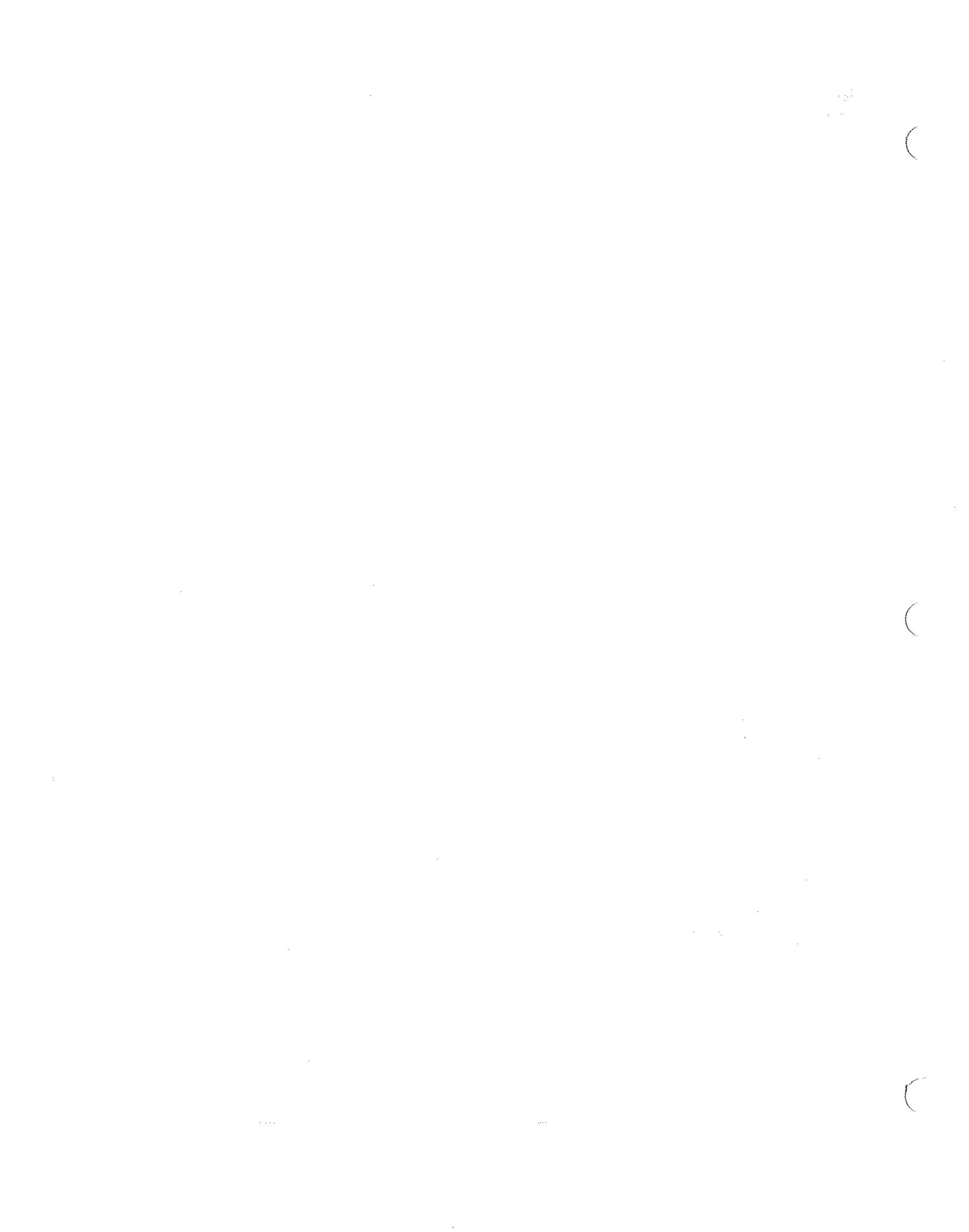
All the bids contained properly completed bid forms, a bid bond, and a non-collusion affidavit. As the apparent low bidder, Arnold, Dugan & Meyers (ADM's) bid was further evaluated. At our request, ADM submitted a listing of completed projects, a list of ongoing projects, and an audited financial statement. CH2M HILL has been the engineer-of-record on several projects completed by ADM. Our construction manager for those projects provided a reference for ADM. He recommended award of this contract to ADM based on their past performance on other CH2M HILL-designed projects. Furthermore, a review of the post-bid submitted information indicates that ADM appears to be qualified to perform the work and provided the lowest and best bid. Therefore, CH2M HILL recommends that NKWD award the base bid contract for the subject project to ADM.

Concerning the alternates, it is CH2M HILL's opinion that the bids received from ADM for the two alternates are competitive and reasonable for the work proposed in each bid alternate item. Therefore, CH2M HILL recommends that NKWD select one or both bid alternates if NKWD believes awarding the bid alternate(s) to be in its best interest.

If you have any questions or comments concerning our bid award recommendation, please don't hesitate to contact me at 513-489-0779.

Sincerely,

Frank Duran, P.E., BCEE  
Project Manager



Case No. 2007-\_\_\_\_  
Exhibit     C    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

Board Resolution

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**Northern Kentucky Water District  
Board of Commissioners Meeting  
February 15, 2007**

A regular meeting of the Board of Commissioners of the Northern Kentucky Water District was held on February 15, 2007 at the District's facility located at 2835 Crescent Springs Road in Erlanger, Kentucky. All Commissioners except Commissioner Sommerkamp were present. Commissioner Sommerkamp participated by speaker telephone. Also present were Ron Lovan, Bari Joslyn, Richard Harrison, Mark Lofland, Jack Bragg, Bill Wulfeck, Don Gibson, Amy Kramer, Jim Dierig, Mary Carol Wagner, Bob Buhrlage, Chris Wetherell, Mike Greer, John Scheben and Charles Pangburn.

Commissioner Koester called the meeting to order.

Mr. Scheben of the District staff led those in attendance in the Pledge of Allegiance.

Mr. Lovan of the District staff led the Board in a review and discussion of the District's vision, mission, values and key goals.

The Board reviewed articles published and correspondence received since the last regular Board meeting on January 24, 2007.

On motion of Commissioner Wagner, seconded by Commissioner Jackson, the Board unanimously approved the minutes for the regular Board meeting held on January 24, 2007.

On motion of Commissioner Collins, seconded by Commissioner Wagner, and after discussion, the Board unanimously approved the expenditures of the District for the month of January, 2007.

On motion of Commissioner Collins, seconded by Commissioner Macke, and after discussion, the Board unanimously agreed to engage Black & Veatch for professional services in connection with the filing of a rate application with the Public Service Commission in May, 2007 and authorized the District staff to execute appropriate contract documents.

On motion of Commissioner Sommerkamp, seconded by Commissioner Wagner, and after discussion, the Board unanimously approved a resolution ratifying the execution and delivery of an Assistance Agreement with the Kentucky Infrastructure Authority dated as of January 1, 2007.

On motion of Commissioner Collins, seconded by Commissioner Macke, and after discussion, the Board approved three resolutions accepting grants from the Kentucky Infrastructure Authority, approving the grant agreements, authorizing the amendment of the budget and authorizing a representative to sign all documents on behalf of the District for projects WX21117203, WX21117204 and WX21117205.

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On motion of Commissioner Wagner, seconded by Commissioner Collins, and after discussion, the Board unanimously agreed to award the Lake Street water main extension and Moore and Main Street service line relocation project to Generation II Construction and to authorize the District staff to execute appropriate contract documents.

→ On motion of Commissioner Wagner, seconded by Commissioner Jackson, and after discussion, the Board unanimously agreed to increase the project budget for the Taylor Mill Treatment Plant backwash treatment system project to \$2,100,000 to award the project to Arnold, Dugan & Meyers and to authorize the District staff to execute appropriate contract documents.

On motion of Commissioner Collins, seconded by Commissioner Wagner, and after discussion, the Board unanimously agreed to award the 2007 asphalt restoration contract to Hall's Paving & Sealing and to the authorize the District staff to execute appropriate contract documents.

On motion of Commissioner Wagner, seconded by Commissioner Jackson, and after discussion, the Board unanimously agreed to award the purchase of copper pipe to S.L.C. Meter Service, Inc. and to authorize the District staff to execute appropriate contract documents.

On motion of Commissioner Wagner, seconded by Commissioner Macke, and after discussion, the Board unanimously agreed to award the contract for lightweight uniform apparel to National Workwear with the option at the District's discretion to extend the contract for up to two additional one-year terms, and to authorize the District staff to execute appropriate contract documents.

On motion of Commissioner Wagner, seconded by Commissioner Collins, and after discussion, the Board unanimously agreed to authorize the purchase of the indicated items of 2007 distribution inventory materials from the vendors listed on the attached 13 page list.

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

The Board thanked and congratulated all employees of the District for their extraordinary efforts in responding to emergencies and continuing to provide water service in sub-freezing temperatures during the first two weeks of February, 2007.

Other matters of a general nature were discussed.

There being no further business to come before the Board, the meeting was adjourned.

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CHAIRMAN

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SECRETARY

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80000 SERIES  
30% P.C.W.

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

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

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# Northern Kentucky Water District

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There will be zero new customers added and no revenue effect as a result of the Taylor Mill Treatment Plant Backwash Treatment System Project.

The amount of debt issuance and source is \$200,000 from Bond 2006, \$1,189,000 from BAN 2007, \$711,000 from BAN 2005 that was funded by Bond 2006 for a total of \$2,100,000.

Additional operating and maintenance costs incurred for the project are as follows:

Annual O&M

Operating \$6,000

Maintenance \$30,000

There will be no change in labor cost.

Annual depreciation and debt service after construction are as follows:

Depreciation \$84,000/year over 25 years

Debt Service \$136,500/year over 25 years

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TAYLOR MILL TREATMENT PLANT BACKWASH TREATMENT SYSTEM  
 WATER UTILITY PLANT CODES

(USED FOR DEPRECIATION)

RESPONSIBLE PERSON: Amy Kramer

SOURCE OF INFORMATION: CH2MHILL February 7, 2007 Cost Estimate

Code	Engineering	Construction	Contingency	Total
303	\$0	\$0	\$0	\$0
304	\$125,000	\$850,000	\$75,000	\$1,050,000
305	\$0	\$0	\$0	\$0
306	\$0	\$0	\$0	\$0
309	\$0	\$0	\$0	\$0
310	\$0	\$0	\$0	\$0
311	\$0	\$0	\$0	\$0
320	\$125,000	\$850,000	\$75,000	\$1,050,000
330	\$0	\$0	\$0	\$0
331	\$0	\$0	\$0	\$0
333	\$0	\$0	\$0	\$0
334	\$0	\$0	\$0	\$0
335	\$0	\$0	\$0	\$0
336	\$0	\$0	\$0	\$0
339	\$250,000	\$1,700,000	\$150,000	\$2,100,000

Usa Accounting Code Description  
 Land and Land Rights (Land, Right-of-Way, Easements)  
 Structures & Improvements (sitework, yard piping, buildings, meters)  
 Collecting and Impounding Reservoirs (raw water)  
 Lake, River and Other Intakes (conduit, fence, pipes)  
 Supply Mains (raw water pipe, plant meters, restoration, inspection, valves)  
 Power Generation Equipment  
 Pumping Equipment (motor, pump, instruments, switching, power)  
 Water Treatment Equipment (settling, filter, purification, chemical)  
 Distribution Reservoirs and Standpipes  
 Transmission and Distribution Mains (pipe, valves, fittings, shut-offs)  
 Services (pipe leading from water main and customer premise)  
 Meters and Meter Installation (meter for water delivered to customer)  
 Hydrants (begins at and includes fitting to connect to main)  
 Backflow Prevention Device  
 Other Plant and Miscellaneous Equipment

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80000 SERIES  
30% P.C.W.

Case No. 2007-\_\_\_\_\_  
Exhibit     E    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

PSC ANNUAL REPORT - 2005

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**Water Districts & Associations-Class A&B**

**Annual Report**

Of

**Northern Kentucky Water District  
2835 Crescent Springs Road  
Erlanger, KY 41018**

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, 2005**

CHECKLIST FOR THE ANNUAL REPORT  
FOR CLASS A AND B WATER DISTRICTS AND WATER ASSOCIATIONS  
TO BE COMPLETED AND RETURNED WITH THE ANNUAL REPORT

Page No.	Account No.	Page No.	Yes	No	If No, Explain Why
4-6	The identification pages have been completed		X		
7	101-106 agrees with	13 Total 101-106	X		
7	108-110 agrees with	15 Total 301-348 Cols c & h	X		
7	114-115 agrees with	16 Net Balance 114-115	X		
7	123 agrees with	17 Total 123	X		
7	124-125 agrees with	17 Total 124 and Total 125	X		
7	126 agrees with	17 Total 126	X		
7	127 agrees with	17 Total 127	X		
7	141-144 agrees with	18 Net Balance 141-144	X		
7	151-153 agrees with	19 Total 151-153	X		
7	162 agrees with	19 Total 162	X		
8	181 agrees with	20 Total 181	X		
8	182 agrees with	21 Total 182	X		
8	186 agrees with	20 Total 186	X		
9	214 agrees with	12 Total 214	X		
9	215.1 agrees with	12 Total 215.1	X		
9	215.2 agrees with	12 Total 215.2	X		
9	221 agrees with	23 Total Col 4	X		
9	221 agrees with	23 Total Col 12	X		
9	224 agrees with	22 Total Col f	X		
9	232 agrees with	24 Total 232	X		

CHECKLIST FOR THE ANNUAL REPORT  
 FOR CLASS A AND B WATER DISTRICTS AND WATER ASSOCIATIONS  
 TO BE COMPLETED AND RETURNED WITH THE ANNUAL REPORT

Page No.	Account No.	Page No.	Yes	No	If No, Explain Why
9	233 agrees with	24 Total 233	X		
9	234 agrees with	24 Total 234	X		
9	236 agrees with	25 Beginning and Ending Balance 236	X		
9	242 agrees with	25 Total 237 Cols b & e	X		
9	251 agrees with	26 Total 242	X		
9	252 agrees with	20 Total 251	X		
10	400 agrees with	21 Beginning and Ending Balance 252	X		
10	401 agrees with	27 Total Water Operating Revenue Col e	X		
10	408.1 & 408.2 agrees with	28 Total 601-675, Col c	X		
11	427 agrees with	25 Total Taxes Accrued 408.10-408.20	X		
11	Net Income Before Contributions agrees with	25 Total Interest Accrued Col c	X		
13	101 agrees with	12 Balance Trans From Inc Col c	X		
14	The analysis of water utility plant accounts completed	14 Total Water Plant Col f	X		
15	The analysis of accumulated depreciation and amortization by primary account has been completed.	15 Total 186.1 Col c	X		
20	186.1 agrees with	26 Total 186.1 Col c	X		
22	Schedule of Long-Term Debt has been completed		X		
23	Schedule of Bond Maturities has been completed		X		
27	Taxes collected (example: school tax, sales tax, franchise tax) have been excluded from Revenue and Expenses		X		
27	The analysis of water operating revenue	27 Total 186.1 Col c	X		
			X		

CHECKLIST FOR THE ANNUAL REPORT  
 FOR CLASS A AND B WATER DISTRICTS AND WATER ASSOCIATIONS  
 TO BE COMPLETED AND RETURNED WITH THE ANNUAL REPORT

Page No.	Account No.	Page No.	Yes	No	If No, Explain Why
28	The analysis of water utility expense Cols c through k has been completed.		X		
29	Schedule of Pumping and Purchased Water Statistics has been completed.		X		
29	Total Col (d) agrees with 30 Line 4, Total Produced and Purchased.		X		
29	Total Col (e) agrees with 30 Line 13, Total Water Sales		X		
30	466 Total Gals agrees with 30 Line 11, Sales For Resale (466)		X		
	Oath page has been completed.		X		



Additional Requested Information

Utility Name Northern Kentucky Water District

Contact Person Jack Bragg, Jr.

Contact Person's E-Mail Address jbragg@nkywater.org

Utility's Web Address www.nkywater.org

Additional Information Required by Commission Orders

Provide any special information required by prior commission orders, as well as any narrative explanations necessary to fully explain the data. Examples of the types of Special information that may be required by commission orders include surcharge amounts collected, refunds issued, and unusual debt repayments.

Case No.	Date of Order	Item/Explanation	
96-234	8/26/1996	Merger of Campbell Co. Water District and Kenton Co. Water District No. 1. Effective date of Merger 1/1/97.	
97-330	9/2/1997	Defeasance of the former Campbell Co. KY Water District Bonds. Principal of the Issue	9,630,000
92-482	3/14/1992	Subdistrict A	
		a. Number of Customers as of 12/31/2003	433
		b. Total surcharge billed during 2003	66,918
		c. Accumulated surcharge billed.	1,012,473
		d. Remaining Debt service on debt which NKWD issued to finance facilities.	789,265
94-409	1/26/1995	Subdistrict B	
		a. Number of Customers as of 12/31/2003	262
		b. Total surcharge billed during 2003	62,154
		c. Accumulated surcharge billed.	524,278
		d. Remaining Debt service on debt which NKWD issued to finance facilities.	1,706,371
95-582	2/8/1996	Subdistrict R	
		a. Number of Customers as of 12/31/2003	232
		b. Total surcharge billed during 2003	51,391
		c. Accumulated surcharge billed.	390,284
		d. Remaining Debt service on debt which NKWD issued to finance facilities.	1,091,016
95-582	2/8/1996	Subdistrict RL	
		a. Number of Customers as of 12/31/2003	86
		b. Total surcharge billed during 2003	38,695
		c. Accumulated surcharge billed.	313,969
		d. Remaining Debt service on debt which NKWD issued to finance facilities.	755,488

97-468	9/4/1998	Per itm 7 on the order. See attached exhibit ML 1	
2000-329	7/21/2000	Subdistrict C	
		a. Number of Customers as of 12/31/2003	845
		b. Total surcharge billed during 2003	232,169
		c. Accumulated surcharge billed.	768,790
		d. Remaining Debt service on debt which NKWD issued to finance facilities.	6,769,039
2000-171	5/5/2000	Subdistrict D	
		a. Number of Customers as of 12/31/2003	58
		b. Total surcharge billed during 2003	23,925
		c. Accumulated surcharge billed.	47,910
2001-198	6/27/2001	Defeasance of the former Kenton County Water District Bonds and Newport WW Purchase Principal of the Issue.	45,485,000
2002-00363	10/1/2002	Defeasance of the former Kenton County Water District Bonds. Principal of the Issue.	10,575,000
2002-00468	3/1/2003	Defeasance of 1995 C Bonds with Issuance of 2003 A Bonds	1,615,000
2002-00105	4/30/2003	Water Rate Increase	
2002-00105	6/1/2003	Issue of 2003 B Bonds	30,270,000
2003-00404	12/2/2003	Defeasance of 1993, 1995 A and 1995 B Bonds with the Issuance of 2003 C Bonds	23,790,000

## Major Water Projects

Instructions: Provide details about each major water project which is planned but has not yet been submitted for approval to the Public Service Commission. For the limited purpose of this report a "Major Project" is defined as one which is not in the ordinary course of business, and which will increase your current utility plant by at least 20%.

Brief Project Description (improvement, replacement, building construction, expansion. If expansion, provide the estimated number of new customers):

N/A

Projected Costs and Funding Sources/Amounts:

Approval Status: (Application for financial assistance filed, but not approved; or application approved, but have not advertised for construction bids)

Location: (community, area or nearby roads)

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Misc. Current & Accrued Liabilities	26		
Regulatory Commission Expense	26		

*HISTORY*

1. Exact name of utility making this report. (Use the words: "The, Company, Incorporated or Incorporated" only when a part of the corporate name.)

**Northern Kentucky Water District**

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2. Give location including city, street and number, of the executive office:  
**2835 Crescent Springs Road**  
**P.O. Box 18640**  
**Erlanger, KY 41018**
- 

3. Give name, title, address, and telephone number of the officer to whom correspondence concerning this report should be addressed:

**Jack Bragg, Jr.**  
**P.O. Box 18640, Erlanger, Kentucky 41018**

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4. Date of organization: **January 1, 1997**

5. 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:

**N/A**

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6. Date and authority for each consolidation and each merger:

**N/A**

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7. State whether respondent is a corporation, a joint stock association, a *firm* or partnership or an individual:

**Non-profit water utility**  
**Special District - State of Kentucky**

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*History - Continued*

8. Name all other operating departments:

N/A

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9. Name of counties in which you furnish water service:

**Campbell County, Kenton County, Boone County**  
**Wholesale: Pendleton County**

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**COMPARATIVE BALANCE SHEET - ASSETS AND OTHER DEBITS**

Account No. (a)	Account Name (b)	Ref. Page ©	Previous Year (d)	Current Year (e)
<b>UTILITY PLANT</b>				
101-106	Utility Plant	13	\$ 251,475,930	\$ 268,102,484
108-110	Less: Accumulated Depreciation and Amortization	13,15-16	(48,288,707)	(53,201,141)
	Net Plant		\$ 203,187,223	\$ 214,901,343
114-115	Utility Plant Acquisition Adjustments (Net)	16	4,469,711	4,268,591
116	Other Utility Plant Adjustments			
	Total Net Utility Plant		\$ 207,656,934	\$ 219,169,934
<b>OTHER PROPERTY &amp; INVESTMENTS</b>				
121	Nonutility Property		\$	\$
122	Less: Accumulated Depreciation and Amortization			
	Net Nonutility Property		\$	\$
123	Investment in Assoc. Companies	17		
124	Utility Investments	17	21,535,260	21,911,383
125	Other Investments	17	3,680,638	3,783,211
126-127	Special Funds	17		
	Total Other Property & Investments		\$ 25,215,898	\$ 25,694,594
<b>CURRENT AND ACCRUED ASSETS</b>				
131	Cash		\$ 831,017	\$ 3,909,589
132	Special Deposits			
133	Other Special Deposits		11,453,379	17,997,953
134	Working Funds			
135	Temporary Cash Investments			
141-144	Accounts Receivable, Less Accumulated Provision for Uncollectible Accounts	18	4,717,008	3,732,614
145	Accounts Receivable from Associated Companies			
146	Notes Receivable from Associated Companies			
151-153	Materials & Supplies	19	1,241,337	1,150,975
161	Stores Expense			
162	Prepayments	19	2,894,399	2,340,939
171	Accrued Interest & Dividends Receivable			
172	Rents Receivable			
173	Accrued Utility Revenues		4,900,000	4,900,000
174	Misc. Current & Accrued Assets			
	Total Current & Accrued Assets		\$ 26,037,140	\$ 34,032,070

COMPARATIVE BALANCE SHEET - ASSETS AND OTHER DEBITS (CONT'D)

Account No. (a)	Account Name (b)	Ref. Page c	Previous Year (d)	Current Year (e)
<b>DEFERRED DEBITS</b>				
181	Unamortized Debt Discount & Expense	20	\$ 3,045,263	\$ 2,956,387
182	Extraordinary Property losses	21		
183	Preliminary Survey & Investagation Charges			
184	Clearing Accounts			
185	Temporary Facilities			
186	Misc. Deferred Debits	20	5,216,390	6,924,182
187	Research & Development Expenditures			
	Total Deferred Debits		\$ 8,261,653	\$ 9,880,569
	<b>TOTAL ASSETS AND OTHER DEBITS</b>		\$ 267,365,378	\$ 288,777,167

**COMPARATIVE BALANCE SHEET - EQUITY CAPITAL AND LIABILITIES**

Account No. (a)	Account Name (b)	Ref. Page c	Previous Year (d)	Current Year (e)
<b>Equity Capital</b>				
214	Appropriated Retained Earnings	12	\$ 31,029,357	\$ 39,336,654
215.1	Retained Earnings from Income Before Contributions	12	\$ 30,416,476	\$ 25,534,918
215.2	Donated Capital	12	\$ 40,195,514	\$ 43,095,791
	Total Equity Capital		\$ 101,641,347	\$ 107,967,363
<b>LONG-TERM DEBT</b>				
221	Bonds	23	\$ 153,125,000	\$ 148,701,000
222	Reacquired Bonds			
223	Advances from Asso. Companies			
224	Other Long-Term Debt	22	2,625,000	2,375,000
	Total Long-Term Debt		\$ 155,750,000	\$ 151,076,000
<b>CURRENT &amp; ACCRUED LIABILITIES</b>				
231	Accounts Payable		\$ 1,799,189	\$ 3,620,486
232	Notes Payable	24	3,705,000	21,685,000
233	Acts. Payable to Asso. Co.	24		
234	Notes Payable to Asso. Co.	24		
235	Customer Deposits		2,250	2,949
236	Accrued Taxes	25		
237	Accrued Interest	25	2,593,452	2,737,097
239	Matured Long-Term Debt			
240	Matured Interest			
241	Tax Collections Payable			
242	Misc. Current & Accrued Liabilities	26	1,810,263	1,629,323
	Total Current & Accrued Liabilities		\$ 9,910,154	\$ 29,674,855
<b>DEFERRED CREDITS</b>				
251	Unamortized Premium on Debt	20	\$ 63,877	\$ 58,949
252	Advances for Construction	21		
253	Other Deferred Credits			
	Total Deferred Credits		63,877	58,949
<b>OPERATING RESERVES</b>				
Accumulated Provision for:				
261	Property Insurance		\$	\$
262	Injuries & Damages			
263	Pensions & Benefits			
265	Miscellaneous Operating Reserves			
	Total Operating Reserves		\$	\$
<b>TOTAL EQUITY CAPITAL &amp; LIABILITIES</b>			\$ 267,365,378	\$ 288,777,167

**COMPARATIVE OPERATING STATEMENT**

Acct. No. (a)	Account Name (b)	Ref. Page c	Previous Year (d)	Current Year (e)
<b>Utility Operating Income</b>				
400	Operating Revenues	27	\$ 32,185,250	\$ 34,846,622
401	Operating Expenses	28	\$ 19,429,652	\$ 20,479,276
403	Depreciation Expenses		5,128,169	5,361,019
406	Amortization of Utility Plant			
	Acquisition Adjustment		201,120	201,120
407	Amortization Expense		378,960	378,960
408.1	Taxes Other Than Income	25	519,707	544,011
	Utility Operating Expenses		\$ 25,657,608	\$ 26,964,386
	Utility Operating Income		\$ 6,527,642	7,882,236
413	Income From Utility Plant Leased to Others			
414	Gains (Losses) From Disposition of Utility Property		-	(7,249)
	Total Utility Operating Income		\$ 6,527,642	\$ 7,874,987
<b>Other Income and Deductions</b>				
415	Revenues From Merchandising, Jobbing and Contract Deductions		\$	\$
416	Costs and Expenses of Merchandising, Jobbing and Contract Work			
419	Interest & Dividend Income		791,405	1,862,615
420	Allowance for Funds Used During Construction			
421	Nonutility Income		31,138	12,681
426	Miscellaneous Nonutility Expense			
	Total Other Income & Deductions		\$ 822,543	1,875,296
<b>TAXES APPLICABLE TO OTHER INCOME</b>				
408.2	Taxes Other Than Income		\$	\$
	Total Taxes Applic. To Other Income		\$	\$

**COMPARATIVE OPERATING STATEMENT**

Acct. No. (a)	Account Name (b)	Ref. Page c	Previous Year (d)	Current Year (e)
<b>Utility Operating Income</b>				
400	Operating Revenues	27	\$ 32,185,250	\$ 34,846,623
401	Operating Expenses	28	\$ 19,429,652	\$ 20,479,098
403	Depreciation Expenses		5,128,169	5,361,019
406	Amortization of Utility Plant			
	Acquisition Adjustment		201,120	201,120
407	Amortization Expense		378,960	378,960
408.1	Taxes Other Than Income	25	519,707	544,011
	Utility Operating Expenses		\$ 25,657,608	\$ 26,964,208
	Utility Operating Income		\$ 6,527,642	7,882,415
413	Income From Utility Plant Leased to Others			
414	Gains (Losses) From Disposition of Utility Property			(7,249)
	Total Utility Operating Income		\$ 6,527,642	\$ 7,875,166
<b>Other Income and Deductions</b>				
415	Revenues From Merchandising, Jobbing and Contract Deductions		\$	\$
416	Costs and Expenses of Merchandising, Jobbing and Contract Work			
419	Interest & Dividend Income		791,405	1,862,615
420	Allowance for Funds Used During Construction			
421	Nonutility Income		31,138	12,681
426	Miscellaneous Nonutility Expense			
	Total Other Income & Deductions		\$ 822,543	1,875,296
<b>TAXES APPLICABLE TO OTHER INCOME</b>				
408.2	Taxes Other Than Income		\$	\$
	Total Taxes Applic. To Other Income		\$	\$

*B +174 transferred*

COMPARATIVE OPERATING STATEMENT - Continued

Account No. (a)	Account Name (b)	Ref. Page ©	Previous Year (d)	Current Year (e)
<b>INTEREST EXPENSE</b>				
427	Interest Expense		\$ 5,344,406	\$ 6,126,890
428	Amortization of Debt Discount & Exp.		150,663	202,582
429	Amortization of Premium on Debt		4,928	4,928
	Total Interest Expense		\$ 5,490,141	\$ 6,324,544
<b>EXTRAORDINARY ITEMS</b>				
433	Extraordinary Income		\$	\$
434	Extraordinary Deductions			
	Total Extraordinary Items		\$ -	\$ -
	NET INCOME		\$ 1,860,044	\$ 3,425,739

Statement of Retained Earnings

ACCT. No. (a)	(b)	Amount (c)
214	Appropriated Retained Earnings (state balance and purpose of each appropriated amount at year end):	
	Bond Proceeds	\$ 17,242,047
	Debt Service and Reserve	\$ 19,020,505
	Improvement, Repair and Replacement	\$ 3,074,102
	Total Appropriated Retained Earnings.....	\$ 39,336,654

215.1	Retained Earnings From Income Before Contributions:	
	Balance Beginning of Year.....	\$ 30,416,472
435	Balance Transferred from Net Income Before Contributions.....	\$ 3,425,739
	Other Changes to Account:	
436	Appropriations of Retained Earnings.....	\$ (8,307,293)
439	Adjustments to Retained Earnings (requires Commission approval prior to use):	
	Credits (explain) _____	\$ _____
	Debits (explain) _____	\$ _____
	Balance End of Year.....	\$ 25,534,918

215.2	Donated Capital:	Tapping Fees	Grants	Other	Total
	Balance Beginning of Year.....	4,735,018	5,759,358	29,701,138	40,195,514
	Credits:				
432	Proceeds from capital contributions.....	1,007,222	374,015	1,519,040	2,900,277
	Other Credits (explain) _____				
	Debits: (explain - Requires Commission Approval)				
	Balance End of Year.....	5,742,240	6,133,373	31,220,178	43,095,791

NET UTILITY PLANT (ACCTS. 101 - 106)

Account No.	Plant Accounts	Total
101	Utility Plant in Service	\$ 248,118,189
102	Utility Plant Leased to Others	
103	Property Held for Future Use	
104	Utility Plant Purchased or Sold	
105	Construction Work in Progress	19,984,295
106	Completed Construction Not Classified	
	<b>Total Utility Plant</b>	\$ 268,102,484

ACCUMULATED DEPRECIATION (ACCT. 108)

Description	Total
Balance first of year	\$ 48,288,707
Credit during year:	
Accruals Charged to Account 108.1	5,361,019
Accruals Charged to Account 108.2	
Accruals Charged to Account 108.3	
Accruals Charged to Other Accounts (specify)	
Salvage	
Other Credits (specify)	
<b>Total Credits</b>	\$ 5,361,019
Debits during year:	
Book Cost of Plant Retired	\$ 448,585
Cost of Removal	
Other Debits (specify)	
<b>Total Debits</b>	\$ 448,585
<b>Balance end of year</b>	\$ 53,201,141

Water Utility Plant Accounts

Acct. No. Acct.	Account Name b	Previous Year Year c	Additions d	Retirement e	Current Year f	Intangible Plant g	Source of Supply & Pumping h	WT Plant i	Trans. & Distribu Plant j	General Plant K
	\$									
301	Organization									
302	Franchises									
303	Land and Land Rights	605,416			605,416		29,200	72,496	205,403	298,317
304	Structure & Improvements	65,516,438	202,104		65,718,542		16,869,144	35,671,419	7,661,242	5,516,737
305	Collecting & Impounding Reservoirs									
306	Lake River & Other Intakes	1,524,592			1,524,592					
307	Wells & Springs									
308	Infiltration on Galleries & Tunnels									
309	Supply Mains	2,307,853			2,307,853					
310	Power Generation Equipment						2,307,853			
311	Pumping Equipment	8,661,832	19,805	4,666	8,676,971			833,197		
320	Water Treatment Equipment	9,285,428	181,449	750	9,466,127		2,496,219	9,466,127	5,347,555	
330	Distribution Reservoirs & Standpipes	7,500,741			7,500,741					
331	Transmission & Distribution Mains	106,184,511	4,360,534	418,823	110,126,222				7,500,741	
333	Services	18,787,274	868,458		19,655,732				110,126,222	
334	Meters & Meter Installation	6,537,668	542,601		7,080,269				19,655,732	
335	Hydrants	4,550,842	458,146		5,008,988				7,080,269	
339	Other Plant & Misc. Equipment	3,374,076	12,708	1,683	3,385,101				5,008,988	3,385,101
340	Office Furniture & Equipment	2,352,529	187,553	18,954	2,521,128					2,521,128
341	Transportation Equipment	2,512,074	249,256	157,485	2,603,845					2,603,845
342	Stores Equipment									
343	Tools, Shop & Garage Equip.	284,376			284,376					
344	Laboratory Equipment		60,600		60,600					284,376
345	Power Operated Equipment	542,549	158,059		700,608					60,600
346	Communication Equipment									700,608
347	Miscellaneous Equipment									
348	Other Tangible Plant	891,078			891,078					891,078
	<b>Total Water Plant</b>	241,419,277	7,301,272	602,361	248,118,189		23,227,008	46,043,239	162,586,152	16,261,790

Analysis of Accumulated Depreciation and Amortization by Primary Account

Acct. No. (a)	Account (b)	Balance Beginning of Year (c)	Credits During the Year		Charges During The Year		Balance End of Year (h)
			Charges to Dep. Exp. (d)	Other Credits (e)	Plant Retirements (f)	Other Charges (g)	
		\$	\$	\$	\$	\$	\$
301	Organization						
302	Franchises						
303	Limited Term Interest in Land and Land Rights						
304	Structures & Improvements	11,350,180	1,636,856		64		12,986,973
305	Collecting & Impounding Reservoirs						
306	Lake River & Other Intakes	601,663	77,488				679,151
307	Wells & Springs						
309	Supply Mains	339,414	23,312				362,726
310	Power Generating Equip.						
311	Pumping Equipment	3,408,410	378,605		1,711		3,785,305
320	Water Treatment Equip.	2,717,676	401,104		750		3,118,030
330	Distribution Reservoirs & Standpipes	2,542,407	133,754				2,676,161
331	Transmissions & Distribution Mains	12,557,965	1,178,856		272,235		13,464,586
333	Services	5,832,871	402,138				6,235,009
334	Meters & Meter Installations	1,490,420	163,288				1,653,708
335	Hydrants	1,193,249	95,598				1,288,847
339	Other Plant & Misc. Equip.	1,143,633	327,355		1,666		1,469,322
340	Office Furniture & Equip.	1,756,251	242,311		14,676		1,983,886
341	Transportation Equip.	1,833,191	228,190		157,485		1,903,896
342	Service Equipment						
343	Tools, Shop & Garage Equip.	273,713	3,348				277,061
344	Shop Equipment						
345	Power Operated Equip.	398,481	50,127				448,608
346	Telecommunication Equipment						
347	Scada						
348	Other Tangible Plant	849,183	18,691				867,874
	<b>Totals</b>	\$ 48,288,707	\$ 5,361,019	\$ -	\$ 448,585	\$ -	\$ 53,201,141

**ACCUMULATED AMORTIZATION (ACCT. 110)**

Description	Total
Balance first of year.....	\$ N/A
Credit during year:	
Accruals Charged to Account 110.1...	\$
Accruals Charged to Account 110.2...	
Other Accruals (specify)	
Total Credits.....	\$
Debits during year:	
Book Cost of Plant Retired.....	\$
Other Debits (specify)	
Total Debits.....	\$
Balance end of year.....	\$

**UTILITY PLANT ACQUISITION ADJUSTMENT (ACCTS. 114 - 115)**

Report each acquisition adjustment and related accumulated amortization separately.  
For any acquisition adjustment approved by the Commission, include the Order Number.

ACCOUNT NAME	TOTAL
Acquisition Adjustments (114)	
Original District 9-14-55	\$ 263,366
District # 2 & 3 12-31-73	18,712
Mentor District 9-1-76	10,741
City of Cold Spring	228,253
City of Silver Grove	24,853
Newport Water Works	4,970,211
Total Plant Acquisition Adjustments.....	\$ 5,516,136
Accumulated Amortization (115)	
Original District 9-14-55	\$ 263,366
District # 2 & 3 12-31-73	18,712
Mentor District 9-1-76	10,741
City of Cold Spring	228,253
City of Silver Grove	24,853
Newport Water Works	701,620
Total Accumulated Amortization.....	\$ 1,247,545
Net Acquisition Adjustments.....	\$ 4,268,591

**Investments and Special Funds (Acct. 123-127)**

Report hereunder all investments and special funds carried in Account 123-127.

Description of Security or Special Fund (a)	Face or Par Value (b)	Year-End Book Cost c
Investment In Associated Companies (Acct. 123):	\$	\$
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Investment in Asso. Companies	\$	\$
Utility Investments (Acct. 124):		
IRR Account	\$	\$ 3,074,102
Debt Service Account		6,547,631
Debt Service Reserve Account		12,289,650
<b>Total Utility Investments</b>		\$ 21,911,383
Other Investments (Acct. 125):		
Boone County/Florence KY Settlement	\$	\$ 3,783,211
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Other Investments:	\$	\$ 3,783,211
Special Funds (Acct. 126 & 127):		
Prepayment Reserve	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Special Funds		\$
		-

ACCOUNTS AND NOTES RECEIVABLE - NET (ACCOUNTS 141 - 144)

Report hereunder all accounts and notes receivable included in Accounts 141, 142, and 144. Amounts included in Accounts 142 and 144 should be listed individually.

Description	Total
<b>ACCOUNTS &amp; NOTES RECEIVABLE:</b>	
Customer Accounts Receivable (Acct. 141) .....	\$ 3,681,014
Other Accounts Receivable (Acct. 142)	
Assessments .....	\$ 37,767
Other .....	13,832
	51,600
Notes Receivable (Acct. 144)	
	\$
<b>Total Accounts and Notes Receivable.....</b>	<b>\$ 3,732,614</b>
<b>Accumulated Provision for Uncollectable Accounts (Acct. 143)</b>	
Balance first of year .....	\$ -
Add: Provision for uncollectables for	
current year.....	\$
Collections fo accounts previously	
written off.....	
Utility accounts.....	
Others.....	
<b>Total Additions.....</b>	<b>\$</b>
Deduct accounts written off during year:	
Utility Accounts.....	\$
Other.....	
<b>Total accounts written off.....</b>	<b>\$</b>
Balance end of year.....	\$ -
<b>Total Accounts and Notes Receivable</b>	<b>\$ 3,732,614</b>

**Materials and Supplies (151 - 153)**

Account Name	Total
Plant Materials and Supplies (Account 151)	\$ 1,150,975
Merchandise (Account 152)	
Other Materials and Supplies (Account 153)	
Total Materials & Supplies	\$ 1,150,975

**Prepayments (Acct. 162)**

Description	Total
Prepaid Insurance	\$ 134,674
Prepaid Rents	
Prepaid Interest	
Prepaid Taxes	
Other Prepayments (Specify)	
Expenses/Services	\$ 110,375
Water Tower Painting	2,095,890
Total Prepayments	\$ 2,340,939

**Miscellaneous Deferred Debits (Acct. 186)**

Description	Total
<i>Miscellaneous Deferred Debits (Acct. 186):</i>	
Deferred Rate Case Expense 2003-2004	211,582.69
Deferred Rate Case Expense 2004-2006	26,874.69
Other Deferred Debits	6,685,725
<b>Total Miscellaneous Deferred Debits</b>	\$ <b>6,924,182.10</b>

**Unamortized Debt Discount & Expense & Premium on Debt (Accts. 181 & 251)**

Report the net discount & expense or premium separately for each security issue.

Description	Amount Written Off During Year	Year-End Balance
<i>Unamortized Debt Discount &amp; Expense (Acct. 181)</i>		
Bond Issue Cost 1997	\$ 4,916	\$ 82,748
Bond Discount 1997	6,735	113,373
Bond Discount 1998	7,570	173,479
Bond Issue Costs 1998	3,147	72,137
Cost of Issue 2001 Bond	3,699	77,084
Discount 2001 Bond	13,038	271,636
Cost of Issue 2002 A	13,731	289,495
Bond Discount 2002 A	27,209	573,657
Cost of Issue 2002 B	9,300	111,214
Cost of Issue 2003 A	1,620	40,790
Bond Discount 2003 A	1,087	28,366
Cost of Issue 2003 B	11,760	262,670
Bond Discount 2003 B	8,520	190,993
Cost of Issue 2003 C	14,940	217,833
Discount 2003 C	7,404	104,297
Cost of issue 2004A BAN	11,004	2,743
Discount 2004A BAN	7,824	1,954
Cost of issue 2004A Bonds	3,252	77,456
Discount 2004A Bond	7,920	188,662
Cost of issue 2005A BAN	14,648	29,294
Discount 2005 BAN	23,256	46,506
<b>Total Unamortized Debt Discount &amp; Expense</b>	\$ <b>202,580</b>	\$ <b>2,956,387</b>
<i>Unamortized Premium on Debt (Acct. 251):</i>		
Premium on 2002 B Bond	\$ 63,877	\$ 58,949
<b>Total Unamortized Premium on Debt</b>	\$ <b>63,877</b>	\$ <b>58,949</b>



**EXTRAORDINARY PROPERTY LOSSES (ACCT. 182)**

Report each item separately.

Description	Total
Extraordinary Property Losses (Acct. 182) :	
N/A	\$
	\$
	\$
	\$
Total Extraordinary Property Losses .....	\$

**ADVANCES FOR CONSTRUCTION (ACCT. 252)**

DESCRIPTION	TOTAL
N/A	
Balance first of year.....	\$
Add credits during year.....	\$
Deduct charges during year.....	\$
Balance end of year.....	\$



## Northern Kentucky Water Service District

Attachment 22A

Bond Issue: 11,225,000, Dated September 1, 1997

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	1998	4.700%	210,000.00	210,000.00	
Registered	1999	4.700%	580,000.00	580,000.00	
Registered	2000	4.700%	610,000.00	610,000.00	
Registered	2001	4.700%	640,000.00	640,000.00	
Registered	2002	4.700%	670,000.00	670,000.00	
Registered	2003	4.700%	700,000.00	700,000.00	
Registered	2004	4.700%	735,000.00	735,000.00	
Registered	2005	4.700%	770,000.00	770,000.00	
Registered	2006	4.700%	810,000.00		810,000.00
Registered	2007	4.700%	850,000.00		850,000.00
Registered	2008	4.750%	890,000.00		890,000.00
Registered	2009	4.750%	930,000.00		930,000.00
Registered	2010	4.750%	975,000.00		975,000.00
Registered	2011	4.750%	1,025,000.00		1,025,000.00
Registered	2012	4.750%	60,000.00		60,000.00
Registered	2013	4.750%	60,000.00		60,000.00
Registered	2014	4.750%	65,000.00		65,000.00
Registered	2015	4.750%	70,000.00		70,000.00
Registered	2016	4.750%	70,000.00		70,000.00
Registered	2017	4.750%	75,000.00		75,000.00
Registered	2018	4.750%	80,000.00		80,000.00
Registered	2019	4.750%	80,000.00		80,000.00
Registered	2020	4.750%	85,000.00		85,000.00
Registered	2021	4.750%	90,000.00		90,000.00
Registered	2022	4.750%	95,000.00		95,000.00
<b>TOTALS</b>			11,225,000.00	4,915,000.00	6,310,000.00

Northern Kentucky Water Service District

Attachment 22-B

Bond Issue: 11,355,000 Dated December 1, 1998

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	02/01/1999	4.700%	250,000.00	250,000.00	
Registered	02/01/2000	4.700%	200,000.00	200,000.00	
Registered	02/01/2001	4.700%	200,000.00	200,000.00	
Registered	02/01/2002	4.700%	210,000.00	210,000.00	
Registered	02/01/2003	4.700%	220,000.00	220,000.00	
Registered	02/01/2004	4.700%	230,000.00	230,000.00	
Registered	02/01/2005	4.700%	240,000.00	240,000.00	
Registered	02/01/2006	4.700%	255,000.00		255,000.00
Registered	02/01/2007	4.700%	265,000.00		265,000.00
Registered	02/01/2008	4.750%	280,000.00		280,000.00
Registered	02/01/2009	4.750%	280,000.00		280,000.00
Registered	02/01/2010	4.750%	295,000.00		295,000.00
Registered	02/01/2011	4.750%	310,000.00		310,000.00
Registered	02/01/2012	4.750%	325,000.00		325,000.00
Registered	02/01/2013	4.800%	340,000.00		340,000.00
Registered	02/01/2014	4.850%	360,000.00		360,000.00
Registered	02/01/2015	4.875%	375,000.00		375,000.00
Registered	02/01/2016	4.875%	395,000.00		395,000.00
Registered	02/01/2017	4.875%	415,000.00		415,000.00
Registered	02/01/2018	4.875%	435,000.00		435,000.00
Registered	02/01/2019	4.875%	455,000.00		455,000.00
Registered	02/01/2020	4.875%	480,000.00		480,000.00
Registered	02/01/2021	4.875%	505,000.00		505,000.00
Registered	02/01/2022	4.875%	530,000.00		530,000.00
Registered	02/01/2023	4.875%	555,000.00		555,000.00
Registered	02/01/2024	4.875%	585,000.00		585,000.00
Registered	02/01/2025	4.875%	610,000.00		610,000.00
Registered	02/01/2026	4.875%	645,000.00		645,000.00
Registered	02/01/2027	4.875%	675,000.00		675,000.00
Registered	02/01/2028	4.875%	435,000.00		435,000.00
<b>TOTALS</b>			11,355,000.00	1,550,000.00	9,805,000.00

Northern Kentucky Water Service District				Attachment 22-C	
FHMA Load 2,287,000		2000			
Year	Maturity Date	Interest Rate	Principle Amount	Principle Paid	Outstanding
2000			0.00	0.00	
2001			0.00	0.00	
2002			21,000.00	21,000.00	
2003			22,000.00	22,000.00	
2004			24,000.00	24,000.00	
2005			24,000.00	24,000.00	
2006			26,000.00		26,000.00
2007			27,000.00		27,000.00
2008			28,000.00		28,000.00
2009			30,000.00		30,000.00
2010			31,000.00		31,000.00
2011			33,000.00		33,000.00
2012			34,000.00		34,000.00
2013			36,000.00		36,000.00
2014			38,000.00		38,000.00
2015			40,000.00		40,000.00
2016			42,000.00		42,000.00
2017			44,000.00		44,000.00
2018			46,000.00		46,000.00
2019			49,000.00		49,000.00
2020			51,000.00		51,000.00
2021			54,000.00		54,000.00
2022			56,000.00		56,000.00
2023			59,000.00		59,000.00
2024			62,000.00		62,000.00
2025			65,000.00		65,000.00
2026			68,000.00		68,000.00
2027			72,000.00		72,000.00
2028			75,000.00		75,000.00
2029			79,000.00		79,000.00
2030			83,000.00		83,000.00
2031			87,000.00		87,000.00
2032			92,000.00		92,000.00
2033			96,000.00		96,000.00
2034			102,000.00		102,000.00
2035			107,000.00		107,000.00
2036			112,000.00		112,000.00
2037			118,000.00		118,000.00
2038			124,000.00		124,000.00
2039			130,000.00		130,000.00
<b>TOTALS</b>	0.00	0.00	2,287,000.00	91,000.00	2,196,000.00

Northern Kentucky Water Service District

Attachment 22-D

Bond Issue \$16,325,000.00 Dated 10-23-2001

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2002	2.700%	285,000.00	285,000.00	
Registered	2/1/2003	3.000%	235,000.00	235,000.00	
Registered	2/1/2004	3.250%	240,000.00	240,000.00	
Registered	2/1/2005	3.450%	230,000.00	230,000.00	
Registered	2/1/2006	3.600%	215,000.00		215,000.00
Registered	2/1/2007	3.750%	195,000.00		195,000.00
Registered	2/1/2008	3.900%	170,000.00		170,000.00
Registered	2/1/2009	4.000%	155,000.00		155,000.00
Registered	2/1/2010	4.100%	75,000.00		75,000.00
Registered	2/1/2011	4.200%	80,000.00		80,000.00
Registered	2/1/2012	4.350%	80,000.00		80,000.00
Registered	2/1/2013	4.450%	735,000.00		735,000.00
Registered	2/1/2014	4.550%	770,000.00		770,000.00
Registered	2/1/2015	4.670%	810,000.00		810,000.00
Registered	2/1/2016	4.750%	845,000.00		845,000.00
Registered	2/1/2017	4.820%	890,000.00		890,000.00
Registered	2/1/2018	4.850%	930,000.00		930,000.00
Registered	2/1/2019	4.900%	980,000.00		980,000.00
Registered	2/1/2020	4.950%	1,030,000.00		1,030,000.00
Registered	2/1/2021	5.000%	1,080,000.00		1,080,000.00
Registered	2/1/2022	5.000%	1,135,000.00		1,135,000.00
Registered	2/1/2023	5.000%	1,195,000.00		1,195,000.00
Registered	2/1/2024	5.100%	1,255,000.00		1,255,000.00
Registered	2/1/2025	5.100%	1,320,000.00		1,320,000.00
Registered	2/1/2026	5.100%	1,390,000.00		1,390,000.00
<b>TOTALS</b>			16,325,000.00	990,000.00	15,335,000.00

## Northern Kentucky Water Service District

Attachment 22-E

Bond Issue \$45,485,000.00 Dated 2/1/2002

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2003				
Registered	2/1/2003	4.50%	350,000.00	350,000.00	
Registered	2/1/2004	4.50%	345,000.00	345,000.00	
Registered	2/1/2005	4.50%	360,000.00	360,000.00	
Registered	2/1/2006	4.50%	370,000.00		370,000.00
Registered	2/1/2007	4.50%	380,000.00		380,000.00
Registered	2/1/2008	4.50%	410,000.00		410,000.00
Registered	2/1/2009	4.50%	365,000.00		365,000.00
Registered	2/1/2010	4.50%	465,000.00		465,000.00
Registered	2/1/2111	4.50%	485,000.00		485,000.00
Registered	2/1/2012	4.50%	1,530,000.00		1,530,000.00
Registered	2/1/2013	4.50%	950,000.00		950,000.00
Registered	2/1/2013	4.50%	990,000.00		990,000.00
Registered	2/1/2114	4.50%	990,000.00		990,000.00
Registered	2/1/2115	4.65%	1,035,000.00		1,035,000.00
Registered	2/1/2116	4.75%	1,100,000.00		1,100,000.00
Registered	2/1/2117	4.75%	1,625,000.00		1,625,000.00
Registered	2/1/2118	4.75%	2,520,000.00		2,520,000.00
Registered	2/1/2119	4.75%	2,640,000.00		2,640,000.00
Registered	2/1/2020	5.00%	3,080,000.00		3,080,000.00
Registered	2/1/2021	5.00%	3,240,000.00		3,240,000.00
Registered	2/1/2022	5.00%	3,405,000.00		3,405,000.00
Registered	2/1/2023	5.00%	3,580,000.00		3,580,000.00
Registered	2/1/2024	5.00%	3,765,000.00		3,765,000.00
Registered	2/1/2025	5.00%	3,960,000.00		3,960,000.00
Registered	2/1/2026	5.00%	4,160,000.00		4,160,000.00
Registered	2/1/2027	5.00%	4,375,000.00		4,375,000.00
<b>TOTALS</b>			45,485,000.00	1,055,000.00	44,430,000.00

## Northern Kentucky Water Service District

Bond Issue \$10,575,000.00 Dated 12/5/2002

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	12/5/2002				
Registered	2/1/2003	3.00%	535,000.00	535,000.00	
Registered	2/1/2004	3.00%	455,000.00	455,000.00	
Registered	2/1/2005	3.00%	490,000.00	490,000.00	
Registered	2/1/2006	3.00%	530,000.00		530,000.00
Registered	2/1/2007	3.50%	580,000.00		580,000.00
Registered	2/1/2008	3.50%	625,000.00		625,000.00
Registered	2/1/2009	3.50%	745,000.00		745,000.00
Registered	2/1/2010	3.75%	775,000.00		775,000.00
Registered	2/1/2111	4.00%	805,000.00		805,000.00
Registered	2/1/2012	4.00%	835,000.00		835,000.00
Registered	2/1/2013	4.00%	870,000.00		870,000.00
Registered	2/1/2114	4.00%	900,000.00		900,000.00
Registered	2/1/2115	4.00%	930,000.00		930,000.00
Registered	2/1/2116	4.00%	965,000.00		965,000.00
Registered	2/1/2117	4.00%	535,000.00		535,000.00
<b>TOTALS</b>			10,575,000.00	1,480,000.00	9,095,000.00

Northern Kentucky Water Service District

Attachment 22-G

2003 Series A

Bond Issue \$1,615,000.00 Dated 3/13/03

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2004	1.20%	35,000.00	35,000.00	
Registered	2/1/2005	1.38%	35,000.00	35,000.00	
Registered	2/1/2006	1.75%	35,000.00		35,000.00
Registered	2/1/2007	2.20%	35,000.00		35,000.00
Registered	2/1/2008	2.60%	35,000.00		35,000.00
Registered	2/1/2009	3.00%	40,000.00		40,000.00
Registered	2/1/2010	3.30%	40,000.00		40,000.00
Registered	2/1/2011	3.55%	40,000.00		40,000.00
Registered	2/1/2012	3.70%	40,000.00		40,000.00
Registered	2/1/2113	3.85%	45,000.00		45,000.00
Registered	2/1/2014	3.95%	45,000.00		45,000.00
Registered	2/1/2015	4.05%	45,000.00		45,000.00
Registered	2/1/2116	4.15%	50,000.00		50,000.00
Registered	2/1/2117	4.25%	50,000.00		50,000.00
Registered	2/1/2118	4.50%	55,000.00		55,000.00
Registered	2/1/2119	4.50%	55,000.00		55,000.00
Registered	2/1/2020	4.50%	60,000.00		60,000.00
Registered	2/1/2121	4.50%	60,000.00		60,000.00
Registered	2/1/2022	4.50%	65,000.00		65,000.00
Registered	2/1/2023	4.55%	65,000.00		65,000.00
Registered	2/1/2024	4.55%	70,000.00		70,000.00
Registered	2/1/2025	4.55%	75,000.00		75,000.00
Registered	2/1/2026	4.55%	75,000.00		75,000.00
Registered	2/1/2027	4.55%	80,000.00		80,000.00
Registered	2/1/2028	4.60%	85,000.00		85,000.00
Registered	2/1/2029	4.60%	85,000.00		85,000.00
Registered	2/1/2030	4.60%	90,000.00		90,000.00
Registered	2/1/2031	4.60%	95,000.00		95,000.00
Registered	2/1/2032	4.60%	30,000.00		30,000.00
<b>TOTALS</b>			1,615,000.00	70,000.00	1,545,000.00

Northern Kentucky Water Service District

Attachment 22-H

2003 Series B

Bond Issue \$30,270,000.00 Dated 8/1/2003

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2004	0.02	825,000.00	825,000.00	
Registered	2/1/2005	2.00%	845,000.00	845,000.00	
Registered	2/1/2006	2.00%	860,000.00		860,000.00
Registered	2/1/2007	2.00%	880,000.00		880,000.00
Registered	2/1/2008	2.00%	895,000.00		895,000.00
Registered	2/1/2004	2.25%	915,000.00		915,000.00
Registered	2/1/2010	2.75%	940,000.00		940,000.00
Registered	2/1/2011	3.00%	965,000.00		965,000.00
Registered	2/1/2012	3.13%	995,000.00		995,000.00
Registered	2/1/2013	3.13%	1,030,000.00		1,030,000.00
Registered	2/1/2014	3.13%	1,060,000.00		1,060,000.00
Registered	2/1/2015	3.25%	1,095,000.00		1,095,000.00
Registered	2/1/2016	3.50%	1,135,000.00		1,135,000.00
Registered	2/1/2017	4.00%	1,175,000.00		1,175,000.00
Registered	2/1/2018	4.00%	1,225,000.00		1,225,000.00
Registered	2/1/2019	4.00%	1,275,000.00		1,275,000.00
Registered	2/1/2020	4.13%	1,325,000.00		1,325,000.00
Registered	2/1/2021	4.13%	1,380,000.00		1,380,000.00
Registered	2/1/2022	1.43%	1,440,000.00		1,440,000.00
Registered	2/1/2023	4.13%	1,500,000.00		1,500,000.00
Registered	2/1/2024	4.13%	1,565,000.00		1,565,000.00
Registered	2/1/2025	4.13%	1,630,000.00		1,630,000.00
Registered	2/1/2026	4.13%	1,700,000.00		1,700,000.00
Registered	2/1/2027	4.13%	1,770,000.00		1,770,000.00
Registered	2/1/2028	4.13%	1,845,000.00		1,845,000.00
<b>TOTALS</b>			30,270,000.00	1,670,000.00	28,600,000.00

## Northern Kentucky Water Service District

Attachment 22-1

2003 Series C

Bond Issue \$23,790,000.00 Dated 12/18/2003

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2004	2.00%	1,430,000.00	1,430,000.00	
Registered	2/1/2005	2.00%	1,160,000.00	1,160,000.00	
Registered	2/1/2006	2.00%	1,180,000.00		1,180,000.00
Registered	2/1/2007	2.25%	1,215,000.00		1,215,000.00
Registered	2/1/2008	2.50%	1,235,000.00		1,235,000.00
Registered	2/1/2009	2.75%	1,270,000.00		1,270,000.00
Registered	2/1/2010	3.00%	1,305,000.00		1,305,000.00
Registered	2/1/2111	3.25%	1,350,000.00		1,350,000.00
Registered	2/1/2012	3.50%	1,395,000.00		1,395,000.00
Registered	2/1/2013	3.50%	1,445,000.00		1,445,000.00
Registered	2/1/2114	4.00%	1,505,000.00		1,505,000.00
Registered	2/1/2115	4.00%	1,565,000.00		1,565,000.00
Registered	2/1/2116	4.00%	1,625,000.00		1,625,000.00
Registered	2/1/2117	4.00%	1,690,000.00		1,690,000.00
Registered	2/1/2118	4.00%	1,595,000.00		1,595,000.00
Registered	2/1/2119	4.13%	1,665,000.00		1,665,000.00
Registered	2/1/2020	4.25%	1,160,000.00		1,160,000.00
<b>TOTALS</b>			23,790,000.00	2,590,000.00	21,200,000.00

Northern Kentucky Water Service District

Attachment 22-J

Bond Issue Dated 2/1/2002

Bond Number	Maturity Date	Interest Rate	Principle Amount	Amounts Paid	Outstanding
Registered	2/1/2005		270,000.00	270,000.00	
Registered	2/1/2006		275,000.00		275,000.00
Registered	2/1/2007		285,000.00		285,000.00
Registered	2/1/2008		290,000.00		290,000.00
Registered	2/1/2009		295,000.00		295,000.00
Registered	2/1/2010		305,000.00		305,000.00
Registered	2/1/2111		315,000.00		315,000.00
Registered	2/1/2012		325,000.00		325,000.00
Registered	2/1/2013		335,000.00		335,000.00
Registered	2/1/2114		345,000.00		345,000.00
Registered	2/1/2115		360,000.00		360,000.00
Registered	2/1/2116		375,000.00		375,000.00
Registered	2/1/2117		390,000.00		390,000.00
Registered	2/1/2118		405,000.00		405,000.00
Registered	2/1/2119		425,000.00		425,000.00
Registered	2/1/2020		460,000.00		460,000.00
Registered	2/1/2021		485,000.00		485,000.00
Registered	2/1/2022		505,000.00		505,000.00
Registered	2/1/2023		530,000.00		530,000.00
Registered	2/1/2024		555,000.00		555,000.00
Registered	2/1/2025		580,000.00		580,000.00
Registered	2/1/2026		605,000.00		605,000.00
Registered	2/1/2027		635,000.00		635,000.00
Registered	2/1/2028		665,000.00		665,000.00
<b>TOTALS</b>			10,015,000.00	270,000.00	9,745,000.00

Account 221, BONDS

Line No.	Par Value of Actual Issue 1	Cash Realized on Actual Issue 2	Par Value of Amount Held by or for Respondent 3	Actually Outstanding at Close of year 4	Interest During Year	
					Accrued 5	Actually Paid 6
1	11,225,000	11,131,694		6,310,000	301,911	316,990
2	11,355,000	11,141,619		9,805,000	476,086	480,836
3	2,287,000	2,287,000		2,196,000	110,200	110,400
4	16,325,000	15,835,250		15,335,000	729,746	733,100
5	48,485,000	44,121,624		44,430,000	2,169,790	2,176,540
6	10,575,000	10,525,204		9,095,000	350,581	356,706
7	1,615,000	1,583,553		1,545,000	64,878	65,078
8	30,270,000	30,068,115		28,600,000	1,032,108	139,150
9	23,790,000	23,532,357		21,200,000	738,277	747,944
10	10,455,000	10,195,116		10,185,000	403,081	303,323
Total	166,382,000	160,421,532	36,332,688	148,701,000	6,376,659	5,430,067

Schedule of Bond Maturities

Line No.	Bond Numbers 7	Maturity Date 8	Interest Rate 9	Principal Amount 10	Amount Paid 11	Remaining Bonds Outstanding 12
1						
2	See Attachments 22-A Through 22-I					
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

**Notes Payable (Acct. 232 & 234)**

a	Nominal Date of Issue b	Date of Maturity c	INTEREST		Principal Amount per Balance Sheet f
			Rate d	Amount of payment e	
<b>Account 232 - Note Payable</b>					
Kenton Co. Fiscal Court				\$	\$ 100,000
BAN 2004A	Apr-04	2006	1.70%	61,285.00	3,605,000
BAN 2005A	May-05	2007		876,920.00	17,980,000
<b>Total Account 232</b>				\$	\$ 21,685,000
<b>Account 234 - Notes Payable To Associated Companies</b>					
		N/A		\$	\$
<b>Total Account 234</b>				\$	\$

**Accounts Payable to Associated Companies (Acct. 233)**

Show Payable to Each Associated Company Separately	Amount
	\$
N/A	
<b>Total</b>	\$

**TAXES ACCRUED (ACCOUNT 236)**

ACCT. NO. (a)	DESCRIPTION (b)	TOTAL ©
	Balance first of year.....	\$ -
	Accruals Charged:	
408.1	Utility regulatory assessment fees.....	
408.11	Property taxes.....	
408.12	Payroll taxes.....	544,011
408.13	Other taxes and licenses.....	
408.2	Taxes other than income, other income and deductions	
	Total taxes accrued.....	\$ 544,011
	Taxes paid during year:	
408.1	Utility regulatory assessment fees.....	
408.11	Property taxes.....	
408.12	Payroll taxes.....	544,011
408.13	Other taxes and licenses.....	
408.2	Taxes other than income, other income and deductions	
	Total taxes paid.....	\$ 544,011
	Balance end of year.....	\$ -

**ACCRUED INTEREST (ACCOUNT 237)**

DESC. DEBT (a)	BALANCE BEGINNING OF YEAR (b)	INTEREST ACCRUED DURING YEAR (c)	INTEREST PAID DURING YEAR (d)	BALANCE END OF YEAR (e)
Acct. No. 237.1 - Accrued Interest on Long-term Debt				
Series 1997	139,619	301,911	316,990	124,540
Series 1998	202,724	476,086	480,836	197,973
2000 RUS Loan	18,500	110,200	110,400	18,300
Series 2001	307,135	729,746	733,100	303,781
Series 2002 A	910,268	2,169,789	2,176,540	903,517
Series 2002 B	151,689	350,582	356,706	145,565
Series 2003 A	27,216	64,878	65,078	27,016
Series 2003 B	436,499	1,032,109	1,039,150	429,458
Series 2003 C	316,476	738,278	747,944	306,810
Series 2004 A	68,005	402,735	303,323	167,417
Total Acct No. 237.1	\$ 2,578,131	\$ 6,376,314	\$ 6,330,068	\$ 2,624,376
Acct. No. 237.2 - Accrued Interest on Other Liabilities:				
2004 BAN # 1	\$ 15,321	\$ 61,285	\$ 61,285	\$ 15,321
2005 BAN # 2		374,965	277,566	97,399
Total Acct No. 237.2	\$ 15,321	\$ 436,250	\$ 338,851	\$ 112,720
Total Acct No 237	\$ 2,593,452	\$ 6,812,565	\$ 6,668,919	\$ 2,737,096

**TAXES ACCRUED (ACCOUNT 236)**

ACCT. NO. (a)	DESCRIPTION (b)	TOTAL ©
	Balance first of year.....	\$ -
	Accruals Charged:	
408.1	Utility regulatory assessment fees.....	
408.11	Property taxes.....	
408.12	Payroll taxes.....	544,011
408.13	Other taxes and licenses.....	
408.2	Taxes other than income, other income and deductions	
	Total taxes accrued.....	\$ 544,011
	Taxes paid during year:	
408.1	Utility regulatory assessment fees.....	
408.11	Property taxes.....	
408.12	Payroll taxes.....	544,011
408.13	Other taxes and licenses.....	
408.2	Taxes other than income, other income and deductions	
	Total taxes paid.....	\$ 544,011
	Balance end of year.....	\$ -

**ACCRUED INTEREST (ACCOUNT 237)**

DESC. DEBT (a)	BALANCE BEGINNING OF YEAR (b)	INTEREST ACCRUED DURING YEAR (c)	INTEREST PAID DURING YEAR (d)	BALANCE END OF YEAR (e)
Acct. No. 237.1 - Accrued Interest on Long-term Debt				
Series 1997	139,619	301,911	316,990	124,540
Series 1998	202,724	476,086	480,836	197,973
2000 RUS Loan	18,500	110,200	110,400	18,300
Series 2001	307,135	729,746	733,100	303,781
Series 2002 A	910,268	2,169,789	2,176,540	903,517
Series 2002 B	151,689	350,582	356,706	145,565
Series 2003 A	27,216	64,878	65,078	27,016
Series 2003 B	436,499	1,032,109	1,039,150	429,458
Series 2003 C	316,476	738,278	747,944	306,810
Series 2004 A	68,005	402,735	303,323	167,417
Total Acct No. 237.1	\$ 2,578,131	\$ 6,376,313	\$ 6,330,068	\$ 2,624,376
Acct. No. 237.2 - Accrued Interest on Other Liabilities:				
2004 BAN # 1	\$ 30,643	\$ 45,964	\$ 61,285	\$ 15,321
2005 BAN # 2		374,965	277,566	97,399
Total Acct No. 237.2	\$ 30,643	\$ 420,929	\$ 338,851	\$ 112,720
Total Acct No 237	\$ 2,608,774	\$ 6,797,242	\$ 6,668,919	\$ 2,737,097

**Miscellaneous Current & Accrued Liabilities (Account 242)**

Description (a)	Balance End of Year (b)
Accrued Payroll Taxes	\$ 3,265
Accrued Payroll	141,235
Accrued Sales Taxes	58,086
Accrued Pension	118,462
Accrued Vacation/Sick	742,606
Subdistrict Surcharges Payable	565,669
Total Miscellaneous Current & Accrued Liabilities.....	\$ 1,629,323

241-0007-000

**Regulatory Commission Expense (Accounts 666 and 667)**

DESCRIPTION OF CASE (DOCKET #) (a)	TOTAL INCURRED DURING YEAR (b)	AMOUNT TRANSFERRED TO ACCOUNT # 186.1 (c)	EXPENSED DURING YEAR	
			ACCT. (d)	AMOUNT (e)
Rate Case 2005-0148 (Case still pending as of 12/31/05)	211,583	211,583		
Rate Case 2002-0105			667	\$ 145,116
Rate Case 2003-0234			667	\$ 62,076

Miscellaneous Current & Accrued Liabilities (Account 242)

Description (a)	Balance End of Year (b)
Accrued Payroll Taxes	\$ 3,265
Accrued Payroll	141,235
Accrued Sales Taxes	58,086
Accrued Pension	118,462
Accrued Vacation/Sick	742,606
Subdistrict Surcharges Payable	565,669
241-0007-000	
Total Miscellaneous Current & Accrued Liabilities.....	\$ 1,629,323

Regulatory Commission Expense (Accounts 666 and 667)

DESCRIPTION OF CASE (DOCKET #) (a)	TOTAL INCURRED DURING YEAR (b)	AMOUNT TRANSFERRED TO ACCOUNT # 186.1 (c)	EXPENSED DURING YEAR	
			ACCT. (d)	AMOUNT (e)
Rate Case 2005-0148 (Case still pending as of 12/31/05)	195,519	211,583		
Rate Case 2002-0105			667	\$ 145,116
Rate Case 2003-0234			667	\$ 62,076

**WATER OPERATING REVENUE**

Acct. No Acct.	b	Beginning Year No. Customers c	Year End No. Customers d	Amounts e
	<b>Operating Revenues:</b>			
460	Unmetered Water Revenue			
461	Metered Water Revenue			
461.1	Sales to Residential Customers	57,852	72,563	\$ 20,045,989
461.2	Sales to Commercial Customers	3,861	4,509	5,445,797
461.3	Sale to Industrial Customers	106	116	2,472,461
461.4	Sales to Public Authorities	379	491	1,937,221
461.5	Sales to Multiple Family Dwellings	1,087	1,551	2,404,094
461.6	Sales through Bulk Loading Stations	1	-	4,538
	<b>Total Metered Sales</b>	<b>63,286</b>	<b>79,230</b>	<b>32,310,100</b>
462	Fire Protection Revenue:			
462.1	Public Fire Protection			
462.2	Private Fire Protection	367	450	73,995
	<b>Total Fire Protection Revenue</b>	<b>367</b>	<b>450</b>	<b>73,995</b>
464	Other Sales to Public Authorities			
465	Sales to Irrigation Customers			
466	Sales for Resale	7	3	845,183
467	Miscellaneous Sales	1	2	
	<b>Total Sales of Water</b>	<b>63,661</b>	<b>79,685</b>	<b>33,229,278</b>
	<b>Other Water Revenues:</b>			
470	Forfeited Discounts			\$ 752,736
471	Miscellaneous Service Revenues			
472	Rents from Water Property			506,326
473	Interdepartmental Rents			
474	Other Water Revenues			358,282
475	Provision for Rate Refunds			
	<b>Total Other Water Revenues:</b>			<b>1,617,344</b>
	<b>Total Water Operating Revenues</b>			<b>\$ 34,846,622</b>

Water Utility Expense Accounts

Acct. No.	Account Name	Current Year	Water Expense Account Matrix							
			0.1 Source of Supply & Expenses Operation	0.2 Source of Supply & Expenses Maint.	0.3 Water Treatment Expenses/ Operation	0.4 Water Treatment Expenses/ Maint.	0.5 Trans. & Distribut Expenses Operation	0.6 Trans. & Dist. Expenses Maint.	0.7 Customer Accounts Expense	0.8 Administrative Expenses
601	Salaries and Wages - Employees	6,811,773	-	46	1,449,102	493,118	618,775	1,969,869	1,634,355	646,507
603	Salaries and Wages - Officers, Directors & Majority Stockholders	656,510	-	-	100,256	-	105,227	-	89,586	361,442
604	Employee Pensions and Benefits	2,413,137	-	-	507,288	93,400	425,806	458,966	579,157	348,520
610	Purchased Water	-	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
615	Purchased Power	2,121,220	609,258	xxx	355,921	xxx	1,047,697	xxx	-	108,344
616	Fuel for Power Production	-	-	-	-	-	-	-	-	-
618	Chemicals	1,035,885	-	-	1,035,885	-	-	-	xxx	xxx
620	Materials & Supplies	1,680,127	-	29,684	157,892	155,011	98,372	797,313	218,988	222,867
631	Contractual Services - Eng.	95,631	-	-	-	-	-	-	-	-
632	Contractual Services - Acct.	16,875	-	-	-	-	-	-	-	-
633	Contractual Services - Legal	114,219	-	-	4,579	-	19,707	-	3,341	16,875
634	Contractual Services - Management Fees	3,211	-	-	-	-	-	-	-	3,211
635	Contractual Services - Other	3,541,011	1,776	136,443	506,785	186,092	157,126	1,718,312	117,541	716,936
641	Rental of Bldg/Real Property	10,689	-	-	-	-	-	-	-	10,689
642	Rental of Equipment	414,604	-	174	35,809	392	36,412	246,986	89,377	5,454
650	Transportation Expenses	86,502	-	-	16,459	-	42,456	-	23,807	3,780
656	Insurance - Vehicle	272,040	-	-	87,048	-	144,180	-	27,204	13,608
657	Insurance - General Liability	223,343	-	-	57,808	-	77,548	-	57,947	30,040
658	Insurance - Workers Comp	139,539	-	-	35,090	-	-	-	-	104,449
659	Insurance - Other	10,743	xxx	xxx	xxx	xxx	xxx	xxx	xxx	10,743
660	Advertising Expense	-	-	-	-	-	-	-	-	-
666	Regulatory Commission Exp/ Amortization of Rate Case Exp.	258,404	xxx	xxx	xxx	xxx	xxx	xxx	xxx	-
667	Regulatory Commission Exp/Other	524,536	xxx	xxx	xxx	xxx	xxx	xxx	524,536	xxx
670	Bad Debt Expense	49,257	-	-	5,387	187	6,886	8,333	9,402	19,062
675	Miscellaneous Expenses	-	-	-	-	-	-	-	-	-
	Total Water Utility Expenses	20,479,276	611,034	166,347	4,355,309	928,200	2,858,719	5,216,903	3,633,645	2,709,119

Water Utility Expense Accounts

Acct. No. a	Account Name b	Current Year c	Water Expense Account Matrix							
			0.1 Source of Supply & Expenses Operation d	0.2 Source of Supply & Expenses Maintn. e	0.3 Water Treatment Expenses/Operation f	0.4 Water Treatment Expenses/Maint. g	0.5 Trans. & Distribut Expenses Operation h	0.6 Trans. & Dist. Expenses Maint. i	0.7 Customer Accounts Expense j	0.8 Adminis- trative Gen Expenses k
601	Salaries and Wages - Employees	6,811,773	-	46	1,449,102	493,118	618,775	1,969,869	1,634,355	646,507
603	Salaries and Wages - Officers, Directors & Majority Stockholders	656,510	-	-	100,256	-	105,227	-	89,586	361,442
604	Employee Pensions and Benefits	2,413,136	-	-	507,288	93,400	425,806	458,966	579,157	348,519
610	Purchased Water	-	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
615	Purchased Power	2,121,220	609,258	xxx	355,921	xxx	1,047,697	xxx	-	108,344
616	Fuel for Power Production	-	-	-	-	-	-	-	-	-
618	Chemicals	1,035,885	-	-	1,035,885	-	-	-	-	-
620	Materials & Supplies	1,680,127	-	29,684	157,892	155,011	98,372	797,313	218,988	222,867
631	Contractual Services - Eng.	95,651	-	-	-	-	78,327	17,124	-	-
632	Contractual Services - Acct.	16,875	-	-	-	-	-	-	-	-
633	Contractual Services - Legal	114,219	-	-	4,579	-	19,707	-	3,341	16,875
634	Contractual Services - Management Fees	3,211	-	-	-	-	-	-	-	86,592
635	Contractual Services - Other	3,541,008	1,776	136,443	506,785	186,092	157,126	1,718,312	117,541	716,933
641	Rental of Bldg./Real Property	10,689	-	-	-	-	-	-	-	-
642	Rental of Equipment	-	-	-	-	-	-	-	-	10,689
650	Transportation Expenses	414,430	-	-	35,809	392	36,412	246,986	89,377	5,454
656	Insurance - Vehicle	86,502	-	-	16,459	-	42,456	-	23,807	3,780
657	Insurance - General Liability	272,040	-	-	87,048	-	144,180	-	27,204	13,608
658	Insurance - Worker's Comp	223,343	-	-	57,808	-	77,548	-	57,947	30,040
659	Insurance - Other	139,539	-	-	35,090	-	-	-	-	104,449
660	Advertising Expense	10,743	xxx	xxx	xxx	xxx	xxx	xxx	xxx	10,743
666	Regulatory Commission Exp/ Amortization of Rate Case Exp.	-	xxx	xxx	xxx	xxx	xxx	xxx	xxx	-
667	Regulatory Commission Exp/Other	258,404	-	-	-	-	-	-	258,404	-
670	Bad Debt Expense	524,536	xxx	xxx	xxx	xxx	xxx	xxx	524,536	xxx
675	Miscellaneous Expenses	49,257	-	-	5,387	187	6,886	8,333	9,402	19,062
	Total Water Utility Expenses	20,479,098	611,034	166,173	4,355,309	928,200	2,858,719	5,216,903	3,633,645	2,709,115

**Pumping and Purchased Water Statistics**

a	Water Purchased for Resale (Omit 000's)  b	Water Pumped From Plants (Omit 000's)  c	Total Water Pumped and Purchased (Omit 000's)  d	Water Sold to Customers (Omit 000's)  e
January		817,046.0	817,046.0	578,988.5
February		717,280.0	717,280.0	522,693.4
March		798,635.0	798,635.0	797,018.2
April		813,137.2	813,137.2	536,147.7
May		899,865.0	899,865.0	519,882.4
June		1,042,279.0	1,042,279.0	887,043.5
July		1,057,621.0	1,057,621.0	675,504.6
August		1,107,166.0	1,107,166.0	639,786.1
September		908,699.0	908,699.0	1,211,747.3
October		870,173.2	870,173.2	763,043.8
November		788,829.0	788,829.0	706,168.1
December		812,867.9	812,867.9	965,766.0
<b>Total for year</b>		10,633,598.3	10,633,598.3	8,803,789.6
Maximum gallons pumped by all methods in any one day: 8/4/2005				44,476.0
Minimum gallons pumped by all methods in any one day (Omit 000's): 12/25/2005				21,915.0
If water is purchased for resale, indicate the following:				
Vendor: _____				
Point of delivery: _____				
If water is sold to other water utilities for redistribution, list names of such utilities below:				
Pendleton County Water District				
City of Walton				
Bullock Pen Water District				

**Sales for Resale (466)**

Line	Company	Gallons(000's)	Avg. Rate (Cents)	Amount
1	Pendleton County Water Dist.	97,415.9	2.40	\$235,541.76
2	City of Walton	168,960.8	2.40	\$406,099.56
3	Bullock Pen Water District	84,449.0	2.40	\$203,541.96
4				
5				
6				
7				
8				
<b>Total</b>		<b>350,825.7</b>		<b>\$845,183.28</b>

**WATER STATISTICS**

Line	Item	Gallons (000's)
1	<b>WATER PRODUCED, PURCHASED, &amp; DISTRIBUTED</b>	
2	Water Produced	10,633,598
3	Water Purchased	
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>10,633,598</b>
5		
6	<b>WATER SALES:</b>	
7	Residential	5,931,183
8	Commercial	1,659,182.2
9	Industrial	847,058.4
10	Irrigation	-
11	Resale	350,825.7
12	Other Sales	15,541
13	<b>TOTAL WATER SALES</b>	<b>8,803,789.6</b>
14		
15	<b>OTHER WATER USED (estimate portions not metered)</b>	
16	Utility/water treatment plant	175,351.9
17	Wastewater plant	0.0
18	System flushing	190,433.0
19	Water main breaks/leaks	97,238.0
20	Storage tank overflow	0.0
21	Fire Department	8,300.0
22	Other (construction, flushing, disinfection, ect.)	4,240.0
23	<b>TOTAL OTHER WATER USED</b>	<b>475,562.9</b>
24		
25	<b>UNACCOUNTED-FOR WATER LOSS:</b>	
26	Line 4 - (Line 13 + Line 23)	1,354,245.8
27		
28	<b>UNACCOUNTED-FOR WATER LOSS PERCENTAGE</b>	
29	Line 26 divided by Line 4	12.74%

WATER STATISTICS

Line	Item	Gallons (000's)
1	<b>WATER PRODUCED, PURCHASED, &amp; DISTRIBUTED</b>	
2	Water Produced	10,633,598
3	Water Purchased	
4	<b>TOTAL PRODUCED AND PURCHASED</b>	<b>10,633,598</b>
5		
6	<b>WATER SALES:</b>	
7	Residential	5,931,183
8	Commercial	1,659,182.2
9	Industrial	847,058.4
10	Irrigation	-
11	Resale	350,825.7
12	Other Sales	15,541
13	<b>TOTAL WATER SALES</b>	<b>8,803,789.6</b>
14		
15	<b>OTHER WATER USED (estimate portions not metered)</b>	
16	Utility/water treatment plant	175,351.9
17	Wastewater plant	0.0
18	System flushing	190,433.0
19	Water main breaks/leaks	97,238.0
20	Storage tank overflow	0.0
21	Fire Department	8,300.0
22	Other (construction, flushing, disinfection, ect.)	4,240.0
23	<b>TOTAL OTHER WATER USED</b>	<b>475,562.9</b>
24		
25	<b>UNACCOUNTED-FOR WATER LOSS:</b>	
26	Line 4 - (Line 13 + Line 23)	<b>1,354,245.8</b>
27		
28	<b>UNACCOUNTED-FOR WATER LOSS PERCENTAGE</b>	
29	Line 26 divided by Line 4	12.74%

## PLANT STATISTICS

Give the following information:

- 1 Number of fire hydrants, by size.
- 2 Number of private fire hydrants, by size.
- 3 Whether water supply is river, impounded streams, well, springs, artificial lake or collector type well.
- 4 Whether supply is by gravity, pumping, or a combination .
- 5 Type, capacity, and elevation of reservoirs at overflow and ground level.
- 6 Miles of main by size and kind.
- 7 Types of filters: gravity or pressure, number of units, and total rated capacity in gallons per minute.
- 8 Type of chlorinators, number of units and capacity in pounds per 24 hours.
- 9 Station equipment. List each pump separately, giving type and capacity and H.P. of driving unit and character of driving unit (steam, electric, or internal combustion). State whether pump is high or low duty.
- 10 Quantity of fuel used: coal in pounds, gas in cu. ft., oil in gallons, and electric in KWH .
- 11 Give a description and total cost of any sizable additions or retirements to plant in service outside the normal system growth for the period covered by this report.
- 12 Capacity of clear well.
- 13 Peak month, in gallons of water sold.
- 14 Peak day, in gallons of water sold.

1) Kenton County 5541, Campbell County 2423.

2) 48.

3) Rivers: Ohio River and the Licking River.

4) Plants are pumped; Distribution is combination of pumped and gravity.

5) See attached 31A.

6) See attached 31B.

7) Fort Thomas Treatment Plant

12 - Gravity, each 560 sq. ft.

Taylor Mill Treatment Plant

8 - Gravity, each 560 sq. ft. @ 5 gallons per sq. ft. per minute

8) See attached 31C

9) See attached 31D

10) N/A

11) None

Water Storage Facilities  
 Northern Kentucky Water District  
 Updated: 4/26/2006  
 Attachment 31A

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	Clearwell	1936	31	734.0	765.3	764.5	762.0	760.0		3,000,000
Ft. Thomas Plant	700 Alexandria Pike	Ft. Thomas	Clearwell	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	5685 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	1937	187			1017.0				275,000
Main St. Tank	Main St. & US 27	Alexandria	Elevated Tank	1962	152			1017.0				300,000
Memorial Pkwy. Plant	2055 Memorial Pkwy.	Fort Thomas	Clearwell					741.0				3,000,000
Old St. 4 Tank	Old St. Road #4	Claryville	Elevated Tank	1976	143			1017.0				1,000,000
Rosford Tank	Marion Dr.	Fort Thomas	Elevated Tank	1962	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	Clearwell		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 ANALYSIS

Att. 31B

Size	Type	Prior Years	2004 Additions	2004 Retirements	2004 YTD TOTAL	2004 Miles	2004 Percent	2005 Additions	2005 Retirements	2005 YTD TOTALS	2005 Miles	2005 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	397,128.68	1,240.00	875.00	397,493.68	75.28	6.930%	2,094.00	3,100.00	396,487.68	0.000	0.000%
6"	Cast Iron	1,853,356.38	95,753.36	9,529.00	1,939,580.74	367.34	33.816%	737.00	6,765.00	1,933,552.74	75.092	6.827%
8"	Cast Iron	938,829.93	168,204.24	609.00	1,106,425.17	209.55	19.290%	16,786.00	12,978.00	1,110,233.17	366.203	33.291%
10"	Cast Iron	89,794.10	46,057.44		135,851.54	25.73	2.368%		350.00	135,501.54	210.271	19.116%
12"	Cast Iron	583,797.32	12,557.16	5,109.00	591,245.48	111.98	10.308%	21,555.00	1,440.00	611,360.48	25.663	2.333%
16"	Cast Iron	280,160.80	8,410.28	55.00	288,516.08	54.64	5.030%	1,500.00		290,016.08	115.788	10.526%
18"	Cast Iron	3,345.00			3,345.00	0.63	0.058%	104.00	1,500.00	1,949.00	0.369	0.034%
20"	Cast Iron	128,008.79	1,540.00		129,548.79	24.54	2.259%			129,548.79	24.536	2.231%
24"	Cast Iron	93,062.00	4,460.00		97,522.00	18.47	1.700%			97,522.00	18.470	1.679%
30"	Cast Iron	28,563.00			28,563.00	5.41	0.498%			28,563.00	5.410	0.492%
36"	Cast Iron	22,434.21	2,365.00	2,538.00	22,261.21	4.22	0.388%			22,261.21	4.216	0.383%
42"	Cast Iron	17,845.00			17,845.00	3.38	0.311%			17,845.00	3.380	0.307%
20"	Concrete	6,050.00			6,050.00	1.15	0.000%			6,050.00	1.145	0.000%
24"	Concrete	21,530.00			21,530.00	4.08	0.105%			21,530.00	4.077	0.104%
36"	Concrete	35,000.00			35,000.00	6.63	0.375%			35,000.00	6.629	0.371%
2"	Galvanizer	375.00			375.00	0.07	0.000%			375.00	0.071	0.000%
4"	Transite	50,335.00			50,335.00	9.53	0.007%			50,335.00	9.533	0.006%
6"	Transite	96,598.00		120.00	96,478.00	18.27	0.878%			96,478.00	18.272	0.867%
1 1/2"	Steel	226.00			226.00	0.04	1.682%			226.00	0.043	1.661%
2"	Steel	677.00			677.00	0.13	0.000%			677.00	0.128	0.000%
4"	Steel	83.00			83.00	0.02	0.004%			83.00	0.016	0.004%
6"	Steel	11.00			11.00	0.00	0.012%			11.00	0.002	0.012%
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	0.009%			1,681.00	0.318	0.009%
16"	Steel	582.00			582.00	0.11	0.029%			582.00	0.110	0.029%
24"	Steel	5,227.00		3,178.00	5,227.00	0.99	0.010%		1,500.00	5,272.00	0.998	0.010%
							0.091%					0.091%
							0.000%					0.000%

NORTHERN KY. WATER SERVICE DISTRICT  
MILES OF ANALYSIS

Att: 131B

Attachment 31B

Size	Type	Prior Years	2004		2004 YTD TOTAL	2004 Miles	2004 Percent	2005		2005 YTD TOTALS	2005 Miles	2005 Percent
			Additions	Retirements				Additions	Retirements			
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	0.066%			3,787.00	0.717	0.065%
1 1/2"	Copper	4,150.00			4,150.00	0.79	0.072%			4,150.00	0.786	0.071%
2"	Copper	12,648.30			12,648.30	2.40	0.221%			12,648.30	2.396	0.218%
1"	Plastic	2,973.00			2,973.00	0.56	0.052%			2,973.00	0.563	0.051%
1 1/2"	Plastic	2,292.00			2,292.00	0.43	0.040%			2,292.00	0.434	0.039%
2"	Plastic	66,168.00	2,120.00		68,288.00	12.93	1.191%			70,839.00	13.416	1.220%
3"	Plastic	114,986.00			114,986.00	21.78	2.005%	2,551.00		114,986.00	21.778	1.980%
4"	Plastic	29,539.00			29,539.00	5.59	0.515%			29,539.00	5.595	0.509%
6"	Plastic	123,346.60	7,320.00		130,666.60	24.75	2.278%	6,499.00		137,165.60	25.978	2.362%
8"	Plastic	347,923.00	36,101.00		384,024.00	72.73	6.695%	37,848.00		421,872.00	79.900	7.264%
12"	Plastic	5,839.00			5,839.00	1.11	0.102%	8,555.00		14,394.00	2.726	0.248%
<b>TOTAL</b>		<b>5,368,495.11</b>	<b>386,128.48</b>	<b>22,013.00</b>	<b>5,735,788.59</b>	<b>1,086.32</b>	<b>100.0%</b>	<b>98,229.00</b>	<b>27,633.00</b>	<b>5,804,379.59</b>	<b>1,099.99</b>	<b>100.0%</b>

Northern Kentucky Water District  
 Chlorinators and Sodium Hypochlorite Feeders In System  
 Updated 4/26/2006

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	Jesco Pump	2.8 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	1	Sodium Hypochlorite	Watson Marlow	77 GPH
	7	Sodium Hypochlorite	US Filter Wallace & Tiernan Encore 700	
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	Milton Roy Max Roy B	195 GPH
Memorial Pky Treatment Plant	1	Sodium Hypochlorite	Watson Marlow	9.1 GPH
	2	Sodium Hypochlorite	Seepex	8 GPH

KENTUCKY PUBLIC SERVICE COMMISSION
REPORT OF GROSS OPERATING REVENUES DERIVED FROM INTRA-KENTUCKY
BUSINESS FOR THE YEAR ENDING DECEMBER 31, 20 06

NORTHERN KENTUCKY WATER DISTRICT 100 AQUA DRIVE - P.O. BOX 220 - COLD SPRING
(Utility Reporting) (Address)

FEIN # (Federal Employer Identification Number)

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.....\$ 33,229,279.00
(4) Gross Revenues of Sewer Utility.....\$
(5) Other Operating Revenues.....\$ 1,716,334.00
\*\*\* TOTAL GROSS REVENUES.....\$ 34,945,623.00

OATH

State of... KENTUCKY.....)
County of... CAMPBELL.....) ss.

JACK BRAGG, CPA, CMA being duly sworn, states that he/she is
(Officer)

VICE-PRESIDENT OF 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 DISTRICT, 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 06

[Signature] VICE-PRESIDENT OF FINANCE
(Officer) (Title)

This the 30 day of March, 20 06

[Signature] (Notary Public) [Signature] (County) 4-8-08 (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.

# OATH

Commonwealth of Kentucky ):  
County of Kenton ): SS:

Jack Bragg, Jr. makes oath and says

that he is Vice President of Finance of  
Northern Kentucky Water District;

that it is his 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 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 has carefully examined the said report and to the best of his 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 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

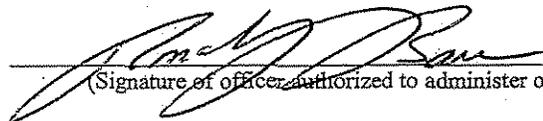
January 1, 2005, to and including December 31, 2005

  
Signature of official

Subscribed and sworn to before me, a NOTARY PUBLIC in and for the  
State and County above named, this 27 day of April, 2001.

(Apply Seal Here)

My commission expires: 1-14-09

  
(Signature of officer authorized to administer oath)



Ernie Fletcher  
Governor

Mark David Goss  
Chairman

LaJuana S. Wilcher, Secretary  
Environmental and Public  
Protection Cabinet

Commonwealth of Kentucky  
Public Service Commission  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, Kentucky 40602-0615  
Telephone: (502) 564-3940  
Fax: (502) 564-3460  
psc.ky.gov

Teresa J. Hill  
Vice Chairman

Christopher L. Lilly  
Commissioner  
Department of Public Protection

Gregory Coker  
Commissioner

March 28, 2006

Hon. John N. Hughes  
Attorney At Law  
124 W. Todd Street  
Frankfort, KY 40601

RE: Northern Kentucky Water District

Dear Mr. Hughes:

Your request, on behalf of Northern Kentucky Water District, for an extension of time to May 1, 2006, for filing of the 2005 annual report of Northern Kentucky Water District is being granted, with the understanding that every effort will be made to complete and file the annual report at an earlier date.

An extension for filing the Report of Gross Operating Revenues Derived From Intra-Kentucky Business can not be granted. It is to be filed before March 31, 2006. Failure to comply with Commission Regulation 807 KAR 5:006, Section 3(1) and KRS 278.140, may result in the imposition of penalties as provided in KRS 278.990 and **WILL** result in the revocation of the extension for filing the Annual Report.

Sincerely,

Bill Feldman  
Assistant Director  
Filings Division

✓ cc: Northern Kentucky Water District

JOHN N. HUGHES  
ATTORNEY AT LAW  
PROFESSIONAL SERVICE CORPORATION  
124 WEST TODD STREET  
FRANKFORT, KENTUCKY 40601

TELEPHONE: (502) 227-7170

[JNHUGHES@pscorp.net](mailto:JNHUGHES@pscorp.net)

TELEFAX: (502) 275-7059

March 27, 2006

RECEIVED

MAR 27 2006

PUBLIC SERVICE  
COMMISSION

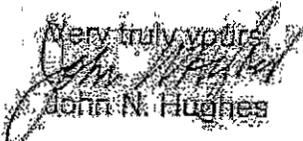
Beth O'Donnell  
Executive Director  
Public Service Commission  
211 Sower Blvd.  
Frankfort, KY 40601

Dear Beth:

Northern Kentucky Water District requests an extension of time up to and including May 1, 2006 to file its 2005 Annual Report. The District has not received the Independent Auditor's final report and is in the process of moving into its new office facility. Given the lack of final audited information and the disruption of the staff's daily routine due to the relocation, the District will be unable to file the report when due. For these reasons, the extension is being requested.

If there are any questions about this, please contact me.

Very truly yours,

  
John N. Hughes

Attorney for Northern Kentucky  
Water District





80000 SERIES  
30% P.C.M.

Case No. 2007-\_\_\_\_  
Exhibit \_\_\_\_\_ F \_\_\_\_\_

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

SCHEDULE OF MORTGAGES, BONDS, NOTES, AND  
OTHER INDEBTEDNESS

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**Northern Kentucky Water District**

**Bonds Payable and Current Portion**

Account No.	Description	Bond Payable Feb 01 2006	Current Portion Payable 2008	As of Feb 28, 2007	
				Bond Payable LT 2007	
220-0007-000	Bonds Payable 1997	\$4,650,000	\$890,000	\$3,760,000	
220-0008-000	Bonds Payable 1998	\$9,285,000	\$280,000	\$9,005,000	
220-0009-000	Rural Development Loan Payable(2000)	\$2,143,000	\$28,000	\$2,115,000	
220-0010-000	2001 Bonds Payable	\$14,920,000	\$170,000	\$14,750,000	
220-0011-000	2002 A Bonds Payable	\$43,680,000	\$410,000	\$43,270,000	
220-0012-000	2002 B Payable-Refunding	\$7,985,000	\$625,000	\$7,360,000	
220-0013-000	2003 A Refunding Bonds Payable	\$1,475,000	\$35,000	\$1,440,000	
220-0014-000	Series 2003 B Bonds Payable	\$26,860,000	\$895,000	\$25,965,000	
220-0015-000	2003 C Refunding Bonds Payable	\$18,805,000	\$1,235,000	\$17,570,000	
220-0016-000	Series 2004 A Bonds Payable	\$9,625,000	\$290,000	\$9,335,000	
220-0017-000	Series 2006 A Bonds Payable	\$28,700,000	\$720,000	\$27,980,000	
	Total Long Term Debt	\$168,128,000	\$5,578,000	\$162,550,000	
232-0100-000	Note Payable City of Taylor Mill	\$2,125,000	\$250,000	\$1,875,000	
232-0000-000	Note Payable CC Fiscal Court	\$100,000	-	100,000	
	Grand Total	\$ 170,353,000	\$ 5,828,000	\$ 164,525,000	

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80000 SERIES  
30% P.C.M.

Case No. 2007-\_\_\_\_  
Exhibit     G    

NORTHERN KENTUCKY  
WATER DISTRICT

*Project*

*Taylor Mill Treatment Plant Backwash Treatment System*

Kenton County  
184-0441

CURRENT BALANCE SHEET AND INCOME  
STATEMENT

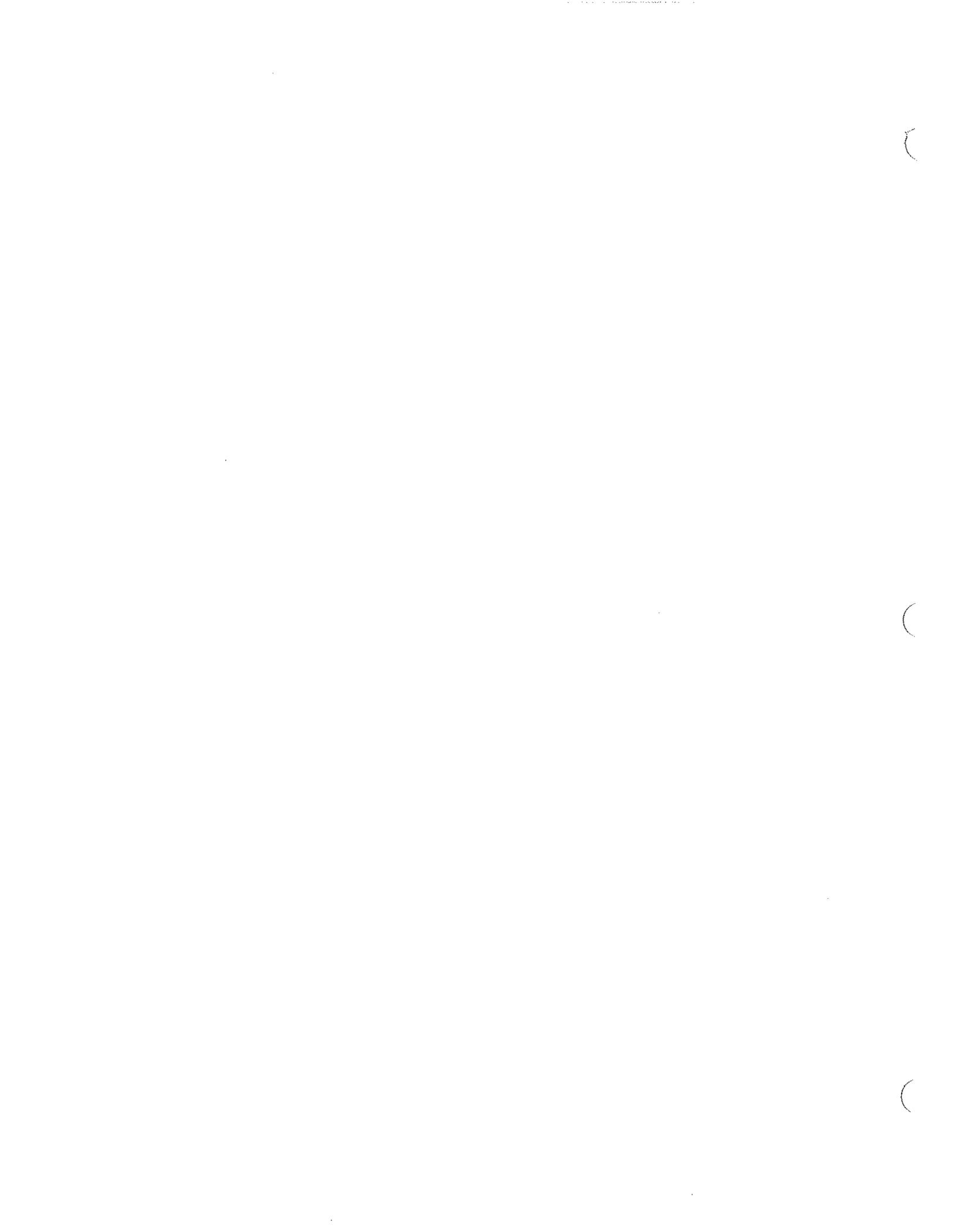
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**Northern Kentucky Water District  
Balance Sheet  
As of December 31, 2006**

	<u>2006</u>	<u>2005</u>
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and Cash Equivalents	\$ 4,618,177	6,478,053
Accounts Receivable		
Customers	4,390,760	3,681,014
Unbilled Customers	4,900,000	4,900,000
Other	315,200	259,169
Assessments Receivable	35,998	37,767
Inventory Supplies for New Installation and Maintenance, at Cost	1,287,374	1,150,975
Prepaid Expenses	2,161,969	842,700
<b>TOTAL CURRENT ASSETS</b>	<b>\$ 17,709,478</b>	<b>17,349,678</b>
<b>RESTRICTED ASSETS</b>		
Bond Proceeds Fund	\$ 13,149,342	17,242,047
Debt Service Reserve Account	13,157,181	12,472,874
Debt Service Account	7,713,194	6,547,631
Improvement, Repair & Replacement	1,932,787	3,074,102
Boone/Florence Settlement Account	3,023,965	3,344,622
<b>TOTAL RESTRICTED ASSETS</b>	<b>\$ 38,976,469</b>	<b>42,681,276</b>
<b>NONCURRENT ASSETS</b>		
Miscellaneous Deferred Charges	\$ 9,355,219	9,821,617
Capital Assets:		
Land, System, Buildings and Equipment	\$ 256,430,962	253,634,326
Construction in Progress	32,662,579	19,738,958
Total Capital Assets before accumulated depreciation	\$ 289,093,541	273,373,284
Less Accumulated Depreciation	(60,089,807)	(54,448,687)
Total capital assets, net of accumulated depreciation	\$ 229,003,734	218,924,597
<b>TOTAL NONCURRENT ASSETS</b>	<b>\$ 238,358,953</b>	<b>228,746,214</b>
<b>TOTAL ASSETS</b>	<b>\$ 295,044,900</b>	<b>288,777,168</b>



**Northern Kentucky Water District  
Balance Sheet  
As of December 31, 2006**

	<u>2006</u>	<u>2005</u>
<b>LIABILITIES AND RETAINED EARNINGS</b>		
<b>CURRENT LIABILITIES</b>		
Current Portion of Long Term Debt	\$ 5,267,000	4,806,000
Accounts Payable	2,135,910	2,005,332
Accrued Payroll & Liabilities	340,186	273,867
Other Accrued Liabilities	187,199	161,957
<b>TOTAL CURRENT LIABILITIES</b>	<b>\$ 7,930,295</b>	<b>7,247,156</b>
<b>CURRENT LIABILITIES PAYABLE FROM RESTRICTED ASSETS</b>		
Accounts Payable	\$ 1,538,689	2,870,554
Accrued Interest Payable	2,944,301	2,737,097
<b>TOTAL CURRENT LIABILITIES PAYABLE FROM RESTRICTED ASSETS</b>	<b>\$ 4,482,990</b>	<b>5,607,651</b>
<b>LONG-TERM DEBT</b>		
Long-Term Portion of Bonded Indebtedness	\$ 168,128,000	144,145,000
Bond Anticipation Notes Payable		21,585,000
Note Payable - Taylor Mill Purchase	1,875,000	2,125,000
Deferred Note Payable	100,000	100,000
<b>TOTAL LONG-TERM DEBT</b>	<b>\$ 170,103,000</b>	<b>167,955,000</b>
<b>TOTAL LIABILITIES</b>	<b>\$ 182,516,285</b>	<b>180,809,807</b>
<b>RETAINED EARNINGS</b>	<b>\$ 112,528,615</b>	<b>107,967,361</b>
<b>TOTAL LIABILITIES AND RETAINED EARNINGS</b>	<b>\$ 295,044,900</b>	<b>288,777,168</b>





